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LOK SABHA

JOINT COMMITTEE
ON
THE PATENTS BILL, 1965

EVIDENCE

(Volume II)

LOK SABHA SECRETARIAT
NEW DELHI

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JOINT/SELECT COMMITTEE REPORTS PRESENTED TO LOK SABHA DURING THE YEAR 1966.

(Volume II)

Sl. No.	Title
5.	The Patents Bill, 1965 - Report of the Joint Committee. (Presented on the 1st November, 1966)
	-do- Evidence (Volume I)
	-do- Evidence (Volume II)
6.	The Representation of the People (Amendment) Bill, 1966 - Report of the Joint Committee (Presented on the 1st November, 1966)
7.	The Seeds Bill, 1966 - Report of the Select Committee (Presented on the 4th November, 1966)
	-do- Evidence

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JOINT COMMITTEE ON THE PATENTS BILL, 1965

COMPOSITION OF THE COMMITTEE

Shri S. V. Krishnamoorthy Rao—*Chairman.*

MEMBERS

Lok Sabha

2. Seth Achal Singh
3. Shri Peter Alvares
4. Shri Ramchandra Vithal Bade
5. Shri Panna Lal Barupal
6. Shri Dinen Bhattacharya
7. Shri Bibhuti Mishra
8. Shri P. C. Borooah
9. Sardar Daljit Singh
10. Shri Basanta Kumar Das
11. Shri V. B. Gandhi
12. Shri H. K. V. Gowdh
13. Shri Kashi Ram Gupta
14. Shri Prabhu Dayal Himatsingka
15. Shri Madhavrao Laxmanrao Jadhav
16. Shri Mathew Maniyangadan
17. Shri M. R. Masani
18. Shri Brij Behari Mehrotra
19. Shri Bibudhendra Mishra
20. Shrimati Sharda Mukerjee
21. Shri P. S. Naskar
22. Shri Chhotubhai M. Patel
23. Shri Naval Prabhakar
24. Shri R. Ramanathan Chettiar
25. Shri Sham Lal Saraf
26. Shri A. T. Sarma
27. Dr. C. B. Singh
28. Dr. L. M. Singhvi
29. Shri P. Venkatasubbaiah
30. Shri K. K. Warior
31. Shri Balkrishna Wasnik
32. Shri Ram Sewak Yadav

Rajya Sabha

*33. Shri Arjan Arora
*34. Shri T. Chengalvaroyan
35. Shri Babubhai M. Chinai
36. Shri Vimalkumar M. Chordia
*37. Shri R. S. Doogar
38. Shri D. P. Karmarkar
39. Shri B. T. Kulkarni
40. Shri P. K. Kumaran
*41. Shri Shyamnandan Mishra
42. Shri Dahyabhai V. Patel
43. Shri Mulka Govinda Reddy
**44. Shri D. Sanjivayya
*45. Shri M. R. Shervani
46. Dr. M. M. S. Siddhu
*47. Shri Dalpat Singh
*48. Shri R. P. Sinha.

DRAFTSMEN

1. Shri V. N. Bhatia, *Joint Secretary, Legislative Department, Ministry of Law.*

2. Shri R. V. S. Peri Sastri, *Deputy Draftsman, Legislative Department, Ministry of Law.*

REPRESENTATIVES OF THE MINISTRY OF INDUSTRY

1. Shri K. V. Venkatachalam, *O.S.D., Ministry of Industry.*

2. Dr. A. Joga Rao, *Controller General of Patents, Designs and Trade Marks, Trade Marks Registry, Bombay.*

3. Shri B. N. Atrishi, *O.S.D., Ministry of Industry.*

REPRESENTATIVE OF THE MINISTRY OF HEALTH

1. Shri S. K. Borkar, *Drug Controller of India, Ministry of Health.*

SECRETARIAT

Shri M. C. Chawla—*Deputy Secretary.*

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*Ceased to be members of the Committee w.e.f. 2nd April, 1966 on their retirement from Rajya Sabha and were reappointed by Rajya Sabha on the 7th April, 1966 except Shri Dalpat Singh who was reappointed on the 13th May, 1966.

**Appointed on the 17th May, 1966 *vice* Shri T. N. Singh resigned.

WITNESSES EXAMINED

1	2	3	4
25	(i) Dr. A. Joga Rao, Controller General of Patents and Designs, Government of India, *Bombay*. . . .	27-8-66	856
	(ii) Shri R. V. Pai, Joint Controller of Patents and Designs, *Calcutta*.		856

MINUTES OF EVIDENCE GIVEN BEFORE THE JOINT COMMITTEE ON THE PATENTS BILL, 1965

Friday, the 8th July, 1966 at 09.40 hours.

PRESENT

Shri S. V. Krishnamoorthy Rao—*Chairman.*

MEMBERS

Lok Sabha

2. Seth Achal Singh.
3. Shri Peter Alvares.
4. Shri Panna Lal Barupal.
5. Sardar Daljit Singh.
6. Shri Basanta Kumar Das.
7. Shri V. B. Gandhi.
8. Shri H. K. V. Gowdh.
9. Shri Kashi Ram Gupta.
10. Shri Madhavrao Laxmanrao Jadhav.
11. Shri Braj Behari Mehrotra.
12. Shri Naval Prabhakar.
13. Shri A. T. Sarma.
14. Dr. C. B. Singh.
15. Shri Ram Sewak Yadav.

Rajya Sabha

16. Shri Arjan Arora.
17. Shri Babubhai M. Chinai.
18. Shri Vimalkumar M. Chordia.
19. Shri D. P. Karmarkar.
20. Shri P. K. Kumaran.
21. Shri Shyamnandan Mishra.
22. Shri Dahyabhai V. Patel.

23. Shri Mulka Govinda Reddy.

24. Shri Dalpat Singh.

25. Shri R. P. Sinha.

REPRESENTATIVES OF THE MINISTRY OF INDUSTRY

1. Shri K. V. Venkatachalam, *O.S.D.*

2. Shri B. N. Atrishi, *O.S.D.*

REPRESENTATIVE OF THE MINISTRY OF HEALTH

Shri S. K. Borkar, *Drug Controller of India.*

DRAFTSMAN

Shri R. V. S. Perisastri, *Deputy Draftsman, Legislative Department, Ministry of Law.*

SECRETARIAT

Shri M. C. Chawla—*Deputy Secretary.*

WITNESSES EXAMINED

I. Neo-Pharma Industries, Bombay.

Spokesmen:

1. Shri N. L. I. Mathias, *Director.*

2. Shri A. C. Mitra.

II. Haffkine Institute, Bombay.

Spokesmen:

1. Dr. H. I. Jhala, *Director.*

2. Dr. C. V. Deliwala, *Asstt. Director.*

III. Mr. J. F. Monnet,

Chambre Syndicale Nationale des Fabricants de Products Pharmaceutiques, 88, Rue de la Faisanderie, Paris—16.

I Neo-Pharma Industries, Bombay.

Spokesmen:

1. Shri N. L. I. Mathias, *Director.*
2. Shri A. C. Mitra.

(*The witnesses were called in and they took their seats*).

Mr. Chairman: The evidence that you give is public and it will be printed and published; it will be circulated to all the members and will also be laid on the Table of the House. Even if you want anything to be treated as confidential.....

Shri A. C. Mitra: We have nothing to be treated as confidential.

Mr. Chairman: ....it will be printed and published and will also be distributed to members.

We have received your Memorandum and it has been circulated to all the members. If you want to stress any point, you may do so and thereafter members will ask questions.

Shri A. C. Mitra: I have come here particularly at the request of the company to explain to you the circumstances which have led the Neo-Pharma to this position....

Shri R. P. Sinha: We would like to know what is Neo-Pharma.

Shri A. C. Mitra: Neo-Pharma is a company.

Shri K. V. Venkatachalam: Say something about that Company.

Shri A. C. Mitra: I represent Neo-Pharma Industries Private Limited. It is a pharmaceutical company manufacturing, among other things, for intending to manufacture a very important life-saving drug known as Chloramphenicol, which is the Chemical name for Choloromycetin, which is so essential for the health and well-being of the people of our country.

We were given an industrial licence under the Industries (Development & Regulation) Act on the 6th February, 1960 and we had been asked to start the manufacture of this within six months. Nearly six years have elapsed, but nothing is happening for the very simple reason that Parke Davis have, throughout this period, taking full advantage of the lacuna in the Patents & Designs Act as it stands today, harassed this company by not giving us the licence and when we applied for a compulsory licence, they took us all over the line, from court to court and applications after applications, so that today, although the compulsory licence has been issued, an appeal has been preferred and a stay order has been obtained. The result, therefore, is that, although our company has spent lakhs of rupees in acquiring the technical know-how, in setting up factories and in acquiring lands, nothing can be done because of the dilatory tactics adopted by a foreign patentee taking full advantage of the provisions of the Patents & Designs Act. I must say that I have come here to impress upon you, if I can, the advantages of the provisions of the new Bill. I have come to support it. I am told that many persons have come and expressed their views on the Bill. I have not come here for that purpose, but I am merely here to tell you, as a concrete case, the difficulties under the old Act that we are experiencing and how the difficulties could be obviated by the provisions of the new Bill. I may give you full details just to explain to you, or to give you a full picture, as to how the delay has taken place and what are the reasons for the delay. Parke Davis have this patent; they have actually got four patents..

Mr. Chairman: You have narrated this in detail in your Memorandum.

Shri A. C. Mitra: If you have read it, I have nothing further to add except that you will see from the way in which they have gone on, the whole object has been to delay the working. The result is that, at the moment, there are two companies—one German and the other, American—who are intending to create between themselves a monopoly. I shall tell you how.

Mr. Chairman: Which is the German firm?

Shri A. C. Mitra: Boehringer.

Between them, they are manufacturing a good percentage of this life-saving drug and their object in preventing us from coming to the field is this: when the country is urgently in need of the drug and if we are not manufacturing, they will say, "increase my quota and give us further licence to manufacture more". The result would be that ultimately they would create a monopoly between themselves—Parke Davis and Boehringer. These two people would be the monopolists of this life-saving drug.

We have entered into a collaboration agreement with an Italian concern called Archifar. They have got the technical know-how and it is their technical know-how that we are now exploiting. These people first of all filed an infringement application saying that Archifar are nothing more than our Principals and since Archifar are the infringers, we are also the infringers. And all along the line they have been filling their appeals in the Calcutta High Court with the result that the collaboration agreement between us and Archifar could not be given effect to. Finding the difficulty we filed a petition under Sec. 23c.c. for a compulsory licence and when the compulsory licence was applied for and after going into the matter the Controller said, 'Let us see what terms you are agreeing to to give the licencee' Parke Davis said 'Nothing of the kind. You first of all decide whether you are going to give the licence or not. Then I will give you the terms.' On that they went upto the High Court again and so on. All these details have been given in our memorandum. I can read it if you so desire.

What I am emphasizing is that under the old Act it is open for a person who is bent upon delaying to do so. The present position is that we have got a compulsory licence but they filed an appeal and a stay order obtained so that the compulsory licence is in cold storage and nothing can be done. The position, therefore, under the present Act is that it is possible for a foreign patentee to harass an indigenous manufacturer in such a way as to create a monopoly in the meantime in the market so that if and when after 10 years we do start the manufacture, the market is already full of these monopolists' goods and they are in a far better position to compete than us who are new-comers in the field. The whole object of the Bill is that these vital industries should be in Indian hands. I understand, subject to correction, that in Japan none of this nonsense is tolerated. They buy out the technical know-how in most cases and that is an end of the matter and practically every single industry is a Japanese industry, not like foreigners coming here and monopolising over here and dictating terms. Government is anxious that these drugs should be manufactured by India and the foreign patentees controlled. Here what we see is that the foreign patentees dictate to our country as to what is to be done and how it is to be done and in the meantime take advantage of the lacuna in the law and the law courts to prevent the avowed policy of the Government, namely the Indianisation of the industry manufacturing these life-saving drugs.

My only submission on this Bill is that the provisions relating to the grant of compulsory licence ought to be carried out with immediate effect so that when the compulsory licences are in fact granted, then there may be a provision made in the present Bill for the Controller giving *ad hoc* compulsory licences and even before hearing the opposite party. I do not say that hearing should not be given. That should be given. There is provision in the Bill for hearing even on the patents but, at the same time, the procedure should not be persisted in such a way that dilatory tactics will be adopted by the patentees.

Mr. Chairman: Would you require this Committee to fix some time limit for granting the compulsory licence?

Shri A. C. Mitra: A time limit can of course be fixed. But the difficulty will always be: for instance, there can be no time limit for a judgment to be pronounced by a court. I have known of cases in certain High Courts, where arguments are over long ago....

Mr. Chairman: But this Bill rules out appeal to Courts. Do you prefer that?

Shri A. C. Mitra: I prefer that.

Mr. Chairman: Would you prefer the setting up of a Patents Tribunal?

Shri A. C. Mitra: I would suggest that the Bill should be left as it is subject to this: that the Central Government, when deciding the appeal, can appoint an ex-High Court Judge together with qualified assessors to go into the case.

Mr. Chairman: Suppose this Committee makes a recommendation that there should be a special Tribunal which should hear only patent cases and dispose of the cases within a particular time limit—what are your views on this?

Shri A. C. Mitra: In England there is what is known as Patents Tribunal functioning. At the moment something like that could be done. But I would suggest that if the Patents Tribunal is a sort of miniature High Court, the same thing arises. I will give you an illustration. A compulsory licence is given to us. I go upto the Patents Tribunal. It stops and gives a stay and then the usual paraphernalia of your submitting your part of the statement and their submitting their reply and so on—the whole gamut of the proceedings take place before the Tribunal and it will ultimately be the same. I am aware of the fact that it does not look nice that a person's right should be interfered with except by the judicial process but what is to be done? Having a Patents Tribunal is all right, but if you put in a Tribunal, the same thing would happen as it happens in a High Court.

Mr. Chairman: May not, when it is specially set up for that purpose and a time limit is also fixed.

Shri A. C. Mitra: If you indicate that the case should be disposed of within a certain time, it is only a pious wish. Supposing it is not done, what is the sanction?

Mr. Chairman: But the other man also must have the satisfaction that it is a judicial adjudication, judicial hearing. Don't you think so?

Shri K. V. Venkatachalam: Supposing the position is reversed, would you like a position in which you do not have the chance at all to explain your situation?

Shri A. C. Mitra: *I am not saying that at all, but look at the facts of my own case.*

Shri K. V. Venkatachalam: Don't judge on a single case. Take the situation in a larger context.

Shri A. C. Mitra: Speaking as a lawyer and brought up and trained in law, it is the most unpleasant thing to say that a judicial approach should not be done. That is true, but I am merely pointing out this to you to say that the judicial approach when it is honestly done, *bona fide,* it is all right, but there are ways and means left to unscrupulous patentees to delay matters as has been done in this case.

Mr. Chairman: That is why we are suggesting a Special Tribunal.

Shri A. C. Mitra: If you do provide a Patents Tribunal and fix a time limit, then a further provision must be made that on the failure of its being disposed of within the time limit, certain consequences will follow: *i.e.* the order of the Controller will remain—something of that kind should

be there. Otherwise mere mention that it should be disposed of within 3 months will not help one party or the other.

Shri V. M. Chordia: Have you got any experience of the working of the Copyright Tribunal. There the cases are disposed of quickly and there is no delay.

Shri A. C. Mitra: May I make one submission: so far as Copyright Act is concerned, very few people resort to that. As a matter of fact, I have to tell you frankly this is a Tribunal which is going to be resorted to by a large number of people.

Mr. Chairman: You may also know that an appeal will be provided to the Supreme Court only on points of law, not on facts.

Shri A. C. Mitra: In other words what you are suggesting is that there may be only one appeal from the order of the Controller to the Tribunal.

Mr. Chairman: And a second appeal to the Supreme Court only on points of law.

Shri A. C. Mitra: You cannot by any legislation destory the provisions of Art. 136. That is a constitutional power granted to the Supreme Court.

Mr. Chairman: Supreme Court does not enter into the question of time limit.

Shri A. C. Mitra: Under Art. 136 the powers of the Supreme Court to entertain and hear appeals are very wide.

Mr. Chairman: That is true. But only on questions of law an appeal shall lie to the Supreme Court.

Shri A. C. Mitra: Even an inference from the facts is a question of law. Supreme Court's powers under Art. 136 cannot be touched.

Shri V. M. Chordia: May I know how many patent appeals are filed in the High Court on an average?

Shri A. C. Mitra: I have not got the statistics before me.

Shri V. M. Chordia: It will be easier if there is a Patents Tribunal.

Shri A. C. Mitra: I am not suggesting that the tribunal should not be appointed. Of the two evils, if I may say so—High Court and the Patents Tribunal—the Patents Tribunal is the better one.

Shri V. M. Chordia: What is the best?

Shri A. C. Mitra: The Central Government.

Mr. Chairman: But there will be objection because the Central Government is also the executive authority. Some judicial pronouncement is necessary.

Shri A. C. Mitra: For example, the Board of Revenue also exercise appellate powers and in important cases, technical people are also taken in and their advice is taken. The rules may provide for the hearing of the appeals by the Central Government. It will come to the same thing.

One other point is that a time-limit should be fixed within which they must dispose of the appeals. Another point is that while many people, who are dealing with nothing but patent law, say that this present Bill is really an excellent Bill, still they say that the new Bill will entail a lot of administrative work in the patent office and so the staff and other things should be increased.

Mr. Chairman: Yes, we will consider that.

Shri A. C. Mitra: These are the points. The provisions of the Bill have become really necessary and the present case is a concrete example

where the licence was issued within six months, but even after six years nothing has been done. It is possible, if this state of affairs continues, for a patentee to create a monopoly, as in fact they are creating. To-day there is a demand of about 90 tons for this life-saving drug. They are manufacturing at the moment about 30 tons. Formerly they were given licence for about 10 tons. Then, after successfully keeping out others from the field, they come to the Government and say "we are in a position to manufacture more; give us additional tons." Gradually between themselves and this Boehringer, they are trying to create a monopoly in this field.

Mr. Chairman: If we provide six months for the grant of compulsory licence by the Controller and another six months for the patents tribunal to dispose of the appeal, will it satisfy you?

Shri A. C. Mitra: It all depends; in the case of granting of compulsory licence, six months is all right. But the point is, supposing the person wants time.

Mr. Chairman: He should be refused; he should come prepared with all his documents and other things.

Shri A. C. Mitra: You should empower the Controller to give directions in such a way that the entire matter should be disposed of within six months. That would be very very helpful. Similarly if we could give a direction that the patents tribunal, if and when constituted under the Act, should also dispose of the appeal within the specified time, it would be very helpful.

One small point: Suppose a licence is granted to a company and there is an appeal. I was suggesting that during the pendency of the appeal, he should be allowed to go ahead. Now, would you stop entirely the operation of the compulsory licence, or would it be the other way round that once the Controller has thought it fit to grant the licence, he can go ahead, subject to any modifications that may be made later on by the Controller?

Dr. C. B. Singh: How can that be made?

Shri A. C. Mitra: That is in the Bill. I take the risk. When the licence is granted, I go ahead with it. If the licence is rejected, I take the risk. Otherwise I would have to start again after six months.

Mr. Chairman: We will consider that.

Shri A. C. Mitra: It should be optional for the person to do so, and there should not be any restraint.

Shri R. P. Sinha: Is there any similar provision in any other Act of the Government of India?

Mr. Chairman: Please see Section 88(4): "The Controller may at any time before the terms of the licence are mutually agreed upon or decided by the Controller, an application made to him in this behalf by any person who has made any such requisition as is referred to in sub-section (1), permit him to work the patented invention on such terms as the Controller may, pending agreement between the parties or decision by the Controller, think fit to impose." It is there.

Shri A. C. Mitra: Yes, it is there. But that is with regard to the Controller; I was suggesting it for the appeal also.

Mr. Chairman: We will consider it.

Shri A. C. Mitra: There is one more point which I would like to bring to your notice. Critics of this Bill, I am told, have said that the result of this Bill would be that anybody can come forward and whether he is capable of manufacturing or not, he gets the licence and goes on with it. There is no point in this criticism for this rea-

son that in these cases of essential drugs, licences are granted under the Industries Development and Regulation Act and the Drug Controller takes into account the quantity he proposes to manufacture, the target for the next plan, the demand for it and so on and also sees whether the applicant has got the necessary technical know-how resources, etc., before granting the licence. So it is not that anybody can come forward and get the licence.

Mr. Chairman: One of the objections is that it will scare away foreign investment.

Shri A. C. Mitra: If the foreign patentee says that unless he gets full monopoly rights in India, he will be scared away, we will say "bye bye" to him; we will do without him. We will copy, we will infringe his patent; we will do it in the national interest. We had enough of these threats.

Mr. Chairman: Another objection is that it will not promote scientific research in this country, but will retard scientific research.

Shri A. C. Mitra: In Italy—I am speaking subject to correction—nobody bothers about patents. They keep on merrily infringing it and yet the research has not stopped. This threat that unless they get a monopoly they will not come, will always be there. I can assure you that they won't be scared away. Take this particular case. It was given in 1948, I remember. Eighteen years have passed and still they won't give us the licence. (There have been some extensions in this case.)

Dr. C. B. Singh: May I know what is the total out-turn of your Pharmacopeal preparations?

Shri A. C. Mitra: For what?

Dr. C. B. Singh: For the drugs you are producing.

Shri A. C. Mitra: 1½ crores—that is the out-turn of the drugs that we have manufactured.

Dr. C. B. Singh: Out of this 1½ crores, what is the proportion of patented and unpatented drugs?

Shri A. C. Mitra: I do not think that can be given off hand.

Dr. C. B. Singh: Out of this, how many are patented drugs. You can give an approximate number.

Shri A. C. Mitra: I am told, 20% are patented.

Dr. C. B. Singh: Are you sure it is 20%. I would like you to onfirm this point. It is very important.

Shri A. C. Mitra: If I had prior intimation, I could have given you the exact figure. I shall send you the information. This is an approximate idea.

Dr. C. B. Singh: When you came into conflict with Parke Davis, did you know that they were holding the patent right for Chloram-phenical in India.

Shri A. C. Mitra: Yes.

Dr. C. B. Singh: Knowing that, how did you come to terms with the Italian firm for the know-how?

Shri A. C. Mitra: Archifors are manufacturing this drug, and according to the agreement between us, they have to supply us the technical know-how. We have throughout been told that it is a different process, that the Italian process is different. Later on it transpired that they have got the same process. It was then that we asked for a licence from Parke Davis. They will not give us except on certain ridiculous terms.

Dr. C. B. Singh: Without proper examination of the case, you came to terms with the Italian firm and that is why the difficulty arose.

Shri A. C. Mitra: No. This is not correct. The Italian firm promised to produce Chloramphenicol with their own process and we had no idea what that process is until they start manufacturing. Then when Parke Davis said that you are infringing my patent, we asked Parke Davis to give us the licence to manufacture it under their patent. To that, they refused. Then we had to go in for a compulsory licence.

Dr. C. B. Singh: After having spent so much money, did you try by your research work to find out an alternative method to produce this drug?

Shri A. C. Mitra: If it had been so easy in India to have found out an alternative method, there was no point in running after Parke Davis.

Dr. C. B. Singh: For your information, a German firm did that.

Shri A. C. Mitra: Germans did not do that. What they did was they had an additon here and an addition there and with their huge recourses and scientific skill, they made minor variations here and there and certain additions. This they have again patented and now between the two—Boehringer and Parke Davis—each one has given licence to the other. Between the two, they have got a monopoly.

Dr. C. B. Singh: Did you try to come to terms with Parke Davis Company so that they may give the licence to you?

Shri A. C. Mitra: My instruction are, we have approached them, but they refused to give us the licence.

Dr. C. B. Singh: Did you try to come to terms with them? It was a matter for negotiations.

Shri A. C. Mitra: My instructions are, we have had long negotiations with them but the terms were so rigid and so impossible that we could not possibly agree to them.

Dr. C. B. Singh: Can we have the terms?

Shri A. C. Mitra: There were discussions both in Bombay as well as outside with regard to the terms of the licence. Ultimately they did not give us any licence.

Dr. C. B. Singh: Will you be able to give this information about the terms? That is very important, because we have got to go into details as to what terms you offered and what they refused.

Shri R. P. Sinha: Negotiations are no longer secret. The matter is before the High Court where everything is open.

Shri N. L. I. Mathias: We did negotiate with them for the terms and for giving us the licence for the production of Chloramphenicol in this country, but in spite of our attempts both in India with the local management of Parke Davis as well as the parent company in Detroit, USA, they did not make any response to our attempts. Negotiations were rebuffed by dilatory tactics. When we approached the local Managing Director, we were informed that he has no permission to negotiate. When we wrote direct to Parke Davis, Detroit USA, the parent company, they said we will have to discuss with the local company. And this went on for more than a year or two and ultimately in despair we had to go ahead with the Italian collaboration. There was no way of coming to any terms, any type of understanding or obtaining any reasonable settlement. Even our approach for any reasonable terms was being rebuffed. They did not offer any tangible terms. They would say: We shall discuss the matter; we are considering the matter; you should have negotiations with our local company and local company directs us to Detroit, and from Detroit back again here. And that was the process which went on for months and months. If I recollect correctly it went on for 2½ years. In the meantime, we were pressed by Government to tell them the concrete steps that we have taken for the implementation of the licence. We had no answer to give. We had to make

headway. We had to go ahead. The only alternative that was left to us was to go in for an application for compulsory licence, because only through this process, could we make any headway.

Shri R. P. Sinha: What happened to compulsory licence?

Shri N. L. I. Mathias: Compulsory licence has been very recently granted to us. Not being satisfied with all the correspondence and personal discussions in Bombay with the local Managing Director, took the trouble of going all the way to the United States. I went to Detroit expressly for this purpose of negotiating with their Directors and home office and I met the Deputy Chairman and discussed this matter. It was all nothing but just hearing you, trifiling with the entire affair, extending to you all hospitality and packing you back home. This is all that was there. They said: we shall write to you. But writing never came for months. There was no response except that we shall discuss the matter during the next visit of our Managing Director to Detroit—the matter will be discussed and things were left at this stage.

Dr. C. B. Singh: If you had a similar patent in America what will you like? Would you like some one else to draw a copy of it without giving you proper compensation?

Shri N. L. I. Mathias: The question of not giving proper compensation does not arise. We are most willing to give adequate compensation but they are adopting dilatory tactics and trifling with the issue.

Dr. C. B. Singh: With an out-turn of Rs. 1½ crores what is your research set-up?

Shri N. L. I. Mathias: We have none. I can also say that most of the companies in India do not have their own basic research set-up. It requires a lot of resources. We are relatively medium-sized companies. We cannot compare ourselves with big companies like Parke Davis and such other European companies.

Dr. C. B. Singh: Even with your out-turn of Rs. 1½ crores, when you were looking forward to a high profit, it was time for you to do something original in this line.

You have got hardly anything—is that your reply?

Shri A. C. Mitra: We do not have any basic original research set-up but we have certainly developed certain products in the country.

Shri Arjun Arora: You mentioned about some Italian collaborators. Have your Italian collaborators manufactured these medicines?

Shri A. C. Mitra: Yes, our Italian collaborators do manufacture and the same is sold in Italy. They are one of the biggest manufacturers of Chloramphenical in Italy.

Shri Arjun Arora: Do you have any idea of price of this drug that is prevalent in Italy and the price which Parke Davis charge here.

Shri A. C. Mitra: I have no information at the moment.

Shri Arjun Arora: Could you collect and send it.

Shri A. C. Mitra: Well we will try and send it.

Shri Arjun Arora: You mention about Japan preventing the foreigners from hindering Japanese entrepreneurs.

Shri A. C. Mitra: I merely pointed out that in Japan, as far as I know, they buy the complete technical know-how and practically not a single foreigner without Japanese collaboration is allowed to set-up industries in Japan with regard to. these certain essential types.

Shri R. P. Sinha: Are you sure of the facts when you say so?

Shri A. C. Mitra: By and large, I am told, that is the method that they are resorting to.

Shri Arjun Arora: You suggested that there should be a time-limit to decide a dispute. What time-limit do you think will be reasonable?

Shri A. C. Mitra: It all depends on the nature of the dispute. If the dispute is about a small matter it can be decided quickly; if it is a complicated one it may take long time. But six months would be maximum that should be allowed and I am sure it can be done.

Shri Arjun Arora: Will you also prefer that there should be no power to stay the implementation of the decision of the Patents Tribunal by any court.

Shri A. C. Mitra: You cannot whittle down the power of the Supreme Court under Article 136.

Shri Arjun Arora: Does not the power of stay come handy to the patentee?

Shri A. C. Mitra: Well if they apply Article 136 and the Supreme Court grants stay there is nothing you can do here. But all depends on the good sense of the Supreme Court whether they would grant the stay or not.

Shri Arjun Arora: Could you give us an idea of the amount of profit that Parke Davis may have earned during the period that they have been keeping you busy in litigation and preventing you from manufacturing?

Shri A. C. Mitra: This is a question which Parke Davis alone can answer. But this much I can say that the demand is so tremendous for this very important drug in our country and compared to the low purchasing power of our people, Sir, the price seems to be even now fairly high.

Shri Arjun Arora: Could you give us an idea of the sale price per unit of Parke Davis and your approximate sale price?

Shri N. L. I. Mathias: Sir, initially we did manufacture this Chloramphenicol in our factory until we were stopped. We have now sold out that stock. We were selling it at a much lesser price than Parke Davis.

Mr. Chairman: What are the exact prices—theirs and yours?

Shri A. C. Mitra: One capsule costs 75 paise, whereas the cost of a capsule which we were manufacturing and selling from out of the stock we had got still, came to 5 annas; it has now come down to 4 annas, *viz.* 25 paise.

Mr. Chairman: On the same units?

Shri A. C. Mitra: 12 capsules of 250 mg.

Shri Arjun Arora: Your colleague mentioned about his visit to Detroit. Had he got the impression that they were not interested in granting him a licence to manufacture in India?

Shri A. C. Mitra: Yes, that is his impression. I will ask him to speak.

Shri N. L. I. Mathias: The general impression. I will ask him to speak. discussions with Parke Davis in Detroit was that there were no *bona fides* in their so-called negotiations with us. They talked to us just out of politeness.

Shri Babubhai M. Chinai: Are you in favour of a total abrogation of patent law?

Shri A. C. Mitra: It is a very important law. It not only protects foreign inventors, but it also gives protection to us.

Shri Babubhai M. Chinai: On every such occasion where the Government has come out with a Bill wherein the power of the Executive is final and

there is no judicial tribunal or any Board or High Court which can be approached, people from the profession to which the hon. speaker belongs, have always objected that there should not be the final authority in the Executive. Will the hon. speaker enlighten us about his views?

Shri A. C. Mitra: The question, Sir, is that our knowledge is limited to certain essential foods and drugs vital to the life of the community. I do not want to speak about any other matter which is not so essential. This is number one. Secondly, as a lawyer on the Bar, the Executive being armed with great power is abhorrent to the judicial mind. But I cannot lose sight of the fact that some judicial processes are abused for self-interest by foreign patentees, as in this case. We have been discussing ways and means how that could be stopped. Although the Executive should not be armed with greater powers, some means must be found to expedite matters.

Shri Dalpat Singh: In your memorandum you have cited a case how some parties have taken undue advantage of the Act. Do you think that the present proposed Bill is again like the existing Act or do you suggest some further changes?

Shri A. C. Mitra: No, Sir. Particularly I tell you, Sir, that the present Bill certainly meets; or at least so it would meet, the situation as the one created by Parke Davis. I am not suggesting any new improvements.

Shri A. T. Sarma: Have you certain difficulties in the Bill? Do you agree with the other provisions of the Bill entirely?

Shri A. C. Mitra: Sir, I have not had time to read the other provisions of the Bill in great detail. I have come here to present that aspect of the Bill which relates to compulsory licence and relating to foods and essential drugs. On that aspect I have come to make my respectful submissions to the committee.

Shri A. T. Sarma: You must have gone through all the provisions of the Bill.

Shri A. C. Mitra: I have gone through, but not to that extent as to assist you in greater detail.

One thing I may tell you. My friend on my left asked about research. Sir, probably my friend also knows that the minimum amount of money required to set up a research centre of the type that my learned friend has in mind, would, I think, be—this is subject to correction—several crores of rupees.

Shri C. B. Singh: We will not talk about that now. We have talked about that till now. You are a lawyer, you can speak about law. You know nothing about research; so, do not talk about research.

श्री चौरड़िया : पुराने पेटेंट कानून की कौन सी धारायें ऐसी थीं कि जिनका लाभ लेकर के आपको 6 वर्ष तक क्लोरमफेनिकाल बनाने नहीं दिया ।

श्री ए० सी० मित्रा : आप सेक्शन 23 सी सी सी । देखिए । यहां पर होता क्या है कि कम्पल्सरी लाइसेंस जब आप दरख्वास्त करेंगे कंट्रोलर साहब के पास तो कंट्रोलर साहब एक नोटिस देंगे पेटेंटी को तुम्हें क्या कहना है, कहो। तब उन को जो कहना है, वह कहेंगे। उसके लिये टाइम लेंगे। टाइम लेकर लम्बी दरख्वास्त करेंगे कि यह है वह है । यह डिस्कशन होते होते तब कहेंगे कि हमारे एक्सपर्ट आ रहे हैं। उसके लिये और टाइम चाहिये। इस तरह टाइम मांगते रहेंगे। अगर टाइम न दिया जाय तो मुश्किल यह हो जाती है कि हाई कोर्ट में केस जाता है तो कहते हैं कि नेचुरल जस्टिस नहीं हुई। इसलिये टाइम दिया जाता है। आखिर में क्या होता है, यहां पर इन दिस पर्टीकुलर केस, कंट्रोलर साहब ने कहा कि अच्छा देखें, हम विचार करेंगे कम्पल्सरी

लाइसेंस दिया जाय या न दिया जाय, इन दि मीन टाइम तुम्हारे टम्स क्या हैं। अगर हम डिसाइड करें कि दिया जाय तो तुम क्या टर्म्स रखोगे। लेट मी हैव योर टम्स। यह इन्होंने नहीं दिया। इन्होंने कहा कि यह आप क्या कह रहे हैं। आगे आप ही डिसाइड करिये कि लाइसेंस दिया जायगा या नहीं, तब हम टर्म्स दें। यही बात टाल मटोल करते करते आज तक टम्स सेटिल नहीं हुए। आखिर में क्या हुआ, इन्होंने कहा कि अपने टर्म्स हम को इस तारीख तक दे दो। उस के बाद फिर ये हाईकोट में चले गये, कहा कि यह ज्युडीशियल फंक्शन है, चूंकि हमारे पास पावर्स नहीं है, इस लिये हम को कोट में जाना पड़ा, अब एफिडेविट हो रही है, रिप्लाई हो रही है।

Shri V. M. Chordia: What are your suggestions so that in future this type of delay may not occur?

श्री ए० सी० मित्रा: बिल में यह कहा गया है, जो चेयरमैन साहब ने दिखाया है। कन्ट्रोलर सीधे लाइसेंस दे सकता है, वे लाइसेंस तुरन्त दे सकते हैं, लेकिन ऐसा नहीं हुआ।

In the meantime, pending discussion, if the licence is granted, work can go on.

श्री चौरड़िया : फिर भी वह स्टे तो ला ही सकते हैं।

Shri B. K. Das: It appears from the memorandum that you are in favour of licence of rights. There is a provision for a maximum royalty of 4 per cent. Will that be enough? There is evidence that it should be left free to be decided upon by the parties concerned. What would be the better provision?

Shri A. C. Mitra: According to my instructions, 4 per cent is a fair return on the patent price.

Shri B. K. Das: Parke Davis had six patents for one product. These are all process patents I believe. Three of them expired and were granted to another party. I want to know whether a patent for more than one process should be granted to a single party, and if he does not exploit it within a reasonable period whether it should not lapse.

Shri A. C. Mitra: That would be a correct approach. He should be given the option of either utilising it himself within a reasonable time, or the new process should be allowed to be exploited by others, unless it is a patent which is inextricably connected with the main one.

Shri K. V. Venkatachalam: Can you give us an idea of the other activities of your firm, what other items are you producing?

Shri N. L. I. Mathias: Neo-Pharma has been by and large specialising in anti-tuburcular preparations. My company is a pioneer in the introduction and in the basic manufacture of PAS and its salts in India. We, in collaboration with another company in Hyderabad and a foreign collaborator, were responsible for pioneering this effort of manufacturing in the country PAS and its salts for the first time.

Shri K. V. Venkatachalam: Is there any exploitation of a patent involved in that?

Shri N. L. I. Mathias: There have been some patents on that also. Therefore, without that we would not have been able to manufacture this in the country.

We have obtained the technical process for the production of PAS and its salts, and we are paying a reasonable royalty of 2½ per cent. Our relationship with that company is reasonably satisfactoy.

Shri K. V. Venkatachalam: If you are successful in getting this licence from Parke Davis for chloramphenicol, what percentage of finished material would you start with?

Shri N. L. I. Mathias: Probably from the stage 25 to 33 1|3 per cent from the top and then go down to the very basic stage from which all others in the world are manufacturing.

Shri K. V. Venkatachalam: Barring Parke Davis, are there any other Indian manufacturers manufacturing chloramphenicol?

Shri N. L. I. Mathias: There are one or two other manufacturers. One of them is working in collaboration with Italian manufacturers.

Shri K. V. Venkatachalam: Don't they have the same difficulty?

Shri N. L. I. Mathias: The position is very clear in as much as Parke Davis which has a widespread network is the originator of this process. There are no two opinions about it. But Parke Davis has had a lease of life of probably 18 years now, because it was in 1948-49 that this product was discovered and had begun to be commercially made available in a good part of the world. Since then, Parke Davis has been licensing their own agents and their own nominees in different parts of the world including Italy. After Italy lifted the patents, many Italian companies have been still respecting some of these for the benefit of their overseas consumers. There is one Italian company which has come to an arrangement with Parke Davis and a sub-licence has been given by them to another Indian company called Mac-laboratories. It is a very small, insignificant quantity of about 800 kg. per annum.

Shri K. V. Venkatachalam: Are this long delay and dilatory tactics a solitary case or have there been some other cases?

Shri N. L. I. Mathias: There are also other cases. I would not be able to give you details.

Shri K. V. Venkatachalam: Can Mr. Mitra say, with his experience on the legal side. The only point in my asking this question is because, whether we should make a law based on just one or two cases.

Shri A. C. Mitra: That is not the approach, if I may say so, with respect. The question is, with the law as it stands, is it capable of being exploited by any unscrupulous patentee.

Shri K. V. Venkatachalam: Are there other similar cases?

Shri A. C. Mitra: The fact that it has been exploited is apparent in this case. I do not know. There may be other cases.

Shri K. V. Venkatachalam: One more question. You said your turnover was of the order of Rs. 1½ crores. I should have thought that as a forward looking company, you would put by some part at least for research. You could have started with Rs. 10 to 16 lakhs for research, I think.

Shri N. L. I. Mathias: Unfortunately, with the heavy taxation as well as the expenditure that we have got to incur, net profits are very small. Primarily because we are, in the majority of our products, representing foreign manufacturers and as such we operate on very modest margins. You can produce a turnover but ultimately a modest margin leaves us very little, and if we are to experiment and go into original research, as my friend has suggested, probably we may be going into an empty adventure and ending up in a big loss.

Shri K. V. Venkatachalam: On the one hand you say that you do not want any foreign assistance, and at the same time you say you cannot put up any money.

Shri N. L. I. Mathias: Our country should have basic industries and it is this basic industry that we have been prevented from setting up. It has taken more than six years before we have struggled into getting a compulsory licence. You can control the

industry, despite foreign collaborators having been conceded equity shares in the company. Ultimately, we are supposed to have this industry in Indian hands with Indian labour, capital and run completely with Indian technical know-how.

Shri K. V. Venkatachalam: You have put by money?

Shri N. L. I. Mathias: We have already put in quite some money. We have sent two or three chemists abroad. We have spent quite something to train these people in Italy, and these people also have come into contact with our German, Swiss and French collaborators. These chemists are highly qualified and would have sufficient know-how. They have acquired the technical know-how of chloramphernicol manufacture also.

Mr. Chairman: Thank you very much.

Shri N. L. I. Mathias: There is one small submission which I would like to make before we finish. Reference was made to the question of prices with respect to Parke Davis and other companies. As far as the bulk supplies of chloramphenicol are concerned, the price is Rs. 600 per kilogram, as against the open world market price of approximately Rs. 90 per kilogram. It is the same chemical substance which is produced all over the world, and the process is as old as 18 years. It is their own indigenous production by the same process, but the production is not made available to any actual user. No actual user in the country can purchase this active substance from Parke Davis. We sought to purchase some quantity from them, but they said they did not have anything to spare as their entire production is utilised in the formulation of their own speciality lines. They have, therefore, nothing that they can sell to anybody.

Mr. Chairman: You can buy from other manufacturers.

Shri N. L. I. Mathias: But the price is not very much different. As I said Rs. 90 per kg is the world market price which does not exist in our country, but exists all over the world for the very Parke Davis product. It is the very same substance and not different whatsoever, except that Parke Davis says chloromysktin in manufactured by Parke Davis. It is only a trade name. It is nothing else than a commercial trade name for a chemical substance which people in other parts of the world also manufacture. It is as simple as a text-book reaction and is very simple. But the same process could not be made available to another independent pharmaceutical concern which has the same skill, competence and ability. Why? The very substance which is made available at Rs. 90 per kg in the world market has to be bought by us at Rs. 600 per kg. That is how monopoly conditions are being operated in this country.

Shri Braj Behari Mehrotra: How long are they exploiting this?

Shri N. L. I. Mathias: They have introduced this in different parts of the world since 1948. India also got this at about the same time.

Shri V. B. Gandhi: As compared to Rs. 90, what would be your cost if you can produce it?

Shri N. L. I. Mathias: As far as retail price is concerned, our price could be still cheaper than Parke Davis's. As far as the basic chemical is concerned, we have been prevented from manufacturing it. Our price—if we go into manufacture—it would be rather difficult to mention it.

Shri Ram Sewak Yadav: Approximately?

Shri N. L. I. Mathias: I can assure the Committee that our price will be substantially cheaper than the price of Parke Davis.

Shri R. P. Sinha: Is the patent still alive, from 1948?

Shri N. L. I. Mathias: The patents were 16 years old. Subsequently some of these have been extended. There are some patents which are called additive patents, that is, patents which have been brought into existence with minor variations and changes. I understand the 1948-49 patents have expired.

Shri B. N. Atrishi: 5 patents were applied for compulsory licensing. 3 have already lapsed and at present 2 patents are there for which compulsory licence has already been granted. Parke-Davis have brought an appeal in the Calcutta High Court. But the life-time left for these patents is hardly 2 years. Not a single patent of Parke-Davis has been extended.

Shri R. P. Sinha: May I know whether with the help of the 3 expired patents. it will be possible for you to manufacture this product?

Shri N. L. I. Mathiah: The old patents have been so modified or varied in the form of 'additive' patents that in the ultimate stage, before the final product is got, we have to pass through some reactionary stage or other that is still controlled by the 'additive' patents. That is where they squeeze us out.

Shri B. N. Atrishi: They are independent; I do not think they are patents of addition.

Shri P. K. Kumaran: What prevents them from adding some new substance giving it a different trade name and manufacturing it?

Mr. Chairman: The patent office says they are new patents. There is nothing to prevent you from using the lapsed patents.

Shri N. L. I. Mathias: Our information is they are 'additive' patents. We may be mistaken in the nomenclature as to whether they are additive or new patents, but these patents are so formed that they embrace some reactions of the old patent and the ultimate product cannot be arrived at unless you infringe in some stage or other one of those reactions.

Shri R. P. Sinha: In 1948 chlorophenecol was being manufactured with the help of the three patents which have now expired. Why can't you manufacture it with the process contained in those expired patents by which they were manufacturing it in 1948?

Shri N. L. I. Mathiah: That is what I explained now. The new patents embrace at some stage some reaction covered by the old patent. The new patents are not new from A to Z.

Shri K. V. Venkatachalam: The expired patents were being utilised previously for the production of chlorophenecol. Why can't you use those expired patents? Nobody can challenge you for that.

Shri N. L. I. Mathias: That is what I just explained. At some stage the new patents embrace some reaction covered by the old patent.

Shri R. P. Sinha: We are not satisfied with this argument. The matter is not clear to us.

Shri P. K. Kumaran: I will read out something from the *Sunday Times* dated 4th April, 1965:

> "It is not even necessary to change the molecular structure of a product to produce and market a new product. An alternative and highly profitable field for research in the industry lies in the additives. Dr. Weinstein told the Kefauver Committee how Pfizer anxious to market in the US a tetracyline different from other companies (and its own) thought of adding gulcosamine. Glucosamine is a naturally occurring substance which occurs in the blood and this has been added to the tetracycline with the hope

that this would increase the absorption of the tetracycline. This is the only thing hoped for. There is nothing in the combination to change the effect of the tetracycline itself."

If Pfizer could do it, why not we?

Mr. Chairman: We have not got the know-how as Pfizers.

Shri R. P. Sinha: I feel this company has not got even a small research unit to modify it slightly as suggested in this article or even to use the old patents. Therein comes the importance of research. Unless the Bill so provides that it gives incentives for research work or inflow of foreign technical know-how, the progress of pharmaceutical industry cannot take place.

Shri N. L. I. Mathias: If one actually knows the implication and the significance of what 'research' in the pharmaceutical field is, one would probably shudder before going into any original research. Hon. Members would appreciate that it is not easy to go into the research of a product unless and until we have at least the elementary experience of producing it first in the country.

Dr. C. B. Singh: For the information of the witness I may mention that in Japan four leading pharmaceutical companies have spent, mainly on research and development, during the year 1963, 20 lakhs, 22 lakhs, 28 lakhs and 10 lakhs dollars. In India hardly anything is being spent on research.

Shri R. P. Sinha: No research work worth the name is being done in India. Without research work, it is common knowledge, there can be no development in the field of pharmaceutical industry. If the Indian people are not in a position, because of lack of experience or lack of funds or something like that, we have to depend, as Japan and West Germany have done, on foreign technical know-how and research. The anxiety of this Committee is to harmonise between these two points of view. How can we be guided by one solitary instance where injustice might have been done. We will try to see, as far as possible, that such injustice is not done. But we cannot ignore this fact that for a number of years to come, when even advanced countries like West Germany and Japan today are depending upon the research work done in foreign countries, we have to depend upon the research work done in foreign countries and we have to see that the benefits of such research work flows into this country.

Shri N. L. I. Mathias: With all respect to hon. Members of this Committee, I would like to submit that West Germany and Japan, since World War II, has not been responsible for any original research work in the pharmaceutical field.

Mr. Chairman: Thank you very much, gentlemen, for coming and assisting the Committee in its work.

(The witnesses then withdrew).

II. Haffkine Institute Parel, Bombay

Spokesmen:

1. Dr. H. I. Jhala, Director.

2. Dr. C. V. Deliwala, Assistant Director:

(The witnesses were called in and they took their seats)

Mr. Chairman: I have to inform you that the evidence that you give is public and is printed and distributed among members and is also laid on the Table of the House. Even if you want any portion of it to be treated as confidential, still it will be distributed to our members.

We have received your memorandum. It has been circulated to all the members of the Committee. We have visited your Institute also. If you want to mention any new point or stress the points which you have al-

ready made, you may please do so now. Afterwards, our members will ask questions.

Dr. H. I. Jhala: Even though both of us are appearing from the Institute, we shall try not to overlap each other. We shall try to make out separate points so that the time of the Committee is not wasted. I have about ten points to make which I would first like to narrate. Later on, if you have any questions to ask, I shall be grateful to elucidate the points further.

The reason why I am appearing before this body is because the Haffkine Institute is one of the oldest medical research organisations in the country and produces, drugs, especially in the field of biologicals like vaccines and serum, and also for the last 20 or 25 years we are interested in preparation of drugs which have chemo-therapeutical remedies for control of diseases.

We have got a section of organic chemistry, which we call the Department of Chemotherapy, where we synthesize the drugs. We also have a department where we work on indigenous drugs. The drugs that we work upon are worked out for formulations as well as for trying to find out the processes for their manufacture including those for known compounds. If a compound is known already in the field, we try to make out a process of our own to produce it at the Institute. We work out on the laboratory scale as well as at the pilot plant scale and try to get a patent where it is possible to get one.

Besides this, under the present licensing procedures all applications for biologicals being licensed are referred to the Haffkine Institute. Therefore I get a number of agreements of collaboration between various foreign and Indian firms referred to me for the sake of comments.

Shri R. P. Sinha: We would like to know whether the Institute is some expert body or a research institute or some profit-making body.

Dr. H. I. Jhala: The Haffkine Institute is an organisation which is departmentally run by the Public Health Department of the Government of Maharashtra and it is not a profit-making institution.

I only wish to confine my remarks to pharmaceuticals and foods. I am not dealing with any questions of patents which are in the other fields. My field of specialisation is only that. There are many countries in the world, at least ten I know of, which do not allow any patent in pharmaceuticals and foods. I am referring to product patents.

Mr. Chairman: Which are those countries?

Dr. H. I. Jhala: They are Argentine, Austria, Brazil, West Germany, Holland, Iran, Italy, Japan, Mexico and Venezuela. There are some countries which have process patents.

Shri R. P. Sinha: Do these countries allow process patents in drugs and foods?

Dr. H. I. Jhala: As far as my information goes, they do not allow product patent. I have no information about process patent. Some countries allow process patent and there are some which allow both.

When a country grants product and process patent, there are some anomalies that appear. One is that the drugs sold become costlier. They cost much higher in those countries where product and process patents are given. Secondly, it leads to the elimination of competition resulting in monopoly or syndicate resulting in bad practices for exploitation of the market. Thirdly, there is abuse of conditions granted to them. There may be saving clauses, like compulsory licence, but even then they so abuse it that you cannot exercise those rights. The privilege is being misused more than

used in favour of the country granting the licence. Lastly, I find that it only leads to increased sales and increased expenditure on sales through advertisements, commission and many other practices. It does not in any way improve the science in the country because, in any case, the inventor in most of the cases is an individual by himself and he himself does not manufacture; it is the company that exploits the fruits thereof and science by itself is not in any way benefited.

Mr. Chairman: This is as regards product patents.

Dr. H. I. Jhala: Both product and process patents.

So, my submission would be that there should be no patent for product *per se*. If anybody can manufacture it by any other means, he should be allowed to do so. Not only that, but he should be allowed to import it also from other countries. When we give the product *per se* patent, we are not even allowing the import of that product for sale in this country. My submission is that product *per se* patent should not exist.

I am not in favour of having any patents at all in relation to pharmaceuticals and, maybe, foods; but if a process patent is to be granted for other reasons, I feel that there should be a clause for compulsory licence at a reasonable fee. In addition to that, one more clause should be introduced, namely, that if a patent is not used for sufficiently good time, people in the country should be free to exploit it. There should be a clause for revoking that patent.

Many times the patents may be filed not as patents for drugs but as patents for other things. This may be purposely done so that it may not be marked as a drug. But if we find that it is usable or used as a drug in this country, we should get all the rights of revoking that patent if it is not used and also of compulsory licensing. We should also try to introduce a patent of right.

Mr. Chairman: What do you think should be the time limit that should be prescribed?

Dr. H. I. Jhala: No drug in any market has remained for more than five years. In five years all drugs disappear from the market. Of course, I am in favour of going up to seven years with no extension, but as far as drugs go in the market no patented drug remains in the market for more than five years.

Mr. Chairman: Suppose, a drug is not manufactued in the country after it is patented. What is the timelimit that should be prescribed for the grant of a compulsory licence?

Dr. H. I. Jhala: I should think in two years you can manufacture anything; at the most you may give three years. Beyond three years I do not think we should wait, because technology in this country is so well developed that there should not be a lag between a discovery and its application for alleviating human suffering of more than three years.

Then, as regards royalty, I find that royalty is being claimed in various ways, not only straight as a royalty but it is given in various ways in the collaborative agreements. However, if a straight royalty is to be paid, I am of opinion that 2 per cent royalty would be fair enough because, as far as the expenditure goes, even in advanced countries the expenditure on research in pharmaceutical concerns does not exceed 6 per cent of their total expenditure. They have got a very high expenditure on sales and even with that inflated expenditure with lot of sales expenditure, the total expenditure which any company has to do never goes to more than 6 per cent. This they can easily recover. In India it is much less; I do not think it exceeds even 2 per cent.

Mr. Chairman: 2 per cent of what?

Dr. H. I. Jhala: If a company is spending a total of Rs. 100, it spends hardly Rs. 2.

Mr. Chairman: Expenditure for the whole company or for the particular product?

Dr. H. L. Jhala: I am talking about the total expenditure of the company producing the product.

Shri R. P. Sinha: What do you mean by "expenditure"?

Dr. H. L. Jhala: A company incurs expenditure. It has raw materials; it has direct overheads and it has indirect overheads. In the balance-sheet, there is the mention of expenditure of the company and out of that expenditure, 6 per cent only is the expenditure on research in most developed countries.

There is one more point that I want to make. There should be no ban on Government's buying and selling a product if it is necessary for the country's needs. I think, there should be no ban at all on that.

Now, I come to certain other points. Today, there are some oral anti-diabetics drugs which are under the patent and one of the products is Tolbutamide and it comes under the name of Rastinon which is sold by M|s Hoeschest Pharmaceuticals. The same product is produced by another process for which the Haffkine Institute has its own patent and the price of that drug, as sold in the market by us, is 5.5 paise. The same drug is sold for 21 paise per tablet by M|s. Hoeschest Pharmaceuticals. We are able to cover our cost, the research cost, etc., and we are able to sell the drug at the price of 5.5 paise per tablet and that Company charges 21 paise for the same tablet, for the same chemical, in the same city of Bombay. I just want to point out how the granting of a patent increases the cost. The sale of this oral anti-diabetics product in this country is in the vicinity of Rs. 2 crores and the price difference is four times in the same area. This is the point I am making about the high cost of the same product in the same area.

The second way in which the cost is made up is because they try to bring in a compound which is a rather rare compound. For instance, there is a compound Paratoline Sulphamide which is made in India. But if you take Paratoline Sulphamide Carbonate that is not made in this country. Now, the firm will buy the latter at any price they like and thereby increase the cost. If you go into the question of cost accounting, you will be able to come to the conclusion that high price is charged. These are the trade practices followed so that the available cheap raw materials are not used but some specific raw materials are used which will increase the cost.

Whenever we have tried to exploit the question of compulsory licence, we have not been able to get it. During the plague epidemic we were not able to get Sulphathiazole compulsory licence from May and Baker. The then State of Bombay tried to negotiate for it but could not get it. The same thing happened in the days of malaria epidemic. We were not able to get a compulsory licence for Proguanil and our application for a compulsory licence went on for 3 to 5 years. I can say that in most of the cases, these drugs went out of market and we lost our interest. We were told to manufacture it and we proved to them that we can manufacture that drug. They said that we would have to take a compulsory licence. Our product was going to be three times cheaper. But we were not granted a compulsory licence. The case went on for 3 to 5 years and by that time these drugs went out of market.

It is argued that in India, there is a tremendous expansion of the pharmaceuticals industry in the last few years. This is true. But this is not the basic manufacture of drugs. What is being done is that there is an imported component and we try to formulate it. This is not the real development of the country. In spite of granting patents for all these years, I do not think the pharmaceuticals industry has progressed at the same level as it has developed in other

countries. Even in a country like Italy which does not give the patent, the industry has developed very well. They sell antibiotics like Chloromycetine and there was the agreement between the Leptit Laboratory and Parke-Davis. The Leptit Laboratory was acknowledged as the source for the patent which was granted to the Parke-Davis in America. In other words, there are countries where the patent is not granted and yet the development is very well and there are countries like India where the patents have been granted for so many years and yet the development is not that much. Superficially, you may be told that there is tremendous expansion but there is no basic expansion. We have still to depend on the import of raw materials.

India is entering into collaboration with foreign countries for the production of certain drugs and under some of the agreements which have been referred to me I find the foreign firms are taking a lot of money from us under different pretexts. The field in which I work is Biology. There are hardly any patents in Biology. The products are known and made by an open method. There is no secret about it. Yet the agreements which are entered into by foreign countries with our Indian collaborators stipulate that they shall give the building designs when, as far as I know, there is no necessity of building designs and that they shall give the designs of equipment when, as far as I know, there is no necessity of equipment designs because there are standard designs of equipment. They want money for all that. They also stipulate that they shall give the know-how. In the field of Biology, there is no question of know-how. They have no secrets with them. They also say that they shall have the cost accounting system which will be given by the foreign firm, that they shall have to act according the cost accounting system which means that the product will cost more and the royalty rate will go higher. For all these things, they want to take lumpsum payments. I do not think the country is so backward as not to be able to do these things themselves with a sufficient experience.

I submit the Patents Act so far has only given benefits to the foreigners and the legislation as it stands today is not in the best interest of citizens of India. It is high time that we take a fresh view on this as we are trying to take. Even the Committee of the U.S. Senate which was appointed by the U.S. Senate to go into the question of the drug industry and the patent business came to the conclusion that the patents in the United States should be abrogated. The Committee's report was not accepted though it was a Senate Committee. What I submit is that, even in countries like the U.S.A., there is fresh thinking that is developing and there is a fresh mind that is being applied to the present patent law.

Finally I would say that, out of all vested interests, the vested interest in ill health would be the worst and it should not deprive the Indian citizens of the drugs to cure diseases or food for babies; it should also not prevent the Government from rescuing people from epidemics or a diabetic patient from leading a normal life.

That is all. I have made my submission.

Dr. C. V. Deliwala: I have put down some of the points here. It will be better if I read them clearly.

In our attempts to develop technology and create know-how for drugs, we have had a good experience about the working of the Patent Act in India over the past 20 years. Our experience about the working of the patent system and our suggestions in the matter of modification of the Patent Act have been put before the Select Committee in the form of a Memorandum earlier.

Since the last 25 years, the Institute has been engaged in the study of synthetic drugs and has taken out a large number of patents. It has the

distinction of being a pioneer in creating know-how, of modern synthetic drugs without foreign collaboration.

Mr. Chairman: You need not read the Memorandum You may highlight only the salient points.

Dr. C. V. Deliwala: It had to face threats, litigations and other difficulties from foreign firms who alleged in some cases that they alone had patent rights in these drugs.

We are sure, therefore, that our experience in the matter of operation of Patent Act in India would be of great interest to the hon. Members who are earnestly engaged in working out a Bill that will encourage the development of research, inventions and technology and guide the nation towards self-sufficiency and self-reliance. Some of the members of the Select Committee very kindly visited our Institute and saw the work we are carrying out and also gave a patient hearing to our plea for urgent modifications in the Patent Act. We hope that they will appreciate the need for aborgation of the Patent Act or modifying it drastically so that it becomes an effective instrument in the rapid technological development and progress of the country and the well-being of its citizens.

We have suggested total abrogation of patent laws in our Memorandum. If this could not be done due to some reasons, then at least no patents should be granted to inventions covering the manufacture of food, drugs, medicines and chemical intermediates thereof. These suggestions of ours are based on our experiences and observations on how the Patent Act has been utilised by foreign patentees, to prevent the development of Indian know-how, starting of new technology and building up of self-sufficiency.

We sincerely believe that, in the matter of saving life by rescuing from the jaws of hunger, disease, pestilence and death, it is the humanitarian task that should rule supreme. There should be no scope for making undue profit in these matters concerning life and death. In developing countries, including ours, where the majority of the population is not even having sufficient means to purchase their bare minimum requirements of food to ward off hunger, to sell to such population the drugs and medicines or food at prices which are exorbitent and what is worse, to sell them at much higher prices compared to the ruling prices for the same drugs in developed and well to do countries, is a social crime that should not allowed or pardoned.

A study of the patent system in India upto now shows that more than 90 per cent of patents taken out in this country are by foreign firms for the inventions carried out abroad. This is very important. These inventions have not been carried out in India and so the technology has not developed in our country. These inventions have been carried out in their own countries and have been patented here. What percentage of total patents taken out in our country are by Indians? Out of these, how many were subsequently patented in other countries by using the convention of reciprocatory clauses of priority among the patent convention countries? If I make a good invention and if I want to get it patented all over the world, to get the specifications translated in all languages and to arrange to ensure that my patent will be not used by others, it would be difficult; it will cost a fabulous amount for the Indian manufacturers; when they cannot afford to start an industry, what to speak of applying for patents in other countries! So it has only an one-sided affair and we have not been able to take advantage of that. The majority of patentees from foreign countries who have taken patents in our country have done so only to prevent any one in this country from manufacturing the patented inventions and to prevent their import from cheaper sources, so that the highest possible prices could be charged by utilizing the monopoly resulting from

the Patent. Whenever they have been persuaded to take up the production in this country, often they have managed to avoid or postpone the production from basic starting materials and as far as possible, only imported the penultimate product, which by a single or few steps could be converted into the final product calling this "Made in India". They have, of course, given me this argument—of course, they were right: "whatever we have patented here, we are producing here; we prepare a drug; only a couple of stages are involved". So they are right when they say that they are manufacturing from the last stage. We have no grudge against it. But, while doing that, it does not develop the technology of our country. That is what I want to emphasize. It is argued that, in the present Act, there is a provision for compulsory licensing of inventions relating to drugs and medicines, and the Indian nationals should take advantage of it. However, our experience in the operation of this provision of compulsory licensing is that this provision is ineffective. The following instances of our experience will show the inadequacy of the Patent Act and why we should abrogate it or modify it drastically. I am going to give you two cases where we require the drug very badly—one for saving the life of the victims of plague and the other.....

Mr. Chairman: This has already been mentioned.

Dr. C. V. Deliwala: I shall read out only a little.

Mr. Chairman: It is not necessary.

Dr. C. V. Deliwala: I wanted to show that one of the compounds was found by us—we found it; this is the more important part of it—to be highly effective against experimental plague infection in laboratory animals. Then we took out actual chemical trials and we could see that 80 per cent of the plague victims could be saved by treatment with this drug. This drug was required to be manufactured in this country or to be imported immediately. All the know-how for the preparation of this drug was worked out in the Institute without any foreign collaboration. This drug was not available in the country and attempts were made to get a compulsory licence for the use of Government from the foreign patentee, according to the provisions of the Patent Act existing then. The patentees, however, frustrated the attempts at manufacture of this drug in the country and making it available cheaply on the grounds that Haffkine Institute was not capable of manufacturing the drug due to lack of adequate facilities. This shows how the efforts to save lives of plague victims by taking up the manufacture at a critical time were brought to naught. The drug was later made available in the country by imports from UK in limited quantities at a price of Rs. 250 per lb. by the foreign patentee, whereas our cost of manufacture on a very modest scale, if it was manufactured here, would come to only Rs. 20 per lb. The difference is more than 12 times. The same drug could have been imported from the United States at that time at a landed cost of Rs. 39 per lb. because in U.S.A., there were a number of patentees and the drug was being manufactured and sold, but we could not import it because the patentee in India had the right to manufacture and sell and will not allow anybody to import the drug even if it was available at that cost. This shows how the efforts to save lives of plague victims could not be at that time successfully carried out. The drug was later imported from U.K. as I told you already. Unfortunately this drug could not be imported from U.S.A. where it was very much cheaper because the patentees under the Indian Act had the exclusive monopoly. In U.K. later on the Patentee was challenged in the court and the patent was revoked. As a result the price of this drug even in U.K. came down to a small fraction of the original price.

What I wanted to mention here is that under this patent which was actually invalid—it was not a valid

patent in this country—it was not possible for any one of us to fight or obtain licence and as a result we had to pay a fantastic price for the drug for a number of years even on a patent which was not valid. It is a very important fact and I would like the hon'ble Members to note this.

Another very interesting drug which we were interested to produce was proguanil hydrochloride—an antimalarial drug and the Indian Government was in need of large quantities of this drug. A number of processes of this drug were patented in this country by a U.K. firm. Even at the concessional price of Rs. 95 per lb. offered by the U.K. firm, it was beyond the means of the Government to purchase enough quantities. So the Institute practically worked out the know-how, the process, technology etc., to produce it indigenously and our cost was only Rs. 30 per lb. An application for the grant of compulsory licence was made to the Controller of Patents as pe amendment introduced in the Patents Act after Independence.

Mr. Chairman: It is not necessary to repeat what you have already stated in your memorandum.

Dr. C. V. Deliwala: There are certain minor points which I wanted to bring out fully to your notice.

Tolbutamide is another case. Here, in spite of our having a valid patent for 8 years we were not able to operate on that. The argument is that the process patented by us is not new but is already covered by one of their patents. The case has been pending in the court. They say we are infringing upon their patent. If it is so, they have no reason to go to Japan one month after we have filed our patent in India and take an additional patent covering its manufacture by a process similar to ours. Another interesting fact about this is that this patent has been revoked in Canada. On this patent we have been paying Rs. 2 crores, and they are selling it to-day only in the loose form.

Another interesting case is Chlorpropamide. One gram of the drug contains 4 tablets and one kilo makes 4,000 tablets. Even there also the price is exorbitant—Rs. 35 for 100 tablets. In my memorandum I have dealt with this case very thoroughly and I will not stress that point again.

Under the circumstances, the provisions of the present Patent Act and the legal procedures connected therewith give a monopoly to the foreign patentees. These bitter experiences compel us to submit the following suggestion in the interests of the industrial and technical development of the country and the well-being of the citizen.

Our experience and that of all other Indian manufacturers who have been struggling to create know-how for the indigenous manufacture of important and essential life-saving drugs and medicines would convince anyone prepared to take an impartial and unprejudiced view that the continuance of the Patent law is not in the interests of the country. Under the circumstances, we suggest that the Patent law should be abrogated.

I would request the hon'ble Members to go through a research paper published by the Reserve Bank of India in their bulletin of March 1966—the title of the paper is: 'Patent and the International Transmission of Technology to Developing Countries: with special reference to the Pharmaceutical Industry'. This paper gives valuable data and reasons supporting our suggestion for abrogation of patents.

The country has derived no benefit from the Patents Act for the past 18 years since Independence and it would have been possible to do something if we had no patent Act. We would have already got enough technology.

Pharmaceutical firms invariably exploit the patent monopoly and charge exorbitant prices for their patented products. To justify this they have been giving a number of arguments. I have been discussing with these people who have been opposing this Patent Bill. I will try to deal with their arguments point by point.

In justification of this fantastic level of exploitation these monopoly firms often argue that they have to keep these high prices to recover the high expenditure that they have been incurring on the research and development of new drugs. This argument does not hold any water as shown in the Kefauver Committee's report which found that the actual expenditure on research was only 6 per cent of the sales whereas they have been spending as much as 25 per cent on propaganda and high-pressure salesmanship. It should also be realised that on this 6 per cent they also get some rebate by way of taxes. It is shown as expenditure.

They also say that the high prices are not due to their monopoly rights but due to other factors in our country such as limited production, high overheads, heavy taxation, high cost of raw materials, etc. This is also, in my opinion, false. How will these firms explain the fact that when they were, wholly importing the patented products, which were made in their own countries where presumably the factors like limited production, high taxation, high raw material cost, high labour charges etc. do not exist, still they charged several times the price at which the same drugs could be imported from other countries where there was no patent monopoly?

Another interesting fact is that when they claim to manufacture the patented product in this country, actually they import the penultimate product or the last stage intermediate and only by one or two steps get the finished product. So the cost of processing—they say that it is actually due to the high cost of raw materials—is negligible in the whole production cost. How can they then argue that because of high cost of raw material, etc. they are forced to charge such exorbitant prices?

They also state that there has been a tremendous progress in the pharmaceutical production which was only Rs. 11 crores in 1948 and which is now Rs. 175 crores. On paper these figures seem impressive. However, when the local production was Rs. 11 crores what was the cost of finished pharmaceutical goods imported? Rs. 110 crores worth of finished pharmaceuticals we were importing. All that has happened is that instead of importing the pharmaceuticals in the form of finished products, we now import bulk pharmaceuticals or their penultimate stages and process or formulate them into finished clinical products.

If, for any reason whatsoever, it is decided not to abrogate the Patent Law, then we suggest that at least no patents should be granted for products or processes covering the manufacture of food, drugs, medicine and chemical intermediates used in the manufacture of drugs and medicines.

It is also argued by them, particularly by the foreign patentees—they say that they have been trying to impress on the minds of the hon'ble Members—that the product *per se* should be introduced because it is going to be useful for the country. I will just try to deal with this point in a little more detail.

We have to argue for, supposing it is going to be introduced, what will be the effects. They argue that product *per se* must be allowed because the patents for processes only do not give the patentees adequate protection and returns.

The monopoly drug manufacturers suggest that the research and development energy should not be wasted by directing it towards better and chea-

per processes of manufacturing known effective drugs but should only be directed towards finding out newer drugs. Now, what they do is they say "we have got a new sulpha drug, one tablet of which is enough to cure you instead of six tablets of the old drug; instead of taking 60 milligrams, 6 milligrams of this new drug will solve your problem." And there are a number of new tranquilisers now. They say that research should be utilised for finding newer drugs and not for developing cheaper process for manufacturing known drugs. We beg to differ and wish to submit that having found a new drug in itself is of no utility unless the technology of its economic manufacture resulting in its being made available in adequate quantities and at reasonable prices within the reach of the majority of the population.

I have also to stress that in our country, thousands of people die or suffer from maladies not because there is no effective drug for that malady, but they die or remain helpless victims of the disease simply because they cannot afford to purchase the drugs which are known to be effective but which are so costly that they are beyond the purchasing power of these poor victims or even beyond the limited budgetary provisions of the Government hospitals. That is a very important fact.

Any number of examples could be given to show that it is the attempts to find cheaper and better methods of producing known and effective drugs that have contributed to the development of newer technologies and inventions that have not only made the drugs within the purchasing power of the population, but has given tremendous impetus to inventiveness and these activities need all encouragement. The penicillin when it was found was very costly and after development and research its cost has come down. If product *per se* had been given to this, it would not be available so cheap. Take chloromycetin. In Italy, its price was brought down from Rs. 1,100 to Rs. 200 step by step and each step was worked out. So we most emphatically say that no patent protection should be granted for product *per se*. Even the Kefauver Committee has shown that wherever there is product *per se*, the prices there are invariably higher than those in countries where product *per se* is not allowed.

Another point is that the patent granted should give protection in so far as the invention is practised in this country and no rights should accrue to the patentee with regard to importation of patented invention as his exclusive right. This is what I have been trying to emphasise, that whenever a patent is taken out, they make import in such large quantities that it can last even for five years. That is possible. I think in Japan, whenever a patent is granted, they allow it only to be practised in that country; this may be right or wrong; I am not sure about it.

The next point is that some people have suggested that the life of the patent should be much longer because the patent in some cases is not sufficiently remunerative. I would like to deal with this point in some detail, with your permission.

Our suggestion is that "the life of the patent will not exceed seven years from the date of filing specification and no extension should be granted to this period of seven years." It has been represented that the period of protection should be extended to 14 years or in the alternative ten years from the date of sealing of the patent, with the possibility of extension of the term beyond ten years where the patent has not been sufficiently remunerative. It is difficult to find whether it has been "sufficiently remunerative" or not. Our view is that no extension should be given. Even in U.K. extension was given only during war-time when they could not utilise the patents during those years. In the olden days between the labo-

ratory finding and the product development a considerable time had to elapse. Now, however, the modern technology is so advanced that within a very short while, after the laboratory discovery and its clinical evaluation, the product is developed and marketed with "Patent Pending" legend to prevent trespassing by others in that product. Also the protection of patent starts from the date of filing. It is also well-known that in the United States the average life of a new drug is considered to be five years. Now a patent is granted to a person for disclosing his discovery. In return we give him a monopoly to use that patent exclusively for himself. Now in the United States and other countries the life of a new drug is considered to be five years. How is the public going to get benefit out of it? The privilege of having a monopoly for six or eight years is given with the clear indication that the public at large will be benefited as soon as the patent lapses, the drug is out of the market. So, I don't find any reason to support the suggestion for extension. The life of a patent should be seven years at the most, in view of the short life of new drugs.

Another point is that the product is put in the market under their own trade mark associated with it and even after the patent lapses, the trade mark always remains. So the monopoly still continues. I can give you a number of examples. The substance called Hetrozone is being produced by an Indian firm but this is sold by a foreign company under the name of their trade mark Hetrozone, though their patent has lapsed. The majority of the doctors know it only by its trade name and so they immediately prescribe it. So the monopoly continues. We were selling a product similar to Restinon at a much cheaper price. But all over Bombay, even in hospitals and in Government tenders, only Restinon is sought for. So the trade name is still existing and they still continue to get the benefit even though their patent has lapsed. There is no reason why once the patent right has gone, our product cannot be sold. In Japan, the patentees are asked to bring down the price of their products as technology develops. Instead of allowing a man to ask for licence, they always try to bring down the price so that other people are not attracted to take to that manufacture. But in our country this has not happened. They don't bring down the prices. For the last eight years, the same drug is being sold at Rs. 21 for 100 tablets.

Another point is that some people were saying that the life of a patent should be counted from the date of sealing. Now, 'date of sealing' is a very vague term. If the patent is applied for, then even the date of acceptance has got its time variation. Sometimes it is immediately when nobody takes any objection. Sometimes it varies from 1 to 3 years, sometimes 7 years. It is just possible if it is given from the date of sealing, that the persons of the patentee may even try to ask somebody to oppose and delay the matter. Under no circumstances, the period should be counted from the date of sealing. It is always from the date of filing the application. Patent protection right starts right from the date of filing. They take advantage of it right from the beginning. Therefore, it should be given only for 7 years and it should be from the date of application.

Another thing that I want to say is about "Patent of Right." Anybody desirous of operating the same can simply inform the Controller of Patents of his intention to do so alongwith remittance of modest fee and then start manufacturing. There has already been discussion on this. The parties have been trying to oppose this Bill or Act. They have been arguing that there should be a Committee or a Tribunal to decide; the patentee should also have a voice in the matter. This is again going to delay matters. If some trouble arises, it becomes very difficult to come to any conclusion with the patentees. They will be raising number of points

I would request you to look into this and at least have the provision in such a way that it is possible for any person to utilise the patent, develop the technology and have the licence very quickly. I had told this to some of the Members who visited my place—Haffkine Institute. Suppose I want to manufacture a particular produce because I find the prices have been very high and there is a possibility of technology developing here, I just work for 6 months and develop a product. Then what happens, I go to the Controller of Patents and if this Tribunal or Committee is going to be there and one or two years are going to pass, all my efforts of working on the technology of the product are brought to a naught. It is very difficult to first take the licence and then start the development of technology. If I take one or two years and I am not able to do this, people will say, I have taken out a licence but have not been utilising that licence. It is in everybody's interest that I must have the right to work on that first and then apply for the licence and I must be able to get it very quickly. That is all I have to say.

श्री ब्रज बिहारी मेहरोत्रा : हैफकिन इन्स्टीट्यूट रेस्टिनान के बजाये जो टेलबुटामाइड की एन्टी-डायबिटिक की टेबलट बनाई है, क्या वह उतनी ही इफेक्टिव है, जितनी कि रेस्टिनान है !

डा० झाला : रेस्टिनान और टैलबुटामाइड में कोई फर्क नहीं है । वह एक ही कम्पाउंड और एक ही कैमिकल है । रेस्टिनान एक ट्रेड मार्क नाम है, जो कि पेटेन्टिड है । हम ने कोई ट्रेड मार्क नाम नहीं लिया है। हम ने सिर्फ कैमिकल नाम रखा है।

श्री ब्रज बिहारी मेहरोत्रा : यह नाम आपने रखा है ?

डा० झाला : वह उस का कैमिकल नाम है वह नाम हम ने नहीं रखा है ।

ब्रज बिहारी मेहरोत्रा : आप ने पांच ग्रेन की टेबलट बनाई है या छोटी भी बनाई है ?

डा० झाला : ये दोनों एक ही किस्म और एक ही वजन की टेबलट्स हैं। हम ने दोनों की कीमत कम्पेयर कर के बनाई है ।

श्री रामसेवक यादव : आप पेटेन्ट के खिलाफ हैं । मैं यह जानना चाहता हूं कि जो मौजूदा कानून आप के सामने है, अगर इसमें संशोधन कर दिया जाये तो क्या उस से आप की आवश्यकता पूरी हो जायेगी । किस प्रकार का संशोधन करने से आप को प्रोटेक्शन मिल सकती है ?

Dr. C. V. Deliwala: Sir, the present Bill is alright except that whenever "Patent of Right" has to be marked, it should be possible to obtain the licence quickly.

डा० झाला : ज्वायंट सिलेक्ट कमेटी के सामने जो बिल है, उस में थोड़ी सी दुरूस्ती करनी चाहिये । इस बिल में पेटेन्ट राइट के लिये दस साल का पीरियड रखा गया है । हम चाहते हैं कि सात साल से ज्यादा पेटेन्ट राइट न दिया जाये । हम यह भी चाहते हैं कि जिस दिन पेटेन्ट फाइल किया जावे, उस दिन से सात साल गिने जायें—जिस दिन पेटेन्ट सील होता है, उस दिन से सात साल न गिने जायें ।

हम यह भी चाहते हैं कि कम्पलसरी लाइसेंस आसानी से मिल जाये । किसी चीज का पेटेन्ट निकाले जाने के बाद अगर यह मालूम हो जाये कि वह चीज कोई दवाई बनाने के काम में आती है, तो अटोमेटिकली पेटेन्ट आफ राइट मिल जाये जिस से किसी आदमी को वह दवाई बनाने में तकलीफ न हो । अगर कोई

दवाई किसी दूसरे देश में बनती है, और वही दवाई अगर कोई हमारे देश में बनाना चाहे, तो उस में कोई तकलीफ नहीं होनी चाहिये। अगर वह उस दवाई को जल्दी और सस्ती बना सके, तो उस को पेटेन्ट आप राइट मिलना चाहिये।

श्री रामसेवक यादव : क्या आप दवाओं और दूसरी चीजों में कोई फर्क करते हैं या आप दोनों के लिये एक ही समय जरूरी समझते हैं।

डा० झाला : हमारा सबमिशन सिर्फ दवाओं के बारे में है चूंकि हम किसी दूसरे फील्ड में स्पेशलाइज नहीं करते हैं, इस लिये हम ने दूसरी चीजों के बारे में कुछ नहीं कहा है।

Shri Kashi Ram Gupta: What is the total annual budget of the Haffkine Institute? And what amount is spent annually on research out of it?

Dr. H. I. Jhala: The total annual budget of the Haffkine Institute is near about Rs. 80 lakh. The staff that is given to me is a combined staff. It also does research; it also does production; it also renders public health service and also carries out other activities of the Institute. Therefore, it is not possible for me to say this very definitely.

Shri Kashi Ram Gupta: If the Research Department is given under your control and it is totally modernised, what in your opinion should be the outlay on such a modern research institute under preseat day circumstances?

Dr. H. I. Jhala: There already exists the C.S.I.R. Laboratory—the Central Drug Research Institute, which can be taken as an example and followed.

Shri Kashi Ram Gupta: Are you aware what is the total outlay on the C.S.I.R?

Dr. H. I. Jhala: The total outlay on CSIR is round about 11 crores, but I do not know the total outlay on the Central Drug Research Institute Lucknow.

Shri Kashi Ram Gupta: You are also engaged in commercial aspect of the drugs. You get patents. How many patents have you got at present?

Dr. C. V. Deliwala: Sir, we have taken about 12 patents.

Shri Kashi Ram Gupta: How many patents have you got at present?

Dr. H. I. Jhala: May I supplement the answer to the question. The patents that we take out are not with a view to have large scale production on the premises of the Haffkine Institute. The Institute does not want to produce large scale products for itself. It would lease out the patents and it leases out the patents by a public open auction or through a tender.

Shri Kashi Ram Gupta: How many patents have you evolved and how many evolved patents have been given out to the public?

Dr. H. I. Jhala: 12 patents have been taken out and we worked on the patents regarding sulpha compounds—I will tell you the number—and also we worked on the anti-diabetic drug patents and we are able to produce these drugs on the laboratory scale. Dr. Deliwala will supplement it further.

Dr. C. V. Deliwala: Sir, I would like to make it clear. If the information is put to public use it is better. In case where the foreign firms have been charging an exorbitant profit and when the drug is not available, we only work and carry out research for that particular product only and that is why the number of our patents is very small. The idea is only that.

Shri Kashi Ram Gupta: You have got 14 patents. I want only to know the period.

Dr. C. V. Deliwala: That has been during the last about 15 or 20 years.

Shri Kashi Ram Gupta: So, it means the commercial side of it is taken care of by the firm. Now, do you give at lumpsum money or they pay the royalty.

Dr. C. V. Deliwala: Well recently we have started the royalty system. When we started that then there was trouble and the case has been already going on before the court. Further, we are not motivated for producing drugs unless there is a specific need in the field or where high price is being charged. But having got the patent we try to manufacture for our own requirements on the pilot plants. In regard to the patent we have sold, whenever we have tried to sell a patent, there is always litigation and the court case is pending in the Bombay High Court with the result that the lessee has not been able to exploit it and supply the same to the country.

Shri Kashi Ram Gupta: My point is this. Out of these 14 how many have been given on lumpsum basis and how many on lease money?

Dr. C. V. Deliwala: The tender requires two things, *i.e.*, what will you give as an outright lumpsum to begin with and royalty every year.

Shri Kashi Ram Gupta: Those which are not under litigation are they being worked?

Dr. C. V. Deliwala: The current patent, *i.e.* tollmtamide is under litigation and it has taken 6 years. As far as the second patent about antidiabetic drug is concerned the preparation cannot be released until the first is cleared.

Shri Kashi Ram Gupta: How many patents are there which are not under litigation and they are being worked?

Dr. C. V. Deliwala: The earlier patents have lapsed. There is no possibility of exploiting the patents it has no commercial importance.

Shri Kashi Ram Gupta: What in your opinion, if a private sector firm is there, should be the outlay so far as the basic research is concerned in that firm?

Dr. C. V. Deliwala: I would like to give my opinion. I would not advise at the moment that all the pharmaceutical firms should take up basic research. What we want is that pharmaceutical firms should take up reasearch only in the development of the old drugs, develop the technology and bring down the prices. The work on the research of a new drug requires tremendous amount of money. It is a gamble. If you get, it is all right; if you do not then you are frustrated to carry out further research. So, initially for few years the pharmaceutical firms should do research on the development of technology and prepare the drugs in such a way that the drugs would be made available cheaper in the country.

Shri Kashi Ram Gupta: What will be amount required for such a laboratory?

Dr. C. V. Deliwala: This will not require much money. For whatever money they will spend they get the benefit from it. If they go for research blindly it is possible for these 10 years they may not get anything. Research is a gamble.

Shri Kashi Ram Gupta: Please see to page 3, first para from line 7— are the results of selfless and devoted research workers, clinicians, surgeons, pharmacologists, and other belonging to a host of disciplines of research who have shared, shared freely their findings, results of experiments, new discoveries and made them known by publishing all the details, the know-how, without

waiting for taking out patents, without expecting monetary gains. Even in United Kingdom, by tradition, inventions concerned in the medical and agricultural fields are not patentable. I want to know of which period you are speaking about these things.

Dr. C. V. Deliwala: Even today, Sir, if any surgeon devises a method to operate on heart, it is a research, his technology is not patented. He does not get any benefit. So a lot of clinicians, surgeons, biologists are not in the field. They have been working on the fundamental research and on the work they have done the neer drugs have been found out. Now realise the importance of that work. Behind the scenes a large amount of work is being done in the hospitals, etc. They have been working continuously to do something for the allevation of the human suffering. That is also research. But there is no patent. It is in this particular field that there should not be motive only to make profit.

Shri Kashi Ram Gupta: You have given us to understand that you are against the commercialisation of pharmaceutical industry. For this, taking over of all research by Govt. interests will be necessary. There should only be public sector industries, to produce medicines. The whole nation should be covered by compulsory health schemes. There will be no private selling. The whole population is covered by the health insurance schemes. Then all this profiteering will go away. Are you in favour of it.

Mr. Chairman: You put this question to the CSIR representative.

Dr. C. V. Deliwala: Excuse me I am not capable of answering it.

Shri Kashi Ram Gupta: You are against commercialisation then what else can be done? You say you are in favour of 7 years. Does it mean that those companies should have only light research?

Dr. C. V. Deliwala: I have put it down tentatively. In the earlier years they have been able to take out all the profits because they have been charging very high prices. Why we give patent to a person is because we want him disclose something which he has laboured upon and also that the public should get benefit of it some time.

Dr. C. B. Singh: Now from your statement it is seen that by your spending Rs. 80 lakhs—your annual budget—all the time your activity has been just to try to find out and copy from the drug products produced by the foreign companies which are sold at very high prices. Has that been your activity?

Dr. H. I. Jhala: In one of the departments, yes.

Shri C. V. Deliwala: In one of the Departments.

Dr. C. B. Singh: In one of the Departments?

Shri C. V. Deliwala: We have been doing work of new production also. But while working on this, we are going into the problem a little basically.

Dr. C. B. Singh: But, unfortunately, nothing has been done according to your statement. Hardly anything has been done. That is your own statement. Your main activity has been to bring down the prices of foreign drugs. This has been the reply given by you.

Shri C. V. Deliwala: It is a gamble.

Dr. C. B. Singh: We know that sort of thing very well. I was wondering and I thought that probably you must have devoted some of your time for the solution of some of the

problems. But your main activity has been entirely to bring down the prices of drugs which are being imported at a high cost.

You have been spending Rs. 80 lakhs every year for the last 20 years.

Shri H. I. Jhala: Eighty lakhs? Rs. 80 lakhs is not spent on research. There is a misunderstanding. This is the total. Only one Department is concerned with this activity, and there are other activities also. This is not quite correct.

Dr. C. B. Singh: Your own statement.....

Shri H. I. Jhala: I have made it clear now.

Shri P. K. Kumaran: Some witnesses have stated before this Committee that supposing the patent law is not there, in that case sub-standard drugs may come into the market and development may be hindered. What would you say?

Shri H. I. Jhala: That was in those days. Today, the Drug Controller is there. Any drug has got to be passed by the Drug Controller. It has got to go there.

Shri P. K. Kumaran: Can you suggest something to bring down the prices of manufacture in India, because they are costly. Can you suggest something.

Shri C. V. Deliwala: I have already suggested that it will be possible to reduce the cost of manufacture when there will be good competition. There should be no monopoly. Pharmaceutical firms invariably exploit the patent monopoly and charge exorbitant prices for their patented products. To justify this fantastic level of exploitation these monopoly firms often argue that they have to keep these high prices to recover the huge expenditure that they have always to incur in the research and development of new drugs. However, through investigations it has been found that the maximum expenditure incurred by these firms was only 6 per cent of the total sales on research whereas they spend as much as 25 percent of the total sales on propaganda and high-pressure salesmanship.

Shri Peter Alvares: We are all aweare of the national service of the Haffkine Institute. Dr. Jhala told us that the annual income of the Institute, as a non-commercial organisation, is a crore of rupees. Suppose they had commercially exploited their products, what would have been their annual income?

Mr. Chairman: How can he say that? It is a hypothetical question.

Shri A. T. Sarma: You have pointed that the prices of Indian drugs are cheaper than those of foreign products? Are they of the same efficacy?

Dr. H. I. Jhala: Yes.

Shri A. T. Sarma: Then why does not the Indian product have a proper market in India?

Dr. C. V. Deliwala: That because of the high power salesmanship of foreign concerns.

Dr. H. I. Jhala: Tolbutamide, for instance, was being imported by four or five firms from other countries for some years and they were selling it cheaper than the firm with the patent. The matter was taken to court and the import was stopped, and the patentees go on selling it at a high price. It is you who can remedy it. The litigation procedure should be curtailed.

Dr. C. V. Deliwala: They collect a lot of money by selling these drugs at a very high price. This money they again spent on their sales organisation. It is a vicious circle.

Shri R. P. Sinha: The witnesses said that 14 new patents were taken out by the Haffkine Institute, out of which two are under litigation. I would like to know whether any commercial benefit was drawn out of the other 12 patents they have taken out? Out of these 12, how many have you leased out?

Dr. C. V. Deliwala: None.

Shri R. P. Sinha: You were complaining a lot that patents are taken and not being worked. You have also done the same thing. In your experience, which time does it take for a new drug to get clearance from the clinical research of the Controller of Drugs?

Dr. C. V. Deliwala: That I will know only when I find out a new product. These were old drugs for which we have taken out patents.

Shri R. P. Sinha: When you have got a pilot project in your institute, can you tell me if you have ever tried to find out what time it will take to develop this into a commercial manufacturing stage? I mean the development of a known thing. I want your own Indian experience; not others'.

Dr. C. V. Deliwala: There are drugs and drugs. Some have got eight stages. If you want to develop a substance right from the basic chemical, it will take a long time.

Shri R. P. Sinha: What is the average time taken?

Dr. C. V. Deliwala: It will be six months to one year. It all depends upon the stages involved in the manufacture and the equipment required, etc.

Shri R. P. Sinha: You told us that the period must be five years. But there are several factors to be taken into account for bringing out a patent. If you do not have these under consideration, how can you tell us it takes five to seven years? I cannot understand it. You must give it from your own experience. We can also learn from others.

Mr. Chairman: He has no experience.

Shri R. P. Sinha: The witness has been saying that the life of a new drug is hardly five to six years. Then why does he recommend a patent for seven years. How can the public get the benefit if the life is only five years and when he says that the patent should last for seven years?

Dr. C. V. Deliwala: I am giving two more years leniently, so to say.

श्री चौरड़िया : मैं यह जानना चाहूंगा कि जैसा आपने बताया कि खोज करना एक गैम्बल है और आपकी बात तो दूसरी है, सरकारी काम है आपका, आपका तो बराबर जो भी खर्चा है वह सरकार की तरफ से मिलता है, मगर एक व्यापारी अगर इस गैम्बल के झगड़े में पड़े तो उसको उस की आमदनी रिकवर करने के लिए और कुछ खाने पीने का इन्तजाम करने के लिए कितने वर्ष की अवधि दी जानी चाहिए जिससे कि वह अपनी खोज का पैसा भी निकाल सके और अपने बाल बच्चों का पालन पोषण भी कर सके।

डा० झाझा : जो हाफकिन्स इंस्टीट्यूट है वह सरकारी डिपार्टमेंट है लेकिन वह भी अपना बैलेंस शीट कार्मशियल तरह से बनाता है। ऐसा नहीं है कि वह कार्मशियल तरह से अपना काम नहीं चलाता है। अपना कारोबार चलाने के लिए उसको भी कास्टिंग करनी पड़ती है, कैपिटलाइज करना पड़ता है, प्रोफार्मा एकाउंट वगैरह बनाना ही पड़ता है और हमारा यह ख्याल है कि उसके लिए जो आपने कहा, सात साल का समय जो है वह हमने उसका विचार करके ही बताया है।

श्री चौरड़िया : मैं यह जानना चाहूंगा कि गत सालों में आपने कितना रुपया रिसर्च पर खर्च किया और रिसर्च से जो आमदनी हुई उससे कितना प्राफिट किया।

डा० झाला : हमारा सब कम्बाइन्ड फंक्शन है। उसमें सेपरेट फिगर्स हम नहीं रखते हैं।

श्री चौरड़िया : अभी तो आपने कहा कि कास्टिंग भी आप करते हैं और सब एकाउंट्स उसी तरह रखते हैं तो मैं जानना चाहता हूं कि रिसर्च के सेक्शन पर आपने कितना रुपया खर्च किया और कितना प्राफिट किया।

डा० डेलीवाला : आपका पहला क्वेश्चन था कि एक आदमी सीधा सादा है, उसने कोई डिस्कवरी की तो उसको कितना टाइम लगेगा . . .

श्री चौरड़िया : मेरा पहला सवाल यह था कि जब आप इसको गैम्बल मानते हैं तो एक आदमी जब कुछ रुपया खर्च करता है तो उसको कितनी अवधि दी जानी चाहिए।

डा० डेलीवाला : यह पांच छः वर्ष में उनका एक्सपेंस निकलता नहीं है यह बात नहीं हैं। उनको वह भी मिलता है और दूसरा भी फायदा मिलता है। सबको देखा जाय तो ऐसा मेरा मानना है और कमेटी की रिपोर्ट भी है, सब लोगों ने जो स्टडी किया . . .

श्री चौरड़िया : आप अपना अनुभव बताइये, औरों की बात छोड़ दीजिए।

डा० डेलीवाला : हमारा अनुभव यह है कि हमारा रिसर्च तो प्राडक्ट डेवलपमेंट के लिए है, इसके बारे में हम को कुछ मालूम नहीं है कि एक परसेन्ट होगा या दो परसेन्ट होगा।

श्री चौरड़िया : आप तो रिस्क ले सकते हैं कि नयी खोज करने के बाद आपको एक पैसा भी प्राफिट न हो लेकिन व्यापारी कैसे यह कर सकता है।

डा० डेलीवाला : व्यापारी न ले यह हमारा कहां कहना है। व्यवस्थित ले, यह हमारा कहना है। 4 रुपये के माल का 400 रुपया लेता है तो यह कैसे ठीक हो सकता है। 4 रुपये का 8 रुपया ले, 10 रुपया ले, वहां तक हो सकता है। लेकिन हम एक गरीब देश हैं, इतना प्राफिट अगर वह ले तो वह ठीक नहीं है।

श्री चौरड़िया : साइंटिस्ट की हैसियत से आप जानते हैं कि किसी किसी प्राडक्ट में बहुत ज्यादा रुपया खर्च हो सकता है और किसी में कम हो सकता है जो कि एक वर्ष में ही रिकवर हो जाय। किसी में ऐसा खर्च हो सकता है कि दस पन्द्रह वर्ष में भी रिकवर न हो। तो ऐसी स्थिति में आप अपने आधार पर बताइए कि अगर आपका डिपार्टमेंट इन्डिपेंडेन्टली चले तो आप अपने खर्च की रकम कितने सालों में निकाल सकेंगे।

डा० डेलीवाला : हम यह समझते हैं कि जो बताया है उतने में रिसर्च एक्सपेंसज निकल आयेंगे। कमेटी की रिपोर्ट भी इस बारे में है।

Dr. H. I. Jhala: There is one statement which I made, which I thought I should clarify properly. I said that six per cent was the expenditure in my institute. I will just read out what is the exact position.

> "Even under liberal interpretation of research allowed by the internal revenue survey, research cost of 20 major drug companies represents only 6.4 per cent of the total sales dollar."

That was the point in my mind. There was rather a confusion of the

terms expenditure, output and outturn. So, I just wanted to clarify it.

Mr. Chairman: Thank you.

(The witnesses with withdrew)

(The Committee adjourned to meet again at 15.30 hours)

(The Committee re-assembled at 15.30 Hours)

III. Mr. J. F. Monnet, Chambre Syndicale Nationaledes Fabricants de Products Pharmaceutique, 88 Rue de la Faisanderie, Paris—16.

(The witness was called in and he took his seat)

Mr. Chairman: Mr. Monnet, whatever evidence you give will be printed and distributed to our Members of Parliament. Even if you want any portion of your evidence to be confidential, that will be printed and distributed to the Members of the Committee. We have received your memorandum and it has been circulated to all the members of the Committee. If you want to add anything or stress anything, please do so. Afterwards, our members will put some questions to you.

Mr. J. F. Monnet: Mr. Chairman and Members of the Committee, before entering into my expose, will you permit me to thank you for having accepted my request to come before you, which is a very great honour to my own person and which I consider a homage to my country that has had so good and friendly relations with you in the past and which will certainly be reinforced in the future. I have been particularly sensible to the fact that you in this country have created this hearing, calling for foreigners in a matter which might have been considered by you as really a national problem on which others should not have any say. It is the privilege of great nations and the privilege of great democracies to be able to take such decisions. I have not seen any similar decision being taken in the world except in the USA back in 1945 when I was called at a hearing on their Bill for extension of priority rights for patents that had been lapsing during the war. In that case, foreign countries were directly interested. Your decision in my opinion is the first of its kind and for this I pay my respect to you and to your Parliament.

Since all of you, members of this Assembly, have read my expose, I do not think it is necessary for me to read it again. It may be waste of time. However, I think some additional information, giving more details, might be of interest to you. In my first paragraph, I have mentioned that the patent system has as its first objective the industrialisation of the country where it exists. The advantages and benefits derived from the ownership of patents are subsidiary to this principal objective. In other words, to the inventor it is a lure to bring into the country his skill and knowledge. Many authors on this subject have often confused the picture by claiming that the patent is a monopoly granted to a certain individual or a company. It has to be clarified in the beginning that it is a temporary monopoly, just a facility given to him to help the industrialisation and development and the forward move of the country which grants him the patent. You have had the same idea, the same principles, when the patent law of 1911 was enacted, and it seems that you have experienced the same abuse from the patentees for which you are trying to find remedy. The same experience exists all the world over, and my purpose in coming before you is to put at your disposal the experience of a man who has lived forty years in the field of patents. I started my career in this field and I am still in

it. I lived with it for these forty years witnessing several changes the legislation has been subjected to in my country and also in other countries. I think this experience may be useful at a time when you want to polish up your own rules in view of the welfare of your country and also for aligning your legislation with the great principles and rules which are adopted in other free and liberal countries.

I now come to the French law. You have seen from my paper that the French law dates back to 1844, a time when industry in general was not very broadly developed, with our chemical world in complete infancy and pharmaceuticals practically non-existent. Therefore, you are not surprised that the French legislator did not provide in those days any special measures for chemicals to be put on the same category as any other industrial product. For pharmaceuticals, since at that time there was no question of synthesis of such products but there were only the products extracted from natural sources like opium etc., they decided that on those products there was no question of granting a patent which might act as a monopoly force and, secondly, as a way for some unscrupulous fellows to claim that with their patent they had some kind of a guarantee that their product is good and then make the patients and the public believe like that.

I do not want to add anything to what I have written about chemicals. As you have seen, since in other neighbouring countries like Germany they were reluctant to grant patents covering the products by themselves and had accepted patents only for the processes to manufacture them, many authors in France said that we were in an uncompetitive position with the Germans because when an invention is made in our country of a new chemical a monopoly is created and nobody else can enter into the manufacture of such products while in Germany the reverse is true. I may say that for a while this could find some support, and in respect of certain dyestuffs there was at that time a patent called the "verguin patent" covering dyestuffs unknown before, and since in Germany and Switzerland no patents could cover the same product, imitations were made in those countries which were not allowed to other manufacturers in France. This is the only example that might be quoted, but it has been certainly very broadly discussed in lawyers' circles and industrial circles.

Since then the chemical science has developed very largely and with the years it has been found that processes for the manufacture of a product could be devised besides those described in the patents without difficulty in using the skill of a chemist coming from the university, and in all the countries where patent is limited to the processes they have tried to find ways to apply the coverage of their patent more broadly than the processes which are actually described in it. I am sure that any German you may have had appearing here has told you all this story.

Therefore, in France, seeing this development in the countries of process protection, if I may call it this way, we finally decided that our law was not that bad, and the result has been that chemical industry in France has really tried with very big success in many cases under our system with the environment of this development of chemical science. I may add that in the final draft for the European Community which is going to apply to the six countries of the European Community, there is no longer any exception for the chemical products, and this is actually accepted by all the countries of the European Community except, I must say, the Italians, which have made some reserves regarding chemicals for pharmaceutical uses but these reserves are limited to a period of adaptation which has been

estimated so far by the Italians themselves to ten years maximum.

Now I come to pharmaceuticals. I have given you a broad outline of the development of our legislation in this field. May be, I should add to it some legislation which was not exactly within the subject but which might be of interest to you. There was a legislation which was issued in 1953 relating to compulsory licence of process patents for manufacturing pharmaceuticals. At that time, because of the pressure of the sentimental or emotional side in certain medical circles, instead of the mere application of the patents and compulsory licence after three years under the International Convention in a case where the patentee had not used his patent in the country, the French Government thought it proper to create for the pharmaceuticals a special system whereby compulsory licence would be open to claimants before the expiration of the three year period. So, it was done because of the worries of the medical profession. They say that these three years might be too long and it would be too bad that because of this limit of three years and because the patentee himself does not work his process and does not market the product, the people could not have the treatment they are entitled to. So that, this compulsory licence was instituted. The result has been very revealing on the side of the authorities for one reason. Since 1953 the development of this industry has been very remarkable. After the product has been invented, it takes a long time before you can market it and put it at the disposal of the population. The reason is that new products manufactured by synthesis are more and more potent. It is one of the grounds for their patentability that they should be an improvement on the past. Their potency is very often paid for by some toxicological effects which have to be very carefully studied and avoided. Since 1953 it is very seldom in my country—it has never happened in other countries that a product should be tested, studied, controlled and put on the market before these three years after the patent was issued. Therefore, this delay of three years, even if you cancel it, makes no difference practically for the pharmaceutical industry.

This legislation of 1953 has one particularity. It created conditions for the granting of compulsory licence. The compulsory licence was not open to anybody and for any ground. The conditions that were put by the legislation were that compulsory licence should be granted only if the patentee himself or his associate or licensee has not put on the market the product in sufficient quantities for the need of the population or if the prices were exceedingly high. Because of this legislation, it was in the interests of the industry to make the product in large quantities and put on the market only the best quality.

The question of price was raised only in one instance, namely, the case of Vitamin B-12. May I tell you that story, as there is nothing secret in it? Vitamin B-12 was made in France by my company under a licence from Merck and Company of USA, who were the patentees, and we were putting it on the market when another company in France claimed that our prices were too high. As a matter of fact, our price was the same as the price in USA and other countries of the world. But this party claimed that our prices were too high and they requested for a compulsory licence. Meanwhile, they started production. Unfortunately, because it was the beginning, very big investments were to be made.

Shri R. P. Sinha: What was the price of Vitamin B-12?

Mr. J. F. Monnet: The price at that time was 90,000 old francs a gram. In the United States also it was the same price. This third party put it on the market at the same price as ours. Therefore, the Commission, which was

in charge of granting the compulsory licence, said, "If you cannot prove that the actual user of the process makes an exaggerated profit by selling yourself at much lower prices, your case means nothing" and the licence was not granted.

Since then I may tell you that the prices of vitamin B-12 have come down very seriously. The price now is about 40 US dollars a grain, that is, 200 francs. You, gentlemen, might be surprised by such prices and such differences but the explanation is simple. Every time we have a new product coming from our researches, these researches as you may imagine are very expensive and apply not only to the products which are found successful but also products which we are obliged to discard for one reason or another. We have to amortise those expenses and we have also to invest in the facilities for manufacturing the new product.

When speaking of vitamin B-12 or any product obtained by a fermentation, the investments are very, very big indeed because the yield of the production is very small. To give you an example, in the preparation of vitamin B-12 by fermenting big fermentor the fermentations last for about four or five days and at the end of fermentation the extraction of vitamin B-12, which is a very long and complicated procedure, gives about 500 grammes out of 80,000 litres. That is what makes the price so high. After some years when the process is developed, when we have been able to put together several of these processes, improved the extraction of the product and amortised the expenses, we are able to lower the price and sometimes considerably. We industrialists have, as much as you statesmen, the care of the public health because it comes within our business and it is also a duty we feel very deeply. So, when we can lower our prices, we do it. You have probably seen that in this country, like in other countries, the products which are not under patents have their prices stable or even increasing with time while for all the patented products the prices have always decreased since their first entry into the market. This is a diversion for which I apologise but, I think, this example was of some interest to you.

Shri R. P. Sinha: How many old francs were equivalent to a dollar?

Mr. J. F. Monnet: 500 to the dollar in those days; but, since then, please do not forget that there has been a devaluation in France and the dollar representation is not quite accurate. However, it gives you an order of magnitude.

I have nothing special to add to the general principles of the invention in the field of pharmaceuticals. You have heard probably all the people who have come before you, giving you the general gist of it. The invention of the pharmaceutical product is more in the product itself than in the process being the application of known methods within the scientific field of chemistry.

Now I come to the remedies you thought of and the fear of abuse from the patentees of their dominant position. In France, we had this law of 1953 which has not been worked out. In 1960 a new law was enacted covering the products themselves. You might be surprised that France, starting from a state where no protection was granted in the field of pharmaceuticals, passing through a phase where the processes only for their manufacture were patented, finally in 1960 decided to cover the products themselves. For this, I think, the best information I might give you is the translation of some parts of the *Exposé des Motifs*, what you call in your book relating to the Bill, the Statement of Objects and Reasons. The title of the law is called, *The Reformation of the Regime of the*

Manufacture of Pharmaceuticals—I translate it very bluntly.

This reformation has for essential purpose a solution to two big problems. One is the protection of public health; how to avoid the marketing of pharmaceuticals not sufficiently studied out and, therefore, dangerous for the population. The other is of an economical and financial nature, the number of specialities and the protection of the inventor.

The solution of the first problem is found in the official control of the manufacturing techniques and of the raw materials and the final products before authorisation for sale. For what concerns the second problem, the solution is the creation of a special patent. This solution gives the answer to two pre-occupations. The first one is encouraging scientific research by giving the inventor a guarantee that he shall not be deprived of his invention. The second one is hindering the multiplication of specialities which is justly complained of in France by medical doctors, pharmacists and social security offices." If I may emphasize on this, in 1960, there was a proliferation of specialities under different trade marks and names containing the same active product. Medical doctors, pharmacists and social security offices complained of that situation because it was confusing. No medical doctor knew which of them to prescribe. Pharmacists had to keep very huge stocks unnecessarily since the same products were produced a hundred times. Social security offices were completely confused whether they should select this one or the other one or all of them or part of them. It was a complete mess. The decision of the legislators is well-justified in that sense.

"The patent system is the only means by which the inventor is sufficiently protected for the reward of research and it also prevents the unnecessary multiplication of identical products". I think I have given the gist of the French law and the reasons why it was enacted.

I am not going nor want to enter into several measures that you have provided in the Bill of 1965 for avoiding abuses of monopoly. But I may tell you that our experience has been really a long-range one on a great number of products and this experience has shown that in consequence of the mere threat of compulsory licensing which is refused, as I told you, on these conditions, namely, no delay in marketing, sufficient quantity in the market, good quality of the product and reasonable prices—these conditions being followed by all the inventors there has not been brought any action before the courts. No necessity has been shown of increasing the hurdles for the inventor, for it is also one of the purposes of the law, to put more and more new products at the disposal of the population.

Thank you, Mr. Chairman, that is all I have to say.

Dr. C. B. Singh: Mr. Monnet, you have just mentioned about the European Common Market and you have further mentioned that in Italy, while agreeing to the patent system, they have put in a period of 10 years. May we know why in Italy, where there was no patent in the drugs industry before, they have agreed to put in 10 years period before they completely come under your rules and regulations which you are making for the European Common Market?

Mr. J. F. Monnet: To answer this, I think, an Italian would be in a better position than myself. I am not an Italian and I have no contacts with the Italian legislators but from what I hear either on the side of industrialists or on the side of the people close to the Government in Italy, I imagine this delay was for adjusting progressively to the ideas in their

country to that protection. In a place where complete freedom towards protection has been practised, to take very strict measures which pass from one end to the other, it is very probable that the patent authorities have requested for this delay. I know and probably you may have heard it from the Italian representative who appeared before this hon. Committee that the drugs industry in Italy resent the fact that they cannot have any protection and have been claiming for the establishment of patents in this field. A draft Bill has been brought before the Italian Parliament several times for at least 15 years to establish patents in the field. But this project has unfortunately failed because the Government went out of power; the new Government came and had to take care of more urgent legislation and this is what has delayed measures in Italay so far. For the future they probably feel—not in the industrial circles nor in the scientific circles, but in the general administration circles—that a sort of progressive measure should be taken to be in complete alignment with other countries. They, as I told you already have fixed up to ten years. This request is already two years' old, which means 8 years are left from now.

Dr. C. B. Singh: From your experience in France, you have laid a stress on patenting products rather than processes. But we, in our Bill, have got slightly different ideas; we have, more or less, laid stress on processes rather than on products. With your long experience in this branch and in the modern study of chemistry, would you please tell us this: if, in our Bill we include process-*cum*-product for patent, would that be an improvement?

Mr. J. F. Monnet: You are free to legislate what, you think, is your best interest. My feeling is that by having process patent excluding the product, you will probably have the same embarrassment as we had in France at the time when only processes were patented. These embarrassments and sometimes injustices are as follows:—

In a process patent system, it is practically impossible that every possible process could be drawn and described in the same patent. Methods in chemistry are improving more and more at an accelerated pace and there is nobedy who can say, "well, there is no other method for the manufacture of the product of my invention and I feel safe". Therefore, what happens? Suppose an inventor of the product is a scientist in a University of yours or a scientist in another country. He will get the patent to cover the process he has invented. Then the patented product of the man who has had the genius, the idea of the product, who has tested it on animals, who has checked the value of it will come out. Then what will the competitors do? What will the industrialists do? According to their staff in chemistry, they will say, "look there is a Researcher who has invented a process for a wonderful product, but look what protection he is claiming. It is limited to that process. You fellows in the research division should take interest in devising other methods and other processes to make it." And these people will find processes within three months or six months and then the industrialists will apply for patents to cover their own processes. When the scientist, the man who has brains will go to an industritalist—because he himself is not an industrialist or has no means to set up an industry for exploiting that process—to grant a licence or to sell his invention, this industrialist will tell him, "my dear Sir, you have covered the process and I have to start in competition with the other industrialists who have their own processes; I cannot pay much for your patent." And the inventor will really be stolen of his invention.

Dr. C. B. Singh: In our Patent Bill we have, more or less left the appeal for any dispute, from the Controller of Patent Rights, to the Government

and we have done this for a special reason. Our experience has been that, on flimsy grounds, court proceedings have been going on and cases have been delayed for 10 or 15 years. What do you think about this?

Mr. J. F. Monnet: My answer, according to my own experience, is this. We, in France, have always a tendency—in the political circles as well as otherwise—to submit any dispute on whatever cause to the normal tribunals and courts because according to the procedure defence is assured the same conditions as the prosecution and a fair treatment is given in the courts.

I understand your objection—I would not say our courts give decisions rapidly unfortunately, we always complain about the slowness of our courts' disposal—the delay in disposal of cases by courts. In France we have a special procedure—I would not speak of any other country because I am not a lawyer—I am an industrialist—I know some problems not in sufficient details but I know how things happen in France. It is possible in France to claim, to ask from the Judge, in case where the interest of the parties or one of the parties is strongly at stake within a short delay, for a direct procedure which we call appeal at a fixed date. Then the court agrees to decide on that fixed date which is made up between the President of the Court and the parties or their representatives. That is how we solve this problem.

You will tell me that this is not a complete solution because there is always in France a recourse to the Supreme Court and therefore, the infringer has still a chance to take before the Supreme Court. I may tell you that an industrialist or a second inventor careful of his company's and of his money, if he has an action against the patentee and even if he has a just case for taking recourse to the Supreme Court against an adverse decision, at this stage puts a severe brake on his activities for if the chances are that his recourse to the Supreme Court will delay the decision he will have to pay increased money for the operations he is still conducting if he loses.

Dr. C. B. Singh: In your memorandum you have mentioned:

> "From the standpoint of economics, it might have been feared that the exclusivity thus granted to the first inventor of a pharmaceutical would lead to abuses, mainly to prices of pharmaceuticals at unreasonable and intolerable heights".

In this country the record is there that our prices differ from international prices; the prices are put up rather high by these patent holders. Under these circumstances when such abuses take place what will you suggest? We have got this compulsory licensing system. What will you suggest in your own way?

Mr. Chairman: He has said that he has no comments to make on this point.

Dr. C. B. Singh: I would like his opinion on that.

Mr. J. F. Monnet: You know our case. I may say just as I remember that my company or the subsidiary of my company who has firms in this country is not touched by your objection which shows that I do not have any experience of that.

Mr. Chairman: By and large do you agree with the provisions that we have made in order to present such abuses?

Mr. J. F. Monnet: Oh, Yes, Some remedy should be made for the abuses and you know as I told you, we do not have any absuses in France because in our law we have provided for this, especially in the case of excessive prices which is exactly what you are referring to right now. In

our law of 1960 it is said that a compulsory licence should be granted immediately if the patentee abuses his monopoly through excessive prices. What is an excessive price is a difficult point to decide and this sometimes may create confusion. I can give you an example.

Dr. C. B. Singh: You have mentioned Vit. B12. The initial price of Vit. B12 was Rs. 2000 per gram and now the price has gone down and it is Rs. 40 per gram.

Mr. J. F. Monnet. Yes, it has dropped substantially. Why? The reason is: When we start with a product we do not have the techniques to produce it in large quantities by simple processes. We have to put up very big installations for a yeild which is practically nothing. I told you that for getting 500 grammes we required 80,000 litres of raw material, and this amount we got after trying many different processes. Naturally, at the beginning the cost price is really high. As we go on improving the processes and as the yields increase due to researches and further trials, the price comes down. I was giving you the experience of Vit. B12 and you confirm it with your figures.

I may recall the penicillin story and I must add that penicillin was not under any patent. It was a free product. I remember, in 1945 when Penicillin came to our country it was not a pure product; and for a small bottle we had to pay two or three dollars. Everybody sold it at this price. There was even competition in this field. So penicillin started at this price. Then improvements were made and now you get a crystalline product which is pure. The prices are completely down.

Dr. C. B. Singh: Having in view experience of that type, what is the remedy for that?

Mr. J. F. Monnet: The remedy comes naturally by the fact that the pharmaceutical industry is obliged by their own sense of public health. They have to take care of that. Also there is the need of increasing their production. It is natural in any industry. When you produce in low quantities, you are never satisfied you should be able to produce in larger quantities and the common people should be able to purchase because there is no purpose in producing big quantities and find that only about 200 people are able to purchase the product. Then there is a natural tendency to lower prices. The prices of patented products have come down in many countries. For the other products the problem is different. And now, about your contention, there are some industrialists who, instead of yeilding to this natural trend of lowering the prices when they improve their processes, maintain their prices high. I agree with you. A remedy should be found.

Dr. C. B. Singh: Our experience has been that the prices of patented drugs have gradually been going down. What is the state of prices of pharmaceutical products which are not patented? I want you to compare the two sets of figures.

Mr. J. F. Monnet: Well, it is difficult to compare because by nature a patented product is new and it is not only new, but it has to be superior to the old ones; otherwise it would not sell. Therefore if you compare a new product to the old one either it is better than the old one or it would not sell, and in that case the patent itself should not have been granted at all.

Shri A. T. Sarma: What is the time prescribed for patent protection in France?

Mr. J. F. Monnet: It is 20 years from the date of application and this delay is exactly the same for the special patents for medical products. I know that you have a feeling that in the field of pharmaceuticals, this delay may seem too long. Maybe if

I had been 20 years younger or rather if we were 20 years before this year, I might have granted some merit in this. But now I am positive that the delay for pharmaceutical products has no reason to be shorter than that for other products for the simple reason that here, more controls are necessary for an invented product to be put on the market. When I speak of controls I speak of experimentation in biology, in physiologoy and clinical experiments. And you know how anxious are the health organisations in all countries—in the United States, in France, etc.—to be sure that pharmaceuticals do not have any tonic effects or side effects which might impair public health.

Shri R. P. Sinha: I would like to seek one clarification from the learned witness. He was talking about Vitamin B-12. You have said that the price of Vitamin B-12 dropper from 90,000 Francs to 40 dollars. You have explained the reasons also. I would like whether the price dropped down to the level they dropped as a result of the endeavour of your company or at that time the prices dropped because there were more than one manufacturers manufacturing the product under compulsory licence system.

Mr. J. F. Monnet: I do not think competition played any substantial role in this. Maybe there has been some but not initially anyhow. The fact is that, as I told you, at the beginning protection comes really when there is difficulty, but since, the processes have been very very substantially improved and with these improvement and with the desire to sell as much as possible of the product, the manufacture has been increased in quantities with better yields and then the prices have come down. You suggest a sort of competition. There is, in fact, some competition. I will tell you what I feel about it. That Patented products are put under some kind of monopoly. These monopolies are local. For instance in Vitamin B-12, the Mereck & Company were the patent owners for its manufacture in the U.S.A. We are the licencee in France. They have got a licencee in England; another in Germany and another in Holland and all of them follow their own policies of lowering the prices when there are improvements. Sometimes it happened that Vitamin B-12 was cheaper in the United States than in France and 6 months later we ourselves were able to make it at a lower price. There was no actual local competition, of course.

Shri R. P. Sinha: I would like to understand at what point of time, the Government of France thought it in the larger interest of the country to grant licence. I would like to know from you at what stage, how many years after the product was introduced.

Mr. Chairman: He has said 1960.

Shri R. P. Sinha: In 1960, Vitamin B-12 was introduced, am I correct?

Mr. J. F. Monnet: Vitamin B-12 went on the market earlier than this. Our patent law on pharmaceuticals dates back to 1960.

Shri R. P. Sinha: When was the compulsory licence for its production granted in France to other manufacturers?

Mr. J. F. Monnet: That was earlier than that. As I explained to you at the beginning of my speech, which covered what was not mentioned in my note, there was no basic change in the law itself. At this time we had the process patent only. Then legislation of 1953 simply created compulsory licences for these patents. Therefore the Action on Vit. B-12 was not based on a product patent but on a patent covering the process for its manufacture.

Shri R. P. Sinha: It is not very clear. I would like to understand this. Your Company, as far as I understand, was the holder of patent for the manufacture of Vitamin B-12. They started this manufacture in France. Am I correct, whatever may be the year? After how many years, compulsory licence for the manufacture of Vitamin B-12, after you started the manufacture, was granted to some other company?

Mr. J. F. Monnet: It was not granted. It was even refused. Anyhow the Action was started about 2/3 years after we went on the market.

Shri V. M. Chordia: German chemical industry is more advanced than the French chemical industry. I think so. Do you agree?

Mr. J. F. Monnet: I cannot agree. Excuse me, Sir, just one word I request, Sir, it may be off the record.

Mr. Chairman: Yes. It will be off the record.

Shri V. M. Chordia: The second question is how much royalty you pay out and how much royalty you get?

Mr. J. F. Monnet: This is another confidential question. I am sorry, Sir, I request that this should also be off the record.

Shri V. M. Chordia: How much royalty you pay out and how much royalty you get?

Mr. J. F. Monnet: Well this is another confidential question. I am sorry to request Mr. Chairman that this should be off the record.

Shri V. M. Chordia: I want to know of France as a whole and not particular of your Company.

Mr. J. F. Monnet: I have not seen any statistics of the breakdown of the licences granted and received in any particular field, especially in the field of pharmaceuticals and, there I am not in a position to give you an answer.

Shri R. P. Sinha: Is it possible for the witness to give a broad figure of the royalties paid out of France and received inside France. I am talking not only of pharmaceuticals but of all the patented products.

Mr. J. F. Monnet: I can give you a broad answer. It pays 600 million francs and it receives between 300 and 400 million francs. I have some remark to make on that because there has been very much publicity recently in several countries relating to this and the general consensus is that except for Switzerland all the important countries pay much more in royalties than they collect. Germany is one of them and France too. Some conclusions have been drawn, especially by lawyers etc., that this was a very dangerous situation. I think it is an exaggerated statement because the majority of licences are granted in countries where we do not work out our own inventions. For instance, when Rhone-Poulenc works out inventions in England May and Baker pays very nominal royalties. The economic balance is made by paying us dividends and profits. These dividends do not figure up in the statistics. The same applies in all the other countries and, therefore, these figures which might lead you to conclude that we are going to a catastrophe, I think, exaggerate the facts.

Shri B. K. Das: When there is any invention for which patent is taken in the pharmaceutical industry in your country does it pay to the scientist something extra over and above his salary.

Mr. J. F. Monnet: This is a very good question to me because there is in the origin of the inventions very many possibilities. In an organised research, that is, in our laboratories where we are organised—I will give you a general sketch this way—there are the chemists; there are the physiologists who are trained to test the chemical products; there are the medical doctors who take care of the

clinical tests. Now these people have meetings and for one reason or other the suggestion may come from one or other.

Mr. Chairman: The question is very simple, *i.e.* do you pay anything additional to the scientist?

Mr. J. F. Monnet: But, Sir, I have to explain how the origin comes and then I will tell you how we pay.

Mr. Chairman: You distribute the favours to all sections, *i.e.*, the man who experiments, the man who makes the tests, etc.

Mr. J. F. Monnet: Yes, Sir, the man in the chemical laboratory, sometimes there are many of them, the man in the testing laboratory, etc.

Mr. Chairman: What is the share of the scientist who has invented?

Mr. J. F. Monnet: The case of the scientist is different because when an invention comes from an outside scientist, which we have too, he is not within a collective organisation, he himself has got the idea of the product to make. Either we purchase his invention or pay the royalty.

Mr. Chairman: Is he paid by agreement?

Mr. J. F. Monnet: Yes.

Shri Kashi Ram Gupta: From your statement I conclude that the fundamental and basic research is also undertaken by the pharmaceutical industry in joint companies, and not separately by the Government Departments. Is it so?

Mr. J. F. Monnet: Yes. However, there is no difference between fundamental research and applied research. We are obliged to conduct both, and in the field of chemistry for instance, in the field of plastics, we have pure scientists in our own organizations. They derive general principles which may or may not apply which is really basic research. I may tell you, we have a laboratory devoted to atomic research which is conducting what you may call basic research.

Mr. Chairman: Are there no patents attached to them?

Mr. J. F. Monnet: No. There is no practical basis. You cannot say that anybody who will apply a particular formula will pay five cents or one dollar. That is impossible. Our theory in France is that scientific work is to be paid for itself, without consideration to the results. This research is on theories. It is subsidised also by Government in some cases. Very often you have probably heard that Germany is subsidising some Scientific laboratories. We do too.

Shri Kashi Ram Gupta: What is the general percentage of sales value that is spent on research in the pharmaceutical industry?

Mr. J. F. Monnet: By us it is 10 per cent of all the turnover.

Shri Kashi Ram Gupta: In the French Act, are there some clauses for having licences?

Mr. J. F. Monnet: We have not anything like that. Compulsory licences achieve the object they are meant for. Royalties are negotiable. There is nothing like fixed royalties. It depends upon the case.

Shri Kashi Ram Gupta: These days generally it is said that an invention goes out of use within ten years. Is it a fact?

Mr. J. F. Monnet: That's right. Ten years is an average a good-figure. However, I must confess that 10 years ago, this figure would have been slightly exaggerated. You have heard of the German product which has created monsters. This is the first time in the history of pharmaceuticals that a pharmaceutical has created

monsters. Since then, every new pharmaceutical that is invented or discovered needs to be tested from this angle, before being put on the market, which was not the case before. I can quote many other instances of that nature.

Shri Kashi Ram Gupta: I think you must have seen the model law by the BIRPI. At page 49, the model law states in the commentary that there can be patents for ten years from the date of the sealing of the patent. Are you in agreement with such classes these days?

Mr. J. F. Monnet: I do not agree now or the reason which I have already given.

Coming to the BIRPI model law or project, as other witnesses who have appeared before you must have told you, it is not a law by itself. It is a compendium of clauses which are offered to the several States interested in establishing a law on patents, with different types of clauses which they may or may not adopt. Some clauses may respond more than others to one's objectives. But the total restrictions which are enacted in the model law are not presented as a sort of a comprehensive system. In other words, the model law gives you some clauses which may meet certain objectives. For instance, take the question of the prevention of the abuse of monopoly by the patentee. They say in the model law that at the time of granting the patent, you may make provision for the grant of compulsory licences either generally or by limiting it to certain specific cases.

Shri Kashi Ram Gupta: This model law is for developing countries.

Mr. J. F. Monnet: I know; that is why I say that I completely agree to that law in this sense that each country, according to its state of development, may feel interested in this provision or that one.

Suppose you tell me 'We Indians are not interested at all in the pharmaceutical industry, we have other things to care for; our agriculture is much more important. We do not care very much whether people die of malaria or this or that disease; what we care for is the production of wheat, rice and—I do not know—what else. In between, we want to import pharmaceuticals also; and we want to import them without having any research of our own, without having any research work done here; we shall pay what we can, but we are not interested in having a pharmaceutical industry', then I would tell you 'Do not make any patent law for pharmaceuticals'. But if you have an idea that some of your scientists might be interested in having protection for their inventions, if you have any idea that in your country it would be sound to create a solid and self-sufficient pharmaceutical industry, then I would tell you to enact a law to protect those inventions, and to create an atmosphere which would appeal to the inventors to come and invest in the pharmaceutical industry in your country, but I would say at the same time that you should not put too many hurdles in the way.

Shri Kashi Ram Gupta: Are the pharmaceuticals produced in France consumed in the country to a greater extent than they are exported? Or are the exports more than the consumption in the home-country?

Mr. J. F. Monnet: If you mean the products of our manufacture in my country or in my factory, I may tell you that we export about 40 per cent of our production. If you mean the production by our licensees or other associates, then the figures are completely different, of course. Take, for instance, largactil which is the first tranquilliser that we have invented. This is sold in the USA ten times more than in France.

Shri Kashi Ram Gupta: Are there American patent-holders in your country, and if so, are they doing some research in your country?

Mr. J. F. Monnet: I was referring to a product of our invention on which we have patents in the USA, and which we have licensed over there. In France, the reverse is true; there are plenty of patents belonging to the American patentees, which are exploited in France either under a licence from the patent-owner or through a subsidiary of the American company.

Shri Kashi Ram Gupta: Have you got some patents in India?

Mr. J. F. Monnet: We have tried, but as you know, for the last five or six or seven or eight years, you have not been issuing any patents on pharmaceuticals, and therefore, we did not have to make any application for patents. But we are certainly interested in having patents and working them in this country either through our subsidiary or through licences.

But there is one point that I would like to raise at this time. In companies where there is a big research centre, very often, we make a selection out of the products that we invented and this selection is based on our estimation of the value of the best product that we could market. This selection is necessary for one reason only, but it is a good reason and it is that when you are in this business, it is not possible to promote in trade more than one or two new products each year; promoting the rest is more or less a fallacy. If each year you gave the commercial people twenty or thirty new products to market, they would not be able to do it. Therefore, we are obliged to select from our inventions. Among the products that we discard surely, there will be some which might be marketable by other companies which may not have the same selection as we have. As a matter of fact, we do not market all our inventions, and we do grant licences to other pharmaceutical houses in France for the products we have discarded for reasons which were not too serious. When we cannot market a product competing with others in our trade we go into competition by granting a licence to another pharmaceutical company.

Mr. Chairman: Thank you very much.

Mr. J. F. Monnet: I thank you and your associates here who have been listening to me patiently and who have made it possible for me, with my poor English, to give my evidence.

(The witness then withdrew).

(The Committee then adjourned).

Monday, the 11th July, 1966 at 09.40 hours.

PRESENT

Shri S. V. Krishnamoorthy Rao—*Chairman.*

MEMBERS

Lok Sabha

2. Seth Achal Singh.
3. Sardar Daljit Singh.
4. Shri Basanta Kumar Das.
5. Shri V. B. Gandhi.
6. Shri H. K. V. Gowdh.
7. Shri Kashi Ram Gupta.
8. Shri Prabhu Dayal Himatsingka.
9. Shri Madhavrao Laxmanrao Jadhav.
10. Shri Braj Behari Mehrotra.
11. Shri Chhotubhai M. Patel.
12. Shri Naval Prabhakar.
13. Shri R. Ramanathan Chettiar.
14. Shri A. T. Sarma.
15. Dr. C. B. Singh.
16. Dr. L. M. Singhvi.
17. Shri K. K. Warior.
18. Shri Balkrishna Wasnik.
19. Shri Ram Sewak Yadav.

Rajya Sabha

20. Shri Vimalkumar M. Chordia.
21. Shri Shyamnandan Mishra.
22. Shri Dahyabhai V. Patel.
23. Shri Mulka Govinda Reddy.
24. Shri R. P. Sinha.

REPRESENTATIVES OF THE MINISTRY OF INDUSTRY

1. Shri K. V. Venkatachalam, *O.S.D.*
2. Shri B. N. Atrishi, *OS.D.*

Dr. A. Joga Rao, *Controller General of Patents Designs and Trade Marks.*

DRAFTSMAN

Shri R. V. S. Perisastri, *Deputy Draftsman, Legislative Department, Ministry of Law.*

SECRETARIAT

Shri M. C. Chawla—*Deputy Secretary.*

WITNESSES EXAMINED

I. Dr. T. R. Govindachari, *Director, CIBA Research Centre, Goregaon, Bombay.*

II. *All India Drugs & Pharmaceuticals Manufacturers' Consultative Committee, Bombay.

Spokesmen:

1. Dr. Gurbax Singh, *Leader.*
2. Shri G. M. Parikh.
3. Shri R. Ganesan.
4. Shri B. S. Giri.

III. *All India Manufacturers' Organisation, Bombay.

Spokesmen:

1. Shri Hansraj Gupta—*Leader.*
2. Shri G. M. Parikh.
3. B. S. Giri.
4. Shri R. Ganesan.
5. Dr. Gurbax Singh.

} *Members of the Central Committee.*

IV. *Sarwashri G. M. Parikh, H. J. Vaidya and S. C. Nanabhai, Zandu Pharmaceutical Works Ltd., Bombay.

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1. Dr. T. R. Govindachari, Director, CIBA Research Centre, Goregaon, Bombay.

(The witness was called in and he took his seat).

Mr. Chairman: Dr. Govindachari, we are sorry we had to keep you waiting because we had to get the quorum. Whatever evidence you give will be printed, published and laid on the Table of the House. Even if you want something to be confidential, that also will be circulated to the members of the committee. We have received your memorandum. It has been circulated to all the members. If you want to make any new points or to emphasise any particular point, you may do so. Afterwards, members will put you questions.

Dr. T. R. Govindachari: Let me first of all thank the members of this committee for giving me an opportunity to present my views personally before them. I am the Director of the CIBA Research Centre, Bombay, set up 3 years ago to carry out research on pharmaceuticals and dyestuffs.

I would like to ask three questions and answer them myself. First'y, are

*Their Evidence was read together.

patents essential at all in the pharmaceutical field? My view is they are absolutely essential. Secondly, is the period of 10 years suggested adequate or not? I feel it is absolutely inadequate.

The third question is whether process patent should be granted or product patent. I feel that product patents are absolutely essential and process patents, in my opinion, are not adequate.

Let me explain these three points. First of all, talking from personal experience as the Director of the first laboratory for research set up by private industry in India—this was set up in 1963—I may say that we started operating on 1st January, 1963 though our laboratory was declared open by the late Prime Minister on 21st March 1963, with an investment of Rs. 3 crores and our annual recurring expenditure has been of the order of Rs. 50 lakhs. During the last three years we have made about 4000 new substances which have been tested—biological activity. We have filed nearly 20 patents. Of the 4000 substances which we have tested, only one substance has been sent for clinical trial. That was almost ten months ago. Two other substances have been sent for clinical trial two months ago. Probably, in the next year we may be sending out some three substances more for clinical trial. In all, out of 4000 substances which have been tested, hardly six or seven have a possibility of being used in the clinic. Even out of these six or seven, how many will actually prove to be effective as a drug is a matter which is open to question. My estimate is, it takes at least a minimum of 6 to 8 years, from the point of synthesis of a new substance with potentialities of becoming a drug to the point where it becomes a commercial possibility. In our own experience—we have been operating for more than 3½ years—only one substance which we made about 2 years back and found to have some pharmaceutical possibilities has been tested in the clinic during the past ten months. These tests have now to be enlarged and that will go on for another two or three more years before we can take a final decision whether it is worthwhile to introduce this drug at all. You can see, therefore, the enormous effort and the expense needed for the development of a new drug. If it takes 6 to 8 years to develop a new drug, you can imagine, by limiting the patent to ten years you hardly give any time to recoup the investment which has been made. New drugs will never come out unless you have vigorous and broad based research work activity. This is the first instance in India of CIBA setting up a research unit, and it may be that by the time we come out with a new drug we would have spent at least Rs 10 crores to Rs. 15 crores. In all possibility the drug may not be a commercial success and we may not be able to recoup the investment. If we are very lucky, very fortunate in hitting upon something which is widely sold all over the world, then we may be able to recover the investment made. Also, our drug research is not aimed particularly to Indian needs the research is aimed at producing drugs that will be useful all over the world. Therefore, if the drug is successful, it is bound to give us back, in terms of royalties, foreign exchange also. The only hope which people who invest money have is that some successful drug will come out. Unless you have patents there is absolutely no way of recovering the investment made. After all, what should go to shareholders is being spent for research now in the hope that something will come out which will reimburse the investment. I feel, therefore, that patents are very essential if we are to stimulate research in India in this particular field. In the present law we have protection for 16 years. That is essential if there is to be any inducement for other pharmaceutical firms to start research on this scale.

Then I come to the question about product patent versus process patent. The apparent cause for advocating the latter is, if you have the process patent you do not protect the product at all. Somebody else may come out with a cheaper process for the same drug and make it available to the public at a cheaper price. This, I think, is not completely correct because any person who discovers a new product is not going to leave any loopholes, is going to think of all possible and conceivable methods of making a particular product. Somebody else may claim that he has developed a new alternate, cheaper process. He would claim that he is making the product by the new method. But as I explained earlier, it is unlikely that he has a cheaper process. In fact he may be making it by the original method and there may be no way of proving it. This will only lead to abuse of the patent system instead of helping the man who has invested so much time, effort and money on research.

These are three points that I wanted to make clear If there are any questions I would be happy to answer.

Shri Kashi Ram Gupta: In your memorandum you have said that on a scientist you spend about Rs. 1.5 lakhs to Rs. 2 lakhs. The picture you have given roughly comes to this that for research in an industry it requires a crore of rupees. Am I correct?

Dr. T. R. Govindachari: It depends upon the size of the research unit. We calculated that roughly it takes Rs. 1.5 lakhs per scientist. You must have a minimum size. You cannot have one or two people working and expect them to produce any result. You have to have a particular set up wherein there are 10 or 15 people working together, to inter-act and stimulate each other. If you have only one or two people struggling by themselves, there is not even cross-ventilation of ideas. We are in a new place. We spend Rs. 50 lakhs a year on our recurring expenditure.

Shri Kashi Ram Gupta: You said that there should be 20 senior scientists, assistants and so on. It may even go to Rs. 1 crore and not Rs. 50 lakhs.

Dr. T. R. Govindachari: We cannot immediately start on a larger scale. We have started on a scale which we believe will produce results. If the results are encouraging we will expand.

Shri Kashi Ram Gupta: Generally it is said that 3 per cent of the sales is spent by the industry on research. Your industry must have about Rs. 15 crores output yearly. It means, naturally, that this industry should flourish in this country. It has a very high capacity to produce and a huge amount should be invested. Is that the picture of the industry in this country?

Dr. T. R. Govindachari: Actually I would say, 3 per cent is not correct as far as pharmaceutical industry is concerned. It may be that other industries spend of that order, but pharmaceutical industry spend much more than any other industry I am not a commercial man, and I do not know what relation it bears to the actual turnover of CIBA.

Shri Kashi Ram Gupta: You have said that ten years will not suffice. Is it from the date of application or from the date of specification?

Dr. T. R. Govindachari: Date of application. After one year you have to file complete specifications. Actually we have filed about 18 patent applications so far. Of these 18, we have submitted three or four in the course of one year, and more work has shown that some compounds which we sought to protect by patents may have undesirable effects and may

not find use as drugs; in these cases no useful purpose will be served by holding on to the patents. So, even when we take a patent its survival cannot be taken for granted. It is not unusual that even though the initial results with some compounds are encouraging, when we do more detailed studies we find that they are not as useful as we thought them to be and we drop the patents.

Shri Kashi Ram Gupta: You are suggesting 15 years from the date of completion of the specification?

Dr. T. R. Govindachari: From the date of first application.

Shri Kashi Ram Gupta: If we give ten years after the date of grant of the patent, have you any objection to that? It will be ten years from the date of sealing.

Dr. T. R. Govindachari: I think it would be inadequate. We have a drug with anti hypertensive activity which is being tested in the clinic. It seems to be promising in the preliminary trial. We have tried it for the last ten months on some 35 patients. We know the drug is well-tolerated when it is administered for a period of two or three weeks but, then, these anti-hypertension drugs have to be administered practically throughout man's life. So that, we cannot use or take for granted the results of short-term toxity until we carry out extended studies for one year. This involves feeding the drugs to anima's for a period of 6 months to one year or more to see whether it is safe for chronic use in human beings. We have not started such a chronic toxity study yet. Even if we start the study tomorrow, it will be only one year later that we will be able to try it on an expanded scale in the clinic. Then we should gather data from a 1,000 patients which may take another three years. So, from the time of getting the patent it will take 7 years to introduce the drug in the market. Therefore, a ten year period is too short.

Shri Kashi Ram Gupta: You want 15 years from the date of application. We are giving ten years from the date of sealing of the patent. So, it will come to the same thing.

Dr. T. R. Govindachari: I have no experience as to how much time it takes after the first application to the date of sealing a patent, because we have started only three years ago.

Shri Kashi Ram Gupta: You say that we will be able to export our drugs. But up till now we have not produced even those drugs for which patents are originating in this country. So, how can we think of exporting at this stage?

Dr. T. R. Govindachari: We have filed our patents in 27 countries. If the drugs prove useful and successful, if they are superior or as good as existing drugs for particular ailments, there is every chance of their being exploited internationally. In that case, CIBA of India, which has made investments, will get royalties from those countries.

Shri K. K. Warior: I would like to know whether the patent right gives you a monopoly of the market.

Dr. T. R. Govindachari: Yes, monopoly as far as that particular drug is concerned, for a period of ten years.

Shri K. K. Warior: What kind of control would you like the Government to have so that the price charged by the company is reasonable to the consumers?

Dr. T. R. Govindachari: The pharmaceutical industry is a highly competitive industry. There are at least a dozen firms which are spending enormous amounts of money on research and which enforce the highest standards in the preparation of drugs. If our drug does not compare favourably with other drugs, there is absolutely no chance of its getting a market. We have always to make sure that our drug is as good as, if not better than, other drugs in the market. Also, we have to sell in a highly com-

petitive market. Suppose the price of our drug is ten times the price of another drug of almost the same quality and effectiveness, nobody will buy our drugs. So, the prices have to be reasonable. At the same time, it has to be remembered that enormous sums of money which could have been paid as dividend to the shareholders are being ploughed into research. So, at least at a future date, the shareholders must get back that money. Further, I do not think anybody can afford to charge an excessive price. Then again, in the case of every important drug in the first two years they try to recoup the money that they have spent on research. Later on, the prices come tumbling down to 30 or 10 per cent of the original price. This has happened time and again. Also, there is always the danger of your being overrun by somebody else with another superior product.

Shri K. K. Warior: It has come to our notice that some of the drugs patented in India are not produced here but actually imported into India as end product. The Indian price of those drugs is four times the international price. The international price of such drugs has been fixed after taking into account the money spent on research etc. The Indian consumer of such drug is precluded from getting them at the international price. What protection should the Indian consumer be given in such cases?

Dr. T. R. Govindachari: Naturally, I have no idea of the commercial aspect. But I could tell you that the prices in India are high because we do not have any organic chemical industry.

Shri K. K. Warior: I am referring to imported products, not those things which are produced here. And they are imported from countries where the chemical industry is far advanced. They have the know how and they have recouped their expenditure on research. They are selling their products in India at four times the international prices.

Dr. T. R. Govindachari: I cannot tell you, because I have no idea.

Shri K. K. Warior: We could also get those substances at those prices but, then, the patents come in the way.

Dr. T. R. Govindachari: I would answer this question this way. Suppose there is no patent. With the present state of affairs in India, when there is no organic chemical industry, is it conceivable or possible to prduce drugs at a cheaper price? It is impossible, because we do not have a fine chemical industry on which the pharmaceutical industry can depend for its intermediates. Take benzene which is a primary starting material. It costs in India ten times the price obtaining in other countries. So also the prices of sulphuric acid, nitric acid and caustic soda. So, suppose you abrogate or abandon patents and start producing them yourself, you are not going to produce them at cheaper cost. I can assure you that. Secondly, the abrogation of patents will stop whatever incentive there is for research to come up in this country.

Shri K. K. Warior: I was not refering to the import of raw material or intermediates but finished products which cost four times the international price in India because some companies have monopoly rights in them through patents. Could you suggest some way by which the Indian consumer will not be exploited?

Mr. Chairman: He is a scientist. He cannot speak on prices.

Dr. C. R. Singh: I am glad that you have laid stress on research. I am also glad that you appreciate that hardly any research is being carried out in India, either in the drug laboratories or in the Government institutions. What is the reason for lack of progress, so far as new drugs are concerned? Why is it that the Indian scientist has not been able to produce worthwhile results?

Dr. T. R. Govindachari: The main reason is that the scientific research in this country got impetus only after Independence. Before Independence, there was practically no interest in

research at all. Of course, the C.S.I.R. was started before Independence but it was just a very nominal thing. It is only after Independence that we have really made some progress. It takes time for a proper climate to be created. I feel hopeful that if you encourage research by encouraging private sector also along with public sector to set up research laboratories, we can still make good progress. We have the people and we have the ability. It is only a question of time before we can catch up. The more important thing is the question of organisation. It is not merely enough to have good people. You must be able to put them together and give them all the facilities without interfering too much. You must give them some amount of freedom. It takes time. In our country, the administrative outlook has been quite different so far because it has been striving to maintain the *status quo*, to keep things just going as they were.

Dr. C. B. Singh: You have used the word 'freedom'. I would like to know whether there is something which is interfering with your work.

Dr. T. R. Govindachari: For example, in my Institute, nobody tells us what to do and what not to do. We have taken up an assignment to produce drugs and all our ideas and all our efforts go into that. Nobody tells us, "Don't work on this problem or on that." We just do what we like Nobody questions us whether we spent more on a particular thing. We have the freedom to spend as we like.

Dr. C. B. Singh: I agree on that. You know that more than 6000 Indian scientists are abroad and they are unwilling to return back to this country.

Dr. T. R. Govindachari: Yes.

Dr. C. B. Singh: Why is it so?

Dr. T. R. Govindachari: It is because we still do not have enough laboratories and enough research institutions in a country of our size and our population.

Dr. C. B. Singh: What about their emoluments and other facilities that the scientists get in this country?

Dr. T. R. Govindachari: There also, comparatively, they are much lower at present.

Dr. C. B. Singh: I thought you will say so in a direct manner. You don't reply in a direct manner. Their emoluments are poor. That is my impression also. Apart from that, is there anything else that is standing in the way?

Dr. T. R. Govindachari: Adequate research facilities are also not available.

Dr. C. B. Singh: Agreed. Suppose we create a cadre for our scientists. You know that a scientist can at the most become a senior Research Assistant or something like that. They go from pillar to post and they have no future. Every scientist cannot become a Director and has the highest powers and all the amenities. So, a really good scientist can at the most become a senior Research Assistant or a research worker in our national laboratories or in other departments. Is that correct?

Dr. T. R. Govindachari: That is true. Recently, the C.S.I.R. has initiated steps whereby at the end of five years, they are automatically promoted to the next higher cadre.

Dr. C. B. Singh: Exactly that is what I am coming to. So, you are in favour of having a cadre for the scientists.

Dr. T. R. Govindachari: Yes.

Dr. C. B. Singh: You have mentioned in your memorandum that this CIBA Research Centre is spending Rs. 50 lakhs. May I know what is the annual turn-over? I do not want to embarrass you. If you do not want to reply, you need not reply. Actually, I want to know what proportion of the turn-over, on an average, a pharmaceutical firm spends on research.

Dr. T. R. Govindachari: Honestly speaking, I have no idea.

Dr. C. B. Singh: All right. You being the head of the Department do not know how much is spent on research.

Dr. T. R. Govindachari: I know how much I spend.

Dr. C. B. Singh: According to you, what proportion of the total turn-over will be a reasonable amount for a pharmaceutical firm to spend on research?

Dr. T. R. Govindachari: It has been suggested by many experts that it should be about 10 per cent. That has been suggested all over the world. I think some pharmaceutical firms are spending much more in other countries. The other industries may not be spending that much. But pharmaceutical industries are entirely based on research. Some may be spending more than 10 percent.

Dr. C. B. Singh: You are only a scientist. So, I will not ask many questions.

Now, about the product patent or the process patent, there is a lot of controversy going on. We are at the moment concerned with the process patent. Do you think the process patent is not sufficiently effective?

Dr. T. R. Govindachari: I feel that is not effective.

Dr. C. B. Singh: Why? You are a scientist and you should give a scientific explanation.

Dr. T. R. Govindachari: When a particular research unit develops a new product, there may be 25 different ways of making this product and any intelligent group of people working on a particular product will certainly think of all the conceivable methods of making that particular product and cover it by a patent. Supposing somebody comes along and says that he has made it by an entirely new process, it is very difficult to check it whether it is true or not.

Dr. C. B. Singh: Supposing we stick to our ground of having a process patent, would you like to have any safeguard sagainst that contingency which you have mentioned? Would you like us to incorporate a provision whereby the burden or proof will lie on the other person and not on the patentee? As the things stand now, the burden of proof lies on the patentee himself. Would you like to have a safeguard by which the burden of proof will lie on the other person proving that his process is entirely different?

Dr. T. R. Govindachari: That will be preferable. That will be a definite improvement. Actually, I do not feel very happy about the process patent.

Dr. C. B. Singh: That is all right.

Shri Dahyabhai V. Patel: I do not want to know any of your trade secrets. I would like to know from you only this. Since it is a well known fact that the Indian system of drugs and medicines is mainly confined to plants and mentals—the Ayurvedic science—are you conducting any research on some of the known specific Ayurvedic remedies?

Dr. T. R. Govindachari: We are doing a lot of research on Indian medicinal plants. During the last three years we have screened nearly 300 plants which are said to have medicinal value. Although we have not been able to show on experimental animals that they are effective—so far we have no encouraging results we have isolated several important compounds which have very interesting biological activity and which, if pursued in the next 5 or 10 years, may lead to something very new. So we are doing active work on the medicinal plants of India.

Shri Dahyabhai V. Patel: Are you not doing anything on the metallic side?

Dr. T. R. Govindachari: We are not doing anything on that side. We are doing just on medicinal plants.

Shri Dahyabhai V. Patel: You do not feel very much encouraged by what has been done so far? Is it in a stage where you are not able to say anything?

Dr. T. R. Govindachari: We have taken up several indigenous drugs, for which many claims have been made, for example, anti-diabetic drugs. But actually we have not been able to show on experimental anima's that they are very effective. Still I would not say that all the work is a waste because we have been able to isolate many compounds which have very interesting biological activity and which may prove to be of great value; if pursued further.

Shri A. T. Sarma: According to Clause 53 of the Bill, the term of the patent for drugs and medicines will be ten years and for other inventions, fourteen years. In your Memorandum you have clearly stated that the time limit for patents provided in the Bill should be abandoned. But now you have tendered an evidence that ten years would be insufficient. Can you give clearly your idea about this?

Dr. T. R. Govindachari: The present patent law gives protection for 16 years.

Shri A. T. Sarma: My point is this. In the Memorandum you have suggested total abandonment of this Clause, i.e.,

> "the proposed curtailment of the validity period of a patent be abandoned".

Dr. T. R. Govindachari: Yes; that is my view.

Shri A. T. Sarma: But now you suggest that the period is not sufficient. There is a vast difference between these two. I want to have your clear idea about this.

Dr. T. R. Govindachari: The existing patent law gives protection for a period of 16 years which, I think, is a reasonable period. The proposed patent law reduces it to ten years. I feel that it takes at least six to eight years to develop a new drug and the persons producing a drug will hardly have two or three years at the most to get anything out of their discovery and so, the period of ten years is very small.

Shri A. T. Sarma: Do you want 15 years?

Dr. T. R. Govindachari: I want the existing period of 16 years to continue.

Shri A. T. Sarma: Here these ten years and fourteen years have been calculated from the sealing of the drug. According to you, almost seven to eight years would be gone from the time of filing a patent to the suecessful introduction of a new drug, and so you have suggested 15 or 16 years. The Bill actually provides for ten plus seven years for drugs and medicines and fourteen plus seven years for the other inventions. So I think you will be satisfied with this provision.

Dr. T. R. Govindachari: The present Bill does not satisfy me.

Shri A. T. Sarma: You want 15 or 16 years from the date of filing whereas we have provided from the date of sealing.

Mr. Chairman: Mr. Kashi Ram Gupta has already asked that question and he has given an answer that ten years from the date of sea ing would be sufficient.

Dr. T. R. Govindachari: What I feel is that it depends on the date of sealing. Suppose we file a patent this year and it is sealed in two years' time; that means, we do not get more than 12 years. So it depends on how long it takes to seal the patent.

Shri R. P. Sinha: I would like to know from the learned witness as to what kind of research is being carried on in his Institute. We are told that there are three types of researches—basic research, product development

research and formulation research. Are all these types of researches being carried on in your Institute or only one or two?

Dr. T. R. Govindachari: In our Institute, we are doing only basic research. We are not interested in product development or formulation at all. CIBA of India has a factory producing pharmaceuticals and there they do the product development, but we are concerned only with developing new drugs and we do not bother about processes for the existing drugs. All our efforts go into discovering new drugs.

Shri R. P. Sinha: I would also like to know from the learned witness whether there are other such institutes carrying on similar basic research on pharmaceuticals or CIBA is the only concern which is carrying on this type of basic research.

Dr. T. R. Govindachari: As far as the private sector is concerned, CIBA is the only place where research for the discovery of drugs is done. In the public sector, we have the Central Drug Research Institute, Lucknow, which has been working for the last 14 years, and where they are doing work on developing new drugs. The Regional Research Laboratory, Hyderabad, has also a small section working on discovery of drugs.

These are the only three institutions where some effort is made for doing basic research in pharmaceuticals.

Shri R. P. Sinha: Is there any liaison or close co-operation between your Institute and the Central Drug Research Institute and the Regional Research Station at Hyderabad?

Dr. T R. Govindachari: We do not have any direct connection at all. But I was on the Executive Council of the Central Drug Research Institute for several years and I have visited the Regional Research Laboratory, Hyderabad, very frequently purely on a scientific basis for addressing meetings, working on selection committees and things of that sort. But with day-to-day working there is no liaison because the research which we do or the research which those people do is kept confidential. As far as new developments are concerned, they or we would like to have the credit for making new discoveries; if it is widely known, then we lose all the credit.

Shri R. P. Sinha: Do you mean to say that it is the usual practice in foreign countries also that the different research institutes carry on their work in isolation, in secrecy, and they do not share their research development programmes?

Dr. T. R. Govindachari: Two types of work are carried out in all these institutions: first there is the basic research which may bring about new reactions and which is published widely in scientific literature; then there is the actual practical evolution of drugs on which some very useful information has been obtained and which may be of practical value and this is kept confidential till the time of introduction because it is a question of investment of money in research and people expect some return for all the money that they have spent; they do not want a competitor to steal their ideas and by using those, produce the thing a few years ahead of the original discoverer. It is a common practice in all such cases, where things which may be of practical value are concerned, to keep the information secret.

Shri R. P. Sinha: The witness has said just now that he was on the Research Committee of the Indian Drug Research Institute for several years. I would like to know as to what his experience is; what type of work is being done there, whether they have evolved any worthwhile drugs and taken out any patents?

Mr. Chairman: We are going there.

Shri R. P. Sinha: I would like to know his views, Sir.

Mr. Chairman: He is only on the Executive Committee. I do not know whether he can answer your question.

Dr. T. R. Govindachari: Actually the Executive Council has the task of making grants and sanction of expenditure and also going through the research programme. I think the CDRI scientists have also been quite active and doing good work in several fields, especially medicinal plants and also in fertility control. One thing really difficult in India is the translation of the laboratory results to actual clinical practice especially in this field; it requires a great deal of experience. To tell you frankly we ourselves are facing a great deal of difficulty in getting our drugs tested properly because in India the tradition of developing our own drugs is new. The drugs which have been introduced in India have all been tested thoroughly in other countries and only when they are absolutely sure of the results, they are handed over to the Indian dealers. Production of new drugs entails a lot of responsibility and enormous amount of time and money. Unfortunately, we have yet to develop that mentality in the clinical profession and try out our own drugs.

Shri R. P. Sinha: From what you have just now stated it appears to me that clinical testing in this country will take longer time than the clinical testing in advanced countries. Have I correctly understood you?

Dr. T. R. Govindachari: You are absolutely correct because it is a question of getting our clinical people to take interest. They are very very busy people, the top people. We cannot afford to have our drugs tested by ordinary physicians. We would like it to be done by the most competent people and generally the most competent people are also the busiest people in our country. You know our problems are much more and the number of obstacles is much more and the doctors are less in number and consequently there is greater pressure on them than on the doctors abroad. Clinical trials will actually be the biggest obstacles in developing new drugs. Recognizing this need, the CSIR has actually agreed to set up clinical trial units in various parts of the country. They are prepared to give grants so that the best physicians, who are very busy people, may employ more assistance. Even in the research laboratories of CSIR they have this difficulty. In their research laboratories thousands of compounds are being prepared but they are inadequately tested. The first stage of developing a drug is screening in animals; for this purpose, a good sized animal house with facilities of breeding and maintaining colonies of different species of animals is necessary. Adequate facilities are lacking in this respect in the CSIR laboratories. After effective animal testing, come clinical trials. This is a bigger problem and the CSIR itself has realised that it is very difficult to get this done. So they have mooted the idea of having clinical units in various parts of the country. Actually one such unit has been set up in Bombay under Dr. U. K. Sheth at the KEM Hospital. Like that they are setting up other units also. So, clinical trials constitute a big stumbling block in producing the new drug. Therefore the delay in developing something new is going to be even more than what is normally estimated abroad.

Shri R. P. Sinha: Could you give us information as to how much time it takes after taking all factors into account and the difficulties also, for completion of the clinical research and the establishment of the drug clinically in this country and how much time it takes in other advanced countries, because this will have a direct bearing on the decision we will take on the period of patent?

Dr. T. R. Govindachari: The question is rather difficult to answer. So far not a single drug has been developed in India. We have only borrowed from other people and put it in the market. In other countries it takes a minimum of 6—8 years from the time of discovering the biological activity. I feel it will take at least 2 more years here. From my own

experience, we have a compound which is supposed to be a very good anti-hypertensive drug. For the last one year we have been able to get only 35 cases and now we are trying to get it tested more actively in several other centres. The physicians tell us that they would like to have a longer trial extending over a period of 6 months. That means that it will have to go back to the laboratory for chromic toxicity study in animals and it may take one more year to make absolutely sure that prolonged administration does not do any harm. Even after the results are ready, it will take another 1½ years. Then we go back to the physicians and say, 'Now the drug is safe. We will give you this drug. You will try it for this period.' This will take at least another 4 years if at all it survives all this critical and very very rigorous testing. We have only got 4-5 compounds which are worthy of going for clinical testing out of 4,000 substances we have made and tested in our laboratory. They say one in three thousand has the chance of becoming a drug. I hope at least one in 4,000 will come out.

Shri R. P. Sinha: I would like to know about this particular drug. I would like to understand the procedure so that I may apply my mind. When was a patent taken for this particular drug which you have referred to?

Dr. T. R. Govindachari: We have filed the patent application.

Shri R. P. Sinha: At what stage?

Dr. T. R. Govindachari: That is after almost one year of working in the laboratory and experimenting with animals. We have to do several elaborate tests. The first test is to try it on dogs. That is a routine test, for seeing whether there is a fall of blood pressure. Then you have to do toxicity tests: upto what dose is it safe? What is the lethal dose and what is the relationship between the lethal dose and the therapeutically active dose? We have to do a very large number of experiments. All these will take at least a year before we can say that it is ready for clinical trial but the moment we knew that it is likely to be of value as a drug we applied for patent.

Shri R. P. Sinha: After you have applied for the patent, you say that the final specification with regard to this patent can be filed only after you have completed the clinical tests.

Dr. T. R. Govindachari: After the initial discovery of this compound we have to make at least 150—200 other compounds very closely related in structure so that we can pick out the best of the whole lot. This again means going back to the laboratory and making more and more compounds. That is a process which takes time. So at the time of filing the first application, we are given one year time to file the complete specification. In this period we have to do all this work, to try and make a number of compounds and have them tested quickly and pick out the best.

Shri R. P. Sinha: Within one year you have to file the complete specification and then you start the clinical test. Then only after you have satisfied about the clinical test results it takes, as you say 5 or 6 or 7 years and then you apply for the patent. Am I correct?

Dr. T. R. Govindachari: I do not know what exactly sealing of the patent means.

Shri R. P. Sinha: Grant of patent.

Shri K. V. Venkatachalam: The two things are different. Once an application goes to the Patent Office there is a separate system of procedure. They examine it to see whethere is any novelty and if the Patent office is satisfied that there is novelty they accept the patent application and then publish it for objection.

That is a completely different judicial process that will be going on. The applicant for his patents will be doing clinical tests independently. After it is published, if no opposition is there, then the patent is sealed. It may be within six months. Or on the other hand, if there is opposition, it may even take two years.

Shri R. P. Sinha: So, from the date of the filing of specifications you start the clinical tests and then it takes about five or six years. Does the Central Drug Research Institute also take the same time in regard to this clinical research? Have you got any idea?

Dr. T. R. Govindachari: I think they must be having the same difficulty as we are having.

Shri R. P. Sinha: I would like to seek one more information. In India we are spending a lot of money on research; the Central Drug Research Institute is there and now you have started your institute. In foreign countries, I find that every important drug industry has its own basic research institute. Now can you tell us whether any other important drug manufacturer is thinking in terms of putting up institutes like the one which you have under your control and what effect this Patent Bill will have on their plans for putting up research institutes in India?

Dr. T. R. Govindachari: I know that Hoechst has been thinking of starting such an institute; they have been coming to me regularly.

Mr. Chairman: But is there any institute like the one you have?

Dr. T. R. Govindachari: No.

Shri V. M. Chordia: In India, many of the products which are patented are produced by foreigners or in collaboration with foreigners. Indian patents are only nominal. If we extend the period of the patents, will not the benefit go more to the foreigners and less to the Indians?

Dr. T. R. Govindachari: The cost of production of pharmaceuticals in India is high not because of the patent law, but because the raw materials required are very much expensive—ten times more expensive—and, therefore, even by abolishing or limiting the patent period, you are not going to enable the Indian manufacturer to produce it at a much lower cost.

Shri V. M. Chordia: I have got a list of medicines here which shows that the initial marketing price was too high but the subsequent marketing price was very low. For example, take Vitamin B-12. The initial marketing price was Rs. 2,000 per gram and the subsequent marketing price was Rs. 40; the initial marketing price of Streptomycin was Rs. 19 per gram and the subsequent marketing price was Re. 1 per gram, and so on and so forth. How do you justify it?

Dr. T. R. Govindachari: It is very easy to answer this question. Take the Streptomycin case. In the initial stages, the process may be costly, but constant research goes into improving the process. For example, it is very well known that they now produce strains of micro organisms which yield more streptomycin by irradiation or with genetic changes. It takes a lot of time to develop new strains of these micro organisms capable of producing a better yield. It is not done all at once. In the initial stages they have something to go on and they introduce it. But they do not keep quiet. They go on improving the process. For example, the yield of penicillin in the initial stages was very low; but by discovering certain strains which are giving high yields of penicillin, the cost of production has been brought down. So only after a period of time, the cost of production can be brought down. It takes five years or

so from the point of discovering the usefulness of a drug to finding new ways of making it at a cheaper price.

Shri V. M. Chordia: Are you aware of the fact that many companies charge a lesser price in foreign countries but charge a higher price in India? For example, Tolbutamide (Hoechst) in many European countries is sold at $1·85 for 50 tablets, while in India it is $3·57 for 50 tablets. The price of Chlorpropamide (Pfizer) in Italy is $1·41 for 60 tablets (250 milligrams), while in India it is sold at $4 for 60 tablets (250 milligrams). There is a long list like this. How do you justify this?

Dr. T. R. Govindachari: Actually I am not competent to answer this question. I have no idea at all. But at the same time, my point is that by by restricting the patent period, you are not going to improve the position. You are only going to destroy whatever incentive there is to put up an industry or to do research in this country. Unless the basic organic chemical industries are set up and intermediaries and primary starting materials are made available at international prices, it will never be possible to produce any drug at competitive prices in this country even if we abrogate the patents law.

Shri V. M. Chordia: My impression is that in India in spite of the old Act which permitted us to have a long period of patent, we could not invent new things and even if we have invented, they are only a nominal number of things. The new inventions are done mostly by foreigners. Now we are in a position to imitate them; then after imitating, we are in a position to improve them; and in the third stage, if we could learn something, we could invent new substances. Under these circumstances, will it not be better if we reduce the period of the patents? The foreigners' patents will lapse after ten years and after that, the Indian manufacturers with their own initiative can imitate their products and sell in the market and thus save foreign exchange also.

Dr. T. R. Govindachari: Let me give the answer to this. At least 80 percent of the drugs which are currently used are drugs on which patents have expired 25 or 30 years ago. None of these you are making in this country at a reasonable price. Take Aspirin for instance which is a very common thing. It has been known for hunded years. It is only recently, 5|6 years back, we have started manufacturing it in this country. For the Indian manufacturers, there is a vast field of drugs on which patents have expired 10, 20 or 30 years ago and no attempt is being made to make these at a reasonable price. If at all they produce they have to import foreign know-how set up a plant and the prices are finally not cheaper than what we being offered by foreigners. I do not think that merely abolishing patent will help, because nothing is being done with the products on which patents have expired long ago. More than 80 per cent are not being made in this country. Why pick out 20 per cent covered by existing patents and curtail the rights of the investors? This will take away incentive to people to invest money and discover something new. You are cutting down whatever incentive there is without benefiting anybody.

Mr. Chairman: Do you know that Dr. Dey in Calcutta of Martin Harris is manufacturing aspirin with an entirely new process and this is more popular and cheaper than the other product.

Dr. T. R. Govindachari: Actually in foreign countries, aspirin is made on an enormous scale, although different names are printed on the product. It is made by one manufacturer, probably Bayer or somebody....

Mr. Chairman: Have you seen the factory? He has fabricated a machine himself.

Dr. T. R. Govindachari: That is exactly the type of thing that ought to be done.

Mr. Chairman: Such people should be given encouragement.

Dr. T. R. Govindachari: Definitely.

Shri R. Ramanathan Chettiar: In reply to a question by a colleague of ours here, you said that it should be only product patent and not process patent. You did not enumerate the reasons for coming to this conclusion. Would you please enlighten us?

Mr. Chairman: He has given it. He has extensively given this. Two people asked about it—I think Warior and Gupta.

Shri R. Ramanathan Chettiar: You have also remarked in the course of your observation that there has been no discovery in regard to any new product and no research has been done but may I ask you why steps are not being taken to find a remedy for common cold?

Dr. T. R. Govindachari: Common cold is a virus disease and actually we have very few drugs so far against viruses. Actually sometime in 1930, it was thought there was no cure possible for bacterial infections. Later on the sulpha drugs, phosphates etc. came in. Similarly for virus infection, at present there are practically no remedies except vaccination or immunisation, but I am sure with extended research some drug will be found. All the firms are having very active programmes in the anti-viral drugs field. We are also working on this. Influenza and small pox—on these two we are working very vigorously, testing all our products. If anything useful comes out, it will be a break-through in a field which has been considered to be inpenetrable.

Shri R. Ramanathan Chettiar: In your Memorandum on pages 3 and 4, you have stated that a scientist's cost, on an average, is about 150,000 to 250,000 per year. It means only the remuneration or....

Dr. T. R. Govindachari: I just calculated roughly. In our place we have 25 scientists, senior people and it costs 52 lakhs to run the place. This is because a lot of other assistance is needed, expenditure on chemicals, services—water, electricity—and things like that. It is a very rough way of looking at it. If you want an effective group, it requires so much money to run a place. My figure is an approximation arrived at by dividing the total expenditure by the number of scientists.

Shri R. Ramanathan Chettiar: I want to know—you would know from your experience, you have worked in foreign countries as well—whether 10 per cent of the total turn-over of the industry should be set apart for the research. Is it being done in the foreign countries by the pharmaceutical industry? We had a gentleman from Switzerland the other day, who said it should be only 1 per cent.

Mr. Chairman: He said some are spending more.

Shri R. Ramanathan Chettiar: The Swiss expert who came here who is also connected with CIBA said specifically the other day 1 per cent. I mean how could any industry spend as much as 10 per cent.

Shri Kashi Ram Gupta: He said 3 per cent, not 1 per cent.

Official from Ministry: You see the Japanese figures. They are as much as 25 per cent.

Shri R. P. Sinha: In America it is 53 per cent of the turn-over.

Dr. T. R. Govindachari: Actually in pharmaceutical field, the industry spends the highest amount on research.

Shri B. K. Das: You have mentioned that 4 per cent royalty would be very inadequate. You have not indicated what would be the proper or adequate compensation. Could you give us an idea?

Dr. T. R. Govindachari: I do not think I can. I thought 4 per cent was too low. Really it is robbing somebody who has invested a lot of time and money.

Shri B. K. Das: You should give us an idea what would be adequate or at least near adequate compensation? What should be the basis of compensation? How it should be decided?

Dr. T. R. Govindachari: Actually I am not thinking on those lines at all. It is unfair to take away somebody's discovery and then give it away to somebody else who has not spent any time on it.

Shri B. K. Das: It comes to this that you are not at all in favour of compulsory licence.

Dr. T. R. Govindachari: Yes. I am not.

Mr. Chairman: You are in favour of product patent. A product may be manufactured by several processes. If we give product patent to one process, it will shut out research as regards the other processes.

Dr. T. R. Govindachari: It is always possible once you know that a particular product has a particular type of activity.

Mr. Chairman: You would be giving a monopoly to them.

Dr. T. R. Govindachari: After all the life line of a patent is not indefinite. It is for a period of 16 years at present.

Mr. Chairman: It may be even shorter. The life of a particular drug, with the scientific advance that is going on at a rapid pace, the utility of a drug, use of a drug may be limited to 5|6 years. If you give only product patents, it will be actually shutting out all discoveries or inventions for other processes.

Dr. T. R. Govindachari: My point is that a man who discovers a worthwhile product will think of all the theoretically possible ways of making that particular drug. He knows his subject. He will work out all the possible things in the laboratory. Other processes also will be covered.

Mr. Chairman: A doctor has given a suggestion that the burden of proof may be put on the infringer.

Dr. T. R. Govindachari: But it is a vexatious process to be all the time thinking of legal things.

Mr. Chairman: Take the case of Haffkins Institute. They invented a process altogether different from the old one. But they were frustrated by the foreign patentee and they were not able to manufacture, even though their process was new and the cost was nearly 1/4th of the foreign patent.

Dr. T. R. Govindachari: I submit, Sir, that you will have to examine these claims by such people rather carefully.

Mr. Chairman: Haffkins Institute is a very famous institute.

Dr. T. R. Govindachari: Sir, I submit that one must be very careful when claims are made that it is a cheaper process and all that.

Mr. Chairman: In the case of a research institute like the Haffkins Institute in Bombay, when it is a new method and a cheaper method, why should they be denied? Practically you are shutting out their discovery?

Dr. T. R. Govindachari: My point is that why should the person who makes the initial discovery be prevented from reaping the benefit of his discovery?

Mr. Chairman: Do you think that the return of the patent is more important than the health of the nation in a poor country like India?

Dr. T. R. Govindachari: I would not say it is so.

Mr. Chairman: If the health of the

nation requires that a product should be made through a cheaper process and in sufficient quantity, and a new scientist makes such a discovery, why should he be denied? Why should we give monopoly to the earlier patentee—the Indian or a foreigner?

Dr. T. R. Govindachari: Such cases are very rare.

Mr. Chairman: Why should it be shut out?

Dr. T. R. Govindachari: So that there may be some incentive for research.

Mr. Chairman: But that way you will be killing the incentive for research.

Dr. T. R. Govindachari: I am sorry I do not agree with you.

Mr. Chairman: You know some countries are thinking of restricting the patent period for drugs and articles of food. We are restricting it to ten years. Why should you object to it.?

Dr. T. R. Govindachari: Because I explained to you.

Mr. Chairman : There is the other view also. You said that no other foreign firm has started research institute of basic industries.

Dr. T. R. Govindachari: When this patent law and all that came in, they hesitated.

Mr. Chairman: The main object of a patent is to engage in research and mainly within the country. All the foreign firms are importing intermediaries and selling them in India. Do you agree with that?

Dr. T. R. Govindachari: The thing is you must remember there is no fine organic chemical industry in this country.

Mr. Chairman: The foreign patentees have not started research.

Dr. T. R. Govindachari: How can they start when in nine cases out of ten the starting materials are not available here, and there is difficulty in importing materials. Licences are there. We have to depend for all our fine chemicals on imports. Raw-materials are 5 to 10 times costlier here than in well-developed countries like Switzerland and Germany or England or USA. That is why people hesitate.

Shri K. V. Venkatachalam: Under the existing conditions, there is one school of thought that if you take away the patent system, the development will be quicker and more rapid. There is another school of thought that if you take it away, there will be a setback. What is your view?

Dr. T. R. Govindachari: I frankly think that if you take it away, the development expected to occur in the near future will not materialise.

Shri K. V. Venkatachalam: What is your assessment of the rate of progress of the pharmaceutical industry during the last 6 or 7 years?

Dr. T. R. Govindachari: There are administrative difficulties because nothing can be done without the concurrence of Government and it takes a long time to get any project through. Still, I think there has been considerable progress in the pharmaceutical industry. CIBA have put up a multipurpose plant 3 years ago which can make a whole host of pharmaceutical chemicals which were not being manufactured here before.

Shri K. V. Venkatachalam: If this Bill is passed, will CIBA's activities be affected in any way?

Dr. T. R. Govindachari: Yes. If other people start manufacturing the same things and selling them at cut-throat prices, naturally CIBA's profit will go down and correspondingly our research activities also will be affected.

Shri K. V. Venkatachalam: What is the exact relationship between your research centre and the main CIBA concern?

Dr. T. R. Govindachari: CIBA of India is an independent company with several divisions like the pharmaceutical division, pesticides division, etc. Ours is the research division and we do work on pharmaceuticals and dyestuffs.

Shri K. V. Venkatachalam: To what extent is your day-to-day activity directly related to any problems that CIBA may have in their pharmaceutical division or pesticides division, etc.?

Dr. T. R. Govindachari: Nothing at all. Our task is to develop new drugs and dyes.

Shri K. V. Venkatachalam: Is your annual programme approved by them?

Dr. T. R. Govindachari: There is no question of anybody approving or disapproving. We get funds from CIBA of India and we work and produce our results. As long as the Director enjoys their confidence, there is no question of approval or disapproval.

Dr. A. Joga Rao: From a study of the history of scientific development how is it possible to reconcile to your view that a single individual more or less possesses monopoly of all possible processes for a particular product? I shall cite three instances relating to the heavy chemical industry and the fine chemical industry. Among the heavy chemicals you are aware that caustic soda was being made using several kinds of cells, The devices and equipment and operations are different. So, there is a wide range of alternative techniques for achieving the same goal—caustic soda. Taking fine chemicals, hydrogen peroxide and ozone can be produced not by one method but by so many methods. It is not possible therefore to accept that all these methods must be conceived and thought of by the same individual apart from the fact as to whether that individual lays claims to them by means of patents or not. We cannot take for granted the ominiscience, so to speak, of an individual or organisations in such matters.

Take the polyhydric alcohols like sorbitol and mannitol. They may have some uses in the pharmaceutical industry, but they are also used in the tobacco industry and other industries. Patents had been taken out and they had expired. Is it not possible for you to conceive of their production by alternative processes? The history of science does not seem to me to bear out that it is the same individual who always has the ability to think and exhaust all possible processes for achi-achieving a particular goal.

Take the illumination devices. There are so many. If a broad patent is granted for light producing devices it will prevent others from developing different alternatives, the fluorescent tubelights for instance. So, a certain limitation is required to be imposed in granting patents.

You have experience of research in private concerns. You also have experience of fundamental and some applied research earlier in the Madras Presidency College. You have some knowledge of the researches and achievements of the CSIR laboratories also. Do you think there is anything which is wanting in these later laboratories and institutes which if supplied may contribute to their working on more productive and fruitful lines such as in CIBA, for instance? After all, the same men (*i.e.*) scientific workers go from these places to these and may be, *vice-versa*, and generally it is agreed that the men are all right.

You know that in the beginning, say in Dr. Bhatnagar's time, the CSIR

was taking as many patents as possible in its name.

Afterwards, probably in the light of past experience or, I do not know, for some reason, it seems there was a change in the attitude so as should not to encourage the filing of patents but publish everything instead freely. Do you think the latter policy has helped in the conduct of better i.e. more productive research in these public sector laboratories.

Dr. T. R. Govindachari: You gave a number of examples to show for the same product there can always be new processes forthcoming. But there is always a world of difference among different fields. In the pharmaceutical field, where you have a specific organic compound, any capable organic chemist will definitely think of all possible ways of making it, between the date of filing the first application to the filing of the complete specifications.

Shri K. V. Venkatachalam: You are limiting it to pharmaceutical preparations only?

Dr. T. R. Govindachari: Yes, I agree that in the matter of caustic soda there are new methods which can produce it at a cheaper price. Here, in the case of pharmaceuticals, the compound has a specific organic structure and the number of possible ways of making it is not unlimited. Any clever organic chemist can think of all the possible ways and it will be very difficult to pick a loophole. If you do not give a product patent but only a process patent, a competitor will make the product by some process which was already conceived of and claim it as a different method.

About the second point, it is all a question of emphasis and direction. In a private firm, people accept an assignment for a specific purpose and they try to do their best, whereas in a public laboratory the same amount of control is not there and people are allowed to do as they please. There is more of team work in a private laboratory.

Shri K. V. Venkatachalam: Why? It is due to the atmosphere or is it due to the psychological effect?

Dr. T. R. Govindachari: I do not know. My own experience is that there is more team work. Of course, some of the national laboratories are doing outstanding work. The people there are as qualified as the people we have. They have the same background, accomplishment and all that. But when we put them together I think there is less direction than what we have, and the orientation and the emphasis probably is not so much there. In our case, nobody tells us what to do. We are there with the task of producing drugs. Our first job is to discover something new which will be useful as a drug. We do not spend our time because it is not somebody telling us we should not do this or do that. It is a self-imposed discipline. We will work in a field which is likely to bring the quickest possible result. In a National Research Laboratory they work on something which may have long range benefits, which may be useful after 50 years, which may revolutionise the whole concept of science.

About the question of patents, I think the CSIR believes in taking patents. In the Food Research Institute, in the Leather Research Institute, people do take patents. In the matter of exploitation of patents the response has not been good and that may be the reason why there may be some slowing down.

Dr. A. Joga Rao: The CSIR was not stopping the taking of patents but they were trying to discourage it and as far as possible, except in very outstanding cases of inventions and of course invariably it had to be with the approval of the head of the department. As an alternative they thought publication of non-technical know-how would be more useful and anybody who was interested in a particular product or process was free to contact the CSIR directly and on

payment of some royalty or even freely they could get all the details about it. They seem to be of the view that that was the best way of developing indigenous industry.

About my first question, I am still not able to understand what you say. You say that in the pharmaceutical field it is possible to think of all possible permutations and combinations for a certain compound. If for an organic chemical compound, which is a very complex thing, it is possible to think of all possible combinations, it might be perhaps much easier in the case of a much simpler substance. Take for instance, cuprous oxide which is used in paints for the bottoms of ships. It is an antifouling ingredient. There are various grades. Chemically it may be $_6$ O. But from the point of view of its suitability for the purpose in view its fungicidal property and its stability to remain so without being oxidised etc., products from different sources may be differently. What you say amounts to this—that it should be possible here also and work out all possible ways of producing that substance which means that nobody else can produce the same substance, which is chemically the same and equally effective, by an alternative method. History does not bear that out; and current scientific literature constantly reveals many examples.

Dr. T. R. Govindachari: You are comparing entirely different fields which cannot be compared at all. In the pharmaceutical field a particular compound has a particular structure from the point of view of biological activity. Any organic chemist worth his salt will know what are the various reasonable ways of making that compound. He will take steps to see that all those steps are worked out and the cheapest and the most productive method is adopted. For somebody else to come along and say that he has found out a better method, the chances are one in a thousand.

Dr. A. Joga Rao: I can understand that a concern or body like yours will always think of trying to make the claims as broad as possible on the scientific side, so that others may not tread on their foot. But we in the patent office would prefer to allow claims which are limited and well defined.

Dr. T. R. Govindachari: The chances of developing new methods are so remote.

Shri Kashi Ram Gupta: You have suggested a board of expert scientists to scrutinise the claims for compulsory licence. Should it be an advisory board?

Dr. T. R. Govindachari: Yes, that is the suggestion.

Mr. Chairman: Are your researches open for exploitation by the public in India or are they exclusively for CIBA?

Dr. T. R. Govindachari: They are exclusively for CIBA.

Mr. Chairman: Suppose somebody in India wants to apply for a compulsory licence. Could he do so?

Dr. T. R. Govindachari: I think the present law does not allow that.

Mr. Chairman: Are you responsible only to the Indian company or your parent company?

Dr. T. R. Govindachari: To CIBA of India.

Mr. Chairman: It is a world-wide organisation and it has come in for a lot of criticism by the Kefauver Committee of USA.

Dr. T. R. Govindachari: I know the general trend of the Kefauver Committee Report. But I have not seen the specific criticism of CIBA.

Shri R. Ramanathan Chettiar: The witness has answered his questions on the assumption that the sellers' Market will continue. The research that he is doing is also based on that assumption. Does he not envisage an

assumption. Does he not envisage a situation in the not distant future when there will be a buyers' market in which case he will have to face competition?

Dr. T. R. Govindachari: Definitely. That is all the more reason why we should have patent protection when we have a buyers' market. When we have spent a lot of money, when we discover something very effective we must have the opportunity of getting back what we have spent. Otherwise, no concern will spend any money on research.

(The witness then withdrew)

II. All India Drugs & Pharmaceuticals Manufacturers' Consultative Committee, Bombay.

Spokesmen:

1. Dr. Gurbax Singh, *Leader.*
2. Shri G. M. Parikh.
3. Shri R. Ganesan.
4. Shri B. S. Giri.

III. All India Manufacturers' Organisation, Bombay.

Spokesmen:

1. Shri Hansraj Gupta, *Leader.*

2. Shri G. M. Parikh } *Member of the Central Committee*
3. Shri B. S. Giri
4. Shri R. Ganesan
5. Dr. Gurbax Singh

IV. Sarvashri G. M. Parikh, H. J. Vaidya and S. C. Nanabhai, Zandu Pharmaceutical Works Ltd., Bombay.

(The witnesses were called in and they took their seats.)

Mr. Chairman: The evidence that you give will be published and laid on the Table of the House. Even if you want a particular portion of your evidence to be treated as confidential, that will be supplied to the Members of the Committee. We have received your Memorandum and that has been circulated to the Members. If you want to stress any particular point or make out any new point, you may do so. Afterwards, the Members will put some questions and you may answer them. I find that, by and large, you are in agreement with the provisions of the Bill and that there are very few points on which you differ.

Dr. Gurbax Singh: I have been asked to represent Dr. Basu here. Before I begin, I might mention that the All India Manufacturers' Organisation and ours are one and the same. We are representing manufacturers' interest only. If you have no objection, we may be heard together. That will be better and much easier. That will save the time of the Committee also.

Mr. Chairman: I have no objection. We can call them together. Mr. Parikh, do you want a separate hearing on behalf of the Zandu Pharmaceutical Works, Ltd., Bombay?

Shri G. M. Parikh: I leave it to you, Sir. I have no objection to be heard along with them.

Mr. Chairman: So, we can take up all the three groups together. The spokesmen representing all the three organisations, the All-India Drugs and Pharmaceuticals Manufacturers Consultative Committee, the All-India Manufacturers' Organisation and the Zandu Pharmaceutical Works Ltd. are here.

The evidence that you give is published and printed. It is distributed to all the Members of this Committee and also laid on the Table of the House and distributed to the Members of Parliament. Even if you want any particular portion to be kept confiden-

tial, it will be supplied to the Members of the Committee. Now, we have received your memoranda and they have been circulated to the Members. If you want to stress any particular point or make out any new point, you may do so. Afterwards, the Members will ask some questions and you may reply them.

Shri Hansraj Gupta: With your permission, Sir, at the outset, I must thank you for giving us this opportunity to appear before this Commitee. We are also very happy that after all after a long waiting this Bill has come up. We have always been feeling that the old Indian patent law that has been prevailing uptill now has not been able to stimulate inventions and it has not been able to encourage the Indians to make more and more inventions. In any case, since we are concentrating on the various clauses of the Bill, I will point out only those clauses where we want certain amendments to be made.

With respect to clause 27, we would like that the applicant should be given an opportunity to show cause as to why his application should not be rejected. As the provision is, the Controller may refuse to give him the permission without consulting him on account of various reasons that might come to his notice. We think that that is not fair and that the applicant should be given an opportunity of having his say. After all, the Controller has got the right to reject the application. If the opportunity is given to the applicant, that will be better in the interest of all. What we are suggesting is that, in this case, the applicant should be given an opportunity to come forward and show cause why his application should not be rejected.

Clause 48 provides that patent rights shall not be deemed to be infringed when the patented article or the product made by the patented process is imported by or on behalf of the Government for the use of the Government and other organisations working under the Government. This grants unlimited powers to the Government and also militates against the basic objectives which are behind the grant of a patent. We submit that this power should be given only where the patent has not been worked for producing sufficient quantities to meet the requirements of the country. Otherwise, it would not be very fair.

Clause 53 is in respect of the period for which the patent is to remain in force. Here you have given ten years in some cases and fourteen years in other cases. We submit that the period of ten years is quite sufficient and in case the man comes forward and gives valid reasons, the period may be extended to 14 years; otherwise, it should be 10 years. Formerly, as a matter of fact, the suggestion was that the period should only be 7 years, but you have been good enough to make it 10 years. It should be extended to 14 years only in very special cases.

Clause 64 is in respect of revocation of patents. Here I would like to refer you to the following:—

> "Where the patent is for a process or for a product as made by a process described or claimed, the importation into India of the product made abroad by that process shall constitute knowledge or use in India of the invention on the date of the importation."

Here we would like to point out that small quantities may be imported to carry out experiments and tests in this country and that should not be treated as knowledge having come into this country. So this should not affect a product thus imported for the purpose of tests or experiments only. Except for this small amendment or restriction, this Clause is perfectly alright.

Regarding Clause 82, the definition of "process" is not very clear. I submit that it is necessary that the word "process" be defined in this Clause so

as to restrict the patentee from registering all permutations and combinations or processes which were not experimented by him in his own laboratory; otherwise, he will cover the entire gamut of activity and make it impossible for any other person to carry on research. This is a case where we can very well define the process and limit it only to those processes which have been experimented upon by the patentee.

I now come to Clause 83. This lays down general principles, with which we are in full agreement. We very much welcome this Clause.

Similarly, Clause 84 is something which we want and which we welcome.

Clause 85 is regarding granting of compulsory licence. Here we submit that there is a possibility of cartelisation; all these people might come together and form themselves into a cartel and might particularly keep the prices up. So, while the matter is being gone into by the Controller, he should also see to it that there is no possibility of cartelisation. It is very difficult to know at the time when the application is made whether the people will form themselves into a cartel or not. But even so, probably some clause can be introduced which will make it impossible to form a cartel subsequently and the licence may be revoked in case it is found that cartelisation has been done.

Mr. Chairman: That is more in the province of Company Law.

Shri R. Ramanathan Chettiar: In other words, we do not want monopolies.

Shri Hansraj Gupta: Yes. The Controller should be in a position to take some steps. You can provide some clause for it in the Bill.

Mr. Chairman: That may be one of the reasons for revocation?

Shri Hansraj Gupta: Yes.

In respect of "licences of right", there is a little distinction which we have made in Clauses 86 and 87. For some of the products, the licences of right can be given after three years, but in the case of drugs and pharmaceuticals the licences of right will be granted as soon as the patent has been sealed. We submit that, in this case, the patentee does not get a full opportunity to exploit his patent. Therefore, so far as drugs and pharmaceuticals are concerned, a period of three years should be given as in the case of the other products.

Mr. Chairman: What is the time that you suggest?

Shri Hansraj Gupta: Three years, just as in Clause 86. Once you agree to that, necessary changes may have to be effected in various other clauses also. Drugs and pharmaceuticals also fall in the same line and three years' time should be given to the patentee here also; afterwards, it may be endorsed with "licences of right".

Shri R. Ramanathan Chettiar: So you agree with the period of three years.

Shri Hansraj Gupta: Yes.

In respect of Clause 88, you have suggested that the royalty should not exceed 4 per cent. On going through one of the memoranda given by the UPIA, I find that the average royalty which they have worked out is only 3.1 per cent. If that is so, we may put the royalty even as 3 per cent and I would not mind that. Of course, I agree to 4 per cent.

Shri R. Ramanathan Chettiar: That is the maximum.

Shri Hansraj Gupta: Yes; we quite agree to that.

Clause 90 spells out in detail the circumstances in which reasonable requirements of the public shall be deemed not to have been satisfied. We submit that, if the working of a patent in India is to be looked upon

as an essential obligation on the part of the patentee, the very fact that the patentee has not cared to manufacture in India the patented article should be sufficient to conclude that reasonable requirements of the public are not satisfied. Therefore, we suggest that the Clause be amended to read as follows:—

> "If the patentee has not manufactured in India to an adequate extent and supply on reasonable terms for any justifiable reasons, the patented articles or a part of the patented articles which is necessary for its efficient working or if, by reason of the refusal of the patentee to grant a licence or licences on reasonable terms..."

So far as Clause 92 is concerned, it is quite allright. But at the same time we submit that the rules which have been formed under the old law are defective and new rules should be framed as early as possible and care should be taken that those defects do not come in.

Clause 93 spells out the power of the Controller in granting compulsory licences. In the original Act, the appeal was to the High Court of Calcutta. The appeal to the Central Government is likely to be governed by non-judicial considerations. We, therefore, submit that an independent tribunal may be appointed specifically for this purpose.

Shri R. Ramanathan Chettiar: Do you want an appeal to the Central Government or to a judicial court?

Shri Hansraj Gupta: We want the appeal to go to a judicial court. But, a special Tribunal might be appointed.

Shri R. Ramanathan Chettiar: You want the powers to be vested in the Central Government.

Shri Hansraj Gupta: Yes, Sir. We very much welcome clause 96. Similarly, we welcome clauses 97 and 98 too. In the case of clause 99, powers are given to the Central Government to use a patent or invention for the purposes of Government. We suggest that the Government should not be given such unrestricted powers to use the patent without due processes of law.

Shri R. Ramanathan Chettiar: In case of emergency?

Shri Hansraj Gupta: In case of emergency such as for defence, we have no objection to such powers being used by Government. We want, however, that the patentee must be given some protection.

Mr. Chairman: What is the protection that you want to be given to the patentee in such cases?

Shri Hansraj Gupta: We do not want any protection to be given in the case of emergency. In case of emergency, this clause is all right. In such cases, the usual processes of law might be followed. In other cases, you might give 4 per cent as royalty.

Mr. Chairman: In other words, do you want that some compensation should be given?

Shri Hansraj Gupta: The normal compensation which you have already provided for in the Bill might be given. The Controller should decide as to what compensation should be given.

In the case of defence, we don't mind. So far as compensation is concerned, it might be paid according to realisations that you have laid down already. But, this should not exceed 4 per cent.

Shri R. Ramanathan Chettiar: This 4 per cent is about royalty.

Mr. Chairman: Let him finish what he wants to say. You may then put questions to him.

Shri Hansraj Gupta: I am talking about the compensation to be given to

a patentee in case the Government is compulsorily using their patent. This might be decided upon by the Controller. It is possible that it might even be lower than 4 per cent. That should be done as per the regulations provided for here. The only point that we want to submit is that such a complete expropriation is not called for.

Dr. Gurbax Singh: I have nothing more to add.

Shri G. M. Parikh: I would like to add only one thing. As I have mentioned to the Study Group in Bombay, this Bill may kindly be passed as early as possible, before it lapses.

Mr. Chairman: We are all equally anxious.

Shri G. M. Parikh: That is the only point that I go on repeating.

Dr. C. B. Singh: You are representing three very important sections of the Industry. May I know whether any of these groups which you represent have put in their patents anywhere as far as drugs are concerned?

Dr. Gurbax Singh: Unfortunately, we have not put in any patents anywhere. But certainly our products have brought down the prices very much.

Dr. C. B. Singh: That is a different question. Have you put any of your product with any patent?

Dr. Gurbax Singh: Not by ourselves.

Dr. C. B. Singh: The second question is this. What is the amount of money that you go on spending on research putting all of you together? We want a reply for this since you are representing three groups.

Shri G. M. Parikh: Every body is doing the research in his own way. Here the question is about the availability of raw materials like intermediaries and solvents for doing the research. For example, for research, certain instruments are necessary. But, because of the import restrictions and foreign exchange difficulties, it could not be done.

Another thing is that since 1962 there is not enough scope for making any products because of ceiling of prices so that the industry can plough back its money for research. Another important thing is that if the Bill is amended and if the process is worked out, scope will be given to the Indian technologists to do the basic research. Unless and until something is done in this regard, the things which are already existing with the Indian industries cannot take them up. Even if the process of any drug is worked out, it is doubtful whether they would be able to exploit that.

Dr. C. B. Singh: You are not sure that you will be allowed to exploit the patent.

Shri G. M. Parikh: I would cite as an example Sulphadiozine and Talbutomide tablets. The State Government could not exploit the process and develop them still further as they were covered under patent laws. More than about 123 processes of Talbutomide have been registered under the present Patent Act. If anybody works out any process, he cannot come in because the process is already sealed under the Patent Act. Therefore, we have suggested in our memorandum that unless and until the process that has been worked out in the laboratory is developed further and put in the market as a product, it would be difficult to take advantage of by the people.

Dr. C. B. Singh: You are talking about a case which has been going on and which has not been decided. I am not concerned with that. I know that there are two famous cases; we are not concerned with that. My point is this. How much money you have been spending on research so far? I hope you will agree that only by research of many types of new phar-

maceutical drugs that you can develop new drugs and put them in the market. You have not given your answer as to how much money has been spent on research in this regard.

Dr. Gurbax Singh: The question of research to such an extent in the case of pharmaceutical industries will, I am afraid, take about ten years from now and not just now. I am making this statement because it is only since 1957 or so that these series of manufacturers of drugs have come up in this country. Prior to that, it all depended on imported drugs only. Unfortunately, all these years, everyone was preferring the medicines manufactured abroad. It is only since 1957 we have been manufacturing the drugs here. Whatever products that we have put in, the manufacturers alone can tell you as to how much money has been spent for propagating their trade marks and their drugs as compared to the foreign ones.

Coming to research, I must say that to-day Indian financiers or capitalists seem to be anxious about immediate profits rather than awaiting for profits. This is an unfortunate mentality. I am afraid that the manufacturers are hardly in a position to think of research at the moment to a large extent as in other countries. So, if I say that about Rs. 50,000 has been spent by my company alone, it is nothing as compared to crores of rupees that have been spent on research by foreigners. Foreign companies are more than a century old whereas we took up manufacturing of drugs only a few years ago. Prior to 1956, some of the people were dependent on the imported drugs. Some of the manufacturers have put up research laboratories here. So I would respectfully say to Dr. C. B. Singh that research work will be done only after some time, not just now.

Dr. C. B. Singh: It is so not only in the pharmaceutical field—because you have not put in the money there at all; you have only been getting the formula and propagating the drug. But even in the national laboratories—that is the most unfortunate part of it—hardly anything has been done. That is what I am trying to put before you. What will you suggest so that this important activity of forming, formulating and finding out newer drugs by a particular process or by patented methods can be promoted? Could you suggest how this process can be helped because it is in our interests and it is in the national interest?

Dr. Gurbax Singh: I am extremely grateful to you for putting this suggestion before the Committee. I do feel that the Indian pharmaceutical industry badly needs that aspect of research. To my mind some good research work is being carried on in our national laboratories. But so far as the pharmaceutical manufacturers are concerned, I need hardly tell you that to-day the investor wants a return and dividend every year rather than thinking of research. The pharmaceutical industry in India is very much in its infancy. Of course there are people who have been in the field for 50 years or so, but they have not done anything at all in the field of research. They have been getting foreign research.

Dr. C. B. Singh: A lot of talk has been going on about the process and product patents; whether the process alone is to be patented or the product alone to be patented or process-cum-product to be patented. Our Bill provides for process alone. We have three alternatives. What will you suggest the best thing in the interests of our country?

Shri Hansraj Gupta: We have been suggesting that the processes which have been experimented upon by the patentee should be patended. Neither the product nor any other process through which he has not experimented himself should be patented.

Dr. C. B. Singh: That means the product by that process is not protected.

Shri Hansraj Gupta: Only the processes which he has experimented himself to be patented. Any other person can certainly manufacture that product through other processes. Then the patent is not going to militate against him. If he is using the same process which the patentee has patented, then of course he is barred. Otherwise, if the process is entirely different, he can certainly manufacture that product.

Dr. C. B. Singh: Evidence has come before us that Chemistry has advanced so far and is advancing so much that the difference in processes is almost thinning out day by day. The processes are more or less stereotyped and through these various processes you can by adding a molecule here or a molecule there bring out various products. In view of that will you lay stress entirely on process alone or will you combine the process and the product?

Shri Hansraj Gupta: In our opinion it should be only process.

Shri M. L. Jadhav: In the Bill a 10-year period is provided for certain products and a 14 year for certain other products. Would you like to have a 10 year term for all and secondly should it be from the date of application or from the date of sealing?

Dr. Gurbax Singh: It should be from the date of sealing.

Shri M. L. Jadhav: Will you think that when you say that our pharmaceutical industry have spent very little on research and if 10 years is the period, then in that case it is likely that India may be deprived of some good medicines because of non-availability of foreign interventions?

Dr. Gurbax Singh: In view of the present anti-biotics and other products which are already in the market, I have very little doubt if India will be starved of products of pharmaceutical line in case the 10 year period is kept.

Shri K. K. Warior: You said that you would like to have this ten year period retained. I wish to know whether after the 10 years or at the expiry of 10 years if a new process is added to the original patent, you would require some more extension of the period?

Shri Hansraj Gupta: We do not want, but if a case is made out and the Controller is satisfied that a little more time should be given, then another 4 years may be given and that is the limit.

Shri K. K. Warior: In the pharmaceutical field we are told that about 90 per cent of the original patents have expired already and the Indian manufacturers are exploiting those now. How does this Patent Bill affect the remaining 10 per cent? What are the repercussions that will be on the remaining 10 per cent when the 90 per cent is left to you for exploitation?

Dr. Gurbax Singh: If I am not mistaken only the balance 10 per cent came as the latest products and it is the right time that we should be given an opportunity to use this 10 per cent.

Shri K. K. Warior: Unless and until our pharmaceutical industry can come of age should we not give some margin for these medicines or drugs to come here so that at least from the people's or consumer's point of view it will be advantageous.

Dr. Gurbax Singh: I will be grateful if some specific questions are put because it is a very general question. If you kindly ask about any particular product, I can answer.

Shri K. K. Warior: In the present stage of the pharmaceutical industry abroad they have more facilities; they have more equipment and all the intermediates and basic materials. All these advantages are there and if they come forward with life-saving drugs and if their products are patented here, do you want to exclude the Indian consumer and the Indian public from using that simply for keeping those products away by patent restrictions here?

Dr. Gurbax Singh: I am sorry I cannot answer this question as it is very vague. If you kindly specify any product, I will be able to give a definite answer. What are those products which you are aiming at? Our entire medical profession to-day is dependent upon a very few range of products—anti-biotics so many, then vitamins mean so many. I am afraid with the exception of....

Shri K. K. Warior: We cannot say that. Inventions come all of a sudden. But the position is that the circumstances are such that they are in a better position and keeping in view the present stage of our industry, do you want to exclude the Indian consumer from the advantage of any new drug coming from outside which is a new invention?

Dr. Gurbax Singh: I may bring to the notice of my hon'ble friend that the import of many of the medicines is already banned. We are not permitted to import any medicine unless under very special circumstances and that too will be allowed only by the Drugs Controller. So far as drugs are concerned which will use that formulation practically everything which is not being manufactured basically in India is allowed to be imported and there is no question that it will harm public interest if the new patent is given.

Shri K. K. Warior: How is it that the Indian prices of locally manufactured substances are much higher than the foreign prices, even taking into account the present circumstances of our development?

Dr. Gurbax Singh: Well, Sir, I am very glad that you have put this question. In fact I have myself pointed out that the pharmaceuticals or the basic materials that are being produced in India are much more costly than those produced by foreigners. I would say in this respect that again the patents are coming in our way. Now let us take chloramphenicol, a general name for Chloromycetin. I am one of the pioneers in this field. In 1947-48 when originally Chloromycetin came into this country, 12 capsules to a patient would cost Rs. 65. Now the Italians don't have any trouble with patent law and they were selling at Rs. 28 for 12 capsules. The price in India was brought down from Rs. 65 to Rs. 35 in 1952; the American company was fined Rs. 9 lakhs when the first consignment came from a competitive firm in Italy. Later on, they went on reducing the price and now the price is Rs. 7.20 for wholesale and Rs. 9 for retail, whereas my company is today selling it at Rs. 3.75. The Government of India has granted import licence for the import of Gurcomycetin (Chloramphical) from America. The American price now for it is $85 (about Rs. 640) for one kilogram whereas the same manufactured in Bombay costs Rs. 410 per kilo. But if it is imported from Italy, it will cost only Rs. 180 per kilo. So again the patent law comes in the way.

Shri K. K. Warior: If I suggest that for the time being, let us not have any patent at all for the pharmaceuticals, what is your reaction?

Dr. Gurbax Singh: Well, I don't mind. That is what happened in Italy.

Shri A. T. Sarma: In your statement, you have stated that "the majority of the foreigners who have taken out patents in India never intended to manufacture their patented medicines in our country. These patents have been registered in this country to prevent Indian manufacturers from going into the production of these products." What remedy do you suggest for this?

Dr. Gurbax Singh: The new Act is the remedy. I might say for your information that the company which is

now offering chloramphenicol at $ 85 took out a licence from the Government of India for its manufacture some 10 years ago. But even to-day they are not basically manufacturing the whole product here. If there are 19 processes for its manufacture, they start here from the 16th process or something like that.

Shri A. T. Sarma: It is said that India is lacking in technological development and technicians and that if this Bill is passed, India may lose the assistance of foreign technology and technicians. Do you agree with that?

Dr. Gurbax Singh: I am afraid I can't agree with this. I have already stated that it will not affect our economy or health if the new Patent law comes into being and if some of the manufacturers, who are actually foreign manufacturers, come here and say otherwise, it is only for profiteering at the cost of the poor patient and nothing else.

Shri A. T. Sarma: We won't have any difficulty?

Dr. Gurbax Singh: Absolutely no difficulty.

Shri A. T. Sarma: India will be able to run its own industry without the assistance of the foreigners?

Dr. Gurbax Singh: Yes, but with the exception of those basic raw materials for which you have already permission to import. Majority of the manufacturers are already depending on the indigenous raw materials now. The import is only about 12 to 15 per cent of the raw materials.

Shri G. M. Parikh: Regarding technology and technical staff, on page 3 of the supplementary memorandum, they have stated that "the technology employed in research and the manufacturing processes are at present of the same high standards as applied in advanced countries like U.K., U.S.A. and Japan." Now the only thing is that our technological staff should be given an opportunity to work so that when they get the facility to work, they will create among themselves a pool of workers in research and they will get research-minded. At present, they are only concerned with manufacturing and testing. To create research-mindedness in the technical staff requires certain training, and if they are to work on processes the industry must be sure that they are in a position to exploit whatever they produce in the laboratories. So the provisions regarding the licence of right and compulsory licensing will give sufficient opportunity to the technological staff to develop the processes and work and prepare themselves for basic research at a later date.

Shri A. T. Sarma: Some foreign witnesses stated that if the present Bill is passed, India's industrial activities will move backwards. Do you agree with it?

Dr. Gurbax Singh: No, we don't agree with it. In West Germany and Japan also, provisions for compulsory licences and licence of right are provided.

Shri Kashi Ram Gupta: Licence of right is not provided.

Shri A. T. Sarma: Do you carry any research work on Indian plants and if so, have you found any good results?

Dr. Gurbax Singh: I might only say that the foreigners have come and exploited our country, its plants and the scientific workers. We have not done it ourselves.

Shri R. P. Sinha: I would like to know if the hon'ble witness thinks that the research work has basic im-

portance for the development of technology and pharmaceutical production in this country or not. Do you attach importance to basic research?

Dr. Gurbax Singh: Yes, Sir. We do.

Shri R. P. Sinha: What should be done in order that we may develop basic research? What is your suggestion?

Dr. Gurbax Singh: I do not think, Sir, this is proper forum for me to say. Some Government help should be forthcoming for this.

Shri R. P. Sinha: Do you think that Government help alone will deliver the results?

Dr. Gurbax Singh: No. Government combined with private enterprise.

Shri R. P. Sinha: You have just stated that no worthwhile research is being done by the industry. It is a known fact also. Now you say you are not in a position to invest large amount of money in research work. Could you give us an idea what amount of money is required for carrying on basic research?

Dr. Gurbax Singh: I am afraid, we do not have any particular exprience of that.

Shri R. P. Sinha: You have stated yourself that basic research is important. I agree with you. Now what should we do in order that we may encourage basic research. You have said let there be only copying work for the next 10 years. How do you reconcile these two statements of yours?

Dr. Gurbax Singh: Talking about this, Sir, even abroad—specifically the American people who are known to be on the top in the research work today in the pharmaceutical side—even in America, if you go into the details of their research method, you will find, one or two companies do the research and they sell out their research to the other small manufacturers.

Shri R. P. Sinha: That we know. I am merely interested in asking have you applied your mind to this particular problem of developing basic research in this country?

Dr. Gurbax Singh: Yes, Sir. We have.

Shri R. P. Sinha: What is your suggestion? How could this Committee help the progress of this basic research in this country?

Mr. Chairman: I think he has already given the answer—Government help combined with private enterprise.

Dr. Gurbax Singh: Our major problem is that today investor needs a return immediately. We represent the investors. We have to look to their interests to begin with. What we feel is we must try to bring in products of foreign companies which are popular. Sir, I am making a clear statement. What happens to those products. They are again being copied by the international market—not by Indians only. This is the position in the world today.

Shri R. P. Sinha: Granting that, we would like to put you in such a position that you may make investment on research. For example, take the Jhandu Works. They are manufacturing all kinds of Ayurvedic and Unani medicines, but they are all the time copying the age old pharmacopoeia. We would like that some basic research should be carried out by the Jhandu Works. What should we do in order that you may find money to make investment on research work?

Shri G. M. Parikh: I would cite one example of Canada. The Government itself supplements the research programme in the private industry and whatever is spent by the industry, 50 per cent of that is given by the Canadian Government by way of grant *plus* on the balance of 50 per cent, the company gets rebate in income tax. At the same time on

other intermediaries and other equipment that are required to be imported and brought to this country for working these processes, testing these processes, a rebate on import duty and other facilities—all that is also given. If some sort of this type of assistance could be given, that would help.

Dr. C. B. Singh: They are being given by the Indian Government under the Indian income tax rebate etc.

Shri G. M. Parikh: Here the Canadian Government gives 50 per cent grant *plus* 50 per cent of whatever the company spends. Actually the industry spends 25 per cent. 75 per cent comes from the Government directly and 25 per cent is given by way of income-tax rebate.

Shri R. P. Sinha: So I understand. That is a good suggestion by you. We should encourage research by grant of subsidy from the State. I would like to seek another clarification from you. We have been talking about compulsory licences. The provision is already there in the present Act—forget about the Bill. The existing provisions in the Act give ample opportunity for you to make an application for compulsory licence to manufacture any patented product. Now I am told that much use of this provision has not been made. Could you tell me why you are not making use of the compulsory licensing system in order to bring forward patented products? What are your difficulties? What should be done in order that you may make better use of this provision. What is standing in your way to make use of this provision?

Shri Hansraj Gupta: I think the procedure under the present Act is very complicated. The procedure now laid down is very much simpler. I think under the new Act the compulsory licence provision will certainly help the people to come forward to place before the Controller that they are in a position to manufacture these articles. The Controller can go through their applications and see whether they have got the capacity to do so and compel the patentee to give the licence. In the existing law, I do not think the procedure is convenient.

Shri R. Ganesan: The present Act is so comprehensive and ambiguous....

Shri R. P. Sinha: It cannot be both comprehensive and ambiguous.

Shri R. Ganesan: The Indian manufacturer who has to come forward to put the money for research, is always under the risk of being taken action against by the existing powerful group. So he is not in a position to take the risk. The Patent Act that is going to come into force makes a positive assurance for incentive and help. Then the Indian talent that is now available can come with the capital and can do much. Besides with the active collaboration of the national laboratories now in India plus the Indian talent that is available—I m including both indigenous and the people who have got sufficient training in the modern sophisticated laboratories all over the world—the number is very large and everybody is interested now but sufficient opportunities are not given—active collaboration of the private industry on the one side and the Indian talent on the other and assistance of the laboratories and with the immense facilities that are now available—that will solve the basic point.

Shri R. P. Sinha: The two witnesses here have deposed one fact. The first learned witness said that because of the procedural difficulties in the existing Act, you could not take advantage of the compulsory licencing. Further you said now those difficulties have been removed in the present Bill and therefore you will be able to take advantage of the provision of compulsory licensing system now. I would like to know why is it that most of the drugs which have fallen out of the patent, whose patent life

has expired, are not being taken up to be manufactured by you? 800 drugs are being used for common use which have fallen out of patents. Why are their manufacture not being taken up by you.

Dr. Gurbax Singh: Quite a large number of these products have already been taken up.

Shri R. P. Sinha: Could you tell out of 800, how many are being manufactured?

Shri G. M. Parikh: Aspirin is being manufactured.....

Shri R. P. Sinha: I would like to have the number.

Dr. Gurbax Singh: We may not be able to answer that question just now. Quite a number of them have been taken up.

Shri R. P. Sinha: I am talking of 800 drugs commonly used.

Shri B. S. Giri: Over 100 drugs have already been taken in hand. The Development Council's statistics will give the number of items taken in hand.

Shri R. P. Sinha: One more question. We know that this compulsory licensing provision is available not only in our country but in other countries also. And we are told that these provisions of compulsory licensing, where the technology is quite advanced in other countries like England, are never taken advantage of. We are also told that the difficulty is to get the know-how. It is not only important to enjoy the patent process but it is also important to get the know-how to manufacture. Now, have you experienced this difficulty to get the know-how, and if so, how do you propose to get over that only by means of compulsory licensing provisions?

Dr. Gurbax Singh: This is the position in some of the foreign countries that I have visited. I discussed this question with some manufacturers. Our people are already specialising in certain types of projects. But we have to be extremely cautious in this line.

श्री विमलकुमार म० चोरड़िया : आप लोगों ने अभी बताया है कि अगर पेटेन्ट कानून को हटा दिया जाय, तो अच्छा होगा । आपने यह भी बताया कि हमारे पास खोज के लिये पर्याप्त धन नहीं है, उसकी वजह से खोज कार्य हो नहीं पाता । ऐसी स्थिति में शासकीय मदद के अलावा अगर कोई निर्माता खोज के लिये धन रखना चाहे, तो बिना उसको संरक्षण दिये, किस प्रकार खोज करेगा और उसके लिये आकर्षण क्या होगा, कि जिसके कारण वह खोज के लिये आकर्षित हो जब तक उसको अपने माल को, अपने प्राडक्ट्स को अपने भावों पर बेचने का अधिकार न हो, वह क्यों प्रयत्न करेगा ?

डा० गुरबक्श सिंह : इस सवाल का जवाब मैं इस तरह से दे सकता हूं कि जो कम्पनियां अपने माल का पेटेन्ट इस मुल्क में करा चुकी हैं, आप उनकी लिस्टों को ले लीजिये और इसके मुकाबले में यहां की और जितनी कम्पनियां हैं, आप उनकी लिस्टों को ले लीजिये अगर इनको आप देखेंगे तो यह पायेंगे कि 90 फीसदी दवाये ऐसी हैं, जिनकी कापी की जा रही है, कम्पनियां एक दूसरे के रिसर्च को कापी कर रही हैं । वर्ना फौरन लोगों ने हमारे मुल्क में रिसर्च के नाम का ढोंग चार रखा है । आज हम लोग जो काम यहां पर कर रहे हैं, हम उनकी रिसर्च के बगैर चल रहे हैं और हमारी दवायें किसी भी तरह उनके माल से इन्फीरियर नहीं है और न ही कोई यह कह सकता हैं कि हमारी दवायें इतना फायदा नहीं करती, जितना फौरन दवायें करती हैं । इस लिये जहां तक रिसर्च का लाभ मिलने का ताल्लुक है, 5—10 साल के अन्दर

रिसर्च इतनी हो जायगी, कि हम खुद अपने पांवों पर खड़े हो सकेंगे।

श्री विमलकुमार म० चौरड़िया : आपने जो मेमोरेण्डम दिया है उसमें आपने सब बातों से सहमति प्रकट की है, लेकिन जहां तक कम्पलसरी लाइसेन्स का ताल्लुक है, उसके लिए कन्ट्रोलर ऐसी कौनसी बात अपने दिमाग में रखना चाहते हैं, जिनके लिये कम्पलसरी लाइसेन्स दिया जाय।

डा० गुरबक्श सिंह : यह तजुंबे की चीज है, जैस जैसे तजुर्बा होता जायगा, रूल्ज में अमेण्डमेंन्ट होती रहेगी। इस वक्त पेटेंन्ट ला पर बहस हो रही है, इस के बाद जिन जिन तबदीलियों की जरूरत होगी. वह इस में होती जायगी। इस वक्त तो इसका ऐसे ही बनने दिया जाय, रूल्ज बाद में बनाये जा सकते हैं।

श्री विमलकुमार म० चौरड़िया : क्या विदेशी लोग अपने माल की ज्यादा कीमतें लगाकर मार्केट को एक्सप्लायेट करते हैं, इसको रोकने के लिए ऐसी कोई व्यवस्था की जाय जिससे इन्टरनेशनल मार्केट में उनकी प्राइसेज को कन्ट्रोल किया जा सके उनके एक्सप्लायटेशन को रोका जा सके और उनके द्वारा जो खोज की जा रही है उसको सही दामों पर उपलब्ध कराया जा सके ?

डा० गुरबक्श सिंह : मुझे इस बारे में जापान का जाती तजुर्बा है। 1914 से 1921 की पहली लड़ाई में दवाइयां जापान जर्मनी से इम्पोर्ट करता था। इस लड़ाई के दौरान उनकी रिसर्च भी नहीं बढ़ी थी, सिर्फ कापींग चल रहा था, जैसा कि आज कल हम लोग कर रहे हैं। उसके बाद उन्होने एक आर्डर निकाल दिया कि अस्पतालों में वे दवायें सिर्फ जापान की बनी हुई ही इस्तेमाल होंगी, दूसरी दवायें इस्तेमाल न करें। इस वक्त हिन्दुस्तान में 16 हजार अस्पताल हैं अगर इनके लिये भी इस तरह से फैसला हो जाय कि जो खास दवायें हिन्दुस्तान में बनती हैं, जिनके बनाने में हिन्दुस्तानी कैपिटल लगा है, हिन्दुस्तानी वर्कर्स हों, हिन्दुस्तानी मिल्कियत हो, उनकी दवाओं को अगर आप मौका दें, 100 फी सदी न सही, 75 फी सदी दें, तो रिसर्च तो हम आटोमेटिकली शुरु कर देंगे।

इस वक्त क्या हो रहा है, मैं आपको एक मिसाल देता हूं। क्लोरोमाईसिटीन को ले लीजिये। इसको ओरिजनली पार्क डेविस ने बनाया। उनके दाम इस दवा के 1000 गोलियों के 700 रुपये हैं, जब कि हम लोग यही दवा 110 रु० में देते रहे हैं। जब उन्होने देखा कि हम इतने कम दाम में दे रहे हैं तो उन्होने क्या किया कि सरकारी अस्पतालों में इसके दाम 110रु० कर दिये, लेकिन आम पब्लिक के अस्पतालों के लिये वही दाम रखे। अब आप अन्दाजा लगाइये कि 700रु० और 110रु० में कितना फर्क है जबकि माल में कोई फर्क नहीं है और फर्क हो भी नहीं सकता क्योंकि ड्रग एक्ट इतना स्ट्रिक्ट है कि उसमें सब-स्टैण्डर्ड का सवाल ही पैदा नही होता। हिन्दुस्तान की फार्मास्यूटिकल कम्पनियों ने इस बात की कोशिश की है, कि उन दवाओं को कम से कम दाम पर यहां की जनता को दे सके। पिछले 6-7 सालों में इस तरफ काफी काम हुआ है।

Shri R. Ramanathan Chettiar: In their Memorandum they liked to know from the Controller the reasons why the patent was rejected. That is under clause 127.

Dr. Gurbux Singh: The point, Sir, is very small. The intention is that in this democratic country we should not give powers to just a single man.

Shri R. Ramanathan Chettiar: From the time you file an application, with

the Controller till the time the Controller takes a decision on your application, there will be a time-lag, and then naturally you will know the reasons which impelled the Controller to come to a conclusion? Is it necessary for the Controller to give you the reasons?

Dr. Gurbax Singh: In order to avoid complications at a later stage and get the blame for one thing or the other, there is no harm if the Controller gives something in writing to the applicant.

Shri R. Ramanathan Chettiar: Do you envisage the possibility that in your judgment the Controller may err in which case you would like to go in appeal?

Dr. Gurbax Singh: That is exactly what we mean by this. It is better that the Controller himself may give the reasons first so that lot of time can be cut short in the subsequent stages.

Shri R. Ramanathan Chettiar: In the normal process your viewpoint can always be put before the Controller and he can review the position himself.

Dr. Gurbax Singh: That is exactly what we have meant by this. Instead of rejecting straightway, let him give the reasons so that an opportunity is given to him to explain his conduct. He can have in his file the fact that the reasons were sent to the applicant.

Shri R. Ramanathan Chettiar: From the replies you have given to my honourable colleagues I find that you are representing the distributing trade.

Dr. Gurbax Singh: No. We are all manufacturers. I am the President of Gurco Pharma Private Ltd.

Shri R. Ramanathan Chettiar: I think your colleague Mr. Hansraj Gupta was confusing the question of royalty with the question of payment of compensation. You would expect compensation from Government if they take up manufacture in an emergency. Royalty is different from compensation. Compensation is not provided even in the present Bill.

Shri Hansraj Gupta: We want that this man should be able to get some compensation. We thought that the royalty was sufficient compensation...

Shri R. Ramanathan Chettiar: Only in percentage.

Shri Hansraj Gupta: Yes.

Shri R. Ramanathan Chettiar: Compensation should be the royalty percentage. Otherwise compensation is not provided in the Bill.

Shri B. K. Das: You have suggested that there should be definition of the term 'process' so that there might be one process for a single product. I think if you accept the dictionary meaning of the term, then probably you need not have any definition for that. Are you agreeable to this?

Dr. Gurbax Sing: Actually 'process' should be defined clearly in the Act so that there is no confusion about it.

Shri B. K. Das: Suppose it is mentioned in the Bill that you want one process only to be patented....

Shri Hansraj Gupta: One or more processes provided all of them are experimented upon by the patentee. If it is not experimented, then under the definition that process will not be covered.

Shri B. S. Giri: What we mean is this: A process which has been carried out in his laboratory by the applicant. We want that sort of definition.

Shri B. K. Das: He will say that he has been successful in oroducing a certain drug and he wants patent for all the processes. It may be that he will exploit only one process.

Shri B. S. Giri: For example, in Chemistry we have so many processes before you arrive at the final product. For instance, nitration will be done by various means. Mixing is a process. What we mean by process is something which he has carried out in his laboratory. If he has experimented with two processes, let him have two. If he has experimented with three, let him have three; but not processes which he has not experimented.

Shri K. K. Warior: Is there any method to find out that he has experimented it in his laboratory?

Dr. Gurbax Singh: We have a complete protocol for that in every laboratory. The Controller can examine that. Ultimately there is no objection to accept the dictionary meaning.

Mr, Chairman: When a particular phrase has no definition, the practice is to accept the dictionary meaning.

Shri B. K. Das: Then you wanted clause 87 to be deleted. But you should know that this is one of the important clauses in our Bill. This Bill has tried to put drugs, medicines and food on a different footing so that our people in India will have better advantage of exploiting them. If only clause 86 is there, do you think that all the safeguards provided in 87 will be available to them? Will they not be prevented from expoiting them?

Shri Hansraj Gupta: There was discussion on this very point in our organisation. A number of people were of your opinion. But the general concensus was that the patentee should be given three years as in the case of other articles. It is quite correct that there was a difference of opinion in our organisation on this point.

Shri Shyamnandan Mishra: I have two problems in my mind. One is that if the patent manufacturers deliberately keep the manufacture at a low level and because the economy of the scale is not available the prices of such products are kept artificially very high, what remedy would you suggest? Would you suggest that it must be binding upon the patent manufacturers to keep to a particular scale of operation, that is the optimum level?

Shri Hansraj Gupta: We thought that the Controller will go into that matter whether he has been carrying on manufacture according to the public requirements.

Shri Shyamnandan Mishra: My question is simple economics. Economy of the scale should be available to him if the product is to be cheap. If a particular manufacturer deliberately keeps the scale very low and therefore artificially keeps up the price very high, should it not be laid down in the beginning that he must conform to a particular minimum?

Shri Hansraj Gupta: After all the drugs may be manufactured. But to that extent they may not be used by the public. In case you compel him to manufacture, he may manufacture; but he cannot sell them. Therefore, these two things have got to be adjusted. A little time may be given to him. If the demand is there, and still if he is producing at a low level, the Controller can take action against him.

Shri Shyamnandan Mishra: Should there be a provision in law that there should be a minimal requirement of scale of manufacture on the basis of known demand?

Shri G. M. Parikh: There is sufficient provision already. If the manufacturer is not meeting the country's requirement, the Controller can revoke the licence and give it to other people. Or, Government themselves can take up the manufacture.

Shri Shyamnandan Mishra: There is a certain nuance of difference I am

trying to make. It may well nigh be impossible for a particular manufacturer to meet the demands of the community entirely. But should it not be insisted upon that a particular unit conforms to the minimal requirement?

Shri Hansraj Gupta: Where the demand is already there he must be asked to put up an economic unit. We can make a suitable amendment to that effect.

Shri Kashi Ram Gupta: How is it possible to assess the demand when the patent is granted?

Mr. Chairman: How can you lay down that condition when the patent is granted? It is not practicable.

Shri Shyamnandan Mishra: If the actual known demand of the community is X and if the production on the basis of the patent is going to be X—Y, should it not be laid down clearly that the remaining unfulfilled demand could be met by import?

Shri Hansraj Gupta: Apparently there is nothing against it. I only suggest that in the first instance, the quantity Y should be allowed to be manufactured here itself by means of a compulsory licence or licence of right.

Sardar Daljit Singh: In your memorandum you have said that the majority of foreigners who have taken out patents did not manufacture their patented products in this country. What is the number of such patents registered in India?

Dr. Gurbax Singh: It may not be possible to give the exact number. But I can give some examples. The total requirements of the country of chlorophenecol according to Government publications is 50 tons per year. The licensed capacity already is more than 52 tons, but the manufacture is hardly 10 tons, that too not at the basic stage, but from the intermediate stage. Other examples are tetracycline, hydrochloride, vitamin C, etc.

Shri Kashi Ram Gupta: Other than pharmaceuticals, what other industries are represented by you, which hold patents?

Shri Hansraj Gupta: Radio, textiles transistors, etc. There are several industries.

Shri Kashi Ram Gupta: You say that the period of patents may be reduced to 10 years in all cases. Is it the view of the manufacturers as a whole?

Shri Hansraj Gupta: Yes.

Shri Kashi Ram Gupta: But not a single manufacturer has given evidence before us like that. This is the first time I hear it.

Shri Hansraj Gupta: When we are asking for 10 years, we are taking into account the interests of other industries and the interest of the consumers also.

Mr. Chairman: Are other industries represented in your organisation? Have you taken their view also into consideration?

Shri Hansraj Gupta: Yes. We considered it in our committee. Most of the other manufacturers also are represented there.

Shri Kashi Ram Gupta: Do you know that FICCI and CSIR have got different views on this? They want to stick to 16 years, for items other than drugs.

Shri Hansraj Gupta: If the Controller is satisfied that 10 years are not sufficient, then 14 years may be given. We do not mind it.

Shri Kashi Ram Gupta: That means 4 years will be the renewal period.

Mr. Chairman: They do not mind if it is 14 years for other industries.

Shri Kashi Ram Gupta: I have stated the opinion of CSIR and other technical people.

Shri Hansraj Gupta: We do not know about that.

Shri Kashi Ram Gupta: Dr. Gurbax Singh said that we may be able to take to research in ten years. May I know his idea about a unit of pharmaceutical industry which can have a research wing of its own?

Dr. Gurbax Singh: I can talk about my own firm which has its office in Delhi to which a visit from the hon. Members of this Committee is always welcome. We have about eight specialists who are working only on research. We are spending about Rs. 50,000 a year at present. We have 4 M. pharm., 3 B. pharm and one B.Sc. who are placed under the charge of one medical man working only on research. While we are developing new products we are trying to deviate from the conventional products that are coming from foreign countries. I must make a statement that it is very uneconomical. The moment we go to the medical profession, they say that they want time before they change over from the previous conventional products. Therefore, our own research people say that they will take over new products a little later and they will continue to manufacture the conventional products. That is the state of affairs with a majority of manufacturers. As I said, I would welcome a visit from the Members to our firm. We are doing research on vitamins and also on herbs. We have not finalised anything excepting those conventional products which we are doing. For instance, combination of anti-biotics was in a very very ambiguous state and the foreign companies were telling that it was impossible for any Indian company to do that. Fortunately, my firm has been the first to do it and do it successfully. Chloremphenicol was never available from any corner in a ready-made injection form. It was available either in a powder form to be mixed with water or in some other way. My company was the first to produce it in an injectible form and we have been using it since 1956.

Shri Kashi Ram Gupta: You are doing research on products and not basic research?

Dr. Gurbax Singh: We are doing product research.

Shri Kashi Ram Gupta: What would be the minimum requirement of a unit doing basic research? What will be the yearly expenditure?

Dr. Gurbax Singh: About Rs. 4 lakhs to Rs. 5 lakhs a year and in about five or six years they can be very successful.

Shri Kashi Ram Gupta: CIBA has a research institute in Bombay. They say they are spending Rs. 50 lakhs a year, they have 25 senior scientists and so on. Are you of the opinion that such a large research unit is required?

Dr. Gurbax Singh: I do not think so. It is very difficult to criticise anybody. I would request this committee to go into the details of their expenditure and then they will see the real position. It may be that to avoid incometax they show huge expenditure under this head.

Shri Kashi Ram Gupta: There are experts who have said that it takes several years to finalise the clinical research. Are you of the same opinion?

Dr. Gurbax Singh: No. I can say that when we started manufacturing the basic injectible product of Chloremphenicol we first gave it to Safdarjung Hospital and, I remember, they took six months to give a confirmative report and after that we issued the product. Unless hospitals refuse to cooperate with the manufacturers, it should not take more than a year or two.

Shri Kashi Ram Gupta: Are clinical facilities the same here as in the European countries?

Dr. Gurbax Singh: Our doctors are reluctant to try new products on their patients. Therefore, what we do is, we try the medicines first on animals, which takes about six months, and then we give them to the hospitals who take another six months.

Shri Kashi Ram Gupta: You have said that you require a period of ten years. Is it from the date of sealing of the patent?

Dr. Gurbax Singh: Yes.

Shri Kashi Ram Gupta: There are also a number of model laws for developing countries. They also say that ten years is the minimum period. But seeing to the conditions of our country, do you think a ten year period is sufficient?

Dr. Gurbax Singh: Ten years would be the maximum.

Shri Kashi Ram Gupta: It means if this Bill is passed we will be able to have easy access to compulsory licensing?

Dr. Gurbax Singh: I should think so.

Shri Kashi Ram Gupta: Then we will be able to force foreign patentees to either start manufacturing in this country very soon or give compulsory licence.

Dr. Gurbax Singh: Yes.

Shri Kashi Ram Gupta: What about our local people, Indian firms who want to have research? Will this period be enough?

Dr. Gurbax Singh: Yes.

Shri Kashi Ram Gupta: In your memorandum you have said nothing about clause 66.

Dr. Gurbax Singh: That means we agree with it fully.

Shri Kashi Ram Gupta: Can you give some statistical data to elaborate this point to show that it is not correct that if this Bill is passed it will discourage foreign investment in this country?

Dr. Gurbax Singh: Here we are discussing the pros and cons for the betterment of our own community and not how much benefit should be given to the foreign manufacturers. On the contrary, I would be the first man to say that even if we stop foreign manufacturers nobody in this country will die for want of medicines. I can supply the required statistics if necessary. So far as price structure is concerned, besides help, we have to see how many people in the ountry are dying without medicines because they cannot afford them. Looking into that, at least our motto is to produce products at the minimum possible price so that the poor patients can obtain them. While that is our main motto as representatives of the industry here, the motto of the foreign manufacturers is quite different. We have got some statistics of prices which will prove that. For instance, TB is a bad disease in India and the price of one product manufactured locally is Rs. 30 whereas the price of the imported material is Rs. 12. This is due to the operation of the patent law. For another drug the local price is Rs. 31 while the imported price is Rs. 7. For a third drug the indigenous price is Rs. 90 while the imported price is Rs. 25. These are all unpatented drugs. You can see the difference. Once the new Patent law comes into force, the local prices are bound to come down.

Shri K. V. Venkatachalam: If, as you sya, these are all unpatented drugs, how will the prices be affected by the passing of the new patent law.

Shri G. M. Parikh: Our high prices are due to the cost of intermediates which have to be imported.

Shri Kashi Ram Gupta: Do you think that foreign collaboration is needed or not for the next ten years?

Dr. Gurbax Singh: It is a matter of opinion. Personally speaking, I have done it without foreign collaboration so far.

Shri Kashi Ram Gupta: I am asking for the country as a whole. Do you

think that we can do away with foreign collaboration immediately?

Dr. Gurbax Singh: A lot of fuss is made about it. Even the Finance Ministry would give permission only if we have foreign collaboration. There is a sort of mania for it in our country, including in the pharmaceutical industry.

Shri Kashi Ram Gupta: I want the opinion of your organisation.

Dr. Gurbax Singh: In Bengal 99 per cent of the companies are operating without foreign collaboration. In Bombay people are after foreign collaboration. In my own organisation, I have no foreign collaboration.

Shri Kashi Ram Gupta: What is the view of Shri Hansraj Gupta?

Shri Hansraj Gupta: We have always considered that foreign collaboration may be allowed to a certain extent. After all, we have nothing against foreign collaboration. It is a matter of convenience and judgment also. We must not put a ban on foreign collaboration on ideological grounds.

Shri R. P. Sinha: Would you like to have the inflow of foreign capital and foreign technical know-how or not?

Shri Hansraj Gupta: We would certainly welcome it.

Mr. Chairman: Thank you.

(The witnesses then withdrew).

(The Committee then adjourned)

Minutes of Evidence given before the Joint Committee on the Patents Bill, 1965

Tuesday, the 12th July, 1966 at 09.30 hours.

PRESENT

Shri S. V. Krishnamoorthy Rao—*Chairman.*

MEMBERS

Lok Sabha

2. Seth Achal Singh.
3. Shri P. C. Borooah.
4. Sardar Daljit Singh.
5. Shri Basanta Kumar Das.
6. Shri V. B. Gandhi.
7. Shri Kashi Ram Gupta.
8. Shri Madhavrao Laxmanrao Jadhav.
9. Shri Mathew Maniyangadan.
10. Shri Braj Behari Mehrotra.
11. Shri Bibudhendra Mishra.
12. Shri Chhotubhai M. Patel.
13. Shri Naval Prabhakar.
14. Shri R. Ramanathan Chettiar.
15. Shri A. T. Sarma.
16. Dr. C. B. Singh.
17. Shri K. K. Warior.
18. Shri Balkrishna Wasnik.

Rajya Sabha

19. Shri Arjun Arora.
20. Shri Vimalkumar M. Chordia.
21. Shri Shyamnandan Mishra.
22. Shri Dahyabhai V. Patel.
23. Shri Mulka Govinda Reddy.
24. Shri M. R. Shervani.
25. Shri R. P. Sinha.

REPRESENTATIVES OF THE MINISTRY OF INDUSTRY

1. Shri K. V. Venkatachalam, *O.S.D.*
2. Shri B. N. Atrishi, *O.S.D.*

3. Shri A. Joga Rao, *Controller General of Patents, Designs and Trade Marks.*

REPRESENTATIVE OF THE MINISTRY OF HEALTH

Shri S. K. Borkar, *Drug Controller of India.*

DRAFTSMAN

Shri R. S. V. Perisastri, *Deputy Draftsman, Legislative Department, Ministry of Law.*

SECRETARIAT

Shri M. C. Chawla—*Deputy Secretary.*

WITNESSES EXAMINED

I. Indian Chamber of Commerce, Calcutta.

Spokesmen:

1. Shri B. P. Khaitan.
2. Shri B. Kalyanasundaram.

II. Associated Chambers of Commerce and Industry of India, Calcutta.

Spokesmen:

1. Mr. C. A. Pitts.
2. Mr. A. B. Parakh.
3. Mr. I. Mackinnon.

III. Bengal Chemists and Druggists Association, Calcutta.

Spokesmen:

1. Shri P. K. Guha.
2. Shri T. K. Ghosh.

I. Indian Chamber of Commerce, Calcutta

Spokesmen:

1. Shri B. P. Khaitan:
2. Shri B. Kalyanasundaram:

(*The witnesses were called in and they took their seats*)

Mr. Chairman: The evidence you give is public and will be published and laid on the Table of the House. Even if you desire any part of it to be confidential, that also is liable to be distributed to Members of Parliament. We have received your memorandum which has been circulated to all the members. If you want to stress any particular point or add any new point, you may do so. Afterwards, members will ask questions.

Shri B. P. Khaitan: We are fully in agreement with the objects and purposes of the Bill. We would like to emphasise only one or two points. One is about the tenure of patents. The Bill provides that it shall be 10 years. You know after a patent has been registered it takes 4 or 5 years before any practical use can be made of it. So, having regard to the expenses and costs involved in working out a patent, setting up a factory, etc., 10 years is too short a period. So, we suggest that the tenure provided under the existing Act should not be reduced. We understand the question of tenure has been considered under the auspices of the UN and they have also recommended

a period of 20 years. This may be considered.

There is a provision for compulsory acquisition of patents by the Government, Government corporations or any person authorised by the Government, but the objects and purposes for which this compulsory acquisition will be made, like famine or defence, etc. have not been specified. This may alarm patent-holders and outsiders registering patents here. So, those objects and purposes should be laid down in the Bill itself.

Where royalty has not been agreed upon, the Bill provides a maximum royalty of 4 per cent. This may not be adequate. Therefore, the maximum limit should be raised.

Shri Kashi Ram Gupta: How many manufacturers of pharmaceutical drugs are members of your Chamber?

Shri B. P. Khaitan: About 50 to 60.

Shri Kashi Ram Gupta: The model law itself provides on page 49 in its commentary that a patent can be granted for a minimum period of 10 years from the date of grant of the patent. This is the commentary on section 25.

Shri B. P. Khaitan: We were informed that it is 20 years. We stand corrected.

Shri Kashi Ram Gupta: The main reason given for demanding a longer period for the pharmaceutical industry is that they have to spend on research. But in India, the industry is not spending anything on research. In view of this, is it not desirable in the interest of the consumers that the period should be minimum?

Shri B. P. Khaitan: If there is no research, there will be no patents. If there is research, there will be expenditure. If you do not give a longer period, the incentive for research will not be there.

Shri Kashi Ram Gupta: Is there any research undertaken in the Calcutta region?

Shri B. P. Khaitan: Attempts are being made. People are now thinking in terms of undertaking research. There is a change of outlook in the industry. That is a well-known fact.

Shri Kashi Ram Gupta: Can you name any research institute in Calcutta.

Shri B P. Khaitan: Many institutions have been set up. But actual research in the proper sense of the term is not there.

Shri Kashi Ram Gupta: Your Chamber represents both the pharmaceutical manufacturers and also the other industries' manufacturers?

Shri B. P. Khaitan: Our Association is composite representing manufacturers, consumers, traders and industrialists.

Shri Kahi Ram Gupta: In view of that, may I know whether the manufacturers of other industries have also demanded any amendment to be made in this Bill so far as the period is concerned?

Shri B. P. Khaitan: Our Memorandum has been drafted by the committee which is representative of all interests.

Shri Kashi Ram Gupta: So, the 14 years period from the date of completion of specifications is agreeable to you. My point is this. The existing Act provides 16 years period from the date of application and this Bill provides 14 years period from the date of completion of specifications. So, that does not make much difference. Do you agree with it or not?

Shri B. P. Khaitan: We have mentioned in our Memorandum that the period of 16 years should not be reduced.

Shri Kashi Ram Gupta: The period of 14 years is from the date of completion of specifications. Normally, it takes 1 to 1½ years to complete specifications. The period of 16 years is from the date of application. There is not much difference between the two. I want to know whether you are agreeable to that aspect.

Shri B. P. Khaitan: It makes no difference in that case.

Shri K. K. Warior: I wish to know whether you have ascertained the views of the members of your Association representing pharmaceutical industry in particular separately.

Shri B. P. Khaitan: They are appearing separately before you. They have sent a separate memorandum.

Shri K. K. Warior: I want to know whether you have ascertained their views.

Shri B. P. Khaitan: We have not done it.

Shri K. K. Warior: May I know whether the Chamber is representing foreign interests also? Have you any foreign members?

Shri B. P. Khaitan: No.

Shri K. K. Warior: May I know whether in the view of the Chamber the foreign patents come in the way of development of the industries represented by the members of your Association?

Shri B. P. Khaitan: There have been so many collaborations with foreigners at high cost. That is purely with a view to acquiring their know-how including their patent rights.

Shri K. K. Warior: May I know whether there is any difference of opinion between the collaborating interests and the non-collaborating interests?

Shri B. P. Khaitan: There will always be bargaining between the collaborating interests and the non-collaborating interests.

Shri K. K. Warior: Which has the more predominant voice in your Chamber, the collaborating interest or the non-collaborating interest?

Shri B. P. Khaitan: Everybody wants to collaborate but all have not got the resources.

Shri K. K. Warior: That is not the point. I want to know whether the collaborating interests are more predominant than others, whether their voice is felt more than others.

Shri B. P. Khaitan: The voice of collaborating interests is felt more.

Shri K. K. Warior: So, your Chamber is to safeguard the collaborating interests more than others.

Mr. Chairman: You can form your own opinion.

Shri B. P. Khaitan: I can explain it. We are interested in buying the know-how. We want to give the least terms to the seller but yet we have to give him the price.

Shri K. K. Warior: There are patent rights given to foreign collaborators or foreign-owned companies. Suppose they are not manufacturing those things here. Should these rights be given to them for importing these things only for sometime so that after sometime they may establish the industry here? What should be the attitude taken against those concerns if we find that they are not establishing the industry here?

Shri B. P. Khaitan: The Bill has already taken care of that and we have not objected to that. We have only said that royalties and other things should not be so low that people may be frightened.

Shri K. K. Warior: May I know whether you agree to make a differ-

ence between the drug industry and the other types of industries?

Shri B. P. Khaitan: The Bill has already made that distinction.

Shri K. K. Warior: We have made it. But what is your opinion?

Shri B. P. Khaitan: We have not differed from that.

Dr. C. B. Singh: Mr. Khaitan, may I know how many patents are being utilised in the Calcutta region at the moment?

Shri B. P. Khaitan: I have not got that statistical information.

Dr. C. B. Singh: When we went to Calcutta, we were told that there were in all 8 patents and out of them, probably 4 were being used.

Shri B. P. Khaitan: I will not be able to give that information.

Dr. C. B. Singh: I am telling this to you. This is for your information. Only 4 patents are being used at the moment. My point is this. You have said that for helping research, you would like the period to be extended. That is the main argument. What are you doing to help research in your region? I agree with you that without research you cannot have any new products and that you cannot have more patents. What have you done to make an effort in that direction?

Shri B. P. Khaitan: My argument is based on a commonsense view of the matter, namely, in other foreign countries also, in order to encourage research, they have given a certain period within which a patent should be worked.

Dr. C. B. Singh: What have you done to encourage research here?

Shri B. P. Khaitan: I am answering your question. It is well-known that in India for many years there has been no research. The question is how to encourage research. The idea of research has just started catching up. The question is: Will it encourage research or discourage research if the period is short? That is the viewpoint that you have to consider.

Mr. Chairman: There are several countries which have made this distinction. Take, for example, Canada.

Shri B. P. Khaitan: They are cases of developed countries.

Mr. Chairman: In Italy, they have no patent law for food and drugs industry. Japan had no patent for food and drugs industry. There are many countries like that. Why should you object if we make a difference in the interest of the public?

Shri B. P. Khaitan: All that I can say is this. You have to decide between the two views.

Mr. Chairman: There are some countries which have given 5 years or 7 years period for food and drugs industry.

Shri B. P. Khaitan: Those facts are to be considered by you.

Dr. C. B. Singh: In Calcutta, there is a post-graduate medical institute. Have you heard about it?

Shri B. P. Khaitan: I have not heard about it.

Dr. C. B. Singh: You have mentioned that in clause 48, there is no mention of royalty. What do you want? You want the royalty to be paid when this is to be acquired.

Shri B. P. Khaitan: Yes. I have already said that when there is compulsory acquisition by the Government, the objectives or the purposes for which it is to be acquired should be specified and there should be a provision or royalty also. It is implied that there will be a royalty...

Dr. C. B. Singh: What do you suggest? Would you like to suggest any figure here? Would you like that to be agreed to by the two parties concerned, by the Government and the other party, by mutual arrangement?

Shri B. P. Khaitan: It is all right if it is by mutual agreement. But, if it is forced, there should be a ceiling provided for as in the case of private users.

Dr. C. B. Singh: You have not made any mention about the right of appeal. At the moment, in case of dispute, the right of appeal entirely rests with the Drug Controller or it comes to the Government. Do you agree to this?

Shri B. P. Khaitan: We have not suggested that. The right of appeal should be to a judicial body. Either it may be an administrative tribunal with judicial bias or a high court.

Dr. C. B. Singh: Do you agree with the setting up of a special Patent Tribunal as is the case in some foreign countries?

Shri B. P. Khaitan: So long as the judicial authorities are there, it does not make much difference.

Dr. C. B. Singh: My last question is this. You have laid too much stress that the patents should be for a product. You have dealt with that in your memorandum. On this, we have varying opinions. You have mentioned two countries where they are patenting the process. But there are many other countries to-day where they are patenting what are called products; then there are others who are patenting both process and products. What are the reasons for your laying too much stress on products alone?

Shri B. P. Khaitan: That is because of a majority of our members representing pharmaceutical industries favouring this. The two views are already there. Personally I cannot understand the difference between the two and tell which is more important. But, since a majority of our members wanted it, we have laid stress on this.

Dr. C. B. Singh: A majority of the people are in favour of products and not in favour of process. You cannot give the reasons because you do not understand the difference between the two.

Shri B. P. Khaitan: I have not been able to understand the difference between the two myself, this being a technical matter.

Shri M. L. Jadhav: You say that the period is for 20 years. Is it from the date of application?

Shri B. P. Khaitan: We have suggested 16 years. It should be from the date of grant of patent.

Mr. Chairman: They have already answered this question.

Shri M. L. Jadhav: Can you tell me whether the cost of medicines which are manufactured here in India is higher than the imported medicines?

Shri B. P. Khaitan: We have no knowledge of it.

Shri B. Kalyanasundaram: We have got another Association called Indian Chemical Manufacturers' Association. Perhaps that body has been called for giving evidence before this Committee. Since this is a technical matter, they would be in a better position to answer this question.

Mr. Chairman: It seems they are not competent to answer.

Shri Arjun Arora: Do you have any information about the higher rate of royalty and the lower rate of royalty paid by your Members to foreign collaborators?

Shri B. P. Khaitan: We have no information about that.

Shri Arjun Arora: Will you be able to collect this information and send it on to the Committee within a fortnight or so?

Shri B. P. Khaitan: We shall make an attempt.

Shri Arjun Arora: I hope you will be successful if you make serious efforts.

Shri B. P. Khaitan: I think collaboration agreements provide for royalties varying from 2 to 10 per cent. Of course, now, Government usually sanctions between 2½ per cent and 5 per cent. This varies with the importance of the industries.

Shri Arjun Arora: I don't want you to elucidate the government's policy. We have the Industry's Minister here. He will do so if necessary. What is the rate of royalty that your members want?

Shri B. P. Khaitan: All these collaboration agreements are with the Industry Ministry. The rates are also there. So I need not make an attempt to send you the information.

Shri Arjun Arora: Another question is this. You made a mention about research and development. You emphasised the importance of research in a developing economy. Have you given any thought to the development of drug industry in a country like Italy where there is no patent law?

Shri B. P. Khaitan: I am not competent to express any opinion.

Mr. Chairman: They have no knowledge of it.

Shri Arjun Arora: Do you have some information about Japan where there is no patent law? When they were developing, they had the patent law. They considered themselves that they had developed sufficiently to protect themselves. Now there is no patent law.

Shri B. P. Khaitan: On these subjects, I am not competent to say anything. As I said already, I have expressed my views from a commonsense point of view.

Shri Arjun Arora: Why do you insist on 16 or 20 years from the commonsense point of view? Why not six to seven years?

Shri B. P. Khaitan: That is my commonsense view.

Shri M. R. Shervani: I hope you will appreciate that this Bill is intended to increase the industrial growth and industrial development rather than to retard it. As far as the period of 16 years is concerned—this is what you recommend—don't you think that if the period is shortened, it will help the people to come into the industry to develop a particular product or process sooner and we will have more production?

Shri B. P. Khaitan: The whole point is that we have not undertaken that research so far. We are only concerned with the results. We must encourage research. We have to judge whether a longer period of protection will inspire the people to go in for research or not.

Mr. Chairman: Till now we had a longer period. Has it increased the research?

Shri B. P. Khaitan: Since when we had a longer period?

Mr. Chairman: Since 1947.

Shri B. P. Khaitan: This longer period has no meaning. The law is there. But the encouragement is not there. You know, Sir, Lancashire cotton had to be brought here to be converted into cloth. Similarly, jute went to Dundee. Such being the case, how can we think of research. During these 17 years we were busy in many other directions. The idea of research has now come to us by

way of contacts with foreign countries and foreigners.

Shri M. R. Shervani: The greater the production lesser the chance of development because other people would be discouraged. Where the patent is there and even if the period of the patent is shortened as in the Bill, still you will have five years lead over somebody else. That is more than sufficient to keep ahead of others who will put up industry on expiry of patent.

Shri B. P. Khaitan: To judge whether five years is sufficient, one has to take into account all the expenses and efforts which he has put in in order to do the research. So far as we are concerned, in our judgment, it appears that longer period would be better. You cannot objectively satisfy yourself. For this, what you have to do is to make a balance between the two objectives—one objective is to remove restricted practices and make them open to as many people as possible and the other objective is to see that research takes place. People are not shy of making research and putting in efforts because they think that after making their research, they are getting back their cost of research. You have to balance the two.

Shri M. R. Shervani: In your memorandum, you suggest that the minimum period of exclusive exploitation should be 16 years.

Shri B. P. Khaitan: That is what we have suggested.

Shri A. T. Sarma: In your memorandum you have suggested complete scrapping up of clauses 87 and 88. But the grounds given are not sound. Will you substantiate your statement?

Shri B. Kalyanasundaram: This clause provides that the royalty rate should not exceed 4 per cent. We feel that fixing up of a ceiling will not be conducive to get foreign interests here. So, our suggestion is that, instead of fixing a rate under a statute, leave it to be negotiated between the parties by agreement. After all, the agreements are screened by Government. So Government have an effective say to regulate the rate of royalty. Wherever they feel that it is excessive, they need not give their consent to the agreement. So, as I said, instead of fixing the rate under a statute, you may leave it to be negotiated between the parties and Government has already got the power to screen it. That is sufficient.

Shri A. T. Sarma: Then there will not be any limit to royalty. There will be an inventor who will claim 80 per cent and you are bound to give it. Will it not be detrimental to the interest of the country? You may suggest increasing the rate of royalty. But you say that both the clauses should be dropped. There is a vast difference in increasing the royalty and dropping the clauses altogether.

Shri B. P. Khaitan: All collaboration agreements have to be approved by Government. Therefore, even if these clauses are not there, unless the Government sanctions, no royalty can be agreed to and no agreement can be finalised. So the purpose of that clause is served in that manner. As I said in the opening portion of my evidence, either raise the royalty which could be compulsorily fixed or leave it for negotiation between the parties subject to the overall control of the Government, which is already there.

Shri A. T. Sarma: You do not want these clauses at all?

Shri B. P. Khaitan: We have explained our view points. It is for you to decide.

Mr. Chairman: We were given to understand that 2 to 3-1|2 per cent is the royalty that is normally paid and 4 per cent is quite liberal. What is your view?

Shri B. P. Khaitan: We have already suggested that it should be left to be negotiated between the parties. While actually fixing the royalty, it may be 4 per cent or 3 per cent or even 2 per cent. In particular cases, 4 per cent may not be sufficient. If you make 4 per cent as the ceiling, then even if you feel that a higher rate is justifiable, you will not be able to pay.

श्री चौरड़िया : आप चाहते हैं कि अवधि बढ़ा कर सोलह साल रखी जाए। दूसरी और हमारे सामने उपभोक्ताओं का प्रश्न भी है। पेटैंट राइट अगर ज्यादा देर तक रहता है तो उपभोक्ता को अधिक मूल्य देना पड़ता है। मैं कुछ आपको उदाहरण देता हूं। विटामिन बी 12 की प्रारम्भिक मार्किट प्राइस 2000 रुपये फी ग्राम थी और बाद में चल कर 40 रुपये फी ग्राम हो गई। इसी तरह से स्ट्रेप्टोमाइसीन की पहले 19 रुपये फी ग्राम थी और बाद में एक रुपया फी ग्राम हो गई। क्लोरमफेनीकाल की 1900 रुपये किलोग्राम थी जो बाद में 240 रुपये किलोग्राम हो गई। इस तरह की कितनी ही मिसालें हैं। एक ओर तो रिसर्च के लिए इंसेंटिव देने का प्रश्न है और दूसरी ओर कंज्यूमर को उचित मूल्य पर ये चीजें मिल सकें, यह प्रश्न है। इन दोनों का हल हमें निकालना है। इसके लिए आप कौन सा तरीका सुझाते हैं? प्राइस कंट्रोल की परम्परा जो पहले से चली आ रही है, उसके बारे में आपकी क्या राय है।

श्री खेतान : हम आपके साथ सहमत हैं। प्राइस कंट्रोल जहां पर आप कर सकते हैं करें। आलरेडी यह चीज चल रही है। पहले से ही प्राइस कंट्रोल की परम्परा हैं।

श्री चौरड़िया : कम्पलसरी एक्विजिशन पेटैंट का करने के बारे में आपको आपत्ति है। मैं जानना चाहता हूं कि क्या कोई ऐसी परिस्थितियां हैं जिन में आप गवर्नमेंट को इस बात का अधिकार देने के लिए सहमत हैं कि उन परिस्थितियों में यदि सरकार चाहे तो उसको उपयोग में ला सकती है?

श्री खेतान : डिफेंस की आवश्यकतायें हों तो ऐसा किया जा सकता है। फूड शार्टेज हो, फेमिन हो तो उसके लिए ऐसा किया जा सकता है।

श्री चौरड़िया : आपका व्यापारियों का चैम्बर है। जो निर्माता हैं वे भी व्यापारियों का ही एक सेक्शन है एक तरह से। ड्रग्ज वगैरह के जो निर्माता हैं उनका यह कथन रहा है कि हमारे लिये पेटैंट ला नहीं होना चाहिये, इससे हमारे निर्माण में दिक्कतें पैदा होती हैं। उनकी मुख्य दलील यह थी कि आज हम डिवेलेप्ड नहीं हैं पूरी तरह से। पहले हम नकल करलें, फिर उसमें सुधार करलें और फिर नई नई खोज करके हम अपने यहां पर विकास कर सकते हैं। आपका जो चैम्बर आफ कामर्स है यह एक्सचेंज में ज्यादा विश्वास करता है। उधर से खरीद कर इधर बेचने में और इधर से खरीद कर उधर बेचने में ज्यादा विश्वास करता है। आप चाहते हैं कि सोलह वर्ष की अवधि हो। अब हम बड़े धर्म-संकट में पड़े हुए हैं कि हम आपका कथन मानें या निर्माण करने वालों का कथन मानें। हम चाहेंगे कि आप हम को मार्ग-दर्शन दें।

श्री खेतान : बेसिक चीज यह है कि पेटेन्ट राइट्स को प्रिजर्व करना पड़ेगा, वर्ना रिसर्च नहीं होगी। कोई आदमी कोई नई चीज क्यों बनायेगा, अगर वह उसको बनाने के बाद उसका फल एन्जाय न कर सके? हमने पहले ही अपने से व्यूज रख दिये हैं कि इस बिल के आबजेक्टिव्ज से हम लोग सहमत हैं, लेकिन साथ साथ दोनों की आवश्यकताओं का संतुलन आपको करना पड़ेगा। यह आप के सोचने की बात है कि आप यह किस तरह से करें।

Mr. Chairman: All the patentees are not carrying on research in India. They are not even manufacturing the patented articles here.

Shri B. P. Khaitan: That is so.

Mr. Chairman: It is to prevent such abuses that this provision is there.

Shri B. P. Khaitan: There are two parts here: one is government user and the other is private parties. So far as private parties are concerned, the Bill provides for adequate compensation. But so far as government user is concerned, it has been left vague and the area for which the compulsory acquisition can be made has not been defined. Therefore, so far as government is concerned, it should be defined that it can be acquired only for specific purposes under certain conditions and in the case of private parties, an opportunity should be given to the patentee, "well, you have not utilised your patent; utilise it within six months; otherwise, we will acquire it."

Mr. Chairman: When he has not utilised it within a reasonable period, why should he be given a further opportunity?

Shri B. P. Khaitan: He might not have been able to utilise it due to circumstances beyond his control and if he is given another two or three months, he may be able to utilise it.

श्री चौरड़िया : क्या आपको ज्ञात है कि पेटेन्ट की सिक्युरिटी होने की वजह से ही विदेशी कम्पनियां अन्तर्राष्ट्रीय बाजार में कम कीमत पर माल बेचती हैं और वही माल भारतवर्ष के बाजार में ऊंचे दाम पर बेचतीं हैं इसी के सम्बन्ध में यू० एस० ए० की सीनेट की रिपोर्ट नम्बर 448 में कहा गया हैं :

India which does grant patent on drug products, provides an interesting case example. The prices in India for the broad spectrum antibiotics, Aureomycin and Achromycin are among the highest in the world. As a matter of fact, in drugs generally, India ranks amongst the highest priced nations of the world—a case of inverse relationship between *per capita* income and the level of drug prices.

ऐसी स्थिति में अगर हम आपके कथन के नुसार पेटेन्ट की अवधि 16 वर्ष कर दें, तो हम और आफ़त में फंस जायेंगे, जबकि हमारी आमदनी पहले ही कम है और संसार के मुकाबले में हम से अधिक पैसे लिये जाते हैं। जब आप हमारे आबजेक्टिव्ज से सहमत हैं, तब आप हमको कोई ठीक रास्ता बतायें, ताकि हम दोनों साथ साथ चल सकें।

श्री खेतान : उसका और कोई रास्ता निकालना पड़ेगा, जैसे प्राइस कंट्रोल है।

Mr. Chairman: I would like to point out this to you. Please see clause 102 which says:

> "The Central Government may, if satisfied that it is necessary that an invention which is the subject of an application for a patent or a patent should be acquired from the applicant or the patentee for a public purpose, publish a notification to that effect....."

So, both public purpose and notification are there. It will be done by notification.

Shri B. P. Khaitan: We have only suggested that the purposes should also be defined.

Mr. Chairman: It will be a public purpose. Notification will certainly mention it.

Shri B. P. Khaitan: Government have got unlimited rights. I may also say that clause 102 has to be read with clause 99 which says:

> "For the purposes of this Chapter, an invention is said to be

used for the purposes of Government if it is made, used, exercised or vended for the purposes of the Central Government, a State Government, or Government undertaking or any other undertaking in a class or classes of industries which the Central Government, having regard to the interests of the general public may notify in this behalf in the Official Gazette".

The purposes for which such notification can be issued are not provided.

Mr. Chairman: The notification will mention it.

Shri B. P. Khaitan: Under the Land Acquisition Act, it is provided that it can be acquired for a public purpose and public purpose is defined. In this Bill you do not provide the purposes for which Government can acquire.

Shri R. Ramanathan Chettiar: Your Chamber's Memorandum, from the beginning to the end, suggests that this will act against the inflow of foreign capital in India. You know that the purpose of this Bill is to prevent foreign capital coming here on a monopolistic basis. We can have foreign capital on a collaboration basis with our Indian entrepreneurs, but not on the basis of cartels or monopoly basis. That is the object of the Bill, and I am sure you will agree with this. Unfortunately your memorandum gives an impression different from this. This is at least the impression I got reading between lines of your memorandum.

Shri B. P. Khaitan: We never meant that. We said that foreign collaboration is now on the basis of 25 per cent participation and if their rights are not protected they will not collaborate. This is what we meant. We never meant the other thing. In fact we agree with you.

Shri R. Ramanathan Chettiar: Another point is, you are stressing more on the product rather than the process. Have you any objection to this Bill covering process-cum-product?

Shri B. P. Khaitan: That will meet our point.

Shri B. K. Das: In your opinion the clause relating to licence of rights is the most objectionable. This is a special clause provided so that any person can exploit any patent for preparing drugs and medicines. Royalty has been provided and other provisions are also there. Why do you object so much to this clause especially when high prices are charged by foreign patentees? They are only importing and not exploiting the patents here. We are trying to make a special provision for manufacture of drugs in this country so that all this misuse may be eliminated. Why do you object to this?

Shri B. Kalyanasundaram: We have explained that in our memorandum. Something is manufactured out of very expensive research by somebody, and somebody else gets hold of a licence and starts manufacturing it.

Shri B. K. Das: In the life time of the patent, nobody can ask for it.

Shri B. Kalyanasundaram: We have made a specific suggestion. That is to give notice to the patent-holder that if he does not produce it, we shall give licence.

Shri B. K. Das: That means you are in favour of compulsory licensing.

Shri B. Kalyanasundaram: Yes, after giving an opportunity to the patent holder.

सरदार दलजीत सिंह : आल इंडिया मैन्युफैक्चरर्स एसोसियेशन और दूसरे एसोसिएशंस ने कल यह कहा है कि फारेनर्स अपना पेटेंट यहां रजिस्टर करा लेते हैं लेकिन मैन्युफैक्चर नहीं करते हैं ताकि हिन्दुस्तान वाले उसको मैन्युफैक्चर न कर पायें और एक बात यह बतायी है कि बहुत सा माल इम्पोर्ट किया जाता है, वह मैन्युफैक्चर नहीं करते, बल्कि ब्लैक मार्केट में देते हैं। लेकिन आपने यह

राय दी है कि इन तमाम कंट्रीज से राय लेकर इस बिल को तैयार किया जाय जैसे कि यू० के० है, फ्रांस है, वेस्ट जर्मनी वगैरह हैं, तो मैं जानना चाहता हूं कि उनकी राय और आपकी राय में यह अन्तर क्यों है ?

Shri B. P. Khaitan: I think we have basically answered this question and that is about price control and all that. If patent is not used, then after giving notice to the patent-holder other people should be allowed to use it. We have covered all these points either by implication or expressly.

Sardar Daljit Singh: You have said that in 1961 the United Nations passed a Resolution that its Secretary General should report on the existing patent systems in developed countries and the role of patents in the transfer of technology from developed to developing countries. May I know which technology has been.....

Mr. Chairman: That has been covered.

Shri Shyamnandan Mishra: One construction generally put in for the strong plea that the Indian industrialists make for patent rights is that it is not because of their solicitude for the Indian enterprise and initiative so much in this field but because they want to enter into some kind of collaboration agreement with foreign patentees and thereby they also want to enjoy all those privileges and rights that would be granted to foreign patentees. Will the witnesses kindly clear this point so far as this popular misconception or misunderstanding is concerned?

Shri B. P. Khaitan: This is based on a slight misconception. We will not be able to induce a foreign patentholder to bring his knowledge to India and transfer his patent or collaborate with us unless his product is protected. It is not for protection of the Indian collaborator, it is because he will not collaborate with us unless his rights are protected. We are in need of foreign know-how. This is the fundamental basis on which this opinion has been expressed. We can induce a foreign collaborator to come here on the basis of his rights being protected. If his rights are not protected he will not come.

Shri Shyamnandan Mishra: Know-how is a different thing altogether from patent. Know-how can be purchased as is done in many countries. Of course, know-how is associated with patent, but know-how can be purchased.

Shri B. P. Khaitan: Know-how is certainly a wider term than patent, but patent is nothing but know-how.

Shri M. R. Shervani: With regard to clauses 87 and 88 you say that these clauses may have serious adverse repercussion on research. May I know whether the expenses incurred on research are allowed by the income-tax laws as revenue expenditure or not?

Shri B. Kalyanasundaram: Yes.

Shri M. R. Shervani: That means the State Government or the Government of India has already contributed 50 per cent towards the cost of research and the amount spent by the parties on research would be half their actual expenditure?

Shri B. Kalyanasundaram: Our approach has been slightly different. We are talking of research done in foreign countries and the product arrived at by reason of that research and patented here.

Shri M. R. Shervani: In foreign countries also research expenditure is allowed by the income-tax department. That means the actual expenditure on research is less than half the total expenditure. Is that right?

Shri B. Kalyanasundaram: That could be.

Shri M. R. Shervani: You say that compulsory licensing or licensing of rights would result in all sorts of people getting free licences and manufacturing drugs of inferior quality.

Why should you have lack of confidence in the judgment of the Controller? The Controller grants a licence only after taking into consideration the financial capacity and technical ability of the party concerned.

Shri B. Kalyanasundaram: You cannot take it for granted that whenever the Controller gives a licence he will give it only to parties who can do the job properly. We know that in the matter of industrial licensing so many have become infructuous. Therefore, there cannot be any presumption that because the Controller gives the licences the parties will be able to do the job.

Mr. Chairman: We have no more questions to ask you. Thank you very much for coming and helping the committee by giving evidence.

(The witnesses then withdrew).

H. Associated Chambers of Commerce and Industry of India, Calcutta.

Spokesmen:

(1) Mr. C. A. Pitts.

(2) Mr. A. B. Parakh.

(3) Mr. I. Mackinnon.

(The witnesses were called in and they took their seats)

Mr. Chairman: The evidence that you give is public. It will be printed and distributed to the members of the Committee and Members of Parliament and also laid on the Table of the House. Even if you want any particular portion to be treated as confidential, it will be printed as circulated to the Members of Parliament.

We have received yonr memorandum and it has been circulated to Members. If you want to make out any new point, or stress some particular point, you may do so. Afterwards, our members will ask questions.

Mr. C. A. Pitts: First of all, gentlemen, may I thank you for this opportunity for the Associated Chambers of Commerce and Industry to present their point of view to you in person? May I perhaps begin with just a word about the nature of the organisation which we represent?

The Associated Chambers of Commerce and Industry, or ASSOCHAM as it is usually called for short, is an apex organisation on the top of 11 chambers of commerce and industry which in fact cover the whole of India geographically. These 11 chambers altogether have more than 2,500 member-companies, and these companies employ more than two million men and women. The organisation represents strongly wholly Indian industry, but it also represents, again strongly, many examples of collaboration and partnership between Indian and foreign concerns. And, finally, there is to be found within its ranks every conceivable kind of industrial activity, right from the traditional industries such as tea, coal and jute right through to the most modern industries employing the very latest technology available in the world.

We three, gentlemen do not come before you as legal experts in the context of patent law. We are practising men of business, professional managers who live and work in India, and it is not our task to be concerned with any high-strung discussions of the principles of private ownership, or technical property, or anything of that kind. We are concerned in our comments only with the practical down to earth effects of this Bill on the pace of development of India's industrial plans. We would like to submit that against this general background, it is necessary to view the Patents Bill not as a Bill by itself in isolation, but just as a tool or as part of a set of tools in the hands of the Government and the executive, designed for ensuring the effective and the prompt development of India's industrial economy and for safeguarding the essential interests of that economy and hence of the Indian nation. Now, against these criteria, how, in

Ascham's view, does this Bill measure out? It is, in our considered judgment, a Bill which contains certain provisions which far from accelerating the pace of India's industrial development, will tend to slow it down and prove not beneficial but harmful to the public interest. There is also, we feel, a tendency to regard this Bill as being concerned almost essentially with food and with drugs. But in our view, this is misleading. A number of provisions of this Bill—*e.g.* clauses 48, 53, 89, 93, 99, 100 and 116—have a direct effect on the total climate as it were which affects all of industry within this country. More specifically, clause 87(a) (iii) dealing with licences of right seems to us to affect the whole of the chemical industry; and the chemical industry is, of course, a very wide and a very diverse thing which includes products as different as modern plastics and polymers, synthetic fibres, dyestuffs, modern synthetic paints and so on, as well as the whole range of organic and inorganic chemicals.

Now, we would like the Bill to be considered—we think it could be considered most usefully—under two broad headings; first what we regard as its domestic effect within India and secondly what we would regard as its international effect.

Now, it is our contention, gentlemen, as set out in our memorandum, that the cumulative effect of those powers in the Bill which are totally reserved to Government, as in clause 48, the summary and retrospective curtailment of the terms of the patents as in clause 53, and the clauses relating to licence of right set out in 87 and 88, would be to remove—I can give some instances—or greatly reduce that protection which has hitherto been accorded to the fruits of research and invention and, in our view, the effect of this domestically can only be to discourage research, and even where research continues to be carried on, to cause the results of it to be suppressed. This, in our view, would be a very great loss to the nation and a very great loss to the source of important materials for the academic and scientific world of India. We would submit that in the broad context of what India is trying to do, it is difficult to reconcile such a policy which we believe to be inherent in this Bill, with the call that the Government through its leaders and Ministers has been making in recent months to industry for a great increase in the research efforts in the drive to achieve self-sufficiency. Ministers have gone so far as to suggest in public addresses that they would consider greater incentives in order to promote a greater effort on research. And it does seem to us that in this area, the effect of this Bill as we see it, is incompatible with that declared policy of Government.

This is a highly technical modern world. Science and technology call the tune in the pace of industrial advancement as can be seen by a glance at any of the leading industrialised countries of the world. It seems to us—we submit this view with all deference—that it is contrary to the national interests that in this year 1966 India should be initiating an action which, in our view, will discourage and deter research and development and would encourage the suppression of important scientific information. There is another point here. Let us consider the effect of this on the large body of extremely able young Indians who are now beginning to be turned out of academic institutions, highly trained and ready and eager to participate in a research effort which will benefit their country. We believe that the by-product of this depressant to research will be a correspondingly greater temptation for these young men to go elsewhere in the world to find the satisfaction that they will be deprived of in their own country. India will find itself faced with an increasing "brain drain" as it is being called in other parts of the world.

Internationally, in the view of Assocham, this Bill could have a num-

ber of harmful effects. Here again I would like to make a reference to what has been declared to be Government's policy regarding foreign investment and the need to achieve a more rapid implementation of India's Plans to encourage foreign investment and the importation of modern technology in those fields where it is thought that it would be a matter of priority. Almost all the highly industrialised countries of the world, who are owners of this extremely modern technology which India desires, adhere to the principle of strong patent protection. Even those countries who hitherto have been outside of this, such as Italy, are now reported to be coming into line and having within their country a law which does afford a strong patent protection. In Russia, too, which is, so to speak, outside the democratic world, has seen the value and the force of such a system of protection. The whole trend in the industrialised countries is towards harmonising their patent laws so that they are in step with each other so as to encourage and make easy trade in technical information and indeed trade in technical products. It is our judgment that the effect of this Bill will be to breed dismay in the minds of those owners of modern technology overseas who are interested in India as an area of investment because they see apparently a wish of the Government of India substantially to reduce the protection afforded to patents not only in the future but summarily, so to speak, in respect of patent protection already granted. But more than that, we believe that these countries, because of this, will be reluctant to seal their patents in India and to publish the extremely valuable scientific information that they contain. This will be a great loss to India's academic and scientific institutions. I would like, if I may, for a moment to draw attention to the difficulties which this Bill would bring in the way of the movement of goods for exports. If India's patent laws are not generally in line with those of the world to which she seeks to export her manufactured goods, impediments to export are likely to arise in those cases where goods manufactured in India outside of patents are sought to be sold in countries in which they are still covered by valid patents.

There is another aspect which we have not touched in our Memorandum. India is rightly regarded as the leader among the developing countries of the world, and the kind of patent law that she brings into effect is likely to be something of a leader in the eyes of the countries who are following her. Now if they follow what, with respect, may I call a bad example, India would suffer in the future when she herself wishes to sell in such areas, the fruits of her own research. Conversely if those countries in fact do not follow this example but adhere more closely to the conventions which are practised in the West, then India would suffer by comparison as being an area which is comparatively less attractive to foreign investment than those newly developing countries.

I would like also, Gentlemen, if I may just for a moment to suggest that some consideration be given to the practical effects of some of these clauses. If pharmaceutical patents are to be limited to 10 years, it is I think demonstrable that in many important cases, beneficial production does not really begin until 7 years have elapsed from the date of the sealing of the patent, which means that only 3 years are left to the owner in which to recover the very large expenditure on research and testing and development—leave alone to recover any expenditure which has proved abortive on other products. Now what is he to do in these 3 years. The logical answer would be to pitch the price so abnormally high that he will be able to recover in a short time this expenditure. This seems to be precisely what Government of India wishes to avoid. It wishes the prices to be kept as low as possible. It seems logical that where protection is given, it should be given for sufficiently long period so that money can be recovered

steadily and not suddenly in very large lumps and we strongly urge that there should no discrimination in the matter of treatment of patents against the drugs industry. Indeed, we could, I think, easily adduce arguments for, in certain instances, granting a longer term of patent protection to certain kinds of drugs.

May we, Gentlemen, just for a moment, also consider the practical effects of the proposal in clause 87 concerning "Licence of Right". It seems to us that simuleaneously with the publication of the patent affecting drugs, or food or chemical substances, any person—presumably any number of persons—can as a right become the possessor of a licence. The only thing to be settled is the terms which the owner of that patent will give to the individual licence holder. One could imagine a situation where—particularly when it is a promising looking patent—one dozen, two dozen or 5 dozen people may want a licence. The unfortunate Controller will have to try to determine what are the reasonable terms for all of them. When they get the licence and get their terms, how does it tie in with the industry's development. Do they all go over to another section of the Government to get a licence? If all 25 or 35 get such a licence, is any one of them in fact going to or willing in such a competitive situation, to implement it. Of course when he has got the licence, he has only got the licence; he has not got the know-how, which is a separate subject.

These clauses 87 and 88 pertaining to these Licences of Right will in fact lead to a chaos and a very large load of wasteful administrative work with little or no compensating benefit to the country.

An hon. Member: Will lead to chaos?

Mr. C. A. Pitts: Probably chaos is a strong word. What I mean is there may be very many many people all trying to get the same licence. The Controller will be charged with trying to arrange for mutual terms. They have got to decide about the licence which is another heavy load of administrative work. I am sorry, Sir, I withdraw the word.

Finally, Gentlemen, we would like to make a brief reference to the question of appeals which in the view of ASSCHAM are adequately catered for in the Bill. We would like to recommend that in addition a judicial Appellate Tribunal be set up which in our opinion, would do much to restore the confidence which some of the proposed measures have taken away.

Now all that I have said, I am afraid, has so far been rather destructive. I would, if I may, like to end on a constructive note. We do accept, of course, the fact that a Act that has been on the Statute Book since 1911 does need to be brought upto date in number of respects. I would also like to submit that the Act as amended has in fact stood the test of time very well and that if there is any need to make any additional provisions so that the products or processes which are vital to the economy, be brought into production quickly, then let it be done simply with no corresponding psychological or deterrent effects by modifying and revising those clauses relating to compulsory licences. That is, Sir, as much as I have to say as a general comment.

Dr. C. B. Singh: Mr. Pitt, you have been talking about research. I entirely agree with your remarks. May I know what effort your organisation is making towards that? Have you some idea about the money being spent or the people being paid as far as research is concerned.

Mr. C. A. Pitts: I think you are asking about the inside effort. Or are you referring to the world effort?

Dr. C. B. Singh: Your effort inside and outside both.

Mr. C. A. Pitts: As far as ASSCHAM is concerned, the situation differs from one industry to another and I think it would not be proper for me at the moment to

answer for lack of reliable information with me. Perhaps Mr. Mackinnon could talk about the pharmaceutical industry and Mr. Parikh could talk about those industries with which he is personally familiar. As far as ICI is concerned, it spends a large amount of money on research and development. The figure, I think, is round about 20 million pounds a year. It may even be more. I would not like you to regard it as an accurate figure.

Shri R. Ramanathan Chettiar: What is the percentage?

Mr. C. A. Pitts: It would be of the order of 3 to 3½ per cent. In India, the ICI, having to manufacture in a number of fields, is now doing research work essentially of the applied nature in order to make the fullest use of Indian raw-materials, in order to adopt processes suitable in Indian conditions and a very great effort is being made to train Indian staff not only within India but through other members of the ICI Group across the world.

Dr. C. B. Singh: May I know the percentage spent on Research in the pharmaceutical industry?

Mr. I. Mackinnon: Mr. Chairman, I am not here to speak on behalf of the pharmaceutical industry, and I am very anxious that anything I say may not be taken as contradictory to what the representatives of the pharmaceutical industry state themselves. I can speak only from personal knowledge. Pharmaceutical industry is essentially a research and development based industry. It is my impression that those members of the industry who are concerned with the development and manufacture of modern drugs are today spending some 2 per cent of their turnover on research and development. This would be the approximate figure in my own organization and I have had the privilege of showing. Mr. Chairman and some of the distinguished members of this Committee what that effort looks like on the ground. But I would be the first to concede that this effort is small in relation to the effort that is being put into pharmaceutical research in other countries of the world. In some developed countries of the world the proportion of turnover would be somewhat in excess of 5 per cent, and in some cases, expected to be above 10 per cent. I would submit, Mr. Chairman, that the figure in India, which is low, has nothing to do with the previous or the existing patent legislation. It is essentially a matter of the present stage of industrial development in the country. In a comparatively short time, the drug industry has developed from being a relatively small collection of distributors to being a manufacturer using some of the most advanced modern technology in the production of drugs anywhere in the world. And it is the next stage in the industry's development where research and development necessarily take place here in India, partly in order to protect that investment that has already been made against competition either from within India or outside, partly to improve on the methods and the processes that are being used in various companies in the industry, and partly to development of new methods of manufacturing drugs, new advance in medicine and to take full advantage of Indian raw-materials, Indian scientists and technical staff. We have in our industry a very large measure of expertise that we have been able to develop over the last 10—15 years. I submit that with adequate patent protection, this figure of percentage on research is bound to rise in next course of the industry's growth and development.

Dr. C. B. Singh: You think that just by a strong patent law the research will be automatically improved in this country? Is that your contention?

Mr. I. Mackinnon: Yes, Sir, other things being equal.

Dr. C. B. Singh: My feeling is that 2 per cent figure is a little higher figure. Evidence has come here that in India—in Eastern or western part—hardly anything has been done as far as research is concerned. 2 per cent is a very big sum. If your figure is correct, I would be happy. But my feeling is that definitely not even 1 per cent is being spent as far as research is concerned. My feeling is that our patent law is already strong enough—16 years protection has been provided; there is nothing wrong with it; there were certain defects that we are modifying. In spite of a strong patent law, hardly anything has been done in this country. That is our trouble. Supposing we make these changes, how could we be sure that they will be spending more money on research? Research, as you know, is the very basis of finding new methods. Just by a strong patent law, will it be possible for you to spend more money on research, or something else has got to be done? That is my question.

Mr. I. Mackinnon: In answer to this question, I would say that I have made a statement originally that I can speak only of a certain group of companies in the pharmaceutical industry who are using imported technology in the production of modern drugs. I cannot speak for the pharmaceutical industry as a whole. My figure of 2 per cent, I am sure, will be substantiated by the representatives of PPI who appeared before you a few days back. I am sure, that figure is broadly speaking, correct. But I entirely agree that it is a low figure. But it seems to me that one first establishes a process, one first gets manufacture going on economic basis, and then you turn to the research and development. But this will happen when the patent protection is strong and adequate.

Dr. C. B. Singh: We have already three types of protections, *viz.*, (i) product protection, (ii) process protection and (iii) product-*cum*-process protection. Now you have mostly pleaded for product protection. Why?

Mr. I. Mackinnon: If I have given the impression of so pleading, it was not intentional. I am not going into the relative merits of products as against processes over the whole range of industry. I am not so qualified to say that. We thought we shall be able to get some better idea from you Anyway it is all right if you cannot express an opinion on that.

My second point is about clause 48. You have mentioned that this clause should be deleted more or less almost because it cuts at the root of very protection. You remember we are having certain difficulty—I am talking about certain particular drugs for T.B. etc. and other vital drugs—these are very common drugs and we know in the use of these drugs those who have patent charge very high prices. So with that aim in view to make it impossible for those patentees Government will be able to take advantage of this clause and get these drugs either from here or by importing them. That is why we have put this clause. What you have to say about it?

Mr. C. A. Pitts: We take the view that Government here assumes, in fact, total power to declare as free of infringement any patent of anything. What we say is that this total power has a psychological effect and is a deterrent. Government has ample powers elsewhere in the Bill to bring about its wishes either in the chapter 17 and so on or by the device of Compulsory Licences.

Dr. C. B. Singh: So what do you suggest? I agree that Government has ample powers. Will you suggest that Government should pay reasonable compensation while taking over any patent?

Mr. C. A. Pitts: I would say that clause 48 becomes very similar to clauses 99 & 100 and there is no need for clause 48.

Dr. C. B. Singh: I think it does become similar. If that is agreed you agree to a compensation on reasonable terms.

Mr. C. A. Pitts: My point really is clauses 99 & 100 take care of it and Government could achieve its wishes without clause 48 which causes this feeling of total power of the Government taking any patent at any time.

Dr. C. B. Singh: You think that that section is enough for the Government. You want complete deletion of clause 48.

Now what are your views about clauses 87-88? What you think will be an adequate compensation? We have suggested maximum of 4 per cent. Do you agree that maximum of 4 per cent is enough?

Mr. C. A. Pitts: No, Sir. I would suggest that all products and processes are to be considered on their merits. In some cases it could be 4 per cent; in some other cases it can be too much and too little. Some guidelines would have to be formed so that each case could be judged on its merits.

Dr. C. B. Singh: What will you suggest?

Mr. C. A. Pitts: I will say through mutual goodwill on both sides. The suggestion of some judicial body to arbitrate would be the most happy solution.

Dr. C. B. Singh: Clause 116—Appeals. What do you think about the Appeals? The Appeal has been left with Government because there have been people who obstructed and good things have not been supplied to the people at large by certain patent interests. That is why we have brought this clause.

Mr. C. A. Pitts: I think, Sir, the dispute should be dealt with in a different way and not by, so to speak, removing any right to a judicial appeal in the whole of enactment. I think there is already power in this Act to sanction the getting of manufacture pending the result of negotiation. This by itself avoids delay but I do not see why one could not administratively deal with delays.

Dr. C. B. Singh: We cannot go against the High Court. The High Court will not simply listen and, as such this power is being taken over by the Government. What will you suggest in this regard?

Mr. C. A. Pitts: We have suggested Patents Appeal Tribunal consisting of single judge on the lines of the British precedent which according to our information works well.

Shri M. L. Jadhav: You know the Model Law. According to Model Law the term of Patent is for 10 years. Do you agree with it?

Mr. C. A. Pitts: I do not agree with 10 years as the one and the only term. If it is extendable, according to some criteria, if necessary, by another 7 years that I think would be better than the flat 10 years which is inadequate and brings out results which are high prices.

Shri M. L. Jadhav: Are you aware of the fact that the prices of some of the drugs in India are much higher than they are in other developed countries? What would you suggest to bring down these prices?

Mr. I. Mackinnon: Mr. Chairman, I do not accept the statement that on the whole drug prices to the consumer in India are higher than they are in other countries of the world. I do not deny that this may be true in some cases but there are many cases where the consumer has to pay much lower here in India than them in other countries. I have no detailed figures to put forward to prove this contention. OPPI representatives will be able

to throw much better light on this aspect.

My own experience why drug prices are as high as they are in India is entirely because costs of manufacture of drugs are as high as they are and the concerns of pharmaceutical manufacturers have to cut down the costs.

The concern of the manufacturers is to keep down the costs. There are two aspects of this. One concerns the high cost of materials and the other concerns the relatively high cost of labour. In so far as materials are concerned, which is a smaller part, the imported material by and large has been until recently subject to rates of duty that are as high as 70 per cent. In addition, there are the freight and landing charges, so that one can say that the average cost of the imported raw material here is something like double what it is in the country where this material originates. For the much larger component, which are raw materials and packing materials purchased locally, it is the experience of the average pharmaceutical manufacturer that they cost between two and three times what they do in the developed countries. This is essentially a reflection of the current state of development of the country.

We all know that until there is a highly developed organic chemical industry here in India which is developing now, the cost of many of the basic materials and intermediates that are used in drug manufacture is necessarily going to be high, but it is our assumption that as industrial and technological development proceeds in those industries that supply us with our raw materials and the packing materials, those costs will come down. Certainly they should come down relatively to other things.

Then, if I may say a word about the other main component, labour, there is, I am afraid, an impression in many minds that this is a low labour cost country. In the pharmaceutical industry, at any rate, it is my experience that this is not true. Our labour costs are relatively high to what they would in other parts of the world. There are two reasons for this. One is inexperience, which it is our duty to do something about. Our hope is that as one progressively trains the workers to be more efficient and to be able to do a wider variety of jobs, the effect will be to reduce the cost of labour per unit of output. But the other principal reason, I think, is that we are working under very much more difficult conditions so far as labour is concerned than in many of the highly automated plants in the West. We operate on a much smaller scale. We do not go in for automation of processes in the drug industry, not even of packing, let alone manufacture, because this is not at the moment technologically feasible, and therefore we are using labour wastefully as compared to some of our opposite numbers elsewhere.

One other point, of course, is that in this country most of us in the larger pharmaceutical companies are paying to our workers dearness allowance on a fairly generous scale based on the cost of living index, and as a result of the rise in the cost of living index over the last year or two, despite what we wish to do and are doing to improve labour efficiency, the cost of labour is, in fact, rising and rising rapidly. Because of this, both on the raw material side and on the labour side, our costs are extremely high, and I would not like to leave the impression that drug prices are high because profits are high. It is my submission that drug prices are high primarily because costs are high. Even so, the prices that the consumer pays for drugs in this country by and large are no higher than in most of the developed countries of the world.

Mr. Chairman: In drugs like chloromycitin, tetracycline, prednisolon, tolbutamide etc., the rate here is 500 to 1100 per cent of that in the other countries.

Mr. I. Mackinnon: I would suggest that the right comparison to make is between the selling price and cost of production, and not the selling price here and the selling price somewhere else. When I had the pleasure of entertaining yourself, Mr. Chairman, and the other Members in my Thana plant, I had explained that one of the products we make, namely Vitamin "A" is priced extremely high in this country compared with world prices, but, in fact, the cost of delivering the raw materials to the factory gate before any manufacture starts at all, is higher than the world price of the finished product. This is something over which we, as manufacturers, have no control at all. I suspect that it is the case in most of the examples you have cited, but I cannot prove it.

Mr. Chairman: These are figures culled out from the report of the Reserve Bank.

Mr. I. Machkinnon: I submit the cost of imported component, the high cost of local labour and other raw materials purchased locally together explain why the cost of production in India is in many cases several times higher than the effective world price. I may add that it is sometimes difficult to know what price is a true reflection of the world prices. It may be a price specially quoted for marginal business to a particular country; it may not be in fact the going price that most consumers have to pay in other parts of the world. I suggest that OPPI are the best people to give a detailed answer to these questions.

Shri Arjun Arora: What would be the best method of securing a progressive reduction of prices of drugs in India?

Mr. C. A. Pitts: If I can make a generalisation here, it is not only drugs. There are many things in this country whose manufacture cost is very much higher than it is in some of the advanced countries of the world. There are many factors. As suggested by Mr. Manubhai Shah—an admirable suggestion, each of these should, in fact, be analysed in little cells set up to look at every ingredient of cost in all the important industries. Is it raw material, is it scale of operation, is it labour, is it excessive overhead, excessive salaries and management, excessive profits, is it the effect of Government policies? The ingredients of cost can be analysed and found in all industries, including drugs, and I would suggest what needs to be done first is to have this open examination of what makes up the cost to see in what ways cost can be brought down. It is very difficult to prescribe a remedy across the table.

Shri Arjun Arora: Don't you agree that the existence of a patent law encourages prices and is to a certain extent responsible for high prices?

Mr. I. Mackinnon: It is our contention that while a patent does, in fact, confer a limited monopoly on a process or a product for a limited period, and to that extent it is possible within the terms of the patent for the manufacturer to charge a higher price during the term of the patent than he would otherwise, the provisions of the patent law, either this one or any other, are not a significant factor in determining the general level of prices. Whether you have a strong patent law or a weak one is not a major determinant of whether prices are generally high or not. Certainly, however, it must be borne in mind that without a strong patent law, costs of production are likely to be higher than they are with a strong patent law, since it will be necessary to acquire the know-how and experience by the long-drawn-out and costly method of development for oneself and all the mistakes and false starts and waste that go into the doing of it. If the effect of a weak patent law is to make the know-how the more costly and to make the cost of production higher than it would otherwise be, I submit it can

be claimed that the prices on the whole are lower as a result of strong patent law than they would be otherwise. I distinguish between individual products where anything can happen in a particular experience, and patented products generally.

Shri Arjun Arora: The witness, I take it, is aware of the case in Britain when they found that because of the patent law they had to buy medicines at a costlier price, they chose to buy drugs from Italy where there is no patent law and thus force the British industry to bring down the prices. In the face of this example, how does he say that if there is no patent law or no patent protection or no patent protection of the order of which he is fond, the prices of drugs will be even higher?

Mr. I. Mackinnon: It is my recollection that there were only two or at the most three products involved here and I have not ruled out the possibility of particular situations in the case of particular products. I was talking about the position of drug prices or any other prices generally. So far as the particular instance that the hon. Member has referred to is concerned, the prices at which these products were imported into the United Kingdom were not the prices at which they were sold to the Italian public, and I believe that OPPI will submit evidence to prove that in a country where there are no drug patents in existence, on the average and in practically every case, the prices to the consumer of the drug are higher than they are in those countries in western Europe where patent protection exists. The fact that the British Government were able to buy large quantities from Italy at extremely low prices, lower than those prevailing in the domestic market, is not to my mind an argument against patents. But I am not an expert in patent law and I am very well aware that there was a particular point in the British patent law which was in dispute there, but it was not so much a question of prices; it was a question whether it was possible to buy drugs for the National Health Service under a new clause in the Act which permitted the use. Since I am not an expert in these things, I should think I should say as little as possible.

Shri Arjun Arora: Can you give us an idea as to whether your members who have secured the patents have recovered the cost involved in research?

Mr. C. A. Pitts: This varies tremendously with the activity.

Shri Arjun Arora: Let us take the commodities called drugs.

Mr. C. R. Pitts: I think these are specialised matters which the OPPI on Friday could handle much more adequately than this delegation. To my knowledge, there are many examples which are in fact not enough to cover the cost, because the technological advance and so on become outmoded before it has been found to recover the cost. May we suggest that the specialised delegation on Friday could handle that subject better?

Shri M. R. Shervâni: I am not very clear about the recovery of expenditure on research. Mr. Mackinnon said that the average expenditure was about two per cent of the turnover. That means that it is only a prosperous company which will spend money on research and earn a profit. When the expenditure is not more than 10 per cent of the profit from year to year, how do you still have 90 per cent profit to pay dividends, etc.? I do not quite understand this point that if there is no strong patent law, the money spent on research would not be recoverable. It is recovered from year to year out of profits. What have you to say about it?

Mr. C. A. Pitts: It is extremely difficult in the generality of cases to deal with the question as to how much is spent and how quickly it is recovered. Our contention in general is that

without strong patent law, the money will not be spent, and innovations and inventions will cease, as has been demonstrated in a country which in fact did away with patents in respect of drugs. As Mr. Mackinnon said earlier—he was talking of two per cent from his personal knowledge—in my personal knowledge, and this is in a sense confidential, the pharmaceutical division of ICI which has a most tremendous research establishment, did for many years together fail to make any money at all, and has made a recurring loss.

Shri M. K. Shervani: Excuse me if I put this question. Suppose there were no patent laws anywhere in the world, would the ICI stop doing research? Because, my point is, research is very necessary for your very existence. It is essential for you to continue to do research.

Mr. C. A. Pitts: Research would go on in selected areas where it is regarded as good commercial risk, but research would become secret and the results will go into the middle ages and they would be a great brake on the whole development of the entire world.

Shri M. R. Shervani: You would continue research for your own development, irrespective of whether you have protection or not.

Mr. C. A. Pitts: The research would then be very much more rigorously scrutinised and screened and done under conditions of extreme secrecy; the result would not be published; it will have a retrogressive effect on the whole academic system of the world.

Shri M. R. Shervani: You are giving advice in the interests of Indian industrial development. That is the basic idea. In your opinion, the present Bill would retard research and would be a disincentive to research. My question is, will it be better for a country which is at the bullock-cart stage to do research on the basis of bullock-carts and cycles and then go to motor-cars, or, should that country take advantage of the existing discoveries of another country which is at the aeroplane stage, and take its help and assistance in developing the country's economy? You want us to give protection to our research scholars and scientists to do research, at the stage we are in, and not take advantage of the research done by other nations of the world?

Mr. C. A. Pitts: I would not treat the subject, so to speak, in that black and white way. I think the greatest asset of any country is the mind of the people and the brains and their creative ability. India does not lack creative ability of the highest order. This must be used in a sensible way. For example, I believe this country is extremely rich in raw materials which can be the base of drugs. This has been proved already and here I would say would be a case for some fundamental long-term research. This is one thing. Then, in another area, we have proved in my own group of companies the creativeness of India, that it can take the process which has been running for 30 years in Britain and make it more efficient, despite all the effort and expense and experience elsewhere in the task. When you bring modern technology to India, a great deal of research is required to adapt the processes to Indian conditions. There is scope for different kinds of research in India which can be profitable.

Shri M. R. Shervani: How long will it take for the Indians to advance to the level of their counterparts in the west?

Mr. C. A. Pitts: It would not be very long. Certain countries have been impressed by the quality of Indian research and they are trying to base some of their research effort in India. I do not think that is very far away. What is important is India should not seek to reprove what has

been proved elsewhere, but build on the foundations which already exist.

Shri M. R. Shervani: What is the ratio of foreign investment in industries manufacturing patented products compared to the investment in industries where there are no patents, say, during the last 5 or 10 years in India?

Mr. C. A. Pitts: I have no evidence about this and my opinion is highly subjective. I think the greater part of foreign investment in India has been in patented products and processes.

Shri M. R. Shervani: My information is that the ratio of investment in 10 years in patented products as compared to the investment in industries of products which are not patented is 1:10.

Mr. C. A. Pitts: I cannot argue it. But my personal experience in the chemical industry with which I am associated is that most of the investment has been in processes and products covered by patents.

Shri M. R. Shervani: My information is that investment made in India as a result of foreign collaboration agreements with Indian firms are much more where there is no patent involved than where there is a patent. So, industrial development does not entirely depend upon patents, but depends more on technical know-how. There is nothing in this Bill which forces anybody to give the technical know-how. The Indian industry will still have to pay for buying the technical know-how from foreign patentees.

Mr. C. A. Pitts: I have no statistics relating to this. But my personal experience in the chemical industry is that much of the investment has been in patented products.

Shri A. T. Sarma: In your memorandum you have said that if the Bill is passed the foreigners would not invest their money in India. Do you substantiate it?

Mr. C. A. Pitts: Yes. The climate for investment would be impaired and the confidence of the investors would be badly shaken if the Bill is passed as it is.

Shri A. T. Sarma: Is it a fact that some foreign firms are being run by Indian experts and technicians?

Mr. C. A. Pitts: Yes; the foreign investors in India would like to train the Indians to run the plant as soon as possible.

Shri A. T. Sarma: Do you think India has to depend on foreign technicians and technology for some years or India can run its industries without foreign aid?

Mr. C. T. Pitts: Once an industry has been properly established, is properly managed and the staff properly trained, in my experience, it quite quickly gets on to the stage where Indian technicians can run it adequately. In the petro-chemical industry, for example, it will be necessary to import initially the technology and to get the Indians trained.

Shri V. M. Chordia: The Indian pharmaceutical producers came here and said that the present Patent Act is a hurdle to industrial development. They say, we are not in a position to invent and design new things. We have to imitate things and improve upon them. If there is a long period for patents, they are not in a position to imitate till the patent period expires. So, they say the period should be very small. In the first instance they say there should be no patent law, but if there is a patent law, the period should be small, so that they can imitate the drugs and sell them to the consumers at a cheap price. What is your view?

Mr. I. Mackinnon: The answer depends on whether we are talking

about a new invention or drug or about duplication of an existing drug covered by a patent. If we are talking about manufacture of existing drugs, the terms of compulsory licence provision suitably amended are adequate and it is not necessary to shorten the term of the patent. If we talk about new inventions, shorter the term of the patent, lesser are the chances of genuine research leading to new discoveries and longer the term of the patent greater are the chances of genuine research.

Shri V. M. Chordia: What is your experience about getting a patent sealed from the date of application? How long does it take? Is there any suggestion that the period may be reduced?

Mr. C. A. Pitts: We have no reliable information. We have only personal experience. Generally it takes a fair time. We cannot really answer the question adequately.

Shri V. M. Chordia: You must have studied the present Bill. In that some new provisions have been added about the period from the date of application to the date of sealing. Should there be any amendment, in your opinion, to this section so that the time may be reduced?

Mr. C. A. Pitts: It has been suggested that if it is India's wish to remain in harmony with the majority of the developed countries the simplest thing would be to conform with the convention, whatever it may be, whether it is the date of application or it is the date of sealing, established by other countries. The intention ought to be to reduce the time between application and sealing as much as possible.

Shri R. Ramanathan Chettiar: During the course of your evidence you prefaced your remarks saying that the Associated Chamber of Commerce and Industry represent Indian-based industries. May I, in all humility, ask you what you mean by Indian-based industries?

Mr. C. A. Pitts: I mentioned in fact, Indian companies owned entirely by Indian shareholders with no foreign connections at all.

Shri R. Ramanathan Chettiar: The 2500 companies which you mentioned mostly represent foreign and, particularly, British interests.

Mr. C. A. Pitts: No, Sir, there is a strong element wholly of Indian business interests also.

Mr. A. B. Parikh: There are a large number of members of the Bombay Chamber of Commerce who are purely Indian-owned companies. Many of the companies of the Tata group and the Mahindra group are members of the Bombay Chamber of Commerce and they are also members of the Associated Chamber of Commerce. A large number of other companies which are not members of one group or the other are also members. So there are a number of companies that are not in the sense in which you use the term "anything but Indian-based". They are entirely Indian-based. I represent Voltas. Although we have non-Indian interests owning a certain part of the capital, that is only a very minor part.

Shri R. Ramanathan Chettiar: In your Memorandum you have almost indicated that you are not very much in favour of this legislation.

Mr. C. A. Pitts: We have said that the existing legislation has worked well and that the particular needs of the Government to ensure that certain products and processes are quickly made available to the Indian public and Indian economy can be taken care of by suitable modifications to the compulsory licensing system. In our view some of the other new clauses are not necessary.

Shri R. Ramanathan Chettiar: Are you aware that in UK it is more

rigorous than what is contemplated in our Bill?

Mr. C. A. Pitts: I think that is a matter of judgement. My sphere of responsibility is in India. I am not an authority on the British Patent Law. But I would not accept your fundamental assertion that the British law is much more rigorous. That is a matter of debate.

Shri R. Ramanathan Chettiar: You are not in favour of this provision relating to compulsory licence?

Mr. C. A. Pitts: I am in favour of compulsory licensing. I think it is a very necessary provision. I am not in favour of the so-called automatic licensing of rights.

Shri B. K. Das: Are you aware that several countries have got process patents only and not product patents?

Mr. C. A. Pitts: I think this question was raised previously that some countries have product patents, some have process patents and some have a combination of both.

Shri B. K. Das: We have introduced this with a view to encouraging research in our country. What have you to say about that?

Mr. C. A. Pitts: In the chemical industry proper, so to speak, the question of process patent is perfectly satisfactory. I am not an authority on this, but I believe that arguments in respect of other types of activity lay more emphasis on the product made.

Shri B. K. Das: For pharmaceutical industry you agree that this will be all right?

Mr. I. Mackinnon: So far a pharmaceutical industry, in particular, is concerned, I think that there can be no doubt that the protection granted by a product patent is far greater than that granted by a process patent. In many cases it is the product that matters and not the method of making it. The real invention consists of finding a drug for a particular thing in the human body, and how that drug is made is entirely a different matter. Its manufacture may be very simple and finding a substitute method of manufacture may also be a very simple process. But the process of discovery by testing the diverse compounds and the eventual discovery that this chemical compound will produce some dramatic results in a particular disease may be a very long and extremely costly process, both in the chemical laboratories, in the bio-chemical laboratories, in the testing of animals and human beings and all other kinds of testing that has to be done before a new product is put on the market. Therefore, the average drug manufacturer would ensure that his product is protected once he has discovered and proved by means of testing that it is safe and effective, rather than, having gone through all that and put the product on the market have someone else come along and make it by a relatively simple process and take away from him all possibilities he had of recouping his expenses. Nevertheless, I think it is fair to say that, speaking personally, and speaking for the Chamber and speaking for OPPI, and they will do it in a day or two, if for general reasons it were the decision of this Committee to retain the provision for a process patent only and not a product patent, there must be at least some provision that the burden of proof is on the infringer to show that the product is not made by the patented process. The burden should not be on the patent-holder to show that the infringer is using his process. The burden should be on the other party to show that they are not using the patented process. With that provision, the clause relating to process patent will have far less damaging effect on patents and research in general than the provision in its present form.

Shri B. K. Das: In some cases we have seen that the patentee takes patent for several processes but he exploits only one of them. Because of this, others are precluded from going in for other processes. Should this not be stopped?

Mr. I. Mackinnon: The reason is the one which I just gave. After spending a lot of money in the discovery and testing of the compounds and establishing that this is a useful drug, the manufacturer is not willing to see that his investment is dissipated by somebody else makng it by some other process. Therefore, he attempts to protect himself against this by patenting all known processes for arriving at this product. I would submit that this happens only in some cases. It is not a very common thing to happen. It is a rare instance where a drug has taken a long time to develop and its chemical structure is extremely simple so that it can be manufactured by another relatively simply process. Since it is not a very common occurrence, I think we should not call this a very serious risk.

Shri B. K. Das: Suppose there is a provision that the burden of proof that a drug is manufactured by a process other than the patented process is on the infringer, then that would be sufficient?

Mr. I Mackinnon: I think it would take care of most of the problems.

Shri Kashi Ram Gupta: The present Bill gives 14 years period from the date of completion of the specification while the former Act gives 16 years from the date of application. The time taken from the date of application to the date of completion of the specification may be 1 to 1½ years. As such, there is not much difference between the present Bill and the old Act, so far as this side of the patent is concerned. What is your opinion about this?

Mr. C. A. Pitts: Yes, Sir. The difference between 14 and 16 is, of course, not very great. The power to extend, I think, has disappeared altogether which, it seemed to us, might have been just and useful in certain circumstances. The impairment of confidence has been, so to speak, the application of this curtailment retrospectively to existing patents. The other point we were making was, as India is emerging as a more fully developed figure on the international scene, both in terms of trade and industry, it would pay India to stay instead with the majority of countries in their general patent legislation. If, for example, the convention was 15 years from the date of sealing, that would be a sensible thing to do. If it is 16 years from the date of application, it would be sensible to follow it. But the difference between 14 and 16 is not significant.

Shri Kashi Ram Gupta: May I draw your attention to page 49 of the Model Law for Developing Countries in which it is stated that the minimum period can be 10 years from the date of grant of patent?

Mr. C. A. Pitts: Well, I have no comments on that.

Shri Kashi Ram Gupta: So far as 14 years from the date of specification and 16 years from the date of application are concerned, you have no grounds to differ?

Mr. C. A. Pitts: I do not think the point is very material.

Shri Kashi Ram Gupta: You have laid stress that we should go on the lines of other countries. The model law points out two kinds of patents—from the date of application or completion of specification and the other from the date of grant of patent. Which do you prefer?

Mr. C. A. Pitts: If the gap between applying and sealing is not very large, I would suggest that the point is immaterial. The Indian law

should lie alongside the laws of the major countries with whom she does trade in patented goods and technical information. I do not think it is particularly significant which one you choose because it means the same.

Shri Kashi Ram Gupta: What is the time taken in India between the date of application and the date of grant of patent?

Mr. I. Mackinnon: I am afraid, I do not wish to answer about the actual fact at the moment. But what I wish to say is, and it seems relevant, since no patents have been sealed in some fields for quite a long period of time, whatever the period has been between the date of application and date of sealing in the past, it is bound to be a great deal longer in the future until the backlog has been caught up, and I hope that the Members will take that into account in deciding what the period is likely to be.

Shri Kashi Ram Gupta: You have mentioned that 2 per cent of the output is spent on research. May I know whether this is spent on applied and product research or on basic research also?

Mr. C. A. Pitts: I think the reply that we gave was a very limited one based on limited experience. I would submit that a more detailed reply could be given after full investigation. It will not be a reliable answer to say off the cuffs, so to speak, how much is true research and how much is applied research and how much is development.

Shri Kashi Ram Gupta: My point is whether basic research has been started by these industries.

Mr. C. A. Pitts: Basic research has been started certainly in the chemical industry.

Shri Kashi Ram Gupta: In the pharmaceutical industry also?

Mr. C. A. Pitts: Yes.

Shri Kashi Ram Gupta: Which are the main companies that have started it excepting the CIBA?

Mr. C. A. Pitts: My own company has started it recently. I am afraid I am not able to answer for all the members of the Associated Chambers.

Shri Kashi Ram Gupta: It has been given out that generally a medicine goes out of use within a period of 10 years. Do you agree with this?

Mr. I. Mackinnon: I am afraid I cannot subscribe to that view. There are many medicines in the market that are still having good value for the last 50 years. On the other hand, a medicine might go out of use within six months if somebody invents anything better. I do not think it is possible to give an average life of a medicine like that which will mean anything worthwhile.

Shri Kashi Ram Gupta: Are you aware of the fact that your own OPPI members have mentioned that in their memorandum?

Mr. C. A. Pitts: I don't know.

Shri Kashi Ram Gupta: If you read it, you will find it there.

Now, my last question is this. You have said that you will be able to have exports from this country if the present Bill is not put in its present form and that the old Act should be there. But at the same time, you say that the cost of production in India is very high as compared to that of other countries. How can it be possible to have exports from this country?

Mr. C. A. Pitts: I think it is a fact that exports are being made out of India at any price in order to earn foreign exchange. Export effort has, in fact, very little to do with the cost of production. Exports have been allowed at prices well below the cost of production.

Shri Kashi Ram Gupta: How can the patent law help in that?

Mr. C. A. Pitts: The point I was trying to make was that if you have a product which is patented, say, for 15 years in Britain and it is made in India outside of patent, then you would have difficulty in exporting that product to Britain. This was the argument for making the Indian patent law in step with that of other countries with whom she wishes to have the trade.

Shri K. K. Warior: You have made out a case for the manufacturers to protect their rights well. Then, there is the other side also, that is, the interest of the consumers. For instance, there is a product which is protected by the patent law. Now, there are new processes which are coming up in India. Why should you bar the consumers from having the cheaper products which can be manufactured here? It is the patent of the product which is coming in the way. How can the interests of the consumers be protected?

Mr. Chairman: He has answered about that.

Shri K. K. Warior: The new processes are coming up, as many as 10 or even 12.....

Mr. Chairman: They have answered that.

Mr. C. A. Pitts: We endorse the existence of the provisions of compulsory licensing. If there is a product or a process which is beneficial to the people of India and which is not being exploited by the owner, then it is right and proper that a compulsory licensing should be resorted to to compel production of that product.

Shri K. K. Warior: There is the compulsory licensing provision. But at the same time there are so many litigations going on. When a new process is put into manufacture, that is barred by the court. Now, so many litigation cases are coming up even though the provision of compulsory licensing is there. How to avoid all this?

Mr. C. A. Pitts: I think that is a fact. The provision of compulsory licensing seems to be little used.

Shri K. K. Warior: Then, you take exception to clause 48. But in the U.K. Act also there is such a provision under section 46 which allows use of patented inventions for the services of the Crown. It says:

> "Notwithstanding anything in this Act, any Government Department and any person authorised in writing by a Government Department may make use and exercise any patented invention for the services of the Crown in accordance with the following provisions of this Section."

What is the difference that you make out?

Mr. I. Mackinnon: As I understand it, the U.K. Act deals specifically with the use for the purpose of the Crown. This clause does not restrict it for the use of the Government.

Mr. Chairman: That is specified there.

Mr. I Mackinnon: It is not specified in this particular clause. The clause, as it is, is unlimited.

Mr. Chairman: You may please see Section 102 read with Section 48.

Mr. I. Mackinnon: There is no limitation in clause 48. Clause 48 is very much wider. May I also point out that the U.K. Act provides for compensation to the patent-holder.

Mr. Chairman: It is provided:

> "(b) the importation by or on behalf of the Government of any patented medicine or drug for the purpose merely of its own

use or for distribution in any dispensary, hospital or other medical institution maintained by or on behalf of the Government or any other dispensary, hospital or other medical institution which may be specified by the Central Government in this behalf...."

Mr. I. Mackinnon: It says, any dispensary, hospital and all that.

Shri K. K. Warior: The U.K. Act actually takes more powers than what is provided in this clause. Subsection (6) of Section 46 of the U.K. Act says:

"For the purposes of this and the next following Section, any use of an invention for the supply to the Government of any country outside the United Kingdom in pursuance of any agreement or arrangement between His Majesty's Government in the United Kingdom and the Government of that country, of articles required for the defence of that country shall be deemed to be a use of the invention for the services of the Crown; and the power of a Government Department or a person authorised by a Government Department under this section to make, us and exercise an invention shall included power to sell such articles to the Government of any country in pursuance of any such agreement or arrangement as aforesaid....."

Mr. I. Mackinnon: It is a matter of interpretation whether it is wide or not. My impression is that the U.K. Act specifies clearly whereas Clause 48 of the present Bill does not specify clearly.

Mr. Chairman: I read Clause 48.

Mr. I. Mackinnon: That seems to be much wider in its possible application than the U.K. Act.

Mr. C. A. Pitts: It is not that we are defending the British Act.

Mr. Chairman: U.K. is a highly advanced country and what is good for U.K. should be good to us also.

Shri R. Ramanathan Chettiar: The 1911 Act is based on the Act of U.K. Mr. Mackinnon has said that the U.K. Act is more specific whereas the provisions in the Indian Bill, Clause 48, are wider. May I point out to Mr. Mackinnon one sentence which specifically states that "the Government of U.K. can sell to any government or any country". That is not found in our Bill.

Mr. I. Mackinnon: Under a specific treaty obligation.

Mr. Chairman: I may tell you that all clauses beyond 102 are copies of the U.K. Act. There is nothing new.

Shri M. R. Shervani: In the U.K. Act, is compensation provided or not?

Mr. Chairman: The power is there. But we have not provided compensation.

Shri K. V. Venkatachalam: I want to ask you a question in the pharmaceutical field. It has been represented before us by other witnesses that the development in the pharmaceutical industry such as has been during the last five or six years has been mainly in production in the penultimate stage, *i.e.*, just in the formulation or just one or two steps lower than the final product. Can you give your assessment of this situation?

Mr. C. A. Pitts: This, in fact, must be so in a country which has before it the long road towards industrial self sufficiency. Some of the intermediates required in the chemical and pharmaceutical industries are

highly sophisticated to go back to the root raw material and to do it on a small scale would make costs prohibitive. Therefore, the general pattern in the sophisticated industries is to start near the end product and gradually go back towards the root raw material. One of the disappointing things in India has been the somewhat slow development of the organic chemical industry—we do not want to discuss the reasons for that here—and it has slowed down the speed with which the pharmaceutical manufacturers can proceed backwards to the root material.

Shri K. V. Venkatachalam: Will it take too long to go forward in a significant way?

Mr. C. A. Pitts: Much depends on the government policy; for example, the speed with which the Hindustan organic project gets off the ground; this is going to manufacture some of the basic organic intermediates.

Mr. Chairman: You told us that the Government has made a difference in respect of the term of the patent, between pharmaceutical drugs and other inventions, namely, 10 years and 14 years. Many countries have made this difference especially the countries which are developing fast technologically like the United States, Canada, New Zealand and South Africa. They have set up special committees and they are making this difference. Canda suggested abolition of drug patents. In the United States it was contended that three years would be an ample period to recover research outlays and then there is the maximum royalty of 8 per cent for unrestricted licence; that includes grant of all technical information required in sale and manufacture. The Simon Committee in South Africa suggested five years for drug patents. This is the case in advanced countries. Why should you then object if the Government of India make this difference between pharmaceutical and other inventions.

Mr. C. A. Pitts: Those people whose responsibility it is to govern the country should be conscious of the need for drugs to be made available as quickly as possible and at as low a price as possible to the people of that country. It is really a question of finding what is, so to speak, the right compromise. One should consider the various aspects. The drug manufacturers should not, in fact, be terribly so rushing with their development that they would put a drug on the market before they are absolutely sure that it is safe. Also if the procedure which will cause seven years to elapse before a drug really comes to be commercially exploited is accepted, he will have only three years left to get his money back and prices would be extremely high. This will not be beneficial to the consumer.

Mr. Chairman: I want to read out a quotation from "Amendment of British Patent Law" by the Chartered Institute of Patent Agents:

> "Nevertheless, the possibility may be conceived of a new food, medicine or device, being of such vital importance to public health that there should be as little delay as possible in meeting every demand for it. This could be covered if Section 41 were repealed, by providing in Section 37, as suggested by the Institute to the Swan Committee, that an application for a compulsory licence under a patent for such a product could be made at any time after the grant of a patent, and would be granted before the expiry of the three years if, but only if, overwhelming public interest were proved."

In cases of emergencies like an epidemic when the demands of the public are not met, why should not the Government have the powers to see that the necessary drug is supplied to the people of India at a reasonable price?

Mr. C. A. Pitts: Such a situation could be taken care of by a modifi-

cation of the compulsory licensing provisions.

Where the product is of such vital importance to the country, then some provision could be laid down that, subject to there being satisfactory evidence, a compulsory licence could be issued. This, I think, is a reasonable proposition.

Mr. Chairman: Do you think that the Patent Controller will issue licences of right?

Mr. I. Mackinnon: Licence of right is not issued by the Controller. Licence of right is applied for to the patent holder by the applicant and all that the Controller is to do is to settle the terms.

Mr. C. A. Pitts: Compulsory licensing provisions could be modified to provide for such situations without introducing the complications of licence of right.

Mr. Chairman: It is only to meet such situations that licence of right is included.

Mr. C. A. Pitts: Automatic licence of right would not bring in compensation.

Mr. Chairman: We will certainly expect the Controller of Patents to go into it. He has got the knowhow and wherewithal.

Mr. C. A. Pitts: In the Bill it is not left with the Controller. Anyone can have a licence of right. Controller is only to settle the terms and disputes. The better devise would be to modify compulsory licence provision wherein the Central Government can take initiative.

Shri M. R. Shervani: Controller comes in to settle the terms and it is for the controller to say that this firm is not qualified or impose suitable terms.

Shri C. A. Pitts: Under the Bill anyone can have such a licence. If the terms are in dispute it is for the Controller to settle them.

Shri M. R. Shervani: We want to know from the officers concerned if what Mr. Pitts said is the correct position.

Mr. Chairman: We will find out.

Shri C. A. Pitts: May I read clause 88 of the Bill?

Where a patent has been endorsed with the words "Licences of right", any person who is interested in working the patented invention in India may require the patentee to grant him a licence for the purpose on such terms as may be mutually agreed upon.

Shri R. Ramanathan Chettiar: You know the prices of life-saving drugs in this country are very high compared to the prices charged in other countries. Here I would like to elaborate on one point. A few years ago Haffkin Institute of Bombay made some research and brought out Tolbutamide at one-fourth of the price charged by Hoecht. Hoecht people objected to Haffkin doing it and now the matter is before the Court. The object of the Bill is to bring down the cost of life-saving drugs. But, we are prevented from doing this and that is why this provision is also put in here. Are you in agreement with us that we should bring down the price of life-saving drugs in this country?

Mr. C. A. Pitts: Indeed.

Shri R. Ramanathan Chettiar: But the Hoecht people prevented Haffkin Institute from doing it.

Shri C. A. Pitts: By a process which Hoecht has patented and on which Hoecht has spent a lot of money. Anyway, the matter is

sub-judice and it is not therefore a subject on which I should comment at all.

Mr. Chairman: Thank you.

(The witnesses then withdrew).

III Bengal Chemists and Druggists Association, Calcutta.

Spokesmen:

1. Shri P. K. Guha
2. Shri T. K. Ghosh

(The witnesses were called in and they took their seats)

Mr. Chairman: We have received your memorandum. Whatever evidence you give here will be printed, published and distributed to Members and laid on the Table of the House. Even if you want any portion to be confidential, it will be printed and distributed to members. Your memorandum has been circulated. If you want to add anything more to it or stress any particular point, you can do so. After that, members will put question which you may answer.

Shri P. K. Guha: If anything crops up in the course of discussion, we will explain it. Otherwise, we will more or less limit our submission to the memorandum.

Shri V. M. Chordia: You are in favour of abrogating the present law?

Shri P. K. Guha: Yes.

Shri V. M. Chordia: How do you suggest that the person should get incentive for research?

Shri P. K. Guha: What research—basic research?

Shri V. M. Chordia: Basic research and other researches. If you have different opinions on different types of research, please give them.

Shri P. K. Guha: We submit that everywhere in the world basic research are mainly sponsored by Government. But, as far as we, in India, are concerned, we have not so far contributed anything in the basic research. What we understand here is the commercial research. This is also called development research and if any incentive is to be given, that should not be on the basis of development research. Our submissions therefore are that it should be on the basis of basic endeavour. There should be zeal and initiative amongst the industrialists in India and no patent protection is necessary in the development of such zeal. We do not feel that any protection is necessary to give an incentive for development of the results of basic research.

Shri V. M. Chordia: Don't you agree to this that if a person starts from the begining, after five years or ten years' experiment only, he gets a product. Whereas another person who sees the product, just imitates it. He has no work but has simply to imitate that. In that case, should not the person who has spent five years or so on this also get some protection?

Shri P. K. Guha: As far as pharmaceutical industry is concerned, development research is carried out from the point of applied research and basic research. That is the point to be thought of. As far as pharmaceutical industry is concerned, in our country, if it makes any improvement, that is from nucleus of basic research or applied research. If you think of protection to be given to somebody who is carrying out basic research, we don't mind for that. If protection is to be given to a person who has invented something from the organic stage, that is quite different. Take for example Penicillin. The organic compound came out from Alexander Fleming. If he is claiming the patent for it, you better think over the matter.

Shri K. K. Warior: We find that even among the pharmaceutical industries, some are now having new processes from out of lapsed ones. Should we not think that some protection should be given to the new processes which are giving to the consumers such materials at lesser prices?

Shri P. K. Guha: Is it a question of process for rivalry?

Shri K. K. Warior: I shall give you a concrete instance. Take for exaample the most commonly used aspirin. A new process has been found out by somebody. That gives cheap material and cheaper aspirin to the consumers. Don't you think that that must be protected by a patent?

Shri P. K. Guha: Certainly not. First of all, the original process of aspirin invented by Bayers is also covering several processes and there is improvement on them. It is an improvement in the technology and the method of production. If the Patent Law is contemplated, I don't think that it will also give protection to the technological improvement made. As far as full specification is concerned, technology helps. How such an improvement for increasing the production can be covered by protection depends on how much an industrialist can produce that. If there is a larger production, it will be cheaper in the market. This is my contention.

Shri K. K. Warior: At present our chemical industries are just starting and we visualise that this industry will develop very soon. There are many possibilities for our scientists and technologists to introduce very many new things, new formulae and new compounds and new production. Now, don't you think that some encouragement should be given to those people in the form of protection which will give them some incentives also?

Shri P. K. Guha: What I want to submit is this. Right from the start of the independence, our pharmaceutical industry produced goods worth Rs. 12 crores. Now we are in the stage of producing Rs. 175 crores worth of stores. If that is so, let us have a test. We have given the opportunities of exclusive patents since 1911 and we have given the opportunities after that also with certain amendments. Anybody can go to the Patent Controller and say that this has not been exploited in full and that we can improve upon it. The patentee is not taking enough steps to produce in full and according to our necessities. We have certain provisions in the existing law. These served no remedy. If we want that our research workers, chemists and scientists should be given the protection, well, it is worthwhile to think over it. But, my submission is that we should try to do it on the basis of a test of going without patents for a couple of years. So far, we do not have any papers where we can see that a large number of inventions have come out from our research workers or scientists. Scope has got to be improved.

Shri K. K. Warior: In view of development of Petro-chemicals, new petrochemical complexes are coming in. There are so many of them. Don't you think that this will give sufficient scope for our research scientists also to make new inventions and should not that invention be protected from the encroachments of foreigners who still exploit that? There are so many instances like that. Take for example Suri gadgets. Should that not be protected by patent law?

Shri P. K. Guha: Protection should be at the basic stage. If it is from the basic stage, we don't object. That is what we envisage.

Shri K. K. Warior: What do you mean by basic research? Take the concrete instance of Suri gadgets. Wherefrom is the basis taken? Gad-

get is already there; he has made new inventions but the West German people are exploiting that. Where does the basic thing begin?

Shri P. K. Guha: I quite understand that the West Germans are exploiting it. Whether it is our people or anybody else, it is the interests of the consumers, that is to be seen and we can understand the feeling of the consumers too.

Mr. Chairman: How are you going to protect the Indian scientists who have found out the method of manufacturing a new drug?

Shri P. K. Guha: I submit that as far as pharmaceutical industry is concerned, new invention is necessary. At the same time, there should be market for its utility in our country.

Mr. Chairman: It is not a question of finding a market. Here, how are you going to protect the improvement made by a scientist by his labour? Unless there is a patent, any man can come and exploit that process.

Shri P. K. Guha: If there is a competitor we should not have any objection. However, somebody has come with a research, with a new invention and simultaneously there is another one from the foreigners....

Mr. Chairman: You have not understood me. You perfect a process for the manufacture of a drug. You do not want any patent on it. Suppose I come and exploit that and begin to manufacture that drug and earn money. How are you going to protect your interest? You have no objection to it.

Shri P. K. Guha: I have no objection there. I tell you our intention is to reduce the prices, in the interests of the consumer. The protection is already there and we have seen the results of that protection. We feel that we are exploited too much.

Mr. Chairman: So you do not want any patent.

Shri K. V. Venkatachalam: What is the total membership of the Bengal Chemists and Drugists Association?

Shri P. K. Guha: About 1500.

Shri K. V. Venkatachalam: Who are they?

Shri P. K. Guha: We have manufacturers; we have wholesale and retail chemists.

Mr. Chairman: Are there any manufacturers also in your Association?

Shri P. K. Guha: Yes, there are 5.

Shri K. V. Venkatachalam: Against a total membership of?

Shri P. K. Guha: About 1500.

Mr. Chairman: Which are these five firms?

Shri P. K. Guha: Bengal Chemicals, Bengal Immunity, Dey's Medical Stores....

Mr. Chairman: The views that you have put forward before us represent the views of these firms—Bengal Chemicals, Bengal Immunity etc?

Shri P. K. Guha: These are the views of our Association.

Mr. Chairman: Do these five drug manufacturers agree with your views?

Shri P. K. Guha: Individually we have not taken the views but this memorandum was circulated to our members and if they had any objection, they would have intimated to us.

Shri K. V. Venkatachalam: You have been overwhelmingly representing the traders?

Shri P. K. Guha: Yes.

Mr. Chairman: All these five are pharmaceutical industries?

Shri P. K. Guha: Yes.

Mr. Chairman: Which are the two others?

Shri P. K. Guha: The other two are—EIP Pharmaceuticals which you very kindly visited and another is Dolphin Laboratories.

Mr. Chairman: Thank you very much.

(The witnesses then withdrew).

(The Committee then adjourned)

Minutes of Evidence given before the Joint Committee on the Patents Bill, 1965.

Wednesday, the 13th July, 1966 at 09.30 hours.

PRESENT

Shri S. V. Krishnamoorthy Rao—*Chairman*

MEMBERS

Lok Sabha

2. Seth Achal Singh.
3. Shri Peter Alvares.
4. Shri Ramchandra Vithal Bade.
5. Shri Panna Lal Barupal.
6. Shri Bibhuti Mishra.
7. Shri P. C. Borooah.
8. Sardar Daljit Singh.
9. Shri Basanta Kumar Das.
10. Shri V. B. Gandhi.
11. Shri Kashi Ram Gupta.
12. Shri Madhavrao Laxmanrao Jadhav.
13. Shri Mathew Maniyangadan.
14. Shri Braj Behari Mehrotra.
15. Shri Bibudhendra Mishra.
16. Shrimati Sharda Mukerjee.
17. Shri Chhotubhai M. Patel.
18. Shri Naval Prabhakar.
19. Shri R. Ramanathan Chettiar.
20. Shri A. T. Sarma.
21. Dr. C. B. Singh.
22. Shri K. K. Warior.
23. Shri Balkrishna Wasnik.

Rajya Sabha

24. Shri Arjun Arora.
25. Shri Vimalkumar M. Chordia.
26. Shri P. K. Kumaran.
27. Shri Shyamnandan Mishra.
28. Shri Mulka Govinda Reddy.

29. Shri M. R. Shervani.
30. Shri R. P. Sinha.

REPRESENTATIVES OF THE MINISTRY OF INDUSTRY

1. Shri K. V. Venkatachalam, *O.S.D.*
2. Shri B. N. Atrishi, *O.S.D.*
3. Dr. A. Joga Rao, *Controller General of Patents, Designs and Trade Marks.*

REPRESENTATIVE OF THE MINISTRY OF HEALTH

Shri S. K. Borkar, *Drug Controller of India.*

DRAFTSMEN

1. Shri V. N. Bhatia, *Joint Secretary, Legislative Department, Ministry of Law.*
2. Shri R. V. S. Perisastri, *Deputy Draftsman, Legislative Department, Ministry of Law.*

SECRETARIAT

Shri M. C. Chawla—*Deputy Secretary.*

WITNESSES EXAMINED

I. Shri T. Durairajan, Dollar Company, Madras.

II. Pharmaceutical Manufacturers' Organisation, Ahmedabad.

Spokesmen:

1. Shri Hasmukhlal C. Shah.
2. Shri I. A. Modi.

III. Gujarat Vepari Mahamandal, Ahmedabad.

Spokesmen:

1. Shri Charandas Haridass, *Vice-President.*
2. Shri Chandulal Premchand, *Ex-President.*
3. Shri J. T. Trivedi.

1. Shri T. Durairajan, The Dollar Company, Madras.

(The witness was called in and he took his seat).

Mr. Chairman: The evidence given by you is public and will be published and laid on the Table of the House. Even if you want any portion of it to be confidential, that also will be printed and distributed to Members of Parliament. We have received your memorandum. It has been circulated to all the members. If you want to add any new points or stress anything, you may do so. After that, members will ask you questions.

Shri T. Durairajan: The first question is whether patent protection of drugs is necessary on human grounds, because whatever protection is given, it is only with regard to having a monopoly with regard to the price structure. In a country like ours where economic standards are so low, can we really afford the prices fixed by firms who patent the drugs? Very often we are told that large sums of money are being spent on research. This expenditure is being written off, so that actually the Government contributes a major portion of the research expenditure. The only thing is part of it might be given as dividend to shareholders and that amount comes from people who have invested the capital. Even in regard to items where no patents are involved, the manufacturers have a research department to find out economic ways of manufacturing the products.

The tetracycline patent expired in U.K. recently. The ICI immediately announced that they are making arrangements to manufacture the drug in U.K. and to sell it at a price much lower than the price at which Pfizers were selling it before. Pfizers filed a suit in the House of Lords for patent infringement, but it was decided against Pfizers. The question of royalty to be paid is still not settled. I just mentioned this to show how after the patent expired, a private firm has come forward to manufacture it at a lower price.

I have made a survey of prices of patented drugs in the past ten years Only when these drugs started coming from Italy or other rupee-payment countries that the firms holding patents in India started reducing the prices. They did not do it on their own although they have been able to recover more than what they had spent. Only when there is competition, they agree to lower the prices. Vitamin B-12 is an example.

We are told that patents will stimulate transfer of technology. Is it so? In India factories are ste up on turnkey basis and everything is brought from outside. If something goes wrong or if the factory is blown up, I do not think the Indian scientific personnel in charge of the factory would be able to erect it again and start production.

There is provision for compulsory licensing. The firm holding patents might allow one or two other firms to manufacture the product by agreement and still keep up the price. There may not be any need for compulsory licence or for the Controller even to consider the application. Perhaps a provision can be made in the Bill that if the patentee works the patent to the detriment of the country, Government will immediately take action in the interests of the country. The other thing is compulsory licensing without technical know-how. What is given in the patent specification is just a basic structure. With the patent specification alone I am not sure whether it will be possible to manufacture the product. The question is whether we can compel a patentee to give the know-how. Unless the know-how blueprints or drawings are given, I do not think it will be possible to manufacture the product in the country.

The amount spent on medical propaganda is much more than what is spent on research. Taking a country like ours, each individual firm spends, I think, Rs. 20 lakhs to Rs. 30 lakhs on medical representatives. A medical representative costs Rs. 10,000 to Rs. 15,000 per annum. Each firm has

200 to 300 medical representatives and they spend Rs. 20 lakhs to Rs. 30 lakhs on medical propaganda. I do not think a fraction of that amount is spent on research. Conversely, even if you take up a country like the United States of America. I think in the year that I am referring to, 450 million dollars were spent on medical propaganda and 400 million dollars on research. Therefore, the amount spent on medical propaganda to popularise drugs in the medical profession is perhaps much more than what they are spending on research.

Since submitting my memorandum I had occasion to read the criticisms appearing in the Press with regard to this Patent Bill and I have had discussions with various persons who are interested in manufacture. What these firms are concerned, in my opinion, is not as to how it will affect their business in India. What they fear is, under-developed countries like Burma, Ceylon, Malaya and the middle-east African countries, who may not acknowledge us as their political Guru, once they find that this Patent Bill is passed by us, they will immediately bring in a similar legislation in their countries. What they are afraid of is, therefore the amount of money they are now able to receive from these countries by way of exports would perhaps come down. That is one of the reasons why this Bill is being opposed.

Mr. Chairman: May I take it that you are in agreement with the provisions of this Bill?

Shri T. Durairajan: Yes.

Shri B. P. Sinha: May we know something about the witness, what is this Dollar Company etc.?

Shri T. Durairajan: Dollar Company is a partnership form consisting of myself and my younger brother. We have been importing drugs in bulk and selling them either to the Government or to wholesalers in India during the past two decades. From 1960 onwards we are manufacturing a product called Hedensa, a medicine for piles. It is a German product, formulated by a pharmacist who is still alive. It has been exported from Berlin for the past 50 years. Because of import restrictions the Dollar Company has acquired the trade mark rights for it just as we buy ownership of flats. The Dollar Company owns the trade mark in India for Hedensa and also Lichensa of an identical formula with a slight change used for skin troubles and sold all over India. The total requirements of the country can be met with thirty working days of our factory. Therefore, in order to keep the staff employed we are making tablets and selling them mainly to the Government or to the army.

Dr. C. B. Singh: This memorandum is well documented. It has been guided by the one main principle which speaks about your own background. The two basic facts which have brought about this memorandum are: the price part of these drugs in the country and the cases which have been going on for infringement of patent rights. You have mentioned about Kefauver Committee report. Senator Kefauver was of the opinion that patents were primarily responsible for high costs of drugs. Do you know what was the result or the ultimate end of that report? What happened in U.S.A. Parliament after this report?

Shri T. Durairajan: I do not know what was the result. The Patent Act is still there in the United States.

Dr. C. B. Singh: The result was two very modifications to the Patent Act.Senator Roman Hux, a member of the sub-committee said: "It has been my judgment that the hearing so far has been prejudiced and distorted, they have lacked balance, they are unfair to the industry and to the Government agency, the Senate itself and to the public". This report has gone on in this country. People have taken one part from there and one part from here and given a distorted

picture of the whole thing. This report has been responsible for a lot of misunderstanding.

You have mentioned that you are trying to give life-saving drugs at reasonable prices to the public. Don't you think that the Government has sufficient powers to regulate the prices, import any amount they want, cut down imports if necessary, cut down the percentage of foreign exchange and do anything they like to regulate the prices? If even with all that the prices have not come down, it is not the fault of the patent, it may be that somebody in the Ministry is responsible for it. What have you to say about it?

Shri T. Durairajan: All that I would submit is that there is not that much coordination between the Patent Office and the Ministry. The Controller of Patents has very little to do with the prices. I do not know whether it will be possible every time for the Controller to examine the prices and then report to the Ministry.

Dr. C. B. Singh: You have been all the time importing raw materials, packing them and distributing them. Have you a research unit?

Shri T. Durairajan: No, not until today.

Dr. C. B. Singh: You will agree that with our mixed economy, where we want to compete in the world market, we have got to produce things of our own. Do you think that we still want to import things and not produce some of our own new drugs in this country?

Shri T. Durairajan: We have got to do it as early as possible, but the difficulty is that we are still not able to produce one basic drug in this country.

Dr. C. B. Singh: In your memorandum you have mentioned two important drugs. Do you know that Pimpri have asked for a royalty of 7½ per cent on one of their druge when our Bill provides only 4 per cent. Anyhow, that is besides the point. You agree that research is very important and hardly anything is being done in this country.

Shri T. Durairajan: That is correct.

Dr. C. B. Singh: We are doing something in the national laboratories, in the Central Drug Research Institute and in the universities. What should be done so that there will be more of research in this country?

Shri T. Durairajan: Until we are able to set up manufacturing units of our own, I do not think we can really make any progress with regard to research.

Dr. C. B. Singh: The CDRI, Lucknow has been functioning for the last 15 years and its annual budget is Rs. 30 lakhs. It has not been able to produce any good results so far. What is the reason?

Shri T. Durairajan: I am not competent to make any comments on an institution like that. Individual scientists should take personal interest in their work. Obviously, it is not a co-ordinated effort which they are making. That is my impression. I was there when Dr. Mukerji was there.

Dr. C. B. Singh: What improvements would you suggest in the set up or working there?

Shri T. Durairajan: Each individual scientist has to take personal interest in the work. I cannot suggest what each scientist should do to find out new drugs.

Dr. C. B. Singh: You are more or less against foreign capital in this country?

Shri T. Durairajan: I have not said that.

Dr. C. B. Singh: Anyway, you have said that they are taking away a lot of money from this country.

Shri T. Durairajan: That is correct.

Dr. C. B. Singh: Since we have a mixed economy, should not foreign investment be encouraged for faster development?

Shri T. Durairajan: That is correct.

Dr. C. B. Singh: You have mentioned that Germany and Japan have strong patents. Do you know that foreigners are earning a large amount as royalty from patents in Japan and Germany?

Shri T. Durairajan: The only submission I would make is that in relation to the royalties going out, they probably get much more as their share.

Shri C. B. Singh: No, that is not true. Japan is paying more than what it is getting.

Shri T. Durairajan: If we take into account only the question of royalties that they are paying and receiving, you are perfectly correct. But, in comparison with the royalties that they are paying for manufacture, the exports that they are making in respect of those drugs and the money that comes into the country—it does not matter whether it comes in the form of royalties or goods exported—is certainly many times more.

Dr. C. B. Singh: You have stated that these two countries have a large number of patents.

Shri T. Durairajan: I have submitted that in Germany and Japan the patent is for the process and not for the product. We are now trying to give patent to the process and not to the product.

Dr. C. B. Singh: In the European Common Market things are going to be modified slowly.

Shri T. Durairajan: Switzerland and Germany are still sticking to process patent. I do not know whether those countries are going to revise their laws to have product patent *per se*.

Dr. C. B. Singh: USA has product patent. There are three types of patents—process, product and both process and product.

Shri T. Durairajan: I want patent for process alone.

Dr. C. B. Singh: You have not mentioned anything about appeal. We feel that the appeal should lie to the Government. Do you agree?

Shri T. Durairajan: No, it should be to a judicial body.

Dr. C. B. Singh: Then there will be the difficulty of delay. Do you think that the delay will be minimised by having a judicial tribunal?

Shri T. Durairajan: I was not thinking in terms of delay. I was thinking in terms of what is fair. We have got to be not only fair but appear to be fair.

Dr. C. B. Singh: Would you like to fix some time limit?

Shri T. Durairajan: That would be only on paper. With due respect, supposing we fix a time limit. How could we enforce it?

Shri M. L. Jadhav: Do you agree to the term of patents for ten years?

Shri T. Durairajan: If necessary, it can be extended by three or four years.

Shri M. L. Jadhav: It is said that the price of drugs manufactured in India is very high. Can you make some suggestions for bringing down those prices?

Shri T. Durairajan: If the hon. Member is having in mind the ques-

tion of the price of the imported drug as related to the drug that is manufactured in India, it will take years before we can come up to that level, because the manufacturer here has to pay a high price for his raw materials. Unless he is able to obtain them at reasonable prices, how can the price go down?

Shri M. L. Jadhav: Are you aware that some of the imported drugs are sold by private firms here at a price higher than the price charged by the Government for the same products?

Shri T. Durairajan: It is a question of supply and demand.

Shri M. L. Jadhav: I am talking of sulpha drugs. The private firms are charging double the price charged by Government.

Shri T. Durairajan: That is inherent in human nature. The price of sulpha drugs today is 30 to 40 per cent less as compared to some time back because Government have announced a liberal import policy. When there is short supply in the market, the trader wants to have a larger margin. It applies not only to drugs but to other commodities also.

Shri M. R. Shervani: I take it that you support the Bill as a whole. Have you any objection to clause 96 about judicial tribunal not being there? Do you think it is necessary?

Mr. Chairman: He has earlier answered that question.

Shri Arjun Arora: It is mentioned in the American Senate Report that when a representative of Pfizer was asked of the secret of their higher rate of profits in the foreign markets, as compared to the domestic market, he did not give any reply by simply saying that it is a trade secret. With your experience perhaps you know what that secret is.

Shri T. Durairajan: Even if it is a secret, I am willing to place it before the Committee. The Secret is this. Let us take oxytetracycline for which the price fixed by Pfizer in United States is 10 dollars for a phial. The retailer's margin is 25 to 35 per cent. The margin between the middleman and the wholesaler is 15 to 20 per cent. So, the net amount that comes to Pfizer Company when a phial is sold for 10 dollars is hardly 3:5 dollars to 4 dollars. But when they export the same drug to India, they base their price on what they can get from this country. It is not a question of what is their actual manufacturing cost plus profit. When they export these drugs to the under-developed countries they charge a price which that market can afford to pay. So, the whole money comes to them in the form of export prices on which they very have little expenditure because the expenditure they have to incur on agents etc. is met from the profit that is being made in this country. So, they make a larger profit on their exports, as related to the net profit, than they get in their own home country. The cost of retailing and administrative expenses in their country are also high.

Shri Arjun Arora: Am I to understand that they are charging these abnormally high prices because they have patents in the importing countries?

Shri T. Durairajan: Yes, Sir.

Shri Arjun Arora: You have mentioned in your memorandum about foreign manufacturing firms in India getting their substances or intermediates from their parent compaines for prices far excess of their ruling prices in those countries and you have stated that the reason is obvious. Unfortunately, it is not so obvious to me.

Shri T. Durairajan: The companies operating in India are small subsidiaries which were started with a small capital. They are not interested in the subsidiary company making a larger profit because a major portion of that will be taken as tax in this

country. So, to the extent they are able to charge a higher price, they are able to receive the money in foreign exchange in their own country, which is advantageous to them, because it is free of Indian or Ceylonese income-tax. I may even add that they send them as consignments on account and invoice them after ascertaining the price which can be realised. If they find that a higher price can be realised, they will invoice at a higher price.

Shri Arjun Arora: Am I to understand that this country has to pay a higher price than the one prevailing in the country from which we are importing the drug?

Shri T. Durairajan: Not only higher than the price prevailing in the importing country but in some other countries also. Hong Kong has a free market. A firm in UK charges 15 shillings a kilo for a drug while selling to Hong Kong whereas we in India pay more than double that amount. So, a number of firms are importing drugs from Hong Kong at half the prices which the British manufacturers or their agents here are quoting.

Shri V. M. Chordia: What is the price of Hadensa in Germany and in India?

Shri T. Durairajan: The cost of manufacturing Hadensa in Germany is far lower than in India for two reasons. An empty tube in which Hadensa is packed costs me roughly Rs. 220 for 1,000 Tubes. When it is put in cardboard boxes, then packed in dealwood cases, and despatched from Calcutta to Madras, it costs me roughly 35 paise per each tube whereas the cost in Germany is 6 to 7 paise. The base Lanolin has to be imported from UK or Germany on which we have to pay import duty. The ingredients have to be imported. So, the actual cost to me at Madras is roughly Rs. 13 to 14 a dozen whereas the imported cost is Rs. 17 a dozen c.i.f. which includes freight, packing, customs duty and insurance. The retail price of Hadensa in Germany is roughly 3 marks; Rs. 3-4-0 at the old rate. It is sold at a retail price of Rs. 3-6-0. Our price is Rs. 32 a dozen, as against the manufacturers cost of Rs. 16 to 17 and our sale price covers the excise duty, sales tax, profit for the distributor and our own profit.

Shri V. M. Chordia: Since you have a long experience of importing drugs and selling them, why are you not doing basic research or manufacturing at least those products whose patents have expired?

Shri T. Durairajan: It requires a large amount of money and I am averse to borrowing money. I would like to do business with my own money. If I have to produce a basic drug it will cost me Rs. 10 lakhs to 15 lakhs. I do not have that amount, nor am I willing to go to a public institution for borrowing money.

Shri V. M. Chordia: Is it a fact that capital is shy in this industry because there is no attraction for people who do research and invent medicines as they do not get a proper return and so they are not attracted to doing basic research?

Shri T. Durairajan: There is no quick money in the pharmaceutical industry as in textiles or jute. It is a long-term process. Secondly, if I may say so, it is also not possible to have a profit for the person who manages the factory. I do not want to explain it further.

Shri V. M. Chordia: If the person who invests the money is guaranteed that he will at least be in a position to earn whatever he spends and, in addition to that, will be able to have some profit, will he be attracted or not? What changes, do you suggest, should be made in the Bill so that he would have that security and enough profit?

Shri T. Durairajan: I do not think we can make any provision in this

Bill to correct this which is a basic factor in this country.

Shri A. T. Sarma: Just now you have said that your firm does not carry out research work; at the same time, you informed us that your firm could invent at least two drugs which are popular in India and abroad.

Shri T. Durairajan: I am sorry; I think, I have been misunderstood. My firm has not at all invented this formula. This formula was originated by Richard Morsch, who is still alive. He is a pharmacist himself and he invented it in 1904. He has been selling these two drugs all over the world. My firm was importing and selling them. Because of import restrictions we were getting it in bulk and repacking the same. Then we have acquired the trade mark rights for India. We do not make payment for royalty. We manufacture the drug according to the formula given by that firm. We have not invented it and we do not want to take credit for something which we have not done.

Shri A. T. Sarma: You said that something should be reserved for advertisement and research. Do you reserve any amount out of your profits for research work?

Shri T. Durairajan: Unfortunately, I have not been wise. We are only two partners. My firm makes a profit of roughly Rs. 1,70,000 and I get Rs. 1 lakh out of which the exchequer takes away Rs. 60,000 to Rs. 62,000. What is left for me is hardly enough for my own personal requirements. I am thinking of bringing in other partners in due crourse when we might have a little more fluid position and might undertake research. Research requires large capital and we have not been able to make any provision for that.

Shri Bade: I want to bring to your notice one criticism or comment in the Financial Express and I want to know whether you agree with it. It says:

> "If it is New Delhi's hope that prices of drugs would come down because of the reduction in the validity period of the patent and because of the compulsory licence system, it might find itself disillutioned. It would have been better for the government to follow the example of U.K. and appoint a committee to go into the price system of her drugs."

In your memorandum you have said that the foreigners are exploiting India. Should we have some provision in this Bill or should we appoint some committee to consider it as UK has done?

Shri T. Durairajan: It is easy to make the law but the whole difficulty is how to administer it. All that we can do is to provide that if a patentee works the patent to the detriment of the country, the Government can take the power to revoke it. That is the best we can do; beyond that we cannot do anything. Unless there is co-ordination betwen the Controller of Patents in Calcutta who will not be able to know the difference between two drugs except on paper and the concerned Ministry which goes into it and grants the licence for its manufacture and a third ministry which controls the prices or drugs, how are we to carry on? After you have finished questioning me, I will make a suggestion regarding the lack of co-ordination between different Ministries which certainly is responsible for certain lacunae in the present system because of which a large amount of foreign exchange is being drained out of this country. As it is not related to patents I did not mention it in the beginning but because there are Members of Parliament present I will mention it at the end.

Shri Bade: The same question must that is why they have incorporated be in the mind of Government and

clause 95(3) about the import of a patented article subject to the condition mentioned in clause 86, namely, that the reasonable requirements of the public with respect to the patented invention have not been satisfied. What are reasonable requirements is also given in clause 97. If the foreign manufacturer has refused to import the article in sufficient number, the Government can give a compulsory licence and can also ask the importer or the manufacturer to fix the price according to the Government's wish. Is that not sufficient for controlling the prices of drugs?

Shri T. Durairajan: The control comes in at the earlier stage. After all, let us know how it works. The patent is granted and sealed on the day the patent is applied for. I do not think the patentee gives the Controller the details of prices. Thereafter the imports come in or the manufacture is going to be set up. Even today the Government is not able to say that a certain price is unreasonable because unless they have competitive prices, how can they say that it is unreasonable? Nowadays we are hearing about Sandoz having been able to make some progress about Glucosides from Podophyllum Roots for cancer. Suppose, they are able to isolate it and bring it in the market. It may be that they may charge Rs. 100 for a week's course. How can you say that it is unreasonable unless there is something to compare? Unless we have some means of comparing it, how are we to take action? The Government cannot act *suo motto*. The Government servant who has taken action will be blamed for it. The data must be available to him to enable him to take action. Where is the data going to come from? So, unless we say "If the patentee works the patent to the detriment of the country", which will enable us to act *suo motto*, where is the question of saying that Government can take action?

Shri Bade: Suppose Government gets quotations from Italy or from other countries....

Shri T. Durairajan: With due respect I will have to say that when you say 'Government', you have to talk in terms of officials in the Ministries, who have to take the initiative. How is the Government going to get quotations? It is not that Government get prices from every trader, or from all the manufacturers. Where is the data going to come from? Across the table I find the Drugs Controller for India sitting. Does he get prices from foreign manufacturers, from all countries, unless somebody goes and tells him?

Shri Bade: I want to put another question about royalty. You have said that it should 7-1/2 per cent instead of 4 per cent.

Shri T. Durairajan: I have said, "in cases where the Government considers it necessary".

Shri Bade: May I bring to your notice that even on 4 per cent, 50 per cent of the royalty is taken away as taxes?

Shri T. Durairajan: With due respect I would submit that this question of royalty will have very little bearing. I do not think that there are going to be many Indian firms which are going to apply for compulsory licences. It is going to be only on paper. It is going to be something like giving music to your daughter before marriage, once she gets married, she forgets the music.

Shri R. Ramanathan Chettiar: In the course of your reply you have stated that ten years could be there provided there is a provision for extension. Could you elucidate that point.

Shri T. Durairajan: If a patentee goes to the Controller and says, "I applied for the patent in 1962; now it is 1972, but I have not been able to get even one cent from this country; it is only now that this drug is getting popular; I would like to get a return" and if he is able to satisfy the Controller and the Controller is also satisfied, then the Controller can

certainly grant an extension. What is actually happening is this. The patentee sells the drug under a trade name. During the life of the patent, that trade name gets into the country. Even after the expiry of the patent, for the next 20 years or so, the patentee gets a return. I can quote a number of cases. Take, for example, sulphathiazole; we can buy 1,000 tablets for Rs. 15. Cibazol which is the Trade mark of a Swiss Firm sell the same at Rs. 60 per thousand. The patent has expired; that drug is no longer used in many countries, but in India the drug is sold at Rs. 60 per thousand and they have a large profit on that.

Shri R. Ramanathan Chettiar: Life saving drugs are sold at high prices in this country. The object of this Bill is also to curb that tendency. But you wanted a longer period for those patents. Don't you think that they will perpetuate their high price policy?

Mr. Chairman: He has already answered that point.

Shri R. Ramanathan Chettiar: He wanted a provision for extension.

Mr. Chairman: Ten plus four, fourteen years.

Shri R. Ramanathan Chettiar: You must have heard of the case of Tolbutamide that is going on between Hoechst and Haffkine Institute.

Shri T. Durairajan: Yes.

Shri R. Ramanathan Chettiar: The Haffkine Institute has been able to produce through a process at a price one-fourth of what Hoechst has been able to do. But unfortunately it is held up because this matter is hanging fire in the High Court of Maharashtra. If you want to extend the period, then such things will prolong.

Shri T. Durairajan: No, that can be covered if this Bill is passed and the Central Government authorise somebody to import Tolbutamide and still pay royalty. I think this Bill has got the provision for that.

Shri B. K. Das: We have got provisions for compulsory licensing and licences of right. You feel that unless there is transfer of know-how, those provisions will not be of much help. Am I correct?

Shri T. Durairajan: Yes; you are perfectly correct. That is marriage without consummation. Unless there is know-how, how is the person going to manufacture this drug?

Shri B. K. Das: Do you think that there should be some provision in our Bill so that they are compelled to transfer the know-how?

Shri T. Durairajan: Unless there is a provision in the Bill, we cannot compel them. I will give an example. It is not that I am a scientist. Take for instance a vessel, which is rubberlined, of a particular thickness. If the chemical is treated at a particular temperature, you get that end product. If that is not done, the end product would be different. Unless you can produce that end product which conforms to all standards of the original product, there is very little purpose in attempting to make the same. Take for instance a factory that has been set up by a foreign firm in this country. If that factory is blown up today, the Indian scientists working there will not be able to replace the factory tomorrow unless we get the same technicians to draw the blue print and drawings and have the factory erected.

Mr. Chairman: How can you compel anybody to part with his know-how?

Shri K. K. Warior: What is the *modus operandi* for that?

Mr. Chairman: How can we compel a patentee to part with his know-how?

Shri T. Durairajan: A provision can be made in the Bill that unless the Indian party is able to make the end product, he will not get the royalty.

Shri B. K. Das: That means you say that till then, he will have to wait for his royalty. Is it your idea?

Shri T. Durairajan: Yes. The foreign man is also interested in getting the money out of this country.

Shri B. K. Das: Supposing the provision is there. The apprehension is that, in spite of that provision, he may not transfer the know-how. Can we have another arrangement with the patentee for transfer of know-how...

Shri T. Durairajan: It can take the form of royalty in a lump sum. That is what is happening in other countries. They are purchasing the know-how by lumpsum payment.

Shri B. K. Das: Should there be any provision in the Bill or it can be done by arrangement?

Shri T. Durairajan: It can be done both ways. But, in my opinion, if the Government brings in a provision, all these firms will certainly respect it. I am sure in my mind that these firms do respect the sentiments expressed in the Bill. If there is a provision in the Bill, it will certainly enable the Indian entrepreneur to discuss with them and probably get better terms than what they would get if the provision is not there.

Shri B. K. Das: It will have some effect.

Shri T. Durairajan: It will have a large salutary effect.

Mr. Chairman: Has any country got any such provision?

Shri T. Durairajan: Not to my knowledge. The difference is this. In most of the countries, their scientific research is so advanced. I shall give an example. I am a musician and if another musician comes to me, he will certainly sing before me to exhibit his talents; if, however, I know very little about music, he will not sing before me. Likewise, with countries which are so advanced in scientific research, they are willing to come and discuss.

Shri B. K. Das: That is why wou want the quantum of royalty to be enhanced?

Shri T. Durairajan: Yes; it is only for that purpose.

Shri B. K. Das: You have suggested 7½ per cent.

Shri T. Durairajan: 4 per cent will not be adequate because whatever royalty we pay is subject to Indian Income-tax.

Shri V. B. Gandhi: You have said that prices of medicines which were patented remained at a higher rate even after the expiry of patent and you quoted the instance of Sulphathiazol. But don't you think that these high prices are also the result of the people's faith in the quality and people's confidence in the quality of the manufacturers's product? For instance, you are manufacturing a product and if people have great confidence in the quality of your product they will be prepared to pay a higher price than they would for any other ordinary cure.

Shri T. Durairajan: I agree with you. But what I had in mind was that even after the expiry of the patent, Doctors are persuaded to write down the product under the trade name, and not under the generic name, which is responsible for these high prices.

Sardar Daljit Singh: In your memorandum you have said that 90 per cent of the Patents in the field of drug and medicine in our country are held by foreigners. I want to know how many of them are in use and how many of them are not in use.

Shri T. Durairajan: I am sorry, I am not able to give an answer. I have not gone into that question.

Sardar Daljit Singh: You have mentioned that Indian companies imported some drugs from foreign countries and sold at high rates. Contrary to that, here is the instance of foreign firm selling at Rs. 187 for 1,000 tablets of Tolbutamide and the Indian firm, which purchases it from the foreign firm, selling it at Rs. 40 for 1,000 tablets. In the face of this, how could you say that Indian firms are charging higher rates and foreign firms are charging low rates? There are other patents also which are sold at high rates, but in India they are not allowed to manufacture. The instance is the case of Haffkin Institute of Bombay. What is your opinion—is Indian patent cheaper or foreign patent cheaper?

Shri T. Durairajan: The price of Rs. 180 that you mentioned is for the Rastinon brand of Tolbutamide. It is a product of the Frankfurt firm of Hoechst. If an Indian firm imports it from Italy and tablets it they will be able to sell it at Rs. 40. That is the difference.

Shri Bibhuti Mishra: On page 4 of your memorandum you have said as follows:

> I would also submit that we have to consider the various clauses in the Bill, from conditions existing in India, and not with those in advanced countries, especially in view of the present acute foreign exchange position, which I am afraid will continue for the next 5 to 10 years.

What is your suggestion to help India get out of this situation?

Shri T. Durairajan: The only remedy is to get liberal foreign exchange import.

Shri Bibhuti Mishra: At the end of page 4 you have said:

> Although under the provisions of this Bill, the authorities do not have the necessary powers to check such malpractices, if a committee is appointed to investigate such imports during the past say 20 years, it would probably be a revelation, as to the large amount of foreign exchange that has been drained from this country.

At one place you say that this Bill is sufficient to stop malpractices. In the end you say this Bill is not sufficient. How do you say two different things?

Shri T. Durairajan: All that I have meant is, even under the present Bill I do not think the Controller of Patents nor any Ministry can question a firm if they are going to import a basic chemical which is very effective in the treatment of Cancer for Rs. 10,000 and process it here and sell at Rs. 30,000. How are you going to check it? If a Committee is appointed, they can go into the question of prices that these firms are charging and the moneys they are paying to their parent Companies to import intermediaries. Coming to intermediaries, take the case of Sulphathiazol. If the basic price is only 15 shillings a kg, they have been paying 20 shillings to import the intermediary because they are able to realise a much better price in India. They import Acetyl sulphathiazol and make lot of money on that. There is no point in my saying it as a gospel truth. That is why I have suggested the appointment of a Committee who can report to Parliament.

Shri Bibhuti Mishra: You pointed out in your memorandum that some malpractices have been committed by some companies. Could you give us some examples as that would help us?

Shri Bade: Instead of pointing out such malpractices, if you could suggest some provisions to be made in the Bill itself, that would be better.

Shri T. Durairajan: Unless you are satisfied about the correctness

of what I say, how are you going to act?

Shri K. K. Warior: You can substantiate that general statement.

Shri T. Durairajan: I cannot go into the books of those firms nor can I have access to the custom bills of entry.

Mr. Chairman: I might tell you that the matter is being referred to the Tariff Commission.

Shri Bibhuti Mishra: He says that there are malpractices. He also suggests setting up of a Committee which will go round the country and then submit their report to the Ministry. Thereafter that Ministry will consider. Instead of doing that in a roundabout way, when you say that there are malpractices, can't you give exampies as that would help us?

Mr. Chairman: He says that he has no details with him. But, I can tell you that the matter is being referred to the Tariff Commission.

Shri Bibhuti Mishra: If that is referred to the Tariff Commission there will be a long process.

Mr. Chairman: What else can be done?

Shri Bibhuti Mishra: Let him say the places where such malpractices are being committed.

Shri T. Durairajan: Let us take an example. Take Chloramphinicol. This is the name of the drug. That is being sold in the name of Chloromycitin by a firm named Park Davis; they have got a factory in Bombay. Do you know as to what they are doing? They were importing the last stage of chloramphinicol purified that, bottled it and then sold it. As compared to the world price for the finished product, the price that they were paying to the parent company for the intermediary was far in excess of the price for choloromephinicol. All firms pay the price only for the finished products. It is not possible to get competitive prices for the intermediary unless some other countries also have submit a manufacturing units. The prices they pay for intermediaries are far in excess of the world price the reason behind that being obvious. Take for example sulphadiazine and sulphathiosol. All that they were doing was importing the last stage, and then purified the same and then they sold it. The prices paid for that were, in my opinion, far in excess. But, you may not be able to accept what all I have said as correct, as I have no factual data to prove the same. Even if I ask the firms, they would not give the details. Unless the Government authorises somebody to get these details, they would not care to supply them. You know Sir, that there was a pharmaceutical enquiry committee set up in 1950-51. Here also, I don't think that any firm ever cared to answer all the queries. Circulated to them as originally they did not have the necessary powers.

Shri Bibhuti Mishra: This is a very serious thing. He says that lots of foreign exchange are being drained out. He should prove that. He must tell us as to the places wherefrom the foreign exchange is being drained out. We must know that since we are suffering very much for want of foreign exchange. All sorts of agitations are going on in the country. That is why I say that he must give us in writing the places wherefrom our foreign exchange is being drained out.

आज सारा देश तबाह हो गया है।- फारेन एक्स्चेन्ज की बजह से हमको डिवेलुएशन करना पड़ा जिसके लिये सारा देश आन्दोलन कर रहा है। उन को पता है कि कहां कहां से हमारे फारेन एक्स्चेन्ज का खात्मा हुआ। कहां से फारेन एक्स्चेन्ज घटा है। उन जगहों का नाम बतलायें, आदमियों का नाम बतलायें, उन को टेरिफ कमिशन के पास भेजें, प्राइम मिनिस्टर के पास भेजें। जब चोर पकड़ लिया गया तो उस चोर का पता तो बतलायें।

Mr. Chairman: He has given you three or four names. He has not got the other names.

Shri Bibhuti Mishra: Let us ask him to submit a report in writing as to the places wherefrom the foreign exchange is being drained out.

Mr. Chairman: He has given the names.

Shri Kashi Ram Gupta: From the memorandum that you have given and the suggestions put in it, I conclude that you have a picture of basic research being done by the Government Institute.

Shri T. Durairajan: Except for my having gone round the institutions whenever I had opportunities, I have had no further knowledge about what exactly they are doing.

Shri Kashi Ram Gupta: My point is that when you recommend a certain thing, the picture with you is that basic research should be done by Government Institutes. Is that your idea?

Shri T. Durairajan: That is correct.

Shri Kashi Ram Gupta: Therefore, you have based your suggestions on the fact that all pharmaceutical industries must be doing only the product research or the applied research and not the basic research.

Shri T. Durairajan: Pharmaceutical industries are more interested in what might be called processing of household remedies. At present only one firm is doing, what may be called basic manufacture.

Shri Kashi Ram Gupta: Perhaps you do not know. Productions from Indian factories are the results of their product research in India both in the public as well as in the private sectors. In Bombay, there are lots of factories doing product research. My point is this that in India, product research is part and parcel of the pharmaceutical industries alone. You have yourself mentioned that they get income-tax relief and so on and so forth on that.

Shri T. Durairajan: That is correct. But, so far we have had no results. That is all I can say.

Shri Kashi Ram Gupta: The question of result is not there. But the question of taking up the work is there. They have taken up this work and they are doing that.

Shri T. Durairajan: I have no objection to what you say.

Shri Kashi Ram Gupta: Have you not seen any one doing the product research?

Shri T. Durairajan: Excepting that they have set up some research units I don't think that they have set up production units.

Shri Kashi Ram Gupta: CIBA is doing basic research. They are doing product research too.

Shri T. Durairajan: These units are set up with a view to finding out the way of reducing the cost of a product as well as to keep the longevity of the product. They might be doing all these things. All these things do take a lot of time. Let me explain about the antibiotics. Tetracycline is now invented. They get the soil from some country; that soil is given all the necessary food and then grown. When that soil is further processed it produces a sort of a chemical. It is only from that chemical that they are able to isolate tetracycline. But that takes a lot of time. Once they are able to isolate the chemical and find that it is not toxic and it gives results, then they preserve the basic mother culture and defreeze it and produce the product.

Shri Kashi Ram Gupta: Naturally, the question is that if such a research is going on in some of the laboratories it means that the expenditure on that item is an additional expenditure.

Shri T. Durairajan: Every trader knows his job. They do not spend money from their capital. From profits they ear-mark a certain portion and spend on that item.

Shri Kashi Ram Gupta: My question is a simple one. When they do research, it is spending money extra than what others are doing. Naturally it will come out of their own money. There is no contradiction to it, but there is something extra that is done there.

Shri T. Durairajan: That is correct.

Shri Kashi Ram Gupta: Dou you know that Hindustan Anti-Biotics, Pimpri has got a patent for certain anti-biotic?

Shri T. Durairajan: Yes, for Haemycin.

Shri Kashi Ram Gupta: You have suggested 10-year period for the patent. Do you want this period to commence from the date of completion of the specification or from the date of the grant of patent?

Shri T. Durairajan: From the date of application.

Shri Kashi Ram Gupta: You have not suggested that.

Shri T. Durairajan: As per the Bill it is from the date of application.

Shri Kashi Ram Gupta: You are wrong. In the Bill it is from the date of completion of the specification and not from the date of application.

Shri T. Durairajan: When I said 'from the date of acceptance, I meant the date of application. If you say 'from the date of sealing', many difficulties will arise. Suppose, the patentee makes an application to the Patent Office for patent and the Patent Office calls for some more information and removal of some irregularities and after they satisfy themselves, they accept the application and once they accept, it is only from that date the period should count. I would like to make it clear that it is not from the date of sealing.

Shri Kashi Ram Gupta: Here, in the Bill it is given that the date of completion of the specification is named as the date of patent. Do you agree to that?

Shri T. Durairajan: Yes, that is correct.

Shri Kashi Ram Gupta: You see clause 43(1). The date of the patent means the completion of the specification. That means the filing of the complete specification and not the initial application.

Now you have suggested that in certain special cases an extension of 2-3 years can be given. Now you will realise the importance of the difference between the date of completion of specification and the date of sealing which may take 2-3 years. Instead of doing like this, why should we not have 10 years after the date of sealing?

Shri T. Durairajan: Why I am saying so is: in some cases it may take 10 years from the date of application to the date the Patent Office seals the patent. The proceedings may go on and it will unnecessarily drag on and may give an unfair advantage to the litigant. In order to get over this anomaly I merely said 'from the date of acceptance of the application'.

Shri Kashi Ram Gupta: In the Bill there is a time limit given for the completion of the specification. We can similarly stipulate a time limit for sealing of the patent also.

You will find that the Bill provides 10 months for the completion of specification. An equal point can be that the Controller should finalise the sealing of the patent within 2 or 2½ years. That could possibly be put in the Bill.

Shri T. Durairajan: It could be possible, but it is also possible that the patentee can apply and go on getting time whatever may be put in the Bill.

Shri Kashi Ram Gupta: But once the time limit is fixed, then one cannot apply for time.

Then you have suggested that the royalty should be 7½ per cent. How did you arrive at this figure of 7½ per cent, not even 8 per cent?

Shri T. Durairajan: I did not want to think of 8. I suppose 3, 13 and 8 are not considered proper. It is purely guess-work. Instead of 8, I said 7½.

Shri Kashi Ram Gupta: You want a clause to be added for disclosure of technical know-how. You say that if the patentee gives a compulsory licence and if the licensee is not able to produce the goods, mere grant of compulsory licence would not be of any use. You know royalty is paid only if he is able to produce the goods. There is no use of putting a condition for know-how and the patent condition will be enough and know-how can be negotiated separately.

Shri T. Durairajan: My submission is that the patentee would have done his duty by simply giving a licence to the manufacturer and what the manufacturer does is his own business. What I say is: the licensee has to pay the royalty only if he is given the technical know-how, not alone the licence to manufacture.

Shri Kashi Ram Gupta: Yours is a registered firm. A limited company in such cases can be better suited. What is the hinderance for you to make it a private limited firm to increase your activities for the good of the country?

Shri T. Durairajan: I could have done it, but I have not chosen to do it so far.

Shri K. K. Warior: I wish to know how much difference you will make out if the patent rights are given to the process or to the product. Are they almost the same in practice?

Shri T. Durairajan: The only basic difference is this: if the patent right is given by the process, it will give an initiative to somebody else to find out an economic means of manufacturers and bringing down the cost. If I am a patentee and I am given a patent for a product, I will not care to find out any other process and reduce the costs.

Shri K. K. Warior: If the patent right is not given to the product also, don't you think that there will be more stealing of the know-how and infringement of the patent rights?

Shri T. Durairajan: Theoretically what you say may be correct by saying that there may be infringement. But as I said earlier—of course it is for you to give patent rights for the process or for the product—if you give patent for a process, then the patentee would try a number of methods and choose the most economical process and get it patented. But if you give patent for the product, then he may not even think of doing that and even if somebody-else is able to evolve a more economical method, he will be shut out.

Shri K. K. Warior: Now as to the period of the patent rights, do you agree to a period lower than 10 years. Some countries are giving 5 years or 7 years. Why should there be 10 years? Why not a smaller period? Because you yourself said that even after the expiry of the patent, there are chances of marketing the same product and nobody competing it and there are chances of getting returns

and recouping the capital involved. So, why should we not reduce that period in consideration of so many other factors in India?

Shri T. Durairajan: This reduction in the life of the patent is not certainly going to give us much benefit. It makes no difference whether it is 10 years or 12 years. The patentee derives a larger share of the profit from the product after the expiry of the patent than during its life. There are figures to prove that. I will read out an extract concerning the United States. "The generic name is not the chemical name. The generic name is supposed to be a shortened name for the product. If your shortened is not very effective, you are going to have a very long name, but you can make it shorter. To come back to the problem you are talking about. Take a well-known drug such as Hydrochlorthiazide which is marketed under the names of Hydrodiuril and Esidri. And I think there are two or three other companies manufacturing it under trade mark names. Hydrochlorthiazide is not terribly difficult to remember but the advertising has it in extremely minute letters, and no effort is made to get the doctor to remember Hydrochlorthiazide. Effort is made to make him remember the trade names, Hydrodiuril or Esidri or one of the others." This is exactly what is happening in America.

Mr. Chairman: The doctors are brainwashed!

Dr. C. B. Singh: The doctors are so busy that they can't remember the generic names. They are generally very long and difficult to remember. The doctors can remember only those names which stick in their mind and are easy to remember.

Shri K. K. Warior: In the cost structure of finished products in the field of pharmaceuticals, what approximately will be the contribution through patent right which gives monopoly right?

Shri T. Durairajan: Easily 100 per cent.

Shri K. K. Warior: The cost is made up of so many factors and out of that, how much will this patent right contribute?

Shri K. V. Venkatachalam: Fifty per cent he says.

Shri K. K. Warior: It has been suggested that if this Bill, as it is, is passed, foreign capital would be scared away. What is your reaction to that?

Shri T. Durairajan: Unfortunately, I am not in a position to talk about it authoritatively. But I can tell you that this Bill, if enacted as it is, will not scare away foreign capital. I can even go to the extreme and say that even if we abrogate the patents law, foreign capital will come. The foreign companies who have come into this country and have had a strong hold here, did not come here to invest capital.

Shri Arjun Arora: Will you be able to tell us as to how royalties are paid? Is there any scientific basis on which the rate of royalty is arrived at, or is it merely a matter of bargaining?

Shri T. Durairajan: It is a matter of bargaining. But from the royalty agreements which I have had occasion to see, it is one of the two ways: cost of manufacture, which will include factory overheads and administrative overheads, plus 15 per cent of the profits for the licensee for manufacturing in a foreign country; the difference is shared on a 50:50 basis; alternatively it is a flat 15 per cent subject to tax.

Shri Arjun Arora: Do you know of any case where an Indian firm has entered into an agreement on the basis of 50:50?

Shri T. Durairajan: I can't remember. But even if there is any agreement, I suppose the Government ought

to know for without the sanction of the Government, he can't enter into an agreement. He has to get the consent of the Ministry of Finance and the Ministry of Industry.

Mr. Chairman: Any more questions?

Shri T. Durairajan: Sir, I may also mention that we have some trade marks that have never been worked. They were only exporting these articles. So these products were not available here. Now when an Indian firm tells the Government that it would like to manufacture this and pay them a 2 per cent royalty, the Ministry will say "we will not sanction." It happens not only in the pharmaceutical industry but even in the engineering industry. But what is happening is, for example, there is firm called A.B.C. Limited, London, and that firm has got a subsidiary company at Bombay, known as A.B.C. India Limited, with a capital of Rs. 5,000. This firm is authorised by the firm, A.B.C. London to manufacture the product in India. Now, it is only when they employ a certain number of people that they have to go to the Ministry of Industry and apply for an industrial licence. In the small-scale industry, they need not apply for a licence. They merely ask some factory in the small-scale sector to manufacture it for them. They need not apply to the Government at all. They manufacture it. Now, if the cost of production is Rs. 9 per dozen, then the Indian firm sells it to them at Rs. 10 or Rs. 11 per dozen. They then market it at Rs. 25 per dozen. The profit which come to 100 per cent minus expenditure on advertising, etc., is remitted to U.K. (The whole of the profit) I just wanted to show that trade marks and patents are related to each other. They are now dealt with by two different Ministries, trade mark by the Ministry of Commerce and patents by the Ministry of Industry. About the products that are manufactured and sold, neither the Ministries nor the Drug Controller have any knowledge. But still money is being remitted out of this country and the Reserve Bank of India have merely to sanction it for a company owned by a foreigner. At the end of the year, they merely file the balance-sheet and say "we have paid the taxes, the money has got to be remitted." But about the product the Government knows nothing. I can give a number of products which are being manufactured in this country. Here are two products which I picked up as I was coming along. One of these products has been coming to India for over 50 years.

Mr. Chairman: Thank you very much.

Shri T. Durairajan: This is only a trade mark. There is no question of patent. It is purely a mixture or a combination of a few drugs and is being sold under a trade name.

Shri Bade: In Japan no body is allowed to import manufactured drugs. They must manufacture it in Japan, and they must show the know-how also and unless and until they show this, no foreign manufacturer will be allowed to import goods. He must manufacture in Japan. If such a provision is made in India, what have you to say?

Shri T. Durairajan: Japanese pharmaceutical industry is controlled only by 5/6 firms. I know this firm of Takeda. Before the first World War they were agents for the German firm, Bayers. Gradually this Takeda, who was only a distributor for Bayer products, today he has become a giant. There are only 5 factories and all the pharmaceutical manufacture is done by these 5 people. As opposed to India, in Japan all these factories are controlled and owned by the Japanese people. They have really been much advancing. There is no point in comparing ourselves with them. It is just like saying my neighbour's son is a scientific worker, whereas my son is in the third or fourth form.

Shri Bade: If we make this provision in our Bill....

Shri T. Durairajan: We can make a provision but we must have the necessary background. With regard to industrial development until we have that, I am afraid, we cannot do it.

Mr. Chairman: Thank you very much.

(*The witnesses then withdrew*).

II. Pharmaceutical Manufacturers' Organisation, Ahmedabad.

Spokesmen:

1. Shri Hasmukhlal C. Shah.
2. Shri I. A Modi.

(*The witness were called in and they took their seats*)

Mr. Chairman: Gentlemen, the evidence that you give is public. It will be published and laid on the Table of the House and distributed among the Members. Even if you want any portion to be confidential...

Shri Hasmukhlal C. Shah: I think, it is not necessary.

Mr. Chairman: We have received your Memorandum. It has been distributed to all the Members. If you want to stress any particular point, you may do so. Afterwards, our Members will ask you questions.

Shri I. A. Modi: In our Memorandum we have stressed all those points.

Mr. Chairman: By and large, you are in agreement with the provisions of the Bill.

Shri Hasmukhlal C. Shah: We fully agree with the provisions of the Bill.

Mr. Chairman: Anything on which you differ, you may just dilate.

Shri Hasmukhlal C. Shah: The only thing I want to stress is about compulsory licensing and free licensing. The procedure for licensing should be so simple that anybody can take up the production pending a decision of the Tribunal or special body appointed for deciding that case. Ultimately, the royalty would be given by the firm and if they are in agreement with that and also in agreement with the Drugs Controller Department that the drugs manufactured by the firm are, in agreement with the rules and regulations, then the firm should be allowed to manufacture that particular drug pending decision about the royalty. Sir, in some cases what happens is that it takes lot of time to decide the case of licensing. Sometimes it takes 4 to 5 years. It you take the example of Tolbutamide, it is still in Bombay High Court. It is lying there for the last 4 years and the poor Indian people are suffering. They are selling the drug at Rs. 187 per 1000 tablets and if we are allowed to manufacture by buying raw materials from the Italian market and if it is manufactured in India, by Haffkins, and if we are allowed to buy that, we will be selling it at Rs. 60 per thousand tablets. The poor Indian people are getting 300 times more costlier products. The poor people are really suffering and they need the real help. If we can do this service to our Indian people, we would be very grateful—I mean if we are allowed by the Government to do so. Provision is already there about compulsory licensing but then it has to be made little more stricter and much easier also.

Mr. Chairman: What do you suggest.

Shri Hasmukhlal C. Shah: We suggest that if we make an application for licensing and if we do not hear anything from you within 6 months, we must be allowed to produce or manufacture that particular drug provided the Drugs Controller's administration Okays it, because it is a drug and the Drugs Controller's Department must go through it. That is our contention, Sir. Compulsory licensing alongwith royalty. Royalty may be decided by mutual agreement with the patentee, but there

should be a maximum and, as you have suggested in this Bill, 4 per cent, we are agreeable to that part of it also.

Shri I. A. Modi: In substantiating our Memorandum before this Committee, we want to put three important questions. These questions are —as we understand today as far as this Patent Bill is concerned, I think it is mainly opposed by those parties who are either foreign manufacturers or are in collaboration with them. If we study the history of this Patent law in all the countries of the world, I think almost all of them have no patent for the product. I say why you want it in India? In what way, if you are interested to serve the interests of the country, will the interests of the Indian people be served if this amended Patent Bill is adopted? That is one thing. A few other points are rather being put forward that this bill should not be adopted or accepted. It will be one thing if I just say, as Justice Ayyangar has put in his Report, it would be an exaggeration to say that the industrial progress of a particular country is considerably stimulated as to whether the system is suited to it or not, that we will have to decide. We will put a few questions. What are the facts? Has our country shown any progress in these 19 years in any new invention under the present patent protection? I say the answer is definitely 'No'. I do not think in India we have been able to do anything better under the present Patent law, as they claim, it will be in our interests and the technology will be flowing from developed countries to the undeveloped countries like India. Rather this country is given unimaginably exhorbitant prices for life-saving drugs. The question arises how one can develop? I say, naturally one can do it by marketing such products which are more in use and which are more upto date. The volume of turn-over will keep the prices down and will provide funds for research. Thus both are benefited—the poor suffering humanity gets the product cheaper and the organisation gets the funds to initiate research. After all, for any research the funds are very important. And these funds do come only from the turn-over of the organisation and this turn-over of the organisation is never possible if up-to-date things are not taken for selling or for trading. That is most essential. Another thing, we believe, is that if this patent is restricted to only process, as it is recommended by this Patent Bill, it will rather instigate competition and instigate more researches. An organisation will be compelled for more and more new inventions due to competition and demand in the field. After all this research is being done by large manufacturers not because they want to do any good or charity to the public or to the humanity but for their own survival; rather to meet competition with other manufacturers in their own country they will have to continue this research, I say, every day. So if compulsory licensing comes, naturally there will be more and more researches. I think the world will be greatly benefited by this. About compulsory licensing I will take two minutes. Justice Ayyangar has quoted a quotation from Sir William Houldsworth: "Anything like compulsory licence given by a foreign patentee to manufacturers in this country would not meet the case. The foreign patentee acts as a dog in the manger, sends his patented articles to this country, but does nothing to have the patented articles manufactured here. He commands the situation and so our industries are, under our own law, starved in the interests of the foreigner.....Those who feel most strongly on this question think that there should be nothing but an absolute revocation of the patent if it is not worked in this country within two years and the Fry Commission was of that opinion... The clause as presented in the Bill does not fulfil the ideal which was recommended by the Committee but it goes a long way in the direction. At any rate. it is an immense improvement in the

present position and therefore it is acceptable."

Sir, my submission is that it is in the interest of India as well.

Shri Hasmukhlal C. Shah: There is a slogan now "No patent, No New Drugs". I fully agree with that, but at the same time I disagree with that. If this is the case the space Research done by Russia would not have taken place. In these days of competition whether people get money or not but by one or the other reason they like to work and when and where they work they always get some new Research. For what such good money is spent by such Socialistic countries. Sometimes the personal ego is also responsible for the new research. Great scientists have never bothered about money. Fundamental researches are all done for the benefit of the human being and not for money. It is said that the prices of the unpatented drugs are higher in India than others. This is because the intermediates and the raw-materials manufactured in India are purchased at higher prices. The processes for the same products manufactured in India and other countries are the same but here because the raw material costs high and because we have to pay very high price for intermediates the price structure here is high than compared to any other country. The other raw-materials required in some products manufactured in India are costlier. Secondly, the initial cost of equipment, building, etc. are higher. Also the import duty, excise duty, on various raw materials are levied very high. These all constitute the prices of the Drugs manufactured in India which are not patented or whose patents have expired. The processes followed are almost the same in this country or in any country. Secondly, in some cases much advanced processes are found than the old patented one and hence the cost of production is lower. In case of Italy when a price of a product is higher, it is because sometimes high cost of production and higher standard of living and higher margin of profits and less competition. If you go to African countries, South East and Eastern countries you will find that lot of firms of repute sell their products at one-third of price sold in other countries. That is the reason why Indian manufacturers are not able to compete them in other countries. We just take one example. Some people are talking about Librium of F. Haffman La Roche & Co. It is said that Librium is the product of confidence and hence in India 76 per cent is the sale of this product. Six firms producing similar products captured 21 per cent of the market. The remaining firms cover only 3.4 per cent of the market who are selling at a reasonable price. They argued that the cost structure on the product is very competitive but it is the confidence of the doctors for the drug which is more responsible for the promotion of the product. I just do not understand why such a huge amount is spent on promotion. In India today the self-same situation exists. An Indian firm imports the active ingredient of Librium at Rs. 312 per kg. from Italy, while the original inventor supplies to its associated company in India at Rs. 5,555 per kg. Why such a fantastic price is charged by the patent holder? I am sure some of the learned member of the commission know that this was discussed in the Parliament. But a drug is imported in India only when it is approved by the Drug Controller of India that the claim made of the product is genuine and the Drug Controller of India approves that the chemical produced at Italy is the same of Librium which is imported at Rs. 5.555 per kilo from Switzerland. In putting this figure before you I have no other intention, Sir, but to impress upon you all learned Members that for what we are paying such an extravagant price at the cost of poverty of India? I am sure learned people like you would understand the situation in giving an undue protection to the patent law. In this case, compulsory licensing should

be the best solution and if compulsory licensing is made the patent concern would reduce the price to compete the sale for their business as well as prestige. The product Patent which has been given is really very much favoured by those people. They like it because if there is product patent then nobody would be able to compete and they would be having the monopoly of the same chemicals and the product in India.

I have not observed a single Research done by any foreign concern in India for the last 17 years which is worth the name. I do not know where the profits go which they claim to be 5 per cent to 20 per cent. What is the idea of recovering such high Research prices when they are not going to make any Research here in India. This clearly means that for initial stage research is not possible and hence the Big International Firms have not made any contribution for Research in India so far. So it clearly means that for initial stage research is not possible as it is done in Italy and proved by Big International Firms who are recognising the Patent Law in India.

Now we cannot just start abruptly. They want us to run the race with them when they are already 100 years ahead of us. They have already crossed the initial difficulties. So we must be put at the same level. Then it would be easier for us to compete with each other. For 10 years all these patent laws should be kept aside to allow us to develop our technology as Italy has done it.

So far very few patents have been taken by Indian research workers. Only few Indian research workers—very few I say—because there is not an outstanding research in India for medicines and drugs. In that case 54 crore Indians are suffering. We are paying very high prices for drugs. Now, take this medicine Oxichlortatracycline, even Government of India, *i.e.*, Hindustan Antibiotics wanted to manufacture and they advertised saying that they are putting the drug for 8 annas a capsule but some foreign firms intervened and as such even Government could not do much about this. So if Government felt helpless because of the patent laws for small firms like us it would be very difficult to go ahead with the research. Without having the momentum of research as Italy has got it will be really very difficult. In Italy they allowed the patent for 10 years and only the process which the inventor has developed. If he feels that this particular drug can be manufactured by 100 methods those 100 methods have to be patented and not one.

In India the patents are accepted from the date they register in the country. Now I differ with this because the patents should be exploited from the date it is registered in the country where it is registered first. Now it happens they register in their country in 1961 and come to India only in 1966 and so they register the patent after 5 years. Now they have already got the advantage of those years. What I mean is, Sir, the patent should be registered not from the date of application but from the date that has been registered in another country first so that whatever they have made they should pass on to us earlier.

I further submit that most of the research done by the Big International Firms are for their personal prestige and also for the personal profits and existence. There is a very keen competition between the big international firms and for their existence they have to make their research for their own people. When they make research they never keep in mind India. They are making research for their own country and hence they decide their prices and to my mind most of the drugs get back the money spent on their research in the first few years. My contention is that primarily the research was made for their own coun-

try, and hence the prices to other countries should be much lower; they should pass on the benefit for the sake of humanity on a very meagre margin. Compulsory licensing may be considered at least in this country at a very reasonable rate and also by a very easy procedure.

Our balance of trade since independence has been very unfavourable and we do not know where we will stand in future. It is therefore very necessary that for uplifting the scientist and technologist in India, they should be given opportunities to even repeat the patents that are expiring if by that we can produce drugs at cheap rates. We should not be thinking only of investigators, whose number is very much less than those of scientists and technologists. Inventions are only one or two per cent, while the sufferers are 98 to 99 per cent. So, in the interests of the public there should be no patent for the next 10-15 years. Young scientists of India will take over. Italy and other countries, because of their experience in imitating other drugs, have progressed much and are now able to develop their own research. So, opportunity should be given to our research workers, scientists and technologists to develop know-how.

It is true that there are so many expired patents and nobody is undertaking work on them. My submission is that the labour and profits involved in developing the technology of such products is so meagre that they are not attracted, but in some cases where the profits are high, the known patents have been worked out in this country. In some cases, new technology has been developed for the expired patents. What is wrong if the products of the present patents are exploited and if the manufacturer is ready to pay royalty to the patentee and wants to serve his countrymen by supplying drugs at cheap rates? Why should he not be allowed to do so?

Tolbutamide and chloropopromide are meant for the same disease. Both have been developed by the same company, but they have been licensed to two different people by this company—Hoechst and Pfizer—and each is claiming that his product is better, while, in fact, they are the same. I do not know why such things should be allowed in India. The research company itself should decide which is better and licence that alone. Instead, they are exploiting the people.

Similarly, Schering of Germany have got two types of tablets, Anabinol and Duocanal. The ingredients in both the cases are more or less the same, but they are selling at different prices.

The patent for a particular acetate expired in 1961. Till then it was sold at Rs. 80 a gram, but now it is selling at Rs. 48.

The patent for Tetracycline was over in March, 1966. Immediately ICI reduced its price from £5 to £1-2-0. This is how patents are being exploited. We want to substantiate these points in our memorandum and I shall mention a few points by way of examples, and by which we can do justice to the memorandum. For that, we have come before the Committee.

I shall just mention the limitations of this poor country where the people will have to fight for justice and even for the things which are good for the Indians. If we review this whole Patents Bill which has come up, we will find that many things referred to in this Bill are based on the learned report brought out by Justice Ayyangar. Justice Ayyangar has reviewed the existing patent laws all over the world and has recommended to a great extent which is good for this country. Still, I think if we study the situation and see who are for this Bill and who are against this Bill, I submit that you will find that those who are for this Bill are small persons like us, who are small-scale manufacturers, those Indian manufacturers who are in the real sense Indian manufacturers without any col-

laboration from foreigners. Those who are against this Bill are fairly good, well-developed countries, including the Governments and the embassies and the foreign manufacturers in this country and their collobarotors who are really speaking Indians; they are mostly against this Bill.

You will definitely realise the limitations, that the people like us have. You will find, even the press has been influenced by those people with very wide resources. I have not seen any single newspaper where in they have written an editorial, even a few lines in favour of the Patents Bill. But if you take up some big newspapers, you will find big editorials representing those points which the big industrialists tell. I am sorry there is not a single paper or an editorial which endorses the views of Justice Ayyangar. They all have everything to say against this Patents Bill. God knows why?

There are certain limitations which must be realised, in putting our points of view, because, resources for the masses are the least while the resources for those who are against this are more, and in this we will have to convince the Committee, as far as this Bill is concerned. I think that the minimum requirements that have been mentioned should be explained. There are three or four points that are put forward in respect of the Bill. First, on research a very huge expenditure is incurred. If there is no safety or security, the scientists will not be interested in carrying out research. I do not think that Roche, Hoecht or Pfizer had started research from the day they came into existence. From where they have brought this fund into the picture? If I am not exaggerating, let me tell you that the consumers have contributed very nicely towards research. The report No 448 of Senator Kauffeur—I am sure you will be well aware of it—has taken out the data of 20 major companies and found out that research expense is 6¼ per cent of their total sales. This 6¼ per cent expenditure, they have already recovered from the consumers.

If you see the selling expenses of any organisation in this pharmaceutical industry, it will not be less than 25 to 30 or 35 per cent or more than that. I ask why do if they not require any guarantee or security for this 30 per cent expenditure? They do not want it because it is compulsory for them to establish for themselves Why do they require security for 6¼ per cent expenditure on research? The consumers have already contributed to it. I do not think for a commodity like drugs, which are meant for the health of the nation, we should be allowed to be exploited only for those beneficiaries.

The second point is about recovery. The man who initiates or the man who comes first in the market has his own advantage and is going to sell more and because of that, on his trade mark, he gets compensation. Again, this Bill is already providing the facility of licence of rights, particularly in drugs and medicines. Royalty is being paid to the manufacturers. Royalty means another 10 to 15 licensees who have got selling agencies and who spend a lot for producing the sales. I think they will save more. as the patentees will earn four per cent royalty without incurring sales expenditure for selling their commodities.

Thirdly, it is said that if this Bill is passed the incentive will die down for the scientists. As far as the scientists are concerned, they are mostly the employees of the organisations. The knowledge which he has acquired during his studies has to be utilised. and he will definitely try to put it to test and gain credit before he leaves the world. His enthusiasm will not, therefore, die down and the incentive will not be absent because there is no so-called security.

Even these organisations, who say that their incentive will die down—the incentive can never die for them,

because the organisation is doing research for its own survival, and to survive competition in its own country. They will have to do research and find out something new. Otherwise, they know that the huge amount of profit will go away. By the way, I will not be doing anything wrong if I give the example of our organisation. I am talking of the Indian Pharmaceutical Association. In 1965, in Baroda, our Indian Pharmaceutical Congress Association passed a resolution in favour of this Bill by a thumping majority. It would not be an exaggeration if I say that the thumping majority was 99 per cent. But to our bad luck, in the IPA, the foreign collaborators managed to come on the committee to chalk out the memorandum against the will of the 99 per cent; rather the view of a few persons prevailed in the memorandum which opposed the Bill. This will give an idea of the limitations under which we work.

The name of Justice Ayyangar is being used. It is said that he was also not in favour of fixing a royalty. The Patents Bill fixes a royalty in case of the drugs and medicines to a maximum of four per cent. Justice Ayyangar was aware and thought that it is very necessary that some thing should be done. He has said why he was not in favour of fixing a royalty. He has given his reasons. Firstly, the percentage varies from industry to industry. Secondly, no reasonable rate can be arrived at, and thirdly, if the maximum rate is fixed, there will be a tendency for the licensee to ask for it. While formulating this Bill, the same question should have arisen in the minds of others also, as it arose in my mind. Suppose I apply for a licence of right and I am asked to start the manufacture of a drug, now If I do not know I have to pay a maximum of four per cent, there is always a sword hanging on top of me. If the controller at the end fixes 15 per cent and if I calculate three to four per cent, the whole thing will go phut. So I will have no enthusiasm to work the patent and put it on the market. And so, for that very reason the fixation of a royalty is a "must". Otherwise, with a hanging sword above, it will be very difficult for an Indian licensee, without any danger, to proceed ahead. What about the court decision? I was a party in the the Tolbutamide case. So, maximum royalty is a "must" and we agree it should be 4 per cent. In 1919 even the U.K. had found it necessary to amend their Act and introduce section 33A so that in chemical substances, only the process can be patented. After that UK industry started making remarkable progress.

In clause 5, the plural "methods or processes" should be removed and only the singular "method or process" should be put. Take Tolbutamide for example. This can be produced by so many processes and Hoechst have taken a patent for this product with the result that all the imaginable processes for producing this product have been covered and every road is block-blocked. The Hafkin Institute have been successful in making this product through an impossible process. But they have been challenged by Hoechst in a court of law. So, only the singular "method or process" should be used in this clause.

If this Bill is passed, we can get the licence of right under the compulsory licensing system after paying royalty. Even Justice Ayyangar has found that it is the experience of each and every applicant for the licence that the real technical know-how is not given, but it is hidden. So, after royalty is paid according to the Controller's decision, if the licensee cannot work on the process which is declared in the patent office, then it should be made obligatory on the patentee to give that technical know-how whenever it is demanded. Then only payment of royalty will be justified.

So, for a country like India, this Patent Bill is the minimum and it is a "must".

Sardar Daljit Singh: In your memorandum you have said:

> "As we could see crystal clear, we have waited for 18 years and now let us wait for another 18 years without patent restrictions and watch the progress."

What are the arguments to support this?

Shri Hasmukhlal C. Shah: You will be surprised that all these 19 years not a new product or patent worth the name has come out. In India 80 per cent of the production of pharmaceuticals and drugs is by foreign collaborators or their associates. When we ask the reason for their high price, they say it is because of research expenditure. If that is so, why have they not been able to do anything in India in these 19 years? Some of the foreign manufacturers have no research laboratories at all. What they charge in the name of research may be spent by them in some other ways to suppress us or transfer the money to their countries by paying higher prices for the raw materials. In the case of librium, the Italian firm sells the raw material at Rs. 312 per killo while the associates of the foreign firms charge Rs. 5555 per kilo—1800 per cent more; So, their librium is costlier. So, this is our experience during the 19 years as a result of the patent law given to us by our big emperors. Let us wait for 10 years. Let us put the patent law out and take the challenge from your young scientists and technologists and see how far they can go.

Shri Bibhuti Mishra: You are not in favour of patents. Then, what is your plan to develop medicines and drugs in India?

Shri I. A. Modi: We have not said that the Patent Act should be abrogated. We endorse this Bill. What we say is that this patent protection should not be restricted to the product, it should be restricted to a process only. If this is done, then our scientists will think of different processes than the one which is patented. In that way we will be able to produce the product which has already found use in the world. Like that our country will flourish, our scientists will flourish and we will have some kind of equipments. Now we are not allowed to think of other processes. We are discouraged in the initial stages itself.

Shri Bibhuti Mishra: Do you mean to say that by this method the price will be cheaper?

Shri I. A. Modi: Hundred per cent. We are already marketing a product at a cheaper price Diatol, which is like Tolbutamide, we are supplying at Rs. 35 per 1000 whereas the other one is being sold for Rs. 175. Librium, they sell at 18 paise per tablet whereas the Indian manufacturer is selling it at only 6 paise. There is Lidocane which is just like Zilocane. We are selling it at Rs. 170 per Kg. whereas Geigi are sell-it at Rs. 866. These foreign manufacturers also help each other. When Lidocane was offered at Rs. 170 one foreign manufacturer in India refused to have it just to discourage the Indian manufacturer.

Shri Kashi Ram Gupta: You have said in your memorandum that India is still in its initial stages of progress and till it reaches a satisfactory stage of development we should follow the Patent Law of Japan. The latest Patent Law of Japan is of the year 1959. That law provides a period of 15 years. So far as Itlay is concerned it has recommended a period of 10 years. Russia also has got a patent law. Now, you have arrived at this 7-year period. You quote Japan, Italy and Russia where it is not a period of 7 years. How have you arrived at this period of 7 years?

Shri I. A. Shah: They tried without patent laws for about 20 to 25

years Then they came to the conclusion that if the period is kept at 10 or 15 years it would be to their advantage. Here, when we have no chance to develop ourselves even after 7 years, if we can get some clue from the patent then we would be able to do it much faster, and 7 years time is enough for them to make whatever money they have spent because in the initial stages there is no competition and the prices are kept high. The example of Japan has been put in wrongly.

Shri Kashi Ram Gupta: You are quoting Justice Ayyangar's report. Are you aware of the fact that justice Ayyangar has not supported the view of reducing the period to such an extent?

Shri I. A. Modi: That does not mean I cannot differ from the views of Justice Ayyangar. India is a vast country with a population of 50 crores or more. Any organisation will have ample time within seven years to recover the expenditure. Secondly, we have taken shelter under the Kefauver Committee Report. If, with twenty major Companies, the research expenditure has been 6½ per cent, seven years would be more than sufficient to recover the expenditure. For a country like India, in our opinion, the patent law should be abrogated for a few years, but because we have to get help from others we have suggested that let the period be seven years.

Shri Kashi Ram Gupta: Can you give statistical data to prove this?

Shri I. A. Modi: Let them give their figures; I will justify it.

Shri Kashi Ram Gupta: The other party gives the argument that they spend on research. Do you mean to say that even if they spend on research 7 years will be sufficient, or that they do not spend on research and therefore the period of 7 years is sufficient.

Shri I. A. Modi: Even if they do research, this period of 7 years will be more than enough.

Shri Kashi Ram Gupta: Are you in favour of putting off the pharmaceutical industry, say, for 10 or 20 years on the ground that research in this country will develop as also the basic research?

Shri T. A. Modi: Yes, Sir.

Shri Kashi Ram Gupta: Are you aware of the fact that basic research in India can be done only by Government institutes or some such bodies and not by the pharmaceutical industry as at present?

Shri I. A. Modi: I think everyone can do it with little more resources.

Shri Kashi Ram Gupta: You mean basic research?

Shri I. A. Modi: Yes, Sir.

Shri Kashi Ram Gupta: Are you in favour of basic research being done by institutes other than Government institutes?

Shri I. A. Modi: Yes, Sir. That can be done.

Shri Kashi Ram Gupta: What is the approximate capital expenditure on a research institute?

Shri I. A. Modi: I think the Government should do that. They are doing it.

Shri Kashi Ram Gupta: Therefore, I put the question that only the Government should do that.

Shri Hasmukhlal C. Shah: There are national laboratories. They are all doing research and the application of research can be taken up by all the firms.

Shri Kashi Ram Gupta: Because the Government laboratories are there, basic research can be done there and the pharmaceutical industry can take up other sides of it.

Shri Hasmukhlal C. Shah: Yes, Sir.

Shri K. K. Warior: The provision of the compulsory licensing is there even under the present Act. May I know how many times you have taken advantage of that?

Shri Hasmukhlal C. Shah: There is a provision of compulsory licensing in the present Act. But nobody has been able to take advantage of that because very few people know the process of having compulsory licence. The process is so cumbersome, so difficult and so time-consuming that a small manufacturer gets fed up with it. He has to go to the courts. You have to go to the High Court, then to the Supreme Court and then you have to have evidence. Who bothers about this? So, the process should be simplified.

Shri K. K. Warior: Is it your experience or is it your anticipation.

Shri Hasmukhlal C. Shah: It is our experience. About 10 firms in India have been sued by the Tolbuta mide . . .

Shri K. K. Warior: You are only relying upon that one instance.

Shri Hasmukhlal C. Shah: That experience is more than enough. Even the biggest firm in India is not able to do anything about that. That case took about 4 years and yet it is in the High Court. It will go to the Supreme Court and it will take another four years. By that time, the patent will be over. That is the process of getting the compulsory licence or something like that. How can a small manufacturer do that?

Shri I. A. Modi: Here, I just want to state a very simple thing. After all, we are just coming up now. May I say it is just like that of a boy of six months there and you say, "I have put the cycle before you. Why don't you walk?". We are just coming up. Unless and until we have our resources, we have our equipments, how do you expect us to run to Calcutta and put an application for a compulsory licence? Let us come up and you will realise how many applications are coming for compulsory licence.

Shri K. K. Warior: I am only suggesting that you have not applied for a licence. I do not want the reasons. I only want the facts. I want to know whether you have made an application or not and whether you have got the experience of the legal difficulties or obstructions following that application.

Shri Hasmukhlal C. Shah: We have got the experience.

Shri I. A. Modi: We both had it.

Shri K. K. Warior: I wish to know whether now those obstructions will not be there according to the provisions provided in the present Bill. Are you satisfied with that?

Shri Hasmukhlal C. Shah: Yes, Sir. We want to make it a little easier. We have suggested that after the making of the application, if no result is coming up, if no reply comes, then, automatically after six months we can start the manufacture.

Shri K. K. Warior: I wish to know whether at the present stage of our know-how, we have reached a stage when we can take full advantage of this provision of compulsory licensing.

Shri Hasmukhlal C. Shah: We will be able to do it. As I told you, we have got two or three products already made. The patent is already there. The Suhrid Geigy sells for Rs. 858 and I can sell for Rs. 172 and yet there is no buyer. There is a syndicate of foreigners. They do not want Indians to come up.

Shri K. K. Warior: In the provision of royalty, do you also agree to include the necessity of handing over the know-how?

Shri I. A. Modi: I have already said that.

Shri K. K. Warior: You want 4 per cent or you are in a mood to give something more.

Shri I. A. Modi: It should be included in 4 per cent. That is more than enough. Morally, they are expected to give everything to the patent office.

Shri Hasmukhlal C. Shah: If a patent is taken only for a process he has to mention it. Then the know-how question will not arise.

Shri K. K. Warior: If it is only for one single process for a product, do you think that will be a sufficient guarantee of protection for our scientists and inventors who are now coming in the field.

Shri Hasmukhlal C. Shah: 19 years' experience has shown that no Indian scientists has come forward by having this protection.

Shri K. K. Warior: You must see not only from your own firm's point of view but from the point of view of the developing economy, developing of our scientific and technical knowledge and also possibility of opening of our petro-chemical industries and other basic industries. In view of that, do you think that this will be sufficient protection if it is only for one single process for a product.

Shri I. A. Modi: Yes, Sir. If a man is very particular, he may have patents for three processes. One patent means one process.

Shri K. K. Warior: The same person can take as many patents on as many processes he likes.

Shri I. A. Modi: Yes, Sir.

Dr. C. B. Singh: I must accord my appreciation of the spirit underlying the evidence given by them. They have mentioned that for 10 years there should be no patent law. I would like to ask one question. It is better to learn from the experience of others. Italy had no patent law for drugs and pharmaceuticals. Do you know what was the experience of Italy when they had no patent law at all?

Shri I. A. Modi: Yes, Sir. I would like to draw your attention to the Senator's Report. In that he has mentioned that Italy has no patent law and yet it has developed a chemical substitute for influenza....

Dr. C. B. Singh: Don't use the word 'chemical'. I am talking of the pharmaceuticals.

Shri I. A. Modi: It is a drug; it is a chemically manufactured drug.

Dr. C. B. Singh: Don't confuse the two issues.

Shri I. A. Modi: That drug was manufactured by Italy. It was their original research. An American firm has already made some agreement with them to market it in America. Like that, they have done a good work in the field of anti-biotics.

Dr. C. B. Singh: According to the list of patents for a single product patent in the world, the U.S.A. has got 355 patents, Switzerland—44 patents; Germany—33 patents; U.K.—28 patents, France—21 patents; Japan—3 patents; Italy—1 patent and India—1 patent. That was in the period when there was no patent law in Italy—only 1 patent in Italy whereas U.S.A. having 355 patents. How would you explain that? In the absence of any patent law, there was hardly any real advancement made in Italy in the pharmaceutical field. Do you agree with that?

Shri Hasmukhlal C. Shah: We do not agree with that. If you were in the market for the drugs industry, you would know that they are able to manufacture almost every chemical.

Dr. C. B. Singh: But they were all copying. They were not making anything new.

Shri Hasmukhlal C. Shah: Even by copying, they have developed research and technology.

Dr. C. B. Singh: You will agree that they were copying only?

Shri Hasmukhlal C. Singh: We are copying everything in this world.

Dr. C. B. Singh: I am talking about Italians. They were only copying? Is it not? You are now trying to copy again. You are copying all the time. Is it not correct?

Shri Hasmukhlal C. Shah: We have not been able to copy others because the patent law was against us. We could not do so. That is the reason why we want a recess to copy others.

Dr. C. B. Singh: As a result of no patent, you will be able to produce nothing new.

Shri Hasmukhlal C. Shah: Italy could manufacture so many things and they have been able to reduce the price of drugs.

Dr. C. B. Singh: You are again harping on the same point. They have been able to reduce the price because of copying others. Nothing knew was produced by them.

Shri Hasmukhlal C. Shah: May I ask: By having the patent law for 19 years, what have we achieved?

Shri Kashi Ram Gupta: That is not the way of answering questions. The witness should not ask the question that way.

Shri Hasmukhlal C. Shah: I ask During the last 19 years what have we achieved by keeping this patents law?

Dr. C. B. Singh: Nothing. That is the greatest tragedy. What have you done in that regard?

Shri Hasmukhlal C. Shah: Let us now try that without the patent law We should learn by trial and error.

Shri I. A. Modi: Let me quote from Senator Kefeuver's Report:

> "The Italian drug industry has also developed a number of possibly significant new drugs most of which are not available in the United States. Among these are several new anti-biotics, new anti-cholestrol drugs, new anti-fungus drugs, new ergot derivatives useful in easing child-birth, a new injectable chlorophenicol and a synthetic chemical which gives some promise of being effective against two strains of influenza. The significance of the last lies in the fact that influenza has a virus against which neither anti-biotic nor any other drug is effective. This new drug is being tested in over 100 hospitals in Italy; it is claimed to reduce the average length of illness by more than half and a leading American firm has already secured distribution rights in the United States.
>
> It should be recognised that some of these developments are only in the nature of possibilities for the future. The Italian drug industry is largely a creation of very recent years."

Dr. C. B. Singh: Do you know what was the ultimate result of this Report in U.S.A.?

Shri I. A. Modi: That I do not know.

Dr. C. B. Singh: I may tell you for your information.

Shri I. A. Modi: These are the facts. Italy has done research in this field.

Mr. Chairman: Why tell them that. We know it.

Dr. C. B. Singh: They may not know it at all. They are quoting from this Report. I want them to know what was the ultimate result of that. A member of the Committee said:

> "It has been my judgment that the hearing so far has been pre-

judiced and distorted. They have lacked balance; they are unfair to the industry, to Government agencies, to the Senate itself and to the public."

Mr. Chairman: Do you justify that attitude?

Dr. C. B. Singh: I do not justify it.

Mr. Chairman: Then why I ask that?

Dr. C. B. Singh: They are quoting from that.

Shri Hasmukhlal C. Shah: We are quoting the facts alone.

Dr. C. B. Singh: They have, more or less, brought about cases in the court about drugs used for conditions four main types of that is, anti-biotics, anti-diabetic, anti-rheumatic and anti-sedative. These cases are still going on in the country.

May I know what is the proportion of patented and un-patented drugs used in this country?

Shri Hasmukhlal C. Shah: I don't know. The hon. Member may give the percentage.

Mr. Chairman: If you do not know, say so. That is all.

Dr. C. B. Singh: I know you have no idea about it. About your own firm, how many unpatented drugs are you sending out?

Shri Hasmukhlal C. Shah: Almost hundred per cent. Because of this patent law, we cannot manufacture any product.

Shri Arjun Arora: You have suggested that the patent law should be abrogated for 10 years. Do you think the drug industry in this country will be able to achieve self-sufficiency in 10 years?

Shri Hasmukhlal C. Shah: This was only a mere suggestion.

Shri Arjun Arora: It was a good suggestion.

Shri Hasmukhlal C. Shah: If nothing can be done by having this patent law, at least give a holiday. That is what we suggested. Then, we can try our luck.

Shri Arjun Arora: Do you think Italy achieved self-sufficiency or near self-sufficiency in drugs during the 19 years that they have had no patent law?

Shri Hasmukhlal C. Shah: Not only self-sufficiency but they are feeding the world itself.

Shri Arjun Arora: So, do you think that Indians could do the same?

Shri Hasmukhlal C. Shah: I think so. We are 15 times more in number than they are. We will be able to do much better if the opportunity is given to us.

Shri Arjun Arora: How do you think abrogation of the Patent Act will act as an incentive for research?

Shri Hasmukhlal C. Shah: I think, you are misunderstanding us. We have never said that we want the abrogation of the Patent Act.

Shri Arjun Arora: You may not want it, but I want to know whether abrogation of the Patent Act will act as an incentive for research and whether research will gain momentum thereby.

Shri Hasmukhlal C. Shah: We have asked only for a compromise. If compulsory licence is easily available, abrogation of the Patent Act is not necessary at all, because that will serve both the purposes. It will satisfy those who want patents and also those who do not want patents.

Shri Arjun Arora: Those who try to satisfy both ends in satisfying nobody.

Shri I. A. Modi: As far as we are concerned, we feel that instead of total

abrogation, the present Bill will be more appropriate and more encouraging. Abrogation will not work; this Bill will work. That is our opinion.

Shri Arjun Arora: You mentioned the Italian example. Could we not imitate the Italians by not having patent legislation? You said that not only the Italians achieved self-sufficiency but they captured the world market; so, you wanted a holiday from patents.

Shri Hasmukhlal C. Shah: We have learnt from the Government's experience. The Government itself has given a holiday from income-tax for certain industries thinking that that would act as an incentive. So, we would like to have the same thing in regard to patents. The same arguments, which have been given by Government for giving a holiday from income-tax, would apply here.

Shri Arjun Arora: You have made a good suggestion that the date on which a patent is registered originally should be the date from which patent rights should begin in India also. Did you have an idea of the time-lag between the date of the original patent and that of the patent in India?

Shri Hasmukhlal C. Shah: Yes, Sir. It varies from two to three years; sometimes it is anything from 5 to 7 years.

Shri Arjun Arora: Have you come across any example of a patent being granted in India five years after it was originally granted anywhere else?

Shri Hasmukhlal C. Shah: At the moment I cannot remember any such example.

Shri Arjun Arora: Would you look up and send it to us?

Shri Hasmukhlal C. Shah: I will try to find out and, if there is any, send you the information.

Shri Arjun Arora: Is there any scientific basis for fixation of royalty or is it merely a matter of bargaining between the patentee and the licensee?

Shri Hasmukhlal C. Shah: If the expenses on research are 6¼ per cent, 4 per cent is more than enough.

Shri Arjun Arora: Do you agree that there should be a progressive reduction in the amount of royalty?

Shri Hasmukhlal C. Shah: We would be very happy if that could be done through this Bill. We will appreciate it very much.

Shri A. T. Sarma: In your memorandum you have cited many instances of foreigners exp'oiting and harassing Indians. Do you consider that by the passing of this Bill this exploitation or harassment of Indians will be restricted in future?

Shri I. A. Modi: Yes, Sir. If this restriction goes, our country will get the drugs and medicines much cheaper than what they are available for today.

Shri A. T. Sarma: Do you think that India is not lacking in technology and technicians in the pharmaceutical industry?

Shri I. A. Modi: India is not lacking in that. Even in the foreign firms, here most of the employees are Indians. They have enough qualifications. The on'y thing is that we are waiting for opportunities.

Shri A. T. Sarma: Do you know that even foreign firms in India are run by Indian technicians?

Shri Hasmukhlal C. Shah: Yes, Sir. They are run 100 per cent by Indian technicians. There may be one or two exceptions here or there.

Shri I. A. Modi: But, may I add, that even these Indian technicians are restricted by foreign tactics. I have one example of a friend of mine. What is being done by the foreign firm is this. My friend is working on one

project. That project seemed to have wonderful prospects; so, the man was immediately transferred to another project and that project has been transferred to their country. It is not now being worked in India.

Shri A. T. Sarma: Some foreign witnesses have expressed the desire that the Bill be postponed for the time being. Do you agree with that?

Shri I. A. Modi: No. The Bill should not be postponed even for a day. The move may be there; in fact, the *Economic Times* of July 9 in its editorial said "the recent re-thinking in New Delhi has rightly placed the emphasis on the factors mentioned against the Bill and there is no reason why some realistic approach should not be applied to patents." A nice rumour is there.

Shri R. P. Sinha: Have the witnesses visited the Pimpri factory at Poona?

Shri Hasmukhlal C. Shah: Yes, Sir.

Shri R. P. Sinha: Do you know what they are manufacturing?

Shri Hasmukhlal C. Shah: If we do not know all of it, we know something about it.

Shri R. P. Sinha: Do you know that they have produced a new drug, known as Haemycin?

Shri Hasmukhlal C. Shah: Yes, Sir.

Shri R. P. Sinha: Do you know what is their cost of production?

Shri Hasmukhlal C. Shah: I do not know.

Shri R. P. Sinha: It is Rs. 20,000 a kilo. Now if we give you the freedom that you want, that is, the freedom to copy, it will mean that the money invested in Pimpri and at other places will go waste. Do you want that it should be allowed to go waste?

Shri Hasmukhlal C. Shah: We do not want that it should go waste. Whatever expenses they have incurred, they should realise that.

Shri R. P. Sinha: How can they realise it if you have complete freedom to copy it?

Shri Hasmukhlal C. Shah: The technology is known to them much better than to the person who is coming new in the field; so, they would be able to do much better than the newcomer and by the time the new comer achieves that technology, they would have realised all their money spent on research.

Shri I. A. Modi: May I say that under this Patent Bill no expense is waste because we are paying royalty. If there are more agencies for making haemycin, perhaps they will get more compensation by way of 4 per cent than they are getting today by producing it themselves and selling it. We do not wish just to copy and not to pay the royalty. We want that royalty should be paid and will be paid.

Shri R. P. Sinha: Do you know what royalty they are getting from other countries?

Shri I. A. Modi: No.

Shri R. P. Sinha: They are getting 7½ per cent.

Shri I. A. Modi: In that case, if Indian restricts it to 4 per cent it is very reasonable.

Mr. Chairman: How can you permit Pimpri to get 7½ per cent if you want it to be fixed at 4 per cent in India?

Shri I. A. Modi: It is for people in those countries to object to 7½ per cent and say that they will give only 4 per cent.

Mr. Chairman: You want Pimpri to get only 4 per cent?

Shri I. A. Modi: I do not want it. It is not that we are going to tell him, "please give 4 per cent or 5 per cent". When those people are concious of that, I think they will have to do.

Mr. Chairman: You cannot have one standard for one and another for the other.

Shri I. A. Modi: I do not say that. On one item you may lose 3½ per cent, but on thousand other items, you may gain. Patent law is a reciprocal law.

Shri Hasmukhlal C. Shah: If they ask 7½ per cent in their country, they have to pay 7½ per cent in our country. If we pay 4 per cent to them, they would pay 4 per cent to us.

Mr. Chairman: If you pay only 4 per cent, what is the justification for you to ask another country to pay you 7½ per cent?

Shri I. A. Modi: They may be demanding 7½ per cent. The justification is. . . .

Mr. Chairman: This is a matter which this Committee has to consider?

Shri I. A. Modi: Yes; naturally.

Shri Bade: About those patents which are running in foreign countries, their period should be counted by counting the period in India. If you look to Section 53, we have envisaged that thing also. The term of every patent granted shall:

> "(a) in respect of an invention claiming the method of process of manufacture of a substance, where the substance is intended for use, or is capable of being used, as food or as a medicine or drug be ten years from the date of the patent; and
>
> (b) in respect of any other invention, be fourteen years from the date of the patent.
>
> "(2) Notwithstanding anything contained in the Patents and Designs Act, 1911, or in the patent granted thereunder, the terms of every patent granted before the commencement of this Act in respect of an invention claiming a substance or the method or process of manufacture in respect thereof, where the substance is intended for use, or is capable of being used as food or as medicine or drug shall be ten years from the date of the patent:
>
> Provided that where at the commencement of this Act any such patent is in force by reason of an extension granted under the Act aforesaid, the patent shall cease to have effect on the expiration of the period of such extension."

And then all those patents granted for drugs and medicines, will be endorsed with "licences of right" automatically, *i.e.* automatic licensing.

Shri Hasmukhlal C. Shah: We fully agree with that automatic licensing.

Shri Bade: All the foreign patents will not be given licences.

Shri Hasmukhlal C. Shah: As far as drugs and medicines are concerned.

Shri Bade: About drugs and medicines, there is no question. The unexpired term of the basic foreign patent should be there, but not more than ten years.

Shri I. A. Modi: We have not studied that particular clause. So it is very difficult to express our opinion.

श्री चौरड़िया : आप चाहते हैं कि पेंटेन्ट पीरियड सात साल रखना चाहिए। आप जानते हैं कि हमारे देश में अभी तक विकास नहीं हो पाया है। विकास की सम्भावनाओं को देखते हुए और इस बात का ध्यान रखते हुए कि खोज करने वाले को खोज करने के खर्च का उचित मुआवजा

मिल सके क्या आप सात वर्ष की अवधि को पर्याप्त समझते हैं ?

Shri Hasmukhlal C. Shah: Looking to the population of this country, seven years are more than enough.

श्री चौरड़िया : क्या यह सही नहीं है कि अगर पेटेन्ट पीरियड साल सात रखा गया, तो उसका बहुत बड़ा हिस्सा तो पेटेन्ट कार्यालय का चक्कर लगाने और क्लिनिकल टैस्ट में व्यतीत हो जायेगा और एक दो वर्ष एडवरटाइज़मेंट में लग जायेंगे और इस तरह पेटेन्ट पीरियड समाप्त हो जायेगा ?

Shri I. A. Modi: It is not the case with every patent. All the things go simultaneously. Perhaps he may recover the cost within three years. In seven years, he will be able to recoup even extremely high expenses.

श्री चौरड़िया : क्या आपको स्वयं, अथवा आपके किसी मित्र को, ऐसा अनुभव है कि पेटेन्ट कार्यालय में प्रार्थनापत्र देने के बाद कितने वर्ष बाद पेटेन्ट ग्रान्ट किया गया ?

Shri I. A. Modi: We have no experience.

Shri Hasmukhlal C. Shah: It will be better if you suggest in the Bill how quickly the patent should be granted, so that the time factor will not be there.

Shri B. K. Das: You are in favour of Clause 48. That is what you have said in your Memorandum. But no compensation has been provided. Have you any comment to make on that?

Shri I. A. Modi: My only comment is that, after all, the drugs are to be used for national interest. We can give you the example of the U.K. Act here. If it is to be used for government purposes, naturally no compensation is to be given. If such a well developed country wants it to be so, why should we not want it? There should be no compensation if it is used for government purposes.

Shri B. K. Das: Some opinion has been expressed that it should be restricted to Defence purposes, security of the country, epidemic and such other things and should not be applicable for general government use, for instance, in hospitals. What have you to say on this?

Shri I. A. Modi: It should be for public at large and for all government purposes.

Mr. Chairman: That is all.

Thank you, gentlemen.

(The witnesses then withdrew.)

(The Committee then adjourned to meet again at 17.00 hours)

(The Committee reassembled at 17.00 hours).

III. **Gujarat Vepari Mahamandal, Ahmedabad.**

Spokesmen:—

1. Shri Chandulal Premchand.
2. Shri Charandas Haridass.
3. Shri J. T. Trivedi.

(The witness were called in and they took their seats).

Mr. Chairman: Gentlemen, The evidence you give will be published and given to all our Members and laid down on the Table of the House and also will be given to all Members of Parliament and even if you want any portion to be kept confidential, that will also be printed. We have received your memorandum and if you want to put forth any new points or elaborate any points already made, you are free to do so. Afterwards, our members will ask questions.

Shri Chandulal Premchand: At the outset we would like to express our regrets that we could not come in

time as our train was late beyond our imagination.

We would like to draw your attention to our memorandum. *Clause* 3(*a*): Here, the word 'scandalous' in the old Act is proposed to be substituted by the word 'frivolous'. We fear that the word 'frivolous' may not convey the meaning as is supposed or as is conveyed by the word 'scandalous'. Perhaps the authorities may consider any invention which may seem to be small as frivolous and reject it. The executive authority should be very careful in rejecting an invention and we desire that the executive power should be limited to rejecting those inventions which are against morality or society. We have, therefore, suggested for want of any better word that the word 'scandalous' as in the present Act be kept in the bill though we feel that the meaning of the word 'scandalous' is conveyed in clause (b).

Now turning to page 4 of our memorandum—clause 102(3) regarding the compensation for compulsory acquisition of patent by Government, in the Bill discretion has been given to the executive authority to determine the compensation to be paid to the patentee. There is every likelyhood that the officer will use the judgment in favour of the Government and to that extent against the patentee. So we have proposed that there should be an independent board to determine the compensation to be paid to the patentee instead of Government deciding in favour of the Government.

About clause 126, with reference to the practitioners, Mr. Trivedi will explain the position.

Shri J. T. Trivedi: Clause 126 is specially meant for the recognition of patent attorneys. In this context, the idea conveyed is that a man who wants to get himself registered as a patent attorney or a agent should be an advocate and also he should have a degree in science or technical qualifications. These three things are practically not possible so far as our country is concerned. Even Judges in the Supreme Court do not possess engineering and law degrees. Even in other countries you will find that none of the jurors possesses both engineering and law degrees. These two are different subjects altogether. It can't be said that this is a technical subject and a man having no degree cannot possibly practise himself in drawing the specifications of the claim. It is a practical thing. Therefore there should be only this provision that those who are practising in this field should be given recognition. Just like chartered accountants, there should be a training institution for them and thereafter this clause for compulsory degree should be introduced. In U.K. also this system was introduced very late. First persons who were practising in that particular field were granted recognition. After some time, an institution was started to give them training and now they have provided that only those who are well-versed in that particular field through training would be allowed to practise. But in our country we have not got that type of institution so far. Therefore, it is necessary that those who want to practise in this particular field be given a fair chance. We have got a very small number of practitioners in the patents field. It will be hardly 39 or 40 throughout India and looking to the population of the country, this figure is very small and none of these practitioners possesses the degrees that are specified in the proposed Bill. Therefore, my submission is that this provision should be relaxed for some time so that this can be introduced when the proper time comes. For the time being they may be given recognition and after some time a patents examination may be held and if they pass the examination they could be given a certificate to that effect and allowed to continue practice.

Shri R. P. Sinha: What interest do you represent?

Shri Chandulal Premchand: The Gujarat Chamber of Commerce. It represents trade and industry in Gujarat. The members are not located only in Ahmedabad but are scattered all over the important places of Gujarat. The total membership is 2,500.

Mr. Chairman: Have you any pharmaceutical industries on your body?

Shri Chandulal Premchand: Yes, Sir, about 10.

Mr. Chairman: Have you obtained their views about this Patent Bill?

Shri Chandulal Premchand: Yes.

Mr. Chairman: About your other industries?

Shri Chandulal Premchand: We have not been able to obtain their views.

Shri R. P. Sinha: Ahmedabad is a centre of textile industry. Is the textile industry in any way affected by this Bill?

Shri Chandulal Premchand: It does affect, because they are making use of patented articles and they are the users to a large extent of patented processes of foregin patentees.

Shri R. P. Sinha: Then they pay royalties to the foreigners?

Shri Charandas Haridass: Yes, we are paying royalties; for example for the Sanforized process.

Shri R. P. Sinha: What is the amount of royalty you pay for the Sanforized process?

Shri Charandas Haridass: About Rs. 50,000 to Rs. 75,000 per month per unit.

Shri R. P. Sinha: The patent belongs to which country?

Shri Charandas Haridass: It is an American company.

Shri Chandulal Premchand: The Sanforizing machine is rented to these people by the patent-holders and per metre of cloth that they Sanforize, they have to pay so many paise as royalty, and it comes to about Rs. 50,000 per month for a medium-sized unit.

Mr. Chairman: How many units are there?

Shri Charandas Haridass: There are 60 units in Ahmedabad. All of them do not use this Sanforized process. Only about 25 mills use it.

Shri R. P. Sinha: Is it possible for your Association to send us some more details as to the quantity of the sanforized textiles that are being produced in the country and the exact amount of royalty being paid. For how many years the patent is their? What are all the terms of this?

Shri Charandas Haridass: Yes, Sir.

Dr. C. B. Singh: One process alone and Rs. 3 crores and 60 lakhs per year?

Shri Chandulal Premchand: Some of the mills have entered into agreement with the British Tootal process. Some of them have started working it. Perhaps, the royalty demanded by the Tootal processors must be higher than the sanforized.

Shri R. P. Sinha: Will you send us the data for that also?

Shri Chandulal Premchand: Yes, Sir.

Shri R. P. Sinha: I would like to know one thing. These Tootals and Senforized must have taken the patent in India.

Shri Chandulal Premchand: Yes, Sir.

Shri R. P. Sinha: I would like you to make sure, whether they are getting the royalty as a patent from the patent that has been registered here or is it a royalty for the know-how and technique that is given or the rent of the machine? We would like to know definitely what is the element of royalty for the payment of the patent rights. You understand my point.

Shri Chandulal Premchand: I will just repeat. You want to know whether this royalty is in compensation for the know-how or the machine or for using the word "Sanforized" on every piece of cloth.

Shri R. P. Sinha: Quite right. If it is something else, then we are not concerned. If it is patent, then we are concerned. Kindly give us the Patent No. We can check up whether it is a perfact patent or not.

Shri Chandulal Premchand: All right.

Mr. Chairman: I am told that the patent period is over. It is only for the trade mark that you are paying.

Shri J. T. Trivedi: Sanforized patent is still in force for the process. That has been patented in 1954. It has about two years to expire. However, I will give the details about this on my return to Ahmedabad.

Mr. Chairman: Please give us the details about both.

Shri R. P. Sinha: Please give us the patent number. Please let us know if there are other types of patents which the textile industry in Ahmedabad are using.

Mr. Chairman: I think the textile manufacturers even in Bombay have to pay this royalty.

Shri Charandas Haridass: Throughout India, Sir. Any mill who wants to us this sanforized process has to pay the royalty.

Shri R. P. Sinha: If we get the details, we can have some idea. We can refer it to the All India Textile Federation.

Mr. Chairman: Can you give us what textile industry in India—including all places, is paying for this trade mark or patent whatever it is?

Shri Chandulal Premchand: I think we shall be able to give it. Through the Federation, we can get all these figures.

Shri J. T. Trivedi: Regarding the sanforized process, Sir, some machines like Eva Set are being manufactured in the U.K. which are available for Rs. 2½ lakhs. In West Germany, the machine known as Manfores is available at a cost of Rs. 2 lakhs, whereas in the U.S.A. we have to pay a cost of Rs. 4 lakh and 50 thousand. That is the position.

Mr. Chairman: Why should they not manufacture in India?

Shri J. T. Trivedi: Tootal & Company have got a contract with the mills likely to expire in 1967. They are trafficking in it and Government has allowed them to take away this large money from our country.

Shri R. P. Sinha: Please differentiate between trade mark and patent. We are not concerned with the trade mark. If this particular machine has got a patent for the manufacture of sanforized products, we would like to know the patent number of this machine. The point raised here is that this patent for this machine has already expired. We would like to know, as you have said, that this machine is available for four lakhs in America and 2 lakhs in West Germany and England and probably because of this patent you can neither manufacture the machine here nor can you import from West Germany. Please send us a comprehensive note on this subject.

And please tell us if there are other patents for products or process that are being used in the industries at Ahmedabad—whether textile or oil or anything else?

Shri Chandulal Premchand: The word "Sanforized" has been so popularised by the patentees or by the holders of the trade mark and the consumer preference has been so much created that textile mills even if they stablise another process almost similar to it, will not fetch that price. At the same time, it will not be so easy of sale, because the manufacturers and the patent holders have so popularised it—they spent, lakhs and lakhs of rupees to popularise the word "Sanforized" that textile mills, even if they like it or not, would pay this high royalty. They have to use it and they have to sanforized it.

Shri R. P. Sinha: It is borne out of our own experience. And one thing more. This textile industry is a very very old industry of India and particularly in Ahmedabad. Could you please tell us whether the textile industry in India has taken out some patent in respect of certain processes or something which they can claim as a result of their own experience? Any such innovation?

Shri Chandulal Premchand: Yes. There is one process which is "Trinised", which has been invested by ATIRA, the Ahmedabad Textile Re-Industrial Research Association, whereby the cotton cloth can be processed as to wash and wear. At the same time, it maintains the softness and airiness of the cotton cloth. Others are using synthetic resins to make it "wash and wear" and to avoid ironing. This process has been invented after so many years of research by the chemists of ATIRA, and they have asked for patent.

Shri R. P. Sinha: They have taken the patent in India?

Shri Chandulal Prem Chand: Yes, Sir.

Shri R. P. Sinha: When was it taken?

Shri J. T. Trivedi: It was somewhere in January '65.

Mr. Chairman: Any foreign country has taken the patent?

Shri J. T. Trivedi: I do not remember, but I can furnish this information after my return.

Shri R. P. Sinha: Please give us particulars about the number of cases where they have taken patents for themselves, and whether the process is being used in any of the mills in India.

Shri Chandulal Premchand: Some of the mills in Indore, Bombay and Ahmedabad have started using this process by paying royalty to 'ATIRA'.

Shri R. P. Sinha: What is the royalty paid?

Shri Charandas Haridas: Rs. 7,500 per year.

Shri Chandulal Premchand: That is the minimum.

Shri R. P. Sinha: What do you mean by the minimum?

Shri Chandulal Premchand: It depends upon the use they make on the metre, of cloth but the minimum is this amount.

Shri R. P. Sinha: There must be some royalty based on metre also. Could you tell us that figure?

Shri Chandulal Premchand: We shall furnish that information.

Shri R. P. Sinha: I would like to compare this with the royalty per metre on sanforized cloth. Could you also tell us how many years it took for the ATIRA to evolve this process, and what expenditure they had to incur in order to evolve this process?

Shri Chandulal Premchand: They worked for about three years. The primary function of the ATIRA is to study the problems of the mills which are sent to them for study and then suggest solutions. In addition to that, there were scientists who work on this also; after finding that the consumers want a type of cloth on which they could be saved from the trouble of ironing, they began to work on this, using only the cloth without adding any synthetic resin or any other foreign material.

Shri R. P. Sinha: Kindly send us a note on the function of the ATIRA and what new processes they have tried to evolve, the expenditure per year, and how it is being financed.

Could you tell us about the patents in regard to engineering goods or engineering products?

Shri Charandas Haridass: We have started one factory in Ahmedabad, which manufactures printing machines; they have secured a patent also; and that machine is being sold at present at the cost of about a few lakhs of rupees. It is a special type of machine for vertical printing; it is for printing on cloth.

Shri R. P. Sinha: You have taken a patent for that also?

Shri Charandas Haridass: Yes.

Shri R. P. Sinha: Are you selling it abroad?

Shri Charandas Haridass: Not abroad; but we are selling it in Bombay, Indore and Calcutta.

Shri R. P. Sinha: Please send us some more details showing how much it costs, how it was evolved, the royalty obtained, when this patent was taken etc.

Since you are doing so many things to solve your problems at the ATIRA, and you have also got the problem of royalty, the problem of giving as well as taking of royalty etc., I would like to know whether you have applied your mind to the question of what the period of the patent should be, what royalty should be provided for and so on, so that your interests or the Indian interests are protected both from the point of view of not being exploited by a foreign patentee and also from the point of view of getting protection for your patents here so that you can evolve more new patents for improving the production of textiles and other items here and you could get proper return on the investment that you make in evolving new patents. If you have examined these questions, kindly let us know what your views are.

Shri J. T. Trivedi: In that context, I would like to submit that usually, the grant of a patent takes about a period of three years. After that, the patentee has to set up the machinery for working it, and then organise a market for it and then sell the machine to the prospective clients; the period of 16 years provided for in the present Act has been found to be not sufficient in some cases. In any case, it should not be reduced, and this should be ensured in order that we may recover the amount that is spent on labour, in organising the factory etc.

Dr. C. B. Singh: What is this period of 16 years?

Shri J. T. Trivedi: 16 years is the period provided in the present Act.

In the new Bill it has been reduced to 14 years. That period of 14 years should be from the date of sealing of the patent and not from the date of application, because between the date of application and the grant of the patent, it generally takes about three years; that is the natural course, and that is what we have experienced also. During these three years, one cannot start the factory; one may not get a financier to help one and so on. Therefore, some latitude should be given in this regard, because we are a developing country and we have to develop so many things. In regard to patents for items other than medicines and food articles, the period should not be reduced.

Shri R. P. Sinha: What do you mean by 'financier'?

Shri J. T. Trivedi: The inventor may not have the necessary money and he may have to find out a financier who would assist him to work out his invention, and start the factory.

Shri R. P. Sinha: We have provided for a maximum royalty of 4 per cent. Will that be sufficient, for instance, in the case of the printing machine developed by the ATIRA?

Shri J. T. Trivedi: I have not applied my mind to that question.

Shri R. P. Sinha: Will you kindly consider the question from the angle that I have put before you and then give us a memorandum on that aspect?

Shri J. T. Trivedi: Yes, I would consider it and then give you a note.

Shri R. P. Sinha: If necessary, you can consult your executive committee also and then give us the note.

Shri Chandulal Premchand After consulting the committee we shall be presenting our views before you.

Shri R. P. Sinha: Both on the royalty question and also on the life of a patent.

Shri Chandulal Premchand: So far as the period of ten years is concerned, we have already more or less agreed on that. But on the question of royalty we shall certainly give our views after considering the matter.

Shri B. K. Das: At page 4 of your memorandum you have suggested some further addition to clause 87. You want to add the words 'any substance, method or processes which the Central Government may notify in the future'. I want to know what particular substance you have in mind. Could you give us some idea of that?

Shri J. T. Trivedi: No; in clause 87 we have made out for which particular substances a patent may not be granted after a particular time. In this connection, I would invite your attention to the wording of clause 87. I would like to submit in this context that we have not exhaustively stated the various substances which are there in India which Government may think it proper in the interests of the country to put in this category. Therefore, there should be a provision that at any time Government may notify in the Gazette of India any particular substance as coming within this category, so that the patent may not be granted for that substance or it may be endorsed with the words 'Licence of right'.

Shri B. K. Das: I only wanted to know whether you have any particular substance in your mind except chemicals for which there is special provision?

Shri J. T. Trivedi: For the present I have not anything in my mind but this clause should be kept open and it may cover very many substances.

Shri B. K. Das: You want an independent statutory body like a Board

for fixing up the compensation. What would you like to be the composition of such a Body?

Shri Chandulal Premchand: We have suggested an independent Board, viz., a Board of Trade set up by the Central Government consisting of the nominees of that particular trade for determining such compensation having regard to the expenditure incurred in connection with the invention and in the case of a patent, the term thereof.

Mr. Chairman: You want that there should be a Judge; a nominee of the Trade and a lawyer. Is it so?

Shri B. K. Das: And the Appeal should lie in the High Court.

Shri Chandulal Premchand: Yes, Sir.

Shri Kashi Ram Gupta: On the questions put up by hon. Member, Shri Sinha, you have given very valuable information but the same could also have been put in the memorandum. May I know what prevented you from putting all this information regarding royalties and new inventions in the memorandum?

Shri Chandulal Premchand: We have simply to express sorrow on that account.

Shri Kashi Ram Gupta: You know the Bill provides a rate of royalty on percentage basis. Now you have informed us that royalties are taken per meter. How the two are to be reconciled?

Shri Chandulal Premchand: For sanforized cloth it is on the meter.

Shri Kashi Ram Gupta: When the patent is granted the clause on royalty is on percentage basis. Then naturally they should conform to that only. How it can be on meter basis?

Shri Chandulal Premchand: We are stating a fact how royalty is demanded when a contract has been entered into between the owner and the user.

Shri Kashi Ram Gupta: My request is you should see to the patent conditions also whether the patent conditions are putting down rate of royalty on percentage basis or meter basis?

Shri Chandulal Premchand: We shall enquire and submit that information.

Shri Kashi Ram Gupta: Now, you know this Bill provides 14 years following from the date of completion of specification. I want to know what is the practice *i.e.* whether machinery industry generally give their applications with complete specification or it takes time to complete the specification.

Shri J. T. Trivedi: Usually they do not file complete specification at the time of filing the application. They file the application provisionally in most of the cases. Only in few cases they put in application along with complete specification.

Shri Kashi Ram Gupta: Therefore, according to the new Bill the period naturally comes to about 15 years because it is from the date of completion of the specification.

Shri J. T. Trivedi: That is, no doubt, correct, Sir, but even after submission of complete specification there will be examination, etc. which will take time.

Shri Kashi Ram Gupta: That is covered by 14 years. In the old Act it was from the date of filing and now it is from the date of complete specification.

Shri J. T. Trivedi: That I do agree.

Shri Kashi Ram Gupta: Have you consulted the pharmaceutical industry about 10 years period or not?

Shri J. T. Trivedi: I have not consulted.

Shri Kashi Ram Gupta: Finally, have you anything to say about the clause regarding revocation?

Shri J. T. Trivedi: No, Sir, I have not got anything to say.

Shri Kashi Ram Gupta: Do we take that other clauses of the Bill are agreeable to you?

Shri J. T. Trivedi: Except the few points I have mentioned and submitted in the memorandum sent by the Mahamandal.

Shri K. K. Warior: I wish to know from the hon. witness how many patents held by foreigners have come in the way of our developing the process of textile industry in India?

Shri J. T. Trivedi: As a matter of fact I have not come across such cases personally but I know that so many patents come in the way because our country is a developing country and most of the people look to the foreign stuff and when we develop that idea and go in for a patent we are not allowed because already these are lying on the shelves of the Patent Office and it amounts to prior publication and, as such, so many foreign patents come in our way. But we cannot give exact number and idea about them.

Shri K. K. Warior: How many patents infringement cases have been there in the textile industry to your knowledge?

Shri J. T. Trivedi: As a matter of fact only one case was filed in 1961 regarding an infringement of a spinning machinery under the patent.

Shri K. K. Warior: Whether any of the patent right held by foreigners has come in the way of developing our textile machine building industry?

Shri K. K. Warior: How far the textile industry as such is spending out of their resources for research in textile technology? What percentage of the turnover?

Shri J. T. Trivedi: That is not practically possible for us to say. As far as I know, the Ahmedabad Textile Industry Research Association is carrying out research on behalf of the textile industry, and they are assisting the people. Information can be obtained and supplied.

Mr. Chairman: You have some textile institute in Bombay?

Shri Charandas Haridass: Yes, Sir.

Shri K. K. Warior: Have you fixed any percentage of the turnover?

Shri Charandas Haridass: The rate is based on loom basis with every mill. The average is Rs. 3000 per year for an average unit.

Shri K. K. Warior: Only the weaving mills have to contribute?

Shri Charandas Haridass: No, Sir. Both the weaving and spinning mills have to contribute.

Dr. C. B. Singh: When on one item alone Ahmedabad is paying Rs. 3 crores and 60 lakhs, I am sure the Ahmedabad Mills must be using certain chemicals and dyes also—I am sure about it, and this, too, must come to a fairly big amount.

Shri Chandulal Premchand: All the mills are not users of sanforized. Only those which are producing superfine and fine cloth—mostly superfine cloth—are using sanforized.

Dr. C. B. Singh: How the figure of Rs. 3 crores has been arrived at?

Shri Chandulal Premchand: That calculation is not correct. We can collect that information and submit it.

Dr. C. B. Singh: What about chemicals and dyes? I am sure every mill is using lot of chemicals and dyes in bleaching processes and all that? Have you any idea about it, or will you like to give any information about it?

Shri Chandulal Premchand: They are all using dyes and chemicals. There is no patented process for which they are paying. Even for bleaching, sizing and proofing the processes are well-known. They are using the average colours made by ICI, IDI, etc.

The Ahmedabad Mills are using lot of dyes.

Dr. C. B. Singh: When you send information, will you please send it about these dyes, etc., which are being used largely?

Shri Chandulal Premchand: Yes, Sir.

Mr. Chairman: Sanforize is only for the trade-mark.

Dr. C. B. Singh: That information they will send. It may be so.

Shri Chandulal Premchand: Lakhs of rupees are spent for advertisment to create a graze and preference by the consumer.

Dr. C. B. Singh: Just like Aspro.

Shri Chandulal Premchand: We shall send information on this.

Shri Charandas Haridass: Only the word "sanforised" is very important to our consumer.

Shri Chandulal Premchand: The hon. Member has given the analogy of Aspro. Though other companies are making the same thing and marketing under different names, Aspro is selling more than all the other combined because of their high pressure advertisement campaign.

Shri K. K. Warior: That does not mean that there is no such thing as Anacin or Saridon. They can also spend on advertisement for their own product. Why should they not risk that?

Shri Chandulal Premchand: Advertisement and the effects of advertisement are to a large extent a gamble. For instance, Alembics have been advertising Rubex against Vicks Vaporub and during the year they have spent perhaps more than Rs. 7 lakhs, but the sale of Vicks has not been affected at all. Instead, they have recently created a factory spending Rs. 65 lakhs for manufacturing the four Vicks products.

Dr. C. B. Singh: As you seem to know about this subject so much, can you tell me whether there is any substance in the common complaint that the cost of patented drugs is very high as compared to other drugs in the market?

Shri Chandulal Premchand: This question has been discussed in detail by Mr. Justice Ayyangar in his report. I do not think we should dwell on that.

Shri A. T. Sarma: You said you wanted "frivolous" to be substituted by "scandalous", but even then you will be allowing the same discretionary power to the executive, and they will have to find out whether it is frivolous or scandalous.

Shri J. T. Trivedi: As a matter of fact, "scandalous" should not be maintained on the statute-book, and "frivolous" should also be removed because it has no clear meaning. For example, I have a patent for a screw wherein the only modification is a supporting tongue which holds the screw in its own slot. Such simple inventions might be rejected by the administrative officer if the word "frivolous" is there in the statute.

Shri Chandulal Premchand: The dictionary meaning of "frivolous" is "of no value, insignificant". Judges always go by their own experience and sentiments of life, and if the invention of the screwdriver mentioned is presented for patent, it

might be considered frivolous and rejected though it may be very useful to a mechanical shop by way of saving labour.

Mr. Chairman: Where is the word "scandalous" used? Why do you bring it here?

Shri J. T. Trivedi: It is not used. I correct myself.

Mr. Chairman: "Frivolous" is used in many Acts, including the 1949 U.K. Act which is the current law there, and we adopt it. Why should you object?

Shri J. T. Trivedi: Here, the question is about defining an invention. If the invention is considered frivolous, naturally he cannot obtain a patent for it. That is the object.

Shri A. T. Sarma: You are prepared to have both!

Shri Chandulal Premchand: We are not in favour of the word "scandalous." We do not like to read it either.

Shri Shyamnandan Mishra: ATIRA, to my mind, offers a very hopeful example of joint research which can be imitated by other industries too. You have said that there is a similar research body in Bombay. We have in other countries, as for example, in the United Kingdom, BESRA which is doing research for a joint group of companies. Could you tell us that there are possibilities of this kind, for joint research, so far as other industries are concerned, because the financial arrangement also in the case of ATIRA is very tempting; 50 per cent is contributed by the Government and 50 per cent by the industry. Have you explored the possibilities of joint research so far as other industries under your care are concerned, or, could you offer some advice in this respect?

Shri Chandulal Premchand: That has not come up yet.

Shri Shyamnandan Mishra: My second question is this. So far as sanforized method is concerned, I would like to know whether it is liked by the indigenous consumers or it is liked by the foreign consumers.

Shri Charandas Haridass: Both. In export also that is mentioned.

Shri Shyamnandan Mishra: Could you roughly indicate the proportion as to what extent they are used by indigenous consumers?

Shri Charandas Haridass: Formerly we used to export our cloth in great varieties much more than the sanforized variety. Recently, the Government of India has changed its policy and has given more incentives for sanforized varieties. So, it is in the initial stages, and hence I cannot give any opinion on it.

Shri K. K. Warior: Formerly other varieties were being used in much greater quantities. Now, the Government policy is to encourage sanforized cloth so that royalty will be more. That is what he is saying.

Mr. Chairman: Is it because you have an export market for sanforized varieties?

Shri Chandulal Premchand: In some Asiatic countries and in some European and other countries.

Shri R. P. Sinha: Could you tell us what proportion of sanforized cloth is exported?

Shri Chandulal Premchand: We cannot give it.

Shri R. P. Sinha: Will you be able to send us the figures later?

Shri Chandulal Premchand: Yes.

Shri Shyamnandan Mishra: May I know whether ATIRA has got any

collaboration arrangements with any research body in foreign countries.

Shri Chandulal Premchand: Not in foreign countries. But there is an exchange of information with research institutions like those existing in Bombay and Calcutta. There is no foreign collaboration.

Shri Shyamnandan Mishra: They do not have any arrangement for the exchange of ideas with foreign institutions?

Shri Chandulal Premchand: There is an exchange of ideas among such institutions in Bombay, Calcutta and Ahmedabad.

Mr. Chairman: I am told by the Chief Controller of Patents that the CSIR is prepared to meet half the expenditure and also the initial expenditure for any other institute started by another industry in India for research.

Thank you, gentleman.

(The Committee then adjourned).

Minutes of Evidence given before the Joint Committee on the Patents Bill, 1965.

Thursday, the 14th July, 1966 at 09.30 to 17.10 hours.

PRESENT

Shri S. V. Krishnamoorthy Rao—*Chairman.*

MEMBERS

Lok Sabha

2. Shri Peter Alvares.
3. Shri Ramchandra Vithal Bade.
4. Shri Panna Lal Barupal.
5. Shri Bibhuti Mishra.
6. Sardar Daljit Singh.
7. Shri Basanta Kumar Das
8. Shri V. B. Gandhi.
9. Shri Kashi Ram Gupta.
10. Shri Madhavrao Laxmanrao Jadhav.
11. Shri Mathew Maniyangadan.
12. Shri Bibudhendra Mishra.
13. Shrimati Sharda Mukerjee.
14. Shri Chhotubhai M. Patel.
15. Shri Naval Prabhakar.
16. Shri R. Ramanathan Chettiar.
17. Shri Sham Lal Saraf.
18. Shri A. T. Sarma.
19. Dr. C. B. Singh.
20. Shri K. K. Warior.
21. Shri Balkrishna Wasnik.

Rajya Sabha

22. Shri Arjun Arora.
23. Shri Vimalkumar M. Chordia.
24. Shri D. P. Karmarkar.
25. Shri P. K. Kumaran.
26. Shri Shyamnandan Mishra.

27. Shri Mulka Govinda Reddy.
28. Shri R. P. Sinha.

REPRESENTATIVES OF THE MINISTRY OF INDUSTRY

1. Shri K. V. Venkatachalam, *O.S.D.*
2. Shri B. N. Atrishi, *O.S.D.*
3. Dr. A. Joga Rao, *Controller General of Patents, Designs and Trade Marks.*

REPRESENTATIVE OF THE MINISTRY OF HEALTH

Shri S. K. Borkar, *Drug Controller of India.*

DRAFTSMEN

1. Shri V. N. Bhatia, *Joint Secretary, Legislative Department, Ministry of Law.*
2. Shri R. V. S. Perisastri, *Deputy Draftsman, Legislative Department, Ministry of Law.*

SECRETARIAT

Shri M. C. Chawla—*Deputy Secretary.*

WITNESSES EXAMINED

I. Pharmacy Council of India, New Delhi.

Spokesmen:

1. Dr. S. Rohatgi.
2. Dr. P. K. Sanyal.
3. Dr. S. B. Rao.
4. Shri Devinder K. Jain.

II. Federation of Indian Chambers of Commerce & Industry, New Delhi.

Spokesman:

1. Shri Ramanbhai B. Amin—*President.*
2. Shri L. S. Devar.
3. Shri C. H. Desai.
4. Shri N. Krishnamurthi.

III. Dr. V. B. Chipalkatti, *Director, Shri Ram Institute for Industrial Research, Delhi.*

IV. Business Council for International Undertaking, *New York.*

Spokesman:

Mr. Robert Meagher.

I. Pharmacy Council of India, New Delhi

Spokesmen:

1. Dr. S. Rohatgi
2. Dr. P. K. Sanyal
3. Dr. S. B. Rao
4. Shri Devinder K. Jain.

(*The witnesses were called in and they took their seats*)

Mr. Chairman: If you want to stress any point in your memorandum or add any new point, you may do so.

Dr. S. Rohatgi: On behalf of the Pharmacy Council of India, I think you for giving us an opportunity to appear before you.

The Pharmacy Council of India is the seniormost statutory body under the Pharmacy Act. We have under the Pharmacy Act State Pharmacy Councils in each State and the Pharmacy Council of India is composed of one member elected by each State Council and one representative from each State Government along with 6 members from the Inter University Board and 6 representatives nominated by the Central Government. Apart from that, we have a few *ex-officio* members like the Director General of Health Services, the Drug Controller of India etc. We have 43 members in all. There is a slight variation in the number for the simple reason that all the States have not yet formed State Pharmacy Councils.

We regulate the profession of pharmacy. In regulating the profession, the major stress is on education. We lay down standards for education in pharmacy. We have our inspectors to inspect all the courses in pharmacy throughout the country, and it is only on the basis of the approval given by this Council that Pharmacists can register themselves in the register of the State Pharmacy Councils and practise pharmacy.

The first point which I would like to stress relates to the definition of intermediates. As the definition stands at present, it might include a very common basic chemical like sulphuric acid and what not. So, we suggest that the term "intermediate chemicals" might be defined a little better. For instance, it can mean chemical substances directly or exclusively used in the synthesis of the compound and it would not include chemical reagents or substances of that nature. As we understand it, the reason why this particular sub-clause has been included is to prevent circumvention of certain provisions. That could be done by a clearer definition of intermediate substances.

In Clause 5 we have suggested that the following may be added at the end:

> "Provided that the method or process of manufacture is a substantial improvement over known methods or processes."

This would help preventing useless processes from being patented.

In regard to Clause 73(2) we have suggested that a panel of experts or a technical advisory board may be set up. The reason is this. In the past it has been seen that many processes which have been published in scientific literature or in old text books of chemistry have been patented in this country. We have made some provisions in the Bill for enlarging the Patent office especially with regard to technical assistance to advise the Controller, but we feel that specialisation in narrow fields has been going on to such an extent that it is not possible for a small group of experts to advise in all branches of learning. It is therefore desirable that we have a panel of experts to advise the Controller whether a particular process has been mentioned elsewhere in scientific literature and is not capable of being patented.

Mr. Chairman: That is what the clause proposes to do. It may appoint some officers: "as many examiners and other officers and with such designations as it thinks fit for the purpose of discharging, under the superintendence and directions of the Controller, such functions of the Controller under this Act as it may from time to time authorise them to discharge."

Dr. S. Rohatgi: My submission is that this relates only to the appointment of technical advisers or experts in the office of the Controller. I may say that research has been progressing in certain fields at such a space that it is not possible even for quite a large number of experts in the Patent Office to know all about the progress that is taking place in that particular field. We have specialists in the country, working in various national laboratories, and various other bodies, from where we could draw a panel of experts to form an advisory body which will be able to advise the Controller on the latest developments in that particular field. I submit that a number of technical experts in the Patent Office may not be able to satisfactorily discharge this function.

Mr. Chairman: I think that is provided in the Bill.

Shri K. V. Venkatachalam: Clause 73(2) refer to the appointment of officers in the Patent Office. His suggestion is that an outside body should be consulted.

Dr. S. Rohatgi: The last point which we want to stress was that in case a particular process is to be exploited by a public sector undertaking which, as we understand, is a profit-making body, it would appear to be in the fitness of things if royalty is paid by the users of the patent. If the Government themselves were to utilise the patented process, it would be all right, but if the public sector undertaking were to utilise it, they might either pay a royalty or, as we have suggested as an alternative, they should agree to sell the produce at a no-profit-no-loss basis. It would then be quite in order.

Dr. C. B. Singh: With your experience as a pharmacologist and as a teacher in pharmacy and now as representing the Pharmacy Council of the country, would you like to comment on the fact that there is a complaint that the cost of patented drugs in this country is very, very high?

Dr. S. Rohatgi: I would like, with your permission, to dilate on this particular point a little more than the question itself relates to. The point raised is whether the patent provisions as they stand today have led to an increase in the price of drugs. I would like to say a little more on the price of drugs as such, and mention the reasons why some drugs are more expensive in this country. There seems to be a considerable amount of conclusion about the price of drugs in this country. I would like to say very emphatically here that not all drugs manufactured or sold in this country are more expensive or are exorbitant, as compared to the prices in other countries. Certain groups of drugs by all means are very expensive. We have for example a large number of Galenical preparations or simpler preparations which are being made in a competitive manner by a large number of firms and the prices of these drugs, I dare say, are not higher than the international prices for these drugs in other countries. On the other hand, where monopoly or cartels have been set up, the price of drugs is certainly very high. This needs more elaboration because we might consider how monopolies are set up. The first question raised by the hon. Member, Dr. Chandrabhan Singh, is with regard to the patent provisions. The patents do set up a kind of monopoly and that monopoly is being abused in this country and the prices of these drugs are

certainly very much on the higher side. The second reason is the monopoly set up by the licensing policy and the implementation of the Industries (Development and Regulation) Act, where the manufacture is confined to one or two or at the most three firms, and where the prices of these drugs have been kept very high. Apart from all these considerations there is another factor, and that is, the cost of some of the basic materials which go into the manufacture of drugs which are used by the drug industry is higher here than in countries of the west.

Dr. C. B. Singh: I would like you to elaborate this point; that the cost of certain raw materials which go into the production of these pharmaceutical drugs is higher in this country as compared to other countries. This is an important point and I would like you to deal with it in a more detailed way.

Dr. S. Rohatgi: We have to import certain chemicals. As for example, for certain acids, such as sulphuric acid, we have to import sulphur because it is not indigenously produced or available in the country. So, the cost of sulphuric acid is higher here than what it is in some other countries in the west.

Mr. Chairman: By how much?

Dr. S. Rohatgi: It would be in the region of 30 to 40 per cent. This increase does reflect to a certain extent on the cost of production of the active substance in bulk. It is interesting to observe here that whereas some of the items which are used as raw materials in the production of bulk material cost higher, wherever the medium and small scale industries are engaged in processing the drug, the selling price of the finished drug in the finished dosage form is not in anyway higher or appreciably higher than in other countries of the west. This increase is more or less absorbed by the processing centres in the industry. The main thing is, as we see it, that wherever competition has been set up, the prices of drugs find a national norm or level. It is not a matter of control but due to national competition that the prices come down.

Mr. Chairman: Admitting that the cost of raw material is higher, as in the case of sulphuric acid, does it in anyway justify the increase of cost by 800 or 900 per cent?

Dr. S. Rohatgi: Definitely not.

Mr. Chairman: I can understand a rise of 40 to 60 per cent, but does it justify an increase by 700 to 800 per cent?

Dr. Rohatgi: But that higher cost is not there in all cases. In some cases of ingredients, it is higher. In many other cases it is not higher. So, it definitely does not justify an increase of 800 per cent as mentioned by you.

Dr. C. B. Singh: A great amount of litigation has been going on in the country about five or six patented drugs like streptomycin, chloropheniçol, tolbutamide, etc. In all these cases the country has suffered very badly and the patent-holders have profited at the cost of the health of the people of the country. That is your view about this matter?

Dr. S. Rohatgi: The case about chloremphenicol is well-known. Chloromycetin was sold in this country at a fantastic price and the cost of treatment of a typhoid patient used to come to Rs. 60 or Rs. 70. But when the Italian material came in the market, the prices crashed. This is a specific example of abuse of patents.

Tolbutamide is also interesting. I understand several firms in India were interested in manufacturing this, but the provisions of compulsory licensing as they exist under the present Act made it extremely difficult for them to get a licence. So are the cases of other sulpha drugs like

sulphathiozol. The present Bill very rightly confines the patent to the process. A British firm wanted to manufacture this item also and when two big international concerns were confronted with each other and litigation was pending; I have very definite information that they came to a settlement amongst themselves to keep the market to themselves, keeping others out. That is how cartels are formed.

Dr. C. B. Singh: Suppose you intended a product and you are faced with the problem of protecting your right of that product being used by you because you have spent a lot of money on the research, etc. If in another country that product was being surreptitiously produced, what will you do about it?

Dr. S. Rohatgi: If am a scientific worker and I discover a new drug, if that drug is going to be used by a lot of people the world over, I would be quite happy provided I get some recognition for it. That is lacking in our country. If I develop a new drug, what is most likely to happen as a result of the present licensing policy is that I will be faced with competition from some firms in advanced countries with a backing of 100 years and they will see that my venture does not prosper. The profit-making part is that of the capital investor not that of the scientific worker. Of course the scentific worker would like to have a certain amount of remumeration for what he has been able to discover, but he would not like to exploit it to the maximum advantage by charging excessive profits and preventing people from being able to use it.

Dr. C. B. Singh: There is a feeling that the prices of patented drugs have gradually gone down during the last five or six years in this country and even internationally. Do you agree?

Dr. S. Rohatgi: That cannot be said as a general rule. Prices of some patented drugs have come because of certain imports from cheaper sources abroad.

Dr. C. B. Singh: Prices of most of the patented drugs have gone down. Does the same thing hold good about other non-patented prescription drugs?

Dr. S. Rohatgi: I think the comparison is not very fair for the simple reason that we are comparing a class of drugs where the profit margin is very high and another class of drugs where more than hundred or even two hundred firms are manufacturing them at a very low margin. Therefore, the question of drop in prices in the case of those drugs very rarely happens.

Dr. C. B. Singh: More than 90 per cent of the drugs used in prescriptions are non-patented drugs. Do you agree with this statement? If so, could you tell us whether price of these non-patented drugs has remained stationary, it has gone up or it has gone down?

Dr. S. Rohatgi: The prices of drugs which are non-patented and which are being manufactured by a large number of firms in this country are more or less stationary and, if anything, they have also gone down in many cases.

Dr. C. B. Singh: I would like the Patent Officer to get these figures if possible. Now, there is a feeling in the country that hardly any research worthwhile has been done as far as drugs and pharmaceuticals are concerned in this country. Would you like to comment on that?

Dr. S. Rohatgi: Generally a comparison is made between India, which is a developing country, and countries which are very highly developed. We have certainly not been able to produce anything very spectacular in the nature of new drugs because of the very simple reason that we have at the moment to manufacture a large number of drugs which are being

made elsewhere and consumed in our country. So the first step we have to follow is to start manufacturing all those drugs, which will be more of a development programme rather than a original research programme.

Dr. C. B. Singh: What is your suggestion in the matter of discovery of new drugs as far as this country is concerned?

Dr. P. K. Sanyal: The drugs that we use are of four kinds: allopathic, unani, ayurvedic and homoeopathic. When we talk about the drugs belonging to the allopathic system, we know that the medicines used in this country under the allopathic system should be known as "European system of medicine". Because these medicines are coming from Europe, any drug that is discovered in Europe comes to India and it is being utilised by modern physicians. I do not know whether we can add even a single drug in the pharmacopoeia at all today. As Dr. Rohatgi has said, what we are trying is to make those drugs which have been made in other parts of the world. In the field of new chemo-therapeutic drugs certainly we have not done anything. Perhaps it will take years and years before we can add anything which the medical profession will take. I do not know how much time it will take for this country to produce such a new drug.

Mr. Chairman: I do not think it is correct.

Dr. S. B. Rao: I would like to classify pharmaceutical research into two: applied research and pure research. So far as we are concerned, today we are confronted with a special problem. We have got to be self-sufficient in our drugs. There are certain basic drugs which will stand for quite some time. In this programme of development of the processes, relying more and more on indigenously available raw materials, plants and the local environments, they form a very important piece of research which is very peculiar to this country, because we are working under our own conditions The first and foremost thing about this kind of applied research, which this country has certainly been doing for quite some time in the past, is that we have to achieve a substantial amount of progress in this field.

Dr. C. B. Singh: You have stated that there is progress in the discovery of new drugs in this country.

Dr. S. B. Rao: No, I only submitted that we have made some progress, substantial progress, in developing processes for the existing drugs which are known to therapy today.

Dr. C. B. Singh: We are talking of discovery of new drugs.

Dr. S. B. Rao: That is the second part. Even there India has contributed at least one new drug.

Dr. C. B. Singh: That we know, *urea stibamine*.

Dr. S. B. Rao: It was discovered in much worse circumstances. Although our contributions may be small, let us not forget that invention is a matter of luck. After having done so many years of research it is a matter of luck that one comes across a new drug which is really worthwhile and useful in therapy.

Dr. C. B. Singh: Has this drug been patented?

Dr. S. B. Rao: I think not.

Shri D. P. Karmakar: It has come to the notice of the Committee that because of the working of patents some of the manufacturers have been charging extortionary prices. Would you agree that a composite advisory committee, representing Government, the pharmaceutical industry and the consumers would serve

a useful purpose by keeping down the prices?

Dr. S. Rohatgi: I think it is laudable suggestion. I have heard from Government circles that a Committee or cell is going to be set up. I have a feeling that unless people who are really concerned or connected with the industry also participate, it cannot function well.

Shri Arjun Arora: On price of drugs you have stated that they are not uniformly high; in some cases they are high and in some cases they are not. Apart from the cost of import of raw materials, is there any other reason for the prices of certain drugs being high in India?

Dr. S. Rohatgi: The position is that we can easily divide the drugs into two categories. Drugs like common tinctures and galenicals or other common drugs manufactured by a large number of firms are definitely not high priced. Their prices compare very favourably with the prices prevailing in other countries of the world. Then there are drugs in the other category which are high priced. The main reason is the setting up of monopolies whereby they could keep the prices on the high side. One of the reasons which has contributed to an appreciable extent for this increase is the existence of product patent. It has led to a lot of abuse. So, the provision to have a process patent is a desirable step.

Shri Arjun Arora: Could you suggest any steps to bring the prices down?

Dr. S. Rohatgi: We should review the policy under the Industries (Development and Regulation) Act. It should be our policy for the purpose of attaining self-sufficiency in drugs to manufacture most of the drugs in India. The development of manufacture is rather a tedious process. We start from the laboratory scale experiment. If it is successful after considerable effort, we bring it to the pilot plant and then take to manufacture. All this requires considerable expenditure of time and money. If the policy is so enunciated and implemented that we are determined that most of these items will be manufactured by us in the country, as has been done by the Soviet Union, I see no reason why we should not be successful in doing it. We have the ability and resources. If we cannot do something today, we can try hard enough so that we can do it tomorrow or the day after. I have seen cases of this nature in the Soviet Union and Japan. If a particular person or firm develops a new item, they are recognised by the State as having made a definite contribution to the economy and the development of the industry in the country. It is very important that protection is given to those pioneers at least for a certain length of time so that they can come up. Then, after a few years, certainly we can introduce competition from abroad, if necessary, to see that healthy competition exists. That would be my humble suggestion.

Shri Arjun Arora: You have stated that there are cases in which the industrial licensing policy has acted as a disincentive to scientific research in India. Could you mention one case to substantiate this statement?

Dr. S. Rohatgi: It is a little awkward for me to state because I have had, the occasion of experiencing it. I would not like to give the details of the case. I would briefly outline how things move. In the development of active substances derived from medicinal plants, which happened to be my field of study. I made quite a study of what are the requirements of the country and in relation to the particular plants which are not growing whether they could be introduced here. Many a time it happens that we have a particular specie of the plant growing indigenously whereas that plant is not the best source of that active substance

and we have to introduce a new plant in the country. So, the introduction of a new plant, analysing the active substance in very minute quantities from each plant and crossbreeding, improvement of strains and thereby developing the cultivation is a very lengthy process which takes anywhere up to 7, 8 or 10 years.

Having done that, the next step is the development of the process of isolation of the active principle and many a time one is tempted in an effort to do everything in the country, to design the plant itself to set up the manufacture here. That position was attained and the firm I was advising and erected a plant to meet the entire needs of the country for that particular life-saving substance. However, within a very short time, before regular large-scale production could be set up on sound lines, two foreign firms, who so far had made no effort whatsoever to set up manufacture and were conveniently importing the active substance and processing it in India, obtained a licence for manufacturing very large quantities which were five to ten times the average import figures of the country during the last three years. The reason given later on, when I talked about this, was that they intended to export. It was really surprising for me to hear that because permission had also been given to these firms to import the medicinal plant itself which had been successfully grown here. It was difficult for me to imagine how, after importing the plant, one tonne of which yields one kilogram of the active substance, it could be processed in India and exported on a competitive basis. Over and above that, royalty was given to the parent firm. It was very difficult for me to understand that when a process had been developed in the country why should royalty be paid by the country to a foreign firm.

Nevertheless, this is merely an example; perhaps, it may not be a general policy. But I got the feeling that the implementation of the Act needs to have a different orientation so that our scientific workers get due encouragement and do not get discouraged. At the moment it appears that it is more advantageous for any firm in India to enter into a collaboration with a foreign firm rather than do it the hard way. I certainly would recommend that we should have a certain amount of determination and be prepared to do it the hard way just as the foreign firms have done. Why should we be afraid of it and not follow the same procedure so that we shall have a very firm base and shall be able to stand all kinds of international competition and build a sound export market? It is not by purchasing limited know-how that we can develop a sound industrial base, but we need to develop all this know-how ourselves. It is a painstaking and time-consuming process. If we are thinking from the long-term point of view of development of industry in this country, it seems to me to be the only way.

Shri A. T. Sarma: I find that you are interested in other systems of medicine also. A number of Indian drugs have been incorporated in the British Pharmacopoeia. Do you think that these Indian drugs should be patented so that India would get royalty for them and benefit thereby?

Dr. S. Rohatgi: First of all let me make it clear that we in the Pharmacy Council do not distinguish between different systems of medicine. We are concerned with the pharmacy part of it. So, we are very happy to deal with the question posed by you. Our answer to this question would be that merely the introduction of a medicinal plant in the pharmacopoeia or the use of that plant does not necessarily entitle it to be patented. The difference lies between the approach in the two systems of medicine, that is, the western system and the ayurvedic system. In the ayurvedic system we are not actually isolating the active principle but we are

using either the whole drug or an extract of the drug which contains a number of constituents. All these constituents or at least most of them, are apparently contributing to a certain extent to the therapeutic activity of the drug. In the modern system, if you want to patent it in some foreign country, you must be able to bring the drug in such a form that it could be used by them. The specific example I would give is the case of Rauwolfia. Rauwolfia is being used in this country for centuries, but we could not patent Rauwolfia or an extract of it. However, when Reserpine was isolated, it was a specific case for patenting because reserpine brought in that form, after all the pharmalogical and clinical trials, was a drug which was capable of being used by the modern system of medicine. So, if we bring any of our drugs by carrying out research to that level, we certainly can and should try to have it patented elsewhere.

Shri A. T. Sarma: The Bengal Pharmacy Council has produced so many Indian drugs and they are being accepted by allopathic doctors. They have been included in the British Pharmacopoeia also. They are in use and there is a market for those drugs. Why should they not be patented by the Bengal Pharmacy Council?

Dr. S. Rohatgi: Perhaps I have not been able to make myself clear. In order to have a patent for a drug in a foreign country we should be able to carry out research to suit their requirement and then offer the material to them so that it could be used there. Merely having a patent does not help us. If, for example, we are able to isolate the active principle from the medicinal plant and are able to carry out all the pharmalogical and clinical work on it, we can certainly go ahead and patent it in foreign countries. An example of this nature can be given of certain drugs which have been worked out by the Central Drug Research Institute at Lucknow. They have worked on a number of plants. Recently, I remember, cissampelospareira was being mentioned; another is Babchi. The active principle of Babchi has been isolated by the Central Drug Research Institute. They carried out a considerable amount of work on the treatment of leucoderma.

Shri R. P. Sinha: You gave a very interesting case just now in reply to my friend Shri Arora's question. You referred to one medicinal plant. What is the name of that substance?

Dr. S. Rohatgi: The plant is Digitalis lanata. What we have in this country is Digitalis purpurea. But the active substance of this plant is not used in our country. It is used in America. We have derived inspiration from U.K. and we use Digoxin the source of which is lanata.

Shri R. P. Sinha: Your process has not been utilised at all and the foreign firms are still importing it.

Dr. S. Rohatgi: I am still working on it and manufacturing it.

Shri R. P. Sinha: I would like to know what we can do in order to give incentive and protection in this Bill to people like you.

Dr. S. Rohatgi: To an ordinary worker, the thing of greatest interest is that the development which he works out is given a good opportunity to be used in the country.

Shri R. P. Sinha: What can we do here?

Dr. S. Rohatgi: For example, a product has been developed the hard way without any foreign help. Then, at least for a period of 5 years, it should be given an opportunity to establish itself.

Shri R. P. Sinha: Do you like some separate chapter to be incorporated in this Patents Bill to deal with such new substances which are being discovered by Indians or anybody else in India?

Dr. S. Rohatgi: I do not think that this would be the purview of the Patents Bill. This is more the domain of the Industries and Development Regulation Act.

Shri R. P. Sinha: We are not concerned with that. We are only concerned with the Patents Bill. if you want us to do something here, you can tell us.

Dr. S. Rohatgi: What we have suggested is that the Indian scientific worker takes much longer, due to various difficulties, in establishing or bringing his research to commercial production. Whereas the period of 10 years may be quite reasonable for the well-established industries in the West, it might in certains cases be a little short for the Indian research worker. We very hesitatingly mentioned in our Memorandum that it might be considered that the Indian scientific worker developing a process indigenously might be given a longer protection. On the other hand, we felt that this would amount to discrimination. We do not want to press for it.

Shri R. P. Sinha: That you leave to us. You tell us what you want us to do whether there is discrimination or not. Leave that to us. What I understand from you is this that the period of 10 years is going to help the well-established foreign companies who are financially and technically better placed than you are and that this period of 10 years is going to hit hard the people like you. We are prepared to discriminate, if necessary, so that you get adequate protection. We are prepared to consider that.

Can you tell us what are your difficulties and what you want us to do to help you? If you have not thought over it, you may kindly send us a note on that.

Dr. S. Rohatgi: All right.

Mr. Chairman: Are you for the abrogation of patents so far as drugs and foodstuffs are concerned?

Dr. S. Rohatgi: In fact, we have not considered this. But we feel that in the present context of things, it would not be harmful to us. It will be of advantage to us to abrogate the patents on drugs and foodstuffs.

Shri Bade: There are some restrictive provisions in the Bill and afterwards they will become more harmful to our indigenous patentees also. Do you think that just like in U.S.S.R. where there is a system of authorisation certificate, that certificate is given by the Government and the Government purchases it and utilises it and exploits it, there should be that system here?

Dr. S. Rohatgi: I think that particular method might not be very much applicable here. Ours is a mixed economy as it exists today. In the Soviet Union, whatever is developed is manufactured in the projects which are owned by the Government whereas here we have projects which are run by the Government and also by the private enterprise.

Shri Bade: The Government purchases it and gives the award to the inventor and they, in return, select some other private company to utilise it.

Dr. S. Rohatgi: How will that in help in India? I do not see how it will be of any assistance.

Shri Bade: Because that will give some incentive to the inventor. In the model law also, same recommendation is given.

Dr. S. Rohatgi: I am doubtful whether that will really lead to any advantage. If the patented process is really something which is commercially advantageous, it will pay without any award or any payment by the Government. If the Government purchases a process which does not turn out to be commercially feasible, the Government would have spent money for something on which they need not have spent it.

Shri Bade: There is a provision of compulsory licensing in the present Bill. In the existing Act also, there has been a provision of compulsory licensing. May I know why our industrialists and traders have not taken advantage of that provision?

Dr. S. Rohatgi: I have had one or two cases told to me by certain Indian firms who tried to get a compulsory licence for an injectible iron preparation and it took them three years of litigation but they could not get it and eventually when they did get it, they lost interest. I feel that the provisions, as they have been modified in the Bill, making it easier for the Indian party to get a compulsory licence, are beneficial and of interest to the industry in the country.

Shri Bade: When specifications are filed by the applicant, according to you, they should be examined by the Controller himself. But here is a provision in the Model Law that they should be sent to some other countries for examination.

Dr. S. Rohatgi: Let me explain that again. The position is that scientific research has become so very specialised that one scientific worker concentrates in rather a narrow field. We have experts like that in various fields in the country. It would be useful if the Controller is advised by a panel of experts who could be drawn from various scientific men in the country. That was my suggestion. The decision has to be taken by the Controller, but he should be given correct information about the available printed information in literature, about the progress that is made, about the validity of a particular process for being patented and all this information can easily be given by the panel of experts which I have suggested.

Shri Bade: In the Model Law it is said that the examination of the substance of the patent application should be done by the national patent office or by the international patent institute because the controller of the particular country may not have sufficient material to examine the specifications.

Dr. S. Rohatgi: I would rather confine the examination to our own country. If we did not have an adequate number of exports to advise us or an adequate number of scientific men, we would certainly look to some other country for advice, but since we do have a number of experts now, I see no reason why we should not take advantage of their knowledge.

श्री चौरड़िया : आपने बतलाया कि प्रोसेस को पेटेन्ट किया जाय तो ज्यादा अच्छा होगा । परन्तु यह भी हो सकता है कि अगर कोई प्रोसेस पेटेन्ट किया गया तो कोई भी दूसरा वैज्ञानिक उस में थोड़ा सा परिवर्तन कर के अपनी तरफ से वही प्रोडक्ट बना कर पेटेन्ट करवा ले । आपका जो मेमोरेन्डम है एक ओर तो उस में यह बतलाया गया है कि उचित मुआवजा दिया जाना चाहिये जिस से कोई भी आदमी अपनी मेहनत का लाभ उठा सके, दूसरी ओर आप इस पक्ष के हैं कि प्रोसेस को पेटेन्ट किया जाये, जिस से दूसरा भी उस का लाभ उठा सके । इन दोनों स्थितियों में कैसे तालमेल बैठ सकता है ।

डा० रोहतगी : इस में मैं सिर्फ इतना कहना चाहता हूं कि लाभ की जो बात आपने उठाई है वह तो सिर्फ एक रीजनेबल प्राफिट की बात है कि कोई कितना लाभ लेना चाहता है । इस बिल में जो प्राविजन्स हैं उन के सम्बन्ध में मेरा कहना सिर्फ यह है कि पेटेन्टी वाजिब लाभ उठाना चाहता है तो इस बिल के जितने भी प्राविजन्ज हैं वह उस पर लागू नहीं होते हैं। लेकिन अगर कोई गैर-वाजिब तौर पर उस से फायदा उठाना चाहता है तो उस के लिये इस में काफी इलाज है ।

श्री चौरड़िया: आप इस बात से सहमत होंगे कि किसी भी खोज के बारे में कोई ऐसी लक्षमण रेखा नहीं रक्खी जा सकती कि इस में केवल इतना खर्च होगा या इस से अधिक खर्च होगा । ऐसी स्थिति में यह निर्धारित करना कहां तक उचित होगा कि इतने वर्ष की अवधि इस के लिये पर्याप्त होगी या पर्याप्त नहीं होगी । साथ ही यह भी हो सकता है कि यदि लाभ का समय दस वर्ष रक्खा जाय तो कोई आदमी विटैमिन बी 12 जैसी चीज की खोज कर के काफी कमा सकता है जब कि कोई ऐसी भी चीज हो सकती है जिस से उस को पूरा मुआवजा भी न मिल सके। ऐसी स्थिति में आप कितनी अवधि उचित समझते हैं कि जो कि इस में रक्खी जा सके ।

डा० रोहतगी: इस से पहले भी आप ने एक सवाल किया था जिस का पूरा उत्तर मैं नहीं दे सका था । वह यह था कि अगर कोई किसी प्रोसेस में थोड़ा सा परिवर्तन कर के दूसरा प्रोसेस पेटेन्ट करा ले तो वह उस से काफी फायदा उठा सकता है । मैं कहना चाहता हूं कि इस में सिर्फ प्रोसेस को पेटेन्ट करा लेने की बात नहीं है । अगर एक आदमी काफी रुपया खर्च कर के कोई रिसर्च करता है तो दूसरे को भी काफी पैसा खर्च कर के और रिसर्च कर के उस को बनाना पड़ेगा । अगर वह प्रोसेस में कोई तब्दीली करना चाहे तो भी उस को इस पर काफी पैसा खर्च करना पड़ेगा । इस लिये वह नो होऊ और पेटेन्ट दोनों ही लिहाज से बहुत कम दामों पर किसी चीज को नहीं बेच सकेगा, अगर असली पेटेन्ट वाजिब प्राफिट कमा रहा है ।

श्री चौरड़िया : हमारे यहां पुराने कानून में काफी अवधि दी गई है पेटेन्ट की । उस के बावजूद इतना समय बीत जाने पर भी और सहायता मिलने पर भी कोई नई पेटेन्टेड प्रोडक्ट नहीं बन पाई । अपवादस्वरूप कोई खोज हो गई हो तो बात दूसरी है । हो सकता है कि इस के लिये हमारे यहां सुविधाओं की अथवा लेबोरेटरीज की कमी हो । ऐसी स्थिति में क्या आप उचित समझते हैं कि किसी भी व्यक्ति को आप नकल कर के कंज्यूमर्स को एक्स्प्लायट करने का मौका देने के लिये पेटेन्ट पीरियड निर्धारित करें बजाय इस के कि दूसरों की नकल न कर के उस को वह इम्प्रूव करे । कुछ वर्षों के बाद हमारे देश में ऐसी स्थिति आ सकती है कि लेबोरेटरीज आदि की सुविधा हो जाय और नई नई खोजें हो सकें । ऐसी स्थिति में क्या यह उचित नहीं होगा कि यह सोचकर कि अभी तो हमारे यहां के लोग केवल दूसरों की कापी करते हैं अवधि कम रक्खी जाये ताकि पेटेन्ट जल्दी खत्म हो जाये और हमारे यहां के लोग दूसरों की कापी करने के बजाय स्वयं खोज करने की ओर अग्रसर हो सकें ।

The question of the period of life of a patent has been discussed quite a lot. A period of ten years is quite substantial. We feel that even seven years would be quite substantial.

Mr. Chairman: Earlier your Council has made a recommendation of seven years. The Government of India called a meeting....

Dr. S. Rohatgi: There seems to be a bit of confusion here. I do not think that this question was ever raised by the Pharmacy Council. It might

have been by the Indian Pharmaceutical Association or some other body.

In fact, the point which has been raised by the hon. Member is that we could presently imitate the process or at least put them in practice in our country but then a stage might come when it might be interesting for us to extend the life of the patent. I see no reason why we would not be able to modify our laws because laws of our country, as I understand, are made for the benefit of this country. There seems to be no difficulty in this regard, but in the present context, it is obvious that the Bill as it stands today will be of advantage to the country and to the people of this country.

Shri R. Ramanathan Chettiar: The Pharmacy Council consists of representatives of States and State Governments. That is what you said earlier.

Dr. S. Rohatgi: It consists of representatives of State Councils and State Governments and representatives nominated by the Central Government and Inter-University Board.

Shri R. Ramanathan Chettiar: Does it give any power to have a watch over the prices of life-saving drugs in this country?

Dr. S. Rohatgi: No; these powers are not given to us under the Act.

Shri R. Ramanathan Chettiar: What are your specific powers? Will you kindly elaborate them?

Dr. S. Rohatgi: The Pharmacy Council of India has specific duties. They are: regulation of the profession of Pharmacy, laying down the standards of education and seeing that they are maintained and if I may make it clear, when I say that the Pharmacy Council draws representatives from the State Councils, the Pharmacy Council, therefore, represents about 80,000 registered pharmacists in the country.

Shri R. Ramanathan Chettiar: You exercise only control over the pharmacists.

Shri B. K. Das: You have said in your memorandum that both public and private sector undertakings should pay royalty when they use the patent rights. But here, in another chapter under Cl. 48 there is some Government use in hospitals and such other places. What is your idea about that when Government use patent rights for hospitals and dispensaries. Do you like that compensation should be paid or it can be done without compensation?

Dr. S. Rohatgi: Since the Government is using the material and distributing it free of charge, we are not recommending that any royalties be paid. What we meant was that when the public sector undertaking takes up the manufacture and as the public sector undertaking is also working on profit motive, then there should be no objection to paying royalty.

Shri B. K. Das: You say when it is manufactured for commercial use.

Dr. S. Rohatgi: Then they should pay royalty or give an undertaking that they will supply the material to the Government on no-profit-no-loss basis.

Shri B. K. Das: Your idea is that when it is for any commercial purpose the compensation should be there and for other purposes of Government use, it can be done away with.

Shrimati Sharda Mukerjee: You had much experience of the market conditions and the manufacturing conditions of the pharmaceutical products. May I ask you one question? Many of the foreign people who came here and gave evidence before us said that this new Bill that is before us for consideration, would be a deterrent to foreign manufacturers from coming into India. We know that to a certain extent the present day condition of our economy and technology

has made it possible for these people to exploit us. If we were to adopt the Bill as it is, would you say that the country would suffer considerably as no new people would come and start manufacture of products in the country and whether we would be able to carry on even if they do not come or we have to pay prohibitive prices for the imported products?

Dr. S. Rohatgi: The situation is this: we do not foresee any reason why the foreign firms would not want to settle here for establishing their industries for the simple reason that if it pays them, they will come and if it does not pay, they would not come and take their patents here. India offers a very big market for their products and they will certainly come and like to establish here. In case they do not want to come—I will go to the other extreme—I feel that if for nothing else, it would give an impetus to Indian research and Indian industry to start production of those products here.

Shrimati Sharda Mukerjee: That of course one would hope would happen. But a drug should have a certain amount of guarantee that it is not a drug which will go wrong and it will not harm people. Second thing is: we do not want to introduce a legislation—you know these people are big cartels and they can starve the country—have you made any research during the last so many years into the condition of our pharmaceutical industry and whether this sort of legislation will throttle the industry here?

People have presented both points of view to us. Some people—even from India—said that if this Bill is passed, nobody would come and there are some people who said that by passing the present Bill we would be encouraging Indian industry. So, what I want to know is: have you carried out any kind of inquiry into this? This is really an important point in this kind of legislation. You can pass any legislation. Whether that legislation is premature or whether it is right—that is a thing which you have to decide.

Dr. S. Rohatgi: We have not really provided for abrogation of patents for drugs. What we have done is to protect our interests and I see absolutely no reason why, while protecting our interests, we are giving facilities to the foreign firms to take advantage of their patents, they should fight shy of exploiting this market. Nevertheless the point that you have raised is: whether the passing of this Bill might lead to a situation when foreign firms would not like to establish in India and the country would find itself in a very difficult position with regard to the supply of drugs. We have quite a large number of foreign firms established in India, and, if I might make bold to say, that the larger or the major part of the activities of these firms is not the basic manufacture of drugs but it is the processing of drugs. Now that being the case, processing is a thing which surely the indigenous industry can take up to any extent. We are fully equipped for the processing of any item. When we are faced with difficult position of not being able to get the active substance from any source, I personally feel that all the Indian talent put together would certainly find out a way out of the difficulty.

श्री विभूति मिश्र : कुछ लोगों ने गवाहियों में कहा है कि यह बिल बिल्कुल पास न हो। आप ने इस बिल का समर्थन किया है। क्या आप ने पता लगाया है कि वे क्यों विरोध करते हैं ?

डा० रोहतगी : आप के सामने इंडस्ट्री वाले आये हैं और आयेंगे भी और इस में कुछ उन को फायादा है इस वास्ते जाहिर है कि उनकी कोशिश यह होगी कि यह पास न हो। हम जो यहां पर आप के सामने हाजिर हुए हैं, हम किसी और हैसियत से नहीं बल्कि एक स्टेचुटरी बाडी के नुमायन्दे होने की हैसियत

से हाजिर हुए हैं। हम यह समझ कर आए हैं कि जनता का और देश का फायदा होना चाहिये न कि किसी खास इंडस्ट्री का ; उस लिहाज से सब चीज को तोल कर हम ने अपने विचार आपके सामने रखे हैं।

श्री विभूति मिश्र: हिन्दुस्तान में जितने पेटेन्ट हैं, उन में से नब्बे फीसदी विदेशी लोगों के हैं। मैं यह जानना चाहता हूं कि हिन्दुस्तानी लोगों की योग्यता और क्षमता को देखते हुए कितने दिनों में हिन्दुस्तान के लोग इस व्यवसाय में स्वावलम्बी हो जायेंगे।

डा० रोहतगी : हाल में जो चीन का हमला हुआ और उस के बाद जो पाकिस्तान का हमला हुआ, उस वक्त हिन्दुस्तान के काफी वैज्ञानिक इकट्ठे हुए थे। उन का उद्देश्य इस बात पर विचार करना था कि विभिन्न क्षेत्रों में हमारी जो आवश्यकतायें हैं, जिन के लिए हम अब तक आयात पर निर्भर करते थे, उन को पूरा करने के लिए हम क्या उपाय करें।

श्री विभूति मिश्र : हिन्दुस्तान में पर कैपिटा इनकम पच्चीस, तीस, पचास, साठ या सौ रुपये से ज्यादा नहीं है। टाटा और बिड़ला के स्तर के लोग बहुत कम हैं। हिन्दुस्तान की जनता की यह स्थिति देखते हुए क्या आप में यह क्षमता है कि विदेशी पेटेन्ट की दवाओं की कीमत को गिराने के लिए आप अपनी दवाओं के पेटेन्ट निकाल सकें; यदि हां, तो आप कब तक यह काम कर सकते हैं ?

Dr. S. Rohatgi: The position with regard to price and what is often called as fair price or the price in keeping with the earning capacity of the people, is a very difficult question to decide. We have a large number of people in our country who can't afford even a fraction of a rupee for drugs. We can't manufacture drugs at a price which would make it available to all. That is not possible. But what we can certainly do is to make it at the most economic price. Now if the system itself is such that the manufacture of the drugs brings the prices high, the industry would be helpless. So this is a difficult question, though one would certainly like that the prices of drugs should come within the purchasing capacity of the consumers. It is a very difficult thing.

श्री विभूति मिश्र : जो विदेशी लोग हमारे यहां के नब्बे फीसदी पेटेन्टों का अधिकार रखते हैं, उन्हों ने अपनी दवायें बनाने के सम्बन्ध में भारतीय लोगों को किस हद तक ज्ञान और विज्ञान दिया है और हिन्दुस्तानियों ने इस में कहां तक प्रगति की है ?

Dr. S. Rohatgi: It is a very relevant question. The question is to what extent the 90 per cent of the patents which are held by foreign firms, have helped in the expansion of scientific research and development or industrial development in our country.....

Mr. Chairman: That is a different matter altogether.

Dr. S. Rohatgi: It has not been of very much help.

Shri Bibhuti Mishra: To what extent the foreigners who have got patents have trained our young scientists here and have helped us in our scientific development? This is a very relevant question.

Mr. Chairman: Let us decide that among ourselves.

Shri Bibhuti Mishra: Let us ask that gentleman. He knows everything.

Dr. S. Rohatgi: My reply to that question would be that out of the 90 per cent of the patents that have been taken by the foreigners, only a fraction of them are being utilised here.

Shri Kashi Ram Gupta: He wants to know to what extent they have helped our scientists to work here in our industries.

Dr. S. Rohatgi: All I can say is that they might have given employment to a few scientists. That is about all. Also, in the foreign firms, which are licensed here, the largest volume of turnover is in processing the material rather than manufacturing the basic product. So, that is not helping us to any extent. That is not increasing our scientific knowledge in any way. That is something which we already know fully well.

Shri Kashi Ram Gupta: There is a strong opinion in this country that for the next 10 years, to speed up progress in the pharmaceutical field, we need foreign collaboration. What is your comment on this?

Dr. S. B. Rao: Collaboration may really be required in the manufacture of certain new drugs which are very intricate in nature; for example the antibiotic technology is a very highly specialised field. But for the manufacture of synthetic drugs, I may be permitted to say that there is sufficient Indian talent and we can attempt any kind of complicated synthesis in this country with great confidence. I may also submit that no collaboration with any country is going to make the position any better in regard to prices.

Shri Kashi Ram Gupta: Therefore, we should have collaboration only in selected fields?

Dr. S. B. Rao: Yes, Sir.

Shri Kashi Ram Gupta: Now you have said that a 10-year period is quite enough. But for some time for our own scientists we need some more time. Well, it is not only the scientist who matters, but along with him there must be some capital also. When we speak of our own scientists, we speak of our indigenous capital as well. So, can we put such a clause that scientists who are working out the patent with indigenous capital may be given some time more?

Dr. S. Rohatgi: Please permit me to explain this a little more. What happens is that it is not merely the capital that makes the difference. When a scientific discovery is made, when a process is developed in a laboratory, a pilot plant has to be set up and manufacture started, and that requires the help of technologists, chemical engineers and so on. I can cite a case like the submerged fermentation process for antibiotics manufacture which was a revolutionary process developed by the Americans. When this research was being carried out in the laboratory, the chemical engineers were working side by side and no sooner the final results were obtained and the patent secured, the chemical engineers set up the plant and put it in operation. We in India do not have the facilities of chemical engineering to such an extent. That is the first point. The second is that if we want to erect a special plant, then we need a number of items; some are large and some, small; we might require special type of alloys, special type of stainless steel, glass lined equipment, etc., none of which is manufactured in India. It may take a year and a half to get them. Then we might need some packing materials. A simple packing material like Teflon which is used for packing in certain chemical plant, we can't get here. We have to import it. This process takes 2|3 years and for a small thing, the development of that plant and utilisation of that process is held up. That was the reason why we had made the suggestion, not from the point of view of capital.

Shri Kashi Ram Gupta: Your suggestion is all right but my point is this. When you take to commercial use, you need some capital. Scientists are not expected to cover the whole of the capital. To put to commercial use, capital may be needed. The point is if a new adventure comes in with the collaboration of the scientists and the capitalists in this country that must be given a higher protection of the period. Is that your opinion?

Dr. S. Rohatgi: Capital, of course, is a secondary thing. The important thing is availability of the plant and equipment and items of manufacture that are required, which in certain cases have to be imported. Now that is why we have suggested that a consideration might be given for increasing the time-limit in certain cases like this.

Shri Kashi Ram Gupta: That means for the new entrants; those who are already in the field must be possessing the machinery all right.

Dr. S. Rohatgi: Yes, Sir. I think this Bill would refer to the new entrants only. But that is not entirely it. A firm or a scientist working in a firm or having a laboratory of his own is working in a particular field—in the drug field—if he some times develops an item which needs a specialised equipment, he is held up, even though he is working in the drug field, because a certain specialised material is required which is not available in the country and which has to be imported and the process of importing it itself takes 1½ years.

Shri Kashi Ram Gupta: That can be the problem for the present industry and the collaborators as well. There too the problem can arise.

Dr. S. Rohatgi: There the situation is slightly better, because they have already worked the process in their country. The plant can be fabricated in a short time. The whole plant is imported and set up here.

Shri Kashi Ram Gupta: On the last page you say the public sector undertakings should pay royalty or it should work on 'no profit no loss basis'. Are you aware of the fact that public undertakings are limited companies and when Government floats a limited company, naturally it is the first task to get a dividend. Therefore, the second suggestion becomes invalid.

Dr. S. Rohatgi: Actually I do not know whether there is any special clause of that nature in the public sector undertaking's Articles of Association, but I feel it is open to any commercial concern to manufacture and sell any product, at 'no profit no loss' basis. There is no restriction on them that they must sell only on profit.

Shri Kashi Ram Gupta: The question is that the Government policy is that a public sector company must also be competitive with the private sector companies.

Mr. Chairman: It is a matter for us to decide.

Shri Kashi Ram Gupta: Sir, we cannot deviate from it in certain cases and, therefore, I have put this question to him. He has put a thing and I want to explain the practical difficulties of it.

Mr. Chairman: It is a matter of law.

Dr. S. Rohatgi: Then it is quite clear that the first suggestion that has been made can be applied.

Controller General Patents: In the matter of chemical intermediates, you have said that it covers simple chemical substances, acids, alkalies, alcohols etc. I am afraid, this is not the correct intention of the Bill, nor is it the connotation which the word intermediates or chemical intermediates means to any pharmaceutical or other investigator. So you still feel there is any difficulty in the use of the word intermediates as provided in the Bill? Supposing it is clarified....

Mr. Chairman: Make it clear.

Controller General Patents: Sir, it never means that. Further, to the extent to which they may be used, they are used as intermediate for the preparation. Obviously it is not our

intention to include, for instance, as apprehended, Sulphuric acid or other basic chemicals, used at some stage or other for the production of medicinal substance. It is quite obvious. I should like to know whether you still feel....

Dr. S. Rohatgi: I would like to state that I entirely agree with the Hon'ble member when he stated that the common connotation of chemical intermediates does not include sulphuric acid, but what we were worrying about was the legal interpretation as it stands here. And we felt that any item that might be used in the synthesis of a compound could be brought within the purview of this particular clause. So we thought that it might be desirable to obviate any difficulties that might come in the future by making the definition slightly clearer.

Controller General Patents: You have suggested that in view of the gradually increasing degree of specialisation, it is next to impossible for any Government or any kind of office having any kind of staff on its rolls to give the necessary attention and have any knowledgable attention to be brought to bear upon any specification as to the novelty or otherwise of it. You have suggested consultation with some experts, of whom we have quite a number in the country. But are you aware that the statute provides that as and when such applications are received or presented, in the Patent Office, they have to be kept secret. That is the first statutory requirement and they have to be kept secret till they are accepted or acceptance is made known through advertisement in the Gazette. Now, therefore, there is a certain amount of difficulty in the Controller referring these secret materials which are to be kept confidential to an expert in any University or any national laboratory. That is one aspect. Secondly, it often happens in this field of industry, most of the inventors in the private sector might be following up closely on the same lines as those in the other sectors. I mean it is a competitive affairs, he who reaches the target earlier wins the race. Like that in a competitive situation, we may be having an expert in one of the national laboratories or Government undertakings, but an individual by his own effort may have made an invention. That invention has to be directly referred to a private expert, who, in order to be deemed to be an expert, must have been doing some research in the concerned field. That is a little difficulty in that. This has to be, of course, examined. Are there any countries in the world where at this stage at which we are now considering patent applications the specifications are permitted to be referred to any other person outside the Government employ or Patent Office? The Statutes generally do not provide that. I wish to make it clear that there is an exception. Lately, on account of the very heavy backlogs in the matter of patent applications which are being filed and which no Patent Office has been able to deal with sufficiently quickly, they have had to resort to a measure of allied nature. In the Scandanavian countries,.... In the Scandanavian countries—particularly I remember in Sweden—they refer patent applications for the purpose of examination of the technical content only to any expert who may be available or who may be willing. There is no list of their names. It is left for the Commissioner of Patents to refer them to anybody or rather it is the other way. Strict confidence is, of course, required. Is that the kind of thing you would like to have?

Dr. S. Rohtagi: Even in our field of research in which either of us is engaged we find that it takes quite a few hours daily to go through the scientific literature that is published

in different parts of the world. I cannot imagine that an expert in the Patent Office could keep track of the volumes and volumes of scientific literature that is coming from different parts of the world. Now the point which you have raised is very valid that in case it conflicts with the secrecy which has to be given to the patent application, to that extent it is correct. On the other hand, if any other outside expert has to be consulted it could be possible to obtain a vow of secrecy from him or some such arrangement could be made. If, however, this is not possible there would be another way and that would be that after the publication of the patent and before the acceptance there is a time-lag, and during that time-lag he could be consulted.

Dr. A. Joga Rao: That is not correct. So then it becomes anybody's problem. Nobody can claim infallibility in the matter of theory.

(The witnesses then withdrew).

II. Federation of Indian Chamber of Commerce and Industry, New Delhi.

Spokesmen:

(1) Shri Ramanbhai B. Amin—President

(2) Shri L. S. Davar.

(3) Shri C. H. Desai.

(4) Shri N. Krishnamurthy.

(The witnesses were called in and they took their seats)

Mr. Chairman: The evidence that you give is public. It will be printed and distributed to our members and will also be laid on the Table of the Houses of Parliament. Even if you want any particular portion to be treated as confidential, it will be printed and distributed to our members and will also be laid on the Table of the Houses of Parliament. We have received your memorandam. If you want to stress any particular point or make a new point, you may kindly do so. Afterwards, our members will put questions.

Shri Ramanbhai B. Amin: At the outset, we thank you for giving us this opportunity of saying a few words before this committee.

The first point that we want to make is about the confirmation of patents. If we have some sort of confirmation of patents in the present Bill, it will help considerably.

The second point that I wanted to make was about the time for granting patents. In the present Bill there is no provision for this. After the complete specifications are filed, the examination might take an unlimited period and thereafter also by the time a patent, is sealed it may be many months, as there is no time-limit. We feel that there should be a time limit so that one is assured of his patent in a certain period. We suggest that from the filing of complete specifications to the sealing of the patent, the time should be thirty months.

The time limit for the Examiner should be one year. Within a year he should examine the patent and then we should have the final patent in a certain specified period.

Further there should be provision for an Appeal to the High Court, in the relevant provisions of the whole Bill. In certain Sections it is provided but in quite a number of others it is not provided. We think it should be appealable to the courts to get proper justice.

Mr. Chairman: The experience is that the courts take a long time. Some cases have been pending already for a very long time. Would you be satisfied with an Appeal Tribunal as it is in England?

Shri Ramanbhai B. Amin: Yes, Sir. If we have a Tribunal the period for the decision should also be specified.

Mr. Chairman: We cannot specify the period as it is not allowed constitutionally.

Shri Ramanbhai B. Amin: Some guidelines should be there.

Mr. Chairman: Yes that is possible.

Shri Ramanbhai B. Amin: How the Tribunal is going to operate? Will that Tribunal be moving about in the country?

Mr. Chairman: We may provide that it may periodically visit important industrial centres. It will be Special Court for patents. Will that be acceptable to you. We have got the single judge tribunal in England.

Shri Ramanbhai B. Amin: In that Tribunal there should not be any people from the Patent Office.

Mr. Chairman: They will not be there.

Shri Ramanbhai B. Amin: Then in Clause 48 we were suggesting that when the Government wants to import some of the patented products from outside they must first give the chance to the local industry.

Mr. Chairman: You want the Government to give a notice first to the patentee.

Shri Ramanbhai B. Amin: We must look to the circumstances which may be prevailing at that time because it may be that for some of the intermediates that go into the production of this particular item the cost may be higher within the country and there may be a lot of idle capacity in the country—I am talking from the angle of foreign exchange difficulty which we are likely to suffer. So some such sort of provision will be helpful if it is provided in clause 48.

Ministry Official: Even normally Government will not allow imports if something can be done within the country.

Shri P. K. Kumaran: Suppose a medicine is not available within the country or they charge high prices. Should the Government not import?

Shri Ramanbhai B. Amin: That is why I say Government should give a notice as regards the price and capacity.

In our present Bill we have provided that information about novelty outside the country should be provided. Novelty outside the country is extremely difficult for a patentee to prove. It is very cumbersome and takes a lot of time. If we limit ourselves to what is available within the country, whatever knowledge is available in the country, and on that basis the patents are granted it will facilitate us a lot and things will move fast.

The terms of the patents we have given should be from the date of sealing—I think that is what the Act provides—and there is differentiation between drug and other patents. I think there is hardly any justification to hvae that differentiation. If possible, it should be the same.

Mr. Chairman: Do you know except Amercia every other country has made this differentiation?

Shri Ramanbhai B. Amin: If it is necessary there should be some provision for extension if there is hardship. Further for patents which are already granted their terms should not be disturbed.

Mr. Chairman: You do not want to have a retrospective effect.

Shri Ramanbhai B. Amin: Yes, Sir.

In our 'Licence of Right' provision we have mixed up the drugs and food patents along with the chemicals and the optical glass and other patents. I accept that licence of right is necessary for drugs and food products, but why mix up the others with these? It would also be better if we can provide in the Bill a specific period within which Clause 88 can be made applicable, so that within a year's period or so the final judgment should come, so that it is not unnecessarily prolonged or lengthened.

In the case of compulsory licence, a period of three years is given for monopoly use to the patentee. Similarly, there is justification in the case of drug and food patents also to give the patentee a three year period after which only a licence of right should be given to others, rather than having it from the date of sealing.

Mr. Chairman: Then there is no difference between the two.

Shri Ramanbhai B. Amin: The procedure for compulsory licence is laid down in the Bill itself, and it might take even five years, while the licence of right is automatic.

Shri L. S. Davar: If a product claim is allowed, which is limited to the process, in the case of an infringement, the onus of proving that the product has not been manufactured by the patented process should shift from the plaintiff to the defendant as is the case in Germany and Holland.

Dr. C. B. Singh: What have you to say on Clause 48 where Government want to use a patent for their own use?

Shri Ramanbhai B. Amin: If a plant is to be put up by Government, which includes public sector undertakings, C.S.I.R. etc., why should they use the knowhow developed by a patentee without paying any royalty?

Dr. C. B. Singh: About royalty what have you to say?

Shri Ramanbhai B. Amin: You have put a limit of 4 per cent. It would be better if we have no limit, because 4 per cent is very little in this sense that out of that tax will go and hardly 2 per cent will be available to the person who takes out the patent. The normal custom is to go up to 10 per cent. If you are going to have a royalty, it has to be a little higher. Again, if you put a higher figure, everybody will try for the higher figure. So, it should be left to negotiations between the parties.

Dr. C. B. Singh: The complaint has been made that hardly any research has been made in this country. Do you agree to this general proposition that research has lagged behind in this country?

Shri Ramanbhai B. Amin: No, because if you study some of our pharmaceutical industries on the western side, you will find that there has been quite a lot of research done.

Dr. C. B. Singh: You restrict your remarks to pharmaceuticals. The Gujaratis persons from Ahmedabad themselves have said that hardly anything has been done. They have told us so here.

Shri Ramanbhai B. Amin: I can tell you from my first-hand experience, because I am heading a pharmaceutical company and we are continuously doing research. We are also expanding continuously our research facilities.

Dr. C. B. Singh: How much money you are spending in the firm?

Shri Ramanbhai B. Amin: I cannot tell you off-hand.

Dr. C. B. Singh: You may give us a rough figure.

Shri Ramanbhai B. Amin: I can send you the information. But I think the proportion is between two and two and a half per cent on our sales value. It may be about Rs. 14 lakhs to Rs. 15 lakhs per annum.

Dr. C. B. Singh: You have not been able to produce any patented drugs.

Shri Ramanbhai B. Amin: We have taken out several patents, and we are developing our patents; we are holding about 13 to 14 patents in Alembic, Boaroda.

Dr. C. B. Singh: To increase the quantum of research you said you are spending two to three per cent.

Shri Ramanbhai B. Amin: We would like to go up to five per cent if the

profit margin permits us and if we get talented people to head the various research departments that we are developing.

Dr. C. B. Singh: The complaint has been made that the drug industry is making huge profits.

Shri Ramanbhai B. Amin: That is not quite correct, considering the whole spectrum of the industry.

Dr. C. B. Singh: I would be very happy if you can prove that it is wrong.

Shri Ramanbhai B. Amin: The drug industry in the last year has been squeezed quite a lot in the sense that the prices have been pegged in 1962 and since then the cost of almost every thing has gone up, right from labour, raw materials, packing materials, etc., and still the drug prices are the same. As a matter of fact, what is happening now is in some of the drug items, the manufacturers have to stop manufacturing because they cannot continue to lose. I think that the general feeling that there is huge profit being made is not right. It may be so in a very few items..

Dr. C. B. Singh: I agree with you that there are two or three firms like that. Is that the general condition in other pharmaceutical firms, excluding Alembic and CIBA?

Shri Ramanbhai B. Amin: Other firms have started developing their research departments and they are expanding. Sarabhai Chemicals is doing so. Many other firms have started research departments and are expanding them. It is a gradual process.

Dr. C. B. Singh: Our feeling is that this is proceeding very slowly. We know they have started such departments. We have seen most of them, but the progress is very slow. Can you suggest anything by which you can increase the tempo, because new drugs can be found only by greater amount of money being invested and spent, so that better research is done and more and more new drugs are found?

Shri Ramanbhai B. Amin: One of the things is to give protection when you find out a novelty.

Dr. C. B. Singh: That is quite right. Any other suggestion?

Shri Ramanbhai B. Amin: I think it is rather difficult to show any specific way to go about it excepting that we have to create a climate not only in the drug industry but in all industries because the present conditions do demand such a thing.

Dr. C. B. Singh: How will you want us to create a climate? You are in this profession and we would like you to tell us something about it.

Shri Ramanbhai B. Amin: There may be some special tax relief; as Shri Manubhai Shah said at one of the meetings of the Board of Trade, for those who are willing to develop research some grant-in-aid may be given.

Dr. C. B. Singh: There is already an income-tax rebate on research.

Shri Ramanbhai B. Amin: I know. If these measures are not enough, we have to go about it in newer ways. Grant-in-aid may help those who are doing research already, rather than those who are not doing research now. Some method can be worked out. I think we should create a general climate that only through research we will be able to reduce our cost of production, and on the part of the Federation, we are trying to discuss it continuously in our committees and come out with circulars advising our people in that direction.

Dr. C. B. Singh: You represent a very important body. Something coming from you has got a great meaning. You have mentioned tax rebate. You want to create a climate, which is a vague term. The climate today may be good and tomorrow it may become worse. I should like you to say something more.

Mr. Chairman: Could you discipline your members to spend a certain percentage of their profit on research?

Shri Ramanbhai B. Amin: The Federation is a voluntary body. There is no question of discipline like that. But we can, by discussion amongst ourselves, point out the benefits which will accrue out of the new research which will go to reduce the cost and improve the products and prevent the drain on the economy. That is being done.

Mr. Chairman: Have you taken any steps in that direction?

Shri Ramanbhai B. Amin: We would very much like to have the suggestions from you. We are trying to do on our own; and we are not only quite alive to the problem but are also trying to do it in our own way.

Shri Bade: I am shocked to hear the witness saying that the action should not be retrospective. That is against the spirit of the Bill itself. Does the witness want that the foreign pharmaceutical firms should continue to exploit India as they have been doing all through these years?

Shri Ramanbhai B. Amin: I am quite clear in my mind because I am heading a pharmaceutical company myself. I know all the difficulties that we are having because of foreign patents, but at the same time I would like to respect the capital or the cumulative knowledge which they have acquired by spending money, and that is why I am pressing for it.

Again, as I told you, we would like to have licence of right, so that we can definitely exploit them. We would not like them to continue to exploit us in the sense of not allowing us the entire field. But if they develop the knowledge, we should respect it and pay for it. The licence of right provision will definitely make us use the new inventions that they have developed by paying reasonable amounts of royalty. It is not that we will be debarred from using them.

Shri Bade: When you say that the Bill should not be retrospective that means that we should keep the period of patents as it is running for the last few years.

Shri Ramanbhai B. Amin: Retrospective effect is something not desirable. If having granted something, we would have the right to withdraw, from the equitable point of view, is it a desirable thing?

Shri Bade: Is it equitable that they should go on exploiting us more at the cost of the poor people?

Shri Ramanbhai B. Amin: That is not the intention. The licence of right provision will take care of that. They cannot continue to exploit us.

Shri Bade: In what way do you want it to be retrospective?

Shri Ramanbhai B. Amin: It is only about the time-limit, not about other things. Once having granted 16 years, we do not want it to be brought down to 14 years.

Shri Bade: Regarding clause 48, you say that we should first give a chance to the producers in the country first and only if they refuse, Government should import it?

Shri Ramanbhai B. Amin: If there is manufacturing capacity within the country, that should be fully exploited before we fritter away our foreign exchange in importing them.

Shri Bade: Clause 48(d) refers to "a machine or innovation".

Shri Ramanbhai B. Amin: If that machine is manufactured within the country, Government should try to procure it locally before they import it.

Shri Bade: Instead of the Government taking the whole thing and abrogating the patent, if the

Government gives some reward, have you any objection?

Shri Ramanbhai B. Amin: If the Government is willing to give some compensation, that is all right. But local capacity should be first fully utilised.

Shri Bade: Till now all the witnesses have come only to plead for the pharmaceutical industry. What is the effect of this Bill on other industries?

Mr. Chairman: We have published the notice in all the newspapers. They have not bothered to come. Why do you worry?

Shri B. K. Das: In clause 87 (a)(iii), you want chemical substances including alloys, optical glass, etc. to be taken out of the purview of that particular clause and put under the clause providing for three years' time? You have no objection to food remaining there, but chemical substances should go out of the purview of that clause?

Shri Ramanbhai B. Amin: In the case of food and drugs, licence of right is going to be automatic. We want it should continue to be automatic, but there should be a grace period of three years. As in the case of other inventions, for alloys, etc. also you can ask for a compulsory licence under clause 86 by going through all those formalities. There is no need to mix up food and medicines and chemical substances like alloys. In the case of medicine and food, we understand on humanitarian grounds, exploitation should be reduced as much as possible. But in case of other things, there should be a distinction.

Shri B. K. Das: At least chemical substances should be put under the other section?

Shri Ramanbhai B. Amin: Yes.

Shri Kashi Ram Gupta: In the case of drugs, the Bill provides a period of ten years for a patent from the date of completion of specifications. Do you agree with it or you want the period to be calculated from the date of sealing of the patent?

Shri Ramanbhai B. Amin: If it is from the date of sealing for all other industries, it should be the same for the pharmaceutical industry also.

Mr. Chairman: He wants the same provision for both.

Shri Kashi Ram Gupta: During the last few years, the country has been speedily having foreign collaborations in the pharmaceutical industry. In your opinion should this continue at the same speed or it should be allowed only where our people cannot do the job?

Shri Ramanbhai B. Amin: There are different viewpoints on this in the Federation itself. By and large, the feeling is we should try to develop our own know-how as speedily as possible. This idea should be uppermost when we have collaboration agreements. But in sophisticated industries where new things are coming up much faster, till we catch up with them, we should have collaboration agreements.

Shri Kashi Ram Gupta: That is, in the pharmaceutical field, you want the collaboration to continue at the same speed as till now?

Shri Ramanbhai B. Amin: The speed has already started tapering off, because we have started making many many new things ourselves. In the formulation technique, i.e. buying basic things and formulating them into a tablet or a capsule, our know-how is fairly well developed and we may not need much collaboration in that field. In making basic things like vitamin B, vitamin C and the like, our research is still backward. We are trying to fill the gap. Till the gap is filled, it may be that we will have to have collaboration or at least exploitation of their patents and know-how.

Shri Kashi Ram Gupta: So far as basic research is concerned, the present position is that either the Government institutes do it or institutes like CIBA do it. Our own pharmaceutical industries are not in a position to take up in right earnest this work. Do you have any suggestions about it? Do you think the present system has to continue for some years to come?

Shri Ramanbhai B. Amin: We all have to make our best efforts to develop our own know-how. About the institutions I have no suggestion to make. I can only say that we are doing our utmost to bring about that awareness and we try to assist in developing our own research.

Shri Kashi Ram Gupta: It is stated that to have initial research equipment a lot of money is required for basic research. If our pharmaceutical industries are not in a position to invest that much then only we can have help from the government institutes. Can you suggest something. else?

Shri Ramanbhai B. Amin: Except giving some tax relief and grants-in-aid as far as the financing of it is concerned, the rest of it is a real endeavour on the part of the manufacturer, because it needs a combination of medical people, synthetic scientists, pharmacologists and so on. It needs a lot of spade work.

Shri Kashi Ram Gupta: There need be some sort of subsidisation?

Shri Ramanbhai B. Amin: If we can do that, it will improve matters.

Shri R. Ramanthan Chettiar: You have stated that the royalty should be 4 per cent of the ex-factory sale price in bulk. Will you kindly elucidate that?

Mr. Chairman: He has said that it has to be left to the parties concerned.

Shri Bade: In Japan, one of the witnesses said, foreign collaborators, foreign industrialists or foreign pharmaceutical manufacturers will not be allowed to import the products but they have to manufacture the products in Japan itself. In the same way, if we make a provision here that the foreign companies will not be allowed to import and they must start their factories here, will it not benefit our country?

Shri Ramanbhai B. Amin: To the extent we can make it here it will certainly help our country. But I do not know how it can be done. It has to be a willing participation, where more and more people are tempted to make the products here rather than import them. The provision regarding licensing of right will definitely go a long way to help them make it here.

Shri K. V. Venkatachalam: Shri Amin, you represent the premier industrial organisation in this country. I would like to know your Federation's views on this point. It has been represented to us that the net effect of this Bill will be to retard the development of industry in this country. I want your answer from two points of view: whether this assessment is correct from the point of view of our own internal growth or internal resources and, secondly, from the point of view of foreign know-how coming into this country?

Shri Ramanbhai B. Amin: It is a very difficult question, but personally I think that the suggestions we have given to you, if incorporated in the Bill, will improve matters and then this Bill in no way will be causing any hardship. The suggestions we have given should be considered and incorporated, and then it will go a long way to help in the development and growth of the country and it will not have any retarding effect.

Mr. Chairman: It has been represented that if this Bill is passed it will scare away foreign investment. What is your view?

Shri Ramanbhai B. Amin: If this Bill is passed with the amendments that we have suggested, I do not think foreign capital is going to be scared away.

Mr. Chairman: Thank you very much, Shri Amin, for coming here along with your colleagues and helping this Committee in considering this Bill.

(The witnesses then withdrew)

III. Shri V. B. Chipalkatti, Director, Shri Ram Institute for Industrial Research, Delhi.

(The witness was called in and he took his seat)

Mr. Chairman: The evidence that you give, Mr. Chipalkatti, is liable to be printed and published. It will be distributed to all our members and laid on the Table of the House. Even if you want any portion of it to be treated as confidential, it will be printed and distributed to our members and Members of Parliament.

We have received your memorandum. It has been circulated to all members. If you want to elaborate any point or make out any new points you may kindly do so. Afterwards members of the Committee will put their questions.

Shri V. B. Chipalkatti: In my memorandum, Sir, I have touched on the question of product versus process patent, the question of time limit, compulsory licensing, licence of right and I have made some general comments also. On the specific questions regarding product versus process patent and other items I will reply in the end if any questions are put to me. But there are some general comments which I consider very imporant.

On page 4 of my memorandum I have stated:

> "The total experience available in India on all aspects of patents could be considered inadequate so that the approach to the Patent System at the moment appears more politically biased than technically biased. It is suggested that Sub-Committees of representatives of Patent Attorneys, Patent Examiners and Experts and Specialists with adequate experience in patenting and in the utilisation of patents, are formed with a view to make a report on the existing status of technical knowledge as applied to the present system If this is not done, there is a great danger that the present confusion in Patents would get further confounded."

What I mean to say here is that it is not the existence of a law that ensures correct national interest being safeguarded. If technically the country as well as those who take patents and those who utilize patents do not have necessary experience and skill, many times foreign patentees who have this experience and skill can manage to take patents and work them in such a manner that it is virtually impossible for local people to take advantage of the law.

I might refer here to the existence of a compulsory licensing clause in the present Bill. I believe that even this system of compulsory licence is not properly utilized. So I say:

> "Far greater stress to make the compulsory licensing system more effective is called for. Unless greater experience is gained in this field, no far-reaching changes in the present Patent Law seem to be called for.
>
> Since 95 per cent of the patentees are foreigners, and since a majority of these patents are not utilised in India, it is obvious that the Indian Patent System merely acts more or less as a clearing House of a new patent literature. It would be far more useful to make an expert review of the utilisation aspects of the patents and

concentrate on remedial measures."

rather than concentrate on the legal aspects, at this stage of development.

The system of patent examination in India should be made more competent for this purpose. There should be efficient and competent staff in the Office of the Controller of Patents to ensure that third-rate patents, having no genuine inventive merit, are not granted.

Shri Bade: You have stated that this is more a political than a technical measure. According to jurisprudence, all contingencies cannot be covered by a law. The law tries to plug all loopholes. From 1911 onwards the foreigners had the advantage of squeezing and mulcting the poor people of India in the matter of drugs by creating a monopoly. Do you not think that the foreign industrialists and pharmaceutical firms will be annoyed and disturbed that such a Bill is being passed?

Shri V. B. Chipalkatti: I think it is quite in order that they should be annoyed. But I do not know how we help ourselves by merely annoying them.

Shri Bade: Suppose we make all patents regarding drugs and food automatic licences, will it not be beneficial to us?

Shri V. B. Chipalkatti: May I cite an example here, trying to make clear the point I made? For the last ten years we have taken about 120 to 130 patents in our research organisation and about two years ago I was myself conducting some research work on making wash-and-wear fabrics. I thought it was a genuinely new invention for which I should try to get patent protection. But by the time I had made an application and have prepared a specification for an application, I found that a firm in U.K. had already put up an application in the Patent Office, covering the subject matter of what I was trying to do. Then I thought, let me make use of the compulsory licensing system so that if our industries are interested, they could use my work, which would not need any foreign collaboration or foreign technical know-how. But, to my great surprise, I found that our industry itself, even if the patent was thrown open to the whole country, was not in a position to utilize the patented know-how for the benefit of the nation. Therefore, such things are involved, when we talk of whether a law is right or a law is wrong. I wish to make it plain that I do not consider myself to be an expert in deciding what should be the legislative aspect of the patent law. I do not think people like me should interfere in these matters but when we are given a chance to say something, all I wish to point out with great stress is the need for having expertise and knowledge about what is involved in a certain patent and utilisation of a patent is not as easy as it looks on paper. That is the point I would like to make.

Shri Bade: You have suggested in your memorandum that patents for drugs and medicines should be abrogated.

Shri V. B. Chipalkatti: No, Sir. I have stated here that if the law decides that product patents in medicine may not be granted, there will be some harm caused to the flow of knowledge into the country. If the foreign firms know that their patents will not be granted, they will not make an application. If they do not make an application, that knowledge remains out of bounds for Indian workers. To that extent, I would urge that all patent literature should be taken as a disclosure for the benefit of the nation and after a patent is given, if the compulsory licensing system is properly invoked, I see no reason why India cannot prevent some of the harm that is being done.

Shri Bade: On page 2 of your memorandum it is stated:

> " . . . instead of excluding all pharmaceutical and food products from patentability, the Government may insist on compulsory licences in all nationally important cases."

It implies that you are not in favour of compulsory licences for all drugs and medicines but only in those cases where Government thinks proper.

Shri V. B. Chipalkatti: Yes, I hold that view because I feel that in another ten years' time the Indian researcher will come into the field when this law will work against his interest, and I certainly do not want that there should be any patent law which will not give any incentive to the individual researcher who is working for the benefit of the nation. The same thing will hold true of Indian firms who are employing researchers in their organisations. So, if it is made a general law irrespective of national interest, then all the incentive to the research workers will be taken away.

Shri Bade: In the USSR the original inventor is given a certificate called the authority certificate. The Government takes his invention and sells it to other companies. Are you in favour of such a system?

Shri V. B. Chipalkatti: I am afraid I do not have a definite view on that. If the Government is more efficient than the individual, I think this system is alright. But if the individual happens to be more efficient than the Government, this system will be detrimental.

Shri Bade: The Government is made of individuals. It is not separate from individuals. Anyhow, on page 3 of your memorandum you have stated:

> "In spite of the fact that this system of compulsory licensing has been in existence for quite a long time, it seems that the advantages of the clause have not been properly utilised for the good of the nation."

Who have not utilized it?

Shri V. B. Chipalkatti: The Indian entrepreneurs, scientists and technologists, who are involved in making this compulsory licence system a success, do not even approach the Government asking for a compulsory licence because the total condition of our industry and the total level of technical knowledge and skill that ought to be there to appreciate the contents of a patent is absent here.

Shri Bade: According to you, this Bill should be more stringent and we should have more restrictions on the foreigners. They must start the industry here and not import medicines etc., from outside.

Shri V. B. Chipalkatti: Yes I think, it would be very very nice if the Government of India or the patent law could do something to see that the foreigner starts manufacturing the product in India. But this may be a question of economics—of consumption and of investment.

Mr. Chairman: Of foreign policy also.

Shri B. K. Das: Just now you were pointing out that we should take care that our Patent law does not go against our own industry and scientists. Which particular provision did you have in your mind?

Shri V. B. Chipalkatti: Suppose, we have a patent law in which every patent that is issued has a licence of right stamp on it from the very beginning. Naturally, what will happen is that the confidence of the young and, perhaps in many cases, inexperienced inventor will be shaken by the past history. If the past history points out that even after you do a lot of good work you do not get any incentive or return from that, the

young man will not be interested in putting his best effort. So, I hold that the patent law is genuinely for the interest of the society as a whole because the knowledge that comes out in written form in the patent is a very vital piece of literature. Anything which helps the publication of such knowledge in a very free manner, whether the patent is utilised or not, in my opinion is very healthy.

Shri B. K. Das: I am quite puzzled by your comment on clause 45 (page 3). You say there that since 95 per cent or more of the patents belong to foreign patentees, this clause is considered healthy.

Shri V. B. Chipalkatti: I believe, I did not follow it very well when I wrote this. Since then I have been thinking about it and today I wish to take the opportunity of adding one or two sentences which are needed to be added to this. I am very sorry for this. I may explain what I wish to say here. At the moment a large number of patents are held by foreigners. Therefore, if we introduce this clause of licence of right, it would mean that the Indian researcher is not affected. In fact, supposing, the same thing was going to be done after ten years when I expect more and more genuine Indian patents would come into the field, the Indian researcher is going to be affected from the point of view of incentives. So, though the clause appears to be healthy at the present moment, in the long run it may not be. This is what I wanted to say here.

Shri B. K. Das: You have gone through the Bill as it is before us. You have seen that we have placed food and medicines on a separate basis so that there may be improvement and research in them and cheap medicines may be available to the people. Do you not think that it ought to be done?

Shri V. B. Chipalkatti: Quite frankly, passing of a law will not do this. Using the existing patent law more efficiently in my opinion will be far more important than making any changes in the law. So, with the compulsory licence system, if the existing Act is made more efficient and effective, it will be quite all right.

Mr. Chairman: Except for the USA, all other countries have made this distinction in respect of articles of food, drugs and medicines.

Shri V. B. Chipalkatti: There may be some differences in the manner in which they have done it.

Mr. Chairman: They have prescribed a lesser period. Some countries have even adopted that there should be no patents of drugs and medicines.

Shri V. B. Chipalkatti: I am sorry, I do not know that.

Shri Kashi Ram Gupta: It is made out that basic research requires a huge amount of money to be spent.

Shri V. B. Chipalkatti: It depends on what basic research we are thinking of. The money is required not for making an invention but for testing it. Unless a new drug is tested very scientifically and very properly its utilisation is almost impossible. Some of these foreign firms which do the testing not only in their own countries but also in other countries are, in my opinion, doing a very useful service—to India also—when they spend a lot of money in testing their new drug. I do not think at the present stage we are well organised for doing this large-scale testing which is very costly.

Shri Kashi Ram Gupta: So, research is not expensive but testing is expensive.

Shri V. B. Chipalkatti: Yes.

Shri Kashi Ram Gupta: Can you make out the difference in the allocation between the two?

Shri V. B. Chipalkatti: I am not an expert on pharmaceuticals but in

my own field of textile chemistry and chemicals, we have made some calculations of the money spent right from the day you start research to the day the research becomes commercially utilisable and my estimate is that for every rupee that we spent on research, Rs. 10 to Rs. 30 are required for making that research commercially feasible. The research organisation's job normally stops after spending the first rupee and probably adding eight annas or another rupee to transfer conviction and confidence to the people who are going to utilise it. The researcher himself is incompetent and incapable of utilising his own work. There are instances in history where a particular research has been used after the man is dead and gone after 100 years. So, the utilisation aspect of any research work is a far more complicated thing than the invention aspect.

Shri Kashi Ram Gupta: That Rs. 10 to Rs. 30 include cost of machinery and everything.

Shri V. B. Chipalkatti: No; this does not include any cost of the plant or land or the investment required for running a factory. This includes only the intermediate stages. For example, you have to test the efficacy of the process or the cost estimates as they come from the laboratory process. Then, when you scale up a process, you find that some of the very basic, fundamental mathematical formulae on which these processes are based need to be changed to suit the new environment. Then, you must test whether the production is commercially acceptable to the consumer. You must also test whether the instrumentation and the flow of goods is reliable qualitatively and quantitatively. All this involves about three or four steps which we generally describe as laboratory development, pilot plant development and semi-commercial development etc.

Shri Kashi Ram Gupta: That too requires apparatus and all those things.

Shri V. B. Chipalkatti: That requires industrial apparatus and not research apparatus.

Shri Kashi Ram Gupta: In your Memorandum, you have made some comments on the working of the patent office. All this leads one to conclude that you require something which may help the patent office in its working. Is that the idea of having expert committees?

Shri V. B. Chipalkatti: As a researcher for the last 10 or 15 years, I have felt some need. For example, we take some patents in the United States. We have about half a dozen patents taken in the United States. The rigour with which the United States Patent Examiner will ask questions to us, the efficiency with which he will point out to us the basis of prior knowledge is much better and it is about hundred times more difficult to take a patent in the United States than it is in India. Out of 90 per cent cases we have found out that the Indian patent office is on a free-come and free-go basis.

Shri Kashi Ram Gupta: You want an expert committee....

Shri V. B. Chipalkatti: They are not liberal. I do not claim it. They do not have the necessary experience behind them.

Shri Kashi Ram Gupta: My point is that your suggestion for an expert committee is to aid the present Patent Office in its proper functioning.

Shri V. B. Chipalkatti: Yes.

Shri Kashi Ram Gupta: You have mentioned that you have got in the last so many years 130 patents. May I know whether they are mainly for textiles and such other things or also for pharmaceuticals?

Shri V. B. Chipalkatti: We have no patents for pharmaceuticals. We do have patents for chemicals.

Shri Kashi Ram Gupta: You have said that there is difficulty in this country for the industry to utilise in the proper way the knowledge of taking patents and all these things. Is your reference to some particular industry or is it general?

Shri V. B. Chipalkatti: I think it could be easily generalised. By and large, ours is a young nation. The history of industrialisation is hardly about 15 to 20 years old and I believe that the awareness that is required for improvement either in quality or in cost is generally absent partly due to our protected economy and partly due to a lack of expertise in the country.

Shri Kashi Ram Gupta: Even in industries like textile and sugar?

Shri V. B. Chipalkatti: Yes, Sir. In textiles, we should be the leader in the world. But I do not think we are. We are only third or fourth in the list of textile manufacturers in the world.

Shri Kashi Ram Gupta: Are we wanting in money or are we wanting in something else?

Shri V. B. Chipalkatti: It is a question of totality—we are wanting in good Government, we are wanting in good integrity amongst individuals and we are wanting in so many other things.

Shri Kashi Ram Gupta: What is the main factor behind it?

Shri V. B. Chipalkatti: I am afraid, I cannot give you one answer to this. But my total answer is a lack of proper expertise in the country.

Dr. C. B. Singh: You have to your credit more than 100 patented processes and products in the country and outside.

Shri V. B. Chipalkatti: Most of our products are only in India.

Dr. C. B. Singh: Anything outside also?

Shri V. B. Chipalkatti: No. We tried in the past and there were enquiries from Israel, Australia etc. etc. but these did not materialise due to one reason or other.

Dr. C. B. Singh: Anyway, you tried in India and you have got more than 100 patented products and processes.

Shri V. B. Chipalkatti: Yes. About 60 per cent of them may be utilised.

Dr. C. B. Singh: That is a very good news. May I know what is the expenditure spent on research in your research laboratories? If it is confidential, I don't want you to tell us that.

Shri V. B. Chipalkatti: There is nothing confidential.

Dr. C. B. Singh: We are very much concerned with it.

Shri V. B. Chipalkatti: Our annual budget is of the order of Rs. 20 lakhs. This is all earned through contract research. We have no money of our own. Our Trust has limited income.

Dr. C. B. Singh: You mean certain industries offer you problems.

Shri V. B. Chipalkatti: Those who utilise our facilities offer problems and we solve them.

Dr. C. B. Singh: From your evidence, it seems that you are in favour of a strong patent protection. Is that correct?

Shri V. B. Chipalkatti: Yes.

Dr. C. B. Singh: The reason advanced by you for a strong protection is that it will help the inventor.

Shri V. B. Chipalkatti: Yes.

Dr. C. B. Singh: Our complaint has been that the patent law has gone against the country as far as the drug prices are concerned. Will you suggest something whereby, in spite of their being a strong protection, you can do something about the price control of these patented drugs?

Shri V. B. Chipalkatti: Again, I am speaking as a non-expert on drugs. The price of drugs or the price of any patented product for that matter depends on many factors apart from the patent system or the patent law. In any case, in our day-to-day work, we are hardly conscious of the existence of a patent law when the price is fixed. That by having a patent law which is supposed to be better than the existing one we will do something to the prices somehow does not convince my mode of thinking.

Dr. C. B. Singh: You mean to say that is not going to reduce the prices?

Shri V. B. Chipalkatti: There are many other factors apart from this.

Dr. C. B. Singh: What do you suggest by which the prices will come down? We are anxious to bring down the prices.

Shri V. B. Chipalkatti: I am afraid I am not at all an expert on pricing policy.

Dr. C. B. Singh: You mean to say that the pricing policy should be enough to bring down the prices?

Mr. Chairman: He is not an expert on that.

Shri V. B. Chipalkatti: I have not enough knowledge on that.

Dr. C. B. Singh: Here, in the case of a dispute, an appeal has been allowed and the appeal goes to the Government. Are you in favour of the Government being the final authority on that?

Shri V. B. Chipalkatti: Yes.

Shri D. P. Karmarkar: If I understood you aright, you want protection being given to the Indian scientist. Would you rather prefer, as a practical policy, that in the case of such products like pharmaceuticals, food, etc., the Government may themselves take the power of issuing the compulsory licence? Is that your idea?

Shri V. B. Chipalkatti: As a citizen of this country, having seen many things in our social structure, at the present moment I am chary of increasing the powers of the Government beyond the very minimum. I think if the Government does less work particularly in the industrial and production fields, the country will stand to benefit. From that point of view, taking from the inventor a certain patent and then Government giving some return for that, Government has not only to give an incentive to the inventor but also to justify that. It will be justified only if the invention comes into actual use. I believe, Government as an agency to do the second part, is not the proper agency.

Shri D. P. Karmarkar: Ten years later, when our Indian research workers will come into their own, their interest will be adversely affected. The national interest also will be affected by this reduced period of ten years in the case of pharmaceuticals and drugs.

Shri V. B. Chipalkatti: Reducing the period was not the point. The point was 'licences of right' stamped on that.

As far as the reduced period is concerned, I hold the view that the lag between the date on which the patent is applied and the date on which it can be reasonably used in India is a minimum of 6 to 7 years and if you have only ten years as the period for which the patent will be in force, then the inventor gets really only three effective years or in some cases only one or two effective years.

I consider the present 16-year period as more reasonable to the present Indian scene.

Shri D. P. Karmarkar: Just a moment ago, Dr. Singh was asking about high prices. This Committee has found that, whenever a patent is in effect and when there is manufacture, the prices of some imported medicines are inordinately put up very high. The only way in which that could be prevented from happening would be to establish some sort of a control. Would you suggest, in order to prevent such an abuse by the industry, having a sort of an advisory machinery, on which naturally Parliament would be represented, Government would be represented and technical bodies and industries would be represented? Would you think that such a machinery to advise on prices would be beneficial?

Shri V. B. Chipalkatti: I did not think about it before. But on the face of it, some kind of a machinery, by which the price system is fair, would be desirable. I really do not know if you will get the necessary information to see that the Committee works efficiently. Many times information may be suppressed or may not be given properly, but there seems to be some need for action if the feeling is that the patent system causes this type of price rise. In my opinion, if the product is new, the firm or the individual who has taken a large amount of risk gets the maximum benefits in the first few years. If you see the position in other countries, the price always goes down and down as time goes on. Personally I am not very much afraid of a very heavy price being charged for some time. If the economy is productive enough, I think prices would take care of themselves. Only in a low productive economy, all this trouble arises.

Shri A. T. Sarma: Is it a fact that some foreign pharmaceutical firms are run by Indian technicians?

Shri V. B. Chipalkatti: Yes; I believe so.

Shri A. T. Sarma: Is it a fact that at present India is in possession of pharmaceutical technicians?

Shri V. B. Chipalkatti: We have a fairly large number.

Shri A. T. Sarma: Would they be benefited if the Bill is passed?

Shri V. B. Chipalkatti: No. We do not have many researches in the field. The firm managers are there, the technicians who are running the factories are there, but many of these foreign pharmaceutical firms do not start research in India. They always say, "we depend for research on our principles in our own country".

Shri A. T. Sarma: My point is this. If they are given an opportunity, will they be benefited?

Shri V. B. Chipalkatti: It would not be automatic. In fact, if you permit me, I would like to say that between the passing of a patent law and the deriving of the benefits of that patent law, there are so many things involved that I would not venture to say that a mere passing of the patent law would get the result.

Shri A. T. Sarma: In your Memorandum you have supported the existing law.

Shri V. B. Chipalkatti: Yes—90 per cent of it—except that I would like compulsory licensing to be used more effectively.

Shri A. T. Sarma: I want your clear opinion whether the Bill will be beneficial to the interest of India or not.

Shri V. B. Chipalkatti: The answer is neither yes nor no. This will be one more Bill. In my opinion the present Act is quite adequate and let us concentrate on using the present

Act better rather than having a new Bill.

Shri R. P. Sinha: I have gone through the Memorandum of the learned witness and have also heard him. The three points which he has stressed are in regard to licence of rights, compulsory licence and the period. After listening to him I feel that the Indian interests as such, I mean, the Indian research workers, will not be benefited by the present Bill because of these three Clauses. Have I correctly understood you?

Shri V. B. Chipalkatti: To the extent the incentive part of it is lessened, it will not benefit.

Shri R. P. Sinha: After listening to the witness and also after going through his Memorandum, I find that the motivation behind the framers of this Bill appears to be mainly to curtail the abuses of the foreign patent holders who are taking too much of patents and are not utilising them, and to compel them to use those patents and not to use them in the monopolistic manner. This appears to be the main purpose of this Bill and they have not taken into account as to how to help the Indian research workers like yourself or an institute like yours. Will that be a correct conclusion to draw from that?

Shri V. B. Chipalkatti: You might draw that conclusion.

Shri K. V. Venkatachalam: You were saying that your programme of work is some sort of a contract programme, that is, you do not have a regular budget as any research institution will have. Can you elaborate it further?

Shri V. B. Chipalkatti: We are a private non-profit trust. We have a fixed income which comes in the form of dividends from the trust.

Shri K. V. Venkatachalam: How much is that?

Shri V. B. Chipalkatti: About Rs. 5 lakhs.

Shri K. V. Venkatachalam: That is your base?

Shri V. B. Chipalkatti: On that basis we try to exist and try to create work. We go to the Government of India. We go to private industries. We make schemes. We tell them, "If you do this, it will help you". Sometimes they on their own come to us and we try to create projects in which the advantage of the research work, the cost required, the time required and the results expected are all written down in black and white and if the party is interested, then they come to us and we charge them on a no-profit basis.

Shri K. V. Venkatachalam: On this basis, can you have a steady programme of work?

Shri V. B. Chipalkatti: It is very difficult. But we have been existing for the last 15 years.

Shri K. V. Venkatachalam: You just exist? So you just exist. From that point of view I would have thought that you are not strongly based.

Shri V. B. Chipalkatti: Yes, for expansion, for taking new activities, etc.

Shri K. V. Venkatachalam: You are on a hand-to-mouth basis from what you say?

Shri V. B. Chipalkatti: Yes.

Mr. Chairman: You are in favour of product patents. Am I correct?

Shri V. B. Chipalkatti: Again I want to stress on the technical aspect of this thinking. I can give you an example. Here is a wash-and-wear fabric. Tomorrow I make a new fabric. I apply for a process to do it

and also I apply for the product which is based on that process. I take both the patents. The present Bill provides facilities for taking both. But if you examine the claim of mine that I have got a new product properly made, in 99 cases out of 100, possibly that the new product claim will not be a proper invention. It can be a proper invention only if I could hoodwink the Patent Examiner because textiles have existed for thousands of years. For example, if in a pharmaceutical patent, something based on quinine was to be made as a new product, until the constituents of that new product and the effect given by that new product are sufficiently large to claim a new product, a new product patent should not be given. Therefore, even under the existing law it is possible to make it very difficult for the applicant to get a product patent very easily. If that happens some of the abuses of the present law will go away automatically. If, on the other hand, we do not give the Patent Controller finances sufficient for running his office, sufficient finances to employ experts in various fields, in which case even the new Bill would achieve hardly anything. What is, in my opinion, necessary, is to see that the Patent Controller's office becomes extremely efficient and is helped by a large number of experts.

Mr. Chairman: That is a different matter. But suppose if you give product patents, you shut out all inventions and discoveries to find out new processes. It will be a disincentive for inventions.

Shri V. B. Chipalkatti: I do not know if the product is specified properly and if the process for making the same product would be available, that process can be followed. It can well be followed and somebodyelse can make the same product and ask for compulsory licence.

Mr. Chairman: That comes in only when the patentee takes objection to an infringement but if an inventor finds out an altogether new process for manufacturing the same product by a new and cheaper method and produces the product, why should he not be given patent?

Shri V. B. Chipalkatti: He may be given a patent for the new process.

Mr. Chairman: But if the product patent is maintained, it will shut out all new inventions.

Shri V. B. Chipalkatti: Is it not unfair to a person who has brought a product into the market after testing on lakhs and lakhs of people? After all he has done something for the society.

Mr. Chairman: Science is always a progressive science and you must give room for every patent to come in. It may happen that a new drug which is introduced to-day may become obsolete in 2-3 years' time.

Shri V. B. Chipalkatti: If the drugs go out of date in 3 years' time, if that statement is true, then probably what you say is true. But my feeling is that the drugs can continue for generations.

Mr. Chairman: Some may go out of use—it is quite possible.

Shri V. B. Chipalkatti: That is exactly with regard to pharmaceutical products.

Mr. Chairman: In fact except USA all other countries even to-day have got only process patents and Germany and Japan have progressed in their scientific research due to that.

Shri V. B. Chipalkatti: May be. I don't think I am competent to decide this issue in the manner in which you perhaps want me to do. All that I would like to say is that you make the product patent also very difficult and use the existing compulsory licensing system very well and then

there is no need for us to bother about the law.

Mr. Chairman: After all the object of the Patent law is to encourage research and production within the country. This law has been on the statute book since 1911 and it has not helped research and production within the country. That is why we are thinking of a new law. How do you still maintain that the present law would meet the needs of the times?

Shri V. B. Chipalkatti: I quite agree with you. It is a very good wish that something should be done to the Patent law by which the indigenous effort could be encouraged. But we had the same wish 17 years ago. I would like to point out that by having 17 or 20 national laboratories we thought we would make our country self-sufficient; but that did not happen. There are many things that go into this question of indigenous know-how being created. There were many criticisms and even people like me sometimes made criticism and in spite of all that, I believe, we are much better than what we were 17 years ago. I have no doubt whatsoever that we are going on the right lines. The democratic system is rather slow and we seem to be frustrated. But I do feel that the real encouragement is to act better rather than to proclaim better. Something like that even in this Patent Bill I see. In all this I see good wishes, good thoughts, good statements but good deeds are the great need of the hour.

Mr. Chairman: You yourself said that foreign patentees are not manufacturing their products here and they are having their research institutes elsewhere and they only import some intermediate products and perfect the product and sell it. What provision you would like to be made in the present Bill to make them to manufacture their products here?

Shri V. B. Chipalkatti: I do not see any lacuna in the law because law does not deal with the erection of new factories and the policies behind that. The erection of new factories depend on the total industrial viability of a certain scheme, of a certain manufacturing programme. Personally I do not see how the law can do this.

Mr. Chairman: What is your suggestion to induce them to start production here and also start research institutes?

Shri V. B. Chipalkatti: More efficient patent system rather than a wider law and wider powers to the Government.

Dr. C. B. Singh: He is in favour of strong patent system.

Mr. Chairman: Do you think that the present Bill does not provide for that?

Shri V. B. Chipalkatti: It will by itself not do. As far as the law is concerned, probably we can think about it after 50 years when the industrial base, the research base is really there. We are now talking of something which is not there. I can tell you that we are spending about 0·2% of our national product on research. Looking to the population and looking to the size of the industry, our research effort should have been at least about ten to fifteen folds more. It is not just there because even taking the public and private sector into account—my criticism applies to both—they are all thinking in terms of investing in new fields, not in intensifying the production in the existing fields. There is so much to be done, so much to be invested and the research effort that we are making hardly engages the attention of the industrialist and unless the industrialist is made to feel the need quality improvement and for new products, he will hardly take any interest.

Mr. Chairman: What do you mean by "artificial food"?

Shri V. B. Chipalkatti: Synthetic foods or processed foods. You have a factory for example to make tomato ketchup.

Mr. Chairman: That is not synthetic.

Shri V. B. Chipalkatti: But it is not given to you in the form nature is giving you.

Mr. Chairman: Thank you very much.

(*The witness then withdrew*).

(*The Committee then adjourned to meet again at* 15.00 *hours*).

IV. Business Council for International Understanding, NEW YORK.

Spokesman

Mr. Robert Meagher

(*The witness was called in and he took his seat.*)

Mr. Chairman: Mr. Meagher, you represent the Business Council for International Understanding?

Mr. Robert Meagher: That is right.

Mr. Chairman: The evidence that you give is public. It will be printed and distributed to our members and will also be laid on the Table of the Houses of Parliament. Even if you want any particular portion to be treated as confidential, it will be printed and distributed to our members and will also be laid on the Table of the Houses of Parliament.

We received your statement this morning. I do not know whether the members have had time to go through it. You can refer to it and if you want to stress any particular point or make a new point, you may kindly do so. Afterwards, our members will put questions.

Mr. Robert Meagher: I want to thank you very much for inviting me and for enabling me to appear before this Committee. I consider it to be very extraordinary for a Committee of a foreign government to permit outsiders like myself to come forth to discuss our opinions. I have had my past experiences in India. People have always been very open. I remember, when your Constitution was being drafted, at that time also you listened to the people from all over the world and tried to sort out different opinions and different approaches of others. Naturally I come before you merely to share my opinions with you. The ultimate decisions will, of course, have to be made by this Committee, by the Legislature in India.

I am very sorry that my statement did not reach you sooner. It has been in India for a number of weeks. But due to some administrative mistake, it was not delivered to you earlier. I apologize for that. It was beyond my control. I have not been in the United States for the past a month and these matters were being taken care of by some one else.

The statement that I am about to make today is being submitted on behalf of the Business Council for International Understanding. You will find in the Appendix to my statement a short summary of the activities of the B.C.I.U. This Committee has, over the past few years, formed a special group on investments in India and in 1964 held a series of meetings with officials of the Indian Government, primarily on the investment climate and it is really in that context that I am appearing here today. I am, by profession, a lawyer and in addition I am the Associate Director of International Legal Research at Columbia University Law School. My appearance here is not as an expert on patent law. My field of teaching is a field which is relatively new in the United States; it is called international law and economic development—it is a mixture of the two—in which we have

been concentrating on problems of investment and in relation to this, we have been drawn into topics such as foreign aid, trade and patent and copyright laws. The patent law has been one important element of the investment climate in all countries.

The current Bill is an indication of the desire of the Legislature in India to modernise India's patent legislation and to overcome what it considers to be inequities in the present patent system and also to bring uptodate certain practices which have become outmoded over the past 55 years.

In our opinion, of course,every government has the right to constantly review the laws and try to bring them uptodate in a manner which is in their own national interest. Obviously every legislature is interested in a new legislation from the point of view of its own national interest. We are delighted, as I said before, that you took some time to listen to certain outsiders who may be affected by the legislation in India. To some of the people whom I have discussed the legislation with, including the people in Japan, Korea, Taiwan, Philippines, England, France, Germany, Italy and Canada, the legislation does, in a few places, raise some serious questions. These provisions which are most disturbing to the people I have talked to, seem to strike at the very heart of the patent system and in fact, these are the only provisions which I have been concerned with.

As I said, I am not here as a patent expert but rather to discuss those provisions which will affect the question of flow of capital, flow of technology and development of indigenous research. Some of the broad sections which will affect the people are those which permit use of the patent by the government without compensation, which permit compulsory licences or "licences of right", as you call them, without any conditions for an inquiry into the ability or means of the licensee at a fixed maximum royalty and which remove specified appeals from the judicial system.

I pause here for a moment to say that obviously there are many ways of hearing appeals. Administrative agencies or administrative courts can have just as much function as a court does. The Droit Administratives of France and the administrative courts in Belgium can have all the safeguards of a judicial body. The problem as the statute stands at present is that many of my friends and colleagues feel that it would be preferable if the statute itself stated that the safeguards which one usually finds in a court of law would also be incorporated in the underlying statute. Obviously, the regulations which would be issued subsequently under the statute could provide for such provisions. I think there was no need to ask whether an administrative court would be better or worse than a judicial court. Obviously, either one can be good. It is just a question of knowing that in the underlying statute that such safeguard provisions have been made.

We have also been disturbed by the limiting of the term of patent and that this provision has been made retroactive. It seems to us that the gains by retroactivity will rather be minimal as the number of patents involved, probably most of them, have been running for a number of years. Any way, why not finish their term the day this Bill comes into effect or subsequent patents may be limited.

We also feel on the term of patent that a ten-year period from the time of filing of the specification is a very short period of time. In Algeria which probably has the newest patent law which was passed a few months ago and the term there is in keeping with the modern trend, they have put in a term of 20 years—the average probably running between 16-18 years with a trend, I seem to feel, now running closer to 20 years.

It is always difficult for a person who does not live in a country to understand the legislative structure of another country. I remember when I first came to India the Industries

Regulation and Development Act of 1951 has just been passed and at that time I have read it and, being an American and being used to our system of law, felt that a tremendous amount of power was being given to the Government. But by the end of 1952 I had modified my opinion to this extent that the law gave tremendous power to the Government but much of this power would probably never be exercised and I was right fortunately in one case because many of those provisions which were most striking have never been exercised, or if they have been, it has always been with great circumspection. However, the role of a lawyer advising a client in New York is difficult. He advises the client that this is the law. After going through the law the client feels that it is terrible. 'But they won't apply it', the lawyer says. The client will ask, 'How do we know that it would not be applied?'. The reasonable answer is: 'anyway I cannot be quite sure that the provisions would not be applied.' All that one can say is: 'based on my own experience, going back and forth to India for many years, I do not think these provisions will be invoked'. I think the Government has more powers here than they would exercise. I can tell you quite frankly that many firms telephoned me in New York before my coming here and they said. 'We read the industrial laws and are very much disturbed.' One of the laws they always refer to is the Industries Regulation and Development Act. I mentioned this because I think in the present Patent legislation there are certain provisions which also would be frightening to an outsider, but which may never be applied also—I do not know. Some of these provisions are: the section which permits the Government to take over patents, the section which permits the Government to let numerous groups use the patent under certain conditions. These conditions seem to be very harsh. Perhaps these are provisions which will not be applied —I just do not know.

The question the BCTU is concerned with in this legislation relates basically to three main categories—the investment climate, the flow of technology into India and the development of indigenous research.

Regarding the investment climate, the first point to make there seems to me is: that the Patent Bill obviously is only one part of the many many elements making up the investment climate. I don't think that if the Patent Bill was the only question this might stop foreign investment. The question is: when you put it together with many other provisions, the cumulative effect of this particular item might be to act as a deterrent to further investment. As you know, under the Fourth Five Year Plan the Government has estimated an annual inflow of 120 million dollars of investment annually. This is considerably more than what has been coming in in the past few years. It seems to us that at this stage the Patent Bill may act as an additional deterrent to a greater flow of capital. Over the past few years since 1964 there seems to be a fairly positive approach to investing in India. In fact, when I appeared before the Watson Committee on India and advised them on the situation here, my remarks were very favourable and some of you might have read that Committee's report; there is a section on India which says that there is a constantly improving climate in India. Those remarks were based upon the testimony that I gave before the Committee at that time. However, since then a number of things have arisen, many beyond the control of the Government—the death of two Prime Ministers and many internal problems; some of these have already been resolved, I think, more favourably in relation to the recent devaluation of the rupee which probably will help to increase private investment. But, nevertheless, the climate has not been extremely strong in the past two years as a result of which it appeared to us that

the current legislation would tend to retard rather than to encourage new investment.

As far as the flow of technology is concerned, I remember, while reading through the book of Mr. K. M. Pannikar on 'The Afro-Asian States and Their Problems', he put forth one of the most succinct statements on the problems of development that I found anywhere. In his book he discusses the need for technology in India. After all this was written in the early 50's and he pointed out that a country which is developing cannot say 'We would not use the latest technology' because there is already such a big gap between developing countries and the developed countries and that to use any but the latest technique will only tend to take you farther apart rather than to come closer together. That I think is a very important point and I agree completely with him that India must use the latest technology for its development. To get the latest technology in most cases India will have to go outside India. They will have to bring in this technology through patents from other countries and to get this type of technology, it seems to me, the question one has to look at in relation to the legislation under consideration is, 'Does this law act as an incentive or a deterrent to the flow of new technology?' Is there any way—in fact this is really the underlying question —by which any Government can through legislative means force an individual to deliver his technology to another country if he does not want to or are the incentives not enough. This is really the underlying question of all patent legislation. Of course, a patent is a monopoly. Of course, it gives privileges to an individual for a limited period of time. It does that because countries have developed a theory that unless this is done, technology will not flow from one country to another. Therefore, the question is: will the current legislation in India act as an incentive or act as a deterrent to individuals who have new technology and who are outside of India? As far as technology within India is concerned, obviously every country has more power over its nationals than it has over people who are outside of the country. But even then; you can't force a man to think, you can't force a man to be creative, you can't force a man to tell what he has in his own mind, unless he feels that there is an incentive to do so. There are individuals who are very altruistic who will give up all of their knowledge and all their lives because they feel their course is right and development is important. I think, however, these are exceptional individuals and this legislation cannot be enacted to affect those people because those individuals need no legislation to come forward with their own ideas to help a country develop. What do we do with people who have the technology, who have new ideas and who feel that they will not give them up unless they are given incentives, and what should the incentives be.

Now, as I flew out on the plane just 36 hours ago, I kept playing in my mind the problems which must disturb all of you—it disturbed me very much —of how this country, which has a huge population of one-seventh of the total world population and which still has a low per capita income, can find a way to see that the latest technology is available at low enough a price so that the people in the country can enjoy the fruits of it while they are still alive. This dilemma is one which bothers me very much and I have not been able to find any simple formula for that. I think if a simple formula were available, we would know about it. How then can we solve the problem? For example, in the field of pharmaceuticals, we see a new drug which saves millions of lives; we see the drug is expensive; what can we do through legislation to see that it is manufactured in India and to see that the cost of the drug is such that the average man in the street can go and buy that drug? This is the question, it seems to me,

we all are trying to answer. And yet the only system we have been able to develop for the past few hundred years of patents system has been a system which temporarily gives a monopoly to an individual and a pecuniary gain for a limited period of time through the patent. Now perhaps there is another way but I have not been able to find that way. If you try to put pressure on somebody to tell an idea, he will certainly use a secret process and you will not get it at all. If you say to him "you must do it this way", he will say "well, I will not produce in your country at all." If you say "I will appropriate your patent", he will say "fine", because that piece of paper will not teach you how to make Tetracycline, because to make that you must have the know-how, you must have the technology and you must have the money; and in addition, you really lose more if you go round appropriating than you gain. So we come back to the same dilemma. How do we find a way to get a low-cost product which is needed by people? How do we find a way for that product to be mannfactured in the country? I am afraid we still have not found the way and I don't think that a patent law which is restrictive in some of its provisions in relation to these points, will encourage or bring forth the actual movement of technology. What about indigenous research in the country itself? What about scientists within India? Does the current legislation give them an incentive to give out, to look into new technology, to develop new ideas? Once again we are back on the same question. If there is any incentive sufficient enough for a scientist here to produce the product, then the answer is "yes". If there is no incentive, obviously he will not come forward with the idea. What happened in Italy where they don't have any patent rights for pharmaceuticals? No new pharmaceutical discoveries were made. One or two new discoveries were made but both were registered in England under patents. They didn't stay in their country at all but went out of the country. Then, what about prices in Italy? Do the Italians get the drugs cheaply? No, they don't, because what happened in Italy was there were 60 people manufacturing the same product leading to very high promotion expenses and as a result of the cost of drugs was high. So the problem is still there. This is a real problem; it is a moral problem; it is not a question of law alone. And I can only say that my sympathy is with anyone who is trying to solve this dilemma. The question is how do we do it. Can it really be done by limiting the patent rights? No. I think the compulsory licensing approach is a good approach if it is used in the right manner and it has been used historically in India and in many other countries. It has been fairly successful to get products to come out. But as my colleague, Mr. Robbins, has probably mentioned here— I don't know, I was not here— compulsory licences are almost never applied for anywhere, even though they are on the statute book. So again it is a technique which has not been probably meaningful. I think perhaps Mr. Shoji Matsui came here from Japan. I was with him in Japan and we had some discussion on this. I looked into the Japanese industry situation and I think the Japanese industry is very instructive in relation to the positive aspects of patents. I was in Japan 15 years ago and 15 years ago, Japan was very flat with great destruction, with no buildings, with no industry. But to-day Japan has one of the most thriving and dynamic economies in the world. Year after year the G.N.P. was increasing at the rate of 20 per cent per annum and even this past year it increased by 10 per cent. You consider that with the fact that they have reduced the birth-rate from 2½ per cent to 1 per cent and you will see that the Japanese development has been truly amazing.

In Japan they used the technique in relation to the investment which I found to be exemplary. They sat down and said to themselves. "What do we do? We will develop our country with our own money and with our own technology. We have fallen

behind in technology and we have no money at this stage but we want to develop." So beginning in 1950, they took out from the dusty shelves the patent legislation which was still left and which had been in existence for 85 years and they said "let us see what we could do about bringing technology" implement their patent law is one of the considerations, and most liberal patent laws have brought in technology from all over the world. They worked the patents, they paid royalties, royalties have been fairly high, but what has been the effect of it? The effect of it has been that yes the Japanese are today paying royalties of something like—I have the figure here—I think 165 million dollars a year, but in addition from this year they are beginning to get back an amount equal to 8 per cent of royalties paid out through royalties on patents and what is much more important than that is their own scientists, having used the technology they have got from abroad, have developed new patents, have developed new processes and today the exports of just two commodities from Japan more than compensates for the total royalties that they pay and the economy of the future will be less and less dependent on foreign technology and more and more they will be creating their own patents and exporting them all over the world and in fact, you know, in this country, that the Japanese have been here and have been very much interested in investments here. I found Japanese in Korea, I found them in Taiwan. They have gone to Indonesia, exporting technology, exporting technicians, exporting scientists. So to me, this is a good example of what can happen with good positive patent legislation. The patent alone will not do this. It is not for me to suggest that any country that had a good patent bill would develop dynamically. One can say if other factors are good, a good patent bill can be a contributory factor. For better or worse, industrial development is intimately interwoven with patent rights. It is in this way that a country with a favourable patent law would be able to attract all other elements essential to industrial development. At the moment, India finds itself in the midst of extraordinary development problems. These problems cry out for innovative approach. However, it would be a short sighted innovation which would curtail the flow of investment, limit the flow of technology and diminish the level of integral scientific and technological research. Patent rights are inextricably linked with the flow of capital, know-how, skill and experience. Tampering with industrial or property rights at this time may prove to be a major deterrent to rapid development.

Now lest it be misunderstood because when one speaks for a short time one tends to talk about negative things in general I think that the Patent Bill is without exception, that it shows a tremendous amount of work and it is a very positive step forward. My only point relates to a very limited few sections of the bill and those few sections are, as I said earlier, ones which raise questions in the minds of people—the questions of: Will the Government take over patents without compensation? Will other individuals be able to use their patents even though they do not have enough know-how and do not have enough money? Is the absence of judicial review in redation to some sections so fundamental that people would be aggrieved? I do not know perhaps you have other provisions in your mind which will be in the regulations that I am not aware of and is it really necessary to make the new patent law retroactive in relation to existing patents.

Well, I am afraid my statement perhaps has been more general than the very specialised ones of people who have been heads of Patent Offices like Mr. Matsui or who have been leaders in the Patent field for the past 35 years like Mr. Robbins or who have been expert chemists like those you had from Germany but B.C.I.U. did feel that it would be

helpful if you would allow us to express our opinion and I must repeat once again, we feel very indebted to you to permit us to come to your legislature to discuss our point of view. I hope that my Government will be equally kind and hospitable in inviting people from your country when we discuss our patent legislation which is being studied by a Special Commission at the moment and of which Mr. Robbins who was here is a member.

Thank you very much, Mr. Chairman.

Shri Kashi Ram Gupta: The learned Advocate has suggested that there should be proper climate. I want to bring to his notice that so far as patents other than pharmaceuticals are concerned, the present Bill has got 14 years from the date of completion of the specification while the old Act provides 16 years from the date of application and hardly there may be a difference of about one year or less than one year. Therefore, I want to know his opinion about this aspect of the Patent Bill.

Mr. Robert Meagher: In relation to the 14 years provision, I do not say that this is a major hindrance. The 14 years provision, I think, is a modification away from the direction of the world trend which is towards increasing the patent period. However, I do not say that a major problem arises in itself from going from 16 to 14 years, but I might state here that one of the difficulties of the current proposed legislation relates to the period from which the time begins to run. The filing of the specifications is not the time when you have a patent. It seems to me to be preferable to have the time run from the time of the sealing of the patent.

Shri Kashi Ram Gupta: My point is under the old Act, it is 16 years from the date of application and the present Bill has got it from the completion of the specifications. Actually the difference will be hardly one year, but if you say that it should be from the date of sealing in this case as well, it will mean more than 16 years.

Mr. Robert Meagher: I think if it was more than 16 years it will be closer to the average which is probably 17 years world wide and which is now, in many countries, being extended to 20 years.

Shri Kashi Ram Gupta: Are you aware of the fact that Japan has got 15 years only?

Mr. Robert Meagher: Japan does have 15 years only. United States has 17 years and other countries have different periods. However, the newest legislation—the Algerian Bill—which has just been passed, does have 20 years and other countries are considering—though they may not pass—bills which will increase the period from 15 to 20 or from 17 to 20 and so on.

Shri Kashi Ram Gupta: Are you aware of the fact that Italy has got a Bill now in Parliament, which gives only 10 years for pharmaceuticals.

Mr. Robert Meagher: Yes. I am aware of that and there are 3 or 4 other countries which already have legislation existing which gives only 10 years.

Shri Kashi Ram Gupta: There is a Model Law on inventions given by the B.I.R.P.I. This Model Law on its page 49 says that a patent can be for at least 10 years from the date of sealing of the patent. The only difference is they say it can be for 10 years at least and in our country, seeing the conditions here, it can be for 10 years quite right. This is the only difference which means that we are not going against the basic point raised in the Model Law.

Mr. Robert Meagher: If the Model Law says 10 years at least, in India this could, in my opinion, certainly be 12 to 14 years rather than 10 years. Under the present statute it is from the date of filing the specifications. If you keep the present language in the legislation, it would seem that you would have to use 14 years to be assured of 10 years.

Shri Kashi Ram Gupta: If the present Bill is amended according to you, then it would be 10 years from the date of sealing. Will it be agreeable to you?

Mr. Robert Meagher: It would be much more favourable. We are talking how long does it take from the time a man gets a patent and begins to sell. From the moment a patent is sealed you do not begin to make money or you do not get the return. The standard should be that when an individual makes a fair return of his patent, the patent should cease. Arbitrarily, we have to use a period of years for different patents. If you talk of 8 years, then obviously you reduce the patent period considerably. So that would depend on how long you have to work a patent in India and how much time he is given to get a fair return of his investment.

Shri Kashi Ram Gupta: In some countries concerns having their own research and at the same time enough capital to work in a regulated way, and therefore research expenses and the expenses for invention of patents are part and parcel of the whole year's programme. They are allowed as revenue expenses in Income-tax law. You cannot say it is an isolated case.

Mr. Robert Meagher: In relation to that point, as you know, our structure is set very much on a cost accounting basis. If we have research going on in relation to one particular item, it would always be listed on one account. We know how much the cost of doing that is; knowing the costs we cannot estimate the profits on it. Obviously, when we deal with many products it becomes more and more difficult to separate then out because some expenses must be allocated to all items. However, we try through our system to have some idea of the cost on each item, so that the research costs may be listed as business expense in our tax returns. This is one of our incentives which we have used to encourage people to invent. Perhaps I am not familiar enough with your tax legislation. Perhaps that sort of incentive is also necessary here. But I am not here speaking about the Tax Bill today.

Shri Kashi Ram Gupta: Now, when it is part and parcel of the whole structure and you say it is not easy to find out separately what the cost will be on each item, then the big companies can afford to have a patent incentive even when the period is about ten years.

Shri Robert Meagher: It is like comparing a rich man and a poor man. I do not know whether that is true or not. A man who is poor may give up an invention because he may not be able to carry on for long. A man who is rich can give more time to make an invention. Most of the large-scale research done in the USA is not by the small companies but it is done by big companies. And we have found that the creativity comes because people give time and spend the money to do research. I do not think you should penalise a man because he is willing to devote a large percentage of his time and money for research.

Shri Kashi Ram Gupta: Should the period be reckoned in connection with the total cost structure so that the amount may be made up within that period?

Mr. Robert Meagher: Actually I am not qualified to speak on price structure which is a highly technical question in relation to patents. There are all sorts of conflicting testimonies, in which pharmaceuical companies claim that this has been so much for

research and they get a small return. One of the reasons this information is not readily available in the USA is because it is a comparative information and we do not have the problem of high costs because we have income-tax which takes care of high profits. If you make high profits people are taxed for that. I do not see that this question really is that key to an understanding as to how long a patent can pay.

Shri Kashi Ram Gupta: You say the business profit should be there and patent is only a fraction of it. There are other hurdles more formidable than patent. Now even if Patent Law is framed according to their wishes they will come with other difficulties. Therefore, in the context of this, when patent is a small fraction how is it they are not looking on these things from that angle?

Mr. Robert Meagher: We have already spent many hours discussing each of these questions including import duties, export duties, management, spare parts, raw-material sources, etc. It is not that we are discussing these questions today. We are discussing these questions every day. I have been discussing the same questions with Mr. Bhootalingam, Finance Secretary to the Government of India. When your Prime Minister came to the U.S. I met her on three occasions in New York; when your Minister for Planning, Mr. Ashok Mehta, came to the U.S. I met him and discussed these questions. It is not that we are not discussing these questions. We are trying. The obvious reason why we are discussing patent here is because it is important. When I say it is one of many things I do not say it is un-important. If it is un-important I would not be here.

Shri Sham Lal Saraf: The hon. witness knows that a number of witnesses have come before the Committee. He has confined his position to the following four items:

—permit use of the patent by Government with compensation.

—permit Licence of Right without enquiry into the means or ability of the licensee at a fixed maximum royalty.

—Remove specified appeals from the judicial system.

—Reduce the period of validity of existing patent.

May I know from these four points of view what does he considers to be 'out--moded practices' which are to be taken into consideration.

Mr. Robert Meagher: Perhaps the terms 'out-moded practice' was a wrong one. What I felt was a reduction of period was out-moded *i.e.* the term of the patent reducing to 10 years in relation to pharmaceutical industry, I think, is going against the world trend.

Shri Sham Lal Saraf: I only wanted to seek clarification, that is, when you said it is understandable that out-moded practices are done away with or at least amended in order to suit present day requirements and keeping that in view I would like to know from the above four points of view what would you consider to be the out-moded practices which you would recommend to be amended or done away with?

Mr. Robert Meagher: I do not think I linked together these four points with out-moded practices. If I did, it was not my intention. What I did feel is under clause 48 where the Government may use the patent without compensation I do not think this makes very much sense to me. I think Section 46 of U.K. legislation is preferable. I do not deny, under specified limited conditions, Government exercising rights which are necessary in the national interest for a limited period of time and it seems to me that in England when tatracyclin was bought from Italy the patentee was compensated. So I will suggest that under Section 48

there should be compensation for use of a patent.

Further, I think that the idea of a fixed maximum royalty at 4% of the net bought ex-factory price is arbitrary and obviously any system of settling royalties has to be arbitrary but it is interesting that India is the only country in the world that has set a maximum royalty price. Now I do not see any need for this. I think there is a way of determining in particular cases through discussion, through appeals, through hearing, etc. what would be a fair royalty. In most countries they let patentee, once licensed the patent, enter into an agreement to pay what he feels as a fair price for it. I know this is a very complicated question in India and it is for reasons which are not directly related to Patent Law. If you wish to do business in India and you want to have equity partnership in a company—frequently there is a question of getting equity partnership—the question of royalty price becomes irrelevant. In other cases you give up know-how or a patent right for a royalty each case goes to Ministry of Finance and there are discussions. Again it seems to me, if I would be advising your Government, it should handle foreign investors rather than handling foreign investments. I would leave them much more ambigous and interpret some results but the results should come administratively through the Ministry of Finance and not through a statute. So I do not feel it is necessary that that percentage should be put in the Bill.

Shri Sham Lal Saraf: Now, for instance, in the case of the Government where bulk purchases of pharmaceuticals and drugs are needed for Government requirements and the patent holder or the firm that has registered patent is not in a position to supply adequate quality and quantity to them, do you think, at that time, Government will be justified in attaining this authority under the Law to get the supplies from outside the country or from those patent holders elsewhere?

Mr. Robert Meagher: As I understand the question, please correct me if I am wrong, what you are saying is if Government wants to buy drugs in a bulk manner because of a situation, let us say a cholera epidemic, and Government wants to get vaccine for cholera and the company supplies them all the cholera vaccine that they can and they have to buy from outside the country should the Government have to pay the compensation?

Shri Sham Lal Saraf: The right which the Government has attained under the present provision, do you think that in those circumstances it is justifiable?

Mr. Robert Meagher: I think that if there is a major epidemic, if there is a war, if there is a flood, if there is a drought, if there are any of these many things which can arise before any Government, and it is a tremendous emergency, then, obviously, one would feel that Government should have powers to act in those cases. I think, however, that those provisions could be explained in greater detail in the Bill; I think they should be specified in the Bill, and I do not see that there is any problem in doing so.

Dr. C. B. Singh: You have elaborated on four important points.

One of the provisions in the Bill seeks to differentiate between drugs, chemicals and other patented articles so far as the period of the patent is concerned. Formerly, the period used to be 16 years for all patents; now, we have sought to bring it down to 14 for other items, and 10 for drugs, chemicals and food articles. What do you think about this kind of differentiation in regard to the period of the patents?

Mr. Robert Meagher: Personally, I do not see any need to differentiate between the two. However, this is a question which it seems to me each country must decide within its own context. There may be factor's here which I am unaware of, but it does not seem to me that in most countries this

distinction is made. However, there are some countries where distinctions have been made in relation to pharmaceuticals and food articles. The provision which you have in this Bill in regard to chemicals goes beyond what any other country in the world has in relation to its breadth of coverage; so far as pharmaceuticals and food products are concerned; when taken out into a more limited context, there is a distinction, in a number of countries. Whether there should or there should not be is a question obviously within the context of each country, and obviously, this committee is better equipped than I am to answer this question.

Mr. Chairman: Your country has also appointed a committee to go into this question.

Mr. Robert Meagher: My country has appointed a committee to go into the question of patent law in general.

Mr. Chairman: And for also reducing the period of patents for drugs etc.

Mr. Robert Meagher: One of the suggestions before that committee is to reduce the period in respect of drugs.

Mr. Chairman: Canada, New Zealand and South Africa also have appointed special committees.

Mr. Robert Meagher: That is right; as a result of the Kefauver Committee hearings.

Mr. Chairman: New Zealand agreed for restriction on drug patents. Canada suggested abolition of drug patents. In the USA, on the Bill it was contended that three years would be an ample time to recover the research outlays, and a maximum royalty of 8 per cent was suggested; there was also a suggestion for unrestricted licence which included grant of technical information required for manufacture of the patented item. The Simon commission in South Africa suggested five years for drug patents.

Mr. Robert Meagher: A number of suggestions have been made in different countries. As regards the one you mentioned in relation to the USA, though they were introduced by the Kefauver Committee, they were all defeated and rejected by the legislature.

The question here is one of emotion at one level and of real concern at the other, and they are mixed together. The problem arises this way. You travel in the country and suddenly you come up against a situation, and you see people in a horrible situation and they need drugs, but they do not have the money to pay for them. Immediately, you say, 'We must find some way to do this'. But there are a number of ways in which it can be done.

Mr. Chairman: The same thing happened in the UK also. Immediately after the second World War, UK had authorised a particular company to import a particular drug. One of the patentee companies went to the House of Lords and filed a suit against the UK Government, and the Lords held the case in favour of the UK Government. I suppose you are aware of it.

Mr. Robert Meagher: Was it not the tetracycline case?

Mr. Chairman: Yes.

Mr. Robert Meagher: That was just recently; it is a relatively recent case. The decision came down in January, 1965. I was in India at that time.

Mr. Chairman: Almost every country is trying to reduce the period of the patent in relation to drugs and food articles.

Mr. Robert Meagher: But in England, the following year, namely this year, they have stopped importing that drug from Italy because they found that the quality of the goods that they were getting from the unpatented sources was bad and unreliable, and in addition they felt that this was not the best way to handle it.

I do not mean to suggest here that I am in any way in favour of people taking outrageous advantage of people who are in need. What I am suggesting is that there are many ways in which these needs could be satisfied.

For example, in the USA also, we have many poor people who have diseases and who need medicine. But the way we solve this problem is that Government have clinics in hospitals where the drugs are given to the poor people, and Government pay for them. It means in turn that the wealthier people in society who are paying higher taxes are paying for the drugs which are given to the poor people.

In England, this problem has is taken care of through the national health service system, where the people who are paying taxes are paying a part of this money into the medical system so that the poor people can get free drugs. I think that would be the proper way to do it than to take away the patent rights.

Dr. C. B. Singh: Having agreed that there is a need for protection, will you agree that in the case of medicines and food articles, the patent may be granted initially for a period of ten years, with a further chance of one or two extensions in case there is such a need and the party is able to prove that he has not been adequately compensated for his labours? If such a provision is made in this Bill with chances for extension, will that be an improvement on the present Bill?

Mr. Robert Meagher: I think that if there is a chance of extension, that would be an improvement on the present Bill. But if you ask me whether or not I believe that this was the right way to do it, my answer would be 'No', because to add one more administrative step which would take more time, which would be arbitrary and which would give no assurance in any case that there would be an extension seems to me to be a very backward way of doing it. Would it be an improvement? Yes. Would it be the best way? No.

Dr. C. B. Singh: We have got our own problems. Probably you are asking for an ideal thing which is not possible. We have got our difficulties. That is why this suggestion has been put forward. If there is a chance given for extension, do you agree that it would be an improvement on the present Bill?

Mr. Robert Meagher: Most certainly it would be an improvement.

Dr. C. B. Singh: You have laid stress on three points namely licence of right, compulsory licensing and revocation. These are very important points. In regard to compulsory licensing, the provision is that after three years, when the parties are agreeable to give proper compensation a licence can be issued. What have you to say on that?

Mr. Robert Meagher: I think that that is not a new provision. I think that the concept of compulsory licensing is used in many countries, and I think that the main time should be the time when the patent is not being worked or is being worked to the detriment of the country, in which case I think the country should be able to get somebody who will be able to work it.

Dr. C. B. Singh: Would you agree to any provision being incorporated in the law specifying that under such and such circumstances compulsory licensing can be resorted to by the Drug Controller or by Government?

Mr. Chairman: That provision is already there.

Mr. Robert Meagher: I think that it is already there in your Act at present.

Dr. C. B. Singh: You have taken very strong exception to the provision regarding licence of right. It is because of certain very difficult circumstances that we have thought of this provision. Under this provision, as soon as a patent is granted, a licence of right can also be granted immediately. You have taken very serious objection to this provision, I think?

Mr. Robert Meagher: I take objection to this provision, because it seems to me that if I spend, whether I be a company or an individual, a great deal of time in developing an invention or a patentable item, then I should at least get an opportunity to work the patent myself for a limited period of time. If I do not do it within that period, then Government have a right to say 'Let us find out some other party that can do it, and let us get on in the country.'

My answer to the question is that I think that it is important to remember that endorsing the patent with the words 'licence of right' is not particularly apealing to someone who has a patent because there would be no great incentive for him to come to India with his patent.

In that case, the greater loser is India, because he can go to other countries where there is no licensing of rights and get his patent and also develop new drugs and adaptations and therefore there will be a greater gap in your development.

Dr. C. B. Singh: What is your suggestion?

Mr. Robert Meagher: The compulsory license provision you have is satisfactory to achieve the ends which you need. I do not see why licence of rights section is necessary.

Dr. C. B. Singh: Do you suggest its complete deletion?

Mr. Robert Meagher: Yes.

Dr. C. B. Singh: Some countries have process patents, others have product patents, while some others have process-*cum*-product patents. In your opinion, in the developing countries what is the modern tendency?

Mr. Robert Meagher: The new legislations in U.K., Australia, New Zealand, Ireland and Algeria would indicate that the trend is towards product patent. But in the U.S.A. we say that this is more a distinction of form than of substance, though there is much talk about the great difference between the two.

Dr. C. B. Singh: What is the reason for this trend?

Mr. Robert Meagher: The real reason, I think, is administrative. You find a tremendous number of difficulties in fiding out what is a process. As a result, in countries like Germany, Switzerland and Scandinavia, where supposedly they have process patents, they actually turn out to be product patents. So, for all practical purposes, any good patent attorney today will be able to turn a process patent into a product patent.

Mr. Chairman: Just now, except the USA, no other country has changed the law.

Mr. Robert Meagher: No, but there is new legislation in the offing in the countries I mentioned.

Dr. C. B. Singh: Suppose somebody infringes a patent, on whom should the burden of proof of the infringement lie?

Mr. Robert Meagher: It should always be on the second party coming forth with a new process.

Dr. C. B. Singh: If we make such a provision, will that be an improvement? It will be more acceptable to you?

Mr. Robert Meagher: Yes, I think it will be a very definite improvement. It will be much more acceptable to me.

Shri P. K. Kumaran: What makes you think that one of the prime purposes of this Bill is to create a climate of investment in India?

Mr. Robert Meagher: I do not think that one of the prime purposes of this Bill is to create a climate of

investment in India; what I think is that the introduction of a new piece of legislation in this field has an effect on the investment climate.

Shri P. K. Kumaran: Do you know that in India our experience has been that because of these patent rights which are already existing, processes developed by our scientists we are unable to use? So, it is only to create conditions for exploiting the know-how available in the country that this Bill is introduced. Why do you think it will not help India?

Mr. Robert Meagher: This question is a highly technical one. If there is a reasonable patent law, there should be reasonable protection for the person who first develops a patentable item. I do not think we should be able to avoid this by using legalistic techniques, which actually go against the underlying purpose of protecting the patent for the first person.

Shri P. K. Kumaran: Is it not a practice in the drug market to make slight changes in a drug and market it as some other drug and make huge profits?

Mr. Robert Meagher: No. They would rather license it to four or five companies, as in the case of tetracycline for example, and get royalties from them.

Shri Peter Alvares: In developing countries there is always concern for investment incentives as well as development in technology. In the pharmaceutical industry out experience is that the patent system has been utilised to import drugs more or less at the intermediate stage, with the result that the process is not worked out here. Licence of rights tries to take care of this situation. Does not the provision for licence of rights provide for the working out of the technology inside the country so that the country can develop as fast as possible?

Mr. Robert Meagher: Actually, let us put the question in a more realistic context. In 1955 I came to this country on behalf of a pharmaceutical company, who happened to be a client of my law firm in New York. At that time we were just having some exploratory discussions here, and I found that the Government at that time would not permit these people to come to India. They were going to provide almost new technology, but they could not come in. We could never get permission under your Industries Development and Regulation Act. So, these questions seem to be theoretical, because, apart from your patent law, you have got a Ministry of Finance which does not permit just anybody to come here.

Secondly, as far as these drugs are concerned, the steroid drugs are now being made in India and it seems to me that more and more of the drugs which were imported are being made here. I do not know if you can force a company to make these drugs in India.

Now, I come back to the same question. There is no way to force a man to do such and such a thing for less than what he considers he deserves. If he does not want to give it to you, you may say, "Leave this country" and then he will go away. The point is this. We go back to the patent system, an arbitrary, system prevailing from 200 years, and gives an individual a temporary monopoly for a period of time. At the end, what do you gain? You gain firstly, a new factory; secondly, new technology; thirdly, a number of Indian scientists and technicians, because under your laws you require Foreign Companies to train Indian technicians. These technicians use the patented processes and they develop new processes which they in turn patent as the Japanese have done.

There are only three or four countries in the world where the majority of patents are not held by foreigners. I think Japan, Germany and the United States are the only countries in the world where the majority of patents are not held by foreigners. In the United States, it is only 20 per cent; in Germany and Japan, it is 30 per cent which is held by foreigners, but in countries like Canada, it is 90 per cent as it is in India. The figures generally run from 65 to 90 per cent, where patents are held by foreigners. The holding of patents by foreigners is neither good nor bad. The question is whether that technology of patent is developed in the country and whether the people in the country develop their own ideas and create their own products which in turn gives them the ability to create new patents which are then exported to other countries.

Shri Peter Alvares: You have referred to the investment climate in India. From the liberalisation policy mentioned by the Finance Minister during the last year, you will see that the investment climate is so good that there is hardly any reason to fear that the new provisions of the Patents Bill would retard the investment. From the survey of the Reserve Bank in respect of the profitability pattern, it is seen that while the profitability of the USA and Britain in India is the highest in any country in the world, in their domestic sphere it is the lowest. Therefore, the American and the English investment in India earn them the highest profitability of any investment in any other country in the world, and in both these countries the return on investment in domestic sphere is the lowest profitability.

Let me give you some other figures. The Government of India have circulated to some of us in the Finance Consultative Committee, the figures of investment for the years 1962, 1963, 1964 and 1965. As far as the United States and the United Kingdom are concerned, the investment is the highest; in 1962 it was 10.9 million; it was 13.29 million in 1963; 5.84 in 1964 and 11.68 for the last year, 1965. In the United Kingdom, it is similar. So, the table of investment within the last five years shows an increase both for the United Kingdom and the United States. Since then, the Finance Minister has given certain concessions for regarding the profit and ploughing it back and so on. In view of the increasing ratio of investment in the United Kingdom and the USA companies, how do you have the fear that the Government of India's proposal as contained in the Patents Bill would retard investment?

Mr. Robert Meagher: Your question is a long and complex one and I shall try to answer it briefly. First, in relation to the profit figures, these figures caused me some concern for a period of time because we could not understand it, and many of my clients are getting back something like two per cent on their investment including one of the largest U.S. investors in India. Last year, the profit went below two per cent on investment. These are rather curious. The Reserve Bank figures are misleading. There are certain investments that were made a long time ago in India and the returns were very good. The investment that has been made in more recent years, and the figures of expenses are not quite as good, but I find that the profitability is not the only criterion for investing, though obviously it is a very important criterion. I think that the average flow of investment shown in the *Economic Times* of India dated 28th December, 1965 will reveal that the annual average of 1956 to 1961 was 82 million dollars. In the years 1962 to 1964, it was 62 million dollars; in 1966, it dropped down to 50 million dollars. I feel that the situation has not been good

for a number of reasons, and really, the problem is one which is very difficult and it will take a long time for me before this Committee to discuss these things. But in brief, let me say that it disturbs me very much, as a person who likes India. In Taiwan, which has a population of 13 million people, there is more foreign investment currently than in India which has a population of about 500 million. Indian market must get into South-east Asia and open their investments there and India must export to those countries. Otherwise, all these will probably be lost to the Chinese in Taiwan. India must develop her industry and export.

I have just come from Korea and Taiwan. I saw there a tremendous surge of investment and a client of mine who had been here said that he has found the investment climate much more favourable there. When I say this, I am not being theoretical. I am not suggesting anything in a Machiavellian fashion. But I may say that those big firms of the United States are interested in India but they will go wherever they find conditions to be best. The BCIU and others are interested in India's development. Some who are not have yet may invest here some day. But people like the ESSO, Union Carbide, ITI and Firestone are here in India. They are not people who might come here. They are here because they like India and they want to see India develop. They want to see the investment climate develop. They have been here for a number of years and they would like to see India develop quickly, and they are interested in seeing if there is some way of moving ahead more quickly.

The point made about the Reserve Bank of India's figures about profitability may now be referred to. They may be right or wrong, but that will not increase the investment. I was sent down here to speak on the Patents Bill. I want to make my points here on the Patents Bill, and not on foregin investment. If your Committee is on foregin investments, I will be glad to discuss each of those points on foreign investment.

Shri Peter Alvares: You said that this has an effect on foregin investment. The foreign investments in India are on the upgrade, and so that is a relevant point here. The American and English people are also investing here in a larger way and so, I referred to it. It may not be very important to you, but it shows that the profitability of American and Einglish enterprises here is high. I am not saying this with any hostility, but their investment profitability is the highest in India, and their investment ratio and their profitability are much higher than their domestic produce.

Mr. Robert: Meagher: The total from my country is 250 million dollars. It is spread over 15 to 16 years. In fact, some of it came before that. The Union Carbide has been here for many years.

Shri P. K. Kumaran: You want India to become like Taiwan?

Mr. Robert Meagher: Only to the extent of being able to tap the dynamic investments and gain markets overseas as Taiwan is doing. I am not interested in the political aspects.

Shri A. T. Sarma: You have said:

> "It is not likely that a restrictive patent bill will encourage Indian scientists and technologists to carry out fundamental research in India."

Would you enlighten us on this expression "restrictive patent Bill"?

Mr. Robert Meagher: Suppose an Indian scientist sits down, spends a number of years and develops a new drug. If the day he introduces it

everybody in the country can start producing it, there is not going to be any great incentive to produce a new drug; he might as well invent something new in steel where he will have some protection. The Indian patentee is in no better or worse position than the foreigner. The Indian scientist doing research in fields which are most restrictive like pharmaceuticals may end up giving the product of his research not to India as you expect but to other countries where his patent rights can be protected. This happened in regard to Italian drugs.

Shri A. T. Sarma: The provisions of the Bill are based on the recommendations of the commission appointed by the Government and we consider the provisions are in the best interests of India. We do not consider it a restrictive Bill. Do you agree?

Mr. Robert Meagher: If I agreed with it, I would not have made the remarks I made. Certainly in this case, the decision is not going to be made by me. I am just giving my comments and they may be rejected if they are not effective.

Shri A. T. Sarma: Do you suggest we should follow the same policy as in Italy? In India there is already a patent law whereas Italy has no such patent law.

Mr. Robert Meagher: I think the existing legislation in India in relation to the points I mentioned: is better than the proposed new Bill.

Shri A. T. Sarma: Do you want the existing Act also to be abolished?

Mr. Robert Meagher: I have never suggested that.

Shri A. T. Sarma: There is a vast difference between Italy and India. Do you agree?

Mr. Robert Meagher: Your new Bill in relation to pharmaceuticals is more restrictive than the legislation now in force. As a result of this bill, you may limit the amount of research in pharmaceuticals and certain chemicals.

Shri A. T. Sarma: In your memorandum you have referred to our fourth five-year plan. Do you think the plan will be economically affected if this Bill is passed?

Mr. Robert Meagher: Your fourth plan envisages a certain amount of private foregin capital. If you pass a patent bill which tends to become more restrictive, that will be one more factor which might limit the flow of foreign capital.

Shri R. P. Sinha: You say this Bill will hit Indian research and Indian scientists and Indian industry as well. Suppose we have a chapter separately dealing with patents and discoveries made in India separately and thus discriminate between those patents and other patents and discoveries made outside India. Is it the theoretically possible?

Mr. Robert Meagher: I do not know whether it is possible or not; I will have to think about it. I am not familiar with any legislaion anywhereelse in the world like that. Even if it is possible to do that, I do not think it would be a worthwhile exercise because it would be going against all international trends and conventions which presently exist.

Shri R. P. Sinha: Suppose we have such a provision. Will it debar us from becoming a member of the international body?

Mr. Chairman: I think it is not a proper question. It is hypothetical.

Shri R. P. Sinha: Our experience has been that certain patents taken out in India have been abused and used to the detriment of the national interest. Hence the provisions in the Bill have been made to correct

those abuses. If we give certain reserve powers to the Government to be used only in extreme cases of abuse, what psychological effect do you think it will have on the foregin investor?

Mr. Robert Meagher: The real question here is that there should be a fair hearing for any individual whose patent is going to be revoked. I do not think it should be an arbitrary decision or a decision made just by the Controller of Patents. I think the individual should be notified that it is the Government's intention, because of the following reasons, his patent should be revoked as it is against or in the detriment of the national interest of India, and asking him to appear within ten days so that he may be properly heard. He may be allowed to bring witnesses if so required. After that, he should be able to appeal to a court of law and only if the court agrees with the decision should his patent be revoked. The question here is not to encourage individuals to act against the interests of the country which has granted the patents; the question here is to see that there is a fair hearing and rights are not taken away from individuals for arbitrary reasons. If for other reasons the Government thinks it proper to revoke the patent, fair compensation should be paid to the individual. That is the real concern, and the concern is not that a man should be able to do bad things in a country and he may be excused just because he has got a patent.

Shri Bade: You have said that this Act should not be retroactive. The main purpose of bringing this Bill is to fight against monopoly. The foreign manufacturers, after taking patents for processes from R-1 to R-37, block the Indian manufacturers or inventors from doing anything. Then they create a monopoly and exploit the Indian market to the extent of several crores a year. They also do not manufacture the products in India and they import the patent medicines from abroad. Therefore, why should not this Bill have retro-active effect?

Mr. Robert Meagher: The problem with retro-active pieces of legislation, international or even national, is basically this. An individual enters into an agreement. He comes into your country on certain conditions. You tell him that under the present patent law he may have patent for 16 years. In good faith he comes and develops the industry here. If all of a sudden, after three years, you tell him that from 16 years you are cutting down the period to ten years, and that too from the date of last filing the specifications, and because he has already completed three years he will have only another four years, that would not be fair. My real objection here is, I do not think it is a good procedure for any Government or any individual to enter into an agreement with another person and then basically change the terms of agreement unilaterally. This is not the real approach. If monopolies are your problems, and to some extent in India monopolies are the problem, why not have a restrictive practice Acts as in Germany, Britain or France, like the Sherman Act, the Clayton Act in the U.S. and so on? Why do you not think of other ways of tackling that problem. To amend the patent legislation is a very oblique way to tackle this great complicated problem and it will only destroy the mechanism of patent.

Shri Bade: Look at clause 90 of the Bill. Are these not reasonable grounds?

Mr. Robert Meagher: The grounds are there. If you turn to clauses 84, 86 and 89, the question is one of having proper appeals before a judicial body. Clause 84 does not permit that. Clause 84 provides for appeal to the Central Government. The proper approach is to allow him to have a judicial appeal. The Government, obviously, has the power, any time

it feels that patents in general are not in the national interest, to do something about it.

Shri Bade: Even if the patentee is not able to manufacture in India, it should not be revoked?

Mr. Robert Meagher: What I am saying is, if an individual violates the regulations, you should give him a hearing, allow him to appeal against the decision and with the approval of the court revoke the patent.

Shri Bade: All the foreign pharmaceutical manufacturers have objected to this. I have seen that many of the firms, in Bombay and other parts of India, are importing everything from abroad. The know-how is never known to our scientists.

Mr. Robert Meagher: There are no pharmaceutical companies today in India who do not bring in new technology, because your Government would not let them come in.

Shri Bade: May & Baker have taken 57 patents and they are exploiting only two at the cost of our poor consumers. Is it not our duty to pass such a legislation?

Mr. Robert Meagher: Let us suppose that they have only two patents in India and the rest 55 are outside India. Would you be in a better position then?

Shri Peter Alvares: Then anybody can work the other 55.

Mr. Robert Meagher: It is not so easy. Patents are not patents on paper. This is not the way patents are worked. If you do not have the technology, the know-how and the capital, even if you have all the patents in the American Patent Office, you would not be developing industries necessarily.

Shri Bade: You have said that there will be no large-scale investment climate for foreigners. With 45 crores population and devaluation, is there not sufficient attraction for investment?

Mr. Robert Meagher: If you are asking whether devaluation is not an incentive, if I had invested 150 million dollars in India and put it into rupees, I would be getting 35 per cent less today than what it was two months ago. If I am going to bring in new investment, obviously it would be an advantage.

Shri R. Ramanathan Chettiar: In the preface to your note you have stated:

> "The patent Bill appears to be moving against the trend to encourage new investment in India."

You have ended by saying:

> "Tampering with industrial property rights at this time may well prove a major deterrent to rapid development."

How have you come to this conclusion?

Mr. Robert Meagher: For example, if you give a licence of right to a man to develop a new drug in India, it will discourage foreign companies from making invests in India, specially in the pharmaceutical industry, because they know that at any time the Government can give a licence of right to anybody in India to manufacture such drugs. From that point of view, there is a limitation to foreign investment or flow of capital. Then, when I speak of property rights I mean patent rights.

Shri R. Ramanathan Chettiar: How does the Bill interfere with the industrial property rights?

Mr. Robert Meagher: Now the property right or patent right runs for a period of 16 years. If you change it down to 10 years and then, in addition, make a licence of right,

you interfere with the property rights.

Shri R. Ramanathan Chettiar: In other words, you want perpetuation of monopolistic tendencies on the part of big cartels like Parke Davis and Pfizer.

Mr. Robert Meagher: The first largest 15 companies in India are not American companies. They are Tatas, Birlas, Sri Ram, Dalmia Jain and so on.

Shri R. Ramanathan Chettiar: I am speaking of pharmaceutical and drug industry and I enquired whether the bringing down of the period from 16 to 10 years will affect the industrial property rights. It seems you want perpetuation of foreign interests in the drug industry.

Mr. Robert Meagher: I want the patent law of India to be like the patent law of any other country, so far as the period is concerned, so that technology can be shared, because we have not found any other way to do it. By the very nature of it, patent is a monopoly. By that patent you give a man a monopoly for a fixed period of time. I am in favour of patents and they always involve monopoly. However, we do not know any other way of transferring technology without having monopoly.

Shri R. Ramanathan Chettiar: In reply to a question you stated one of your firms, whose investment is of the order of 90 million dollars did not get more than 2 per cent. I do not know to which industry you are referring to.

Mr. Robert Meagher: Not pharmaceutical industry.

Shri R. Ramanathan Chettiar: I will confine myself to drugs and pharmaceuticals and I will give you certain figures to allay such fears on your part. If you take the Reserve Bank of India Bulletin for November 1964 you will notice that in 1962-63 the total investments of foreign interests in the field of pharmaceutical and drug industry was of the order of Rs. 14 crores and they have taken away as dividend Rs. 2 crores and Rs. 5 crores by way of royalties, making a total of Rs. 7 crores on an investment of Rs. 14 crores. This is the only country which enables you to get a return of 50 per cent on your investment.

Mr. Robert Meagher: The same argument was given in my country before Senator Kefavour by the pharmaceutical industry. Well, I suppose, if one has money for investment in shares he would be well-advised to invest it in pharmaceuticals. I do not see its relation to this question. I have no argument because I do not have all the facts. I have no doubt that profits in some industries have been very good. I have no doubt that in pharmaceuticals they have been fairly good.

Shri R. Ramanathan Chettiar: Which is the industry you are referring to?

Mr. Robert Meagher: I cannot mention it. It is not pharmaceuticals.

Shri R. Ramanathan Chettiar: In my experience of a long period I have not seen even a single instance where a foreign investment gets a return of 2 per cent.

Mr. Robert Meagher: After the meeting we can discuss it. I do not want to give my client's information in the Committee. As far as the actual profit question is concerned, is there any way legislatively through the patent process to limit the profits? Secondly, will it come in the way of flow of technology in the field of drugs.

Shri R. Ramanathan Chettiar: That is not the only object with which this Bill has been drafted. We want the prices of life-saving drugs to be brought down to reasonable

levels so that they can reach the poor men of this country.

Mr. Robert Meagher: Price control is not and should not be the function of the patent law.

Shri R. Ramanathan Chettiar: We also want to curb the monopolistic tendencies of some companies.

Mr. Robert Meagher: You have made two points, prices and monopolies. I would suggest that the proper place to handle prices and handle monopolies is the price legislation and the monopoly legislation. You already have an Industrial (Development and Regulation) Act. A section of that Act says that if the Government feels that the distribution is unsatisfactory or the price level is high, it may step in and control distribution and prices. It is already there in your legislation. You do not need a patent Bill to do it. By this provision you are putting into the Patent Bill things which are not relevant to patent legislation. I am not arguing the philosophy of monopolies which I too do not happen to favour. But that is another question.

Shri R. Ramanathan Chettiar: You are a good public relations officer.

Mr. Chairman: Do you, as a lawyer, agree with the conclusions of the Kefavur Committee report?

Mr. Robert Meagher: There is a majority report and a minority report. Which one are you referring to?

Mr. Chairman: The majority report.

Mr. Robert Meagher: I do not agree with the majority report. I have to qualify that statement. The Kefavur Committee reports are based on a long series of hearings. They have said in the report that there were certain problems and certain abuses. I think to some extent probably there are problems and there are abuses. The question is whether the Kefavur Committee report fairly reports the findings that took place before their own Committee. In a hearing that goes on for months, naturally people from both sides come and report. So, in the report you should at least mention what the other side have said. You may not agree with it, but at least you should state what they said. The reason why as a lawyer I object to the Kefavur Committee report is that I do not think enough consideration was taken of the view expressed by people who opposed what Kefavur was doing. As a lawyer I am interested in balancing the two options—the need for drugs and pharmaceuticals and the need for incentives for people to make inventions. These two should be constantly balanced.

I am not satisfied with the patent legislation as solving this problem. I am not sure that the whole patent approach is the right solution. If we go in for a Patent Bill, it seems to me that the patent Bill should adhere to the fundamentals of patent, namely, protection, monopoly if you want, for a fixed period of time so that you can create incentive for bringing out inventions.

The problem is how do you get these drugs, which are life-saving and important, to the broadest number of people at prices which are reasonable. One way may be to increase the Government Health Services, as the English have done. But when in a country so much of the budget is already devoted to health and development when not enough money is available with the Government for providing better health services, what should be done? That is the problem in your country.

Mr. Chairman: As you have put it, that is the problem. We have a huge population. We want medicines at cheap prices so that they can reach the common man. The foreign

patentees are importing only the intermediates and they have not started manufacturing drugs here; nor have they established any research institutions in the country. The main object of our Patent Bill is to promote research and develop industries. That has failed and that is why we want to amend the law and these are some of the amendments directly aimed in that direction.

Mr. Robert Meagher: I understand that and if I thought that what you were doing was going to achieve that, I would say, "Good".

Mr. Chairman: That can be seen only by the results.

Mr. Robert Meagher: That is my opinion and that is all I can offer.

Though I understand why it is being done, I must say that before I came to discuss this Bill, one of the main things that I could see was why at this time India wanted to introduce this legislation. My conclusion was, as I have stated to you, that it seemed to me that you were trying to solve the problem of prices and supply of drugs to a large number of people. I am not at all opposed to that goal. My question is whether by these amendments to the patent legislation you will be able to achieve this goal. I, unfortunately, feel that this will not do. The reason why it will not do is relatively simple. There is no legislative way in which any legislature in the world can force people in other countries to give them their technology and their money unless they give them in return what the people want. It is just difficult. I do not know the way to solve this problem. I appreciate the reasons for the effort but I just do not feel that this would be the way to do it. I can assure you that if I do find the way, I should be very glad to share my ideas again with you because, I think, we all hope to find some way so that poor people can at least have good health.

Mr. Chairman: That is our main object. You had the patent law in the USA for nearly 300 years but all the research has been done only recently, that is, in the last 20 years. Why did the patent law in USA not promote industry and research all these years?

Mr. Robert Meagher: The whole development of science in recent years has changed radically. We have made a number of fundamental breakthroughs in relation to science. Just as the quantum theory was developed, there was a sudden breakthrough in a number of fields in science and that has certainly got a cumulative effect. I am not an expert in the history of patent legislation to be able to suggest why in the past this technique has not paid, but one of the reasons is obvious. If I wanted to come to India 300 years ago from New York, it would have taken me months and months.

Shri R. Ramanathan Chettiar: 300 days.

Mr. Robert Meagher: Today if I want to come to India, I can probably be here in 24 hours and in the 1970s if I want to come to India, I will probably be able to come here within eight hours. The narrowing of the gap in the world between people has meant an exchange of ideas, technology and so on as a result of which there has been more development. For that reason, I think, patent is now getting outside of the national boundary and there is more advance.

Mr. Chairman: May be, it is an unpleasant question, but I would like to ask whether it is because you confiscated all the German patents as enemy property that so much of research and development took place in America.

Mr. Robert Meagher: I do not think the American research has been dependent upon German research. Although you will find that Japanese and German patents were worked as

a result of the war, however, it would be a bit unfair to suggest that. If we take pharmaceuticals, out of the 450 patents issued during the past 20 years, 370 have come from the United States.

Mr. Chairman: I find several of your leaders, like Jefferson and several High Court Judges, saying in the inquiry held in the USA that the patent law is mainly to promote research and industry particularly of the country where the law is passed.

Mr. Robert Meagher: I think, every country is interested in developing its own technology and economy first. When you have development then you export. The problem is only to get started. However, there is a a trend in the world today which is much more international.

Mr. Chirman: Internationalism comes only when nationalism is satisfied.

Mr. Robert Meagher: That is true.

Mr. Chairman: Thank you very much.

Mr. Robert Meagher: May I just say once again that I want to thank you all for enabling me to come here. I consider it to be a great honour and pleasure to be able to come here. I hope, over the years as I keep coming back to India, we will have a chance to meet more often. Thank you very much.

Shri Sham Lal Saraf: May we reciprocate the same feelings.

(*The witness then withdrew*).

(*The Committee then adjourned*).

Minutes of evidence given before the Joint Committee on the Patents Bill, 1965

Friday, the 15th July, 1966 at 09.30 hours.

PRESENT

Shri S. V. Krishnamoorthy Rao—*Chairman.*

MEMBERS

Lok Sabha

2. Seth Achal Singh.
3. Shri Peter Alvares.
4. Shri Ramchandra Vithal Bade.
5. Shri Panna Lal Barupal.
6. Shri Dinen Bhattacharya.
7. Shri Bibhuti Mishra.
8. Shri P. C. Borooah.
9. Sardar Daljit Singh.
10. Shri Basanta Kumar Das.
11. Shri V. B. Gandhi.
12. Shri Kashi Ram Gupta.
13. Shri Madhavrao Laxmanrao Jadhav.
14. Shri Mathew Maniyangadan.
15. Shri Braj Behari Mehrotra.
16. Shri Bibudhendra Mishra.
17. Shrimati Sharda Mukerjee.
18. Shri Chhotubhai M. Patel.
19. Shri Naval Prabhakar.
20. Shri R. Ramanathan Chettiar.
21. Shri Sham Lal Saraf.
22. Shri A. T. Sarma.
23. Dr. C. B. Singh.
24. Dr. L. M. Singhvi.
25. Shri P. Venkatasubbaiah.
26. Shri Balkrishna Wasnik.

Rajya Sabha

27. Shri Arjun Arora.
28. Shri Vimalkumar M. Chordia.

29. Shri D. P. Karmarkar.
30. Shri P. K. Kumaran.
31. Shri Shyamnandan Mishra.
32. Shri Dahyabhai V. Patel.
33. Shri Mulka Govinda Reddy.
34. Shri M. R. Shervani.
35. Dr. M. M. S. Siddhu.
36. Shri Dalpat Singh.
37. Shri R. P. Singh.

REPRESENTATIVES OF THE MINISTRY OF INDUSTRY

1. Shri K. V. Venkatachalam, *O.S.D.*
2. Shri B. N. Atrishi, *O.S.D.*
3. Dr. A. Joga Rao, *Controller General of Patents, Designs and Trade Marks.*

REPRESENTATIVE OF THE MINISTRY OF HEALTH

Shri S. K. Borkar, *Drug Controller of India.*

DRAFTSMEN

1. Shri V. N. Bhatia, *Joint Secretary, Legislative Department, Ministry of Law.*
2. Shri R. V. S. Perisastri, *Deputy Draftsman, Legislative Department, Ministry of Law.*

SECRETARIAT

Shri M. C. Chawla—*Deputy Secretary.*

WITNESSES EXAMINED

I. Organisation of Pharmaceutical Producers of India, *Bombay.*

Spokesmen:

1. Dr. H. R. Nanji—*President.*
2. Mr. Keith C. Roy—*Vice-President.*
3. Shri A. V. Mody.
4. Mr. J. Reece.
5. Dr. S. L. Mukherjee.
6. Shri S. V. Divecha.
7. Shri J. N. Chaudhry.

II. Indian Chemical Manufacturers' Association, *Bombay.*

Spokesmen:

1. Shri J. H. Doshi, *Member, Executive Committee.*
2. Shri P. D. Nargolwala.
3. Dr. K. Subramanyam, *Secretary.*

I. **Organisation of Pharmaceutical Producers of India, Bombay.**

Spokesmen:

1. Dr. H. R. Nanji.
2. Shri Keith C. Roy.
3. Shri S. V. Divecha.
4. Shri J. Reece.
5. Shri A. V. Mody.
6. Dr. S. L. Mukherjee.
7. Shri J. N. Chaudhry.

Mr. Chairman: The evidence that you give is public. It will be printed and laid on the Table of the House. It will be circulated to all the Members of Parliament. Even if you want anything to be kept confidential, it will be printed and given to all Members.

We have received your Memorandum. It has been circulated to all the Members. If you want to make out any new point or stress any particular point, you may do so. Afterwards, the Members will ask questions and you may answer them.

Dr. H. R. Nanji: Mr. Chairman and the Members of the Committee: I take it as my very pleasant duty to thank you on behalf of the Organisation of Pharmaceutical Producers of India and my colleagues present with me here for giving us a welcome opportunity of submitting oral evidence before this truly representative Select Committee, which comprises of a select group of Members from Lok Sabha and Rajya Sabha. The manner in which this august Committee has been prepared to take evidence from all individuals and organisations. Indian and foreign, who have some knowledge to shed on the subject of patent system has been most exhilerating and satisfying. We know that this is not usual with the Select Committee. It is a great tribute to your open-mindedness and to the catholicity of the parliamentary system.

My colleagues and I are before you with a reckonable status on behalf of the Indian Pharmaceutical Industry. The Organisation we represent includes as members most of the important pharmaceutical manufacturers in India. In terms of manufacturing capacity, it represents more than 70 per cent and in terms of exports, more than 90 per cent. It embraces public sector as well as private sector companies including purely indigenous manufacturing units.

The Patents Bill contains some clauses which may be said to be discriminatory against the drugs industry and, therefore, is of vital importance to our members. The subject-matter covered in the Bill is so comprehensive and so highly technical that it is difficult for one person only to study all the aspects and be in a position to answer satisfactorily your questions. With your permission, therefore, I have taken the liberty of bringing with me some of my colleagues. I have pleasure to introduce them.

Mr. Keith C. Roy is the Vice-President of this Organisation and the Managing Director of Merck Sharp & Dohme of India Ltd. He joined the Indian Civil Service in 1935 and retired in the year 1952. He has represented India at various international conferences including the Colombo Plan Conference, Paris Peace Conference and meetings of the World Bank.

Mr. S. V. Divecha is the Secretary and the Legal Adviser of Hoechst Pharmaceuticals Ltd. He practised as a Solicitor in Bombay for 9 years and in the last over 6 years has been attending to patents and trade mark matters on behalf of this firm.

Mr. Chaudhry is the Executive Director of the Organisation. He worked with the Government of India from 1947 to 1960 in the Ministries of Communications and External Affairs. He represented India in the war torn Vietnam from 1960 to 1965 based at Hanoi. For sometime he was the Parliamentary Assistant attached with the late Prime Minister, Pandit Jawaharlal Nehru.

Mr. J. Reece is a Director of Glaxo Laboratories India Private Ltd., a Fellow of the Pharmaceutical Society of Great Britain and he has first-hand experience in pricing and sales.

Mr. Mody is the Chairman of the Development Council for Drugs and Pharmaceuticals, Government of India and the Chairman and the Managing Director of the Unichen Laboratories Ltd. He has considerable experience of researches done in National Laboratories.

Dr. S. L. Mukherjee is the Director-in-charge of Research in Sarabhai Chemicals Ltd. and has numerous patents to his credit.

Lastly, I am the President of the Organisation. My primary interest is in quality control being the Managing Director of the firm of Public Analysts and Consulting Chemists Italab Private Ltd. Besides, I am a Technical Director of Pharmed Private Ltd. and Wander Pharmed Private Ltd., both pharmaceutical firms. I have had the opportunity of studying the complete cross-section of the Indian pharmaceutical industry during the last 12 years, first as a member of the Pharmaceutical Enquiry Committee and later as Chairman of the Development Council of Drugs and Pharmaceuticals. Also I was a member of the Pharmaceutical Delegation to Russia in 1956 and Leader of another Pharmaceutical Delegation in 1963 to the United States of America, the United Kingdom, Germany, Switzerland and Japan. Our members were extremely happy to show round the plants to the distinguished members of this Committee in Bombay, Baroda, Poona, Calcutta, etc. It is my firm belief that these visits have been mutually beneficial: from your point of view to know the present status of the pharmaceutical industry and the future programme we have before us; and from our point of view to know the main points which are exercising your minds on the subject under consideration.

Today perhaps we are in a better position to discuss this subject in its proper perspective. With your permission I propose to give a brief expose highlighting some of the essential comments in our memoranda, explaining and elaborating wherever necessary.

An important feature of this expose is that we have suggested precise amendments to some of the vital clauses in the Bill. These amendments have already been circulated to the members. We will then be ready to answer the questions which the members may ask. For the reason I have stated, the question will be answered either by myself or by one of my colleagues who has made a special study in the relevant subject.

We have submitted to the Committee two memoranda: the first deals very briefly with our comments and suggestions on different clauses of the Bill; and the second, the supplementary memorandum, comprises a large mass of facts and data which are relevant to the subject.

Our principal motivation in submitting our views before the Committee are first to share only the true facts and secondly to be guided by what we wish to call the national and enduring interests of this country.

We have every reason to be proud of the record of the pharmaceutical industry in the period which has elapsed after Independence. Unlike many other industries, the pharmaceutical industry has met every Plan target. In the fields of production, import substitution and exports, we have done very well indeed. All this is lucidly brought out in the booklet called Indian Phamaceutical Industry, 1965. This booklet has already been circulated to the members.

Some hon. Members: We have not received it.

Dr. H. R. Nanji: We shall arrange to circulate it.

This booklet has been compiled and published on behalf of the Director

General of Technical Development, Government of India. It is an official publication and whatever is stated therein is based on facts.

For the benefit of the members we have prepared four charts. These charts have also been circulated to the members. The first chart shows the production value in rupees of pharmaceuticals from 1948 to 1965; this chart shows clearly how the production has risen from a mere Rs. 12 crores in 1948 to the expected target of Rs. 175 crores at the end of the Third Plan. The second chart shows the production of basic drugs in India in 1964; this chart shows the value of production of the major items of basic drugs such as antibiotics, sulpha drugs, anti-T.B. drugs, anti-dysentery drugs and so on.

Shri R. P. Sinha: Both private and public sector?

Dr. H. R. Nanji: Yes; both are included.

The third chart shows exports during 1958—65. The fourth chart shows the saving in foreign exchange and this is a measure of import substitution.

Shri Kashi Ram Gupta: I have not been given the charts.

Mr. Chairman: They have been circulated.

Dr. H. R. Nanji: Reference may also be made to Chapter 1 of the Supplementary Memorandum, which outlines also the economic contribution the industry has made to the nation. We wish to submit that the phenomenal growth of the pharmaceutical industry in this country has been largely due to the patent system which has been in vogue so far. This system for developed and developing countries has come to occupy a unique importance to both. In other words, it has to be recognised that the law relating to patents has to be reviewed in the international context in relation to capital investment, know-how and advancements made in research. . .

Shri R. Ramanathan Chettiar: Without sacrificing the national interest.

Dr. H. R. Nanji: It can never be approached or dealt with in isolation.

In the second Chapter of the Supplementary Memorandum, the role of patents in the transfer of technology to India has been dealt with exhaustively. We have illustrated what phenomenal progress the pharmaceutical industry has made in the last decade owing to adequate patent protection and have highlighted the adverse effects which must follow the weakening of patent protection not only on the transfer of technology from abroad but also on investment, research and export. No doubt, it is the sovereign right of every government to devise legislation most suited to that country or in the best form of enlightened self-interest. In fact, the kingpin of our argument is that we should stand guided by enlightened self-interest. Our Prime Minister said recently that nations have become increasingly inter-dependent in the modern age and our efforts should be to work together. The time has long past when we could afford to live as frogs in the well. The highest calling of the scientist is the development of knowledge in the service of mankind.

We are convinced that fruits of advancement in the pharmaceutical field, wherever made, should be available and acceptable to all people and our people are no exception. It is very relevant to examine the progress made by a number of countries under the patent system. The first country which we, as Asians, would like to consider is Japan. Before I state some facts about that country, I wish to correct a totally incorrect statement that has been recently made, namely, that Japan has progressed as they had no patent regulation prior to the War. That country has had

Patent Law going as back as 1885, became a Member of the Paris Union in 1889 and the present strong Patent Law had its origin in 1921. The latest amendments in 1959 only serve to make the patent protection even stronger. A country completely impoverished in defeat, industrially ruined and politically shaken has risen in economic heights never known before. In the pharmaceutical industry, it is to-day second only to the U.S.A. with a production figure of Rs. 550 crores in 1964 for a population of 90 millions as compared with about Rs. 140 crores in 1965 in India for a population of 450 millions. In standards, it compares with the most advanced countries of the world and its products are imported by the U.S., Germany, France, U.K. and many Far Eastern countries. Out of the total pharmaceutical exports of Rs. 23.71 crores in 1964, the value of exports to the U.S. alone was Rs. 3.6 crores more than our total exports in pharmaceuticals. Its research expenditure on pharmaceuticals only in the year 1964 was Rs. 17.9 crores.

We are very sensitive in regard to royalty payments for technical know-how. In the year 1964, Japan made the royalty payments to the tune of Rs. 69 crores. She earned only Rs. 8.5 crores as patent royalty which means that the net minimum payments amounted to Rs. 65.5 crores. I make bold to say without any fear of contradiction that this remarkable achievement of Japan is due to three factors:

(1) Strong patent legislation safeguarding the essential interests of the inventor;

(2) Very free acceptance of foreign know-how from almost every advanced country in the world; and

(3) Payment of adequate royalties to the patentees.

You have heard the evidence of the Japanese Delegation. They are convinced that the cross-flow of technical know-how and cross fertilisation of know-how in international commerce is possible only under a complete protection of Patent Law. We have given in Chapter 8 (in our supplementary memorandum) a more detailed study on Japan. The evidence tendered by the distinguished Japanese Delegations must have given a very clear picture of this spectacular progress in pharmaceuticals in Japan and how this has been achieved. This classic example is well worthy a close study and emulation by our country.

Germany's example is not different from Japan in terms of the impoverished state it found itself in after World War II.

The example of Italy has been frequently misquoted in recent years. It has been stated that Italy has a flourishing pharmaceutical industry because there has been no Patent protection for drugs in the last two decades. It has also been stated that for the same reason the prices of drugs in Italy are the least. Both these statements are probably wrong. For the benefit of Members, we have included a Chapter on the Italian Pharmaceutical Industry in our Supplementary Memorandum Chapter 7.

In this regard, Members have had the benefit of the oral evidence of a very eminent Italian, Professor Bergami. I am certain he must have cleared many of the misconceptions alleged to be associated with the existence of a non-patent system in Italy in the field of pharmaceuticals.

Europe, Japan and America belong to one school of thought on the patent system. There is however a delightful identity in this field between this group and East Europe. The United Soviet Republic, Czechoslovakia, Yugoslavia and other East European countries all adhere to a strong patent system and are members of the Paris Union. The essential requisites for becoming a member of the Paris Union is to have a national patent legislation which gives adequate pro-

tection to the inventor and does not erode his rights. It is not so long ago that Russia has joined the community of nations for the exchange of information and know-how in science and technology and as a result, it has taken up membership of the oldest international institution on patents, the Paris Union.

Shri Peter Alvares: May I ask one question? It would be better if he goes to other aspects instead of reading the whole thing.

Shri Sham Lal Saraf: Let him have his full say.

Mr. Chairman: You can continue.

Dr. H. R. Nanji: The significance of this development is only too obvious. It certainly means that on at least one subject of international importance, East and West meet on one platform and conform to certain identical standards which should form a basis for ourselves. In the sixth Chapter of our supplementary memorandum, we have given a resume of the Patent Laws in some of the important countries in the world covering essential aspects only of such laws in respect of period of validity of patent, patantable subject matters, compulsory licences and licences of right, Government use of patents and expropriation. In the 9th Chapter, the factual data on a number of important subjects relevant to the Bill have been given. Some of these have been compiled for the first time in India and shall replace the erroneous conjectures and statements made from time to time. Other explanations apart, this organisation and the delegation appearing on its behalf have, for very good reasons, drawn heavily on the report of Justice Rajagopala Iyengar. You will agree that he took three years in completing this report. He is highly respected and an eminent judge of the Supreme Court and made a thorough, intelligent and detailed study of the subject. He deserves by and large acceptance and respect from all of us. Since the time he submitted his report and now, the economic developments in the world, more so in our country, point to one conclusion only that the Patent system is the greatest instrument to stimulate industrial research, and through it ever-growing industrial progress and growth. Countries are the warp threads and international economic co-operation in science and technology are the weft threads of the fabric of peace. The more the wefts the stronger the peace.

Sooner than later India has to join the Paris Union so as to belong to the progressive group of countries on whose support and co-operation this Union thrives. A Model Law for developing countries on inventions has been drafted by a Committee of Experts under the auspices of the United International Bureau for the Protection of Intellectual Property. This is known as BIRPI. It was composed of 22 countries including India out of a total of 69 countries which consider themselves as developing countries. In formulating our views we have drawn on this report, again for good reasons. Conformity with the recommendations of this report will make it easier for us to gain membership of the Paris Union.

Shri R. Ramanathan Chettiar: May I draw the attention of the witness to Justice Rajagopala Ayyangar's report on patent legislation where it is mentioned that USA. virtually confiscated all German patents during the Second World War.

Dr. H. R. Nanji: Before I venture to explain this Organiation's views on the important clauses of the Bill, I wish to state that we only desire to contribute our views in the hope that the Bill as finally drafted will be wholesome, practical and helpful to the growth of the pharmaceutical industry of India which is so vital for the good health of the nation.

I will now come to the consideration of a few of the important clauses to which reference has been made in our memorandum.

First is Cl. 2(h)—page 12 of the memorandum. Let me first draw the attention of the Committee to our comments on the definition of 'Government Undertaking'. Under clauses 99 and 100 I wish to discuss why 'public sector undertaking' and 'any other undertaking' should not be included in the definition of 'Government Undertaking'. To the best of our knowledge no country in the world includes Universities, research institutions or other scientific or technical institutions in such a definition for the simple reason that this is tantamount to withdrawal of the effective value of patent protection over a wide field. Mr. Justice Ayyangar also expresses the very same view. We do accept that Universities and research and other institutions need the use of patented invention for the purposes merely of experimenting or doing research including the imparting of instructions to pupils. These needs have been provided for adequately in Cl. 48(d) of the Bill. The amendment we have suggested has been placed on the Table and in respect of this clause 2(h) we have recommended that sub-clause (ii) and sub-clause (iii) be deleted together with the following words from clause 2(h) 'Council of Scientific and Industrial Research..... major part of the Government.'

Now, on clause (5) the Minister for Industry in introducing the Bill in the Lok Sabha has made some forceful remarks regarding process/product patents. I, therefore, wish to take a little of your time to explain the stand taken by this Organiation OPPI.

For the first time the Indian patent law makes a distinction between different clauses of inventions in regard to the type of protection and this clause restricts the claim to the processes only in the case of foods, drugs and substances prepared by chemical processes. There is not the least doubt that there is an increasing trend in the world both in developing and developed countries to grant product protection *per se* in respect of inventions for drugs and medicines. The reasons are obvious. A very large majority of inventions in the field of drugs and medicines are produced by synthesis and the process of manufacture generally does not involve any novel principle. Nor does it constitute a significant part of the research work leading to the discovery of a new medicine. It is the far more exhaustive testing itself—bacteriological, pharmacological and clinical—of thousands of compounds out of which one may finally emerge as the useful drug that represents the justification for patent protection. With little research effort one can work out in many cases an alternative process and thereby circumvent the process patent of the original inventor. It works, therefore, unfairly to the disadvantage of the first inventor. However, there are some scientists and technologists who held the view that in the present stage of development of science and technology in this country product protection may run counter to the interests of indigenous research and technology. Therefore, we suggest that, for the present, in that field of articles of food, medicines and drugs the protection be extended to the process of manufacture and to the products produced by such process.

However, the main difficulty in accepting process patents is the necessity for the patentee to provide burden of proof in case of alleged infringement. This is difficult and well nigh impossible especially when the drug or medicine is imported from abroad to prove that the infringer has used the process claimed in the patent specification. It is usually necessary to gain access to his plant which neither the patentee nor probably the Court can enforce. This difficulty has been clearly recognised in the BIRPI report. To overcome this difficulty the BIRPI report has made a provision under Sec. 51 that in respect of process patent the product is presumed to be made by the patented process unless proved to the contrary. That is, the burden of proof

should lie on the alleged infringer. All industrialised countries having only process protection, for example, Japan, Germany Switzerland, etc. and even the East European countries such as Poland and Yugoslavia have provision to this effect in their respective patent laws.

This organization very strongly urges that the Indian patent law should also contain a similar provision to protect the inventor. The exact wording of the clause is given in the suggested amendment.

Clause 47: In some knowledgeable circles a view has been expressed that the process protection granted under clauses 5 and 47 of the Bill may not be effective to cover the importation of the product made by the particular process patented in India. According to a UK decision where the patent is not for an article but is only for a process, the protection covers not merely the patented process but also extends to the articles when made by the use of the process whether such use is within the country or abroad so that importation or sale of an article made abroad by the patented process would be an infringement of the process patent. Justice Ayyangar in his report on the revision of patent law has recommended the adoption of the Rule followed by U.K.

The Bill does not specifically state that importation into India of a product made abroad by a process patented in India will amount to an infringement of the patent. It is submitted that in order to set at rest any future controversy, Section 47 should be suitably amended to secure that the importation of a product made abroad by a process patented in India will be deemed to be an infringement of the patent.

Coming to clause 48, this is from our point of view, a very important clause. This clause takes out from the sphere of infringement of patent rights a wide variety of operations if they are done by or on behalf of the Government. It permits the Government to use a patented invention or to import a product covered by a patent without any compensation to the patentee. The exercise of Government's rights under this clause is not subject to judicial assessment by an independent tribunal. Let us briefly examine the detailed implications. Firstly, if this clause were enacted, the provisions are cast in such wide terms as to confer on the Government which is a major consumer of many products, almost unlimited powers to infringe patent rights.

Secondly, this clause goes counter to the very basic idea and philosophy for the grant of patents given in clause 83 which states that patents are granted to encourage inventions and to secure that they are worked in India on a commercial scale and to the fullest extent. It does not need much imagination to see that if clause 48 were enacted it would encourage the import of pirated goods under circumstances of grossly injurious and unfair competition to the home industry. Moreover, it would subject indigenous industry to loss of patent protection over a wide field.

Thirdly, the constitutional propriety of a clause which permits the Government the use of patents which are a species of intangible property, without payment of reasonable compensation and without due process of law, needs careful examination. We concede that it is the duty of Government to ensure that the laws of the country pay due regard to the national economy. The rights of Government to import a patented product or to make use of patented invention are amply provided for in clauses 99, 100 and 102. Under these clauses, Government has the right to import a patented article and use a patented invention. But the fundamental difference between these clauses and clause 48 is that the exercise of Government's

rights is subject to payment of compensation and in default of an agreement, compensation has to be determined by a reference to the High Court under clause 103.

I shall have something more to say on these two clauses a little later. The relative provisions of this clause 48 do not find a parallel in the patent laws of any country in the world. We strongly urge the deletion of clause 48, particularly as there are adequate provisions in the Bill for use of an invention by the Government for certain specified purposes.

We then come to clause 53. Here again for the first time in India, this clause discriminates in the term of a patent in respect of inventions of drugs and medicines. Not only has the period of validity been reduced to 10 years for new patents, but the term of all existing patents relating to drugs and medicines has also been reduced to 10 years. Lastly, the provision for extension of a patent in the existing patent law has not been included in the Bill. In the memorandum we have made detailed comments on this clause. We have reviewed the position in other countries of the world and have laid stress on the likely adverse effects if this clause is enacted in its present form.

Apart from anything else, this Committee must consider what damage this clause will inflict upon Indian patentees. Our own scientists are beginning to produce results, some of which are patentable. If we are to put limitations on the period of validity our own scientists will suffer. Sir, it has to be emphasised that the time-lag between the date of application for a patent and the manufacture of a patented article in India is extremely long for items covered by the drug industry due to a number of additional steps which are necessary under the Drugs Act and under the Industries Development and Regulations Act. It is not impossible that in many cases a patent will be almost due for expiry before completing the procedures that are necessary before commercial manufacture of a new drug is possible. Therfore, if the time is reduced to 10 years, it would in effect, in some cases be as good as abrogation of patents in the field of drugs and medicines. There is hardly any country in the world which provides for a term of 10 years in respect of patents for drugs and medicines without making adequate provision for the extension of the term. We recommend that the provision in the existing Act for exetension of the term of the patent when Government are satisfied that the patent has not been sufficiently remunerative, be retained in the Bill.

As regards patents granted under the existing Act, there can be no doubt that by reducing the term to 10 years, a patentee is deprived of his rights in the patent vested in him by the old Act. This deprivation would surely raise legal issues and needs careful examination.

In the amendment to this clause which we have proposed, we have recommended 14 years from the date of the patent. But if this is unacceptable, we have suggested as an alternative—but only as a rather poor alternative—a term of 10 years from the date of sealing of the patent.

Next clauses 87 and 88. These two clauses are among the most important in the Bill and a correct reappraisal by the Joint Committee of the deep issues involved will go a long way towards sustaining the healthy development of the drugs and chemicals industries and ensure a proper climate for research and investment in India. Clause 88 compels the Controller to grant a licence without taking into consideration the basic minimum requirements of the applicant for a compulsory licence under clause 84 as specified in clause 85. The order of the Controller fixing the terms on which the licence shall be

granted is not governed by the provisions of clause 92 pertaining to the procedure for dealing with applications for compulsory licences. The applications made under clause 88 can be summarily disposed of by the Controller. No appeal has been provided for. It has been our firm belief that the automatic endorsement of patents relating to drugs with the word "licence of right" and the resulting automatic grant of licence by the Controller to any applicant, will result in chaos and will have profound effects in a number of directions which have been narrated in the memorandum on pages 52 and 53. There is not the least doubt that these provisions will hamper industrial progress and restrict research and inventive innovation in the country in the field of drugs and chemicals. The ceiling of 4 per cent royalty and other remuneration in the field of drugs and medicines is another discriminatory provision and will impede the smooth flow of know-how. There is also no substance in the argument that the costs of drugs are high, because royalty payments are exorbitant. All royalty payments are strictly regulated by the Government and their incidence on the cost of drugs has been shown to be negligible. Justice Ayyangar in his Report after having considered the patent systems of various countries came to the conclusion that it is not feasible to arrive at a uniform rate of royalty which would be reasonable for licences in respect of each and every invention and he recommended that it is not desirable to fix statutorily the maximum rate of allowable royalty. The Model Law for developing countries prepared by BIRPI stipulates that a compulsory licence shall only be granted subject to the payment of adequate royalties commensurate with the extent to which the invention is worked. In Italy, the Patent Law which will shortly be introduced lays down that the payment of royalty shall be fair in relation to the importance of the invention, its expected economic return, the duration of the licence and every other factor relevant to its use.

We fully subscribe to the stipulations in that Patent Law. The industry is aware of the reasons why applications for compulsory licences under section 23(CC) of the existing Act are very few in number and that such applications have been finally adjudicated upon only after considerable delay, expense and inconvenience both to the applicant as well as the patentee. We desire to make some concrete and specific recommendations to improve the present compulsory licensing procedure and we do respectfully submit that this clause 87(I) in regard to 'Licence of Right' is totally unnecessary, as all our legitimate objects will be positively met without difficulty if our suggestions are accepted. Automatic licensing will bring about a situtation similar to that in Itlay which the Italian Government are now trying to put right. Our specific recommendations are—We concede that Government should designate certain vital areas such as drugs and medicine in which compulsory licence could be made available at any time i.e., even before the waiting period of 3 years. We do not, however, agree that compulsory licences should be granted for inventions relating to drugs and medicines by the Controller automatically, Licence of Right without taking into consideration the basic minimum requirements to be fulfilled under clause 84 as specified in clause 85.

There should be no ceiling on royalty and we recommend to the Committee adoption of the principle in the Italian draft Patent Law, namely. that royatly should be fair in relation to the importance of the invention, its expected economic return, the duration of the licence and every other factor relevant to its use.

We recommend that the Controller should be directed to decide applications for compulsory licence in the field of drugs or medicines as well as in other fields within a specified time of 3

months and that the application of clause 84 should be modified to this extent. We also recommend that the Controller may permit the applicant to work the invention pending a final decision on the terms if he is satisfied that the conditions specified in clause 85 have been adequately met. And finally, we recommend that an appeal against the decision of the Controller as to the grant of a compulsory licence and the terms of such licence including the payment of royalty should lie to a judicial tribunal which should in its turn decide the appeal within a specified time, say, of three months. The amendments incorporating these recommendations are before you.

Clause 95: Sub-clause (3) of clause 95 of the Bill empowers the Government to authorise any licence to import the patented article from abroad on terms and conditions which are not specifically laid down. This clause does not provide for payment of any royalty or compensation to the patentee. No appeal has been provided for against any action taken under this sub-clause. We submit that provisions of this sub-clause (3) are contrary to the general principles applicable to the working of patented inventions as set out in clauses 83, 94 and 95(2) of the Bill. The Patent system in general and the compulsory licensing provisions in particular aim at promoting the working of the patented process within the country and importation will certainly be not in conformity with this aim of encouraging indigenous industry. We respectfully submit that clause 95(3) is illogical in the context of clauses 84 and 85 in that having granted a compulsory licence for the purpose of working the invention in India, clause 95(3) suddenly permit the Government to do the very opposite namely to import. This clause puts in reverse the object of clause 84, namely, encourage the production of the invention in India. Moreover, Government had adequate powers to import a patented product for the purpose of the Government, under Chapter VII of the Bill. Therefore, sub-clause (3) of clause 95 is entirely unnecessary and should be deleted.

Clauses 99, 100 *and* 102: Chapter XVII deals with the use of inventions for the purposes of Government and acquisition of invention by the Central Government. These clause empower the Government by mere notification to authorise not only Government Departments but also Government undertakings and any other undertaking in the private sector to make use of the patented invention for the purpose of Government having regard to the interests of the general public. The use has to be on agreed terms or as determined by the High Court, in default of agreement. Secondly, it permits Government to acquire the invention outright for Government use. These clauses place no limitation whatsoever on the industries that may be included or in the specific circumstances under which the powers can be exercised and give the Government indefinite general power to give firms patent rights to which they have otherwise no entitlement. These clauses, therefore, lead to a serious erosion of patent rights.

We do concede the right of the Government in certain specific circumstances to use an invention for the purpose of the Government. But such use should only be for the purpose of the Central Government or a State Government or a Government undertaking as defined in this memorandum. There is no justification to extend such use to a Corporation, public sector undertaking, established by a Central or State Act because these public sector undertakings are indeed commercial concerns and it is only appropriate that they should apply for compulsory licences just as any private sector undertaking is required to do. There is no justification or there is even less justification to extend use of inventions to any other undertaking in which the Government has no interest at all.

Secondly, it is imperative that the vital areas in which the use of an invention for the purposes of Government may be permitted should be clearly defined. We have accordingly recommended that such use by Government should be restricted to certain specific purposes such as to meet the needs of national defence, national economy or public health (epidemics).

Thirdly, it is our submission that the powers of the Central Government under clause 100 should not be exercised before granting the patentee an opportunity of being heard.

Finally, clause 102 pertaining to the acquisition of an invention by the Central Government should be deleted as there are no legitimate reasons for such a complete appropriation of industrial property rights. In any case, the acquisition of an invention must be restricted to certain specific public purposes, such as the defence, the emergency or an epidemic. The suggested amendments giving effect to the above submissions are before you.

Clause 116.—This clause deals with appeals. We submit that the denial of a judicial review from the orders of the Controller or the Central Government is an unwarranted departure from basic principles. Industrial property rights are the same as any property and if they are to be expropriated, a citizen must have the right of adjudication on his compensation by a completely independent tribunal not subject to administrative control. If the Indian Constitution is to preserve democracy, there can be no appeal from *Caesar* to *Caesar*. In the memorandum we have reviewed the position in some other countries and have made a pointed reference to Justice Ayyangar's comments and the recommendations in the Model Patent Law prepared by BIRPI. This organisation has made the following concrete recommendations regarding appeals keeping fully in mind the necessity of obviating delays.

(1) An appeal against the decision of the Controller as to the grant of compulsory licence should lie to the Appeal Tribunal.

(2) Where no appeal is provided against the decision of the Controller or Government or where an appeal is provided to the Central Government, the orders or directions of the Controller or Central Government, as the case may be, should be appellable to a statutory judicial tribunal constituted on the lines of the Income-tax Tribunal or the Sales Tax Tribunal. In short, we ask for a tribunal not subject to administrative control.

We have suggested the amendments which are necessary in clause 116 and they are before you.

Clause 158.—The High Court and Appeal Tribunal may make rules consistent with this Act as to the conduct and procedure in respect of proceedings before them under this Act. My colleague, Mr. Divecha, will be pleased to answer any question on this clause or indeed on the legal aspects of any other clause.

I have dealt today only with clauses which we consider of very great importance. There are a number of other clauses, for instance, clauses 2(g), 2(b), 3(d), 25, 64, 89, 96, 102, 103, 112 and 162 on which this Organisation have made some submissions, but I do not wish to repeat them.

I have taken some time in presenting our views on various clauses of the Bill. We have tried to justice to the principles underlying the patent system. There are two or three certain other general aspects on which some explanation is due. I wish to say a few words on prices, investment, profitability, dividend and research.

We know that the question of drug prices is agitating the members of this Committee. Also some associations and companies, institutions and individuals have drawn attention to this question. Before I proceed to deal with some salient facts about

drug prices me make one pertinent observation regarding those who have expressed views, and at times vehement views, against patents.

One knows that there is one factor which is common to all these. Every one of them have had against them proceedings for infringement of patent. Some of these proceedings still await the decision of the Court. Therefore, the opposition to patent is due, if I may suggest, more to their self-interest. I make this statement with the full knowledge of the facts.

It is pertinent to point out, as shown in the chart of wholesale price index, which was circulated yesterday, that while prices of all commodities have been going up considerably for the last many years, drugs and medicines are among the few items where prices have either declined or held successfully at steady level. In the supplementary memorandum, we have dealt with the question of drug prices in considerable detail, particularly in relation to patents and have drawn pointed attention to some of the glaring fallacies. I should like to touch briefly upon some of the conclusions in this Chapter and make a few pertinent observations.

First, we have shown conclusively that patents as such are only one of the contributory factors to the price of drugs. There are many other much more significant factors which contribute to the price of drugs. We have given an effective answer to the oft-repeated allegation that "patents result in high prices" by (a) comparing the indigenous price and the *c.i.f.* cost of 15 essential non-patented drugs, and (b) by comparing prices of several important drugs in Italy (where there is no patent protection for drugs) with those in other countries such as Britain, Germany, U.S.A., Japan, etc.

The price of a manufactured item is dependent upon the cost of raw materials and the cost of production. There are innumerable factors which have relevance, and over which the industry has no control. If devaluation has proved anything, it is this that the cost of production in this country, because of various factors, is far higher than in other developed countries.

It has been persistently stated by persons who have no knowledge of the position that the cost of the basic ingredients which contain the therapeutic value in a tablet or a capsule or an ampaule is an anfinitesimally small portion of the price charged to the consumer. Such comparisons are completely fallacious. It is like comparing the cost of the raw cotton that goes into a man's shirt, or the value of the wheat, flour and sugar that goes into a packet of biscuits, or the value of the raw tobacco which goes into a pack of 10 cigarettes. The weakness and bias of such arithmetic is obvious. Moreover this difference in the price of the ingredients and of finished product to the consumer is by no means restricted to patented drugs. Take the example of Penicillin vials produced by Hindustan Antibiotics. The cost of ingredients of a vial is 4 P. and the price to the consumer is 42 paise.

Secondly, we have shown clearly that the oft-repeated quotation from the Kefauver Report that "drug prices in India are uniformly higher than in other countries" is not true. To prove this, we have collected the domestic prices to the Public in West Germany, United States, Italy, U.K., Japan and India and for those drugs specifically referred to in the Kefauver report. This table has been placed on the Table this morning. I should like to apologize for the delay in submitting this table.

Shri K. V. Venkatachalam: It has not been circulated.

Dr. H. R. Nanji: We gave it this morning.

Shri R. P. Sinha: We want to have copies of charts distributed this morning.

Dr. H. R. Nanji: Charts were circulated yesterday. This Table which has been circulated shows two things quite clearly. The first is that the prices of drugs in India are not uniformly high as alleged in the Kefauver Report, and secondly, the price of drugs in Italy is not uniformly low because of lack of patent protection. Take for example, Tetracycline Caps. 16 x 250 mg. Price in Germany for Aureomycine is Rs. 30.76. for Terramycin 25.11; in the United States, it is Rs. 20.70 and Rs. 23.36; in India it is Rs. 17.71 and Rs. 17.44. Similarly, take Chloramphenicol Price in Germany is Rs. 30.34; in the United States it is Rs. 18.43 for 100 mg., not for 250 mg; in Italy Rs. 9.98; in U.K. Rs. 12.44; in India Rs. 12.00. Take Librium. Price in Germany is Rs. 5,41, in U.S.A. Rs. 22.39; in Italy Rs. 4.76, in U.K. Rs. 6.03, in Japan Rs. 4.46 and in India Rs. 4.40. And like this we go on to the various other items which include Prednisolone, Procaine Penicillin inj., Penicillin Sodium inj., PAS Tabs, etc. etc.

It is to be noted that these are pre-devaluation comparisons. One immediate effect of devaluation is to alter all the price relationships given in the Memoranda and during this oral evidence. Calculated at devalued rates prices of drugs in India become the lowest in the world.

It has clearly been shown that the domestic prices of different drugs in different countries vary considerably. It is imperative to note, as stated in the Supplementary Memorandum, that the domestic prices of pharmaceuticals in different countries cannot be properly compared without a detailed interpretation of many factors such as duties and levies, taxes, cost of raw-materials and labour, commissions and discounts to wholesalers; the transfer of knowhow; the licensing position, participation in the cost of the basic drug research, etc. In this context of this Bill it is that any attempt to relate prices in one country with those in another is not by itself meaningful. All the comparisons made during the pre-devaluation period are now proved to be based on artificially high value of the rupee. Particularly, we have drawn attention to the basic fallacy of using as a basis the so-called international prices of drugs for comparison with Indian prices. There are, in fact, no such international prices. Generally, prices which have been quoted by countries like Italy and certain other East European countries are referred to as international prices. There is no doubt that such prices are generally dumping prices and these can readily be proved by examining the domestic prices of the same drugs in these countries. Members are, no doubt, aware that many countries including India for a variety of reasons export several commodities at dumping prices.

Broadly, we have dealt at some length on the usual practice of critics selecting one or two drugs that a particular company manufactured in India and seeking to make price comparison with so-called international prices which are claimed to be very much lower. Reference is frequently made to Taracyclin, chloram Phenicol, librium, vitamin B^{12}, vitamin B^{6}, tolbutamide, etc. We have submitted cogent arguments in the Supplementary Memorandum why such comparisons are erroneous and conclusions drawn from them invalid. It is also fallacious to pick out one or two drugs of a company for examination of prices. A well meaning critic should examine the total profitability of a company. If this is done a very different picture emerges.

Finally, we submit that the questions of prices and profits have to be examined independently. Specific suggestions have been made in regard to the steps that might be considered should Government come to the conclusion that the prices of some drugs in India require examination. The Government of India have adequate powers under existing legislation to control the prices of any commodity including drugs and pharmaceuticals.

All that we ask is that instead of indiscriminate condemnation of the industry as a whole proper steps should be taken to get the cost structure investigated by a statutory body such as the Tariff Commission if Government considers it necessary. Government can rest assured that this Organisation will cooperate fully in this matter.

Some people have the feeling that profitability in the pharmaceutical industry in this country is very high indeed or more than reasonable. I hope I can speak on the ground that hon. Members here do not abhor profitability as such. However, the Prime Minister said the other day in her address to the senior executives from the Public Sector Undertakings that unless the Rs. 2000 crores investment in the public sector brings to the Government offers reasonable profits the whole base of creating this sector would be considered futile. The concensus of opinion at this meeting in respect of profit was that it should be accepted as a test of efficiency and this is distinct from profiteering. More important than this the meeting seemed to accept the principle of a 20 per cent profit return on equity *plus* reserves. The whole sense of the Conference was that our industrial units should pass the tests of profitability, service and growth. My colleague, Mr. Reece, will be pleased to answer any questions on prices.

In the third chapter of the Supplementary Memorandum a resume has been given on investment, turn-over, profitability, dividends, etc. in the pharmaceutical industry in India. Some statements have appeared in the Reserve Bank bulletin on investment, profitability, etc. and we have drawn pointed attention to one basic fallacy in these statements on the definition of capital employed. We have discussed this matter with a very senior officer of the Reserve Bank and he agreed that capital employed must include all moneys used in a business including reserves and even including long-term loans and not the paid-up capital only. A different picture of the pharmaceutical industry in respect of profits, dividends, royalty, etc. emerges if the correct figures of the capital employed are taken. I should like to draw the attention of the Members of the Committee to the figures of dividends as percentage of net worth published in the Reserve Bank bulletin for November 1965 for several industries. These figures show clearly that dividends in the pharmaceutical industry are certainly not high. May I also draw the attention of your Committee to the findings of an independent survey of the pharmaceutical industry conducted by a firm of reputed Chartered Accountants on behalf of OPPI. Full details of this survey which is considered statistically significant are given in chapter 3 of the Supplementary Memorandum. I wish just to refer in brief to some of the important points. The net profit after provision for taxation and development rebate reserves available is 8.3 per cent of turnover; the total overseas payments in the form of dividends, royalties and technical fee represented only 3·1 per cent of turnover. By any standard these are modest returns compared with other group of industries. The pharmaceutical industry's financial position viewed from all angles cannot be termed as making huge profits. My colleague Mr. Roy, who has considerable experience of finance, will answer any questions on the subject of profitability, dividends, etc.

Research is the lifeline of the pharmaceutical industry and the base of growth of industry in each country has been in direct proportion to the amount of effort and money expended in fundamental and applied research. In the Fifth Chapter of the Supplementary Memorandum we have reviewed the question of research for the pharmaceutical industry. We have stated candidly what has been done in India; what remains to be done and what are the problems and difficulties. The statement that no research or

very little research, if at all, is being carried out by the pharmaceutical industry in India is not correct. Almost all enlightened pharmaceutical companies in India have up-to-date product development and quality control laboratories. Basic research has also been carried by several old established firms, such as, Alembic, Sarabhai, Bengal chemicals, etc. as well as by Hindustan Antibiotics. Nevertheless, it is to be admitted that the country's output in terms of basic research has still a long way to go. There are three fundamental reasons for this situation; first, basic drug research is extremely costly in terms of capital investment and recurring expenditure. America's research budget is approximately Rs. 175 crores per annum which is higher than our total production of pharmaceuticals in India. For each new drug discovered in the last decade, the industry has spent something of the order of Rs. 2½ crores in research and development. Basic research much sustain 3,000 or more failures to one successful new drug. Such massive outlay in research is only possible when our industry has grown sufficiently. Secondly, basic research must be undertaken as a coordinated effort in diverse fields of scientific endeavour by a team of experts.

Mr. Chairman: You need not repeat what you have said in your memorandum. You must leave some time for our Members to put questions.

Dr. H. R. Nanji: If complete information is made available to hon. Members about the two new drugs discovered by Hindustan Antibiotics, it will support our contention regarding the time it takes between discovery of a drug and its commercial manufacture. Hamycin was discovered in 1960 and after six years they have been able to commercially manufacture only a few kilos of this drug in spite of the favoured treatment given to public sector undertakings. The rate of royalty fixed by the Government of India, it is understood, is 5 per cent minimum for this drug, while for the other, Dermostatin, it is 7½ per cent. According to press reports quoting the Minister of Petroleum and Chemicals Government will earn a royalty of Rs. 30 lakhs. The cost of of the new drug is Rs. 20,000 per kg. which is very high indeed, but this high cost phenomenon is generally applicable to all new discoveries. This company is seeking patent protection in foreign countries for a maximum period. What is sauce for the goose is sauce for the gander.

Patents are by no means symbols of foreign domination in either a political or economic sense. They make no inroads into our intellectual or scientific progress. It is an international institution to which all progressive-minded individuals and nations have voluntarily given acceptance. We cannot afford to ignore world experience, universal concensus, the UN recommendations and most of all, the recommendations of a very eminent Supreme Court Judge who made an impartial study of the subject over a period of years. If we pursue a dogmatic policy with obstinacy, it will kill the goose which has laid many golden eggs and promises to lay many more. We cannot put the clock back in the field of international co-operation. While inaugurating the new ordnance factory early this month, our Prime Minister said:

> "Technology is progressing so fast that there is no sense in trying to duplicate all the effort when we can exercise the power of choosing the best results obtained elsewhere."

This is the logic of technological co-operation. The system of patents plays a major role in the intellectual field that is without paralled. Never before has man unlocked so many secrets of nature and applied them for the benefit of mankind. The stimulus of the patent system must be permitted to produce products and processes that will create jobs,

improve the health and well being of our country men and contribute to the social and economic aims of our country.

My colleagues and I have been extremely painstaking in preparing the presentation which I have placed before you. Your conclusions will be taken as almost the concensus of public opinion on the vital legislative measure before you. To that extent your responsibility is greater. My colleagues and I appeal that you may consider our views dispassionately and impartially and strictly on the merits of the subject.

Shri Bibhudhendra Misra: What according to you, is the total investment in the pharmaceutical industry?

Shri S. V. Divecha: Rs. 56 crores in 1962. It is estimated to be Rs. 150 crores by the end of the Third Plan, and the Fourth Plan figure is expected to increase to Rs. 190 crores. This amount represents only equity capital and not working capital, ploughed back profits etc.

Shri Kashi Ram Gupta: What is the total membership of your organisation, and out of it how many are Indian-owned firms with Indian capital, and how many have foreign collaboration and how many are totally foreign-owned?

Dr. H. R. Nanji: I have not got the exact breakdown, but I would say that our membership is 69, which includes most of the important companies having foreign collaboration, firms like Alembic, Unichem etc., which have no foreign collaboration, and two public sector undertakings.

Shri Kashi Ram Gupta: Can you give these figures later on?

Dr. H. R. Nanji: Yes.

Shri Kashi Ram Gupta: Also the figures about the total capital investment in those companies owned by Indians and in those owned by collaborators or foreign firms, excluding the public sector.

Dr. H. R. Nanji: Certainly we shall provide.

Shri Kashi Ram Gupta: On page 14 of your second memorandum you have given the percentage on the basis of the turnover, but it is not a percentage on the basis of profit on capital investment. What is the reason for giving this on the basis of turnover instead of on capital investment?

Shri Keith C. Roy: As my colleague has said, we have made very serious attempts to try and place the financial position of the pharmaceutical industry in its proper context, and I would, with your permission, like to refer, in order to try and answer the question which the hon. Member has put, to the two articles in the Reserve Bank Bulletins of November, 1964 and November, 1965 which I hope will give some indication of the exact figures and the financial status of the pharmaceutical industry when measured by accepted financial standards.

Shri Kashi Ram Gupta: My point was quite different. My point is, what is the reason that the percentage of your total payments is based on the turnover, because that figure based on turnover is not scientific? Let alone the Reserve Bank Bulletin; why this percentage is arrived at in this way? That is the question.

Shri Keith C. Roy: It is because of the confusion, if I may say so with respect, created by the different concepts taken in the Reserve Bank bulletins of the three criteria which can be established for measuring the financial status of any company, that is to say, the equity capital; the net worth and the total capital employed. We have not yet, unfortunately, been able, within our organisation,

and in consultation with the Reserve Bank, to establish universally accepted criteria for these particular purposes.

Shri Kashi Ram Gupta: You have given the figures of dividend and royalty together. Is it possible to give the figures separately, showing the amount of dividends and the amount of royalty separately?

Shri Keith C. Roy: I have got the figures separately and I will make them available to you before I leave Delhi.

Shri Kashi Ram Gupta: These royalties are due to compulsory licences?

Shri Keith C. Roy: No, Sir.

Shri Kashi Ram Gupta: What is the basis of these royalties?

Shri Keith C. Roy: The Reserve Bank Bulletin of 1964 has taken the figures on the basis of the Royalty and Technical Service Remittances.

Mr. Chairman: Is it by agreement?

Shri Keith C. Roy: The 1964 Reserve Bank bulletin's figures are the results of a sample survey made of technical assistance and knowhow agreements sanctioned by the Government of India between 1948 and 1963. Therefore, the payments which are shown in Table 6 of the 1964 Reserve Bank Bulletin represent the royalty and technical service remittances which have been sanctioned by the Government of India under agreements which have been made by Indian companies with foreign firms.

Shri Kashi Ram Gupta: About clause 5, you have suggested that if the process system has to be adopted for patenting, the burden of proof should lie with the person who infringes. Can you give me instances of a clause in the patent laws of other countries which are governed by the process system?

Shri S. V. Divecha: The patent laws of Germany, Austria, Finland, Greece, Switzerland, Japan, Poland, Yugoslavia, Norway, Netherlands, Sweden and Canada provide for shifting of the burden of proof.

Shri Kashi Ram Gupta: As regards clause 47, Dr. Nanji in his speech said, that these imports should be covered which are of outside patents with similar processes, but so far as the amendment given by you and circulated yesterday is concerned, the language is not explicit. Will you please make it clear?

Shri S. V. Divecha: It is extremely difficult for the patentee to prove infringement particularly when the infringed product is imported from other countries because of the simple fact that it is extremely difficult to ascertain by examining the finished product by what process it has been manufactured. The model law for developing countries has incorporated such a provision and we have adopted this provision in our suggested amendment from the model law.

Shri Kashi Ram Gupta: In your suggested amendment, this is one of the local factors, but it cannot be made to apply to import because you have mentioned that it is imported by the same process.

Shri S. V. Divecha: Our amendment covers not only the imported infringing product but also the product made locally by a infringer, because, as I said, it is extremely difficult to ascertain by what process a particular product is manufactured just by examining the finished product.

Shri Kashi Ram Gupta: Are you satisfied that the amendment of yours covers the point which Dr. Nanji has made about the import?

Shri S. V. Divecha: Yes, Sir.

Shri Kashi Ram Gupta: In clause 53 you have mentioned that 10 years'

period from the date of sealing will suffice in certain instances and in certain cases. May I inform you that the present Bill as it stands does not give any time-limit for the period between the completion of specification and the date of grant of the patent? There is no period fixed for it. Do you want that the period should be maintained or it may be left to the option of the Controller-General?

Shri S. V. Divecha: If I may be permitted to explain the whole situation, according to the existing Act, the patent is to be sealed within the maximum period of two years and four months, so that a period of two years and four months, that is, 28 months, elapses between the date of application of the patent and the ultimate sealing of the patent.

The position under the Bill is like this. Between the date of application and the filing of the complete specification a maximum period of 15 months lapses. Between the date of filing of complete specification and the examination proceedings—according to our information, the examination proceedings last on an average for about one year. Between the date of the first objection of the examiner and the meeting of the objection by the applicant a period of 18 months has been provided. In so far as the acceptance of the application is concerned or acceptance of the complete specification is concerned, this period has not been provided in the Bill and it is completely left open. In the Act as it stands at present, as I have said, the maximum period is 28 months.

Shri Kashi Ram Gupta: Are you in favour of the Bill as it stands so far as the period is concerned limiting it to the final acceptance of the patent, that is the date of sealing, or do you want a period to be fixed also so that within that period the sealing must be done?

Shri S. V. Divecha: Yes, Sir, we want the period to be mentioned.

Shri Kashi Ram Gupta: You have not mentioned any period; probably, you have not thought over it.

Shri S. V. Divecha: That is precisely what I am trying to point out. Under the existing Act it is 2 years and 4 months and now the Bill gives a maximum period of 4 years and six months. So I am entirely in agreement with the hon. Member when he suggests that some time limit should be fixed.

Shri Kashi Ram Gupta: Clause 66—while in your memorandum you have mentioned that the clause be suitably amended, in your amendments you have totally neglected that. Am I to conclude that you do not want any amendment or that you do not want to suggest any wordings for that and you want to leave it to the Government?

Shri S. V. Divecha: In our original memorandum we have suggested that there should be a judicial review against the decision of the State for revoking a patent. That is our suggestion. In so far as this clause is concerned, it is an exact reproduction of the existing Section 25 of the Act.

Shri Kashi Ram Gupta: There is no need for any amendment from your side?

Shri S. V. Divecha: No, Sir.

Shri Kashi Ram Gupta: About licensing of rights you have given your opinion. There is another strong view from the other side, from certain reputed firms, that licensing of rights should be there with the modification that the period should start after three years after the grant of patent and so far as royalty is concerned it should be negotiable. What is your opinion about these two amendments?

Shri Keith C. Roy: It is our submission that the concept of licences

of right is *per se* an erosion of the patent system. That is our basic objection to the concept of licences of rights. I accept that in other countries the concept of licences of rights exists, but I would like to stress the point that, in other countries, the concept is a voluntary concept, that is to say, the patentee himself voluntarily asks that the licence be stamped with "licence of right." In this case we have exactly the opposite position, namely, that a patenee who takes out a patent for a drug or medicine or a chemical is faced with the problem that his patent is automatically *per se* eroded the minute it is sealed, for the simple reason that, by the mere fact of sealing, any person interested can immediately apply for a licence of right. Secondly, the Controller has no option but to grant a licence of right. The orders on the Controller are mandatory and he can exercise no option in not granting a licence of right. Thirdly, in that action or, rather, I would put it, in that inaction, on the part of the Controller, he is not called upon to exercise any independent judgment as to the suitability, the capability and the financial stability of the person who applies for a licence of right to operate the patent.

Shri Kashi Ram Gupta: Basically you are against this clause. If these two amendments are there, that the date of licence of right should be three years after the date of sealing and that the royalty should be negotiable, will it not be an improvement?

Shri Keith C. Roy: No, Sir, we feel that the amendments which we have suggested should be considered. Section 87 which, *per se*, as I stated in the beginning, goes to the very root and conception of patent rights, is unnecessary.

Shri Kashi Ram Gupta: If these two amendments are there, will it not be an improvement?

Shri S. V. Divecha: The moment you put a limit of three years in respect of the concept which is known as licence of right and the moment you put other limiting conditions which apply to other kinds of compulsory licences in other fields, fields other than food and drugs, the concept of licence of right ceases to exist; in fact, it becomes compulsory licence of a different nature than the one that is contemplated in clause 84. Under the existing Act also, if you will see, there are two kinds of compulsory licences. One is compulsory licence in fields other than food and drugs, and the other is oompulsory licence for food and drugs.

Mr. Chairman: You know that U.K. Act has got a similar provision?

Shri S. V. Divecha: UK Act has a provision similar to clause 86 and not clause 87.

Mr. Chairman: If a three-year period with guarantee is provided, why should you object to that?

Shri S. V. Divecha: That difference between clauses 86 and 87 is whereas in the case of clause 87 there is automatic endorsement of the patent "licenses of right" already from the date the patent is sealed, in the case of clause 86 the period of three years is provided. If within the period of three years, the reasonable requirements of the public are not satisfied, the Central Government can apply for such an endorsement to the Controller. This is the distinction.

Mr. Chairman: It is there in the UK Act also.

Shri S. V. Divecha: We have no objection to clause 86.

Mr. Chairman: Suppose a provision is made here which is similar to the provision in UK why should you object?

Shri S. V. Jivecna: If the provision is similar to the one in the U.K. Act, we have no objection.

Shri Kashi Ram Gupta: There are three types of research—basic, development and formulation. Clause 53 provides a period of 10 years. What is your view on this?

Dr. S. L. Mukherjee: This ten-year period from the date of the complete specification will vitally affect basic research, it will affect somewhat developmental research also but not so much of formulation research. I say this with a certain amount of confidence and experience because I am intimately associated with pharmaceutical industry for the last thirty years, both in India and abroad. If I can spell it out, as to the concept of basic research leading to the discovery of a new drug, the birth of a new drug starts in the mind or brain of an inventor. With that idea he starts his first work in the laboratories, either in synthesising new compounds or starting with natural plans. If he has synthesised the compound, at the first flash of a positive pharmacological activity he takes out a provisional patent specification, which merely makes a statement of invention and nothing else; no example is required, no claim is required. That is, at the first positive sighting of a pharmacological property of a new compound and he files his provisional application. Between the provisional and the complete, one year or fifteen months is given, and that is the time when he actually starts intensive laboratory work. What he has done is he first found a compound, which has got this property. Suppose he has found some anti-tubercular compound which has shown some significant property. Around the basic molecule, he works and he synthesises hundreds of compounds to find out whether it is significantly good or whether a new compound is better than what his compound has first shown. So, that fifteen-month period, is used in finding out whether his provisional specification will sand; otherwise, he would leave it out completely. Then a large number of analogous compounds are synthesised to arrive at the best in the laboratory and then the complete specification is filed, covering all grounds, after selecting the best compounds after detailed pharmacological, toxicological, biological drug metabolism studies are made. These are all laboratory tests to find out the highest therapeutic index and the least adverse toxicity factor. So, the detailed procedure of screening and establishing a new drug requires 7 to 8 years.

Shri Kashi Ram Gupta: That is not my question. Which type of research is affected by this provision about ten year period? Do you mean to say that basic research is more hit by this Bill?

Dr. S. L. Mukherjee: In addition to basic research, I also wanted to submit that process development work for making the production of new and known chemicals or pharmaceuticals, depending on the complexity of the synthesis, or isolation techniques, as in the case of antibiotics, requires nothing less than 4 to 5 years.

Mr. Chairman: In your own memorandum you have stated that practically no basic research is being done in India. Then, as you know, the tendency today is to shorten the period of patents for foods and drugs. Several countries like USA, UK, Canada, South Africa and New Zealand have set up committees to go into this question and some of them have actually reduced the period of patents. In this Bill we have prescribed ten years. Do you think it is insufficient for food and and drugs, leave alone basic research? You have yourself stated that we are not doing basic research and that all that we are doing is quality control. So, do you think that the ten years period in the Indian law is insufficient?

Dr. H. R. Nanji: With due respect, it is not correct to say that no basic research is done in India. At the moment, Hindustan Anti-biotics, CIBA Aesearch Centre and Alembic are doing it. The momentum is growing and in the next ten years very considerable progress will be made in basic research. This ten-year period will come in the way of basic research.

Shri Kashi Ram Gupta: They could have suggested some extra period only for those patents which are applied for from the point of basic research. When the patents are applied for from other points of view, then naturally ten years should suffice according to their own statement. That is my point.

Dr. H. R. Nanji: The majority of patents, I should say, are taken only for products of basic research, not for development work.

Mr. Chairman: A lot of time is taken between basic research and finalisation of the actual product and the patent comes only after the drug is finalised, not before. It is only after pharmalogical and clinical trials that the patent comes in.

Dr. H. R. Nanji: Clinical trials are held first.

Mr. Chairman: I know that.

Shri Kashi Ram Gupta: Your organisation is a big organisation and basic research can be done only when there is large capital. Has your organisation thought of having a basic research institute of your own in the country so that all these difficulties could be removed?

Dr. H. R. Nanji: There are a number of companies which have got plans for it.

Shri Kashi Ram Gupta: They are doing it separately. You say that Rs. 175 crores are spent in America only on research. This could be done only when there is a combined effort. So, why do you not have a combined effort for this so that good results can come side by side with the public sector?

Dr. H. R. Nanji: Research on a co-operative basis is not possible in the private sector.

Shri Kashi Ram Gupta: There is no question of a co-operative basis. The question is of funds being made available to an institute which could be constituted by your combined effort, just as the Shri Ram Institute has its own funds.

Mr. J. Reece: In the pharmaceutical industry competitive research is very important. A number of different institutions working on the same problem are not necessarily duplicating the same methods of arriving at the solution. This has been recognised quite recently, tangibly, by the fact that single companies have set up competitive research institutes in other countries. Indeed, the Ciba research centre and other centres that are planned to be set up in India are a demonstration of the fact that a number of people now realise that if they can get competitive research going in different areas, it will result in better products more quickly.

Mr. Chairman: That means, bigger fish swallowing the smaller fish.

Shri Kashi Ram Gupta: So, basic research unit can be put up by these individual concerns. Then, what is the average capital expenditure and recurring expenditure on such a unit?

Dr. S. L. Mukherjee: We in the Sarabhai are already engaged in a certain amount of basic research with the idea of discovering a new drug. Our screening facilities today is of the order of 200 to 300 compounds in a year, which is nothing. We are seriously going into the idea of establishing a basic research unit which would be productive and remunerative. A lot of people have worked out the minimum critical size of a laboratory which will produce better re-

sults. You all know that the chance of striking a drug is in the region of 1:3,000 to 4,000. Unless a research establishment is set up to screen at least a thousand drugs every year, it may not be possible to find any new drug within three or four years. With that object in view we have attempted and tried to find out the minimum critical size of the laboratory which would require a capital investment in the region of about Rs. 60 lakhs and employ about 30 scientists with auxiliary and ancillary staff—125 in all—and the revenue expenses have been calculated at Rs. 30 lakhs per year.

Shri Braj Bihari Mehrotra: Dr. Nanji has suggested the deletion of clause 48 and has argued very vehemently for that. Will not the deletion of clause 48 help foreigners to exploit the situation?

Dr. H. R. Nanji: I cannot understand how clause 48 will enable foreigners to exploit.

Shri Braj Bihari Mehrotra: 90 per cent of the patents are held by foreigners. How does he say that the foreigners will not exploit the situation?

Dr. H. R. Nanji: All import is to be done by Government.

Shri Braj Bihari Mehrotra: He has said that the deletion of clause 48 will help the trade and industry. He has not described how the industry will be helped.

Mr. Chairman: This is a clause which enables the Government to import medicines.

Shri Braj Bihari Mehrotra: Even if the imports are made by Government, the money will go to the foreigners.

Mr. Chairman: He says, "Pay as compensation and give us an opportunity to be heard".

Dr. C. B. Singh: We have provided here different periods for other things and for food, pharmaceuticals and medicines. How many countries are there in the world which make such distinction?

Shri S. V. Divecha: We will compile the information and give it to you.

Dr. C. B. Singh: You have given a list of per capita expenses on drugs in some of the countries, USA, UK etc. Have you any idea about the per capita expenses on drugs in India?

Mr. J. Reece: The per capita expenditure on drugs in India is an indication of the size of the problem. If you take the Third Five Year Plan target of Rs. 175 crores and if you take 450 million people. . . .

Dr. C. B. Singh: 490 million.

Mr. J. Reece: It will be in the region of Rs. 4 per head per year.

Dr. C. B. Singh: That figure compared to other countries is very small.

Mr. J. Reece: Very small.

Dr. C. B. Singh: With the idea of giving better drug facilities to an average Indian who cannot have even two square meals a day and not even clean drinking water, would you suggest anything to bring about a substantial reduction in the prices of drugs? Supposing most of the amendments proposed by your organisation are accepted, what do you suggest to bring down the prices substantially so as to make them available to the poor people in India?

Mr. J. Reece: This is a very difficult problem and a very different question.

Dr. C. B. Singh: We want to solve this problem.

Mr. J. Reece: First I may say, that patents are not directly related to high prices. If I were to give an answer to this question, I feel what we are really talking about is reducing the costs. Therefore, the costs of

pharmaceutical products in this country have to be considered. In order to maintain prices, which in the context of rising prices amounts to reduction in prices, the sort of thing we could coceive immediately would be either the abolition or reduction in direct taxes on the pharmaceutical industry. After all, there is sales-tax; there is excise duty; there is general taxation; there is customs duty on intermediates and all that. All these are, in effect, direct taxes on sick people. Now, even if we concede that you cannot abolish these taxes completely, it could be argued that for medicines these could be reduced and if they were reduced, then perhaps there will be something like a 10 per cent reduction in the prices of drugs straightway. If raw materials could be made available at lower prices, that would definitely result in reduced cost which would result in lower prices. Raw material costs are rising rapidly. The price of streptomycin, for example, has risen from Rs. 175 to Rs. 225 and it is going to rise again. In these circumstances we cannot think in terms of reducing prices.

The other suggestion about reducing prices and costs would be this. In the context of devaluation, we are hearing from many sources that if we could free the pharmaceutical industry from the artificial restrains of licenced capacity, we could increase our production per unit and increased production means lower costs and lower costs mean lower prices. If also we were released from arbitrary price control which has been imposed upon our industry, there will be free competition, and free competition, we also know, has reduced prices,. Now, the chart which has been presented to the Committee demonstrates quite clearly that left on its own, the pharmaceutical industry has an enviable record of reducing prices.

Finally, we have already pointed out that with an expenditure on drugs of Rs. 4 per head per year there is a limit to what an individual industry itself can achieve in this regard. It is surely no solution to force the pharmaceutical industry to work at an uneconomic level.

Dr. C. B. Singh: That I am not suggesting.

Mr. J. Reece: Then, there should be an extension of health services within the country which will help to bring drugs to the homes of poorer people at lower prices.

Dr. C. B. Singh: Will you suggest some such provision in this patents Bill specially for drugs of common use for an average poor man? Do you think something can be incorporated in this Bill?

Mr. J. Reece: Frankly, it seems to us that there are two separate questions, patents are one, and prices and health services, etc. is another. We honestly cannot see how a patent legislation by itself can properly incorporate all these other considerations.

Dr. C. B. Singh: In your graph that you have presented to the Committee about the production of basic drugs in India in 1964, you have mentioned the following figures:

Antibiotics . .	Rs. 88.6 millions.
Sulpha Drugs .	Rs. 15.1 „
Anti-Tubercular Drugs . .	Rs. 14.0 „

All these three are, more or less, to fight certain bacterial and infectious diseases. The highest amount is being spent on antibiotics. Do you think something can be done to bring down the prices of these antibiotics which are the dire need of the country.

Mr. J. Reece: The bulk of the antibiotics figure is penicillin and streptomycin from the public sector in the country. But I ask: What do you mean by high prices? High in relation to what? If it is in relation to cost of production, then, if it is a complicated and a complex process, there must be a minimum cost of production

and, therefore, there must be a minimum price which has to be paid. If it is in relation to the results achieved, then, after all, today we can give a patient suffering from Pneumonia 12 capsules of antibiotics and he is cured. Before a cure could take many months. So, I want to know: High prices in relation to what? We say in answer to this question, if the artificial restrain's are removed from the industry, prices will come down because we are constantly trying to cut each other's throat.

Dr. C. B. Singh: Evidence has come from the reputable persons who have appeared before this Committee to the effect that the abrogation of the patent law will bring down the prices and they have said that they will flood the market with cheap drugs. What have you to say about that?

Mr. J. Reece: I may just say one word in reply to that, that is, Italy. In Italy, the prices of drugs, are higher than anywhere else in Europe. That is what would happen here.

Dr. C. B. Singh: Talking about research, in spite of the claims made by CIBA, Alambic, Sarabhai and even PFYZER to the effect that they are spending a lot of money on basic research, you will agree that though there was a strong patent protection from 1911 and it is still there, in spite of all this, there has been hardly any research in this country. Of course, something has been done in the last five or six years. But still there has hardly been any progress in the field of research.

Mr. J. Reece: The pharmaceutical industry is a new industry all over the world and has been in existence only for the past 15 or 20 years. Almost every country has been saying the same thing that, before the War, we were dealing only with a few vegetable products, a few simple drugs that required no investment or research and that it is only after the Second World War that the whole technology of pharmaceutical industry has been developed. As you have seen from the progress of our own industry, we are on the threshold, we believe, of being able to make real use of technology that has come to India and we are in a position to make use of patent protection in order to discover more life saving drugs.

Dr. C. B. Singh: Your Association has taken a strong exception to the provision of licences of right. "Licences of right" has been incorporated because of a very important reason. You know the difficulty of the public in obtaining drugs. We, therefore, felt that a provision of this type would be of help to us. But you have taken a strong exception to that part of the Bill. How will you feel if we maintain those clauses and also incorporate that for licences of right, adequate compensation will be paid to the patentee? Will that be an improvement on the present provision in the Bill?

Mr. J. Reece: My colleague, who is more knowledgeable about it, has commented on licences of right. I would like to say something subjective. We are in the process of bringing a great deal of technology to India and licences of right is going to frighten the people away from bringing technology to India. We feel that a provision to bring in drugs in emergencies, for example, during an epidemic of cholera, etc., is already made; nobody will object to that; that would serve the purpose well. But we should not frighten people away from bringing technology by putting in this "licences of right" clause when it is not necessary.

Dr. C. B. Singh: Probably you know the background of 'licences of right' and this brings me back to the unfortunate 4 or 5 cases going on in courts in this country. What have you to say on that part of it?

Dr. H. R. Nanji: I am particularly aware of one case—that of Neo-Pharma. The delay in the licensing procedure in their case has been due

to several factors. For some time I was acting as Consultant to this firm. Neo-Pharma have shifted their stand more than once. In the first instance, they had taken the stand that the process of their foreign collaborator was totally different. After some advice which was tendered to them, it was made clear to them that the process of Archifar clearly infringed the rights of Parke-Davis. Afterwards the stand was shifted and then they asked for a compulsory licence. The stand which has been taken by Parke-Davis is this: they are prepared to give compulsory licence direct to Neo-Pharma but not through a firm which they consider is an infringer of their patent in Italy. Moreover, there are quite a few suits pending against this firm—Archifar—in different countries and if Parke-Davis agree to give a licence in this country, it would compromise their position in other countries.

Dr. C. B. Singh: When the Neo-Pharma representatives came here, they gave an evidence that they tried their best to come to terms with Parke-Davis; they went to America and spent lot of money, but Parke-Davis people more or less rejected their terms for coming to an agreement. Is that correct?

Dr. H. R. Nanji: To my knowledge, that is not correct.

Shri D. P. Karmarkar: You had made observations here about patenting of product *per se*. Is it your idea that, if product *per se* is patented, then no one else will be encouraged to invent another process for the same product?

Dr. S. L. Mukherjee: I may express my personal views in this matter. The maximum protection that could be given to an inventor is product *per se* protection, but in view of our country's development and existing research facilities, etc., I am of the opinion that product by process would be an ideal protection at least for some time to come.

Shri D. P. Karmarkar: This is regarding your observations regarding Clauses 99 and 100. There you say "for the purpose of government". Would you be happy if instead of "for the purpose of government", the words "in public interest" are substituted, public interest meaning defence, security of the country, epidemics, bringing the prices down and things like that?

Dr. H. R. Nanji: Bringing down prices cannot be considered as public interest. Unless you examine all the factors for the price rise, it cannot be considered as a matter of public interest. Defence and other considerations would, of course, be matters of public interest.

Shri D. P. Karmarkar: A point was put up before us sometime ago that, in order to avoid multiplicity of forums for filing suits of infringement, there should be only one forum for the country, so that the party against whom the so-called aggrieved party is proceeding may not be made to run to Madras or Calcutta or Bombay. Would you prefer a single tribunal for this purpose?

Shri S. V. Divecha: Are you suggesting a single patent appeal tribunal?

Shri D. P. Karmarkar: Not appeal; even in the first instance.

Shri S. V. Divecha: According to the Civil Procedure Code, the creditor finds the debtor and not that the debtor finds the creditor.

Shri D. P. Karmarkar: Let us forget the Civil Procedure Code. Let us concern ourselves only with patent laws. In view of the possible number of forums into which a party may be dragged for a possible infringement and considering the number of such cases that may arise, would you think that it will be in the interest of both the parties if there is a single tribunal for this purpose at a central place?

Shri S. V. Divecha: Decentralised tribunal would necessarily be a High Court, I think. If that is so, we would have no objection.

Shri D. P. Karmarkar: The other point is with regard to judicial tribunal. We mean by that a particular kind of tribunal. Dr. Nanji mentioned about Income-tax tribunal, sales-tax tribunal, etc. These have on their panel men of proved judicial experience. These are established under various laws. Do you think these will work and would be enough for your purpose?

Shri S. V. Divecha: They might work.

Shri D. P. Karmarkar: Dr. Nanji also said something about the Price Advisory Commission like the Tariff Commission. Presumably it would be functioning not only with regard to the fair prices for new manufactures, but would also regulate prices of imported products. Would there be any objection to that? I am asking this question specifically because along with patent rights there is the right of exclusive importation for a certain period. There are some cases before us where some people have taken the advantage of that monopoly. I do not want to cite instances. You should be knowing them. Under such circumstances, would this body also function in relation to the fixing of proper prices for imported commodities also?

Dr. H. R. Nanji: Tariff Commission has already instituted enquiries in regard to three or four drugs in the past. While doing so, they will certainly take into account the reasonable price for import. If the import price is regulated by indirect measures like customs duty...

Shri D. P. Karmarkar: Other things being equal. Today the price is very high in spite of all that. The law allows you perfect freedom to fix any price. Under the Essential Commodities Act or the emergency there are no powers. If the consumers are to be protected, there should be some mechanism to advise regarding prices of imported commodities also.

Dr. H. R. Nanji: If the Tariff Commission comes to the conclusion that the prices are very high, there is already a machinery for taking care of the matter. There is a schedule in the Red Book.

Shri D. P. Karmarkar: Red Book merely says what shall be imported and what shall not be.

Dr. H. R. Nanji: There are a number of drugs there.

Shri D. P. Karmarkar: Drugs are mentioned and it says that the prices shall not be more than this. It only regulates the type of drugs. In essence I think you agree that there should be some reasonable mechanism acceptable to everybody to regulate the prices of imported things.

Dr. H. R. Nanji: Yes.

Shri M. L. Jadhav: The Model Law suggests ten year period for the patent from the date of specifications. The present measure also suggests the same thing. Have you got anything to say on this?

Shri S. V. Divecha: So far as the model law is concerned it is true that it suggests that the patent will be valid for at least ten years. I would however invite attention to page 49 of the Model Law. I would read from it:

> "It is, however, to be noted that too great deviations from the generally accepted standards would not be to the advantage of any country because it is in the general interests that rules concerning duration be fairly uniform throughout the world."

Shri M. L. Jadhav: From your observations, am I correct to say that

you have no objection to the use of the patent by Government for epidemic or defence purpose and you only object to its being used by public enterprises?

Dr. H. R. Nanji: You are right.

Shri M. L. Jadhav: Do you think that patent is one of the important factors in keeping the high prices of medicines?

Mr. Chairman: There are several other facts. He said that. He elaborated on that.

Shri M. L. Jadhav: The price of Tolbutamide powder varies between some Western countries, Italian concerns and your member-firms. Can you explain the reasons?

Mr. J. Reece: The chart which we have given sets out two things. One is to demonstrate that prices in India are not uniformly higher than elsewhere as has been alleged. The other is to show that price in Italy is not the lowest in the world. There are differences and variations, and Dr. Nanji explained in his exposition the difficulties in comparing international price. The point I would like to make is that we should not consider one drug, but the fact is that in Italy a consumer is paying more for his drug than in Europe. That is the general principle over the whole range of pharmaceutical products.

Shri Arjun Arora: May I know how many members of this organisation are firms which are absolutely foreign to India having no Indian capital?

Mr. Chairman: He said he could not give the break up. He will send that information.

Shri Arjun Arora: How many of the members are subsidiaries of foreign firms and of the subsidiaries how many are wholly owned and how many are partially owned and in the case of partially owned, who are the Indians who own in part?

Dr. H. R. Nanji: We will send the information.

Shri Arjun Arora: How many members of this organisation are firms which have collaoration agreements with foreign firms?

Dr. H. R. Nanji: We can send it.

Shri Arjun Arora: I would also like to know how many are patentees and how many are licensees of foreign patentees? Is there any member who is using no foreign patent and having no foreign collaboration?

Mr. Chairman: Can you answer that?

Dr. H. R. Nanji: We will send the information.

Shri Arjun Arora: Is there any organisation which has no foreign capital, no foreign patent, but is absolutely *Swadeshi*?

Dr. H. R. Nanji: I have already mentioned the names of Alembic and Unichem.

Shri Arjun Arora: You also mentioned Sarabhai Chemicals who are famous for calloboration agreements. May I know whether your big organisation is so powerful that it can lure away the members of the staff of the Prime Minister's Secretariat and has ever cared to conduct a survey relating to the period during which the cost involved in research was recovered? We have been subjected to long lectures on virtues on patent and we have also been told that patents are necessary because cost is involved in research. So, we would like to know as to what is the period during which an average firm recovers the cost of research of a particular drug and whether your organisation has carried out any survey amongst your members relating to this?

Mr. J. Reece: In answer to this question, I would say that nobody has done any survey on the cost of research done for a particular drug.

Research cost is a general charge on the company. In some cases, as you must have heard already, vast sums of money are invested without any return whatsoever. I may make my point clear. If a company is making pharmaceutical products and marketing them under its own name, at some stage or other, it will have a competitor in the pharmaceutical industry. Even if I discover a new drug I can't guarantee there will be no competitor as Dr. Mukherjee explained. I may put in Rs. 7·5 lakhs as my capital and only get a return of Rs. 5·0 lakhs out of that. In that event I do not get anything from that for the future. Take for example the discovery of a drug that would cure cancer. That would be the most expensive drug in the world if ever it is put on the market. Think millions and millions of rupees that have been spent in trying to discover a drug for curing the cancer. For all the drugs which an individual company makes, it has its own allocation and assessment of the future and as such puts aside a certain amount of its earnings to do research. It may or may not succeed.

Mr. Chairman: We heard CIBA. Is there any other company which has invested money on research?

Mr. J. Reece: There are a number of companies who have done that. If I may submit, there are different ways of trying to do research. In the case of CIBA, they had chosen to put up a research centre with scientists who will try to discover a new drug.

Mr. Chairman: That we have seen. Excepting CIBA is there any other company?

Mr. J. Reece: You yourself have seen in our own case that four or five different teams are working on an entirely different basis.

Mr. Chairman: That was only qualitative control.

Mr. J. Reece: With due respect I say that it is not qualitative control. We have discovered several new process methods. In the near future, they are going to make a major contribution to our company's chief activity. They relate to the utilisation of local raw materials. In this case Indian Chemists have put their heads together to find out the methods of import substitution for the basic raw materials. This is process research, and we expect that it will not be long before we get results from it. Of course research is costly.

Shri Arjun Arora: May I now whether all the expenses that you incur on research of various drugs which you are able to find you put them as normal expenses of the industry?

Mr. J. Reece: It is like that. In certain other countries an amount is allocated for research in order to try and demonstrate the cost. In answer to the question whether we have put up different research sections, I would say that there is now a Glaxo Research Company that does not make any product for sale. It is an investment in research.

Shri Arjun Arora: You may not be doing.

Mr. J. Reece: We have been doing production not in terms of research.

Mr. Chairman: Do you mean to say that research is only an answer. If you refer to the report in the U.S.A. you will find that 35 per cent is on sales promotion.

Mr. J. Reece: I cannot say. The quantum of what is reasonable to spend on research is something for individual companies. Some companies have spent much more than the figures which you have mentioned. Some spend nothing at all.

Mr. Chairman: I am telling you from the Committee Report. It says: From only 1961 onwards 4 per cent of the profits is spent on research and this may be recovered in about two

to three years' time. From the production of about 700 million dollars, 35 per cent or so has been spent on sales promotion. Do you agree with this?

Mr. J. Reece: I do not agree with this figure. I cannot challenge the figures you have stated. But, I cannot agree with the view that the research is a minor part of the pharmaceutical industry. I have no doubt that the question of sales promotion will come up again in some other context. How much is to be spent on research etc. is a matter of opinion. Take for example Hindustan Antibiotics which is a research based unit.

Mr. Chairman: It is a public concern—a Government concern.

Mr. J. Reece: It has allocated one per cent to research.

Mr. Chairman: However, the amount is spent by Government.

Mr. J. Reece: I say that it has allocated a certain amount on research which comes to 1 per cent.

Mr. Chairman: It is only from the percentage of profits that they are making. In their case, it is made by C.S.I.R. or Government.

Shri Choudhuri: Hindustan Antibiotics is a private company coming under the Indian Companies Act. Its research expenses come out from its sales.

Mr. Chairman: Though it is a company, it is a public undertaking.

Shri Arjun Arora: My question leads to so many supplementaries. Now coming back to my question I put to you, your view is that research cost is not allocated to a particular drug. So, there is no question of recovery of the cost on research from a particular drug. You may spend a large amount of money with no results and may spend larger amounts and discover a drug which will not use the large profits. Yet you may discover something which does not cost you much which gives much yield. Is that the position?

Mr. J. Reece: That is exactly the position.

Shri Arjun Arora: Would you tell me which of the Members of your organisation is engaged in real basic research irrespective of the cost?

Dr. S. L. Mukherjee: I can speak only for my organization, Sarabhai Chemicals.

Shri Arjun Arora: You are not appearing only for Sarabhais. You are appearing for the Organization of Pharmaceutical Producers of India.

Dr. S. L. Mukherjee: As I told you our annual turn-over of new compounds in our Basic Research Division is about 200-300. We are also taking advantage of screening facilities as available with the Central Drug Research Institute, Lucknow where we do not have the facilities with us.

Dr. M. M. S. Siddhu: Are you payiny anything for those facilities?

Dr. S. L. Mukerjee: We have tackled this question but they are not accepting any payment.

Dr. M. M. S. Siddhu: So you get it free.

Dr. S. L. Mukherjee: We have got only 20—30 compounds screened by them, so far.

Shri Arjun Arora: While on this subject of research, I would like to know whether the drug industry or the pharmaceutical industry would prefer to have an institution like that of ATIRA in Ahmedabad where the cotton textile industry has combined, collected funds and set up an organization like the Cotton Research Institute?

Dr. S. L. Mukherjee: To my understanding and experience, the development of a new drug requires a tradition, a culture and a definitely different discipline and if you would look around, you will see that the individual companies' research efforts have contributed uptill now everywhere in the world to 95 per cent of the drugs that have been discovered till this date. It is not through Universities and co-operative research associations that the drugs have been manufactured. I do not know the reason, but to me it appears that when we work in the industry, we have a pragmatic approach. We have quite a different discipline. We have perfect team work, which may not be there in Universities or co-operative research associations. Secondly, I say from personal experience of the CBRI, when we approach them to get some drugs screened through their facilities, a condition is imposed on us, that we must disclose the identity of the drug, before they can take up the work. Many private firms would hesitate to disclose the identity of the drug to such co-operative institutions. So, it is research within industry that will give the results. Hayemicin is one such example. Unless you set up research within the industry itself, as also help to create the necessary climate and the conditions for research, it is my considered opinion that it will take a long time for invention of new drugs.

Shri Arjun Arora: May I understand that the drug industry in India is not only a research-based industry but is also an individual based industry in which no co-operation is possible?

Mr. J. Reece: May I just say a few words on this? One of the advantages of putting the research into a commercial company instead of a public laboratory is you select the scientists and you follow up the research done by them internally on a certain project and if they are doing something which will be of no use to anybody, you can call a halt to the Project, and divert them to other more useful avenues.

Shri Arjun Arora: From the national point of view if two or more than two firms are engaged on the same research, the ultimate result is waste in two or three places.

Dr. S. L. Mukherjee: I think competitive research is absolutely necessary. There I differ with the views expressed by the hon'ble Member.

Shri Arjun Arora: Some people seem to think that absence of a patent law gives a momentum to research. What is your opinion on that?

Mr. J. Reece: If there was an abrogation of patents—we are not discussing abrogation of patents and it is also not contemplated by the present Bill—it would stop research. Prof. Ermst Chain, one of the great scientists of our age, has written on the development of Penicillin and he put the whole thing in a nut-shell—'No patents, no new drugs'. Prof. Fleming did not get a patent for his discovery of penicillin but initially no one was interested. It was research in the pharmaceutical industry that developed the means of making penicillin available to the people.

Dr. S. L. Mukherjee: May I supplement one part of Mr Reece's statement? Penicillin was declared as a drug of unstable character, of no human interest at the time of its discovery. That was the declaration of Prof. Raistiric of the London School of Hygiene and Tropical Medicine and he declared that penicillin will not be of any commercial use because it is quite unstable.

Shri Arjun Arora: Coming back to royalty, what do you think should be the fair rate of royalty?

Dr. H. R. Nanji: We have already submitted that. All we want is not to have any ceiling on royalty. In some

cases even [illegible] per cent is too much. In other cases it will be necessary to have more.

Shri Arjun Arora: Your conception of royalty is: reward for research.

Mr. Chairman: He wants it to be left for negotiations.

Shri Arjun Arora: Your conception of royalty is that it is a reward for research and they are unable to allocate expenses on research relating to particular drugs. Am I to understand that they want the industry to run profitably but do not expect royalty from each item of research?

Mr. J. Reece: A man may be working on a certain project for 20 years another man may in the course of half an hour discover something. How do you assess it and what value are you going to place on the finished product. You have seen the pharmaceutical plants and you will realise how complex the processes are—very very complex drugs and surely therefore there can be no fixed return for research.

Shri Arjun Arora: So you want royalty to be a matter of bargaining?

Mr. J. Reece: That is correct, Sir.

Shri Arjun Arora: Because you can't suggest any scientific basis for its determination?

Mr. J. Reece: Correct, Sir.

Mr. Chairman: Royalty is paid to the scientist or to the firm?

Mr. J. Reece: To the firm.

Shri Arjun Arora: What is the highest rate of royalty any of your members is paying to any patentee?

Mr. J. Reece: I can give one example. Very recently in England, in a negotiation for royalty on a particularly complex process, the department of the Government which awards royalties, awarded 18 per cent as royalty for this particular process. It was 18 per cent on sales, not on bulk. I can't remember the patent, but I believe the firm was Geigy.

Shri Arjun Arora: I want to know the highest rate of royalty that any of your members in India is paying to a patentee whose patent you are exploiting under licence.

Mr. J. Reece: I would like to be able to give the answer because I am sure it is a very low figure and in some cases no royalty is charged at all. We must look up that figure and give it to you.

Shri Arjun Arora: Also please look up what is the lowest rate that any of your members is paying and send it to us.

Dr. H. R. Nanji: For this information, the best source would be the Department of D.G.T.D. They have got all the data about royalties.

Shri K. V. Venkatachalam: In some cases it is as high as 15 per cent because that was in accordance with the policy of the Government at that time 10 years ago. Now, progressively the rate of royalty is being brought down. It is round about 5 per cent now.

Shri Arjun Arora: I want to confine my information to the members of this body.

Shri K. V. Venkatachalam: What I have said will broadly apply to the members of this body also.

Shri Arjun Arora: No, I want the exact information. Please collect this information—the highest and the lowest rates of royalty that any of your members is paying—and send it to us.

Now, do you agree with the concept that there should be a progressive reduction in the rate of royalty as time passes?

Dr. H. R. Nanji: Royalty agreements are always subject to revision every five years, and at that time Government does bring pressure to reduce it. Sometimes no royalty is paid after five years.

Shri Arjun Arora: Leave pressure alone. Pressure can be rightly applied or wrongly applied and when wrongly applied, it will result in explosions. Should there be a general rule that royalties should be progressively reduced every year or so?

Shri Keith C. Roy: I think the Hon'ble Member may be aware that one of the main features of general collaboration agreements these days is that all new know-how is also made available in addition to that which is made available under the original agreement. Therefore, my submission is that it is not a correct concept to say that the rate of royalty should gradually be reduced.

Shri Arjun Arora: You have told me about what is happening. I want to know your views about what should happen regarding progressive reduction of royalties.

Shri Keith C. Roy: My answer is that it is not a correct concept to suggest that the rates of royalties should gradually be reduced.

Shri Arjun Arora: Are you agreeable to the proposition that the cost of drugs should be such that the consumer is able to get it and that the prices must be progressively reduced?

Mr. J. Reece: As we explained already, in a free area of competition, this is exactly what happens.

Shri Arjun Arora: Should it be laid down that after every two years or so, the prices should come down by a certain percentage?

Mr. Chairman: How can we lay down? It is beyond the scope of the present Bill.

Shri Arjun Arora: Mr. Chairman, I want these experts to tell us how the prices of pharmaceutical products in India can be brought down.

Mr. Chairman: He has already said that there should be no control, taxes should be reduced, raw materials should be supplied at a lower rate and so on.

Shri Arjun Arora: On page 14 of the Supplementary Memorandum on Patents Bill, the table gives the turnover of the whole industry or only of your members?

Shri Keith C. Roy: As Dr. Nanji said, at the time this survey was made, we had something like 67 members. I think, perhaps, I might state, in order to try and put these figures into their proper perspective, that there are some 1700 or 1800 units in India manufacturing pharmaceuticals. Of these units, approximately 125 are registered with the Directorate General of Technical Development and are considered to be the major units. Of these 125 major units, at the time this report was prepared, we had some 65 members. The production of those 65 members represented over 50 per cent of the total production of the country. That was, Sir, in 1965, Rs. 135 crores. This sample survey, of which the figures are placed on page 14, represents the turn-over of practically half of the total value of the production of pharmaceuticals in India.

Shri Arjun Arora: Could you please tell us how many of these concerns included in the Survey are subject to overseas payments or are all of them subject to such payments?

Shri Keith C. Roy: I will have to explain the details to you. I will send them to the Committee. I am sorry I do not have all the figures with me on that basis.

Shri Arjun Arora: You have said that the overseas payments are 3·1 per cent of turn-over. In case the

total turn-over figures given by you include firms like Unicom which do not make overseas payments in the form of dividends, royalties etc., your percentage is altogether wrong.

Shri Keith C. Roy: I submit with respect, Sir, that the figure is not wrong.

Shri Arjun Arora: Percentage can be very elusive thing.

Shri Keith C. Roy: It may be elusive but . . .

Shri Arjun Arora: 3·1 per cent of what?

Shri Keith C. Roy: Of turn-over.

Shri Arjun Arora: Whose turn-over?

Shri Keith C. Roy: Of the turn-oevr of the units which were surveyed, and who represent half the total production of India.

Shri Arjun Arora: Could you tell us how many of these half the producers of the pharmaceuticals in India do make overseas payments and how many do not and what are their respective terms?

Shri Keith C. Roy: I am sorry, Sir, I have not got the figures with me. I will supply them.

Shri Arjun Arora: My submission is that 3·1 per cent is a cooked figure. Coming to page 20, at the bottom, you have said: "None of the firms producing the imitation products, whose prices were considerably lower than the original, have been able to remain on the market". This is what you say about Italian firms. What is the basis of your assertion that firms whose prices were considerably lower than the original were driven away from the market by concerns whose prices were considerably higher?

Mr. J. Reece: These figures were supplied by a particular person who was interested in this particular subject, but it is not really very difficult to appreciate because we are dealing in drugs, pharmaceuticals and medicines for the cure of sick people and one of the most important ingredients is the ingredient of confidence. If somebody offers you a drug at a very low price, it is natural for many people to immediately question whether it is going to do what the makers claim it would do, or not. There is a story which we tell to our representatives during their training course about the question of confidence and to stress the need for them to be well-equipped and to know their subject. It relates to a man who bet another man: "That I will not be able to give away a guinea for Rs. 10" and the person did not believe him. So that man went out into the street, dressed himself as a beggar, stopped passers by and said: "Here is a golden guinea. Will you please give me ten rupees". And no body took it.

Shri S. V. Divecha: This information which we have was gathered from an official report by Professor Bergami of Italy to the Italian Government.

Shri Arjun Arora: Am I to understand that higher pressure—the salesmanship which firms charging more are able to indulge in because they can afford to spent more on salesmanship—has achieved this miracle.

Mr. J. Reece: Not that at all. It is basically an understandable desire by the medical profession and people who want to get their products like drugs, or food, from companies who are reasonably well established in a particular field and have a reputation, because they know that those companies are not profiteering because they know that the money that have spent on quality control etc. is going to guarantee that product.

Shri Arjun Arora: Indian members of the delegation will perhaps be able to appreciate, in India everything

which is cheap sells faster and if you have any guinea, I am prepared to buy it for Rs. 20 right now.

Mr. J. Reece: I have not got one, Sir.

Dr. S. L. Mukherjee: What is true to public may not be true to the medical profession. We are dealing with selective medical profession. They may not accept the lowest, they accept the best.

Shri Arjun Arora: Doctors take pleasure in prescribing costlier medicines.

Mr. J. Reece: No, Sir, they do not take pleasure. In fact, one of the main arguments we can produce to demonstrate that our prices are reasonable is that they go through the medical profession and it is the medical profession which alone has to decide what to prescribe for their patients; and this is a real control on the question of cost and price.

Shri Arjun Arora: May I know what is the percentage of turn-over that your members spend on advertising, samples, literature sent to doctors, presents made to doctors etc. that is salesmanship?

Mr. J. Reece: It will take a few minutes. Can I make a few general remarks which, I think, are necessary? It is no good discovering a cure for cancer if nobody knows about it. This is the basic postulate. Now, we have to accept it as a cardinal principle that the doctor must have the freedom to prescribe whatever medicine he considers necessary for the treatment of his patients, and the pharmaceutical manufacturers are in competition with each other to satisfy the individual and collective requirements of the medical profession. Thus we are dealing with a limited group of people—doctors—who are going to decide whether or not a product should be used. And the industry never assumes that a doctor is unaware of price because he is not. Now, there is another very important thing which, I hope, will be borne out by the hon. Members who are in the medical profession and who are on this sub-committee. There is a natural resistance to the adoption of new scientific ideas and drugs. There is no guarantee that a doctor will automatically prescribe a drug just because we tell him it is good. And there is another important point, Sir, and that is that it is absolutely essential that the pharmaceutical industry should be in direct and constant contact with the medical profession about the drugs it is making. So this is the whole form of how medical information comes to the pharmaceutical industry. Now we made a survey of our members to find out as to how much we spend on sales promotion and the figure comes to something like 8 to 9 per cent. This figure includes expenditure on advertisements, literature, samples to doctors, etc.

Shri R. P. Sinha: How does it compare with other countries?

Mr. J. Reece: 11 per cent is the figure given in the UK, and perhaps it is not surprising that in America it comes to something like 25 per cent.

Shri Arjun Arora: You claim that some sort of medical education of doctors is part of the responsibility of the industry?

Mr. J. Reece: Far from it. We cannot even dream of giving any sort of medical education to doctors. We only inform them about our drugs and it is for the doctor to judge whether a particular drug is good or bad.

Shri Arjun Arora: Page 36 seems to have been loosely worded by somebody in your organization. You have pointed out that competition is useful.

Mr. J. Reece: With due respect, Sir, I submit that I am talking about Indian conditions. It is quite true that in other countries you can quote the pressure of sales promotion, which does

have an effect and influence on price. In our Indian society we do it to a price lower extent, there is much more information, and much less of what is known as pressure promotion.

In It aly, Sir, there, is no patent protection. From the moment you market a drug, anybody can copy it. It is one of the rules of selling that the company which gets in first gets a major share of the market and so the moment a new drug is know everybody goes all out to do the maximum amount of sales promotion to the doctor. Now the amount you spend, Sir, has no relationship to the type of promotion you do. If I discover a new drug tomorrow, how am I going to contact one hundred thousand doctors in India? How much it will cost me to go and fly all over the country? It is a question of coverage. In Italy, where there is no patent protection everything is spent on promotion to get him (the doctor) first. It is not that in Italy the industry has to spend much more on promotion than anywhere else. Everybody is spending on it.

Dr. M. M. S. Siddhu: Am I to understand that the doctors will choose a drug coming out of a reputed house and the reputed houses need not spend on promotional activities.

Mr. J. Reece: No, Sir, that is not the case. As a matter of fact the houses of repute in this industry have to spend much more than others on promotional activities.

(The Committee then adjourned to meet again at 15.00 **hrs.**)

The Committee reassembled at 15.00 *hrs.*

Shri Arjun Arora: May I know whether any of the very experienced and learned witnesses have come across any cases where patents have been granted, process patents or product patents, even though they should not really have been granted?

Shri S. V. Divecha: I suppose the question is whether we have come across any cases where a patent has been granted which ought not to have been granted, for a process.

Shri Arjun Arora: Both processs and product patents.

Shri S. V. Divecha: This is a matter of statistics. To the best of our knowledge, we are not aware of any such processes, but perhaps the controller would be in a better position to give this information.

Shri Arjun Arora: What precautions would you suggest to ensure that we in this country do not grant patent protection where the patents asked for do not really qualify for such protection?

Mr. Chairman: How can they answar this?

Shri Arjun Arora: What precautions do they suggest?

Mr. Chairman: It is for the controller to say.

Shri Arjun Arora: The witnesses have commented on everything. They can answer this also.

Mr Chairman: How can they say whether a patent is to be granted or not? It is for the patent controller.

Shri Arjun Arora: Suppose.....

Mr. Chairman: There is no question of any supposition. The hon. Member must ask questions within their knowledge.

Shri Arjun Arora: What in their opinion should be the preventive steps to ensure that patents are not granted in cases which do not qualify for such patent protection?

Dr. H. R. Nanji: If they are doing so much of research in the patent office, then normally this kind of thing should not happen.

Shri Arjun Arora: Are they satisfied with the handling of the matter by the patent office in this regard?

Dr. H. R. Nanji: There is no other possibility.

Shri Arjun Arora: How does industry reward the individual scientists who are responsible for inventions? Does industry take away all the profits of the invention on the presumption that the scientist is being paid by it?

Dr. S. L. Mukherjee: There are several ways of rewarding the scientist. There is no set-rule. It differs from company to company and the invention's importance. The first is payment of a lump sum. The second is raising his salary for each invention that goes into commercial production. The third is giving him facilities for further research.

Shri Arjun Arora: The reply is theoretical. Please give specific examples.

Dr. S. L. Mukherjee: For example, for a few patents in India I was rewarded by being given one per cent on the sales of the products.

Mr. J. Reece: Before coming to India I worked in Glaxo Research and my reward was doing that research. Secondly, I had at my disposal the resources of a large company with all the equipment which they could possibly provide, but for which I would not have been able to fulfil my research ambition at all.

Shri Arjun Arora: Would you like any rules being made by the Government in this respect or are you satisfied with the way that industry is rewarding individuals for their inventions?

Mr. Chairman: It is beyond the scope of this Bill. It does not come under the patent law. Anyway, it is a matter for the Government to look into.

Shri Arjun Arora: It is a matter for this Committee to look into. We can certainly say that one-fourth should be given to the individual responsible for the invention. I am entitled to bring forward such an amendment and I shall press it.

May I know if there have been any inventions by Indians, whether individuals or firms, during the period of the first and second world wars and during the post-war period?

Dr. S. L. Mukherjee: If you mean making a new process for a product which had been patented by other processes, there have been several hundreds by Indians. If you mean discovery of new drugs, we are in the beginning stage, and except for Hamycin and Dermostatia we are not aware of any drug which has come to the market out of Indian invention.

Shri Arjun Arora: So, am I to understand that the patenting of drugs will mean largely rewarding individuals and firms outside India and not within India, because you say there have been no inventions here during the last 50 years or so?

Dr. S. L. Mukherjee: What I said does not mean that we will not reward inventors. If an inventor has done any good to the cause of humanity, wherever he may be, he must be rewarded and his invention must be protected. I do not agree that there have been only minor process improvements. I can say from personal knowledge that we have made processes for anti-malarial and anti-tubercular drugs, and many new processes have been discovered by Indian scientists against the processes which have been patented in India. I feel that at the present stage of research, with the facilities given to the Indian scientists, this is a major contribution.

Shri Arjun Arora: Taking into consideration the present position and equipment for research in India do you think it must take at least 20 years for Indian scientists to be able to compete with foreign scientists in the matter of inventions?

Dr. S. L. Mukherjee: It will depend upon the facilities given to the young scientists and how soon they can come up. The present facilities for basic research are completely inadequate because, if you permit me, I will go a little into the background of the pharmaceutical industry. The pharmaceutical industry in 1948 had a turnover of about Rs. 10 crores. In 1958, the turnover was Rs. 54 crores; in 1964 the turnover was Rs. 135 crores. What we have done, when the turnover is low, is to concentrate on the formulation research.

Shri Arjun Arora: Turnover may not be relevant to invention and research.

Dr. S. L. Mukherjee: I am talking about the background.

Shri Arjun Arora: The turnover may increase merely by increasing the facility.

Dr. S. L. Mukherjee: Without an increase in turnover, there will be no investment, no encouragement for investment of the industrialists towards research. As you will appreciate, research itself is a gamble of the highest order, so far as the discovery of new drugs is concerned. As I said earlier, to create minimum facilities for basic research, it requires Rs. 60 lakhs of capital investment and Rs. 33 lakhs recurring. Unless many units of that nature come into India, we could not achieve results. We cannot say what would be the time that it takes; it may be five years. If you are lucky, you will strike at the results within two or three years. A stroke of luck is always there. People have pursued for 10 years and yet they have not found out a drug. I think hon. Members will realise that once the facility is created, the Indian scientist is not far back in their mental outlook and capacity to go forward for doing good work in research.

Shri Arjun Arora: Will you agree with my proposition that considering the present facilities for research in India, there is a case for a holiday from patens for 10 years to 15 years. just as they talk of a tax holiday?

Dr. S. L. Mukherjee: The present facilities are not adequate enough and as a scientist attached to industry, I feel that the present facilities will be considerably increased during the next 10 years, and within these 10 years we will be able to do something. The other firms abroad have shown that within a decade a lot of things could be done. We hope we will be able to follow them.

Shri Arjun Arora: You have stated the truth but only the half-truth. My proposition is that if we have a holiday from patents for 10 years, there will be an enormous increase of production in the country and there will be a larger turnover and the industry will have a greater fund.

Mr. Chairman: His answer has come.

Shri Arjun Arora: We will be able to get a greater amount of research. What is the harm in reproducing Italy here?

Mr. Chairman: It is a matter of opinion. It is a matter for you to decide.

Shri Arjun Arora: I want him to answer. What Prof. Mukherjee is saying supports my case for a holdiay from patents.

Mr. Chairman: If he supports, you take it. The answer is already given.

Dr. S. L. Mukherjee: Taking a holiday from patents will be thwarting the inventions, and I personally do not like it.

Shri Arjun Arora: May I refer you to page 2 of your original memorandum submitted in January wherein you have thought of some payments commensurate with the value of the inventions. How do you compute the value of inventions? I mean the fourth line from the bottom.

Shri S. V. Divecha: We have stated in the memorandum that the royalty should be comensurate with the value of the invention. There are several cases laid down on the aspect of determining the compensation of royalty payable to a patentee in the case of a compulsory licence, and this subject may run through a lot of time. Briefly, there are certain factors which are taken into consideration: one is the expenditure incurred by the patentee and the time during which the patent has been in force, and secondly, the importance of the invention and the commercial utility. These are some of the factors which the Controller takes into consideration.

Shri Arjun Arora: Does the industry also do the same?

Shri S. V. Divecha: This matter arises before the Controller and the Industry pursues it so that the industry also does in the same way.

Shri Arjun Arora: I may now refer to page 7 of the same memorandum where you deal with a case of basic drugs and products. You say that the cost of basic drugs is usally higher in India than in other developed contries and the cost of finished preparations is in most cases much less than the domestic prices of similar products in foreign countries. How does the industry in India achieve this miracle? Is it by adding some more sugar?

Shri Modi: It was already discussed this morning. Sales promotion expenses in India are eight to nine per cent compared to 25 per cent in other countries.

Shri Arjun Arora: It is said that though the basic drugs are costlier in India, the finished products are cheaper than in other countries. Is it by merely having lesser expenses on sales promotion?

Shri S. V. Divecha: May I invite the attention of the hon. Members to appendix II of our supplementary memorandum which explains in detail the reasons why the cost of basic drugs is high in India?

Shri Arjun Arora: How do you achieve this miracle of making these finished products cheaper?

Dr. M. M. S. Siddhu: The question is, how are you able to bring out this miracle, namely, while the cost of basic drugs is high, the retail price paid by the customer is cheaper.

Mr. J. Reece: The process is quite simple. In the first instance, the cost of the active ingredient is normally a small part of the total cost of the drug, and we have in the supplementary memorandum quoted the cost penicillin where the active ingredient is four per cent of the cost of the drug and the drug is sold to the consumer at 62 per cent. So, even if you double the penicillin cost, you are not substantially adding to the total cost of the drug. If you go through the whole list of drugs, you will find they are generally cheaper in India than in other countries. I am relying entirely on the report of the Development Council 1962-63. After making a thorough study, they say that ingredients and packing material account for 40 per cent of the cost; promotion expenses come 9 per cent but it is undoubtedly higher in other countries. Administration and distribution cost come to

15 per cent; again they are higher in other countries. Profit they have given as 16 per cent and possibly it is higher in other countries. The retailer's margin in India is given as 20 per cent, but to my knowledge no chemist in England takes less than 33-1|3 per cent and in Germany they take over 40 per cent. In these various ways the elements of the costs are lower here, than in other countries.

The statements that the pharmaceutical industry is making 900 per cent profit and so on arise from the simple misconception whereby somebody takes the price of the actual active ingredients and compares it with the price which the customer pays. They forget everything in between.

Shri Arjun Arora: Your objection to clause 5 is that it is discriminatory in character because in respect of medicine the patent can be only for the process and not for the substance. Will you be satisfied if this condition is applied to all industries and not merely to drugs?

Shri S. V. Divecha: If we get the same treatment as other industries, we are satisfied.

Shri Arjun Arora: If others do not get it and you also do not get it, will you be satisfied?

Mr. Chairman: It is a hypothetical question.

Shri Arjun Arora: We have given them 10 years and others 14 years. If we say it will be 10 years for everybody will they be satisfied?

Dr. H. R. Nanji: We have said that we would prefer to have 14 years. But if the committee says it is impossible, as a very poor alternative we would agree to have 10 years provided we have a provision for extension.

Shri Arjun Arora: There are so many opinions about the date from which this period of 10 years or 14 years should be counted. What is your view?

Dr. H. R. Nanji: There is an indefinite period between the application for a patent and the grant of a patent. To do away with this indefiniteness, it would be better if the period is counted from the date of the grant of the patent.

Shri Arjun Arora: Do you want the period of 10 years to begin from the date the patent is granted in India or from the date on which the patent is granted anywhere in the world?

Mr. Chairman: We are only concerned with our patenets; the question is not relevant and I rule it out. I rule it out of order.

Shri Arjun Arora: I want my question to be noted. My question is this. Do the witnesses agree that the patent protection should begin from the date on which patents for a particular process or product is granted anywhere in the world?

Shri R. P. Sinha: How is it possible....

Mr. Chairman: They are not concerned with anywhere in the world. You ask whether you want it from the date of application or the date of sealing.

Shri Arjun Arora: I will not ask what you want to ask; that you can do yourself better than I do. I am asking you to revise your ruling. Let me put my case like this. Supposing a particular product is patented in England in the year 1960 and its patent is likely to expire there in England (*Interruption*). It appears people have got their firm opinion in the matter. I have my own opinion.

Mr. Chairman: We do not object to your forming your own opinion. I have ruled out your question. If you want to put any other question you may do so.

Shri Arjun Arora: If you do not want me to proceed, I will go out. I have finished. I walk out in protest.

Mr. Chairman: I have given you more than an hour. We wanted to continue with these gentlemen only for half-an-hour. The other witnesses are waiting.

(Shri Arjun Arora then left the Committee Room).

Shri A. T. Sarma: Why is it that the prices in India are higher than those in Pakistan as far as medicines are concerned?

Shri Modi: It would be difficult for us to answer. Unless we know all the conditions in Pakistan, the customs duties there, whether the licences are free, whether packing matrial is allowed to be imported and so on, we will not be able to answer.

Shri A. T. Sarma: Medicine is the product of the work of expert scientists. Therefore, it is expected to be true and everlasting. Why is it that medicine loses its efficacy or popularity within, say, ten years?

Shri Modi: It is a question of advancement. New drugs are coming in and there is improvement.

Mr. J. Reece: The hon. Member is right that science is a search for truth, but we have not reached the ultimate truth in the field of medicine as yet and we are still searching for the final truth.

Shri A. T. Sarma: Therefore, do you agree that these are not final products of science?

Mr. J. Reece: There will be improvement on almost all drugs available today. But they are the best available today.

Shri A. T. Sarma: Do you conduct research work on indigenous drugs?

Dr. S. L. Mukherjee: A lot of Indian pharmaceutical manufacturers carry on research work on Indian drugs. To my knowledge, CIBA is doing very extensive research work Bengal chemicals and others are also doing a certain amount of research work on indigenous drugs.

Shri A. T. Sarma: A number of Indian drugs have been incorporated in the British pharmacopoeia. Do you want that they should be patented in India?

Shri Modi: I do not think that all the drugs in a pharmacopoeia are necessarily patented drugs.

Shri A. T. Sarma: The Bengal Chemicals have produced certain drugs but they have not patented them. Should they not do so?

Shri Modi: In this country, so far we have taken product and process patent, not process *per se* patent. The method of extracting the ingredients are there. Therefore, those products may not be patented.

Dr. S. L. Mukherjee: Besides, Indian drugs are known and associated with therapeutic drugs. We are only developing. If through our own research we find out something like Reserpin from *sarpagandha*, certainly that has to be patented, and people have taken patents for such things.

Dr. H. K. Nanji: It is not only that research is done in a number of laboratories on vegetable drugs, but a number of our members have started having extensive cultivation of vegetable drugs.

Shri R. P. Sinha: Kindly refer to Appendix I of your Supplementary Memorandum which deals with production of basic drugs in the year 1964. The popular feeling in this Committee, and outside also, is that we are not manufacturing all the drugs, particularly from the basic stage, that we use in India. You have mentioned some of the basic drugs

that are being manufactured in India. This would give an idea whether all our requirements of basic drugs are being manufactured in India. They have also given us their chart where they show the production of drugs in this country. The production has been steadily increasing and we appreciate that. The point is whether we are making all the drugs that we require in this country. We are told that there are 900 drugs in use. What percentage of that is being manufactured in India and what percentage is being imported? Secondly, we are told that the drugs that are being manufactured in India are from an advanced stage and not from the basic stage. Our companies, particularly foreign firms, are only packing, tableting and processing the formulations for actual doses. So, what are your plans for manufacturing medicines in this country? There is another related question. We are told that most of you have got a large number of patents in your names in this country but you are working only on a few of them. There are cases where out of 70 or 60 patents taken only 2 or 3 are being worked. Therefore, the allegation is that you are taking the protection of our patent laws to import products and not to manufacture them here.

Dr. H. R. Nanji: First of all, the cost of import of drugs for the last three or four years is of the order of Rs. 9 crores and the total quantum of production of pharmaceuticals in India is roughly of the order of Rs. 140 crores. So, it is not at all correct to say that a large portion is imported.

Shri R. P. Sinha: Rs. 175 crores includes your processing cost which is very much higher than the cost of active ingredients. So, the point that is urged is that what all the pharmaceutical companies are doing is importing basic drugs, formulating them, making them into tablets, packing them and selling them. Therefore, we are interested in seeing that these drugs are manufactured in India. A chart has been circulated to us by the Lok Sabha Secretariat which gives the number of drugs that are being imported and the number of drugs that are being manufactured in India. Why is it that so many drugs are being imported instead of being manufactured here?

Mr. J. Reece: The answer to this question is the industrial licensing provision. You cannot just decide to manufacture a drug here. You have to submit your application to the DGTD, the Ministry of Industry. Then they will make enquiries whether we have the capacity to do this, to do that and so on and so forth. We cannot just simply manufacture a drug in India. There are many reasons known to them why drugs cannot and are not manufactured in India.

Shri R. P. Sinha: The Health Ministry comes and tells us in the Committee that these gentlemen are not manufacturing these drugs even though they have the patent rights for them. So unless in respect of each item you say why you could not manufacture them here, this prejudice cannot be removed from our minds. Secondly, how many of these items are patented and how many not patented? We are told by other witnesses that unless we weaken the patent law it will not be possible for India to manufacture them. Suppose we weaken or abrogate the patent law, is it possible to manufacture all the drugs in India?

Mr. J. Reece: My answer to that would be "no". Merely having access to the actual patent is no guarantee that one can manufacture the product.

Shri R. P. Sinha: Why are you not manufacturing them?

Mr. J. Reece: We are manufacturing as many drugs as we are being allowed to. I hope, we would be allowed to manufacture them.

Shri R. P. Sinha: How many of them are you not being allowed to manufacture?

Mr. J. Reece: I cannot give that information.

Shri R. P. Sinha: Will you send us a complete note on this subject?

Mr. Chairman: Are there drug control or any other restrictions because of which you cannot manufacture them?

Mr. J. Reece: There are two large factories coming up—one in Rishikesh and another in Hyderabad—in the Government sector and no licences are being given for the drugs that are proposed to be made in those factories.

Mr. Chairman: We have another set of witnesses who have made their air bookings for the return journey. So, we will break here. We will try to finish the other party and then call you at about 5 o'clock. We may have to sit up to 8 o'clock; otherwise, you will have to come again some other day.

Dr. H. R. Nanji: We are prepared to sit and finish it today.

Mr. Chairman: Then, please wait for about half an hour.

(The witnesses were asked to withdraw and to wait)

II. Indian Chemical Manufacturers' Association, Bombay

Spokesmen:

(1) Shri J. H. Doshi

(2) Shri P. D. Nargolwala

(3) Dr. K. Subramanyam.

(The witnesses were called in and they took their seats).

Mr. Chairman: Gentlemen, the evidence that you give is public. It will be printed and distributed to all the members of the Committee and of Parliament. Even if you want any particular portion to be treated as confidential, it will be printed and given to our Members.

We have received your memorandum and it has been circulated to all the Members. If you want to stress any point or want to make out any new point, you may do so; otherwise, our Members may ask you some questions.

Shri J. H. Doshi: We do not have to make any new point beyond what we have mentioned in our memorandum. We are happy at the contents of the draft Bill because in broad outline it covered all the points that we had made out in our old memorandum presented in 1963 after Justice Ayyangar's Report. We had at that time made out three broad points, namely, that the life of the patent should be only ten years, that only the process should be patented and not the product and that compulsory licensing should be made much easier. All the three points are covered by this Bill.

We have also in the present memorandum covered some of the other clauses, ten or twelve of them, and have given our comments. It is only a question of amending them except one clause whose deletion we have suggested—I think, that is clause 87—because it is already covered by clauses 86 and 88, particularly by clause 86.

If any hon. Member wants further explanation of any of our comments or wants to put us a question, we are ready to answer.

Shrimati Sharda Mukerjee: One of the points you have stressed is that the life of patents should be ten years and one of the things that have been brought up here is that the life of the patent should be extended because the cost of research etc. is so heavy that it would not pay otherwise. What is your reaction to that?

Shri J. H. Doshi: We have said that ten years should be from the

date of sealing of the patent and not from the date of acceptance of specifications. We think that the present progress of technology is so fast and the period of obsolescence so short that ten years is a sufficiently long time.

Mr. Chairman: For other than foods and drugs, it is 14 years.

Shri J. H. Doshi: You have mentioned 14 years.

Mr. Chairman: You have no objection to that?

Shri J. H. Doshi: We have not commented on that. Ours is a chemical manufacturers association. We have commented on the section pertaining to foods, drugs, pharmaceuticals and chemical processes. 14 years period applies to engineering goods on which we have not commented.

Shrimati Sharda Mukerjee: What do you mean by saying that compulsory licensing should be made easier?

Shri J. H. Doshi: That is covered here. We had mentioned it in our Memorandum submitted in 1963 and all the three points which we covered then are covered in the present draft Bill. In between, there were suggestions about complete abrogation of patents. The Cabinet Sub-Committee suggested 7 years. Finally, your draft Bill has come back to the terms suggested by us. So, we can rightly take pride in this matter that you have accepted our suggestions.

Shrimati Sharda Mukerjee: Do you think we have the necessary technological and industrial base to even manage without the assistance of these big people who come here?

Shri J. H. Doshi: I do not think it in any way prevents any manufacturer from coming here. On the other hand, the idea is to force them to start manufacturing here. If that purpose of the Bill is served, this question does not need to be answered.

Shrimati Sharda Mukerjee: Supposing they get better terms outside, do you think this will deter them from coming here?

Shri J. H. Doshi: I do not think any reputable manufacturer can ignore the market of a country like India.

Shri Sham Lal Saraf: For our chemicals and these drugs that you manufacture here, particularly that come under patents for which the validity period is being fixed, will it be possible for our country, with the talent that we have at our disposal, to go the whole hog with our manufacturing programme of producing new processes without taking into consideration what is happening elsewhere? Let me clarify it a little more. Knowing as we do that the know-how within the country is far far less than it is available elsewhere and, secondly, the capital is also needed to be imported into the country, keeping both these angles in view, do you consider that our patent system will be successful when in other countries, the validity period for a patent which is being fixed here is more than what is being envisaged in the Bill?

Shri J. H. Doshi: I have already answered this. I entirely agree with the hon. Member that our technology and know-how is not sufficiently progressed to do everything ourselves. We do need their assistance; we do need their help and we do need their know-how. But, as I said, the Bill is not of a preventive nature. The Bill suggests that the people who want to register their patents here should take early steps to start production of their products in this country.

Shri Sham Lal Saraf: You have not caught my point. My point is that the validity period of those very

patents registered elsewhere in the world is much more, that is, 14 years to 16 years or even a little more. Will it be a sufficient incentive for them to come and work in this country or to invest, if necessary, in the manufacture of chemicals and pharmaceuticals here?

Shri J. H. Doshi: For a while, they may not come. But that is my opinion. As I said, how can a reputable manufacturer having a foothold in all the countries of the world afford to ignore a country like India?

Shri Sham Lal Saraf: That is again a matter of opinion. In actual practice, there are other considerations also. Anyway, I come to another question. There are different stages of research, the fundamental research, the basic research and the applied research. Are we fully equipped for it from technological point of view? Then, I will come to the point of view of management.

Shri J. H. Doshi: No.

Shri Sham Lal Saraf: In doing fundamental research in drugs, particularly the life-saving drugs, we know and we see that elsewhere in the world, in the bigger countries and industrialised countries, much more effort is put in in order to arrive at new inventions and new things that can be patented.

Shri J. H. Doshi: We are not equipped. In the research field we have not progressed in a comparable manner as the Western and highly industrialised countries have. We must admit that. Therefore, we want them to come here; we want them to put their industries here and to start the manufacture here. 10 years time is sufficiently long under the present conditions of rapid technological progress and the shorter period of obsolescence.

Shri Sham Lal Saraf: Don't you think these are two separate questions, one of the validity period of patent and the other of making it possible for them to manufacture drugs in this country? Can't there be other provisions introduced in the Bill that will enable us to get as much know-how as possible provided they get sufficient incentive to come with their know-how and also with their capital in case capital is needed?

Shri J. H. Doshi: There are other financial incentives which may be considered.

Shrimati Sharda Mukerjee: You mean royalty?

Shri J. H. Doshi: Royalty or tax relief or tax holiday or the guarantee against nationalisation.

Shri Sham Lal Saraf: So, it is conditional.

Shri J. H. Doshi: If the Committee feels that way, a provision for further extension of the patent life by another four years may be made at the discretion of the Registrar so that they always have a temptation that in case of necessity, the life of the patent will be extended by a further period of four years.

Shri Sham Lal Saraf: There is a network of research laboratories in the country known as national laboratories. The Drugs Research Laboratory has also been set up. May I know, firstly, as to what extent they have been able to make some progress particularly in the fundamental research and the basic research and, secondly, whether there is some proper link established between the research organisations and the manufacturing organisations so that we work out easily the actual manufacturing processes?

Shri J. H. Doshi: Much progress has not been achieved yet. It will take time. Research is a tradition. You have to build a tradition. You should make your chemist or scientist research-minded. They must be watchful. They must know how to

notice the effects of a certain reaction. Although a reaction may take place and they may not notice it. It requires time. As I said earlier, it is a matter of tradition which we have to build up gradually. It will take its own time.

Shri Sham Lal Saraf: My point was specific. There are the laboratories set up by the Government. I too had something to do with some laboratories.

Mr. Chairman: Is there any liaison?

Shri J. H. Doshi: I have not come to the second question.

Shri Sham Lal Saraf: The first question was whether the drug laboratories set up by Government have established some inventive processes.

Shri J. H. Doshi: They have established processes but have not achieved much progress. About the second question, the liaison between research laboratories and the industry is now being established. The process has just started in the beginning of this year when CSIR arranged a seminar or conference here in January. Liaison centres are being set up. A centre in Bombay between our Association and the CSIR has been set up. The chemists from CSIR come to Bombay and meet the members of our Association who are all industrialists and discuss the problems with them. This process has just commenced. Up till now, there was a barrier between the CSIR and the industry and there were a lot of hostilities, but now this barrier is gradually being broken up.

Shri Sham Lal Saraf: The proper link has yet to be established?

Shri J. H. Doshi: As I said, it is in the process of being established.

Shri Sham Lal Saraf: With regard to price factors, this morning we got certain papers in which certain things have been made out. The prices at which drugs and chemicals are available in this country are lower, in most of the cases, when compared to the prices of drugs in America or the United Kingdom. But when compared to Pakistan, our prices are higher. Your Association being such a prominent Association, some of your manufacturers might have their branches in Pakistan also. Is ICI a member of your Association?

Shri J. H. Doshi: Some of the sections of the ICI are our members.

Shri Sham Lal Saraf: Could you throw some light to enlighten us as to why there is such a gap between the prices in this country and those in Pakistan?

Shri J. H. Doshi: That is a question which requires investigation. But I agree that the prices in U.K., United States and some other countries are even higher—I am referring to drugs—than the prices in this country. At the same time in other countries they are lower also. That depends on the patent position. In countries like Italy, the prices of some items may be higher and those of others may be lower. There are a number of factors affecting the price structure.

Shri Sham Lal Saraf: My question is specific. Some members of your association have manufacturing organisations in Pakistan also. Could you tell us, if not now, at least some time later, why the prices in Pakistan are lower—and in certain cases much lower—than our prices?

Shri J. H. Doshi: Will it be possible for you to name the product? We do not think that the ICI have any manufacturing unit in Pakistan to the best of our information.

Shri Sham Lal Saraf: Some of the firms like Hoechst may have..

Mr. Chairman: There are so many factors—tax structure, restrictions, etc. They have no idea.

Shri Sham Lal Saraf: Some of their members have branches in Pakistan also. So let them find out. They will be helping the Committee by that way.

Shri J. H. Doshi: I can find out if names of same products are given to us.

Mr. Chairman: You can find out why the costs of drugs in Pakistan are cheaper than in India.

Shri K. V. Venkatachalam: Here is a statement giving the comparative prices in India and Pakistan. It contains a number of drugs. You can select half a dozen from that list and find out.

Shri J. H. Doshi: It is understandable because Pakistan has no drugs industry. They are importing from all countries of the world. In any importing country, the price structure is lower than that in the country where it is manufactured. Since we started manufacturing, our economy has become an expensive economy, a high cost economy. When we were importing, our price structure was also lower than at present because we could import from Italy, Japan, etc.

Shri Borkar: This list contains some drugs which are imported in India also. The ICI imports them here. There should be some parity in prices.

Shri J. H. Doshi: If it is a comparison of only imported products, the prices should be comparable.

Shri Sham Lal Saraf: We cannot say from the list what is imported and what is not.

Shri J. H. Doshi: We shall find out.

Shri Sham Lal Saraf: It will help the Committee if the hon. witness would kindly get us this information.

Mr. Chairman: You have a copy of the list You may get us the information if you can.

Shri Kashi Ram Gupta: In the previous Act there was a time limit for sealing, *i.e.*, from the date of application to the date of sealing, the maximum limit was 2 years and 3 months. The present Bill has not got such a provision. Are you of the opinion that there must be a provision, as was there in the previous Act, limiting the time of sealing from the date of application to the sealing of the patent.

Shri J. H. Doshi: It is desirable to have such a ceiling.

Shri Kashi Ram Gupta: I wanted your opinion. There is no provision in the present Bill.

Shri J. H. Doshi: I say that it is desirable to have a provision.

Shri Kashi Ram Gupta: The present Bill provides for a maximum of 4 per cent or royalty. Are you agreeable to this?

Shri J. H. Doshi: We have not commented on that, but we think that is should be more flexible. It is 4 per cent free of tax, which normally would come to 8 per cent.

Shri K. V. Venkatachalam: Not tax free. It is 4 per cent subject to tax.

Shri J. H. Doshi: Although we have not commented on this, we believe that it should be more flexible with a certain ceiling. We may put a ceiling of 8 per cent. But it should be fixed by the Registrar or the Government of India depending on the utility of the product. But we should not fix a certain percentage.

Shri Kashi Ram Gupta: When you say 8 per cent you want a maximum of 8 per cent?

Shri J. H. Doshi: Yes, subject to tax.

Shri Kashi Ram Gupta: The legislation can be only upto 8 per cent Is that your idea?

Shri J. H. Doshi: It can be 4 per cent or 5 per cent or 6 per cent, but upto 8 per cent.

Dr. M. M. S. Siddhu: What is the position of our country in regard to the production of basic fine chemicals? How much progress we have achieved and what are the likely prospects because if there is any hardship, the foreign collaborators may not be forthcoming and we may be isolated.

Shri J. H. Doshi: I do not think that we have made much progress in basic fine chemicals.

Dr. M. M. S. Siddhu: In that case, how are you going to base our chemical industry?

Shri J. H. Doshi: We have to import it for the time being.

Dr. M. M. S. Siddhu: What do lou think should be done for a fine chemical in our country?

Shri J. H. Doshi: So many schemes have been thought of and promoted, but unfortunately progress has not been achieved. For instance, take the Hindustan Organic Chemicals; even the base of buildings have not come up; it is a government-sponsored project.

Shri Bade: You have said that clause 87 should be deleted. This has been put in looking to the peculiar circumstances in the country. Clause 86 says that the Central Government will apply to the Controller three years after the sealing of a patent to have the compulsory licences. If you say that clause 87 should be deleted, you do not make a difference between patent in the drugs and medicines and patent of other things. Am I right?

Shri J. H. Doshi: The answer is this. This clause says that the Controller shall grant permission to any person to work the invention. It means that the Controller has no option. He has to grant permission whether the person asking for compulsory licence is qualified technically or financially for it or not....

Shri Bade: My point is that there is a difference between clauses 86 and 87. Under clause 86 the Central Government will move the Controller three years after the sealing. Under clause 87 those patentees regarding drugs and medicines will be deemed to be licencess of right as soon as they apply. We do not want the foreigners who have the monopoly in these things to take advantage of our poor people.

Shri J. H. Doshi: As far as Government is concerned, they have the power under other sections too. As far as private parties are concerned, they have to wait for three years. You must give some protection to the patentee. After all three years is not a long time. Even otherwise without the know-how it is very difficult to manufacture it.

Shri Bade: Those who have already got it should continue. According to clause 87 they will be deemed to be licensees of right.

Shri J. H. Doshi: They must have been already working for three years.

Shri Bade: Sometimes they may not.

Shri J. H. Doshi: Three years time is reasonable.

Shri Bade: Not that Government should apply to the Controller every time.

Shri J. H. Doshi: Otherwise we shall be washing out the purpose of the Bill. Clause 87 is as good as abrogation. We have tried to compromise so that we do not earn a bad name in the country. If you put in clause 87, it is as good as abrogation.

Shri Bade: There is no royalty.

Shri J. H. Doshi: 87 does not cover royalty. 88 covers royalty.

Shri Bade: If you read 88, you will see that four percent royalty will be given. In 86 Government will apply to the Controller.

Shri J. H. Doshi: Clause 87 is as good as abrogation. It can be slightly amended. But we are definitely against 87.

श्री चोरड़िया : पेटेंट की अवधि कम रहे यह जो सुझाव है यह इसलिए दिया गया प्रतीत होता है कि ताकि दूसरे लोग भी उन चीजों को बना सकें इमीटेट कर सकें । आप देखें कि बहुत सीमैडीसिस ऐसी हैं जिनका पेटेंट पीरियड समाप्त हो चुका है किन्तु हमारे निर्माता लोग उनका निर्माण अभी तक भी नहीं कर पाए हैं । अगर पेटेंट की विधि कम रहेगी तो उसका फल यह होगा कि एक तो वे लोग रिसर्च पर अधिक खर्च नहीं कर सकेंगे और दूसरी ओर हमारे यहां के निर्माता उनका निर्माण नहीं कर पायेंगे । ऐसी अवस्था में जो बीमार लोग हैं उनकी जो स्थिति है उसका हल किस प्रकार निकल सकता है ?

Shri J. H. Doshi: I won't be able to reply in Hindi, though I have understood the question. If they do not start manufacturing here, we have to import them for our sick people. Imports are not forbidden. If we are not able to manufacture it till the valid period is over, we will have to import.

Shri V. M. Chordia: In India many medicines are not manufactured even though their ten year period is over. This will hamper the research. How will you balance the two? They do not have the know-how!

Shri J. H. Doshi: Know-how is quite another thing. Process is different from know-how. After the expiration of the patent you may have the process, but not the know-how. We are seeking collaboration for the know-how even for designs and processes which have expired 25 or 30 years ago. We can never believe that after the expiry of ten years we will be able to make everything. We will have to develop our know-how in every case. Till such time we will have to import.

Shri V. M. Chordia: How will you encourage people who want to do research?

Shri J. H. Doshi: There are other incentives. For instance, tax relief.

Shri V. M. Chordia: Tax relief is already given.

Shri J. H. Doshi: That is nominal. It is nothing substantial.

Mr. Chairman: After the patent lapses, anybody is free to develop know-how?

Shri J. H. Doshi: Developing know-how is different. Anybody can have the process. How to convert the process into a commercial product? That is know-how. It takes years.

Mr. Chairman: It has not happened?

Shri J. H. Doshi: Even in respect of processes which have expired 25 years ago we are not able to reproduce in our pilot plants. That is something different.

Shri B. K. Das: You say that clause 48 gives the Government unlimited powers, without processes of law or due compensation. How do you like it to be improved?

Shri J. H. Doshi: The Association suggest that Government should resort to this caluse only in those cases where the patent is not worked out in this country to manufacture drugs in sufficient quantity to meet the requirements of the country and at reasonable prices.

Shri B. K. Das: In clause 48, it is provided that Government may import for its own use in case there is

an epidemic as well as for defence purposes.

Shri J. H. Doshi: For defence and for epidemic, we have no objection. We have made exceptions too. Under normal conditions, unless the party holding the patent is not prepared to manufacture and sell at reasonable prices and to meet the requirements, the Government should not start importing them. By so doing that it will be cheaper, you will be killing all the incentives to manufacturers to come here.

Shri B. K. Das: Then, under what circumstances Government can utilise that power?

Shri J. H. Doshi: For defence and epidemic cases only. Or under such circumstances if it is being produced but cannot be stepped up quickly, then they can import.

Shri B. K. Das: Speaking about compensation, should it not be given? Here compensation is not provided for.

Shri J. H. Doshi: In that case too, compensation should be given to the patentee. That is in case of defence and epidemics too.

Shri B. K. Das: In all such cases, if it is for government's use, compensation ought to be provided for?

Shri J. H. Doshi: Yes, Sir.

Shri B. K. Das: Can you give me any idea as to on what basis compensation is to be paid?

Shri J. H. Doshi: I think it is 4 per cent free of income tax. But, now, as the wording goes, that excludes all taxes current in the country. If it is 4 per cent subject to taxes, then our limit for that is 8 per cent.

Shri B. K. Das: You will be satisfied if 8 per cent compensation is provided for.

Shri J. H. Doshi: Yes, Sir.

(The witnesses then withdrew and the representatives of the Organization of Pharmaceutical Producers of India, Bombay were called in again.).

(These witnesses reappeared and they took their seats).

Shri R. P. Sinha: The point is that I have not got the answers to my question which I put to the witness before. I made a point that there are a number of companies holding a large number of patents and that they are not making use of them. Now, I have got a note prepared by the Ministry and got it circulated to all of us. It says:

The products for which the processes are patented and are being exploited in India are only a few as mentioned below; they are a large number in the list. I may read only one or two.

CIBA:

This firm is holding a large number of patents in India but to the best of our knowledge, they are manufacturing some harmones and some sulpha drugs.

GLAXO:

This firm is also holding a large number of patents in India. But, to the best of our knowledge, they are exploiting only one or two Vitamin tablets. (A)

Hoechst:

This firm's representative is also here; they are holding many patents in India but are exploiting only one. They are doing Tolbutamide.

Parke Davis:

This is a wellknown American firm holding a large number of patents but are exploiting only a few. They are manufacturing Tetracycline.

May & Baker:

They are holding several patents but are manufacturing only chloroprocaine and some sulpha drugs.

Merck Sharp:

This firm is holding a number of patents in India but they are manufacutring only Vitamin B-12.

There is another American Company which is holding 93 patents. They are manufacturing only a few. Like this, there are a number of companies having a number of patents but they are manufacturing only three or four. The note further says that there are a number of companies mentioned therein with and without foreign collaboration who are manufacturing 1,933 pharmaceutical formulas under their own registered proprietory trade names. These foreign companies in India and the foreign firms abroad are surely holding innumerable patents for various specific products and processes. To the best of our information, all of them are having patented formulas in India. This is a very serious charge against the pharmaceutical industry in India. Although you said that their production has increased from ten to twenty fold, we are told that they are not producing the basic things. This is number 1.

Charge Number (2) is that you are holding a large number of patents here but exploiting a few. Therefore, if we weaken the Patent Law, probably others will also exploit them or you will be compelled to take them up.

Dr. H. R. Nanji: The first question I would like to ask the Health Ministry is: certain targets have been fixed by the Development Council for the Fourth Plan and how many of these patented drugs are included for manufacture in that Plan? We have got the targets ready for the Fourth Plan and we would like to know as to how many are included there. If they are not included, that means that their demand is very small and nobody would like to produce them.

Shri R. P. Sinha: You are putting a question to a question. That is not a correct reply. Our minds will not be properly changed on that basis. You have got to explain this point, these allegations against the pharmaceutical industry in India.

Dr. H. R. Nanji: We shall send you a detailed reply after taking into consideration all these points. But we cannot give the answer here.

Shri R. P. Sinha: I want this answer. This is a point which has not been covered in your two memoranda. You have said very general things in your memoranda.

Dr. H. R. Nanji: This also we would like to know—it is said that many firms are holding so many patents which they are not exploiting. Who are they? We would like to have this information from Govt. records.

Shri R. P. Sinha: Is it not a fact that CIBA is holding so many patents? How many patents they are holding and how many they are exploiting and how many they are not exploiting? If not, why?

Mr. J. Reece: The charge that my company manufactures only two products and imports the other patented products is not correct. Some of these, *viz.*, cortisone, hydrocortisone, Plednisolone acetate, etc. are manufactured. Secondly the manufacture of a product depends upon its demand in the country. The charge that we are holding back their manufacture in this country for reasons best known to ourselves is not a valid charge. That is why I would welcome an opportunity and I am sure every company would welcome the opportunity to take this statement and give full details.

Shri K. V. Venkatachalam: I think if you could put the question differently they will be able to answer.

Mr. J. Reece: May I say that the implication against my company that we are importing all our drugs is not correct. Our import Bill comes to

only 7% of the materials used and most of our raw materials are available here.

Shri K. V. Venkatachalam: If patented drugs are imported and are not manufactured in this country, why should they not be manufactured in the country? They are manufacturing certain drugs in this country and certain drugs are also imported in the finished form. Why are the latter not being manufactured in this country?

Dr. H. R. Nanji: The list you have given us is a long list. The first observation I would like to make is: it does not give a complete picture for this reason. Quite a number of items included in this list have recently been licensed by the Government for manufacture in this country. In some cases applications for licences are pending before the Government and I will read out those from this list.

Erythromycin—licence is pending for the last 2 years. Insulin is already being manufactured by Boots. Tolbutamide-Hoescht has got a licence and their capacity is 40 tonnes. There is not the slightest need for importing this small quantity. The quantity imported is 1½ tonnes. They can very well make that quantity. They made only 12 tonnes.

Shri K. V. Venkatachalam: Why have they not made more?

Dr. H. R. Nanji: There are limitations of import licence in certain cases. That is why it is not manufactured upto the licensed capacity.

Then we go to Chlorpropamide—Pfizer have already set up a factory and they will be soon going into production.

Lastly Chlorpromazine—May & Baker has been licensed and they are going to manufacture this drug. I think in fairness this allegation is not correct.

Mr. Chairman: You may give a statement giving the true facts and it will be circulated to our members.

Dr. H. R. Nanji: We will send a detailed note.

Phenyl Butazone—Suhrid Geigy has got a licence.

The second point is: the items included in this list are all items, the demand for which is very small and no manufacturer would think of going into production of small quantities.

Shri Bade: Why do you hold thousands of patents and thereby block the way of others?

Dr. H. R. Nanji: Anybody can ask for compulsory licence. The original charge was that these are being imported and not being manufactured here. Regarding that we shall send you a detailed statement giving the exact position and I would also sugest that you may verify what we say from the D.G.T.D.

Shri R. P. Sinha: What about other companies—Hoescht and Merck Sharp & Dohme?

Mr. Keith C. Roy: The position as regards Merck Sharp & Dohme is—although it does not appear on the list there—in so far as our manufacturing capacity of Vitamin B12 is concerned, we were licensed under the Industries (Development and Regulation) Act to manufacture 30 kg per year which were the full requirements of the country as determined in consultation with the then Development Wing. The target for the Fourth Five Year Plan has been put at 60 kg and we have an application pending with the Ministry of Industry for over 2 years, requesting that we may be allowed to increase our capacity to meet this requirement. As of to-day, no orders have been passed on that case.

In so far as other patents which we hold are concerned, the position is, as Dr. Nanji has indicated, that it is not correct to say that we are blocking the progress of others who wish to exploit those patents. As we have tried to show in the case of process patents you have necessarily, as the law now stands, to take a number of processes and patent them; and out of them perhaps one or two processes may prove to be commercially exploitable. The other processes which are indeed covered by patents are not exploited commercially because they are not economic processes. But, as we have stated, there is nothing whatever to prevent any other person coming and applying for a compulsory licence for those processes and exploiting them, processes which we consider to be uneconomic.

Shri R. P. Sinha: How many of the patents that you are holding are being commercially exploited and how many are not exploited and why they are not being exploited?

Mr. Keith C. Roy: I regret I can't give you that answer straightway. I will certainly obtain it and send it to you.

Shri S. V. Divecha: So far as my company is concerned, we don't hold any patents in India, but our foreign collaborators are holding some patents in India. I don't have any details as to the number of patents which they hold in India and the number they work. I shall try to find that out from them, but in so far as my company is concerned, I can say that we are manufacturing four patented products in our factory in Greater Bombay.

Shri R. P. Sinha: Regarding the statement about this Rs. 9 crore worth of imports that you are making of the basic drugs, will it be possible for you to give us an idea about your plans for making them in India and about what is standing in your way, whether it is due to Government regulations or that they are required in very small quantities?

Dr. H. R. Nanji: Quite a large proportion of this Rs. 9 crores is made up of intermediates which are required for the manufacture of drugs and these intermediates at present could not be manufactured in India because the basic chemical industry does not exist. We still don't have even a simple thing like phenol. We had been promised that the Hindustan Organic Chemicals will go into production five years ago. It still has not started making a single product and that is the reason why we are obliged to import this quantum of Rs. 9 crores. But there has been a constant reduction in the quantum of imports during the last ten years.

Shri R. P. Sinha: I draw your attention to your supplementary memorandum dealing with porfitability. I also draw your attention to another note which I got sent this morning by the Lok Sabha Secretariat to you, in which a statement showing the remittances of profits made by certain pharmaceutical companies during the period April 1963 to March 1966 is given. The names of the different companies are also given. It is very difficult for me now to find out as to how these figures of remittances are to be related either to your net worth or to the capital employed by these companies. Now, in order to find out whether these companies are making unreasonably high profits or they are making reasonable profits, I must relate them to the percentage of your capital employed or your net worth. Will you help me in furnishing the figures for the companies mentioned in this statement so that I might arrive at correct figures?

Mr. Keith C. Roy: Mr. Chairman and Hon'ble Members, these figures were mentioned to me very informally and naturally I have not got all the data here with me, but I can say quite categorically that in respect of Merck, Sharpe and Dohme, the figures shown are totally incorrect.

Shri R. P. Sinha: Are you aware that these figures have been given by the Reserve Bank?

Mr. Keith C. Roy: No, Sir.

Shri R. P. Sinha: If you refer to the first page, you will find that they have been given by the Reserve Bank.

Mr. Keith C. Roy: May I first of all make a statement that in respect of Merck, Sharpe & Dohme, these figures are absolutely incorrect? Whether they have been furnished by the Reserve Bank or not, I can't say but it is stated here....

Shri R. P. Sinha: Can you give me the correct figures?

Mr. Keith C. Roy: Yes, Sir. First of all, if I may take, as I can only take, the case of my own firm, Merck, Sharpe and Dohme, it says that in 1963 the remittances was 71,209 dollars. Now the first point is I don't know to what period in 1963 the figure relates. Is it the calendar year 1963 or is it the financial year ending 1963? In fact, in the case of my company, it happens that our financial year ends in November and, therefore, it is very difficult for me to say to what exact period these figures relate.

Shri R. P. Sinha: I can only give the figures of remittances furnished by the Reserve Bank. I didn't look into the company's figures. This relates to actual remittances in 1963.

Mr. Keith C. Roy: Yes, Sir, I have tried to check the figures on that basis and, therefore, as regards the figure entered in this statement for 1963, I have assumed that, since our accounting year ends in November 1962, this figure of 1963 in the Reserve Bank statement must relate to the dividend which we remitted for the year ending November 1962, which would be sometime during the year 1963. The figure for 1963 in the statement is shown as $ 71,209. In fact, Sir, our remittance for that year was $ 40,840. The figure, of course, was converted at the old rate of one dollar-Rs. 4.76. I take the figure of 1964 in which the remittance in the Reserve Bank statement is shown as $ 147,724. I am presuming that this relates to the remittance for our year ending November 1963. The dividend which we remitted was $ 96,429. Then, Sir, the figure for 1965, which again I presume relates to the dividend which we declared for the year ended November 1964, is shown in this statement as $ 322,431, whereas in fact, it was $ 77,143. I would say with respect, Sir, that these figures are totally incorrect. I would also like to make it clear that although in this case, the Reserve Bank states that they have no information regarding the amounts paid to foreign firms under other heads of accounts, namely, royalty and technical know-how, in the case of my company, there can be no doubt whatever that about any other figures being mixed up within these figures, because Merck in India does not pay any amount of royalty, or fees of any other kind to Merck & Company in the United States.

Shri R. P. Sinha: What about Glaxo?. Maximum remittance is for Glaxo.

Shri Keith C. Roy: Yes, Sir. I do not know whether these figures are correct or not.

Shri R. P. Sinha: What is the suggestion of the leader of the witnesses? Will he throw some light on it.

Dr. H. R. Nanji: We will check up the accuracy of these figures and give you the true picture very shortly.

Shri Keith C. Roy: May I just try to answer the Hon'ble Member's

question in regard to the request which he made for assistance in trying to elucidate some of the figures which were set out in the Reserve Bank bulletin. I have, Sir, made a fairly close study of the figures both in the November, 1964, and the November 1965 bulletins which contain certain figures relating to the pharmaceutical, chemical and other chemical industries. I would like to state that, first of all, the figures in the 1964 bulletin which relate solely to the chemical industry are quite incomprehensible even to a reasonably intelligent person, if I may say so. Unfortunately, Sir, there are, as I said this morning, three basic concepts against which we must attempt to measure the financial stability of a company. One is the paid up capital, which means the equity capital; the preference capital and any banks shares that might have been issued. The second concept is the net worth of a company. The net worth of a company is a concept of the paid up capital plus reserves plus the surpluses which come forward each year from the profit and loss account. The third concept is the concept of total capital employed. The total capital employed is the paid up capital as in the first instance, plus reserves and the surpluses as in the second definition plus all the provisions for taxation and borrowings. In fact, Sir, the concept of capital employed is the concept of the total monies used in a business, whether they come from the capital raised or whether they come from borrowings. Now, Sir, if I may take one minute of your time and come to the article in the November, 1964, issue, they have used a concept of total capital employed. Now this I have discussed with one of the Deputy Governors of the Reserve Bank and he has clearly admitted to us—my colleague Dr. Nanji was present at that time—that they have not included reserves and borrowings in the concept of total capital employed. Therefore, Sir, when they arrived, in the November 1964 issue, at a figure of 23% as representing the gross profits as a percentage of the total capital employed, they have related that gross profit to a figure which is not a correct concept of the total capital employed. The second point I would like to make, Sir, is this. That in the 1965 issue of Reserve Bank of India Bulletin, strangely enough, there is no figure at all of total capital employed. Yet the same article does produce a percentage, in the same way as the 1964 issue did, of gross profits as a percentage of total capital employed. But no figure of total capital employed has been given in the article. But with all those limitations, Sir, the figure which emerges from the 1965 issue of gross profits as a percentage of total capital employed is only 13·7% against the 23% taken in 1964 bulletin. My submission, Sir, on these figures, is that they have no relevence as reflecting the true state of the industry as a whole. With those limitations, Sir, I still feel that perhaps I can help the Hon'ble Member in arriving at some view as to where the industry stands in regard to certain basic concepts. In this case, I am referring to the article in the November, 1965 Bulletin, recognising the limitations of the definition which have been given.

Table 3 on pages 1694-1695 of the 1965 issue, compares the status of the industrial group called "Medicines and pharmaceutical preparations" in relation to 28 other industrial groups. This is, in fact, an overall survey of 1,333 companies taken by the Reserve Bank; and, out of the figures that emerge from that examination, they have arrived at figures which they call the national average. If I could take two minutes more and then I will finish, I will try to give you some idea of where the pharmaceutical industry stands in this matter. I will just read the relevant figures from Tables 3 and 4 of that article.

The dividends expressed as a percentage of profits before tax in the pharmaceutical industry is 17·2% against the national average of 29·9%. The profits retained in the business, as a percentage of profits before tax, are 20·6% in the case of pharmaceutical industry against the national average of 18·8. In other words, the pharmaceutical industry is ploughing back into the industry more than the national average. The dividends paid as a percentage of profits.... The dividends paid as a percentage of profits after tax is 45.5 per cent against the national average of 61.15 per cent. Again, the dividend distribution is appreciably below the national average, which again reflects itself in the ploughing back of profits into the industry. I would then pass on to Table 4 and give what we consider to be the three main criteria. Now, I have mentioned that net worth is the total capital *plus* reserves *plus* surpluses. The profits after tax as a percentage of Net worth in the pharmaceutical industry would come to 12.7 against the national average of 9.32. That is to say, Sir, in the pharmaceutical industry the profits expressed on that basis are somewhat higher than the national average. But I would ask you to bear in mind, Sir, that at the present moment the borrowing rates from any commercial bank are something of the order of 8 to 10 per cent. Dividends expressed as a percentage of net worth, which again is an important indicator, are in the case of pharmaceutical industry 5.8 per cent, against the national average of 5.7 per cent. Again dividends as percentage of paid-up-capital are in the case of pharmaceutical industry 10.4 per cent against the national average of 10.3 per cent. So keeping in view the limitations to which in our submission, the Reserve Bank bulletine figures are subject, I would suggest that the position of the industry as regards its profitability, its dividend, and its retention of profits within the industry compares favourably with the national average figures. And if I can help the hon. Members further in interpreting these figures, I shall only be too happy to do so.

Shri R. P. Sinha: Sir, I am grateful to the hon. witness for the explanation he has given. I wish Mr. Misra would have been here, as he would have benefited; he is also an economist. I wanted to put a few questions in respect of research. Now, so far as basic research is concerned, only one company, *i.e.* CIBA in the private sector, is doing that. In the public sector some basic research is also being done by Pimpri. Now the complaint, Sir, is this that although, as is evident from the figures given by the learned witness himself the profitability figure in the pharmaceutical industry is higher than the general average of profitability in other industries, The pharmaceutical industry is not investing enough moneys in the basic research in this country. What they are doing, as they have themselves explained, is the formulation of a development process research. What we are anxious about in this committee is that in India we should develop basic research. Now I would like to know that although we had this patent law which is quite favourable—as they themselves say that the present law is preferable to the Bill as now before us—is it that your companies have not set up the basic research work in this country? Have you got any of developing basic research in this country? And if so, will that be affected by this present law?

Dr. H. R. Nanji: So far we have not been able to undertake basic research. The quantum is comparatively small. But there are certain fundamental limiting factors which have led to the situation. First of all, as Dr. Mukerjee has indicated, a worthwhile research unit requires a capital investment of something of the order of Rs. 60 lakhs and a recurring expenditure of Rs. 30 lakhs. Secondly, there is the absence in this country of a sound technological base of

organic chemical industry, pero-chemical industry and fermentation chemical industry. These three have not developed and these are absolutely essential for undertaking basic research. Thirdly, research is directly linked with the production. We have given you figures of production in the U.S.A. and other countries and also in India. Production in the USA is of the order of Rs. 1,645 crores per annum; production in India, as you know already, is of the order of Rs. 140-150 crores. Sir, I am quite certain that as time goes on, as production develops, as the technological base of chemical, petro and fermentation industries is built up, basic research definitely will be undertaken in this country, and I am quite certain that in the next ten years we shall see a very substantial improvement of this industry.

Shri R. P. Sinha: But I understand from Dr. Govindachari that basic drugs require chemical research and clinical testing. And clinical testing both at his institute, CIBA institute, and that at the ICSR and other places takes about 6, 7 or 8 years. Now, if this is the position, how to reconcile by having a lower period of the patent and at the same time develop basic research in this country? Now, the difficulty in my mind is this. If we reduce the period of a patent, it will affect, as explained by Dr. Govindachari, the development of basic research. Will you give your idea in this matter?

Dr. H. R. Nanji: I have been a member of the Executive Committee of the National Drug Research Laboratory in Lucknow for some years and this deficiency of clinical facilities in the country has been felt repeatedly in the last three or four years. I must say that the situation has considerably improved and it is hoped that further improvement will take place in the next two or three years, because special attention is being given to this question of clinical testing. At present, facilities are not adequate. Therefore, it takes a long time.

Shri R. P. Sinha: I would now like to go to clauses. I would like you to tell what is your objection to clause 87(1) (licences). There are cases going on for 4, 5 or 6 years and the big companies which you represent are harrassing the people who want compulsory licence in such a manner that they cannot make use of the provisions of the compulsory licences. This has come to us as evidence. Could you tell us to ensure that you do not permit such a thing happen, i.e. when a compulsory licence is granted a man make use of it and not go into ruination on account of litigation as is being done at the present moment?

Shri S. V. Divecha: Sir, in so far as the Compulsory Licensing provisions are concerned it has been complained that the obligations or the grant of Compulsory Licences causes lot of delay. It is for this specific reason that we have submitted our amendment to clause 87(1) wherein we have specifically provided that Controller should decide the case in three months and the Appeal will also be disposed of in three months.

Shri R. P. Sinha: How can we give this direction to the High Court. Is it possible to give direction to the High Court?

Shri S. V. Divecha: As regards the Appeal against the order of the Controller the Tribunal could be directed by the Act itself to decide the Appeal.

Shri R. P. Sinha: And suppose the Tribunal does not dispose of the case what will happen? I have not seen any such piece of legislation where the time limit is put on the Supreme Court or High Court.

Shri S. V. Divecha: We have suggested a Tribunal.

Shri R. P. Sinha: Now we would like to ask from you there is lot of

complain and very correctly that the advertisement costs in this country are heavy. Now is it possible to reduce the cost of the medicines if they reduce the promotion expenses and advertisement expenses?

Dr. J. Reece: I would submit if the cost on advertising—which is already very modest—is reduced it is very likely to make the drug more expensive for the simple reason that higher volume of production brings lower costs and 7 to 9 per cent is not a large figure and if it is reduced and the drug does not sell, the volume falls down below an economic level and the cost must go up.

Dr. M. M. S. Siddhu: New processes for anti-T.B. and anti-malarial drugs discovered in India were referred to by Dr. Mukherjee. May I know which processes have been used by any other firms who are manufacturing any of these drugs.

Dr. S. L. Mukherjee: It is a personal question which relates to me and I beg indulgence of the member to give a personal answer. I was previously attached with M|s. Albert Davis Ltd. where for my patented process of INH and others, I was personally following the basic production.

Dr. M. M. S. Siddhu: Is any other firm using those processes in India?

Dr. S. L. Mukherjee: Yes. What I was telling was that while in Albert Davis Ltd. I was using those processes for basic production. They were following the processes that I patented when I was there.

Dr. M. M. S. Siddhu: Is it process patented or Product patented?

Dr. S. L. Mukherjee: It is a process patented. We were the first to introduce Talbutamide before even the Hoechst came into the picture.

Dr. M. M. S. Siddhu: Supposing Albert Davis do not allow and we have to go on without that process what will be the result?

Dr. S. L. Mukherjee: I am a joint holder of the patent and I have received no notice from them so far and have left them in 1959. I am not aware of what is the situation here?

Dr. M. M. S. Siddhu: My second point is that much has been said about the need to approach the doctors for the new drugs and if the doctors are not approached the drugs would not sell. The prices will go up. But here is a sample of the literature which is meant only for doctors. Now see the contents. How much information does it contain? Are they only meant for having a look and then be thrown in the waste paper basket? If that amounts to sales promotion and on which large sums are being spent where is the need for such advertisement. This sort of literature which is neither informative nor contains the details. It contains some indications. How anything spent on these can be termed as a means of communication to the doctors.

Further from my personal knowledge I have come to know that the administrative charges on the personnel promotion that is on the representative visiting the doctor is about 1 to 1½ per cent. I am trying to break-up 8 per cent. 1 to 1.5 per cent are the charges on the representative who sees the doctor the rest of it is merely on sampling and literature.

Mr. J. Reece: First of all, when we talk about medical information for the doctor, there is still something more to be supplied to him than these mailings. The medical information that we have to present to the doctor, when we introduce a new product, is exhaustive and detailed and supported by clinical evidence and backed up by formal opinion with the medical reports, and most of the expenditure on sales promotion goes on the introduction of a new product.

I would ask the Members merely to cast their minds over what they

would do if they had to introduce a new drugs, as I had mentioned this morning, a new cure for cancer, to the doctors of India and to get it used quickly.

The second point which the hon. Member has made is quite right. He makes a very good point when he asks what the use is of sending him this literature which merely gives him a few details about the product. Those of us in the pharmaceutical industry, on whom this responsibility lies are quite certain that no doctor would consider prescribing a new product as a result of seeing only a brief statement of the action and advantages. We know that. But, on the other hand, he might be sufficiently interested to seek further information on that product.

If I may submit something which has just occurred to me this morning, here is the booklet on the Indian pharmaceutical industry published by the Govt. of India which if left on your desk you would probably open and look at; after seeing the nice attractive cover, you would probably open and see it, the attractive cover would encourage you to look and see it. This cover, therefore, is worth its weight in gold, because if we do not look into a book we shall never know what is inside it, but if there is a nice cover for the book, we would be tempted to look inside. This is why we are trying to make our literature attractive to the medical profession.

I might mention another point and that is this. This question could be dealt with very effectively by quoting the example of the Soviet Union where under their system of medicine they do not have this type of promotional exercise; and the exact quotations unfortunately I do not have with me just now, but I shall be very happy to supply them. There, the Ministry of Health was bemoaning the fact that their doctors were not using new products and they were actually suggesting that the Ministry of Health should send out more attractive information to doctors to get them to use the new products. Also, they were suggesting that qualified pharmacists should call on the doctors and call on the health centres to tell them about the new products. So, if you do not do it this way, then somebody has got to do it.

Finally, I would like to make one further submission on two more important points. The pharmaceutical companies themselves are anxious to avoid making a bad impression on the doctor or unjustifiable claims, because if they do so they will only damage their own reputation, and the doctor will not accept that company as a proper company in the future.

In the UK, there is an open invitation to the doctors to be taken off the mailing list, but only a minor percentage of them have asked us to take them off the mailing list. I would be quite prepared to supply the hon. Member the figures, because I am sure, and I am quite certain, from my own personal experience, that the cost of medical representation is not as high as the cost on promotional expenditure in our country today.

Dr. M. M. S. Siddhu: I would very much like to receive those figures, because I find that it is about 7 or 8 per cent or more in the case of firms whose balance-sheet is made available to the public. I am saying this, because I am not conversant with the position of those whose accounts are not made public. This question had come up recently in a conference of medical representatives, which I had inaugurated at Allahabad. It was from the medical representatives themselves who were asking for higher wages that this point had cone up. It is more or less from the employees of the pharmaceutical industry that I have got this information. So, I am letting it out to you.

Mr. J. Reece: Thank you very much.

Dr. M. M. S. Siddhu: The other point that comes up in the price structure is the processing cost, which is very high. If that be the sole factor, then in the case of the new drug whose ingredient may be just a very small portion, a few milligrammes or perhaps 0.5 gms. the cost will be very high because largely it is the processing cost only.

How is it that the processing cost cannot be reduced? If that is reduced, then more money will be available for research, and you may not have to say that it is a blind man's approach, because you have to screen thousands of compounds out of which only one may be commercially useful.

Therefore, I would like to know whether the processing cost can be reduced to such an extent that one would be able to supplement the research with the money saved on it.

Mr. J. Reece: The fact of the matter is that new drugs are usually comparatively highly priced, and by 'highly priced' I mean highly priced in relation to other drugs. Our new drugs are very complex things, and they cost quite a lot to produce; quite apart from any money that you may spend on research to discover the new drugs, the cost of the whole equipment and the whole complex technique or process of producing them is very high.

In the pharmaceutical industry where we are competing vigorously with each other not only in price but by product-substitution, this is the safeguard that if allowed to its full range it will ensure that the patient will get the drug at the most economical price.

Every effort is made in striving to reduce the costs of production, because we want to try to get a larger market for our product against either some other therapy or some other company with a similar product; for, as you know in the case of the pyramid, if we price a drug at Rs. 100, only a few people can take it; if we take the cost down to Rs. 50, then more people can take it; if we take it down to one rupee, then millions can take it, and there are millions who will take it, the lower the cost; so, the lower the cost, the greater the off-take, and the more it raises the prosperity of the particular company. Let me assure you that every effort is made in a competitive situation to reduce process costs. But new drugs are expensive and new drugs are difficult to make.

Dr. M. M. S. Siddhu: I would like to refer you to the interlocking system which has been brought out by these administered prices, where a particular firm which has got a patent right allows some one to manufacture it but does not allow that firm to market it; by 'marketing' I mean the processing; they will be able to sell the bulk to X, and X will market it. By this method, they are able to keep up high prices. Through this interlocking system of buying from one company and selling it to the other, it has been found, that they make very high profits running up to a huge percentage. Another case is that of Pfizer, reported in the Sunday Times, of buying from a firm in Hungary and making a profit of 1,000 per cent. Here, it is not the processing, it is the bulk supply, and therefore that point that it is out of the processed product is being compared with bulk rate is not quite correct. It is abuse of a patent, that is all I say.

Mr. J. Reece: The only thing I can say is that this is not the general way the industry as a whole goes about this type of thing.

Dr. H. R. Nanji: If I may add, so far as this country is concerned, if there are any such instances, Government have got adequate powers to investigate.

Dr. M. M. S. Siddhu: Neither the doctors who prescribe know it nor the patients who buy such medicines, whether they are costly or cheap the

patient has to buy them, otherwise he has to leave the doctor. Therefore the patient is in a very bad situation.

Mr. J. Reece: Even in the cases you mention, the companies themselves operating within a total orbit do not make vast and enormous profits. The net result is something which the American Anti-Trust Department considers reasonable and the patient must be in good hands when he is in the hands of a doctor both from his treatment point of view and his economic point of view. Amongst other things I would like to submit that we must also not lose sight of the fact of the value to humanity that these drugs have brought about, because, in the final analysis, while people formerly had died or had to undergo long an expensive treatment, are now being cured. Unfortunately mankind has been able to solve our problems in the wrong order, namely disease first and then population control. This is the tragedy of mankind if I may say so If we had discovered the solutions in the other order, first population control and then eradication of diseases, we would not be in such a position.

Dr. M. M. S. Siddhu: It is contended that most of the drugs coming in the market are likely to go out of the market in a short time because of improved drugs taking their place. In order to cover their cost, they have to keep the price high. If that is so then a ten year period is more than sufficient because 90 per cent of them will go out of the market within that time. Those that stay on will be because of the reputation of the firms behind them. And the doctors, having once got the habit of prescribing a particular drug by its trade name, I am sure, would go on writing the same thing even after ten years if that drug is worthwhile to be used.

Mr. J. Reece: That is correct. The doctor, even though you may present him with something which is obviously better, will not accept it immediately. The point about risk is this. If I am putting up a plant for a particular compound, I have to invest my money, my time, talent everything in that plant, and the fact of the matter is that it is quite likely that somebody else will come along with an improved product and my plant will be useless. This is what is meant by risk. When you go into the pharmaceutical industry, you are exposing yourself to very great risks because somebody else maycome up with something better. Even with a marginally better product, he has simply to get the doctors to prescribe it. So, for new products for the high rate of promotional activity they do, they have to get returns.

Dr. M. M. S. Siddhu: Certain drugs which have been proved to be useless clinically for certain diseases are still being advertised and doctors approached. Comparative data on medical research done all over the world is available and articles appear once in three years or so, but that is not advertised, nor is it mentioned anywhere that particular drugs have become useless. Therefore, through your literature you not only propagate certain things, but you are actually misleading the public.

Mr. J. Reece: I wish it were as easy as all that. We do not and we never deliberate set about to mislead anybody, because it is not in the interests of the industry. If we do not write, somebody else will. That is competition.

Shri Bade: You have objected to Clause 48 along with Clause 95(3). Coming to Clauses 84 to 90, suppose there are certain patentees from foreign countries coming here and taking out patents, but not manufacturing the drugs here, should the Government take any steps against them or not?

Shri S. V. Divecha: In sof ar as Clause 48 is concerned, we have already made our submission.

In so far as this is concerned, we feel that firstly there are ample provisions under the Act for securing against the abuse of a patent right. These provisions are contained in the provisions regarding compulsory licence under clause 84.

Also, under clauses 99 and 100 of the Bill, the Government can make use of an invention which will also include, in my opinion, importing of patented products from abroad. Our submission is that there are ample provisions in the other clauses of the Bill for making use of the invention for the purpose of the Government. Clause 48 does not provide for any appeal or judicial review or any fair or adequate compensation. Neither does it give an opportunity to the patentee to be heard.

Shri Bade: We have the same provisions in the Act of Japan..

Shri S. V. Divecha: There is no such provision which the hon. Member is referring to, in the Japanese, legislation. The laws of Japan only provide for a compulsory licence where the patentee does not work an invention in the country.

Shri Bade: We have seen that there are so many companies which take patents and they are not manufacturing the drugs here. They are only importing the medicines from outside and thus they deprive our scientists and our country of indigenous research work. In order to mitigate it, do you feel that we should have provision in the Act?

Shri S. V. Divecha: We do have such a provision in the Act clause 84.

Shri Bade: It only refers to compulsory licence.

Shri S. V. Divecha: For non-working also.

Shri Bade: The Government would apply to the Controller and the Controller will say that it is compulsory licence and that is after three years after sealing.

Shri S. V. Divecha: In so far as food and drugs are concerned, in our amendment we have suggested that the application can be made at any time after the sealing of the patent.

Shri Bade: Clause 48; this is only for Government use.

Shri S. V. Divecha: We have special objection to that clause, because it is widely and vaguely drafted. Secondly, it is completely redundant, because clauses 99 and 100 provide ample means to the Government to do what they want to do. What we are mainly objecting to is that any person should not be authorised by the Government to import the article from non-patented sources and to distribute it as he pleases. There is no provision regarding compensation and no appeal or reference to the high court.

Shri Bade: Is there such a provision in the patent law of other countries?

Shri S. V. Divecha: No other patent law in the world contains such a provision.

Shri B. K. Das: How is it that it affects fundamental rights? Is there any rule or authoritative opinion about that?

Shri S. V. Divecha: Our organisation has taken legal opinion, and we have been advised that some of the provisions of the Bill are such—

Shri B. K. Das: About clause 48, at page 3 of your original memorandum, you have said that this clause militates against fundamental rights of the citizen of India which have always been held as sacred to this country and to democracy. I was asking whether you have consulted legal opinion and whether you were advised like that.

Dr. H. R. Nanji: We have taken legal opinion on that.

Mr. J. Reece: I shall explain it. The situation is that a patent is not always a product, and out of the many patents registered, only one or two products come along. (As a *quid pro quo*, immediately, the benefits of research done by other countries they are made available to us straightaway. The problem with the "Government" clause in pure and simple terms is this: if it is left wide open for Government under any circumstances to bring any drug from any other source at any price it chooses, you will be bitting at the very essence of the pharmaceutical industry in India, because the definition about the Government use is so wide to enable any interpretation to be put on it. The circumstances should only be emergent circumstances.

Shri Bade: All the processes are blocked out, and if research is done in America, what is the use of our scientists? Our scientists cannot take advantage of any process because all processes are locked up.

Mr. J. Reece: They can. We can apply for compulsory licence tomorrow. About 700 drugs are not even patented but are not made in India. There must be capital, technology and the willingness to take risks.

Shri Bade: From 1911 to 1965, nobody has taken the advantage of compulsory licence, simply because the procedure is long. We are cutting it short. The present Bill will mend the whole thing, but in the previous Act, the process was very long.

Now, the Haffkine institute has issued a memorandum which reads as follows *inter alia*:

> "The following facts throw interesting light on this issue. Hoechst had taken out patent in many countries of the world including Japan, for their processes described in Ind. Pat. No. 58716. They claim that the process patented by Haffkine Institute *vide* Ind. Pat. 64323 is already covered by Hoechst Pat. (I, P. 58716). However, one month after Haffkine Institute filed their patent in India, Farbwerke Hoechst applied in Japan (and possibly in other countries also) for an additional patent, covering the manufacture of Tolbutamide by process similar to that of Haffkine Institute. If their contention that the process of Haffkine Intitute is already covered by them is valid, then that or similar process would not be novel or new and as such could not be subject matter of further patent.
>
> Another interesting fact is that the Hoechst patent in Canada for Tolbutamide (same as Indian Patent No. 58716) was challenged in the court of law and was revoked on grounds such as (i) too wide a claim, (ii) covering more than what the inventor invented, (iii) not a manner of new manufacture, (iv) no utility is not all the products produced by the process have utility as claimed etc."

So, Haffkine Institute says that it was patented and then it was challenged in the high court in Canada. The case was lost. If such a thing happens, we must plug the loophole.

Shri S. V. Divecha: So far as Hoechst and Haffkine are concerned, the Hoechst patent has a priory date of 8th May, 1956. In that they have claimed several processes for the manufacture of new sulphonylureas. The Haffkine Institute, probably after examining the patent specification of Hoechst, invented a so-called invention for the process to manufacture the same kind of sulphonylure as which process was disclosed some years ago in the chemical literature. Therefore, we have been advised and it is our confirmed opinion that the patent of Haffkine Institute is completely dependent on the patent of Hoechst. The carrying out of the process described in the Haffkine patent would infringe the patent of Hoechst. This matter is *sub judice* and I shall

prepare a detailed note and I can give it to you.

Dr. M. M. S. Siddhu: Is it a fact that the same process was got patented in Japan after their original one?

Shri S. V. Divecha: In so far as this matter is concerned, we have to obtain the details from the patentee himself. I did not know that this question would be asked, and it relates to something—

Shri Bade: I am also a lowyer; that is *sub judice*. But this subject is not *sub judice*, that is, whether you have lost the case in Canada.

Shri S. V. Divecha: So far as Canada is concerned, this is the first time I hear about it. We shall obtain detailed information and I shall certainly be pleased to give it to the Committee.

Shri R. P. Sinha: The Haffkine Institute have shown that they could produce the medicine at one-fourth the price.

Shri Bade: For six years the case is pending, because everytime they are taking adjournments.

Shri S. V. Divecha: Adjournments have been taken sometimes by us and sometimes by the other side also. In fact, Haffkine Institute is not a party to the suit.

Shri Bade: I know.

I have a booklet where it is said:

"As stated in the USA Senate Report No. 448, 'even under liberal interpretation of research allowed by the internal revenue survey research costs of the 20 major drug Companies represents only 6:4 per cent of the total sales dollar.'

The said Senate Report states:

"India, which does grant patents on drug products, provides an interesting case example. The prices in India for the broad-spectrum antibiotics Aureomycin and Achromycin are among the highest in the world. As a matter of fact in drugs generally, India ranks amongst the highest priced nations of the world—a case of an inverse relationship between per capita-income and the level of drug prices.

Tolbutamide costs only $1:85 for 50 tablets in many European countries, but in India it costs $3·57. Chlopropamide costs only $1·41 in Italy, but $4 in India and so on. So, this is the general criticism that the patent-holders have created a monopoly. In your memorandum, there is no specific reply to this critcism.

Shri Keith C. Roy: I think that booklet has not brought out clearly enough the total results of the Kefauver hearings. The total result of the two years of the Kefauver hearings were two small amendments to the Patents Act which had no impact whatever on the operation of the Act. In so far as this famous statement is concerned, I have made a detailed study of the price—factors on which it is based. It is fair and proper that the Hon. Members of this Committee should know what are the basic facts on which this statement has been made. The Kefauver Committee asked the Department of State to collect price data on a certain number of products in different countries. The State Department supplied a very great deal of data and, out of that, the Kefauver Committee took only 12 basic ingredients which were being sold and manufactured in various countries other than the US. In so far as India was concerned, out of the 11 tables in which this information was set out, India was mentioned in only 6 of them. Regarding the statement that the prices of aureomycin and achromycin are highest in India it is correct so far as aereomycin is concerned. It is not correct in so far as achromycin is concerned. The price structure of four other products in regard to India was correctly given.

Shri Bade: Regarding achromycin, what is the correct position?

Shri Keith C. Roy: This is given at page 42, table 20 of Report No. 448—The Report of the Committee of the Judiciary, United States Senate made by a sub-committee on anti-trust and monopoly. The price of achromycin is shown as 128 in India and as 134 in Belgium. So, India is not the highest priced country. The price is expressed in terms of percentages, not in terms of actual money. So, *prima* facie the statement of Senator Kefauver about achromycin is incorrect.

Shrimati Sharda Mukerjee: I think your main objection is to the licence of right and royalty which is now fixed at 4 per cent maximum and which you consider is too low. I have before me some figures given on page 49 of your Supplementary Memorandum. You have given here the figures relating to sulpha drugs. The production in 1964 was 252·94 tonnes and in 1965-66 it has gone up to 1274 tonnes. Could you tell us what is the imported content in this, what percentage of it is imported?

Dr. H. R. Nanji: I will not be able to give you the exact figures for sulpha drugs. Generally the import content has gone down over the years.

Shrimati Sharda Mukerjee: I have another list here, giving the figures mostly about mycin drugs, and I find that out of 24 drugs listed there only 5 of them have some indigenous content. These are all very important drugs. From the point of development of our industry we are interested to know what proportion of it is imported.

Dr. H. C. Nanji: We will be preparing a detailed note on this statement giving all the facts, indicating what drugs are already being licensed for manufacture and all that.

Shrimati Sharda Mukerjee: Could you not tell me at least approximately what quantity is produced indigenously and what quantity is imported?

Mr. J. Reece: We are collecting the data and it is being supplied.

Shrimati Mukerjee: The point that I am making is this. We have had an unpleasant experience recently when the Indo-Pakistan hostilities were on. At that time this particular industry was almost coming to a halt because so much of the material was being imported.

Shri Roy gave us some figures about profit retained, profit ploughed back and all that. If the import content is high and the imports are from your main companies abroad, then how much of the profits are ploughed back and how much of the profits are retained take a different shape altogether. It also contains the technological know-how fees. That also has to be taken into consideration. If the thing is processed here and research is carried on here due to which the import content over the years has been reduced, then the profits retained, profits ploughed back, the shape of the capital and all that sort of thing would have a different meaning. It is really not to create any insecurity among the people who come from outside and invest in our country that we are doing this, it is because we wish to give a better opportunity to the people of this country to use and exploit their ability and the raw materials that are available here. It is from that point of view that you must look at this licensing of right. Over the years we find that there has been very little progress in this country as far as this industry is concerned.

Shri S. V. Divecha: In so far as the progress achieved by the industry is concerned, I would like to invite the hon. Member's attention to page (1) of our Supplementary

Memorandum, where we have given the figures of increase in production and saving in foreign exchange.

Mr. J. Reece: People are bringing their technology and their know-how to India willingly and building up the indigenous industry. We have seen large plants, large chemical plants being built in this country. The whole pharmaceutical industry is on an international basis. During the last trouble one of our great advantages was that we had a great deal of indigenous production within the country. This is going forward and it is going forward rapidly and we want it to go forward further. Once a technology is developed it will become self-generating. This is what is happening here. All industries are made to do more and more. But ultimately it will take time. The trouble with licence of right is, it does frighten people away. Licence of right is a frightening phrase. It has a certain connotation in many countries. We say, it is not necessary to put licence of right provision. Why frighten people away when the same protection is available within the law?

Shri B. K. Das: You say it is more a psychological thing.

Mr. J. Reece: Certainly. Licence of right has a connotation to everybody. It means something in other laws. If we put it in our law and however much try to qualify it, still it is there as licence of right.

Shrimati Sharda Mukerjee: In this eight year old report, Justice Ayyangar has mentioned that all other countries put this restriction of compulsory licensing. The only exception is U.S.A. which has a very different economy from ours. Our country requires a certain amount of protection and the Bill itself provides for a licence of right under certain conditions.

Mr. J. Reece: The intention of our Association was to present a compulsory licence clause. If that can be done, there is no need for licence of right. If there is no need, why should we put in a great barrier which otherwise is not there?

Shri Shyamnandan Mishra: I have been unfortunately mostly absent from the meeting. So, I do not know whether my questions have been already covered. Still, I would venture to ask two questions purely for the sake of clarification.

We are indeed very glad that this pharmaceutical industry has made tremendous progress in India. This is indeed a matter of great satisfaction. Yet one has a feeling that in the matter of research, we have to go a long way in this country in this field. It is also true that it is quite impossible for individual units to go in for any meaningful or significant research activity. It was mentioned in the forenoon that for any significant research activity a minimum amount of Rs. 30 lakhs would be required. That being so, naturally the question arises in our minds whether some kind of joint research programme could not be evolved and worked out by the pharmaceutical industry as a whole. We have got the example of A.T.I.R.A. and a similar one in Bombay so far as textile industry in India is concerned. The hon. gentleman on the other side knows that in the United Kingdom they have a joint research organisation for the steel industry, for example, B.I.S.R.A. That being so, would it not be quite proper for the pharmaceutical industry of this country to explore the possibility of having a joint research programme, or, have they already made some progress in that direction?

Mr. Chairman: The answer has come. They said they have not done that. They are thinking on that line.

Shri R. P. Sinha: They said they do not want joint venture.

Shri Shyamnandan Mishra: The financial contribution by Government for such research activity is quite significant. It is of the order of 50 per cent in the case of A.T.I.R.A.— 50 lakhs by the textile industry and 50 lakhs by the Government. If you do not want to avail of this opportunity, that means you want to depend on foreign patentee.

Mr. J. Reece: The reason why we do not want it is that we believe that we can do better research on our own because there will be an element of competition.

Shri Shyamnandan Mishra: The amount set apart is 3 per cent of the total turnover. In order to have 30 lakhs, there should be a turnover of 10 crores. When will that consummation take place and how many companies will come under this in India?

Dr. S. L. Mukherjee: I have explained to the hon. Members of this Committee that basic research can be done only by large companies. It will be futile to do scientific research in a basic way so far as small companies are concerned because the risks involved and the expenditure involved are too much. As you have rightly pointed out, only companies with a turnover of 10 crores and over can think of doing this. Today in India such companies are very few and those few are seriously thinking of doing this research.

Shri Shyamnandan Mishra: Only thinking of?

Dr. S. L. Mukherjee: They have already started doing. Ciba is doing; Alembic is doing and Sarabhai is playing a small part in it in a small way. For others it is a waste because unless you do it on a minimum scale, there will be no result forthcoming. The money we spend must be fruitful. That is the main aspect about it. Secondly, taking the lead of the hon. Member's idea on research in a meeting organised by the CSIR in Delhi in last December I had pointedly suggested that if Government could have a screening centre where we could give, without disclosing the identity but by paying whatever reasonable amount is required, that might lead to a solution. It is worth consideration by the Members of the Committee and the Government. Through the universities and various other sources and industries we could produce thousand of compounds a year without any difficulty. But there is no facility for screening.

Shri Shyamnandan Mishra: Alternatively, would it not be possible to have a kind of research levy from individual units which cannot do research and utilize that amount in research activity by Government.

Dr. S. L. Mukherjee: I already explained in the morning that the research for the development of new drugs requires tradition, requires culture and that if you analyse the discovery of new drugs you will find that 95 per cent of the drugs were discovered by the industry. I firmly believe that it is the industry which can deliver the result, not Government institutions.

Shri Shyamnandan Mishra: As it lies largely in the field of intangibles, I would not pursue this matter further. Should not the period of validity be governed by the speed with which technology is getting obsolete and the drugs are getting out of use in the modern world? If so, why should there be so much of insistence upon the period of patent validity being so long ?

Mr. J. Reece: The answer to your question is that, on the whole the trend of patent protection round the world is to extend the period of time for the life of the patent, because it is becoming more and more difficult to discover and develop drugs; and it is not a simple matter of discovering

something today; five years later it is going to be out of date. So, there is very good need for a good period of time, a good length of time for patent protection.

Shri Shyamnandan Mishra: Is there no consideration for the speed with which technology advances and the drugs become out of use? Should not that be the most important governing factor, so far as the period of patent validity is concerned?

Mr. J. Reece: When you take out a patent, somebody is going to compete with it after some time. Also even if we allow it to run for the full period, the law of diminishing returns sets in.

Shri K. V. Venkatachalam: Could you give us the figures of imported finished drugs? If, as you say, the production in India is of the order of Rs. 150 crores, which is a very sizeble quantity, why do you not manufacture those drugs which are now being imported?

Mr. J. Reece: The demand for those medicines is so small that it is not worth putting up a plant.

Shri K. V. Venkatachalam: So, the large bulk of our requirements are made in this country now?

Dr. H. R. Nanji: Yes:

Dr. M. M. S. Siddhu: You have referred to the import of drugs worth only Rs. 9 crores as against the production of drugs worth Rs. 150 crores A lot of chemicals are imported and used by the pharmaceutical industry. So, what is the import content of these Chemicals.

Dr. H. R. Nanji: This Rs. 9 crores consists of intermediates and basic products; not chemicals.

Shri K. V. Venkatachalam: Could you give us an idea of the proportion of patented and non-patented drugs in India, firstly, in terms of number and, secondly, in terms of value of the end product?

Dr. H. R. Nanji: At the moment, we do not have those figures; we can supply them.

Mr. J. Reece: The portion of non-patented drugs is much higher than those of patented drugs.

Shri K. V. Venkatachalam: We would like to have precise information both in respect of value and number.

Shri S. V. Divecha: It is difficult to get that information. May I invite your attention to page 45 of our memorandum? We have actually conducted a sample survey on sale of pharmaceuticals containing patented ingredients.

Shri K. V. Venkatachalam: Supposing the total consumption is Rs. 200 crores. How much of it would be patented drugs?

Shri S. V. Divecha: The sample survey has revealed that the sale of patented drugs was approximately 32 per cent of the total sales. There again the definition of patented drugs has been rather wide in the sense that we have also included those drugs which are patented and which do not enjoy exclusive monopoly or exclusive right.

Dr. M. M. S. Siddhu: Suppose medicine ABC has got ingredient B alone patented and not A or B. Will you include it?

Mr. J. Reece: In certain cases we have. We are talking of patents in terms of monopoly. If you take Vitamin A and B complex, everybody is making it. There is no monopoly.

Dr. M. M. S. Siddhu: You cannot have a formulation ABC if C, which is patented, is not put into it to make the formulation. It is something like a filter, which is necessary for an engine. If you do not put the filter, you do not have the engine.

Mr. J. Reece: If I have got a patented drugs and nobody else has got it, I can do what I like. That is one type. The other type is that there is a product which anybody can market containing one or two patented drugs.

Shri S. V. Divecha: I would like to invite your attention to Appendix 6 and Appendix 7 of our Supplementary Memorandum which give classification of drugs in common use. We have indicated in the list drugs which are patented and those which are not patented.

Shri K. V. Venkatachalam: My last question is this. You were saying that the further development in the pharmaceutical industry at the intermediate and lower level will depend on the development of fine chemicals, fermentation and petro-chemicals industries. What is the percentage of these industries? Have you taken any steps so far as this is concerned?

Dr. H. R. Nanji: Development of petro-chemicals industry does not come under the purview of the pharmaceutical industry. But there are big giants in the chemicals industry who are certainly going very fast ahead with the petro-chemicals industry and also with the fermentation industry.

Shri K. V. Venkatachalam: Will there be development in the next three or four years?

Dr. H. R. Nanji: Yes.

Shri K. V. Venkatachalam: What about fine chemicals?

Dr. H. R. Nanji: The Hindustan Organic Chemicals Factory is there.

Shri K. V. Venkatachalam: That has been there for several years. What is your expectation?

Dr. H. R. Nanji: The difficulty has been that for several years, applications from the private sector were turned down on the ground that the Hindustan Organic Chemicals will be manufacturing certain intermediates. Fortunately, this policy has been changed during the last two or three years and now licences are being granted for the manufacture of intermediates and chemicals which are required.

Mr. Chairman: You have told us only about yourself. What is the function of your Organisation?

Dr. H. R. Nanji: We shall send you the detailed booklet which gives all the details.

Mr. Chairman: Can youh give us the main objectives of your Organisation?

Dr. H. R. Nanji: The main objectives are to look after the interests of the members, to cooperate with the Government and, generally, to increase the standards of working of the industry.

Mr. Chairman: Is it a registered body?

Dr. H. R. Nanji: Yes, Sir.

Mr. Chairman: How long has it been registered?

Dr. H. R. Nanji: About a year ago.

Mr. Chairman: Only a year ago? Were you under any other name before?

Dr. H. R. Nanji: There was another association which had included not only manufacturers but also wholesalers and distributors. It was felt by many of us that it is absolutely essential to have a separate organisation of manufacturers only and that is why this organisation was started.

Mr. Chairman: Thank you.

Dr. H. R. Nanji: On behalf of my colleagues and myself, I should like to thank you for the courtesy you have extended to us and also for the patient hearing given to us, Thank you.

(The witnesses then withdrew)

The Committee then adjourned.

Minutes of Evidence given before the Joint Committee on the Patents Bill, 1965.

Friday, the 12th August, 1966 at 14.00 hours.

PRESENT

Shri S. V. Krishnamoorthy Rao—*Chairman.*

MEMBERS

Lok Sabha

2. Seth Achal Singh.
3. Shri Bibhuti Mishra.
4. Shri P. C. Borooah.
5. Sardar Daljit Singh.
6. Shri Basanta Kumar Das.
7. Shri H. K. V. Gowdh.
8. Shri Mathew Maniyangadan.
9. Shri Braj Behari Mehrotra.
10. Shri Bibudhendra Mishra.
11. Shrimati Sharda Mukerjee.
12. Shri P. S. Naskar.
13. Shri Chhotubhai M. Patel.
14. Shri R. Ramanathan Chettiar.
15. Shri Sham Lal Saraf.
16. Shri A. T. Sarma.
17. Dr. C. B. Singh.
18. Shri K. K. Warior.

Rajya Sabha

19. Shri T. Chengalvaroyan.
20. Shri P. K. Kumaran.
21. Shri Shyamnandan Mishra.
22. Shri M. R. Shervani.
23. Shri R. P. Sinha.

REPRESENTATIVES OF THE MINISTRY OF INDUSTRY

1. Shri K. V. Venkatachalam, *O.S.D.*
2. Shri B. N. Atrishi, *O.S.D.*

3. Dr. A. Joga Rao, *Controller General of Patents, Designs and Trade Marks.*

REPRESENTATIVE OF THE MINISTRY OF HEALTH

Shri S. K. Borkar, *Drug Controller of India.*

LEGISLATIVE COUNSEL

Shri R. V. S. Peri Sastri, *Deputy Legislative Counsel, Legislative Department, Ministry of Law.*

SECRETARIAT

Shri M. C. Chawla—*Deputy Secretary.*

WITNESSES EXAMINED

I. Incorporated Law Society of Calcutta.

Spokesman:

Shri B. P. Ray

II. Council of Scientific and Industrial Research, New Delhi.

Spokesmen:

1. Dr. S. H. Zaheer, *Director General, C.S.I.R. and Ex-officio Secretary to the Government of India, Ministry of Education.*
2. Shri Baldev Singh, *Industrial Liaison and Extension Officer, Directorate of Research Co-ordination and Industrial Liaison, C.S.I.R.*
3. Shri R. B. Pai, *Patents Officer, C.S.I.R.*

I. Incorporated Law Society of Calcutta.

Spokesman:

Shri B. P. Ray.

(*The witness was called in and he took his seat*).

Mr. Chairman: Mr. Ray, whatever evidence you give will be printed and distributed to the members. It will be laid on the Table of the House. Even if you want any portion to be confidential, it will be printed and distributed to our members. We have received your memorandum. It has been circulated to all the members. If you want to add anything new or supplement it, you may kindly do so.

Shri B. P. Ray: Sir, I do not think that any part of my evidence given here need be treated as confidential. My main points concern Chapter XXI of the Patents Bill, incorporating therein clauses 125 to 132. I represent the Law Society of Calcutta. It is a Socity whose members are Solicitors enrolled in the High Court at Calcutta. There are many Solicitors as also Advocates who have been for years past practising as Patent Agents. I cannot say definitely, but from random samples taken of Advocates and Solicitors in Calcutta—specially my office where we have a number of them, it would not be incorrect to say that at least 75% of the Solicitors and Advocates on the roll of the Calcutta High Court do not possess a Degree in

Physical Sciences or Engineering. It is a common feature, Sir, that at that stage in their University career when they are permitted to opt for a specialized line, students who opt for a Science Degree or an Engineering Degree do not generally take a Law Degree thereafter. We, therefore, Sir, view with great alarm the formidable restriction included in sub-clause (c) of clause 126 of the Bill which seeks to make it law that a person shall not be qualified to have his name entered in the Register of Patent Agents unless he has obtained a degree in Physical Science or Engineering. I may be permitted to ask, Sir, what is the rationale or underlying principle of this requirement? In the Report of the Committee presided over by Hon. Mr. Justice Ayyangar it had been stated that in India there is no recognized organization or Institute of Patent Agents corresponding to the Chartered Institute of Patent Agents in the U.K., and from there it has been recommended in that report that certain classes of persons should only be registered as Patent Agents, and from the practical point of view each of those classes required the possession of a Degree in Physical Science or Engineering or equivalent scientific or technical qualification. In the first place, Sir, may I be permitted to ask what is really "physical science". It has not been defined in the Bill. I have myself looked into Webster's Dictionary and the Concise Oxford Dictionary, both under the entries "physical" and "science". But I have not found any clear definition given in those Dictionaries of those words in that combination, *viz.* "physical science". May I be permitted to ask what is a physical science? Is Botany, Geology, Biology or even Hygiene a branch of physical science and, if so, what will be the strict relevance of a degree in those subjects in the context.

Secondly, Sir, if I may be permitted to make a humble submission. I wish to state that a degree in physical science or engineering without adequate legal training cannot possibly equip a person to draft applications and documents which are necessary in connection with patent cases. The subject of patents, I submit, envisages the entire dominion of human invention. A degree in physics or chemistry or pharmaceutics will be of no particular use in a patent problem relating to engineering or *vice versa*. I, therefore, submit, Sir, unless a patent agent is expected to specialise in omniscience it is difficult for us to see how a degree in one of those science subjects will be of use in a problem arising from any of the other science subjects.

I then come to the difficulties from the practical point of view which particularly touches my profession. There are many solicitors practising as patent agents. My firm has been practising as such and advertising as such in the Law Directories and Law Journals for a long time and practically all over the world. Although the word 'advocate' has been used in clause 126 the words "solicitors and attorneys" have been omitted although these words occur in the Ayyanger Committee Report. We have already dealt with in our Memorandum as to the type of work a solicitor does and under English Law, as far as I know, solicitors are practising as patent agents although certain restrictions have been placed on the qualifications of patent agents. We, therefore, feel, Sir, that the words solicitors and attorneys" have been omitted from the Section without reason. Secondly I submit that there are many solicitors & advocates who have been practising as patent agents and the qualifying requirement of a science or engineering degree will throw them out of practice. This will cause, firstly, great hardship to the individuals concerned and, secondly, the value of the great experience built-up by them will not be available to the inventors. The problem of patent law is essentially a problem of law and the application of law as such is something in which lawyers are expected to be specialists.

Thirdly, Sir, if the Bill is passed in its present form, for years to come the practice of patent agents so far as lawyers are concerned will be turned over to persons who happen probably accidentally to have an engineering or a science degree. A lawyer and an engineering degree is, as far as I know, a rarity and this will tend to create, at least for years to come a monopoly which will be a monopoly of those lawyers only who happen to have a science degree and that does not necessarily mean that they are the best in the line or that it will provide the best assistance that an inventor could expect to obtain when he comes forward with a patent application. I also submit that this will deprive the Controller of assistance from experts at a time when such assistance is all the more needed having regard to the complications likely to arise from administering this Act which is new and much more comprehensive than the Act which is intended to be replaced. Our submission, therefore, Sir, is that the restriction should be removed altogether, at least it should not be brought into force unless an institute of patent agents has been established on the lines of the Chertered Institute in the U.K. It is felt that the restriction must be retained in the Act even now, the enforcement of that requirement could be postponed until such time as we were ready for it and it is not uncommon for different provisions of an Act to be brought into force at different times. These are the submissions which I wish to make.

Mr. Chairman: You have no objection if we make this applicable to future entrants and allow the existing solicitors and advocates practising to continue.

Shri B. P. Ray: That will meet my point to a large extent if the requirement of science degree is not imposed.

Mr. Chairman: Some technical knowledge for a patent advocate is necessary that is why probably that has been introduced.

Shri Sham Lal Saraf: As far as present practising advocates and solicitors are concerned, I think, our hon'ble friend has made a good case for them but what about future. At least somewhere it must stop.

Shri R. Ramanathan Chettiar: Excepting that you cannot appear for the purpose of specification you can appear for other purposes.

Shri B. P. Ray: That is true because clause 132 provides for that. But my submission is that a very important part of a patent lawyer's job is the specification and matters connected therewith and to take that work away from the practising advocates who have devoted their lifetime practice to it would be really robbing them partly of their living. It would also enhance costs in the sense that the administration of the law to that extent would become much more expensive because we will no longer have the benefit of the built-in experience of a large number of practitioners.

Shri R. Ramanathan Chettiar: Let me understand you clearly. Filing of specification is of technical nature. So it can only be done by the prospective pharmaceutical entrepreneur whosoever is putting up the industry or whosoever is incharge of the drug industry—I mean the legal aspect. So why do you think that filing of specification is a very important feature as far as the filing of the specification before the Controller is concerned.

Shri B. P. Ray: A patent application starts from the drafting of the specifications. A client comes to us. He may be an expert in that line as often as he is not. When he comes to us to draft specifications which comply with all the requirements of the law, he expects us to do so in such a way that there is no alteration or correction to be made. In other words, to draft specifications is a matter of art and it is more in line with a lawyer's

equipage than anything else. So far as technique is concerned, as I have told you, a mere science degree in physics will not help him when he touches a problem of chemistry, engineering and *vice versa*. As I just now said, no patent agent can be expected to specialise in omni-science. His knowledge will naturally be limited. It is in the field of the lawyer's activity. It is his educational training which probably enables him to do better than others namely, to frame documents which not only comply with the law but also with the above branch of law.

Dr. C. B. Singh: The idea is that we want the cadre of patents to be so adjusted that the work of patent law is better done. I hope you will agree that a graduate in science—whether it is physics or chemistry or engineering—will be a better patent agent than one who does not possess that. There are many advocates who are science graduates and there is no doubt about that. I think those who have not got the science qualificatioins must practise something else. Anyway don't you agree with me that a graduate in Science will be a better patent agent than anybody else?

Shri T. Chengalvaroyan: In cases of lawyers being patent agents, on questions which involve engineering or scientific aspects, do they not consult the specialists in that line and incorporate their view? I think that is the practice.

Mr. Chairman: That he has stated in his memorandum.

Shri B. P. Ray: I have stated in my memorandum as to how exactly a patent lawyer works. He is not expected to know all branches of inventions. But, then, he is suited to draft documents which really form the very basis of an application for patents. Whether he succeeds or fails is a matter of luck. It is easy for him to get proper asistance from technicians or scientists.

Shri P. S. Naskar: You referred to something that is obtaining in England. So far as patent agents are concerned, would you tell the Committee as to what qualifications are necessary for one to act as a patent agent under the English Law?

Shri B. P. Ray: If you will kindly refer to page 6 of my memorandum; I have stated that to become a patent agent, one should be a member of the Chartered Institute of Patent Agents.

Shri P. S. Naskar: I want to know as to what are the qualifications required to become a member of the Institute?

Shri B. P. Ray: I have dealt with this in the last para of my memorandum. If it is to be done in a phased manner, then we should prescribe the rules, syllabi, curricula and the qualifications to be attained by a person before he becomes a patent agent. It would be too early to impose this sort of a restriction viz., to become a graduate in physical science or engineering to be useful in any way.

Shri P. S. Naskar: We have to make some move in this respect. Till such time, you know, under the existing rules, anybody can be called a patent agent in India. I can even become a patent agent. We find that everybody is declaring himself to be a patent agent just for some consideration. And no qualification is necessary in India—I am, however, subject to correction—to-day for one to become a patent agent. Will you leave this matter as it is or do you want to keep the monopoly with the lawyers only?

Shri B. P. Ray: No, Sir. All that I wanted to say is this. We should build up experience in the practice of the Patent Law.

Shri P. S. Naskar: Do you agree that to be a patent agent, one must have more than legal qualifications?

Shri B. P. Ray: Yes, Sir. But, the thing is this. If you prescribe a particular course or if you establish an institute on the lines of the Chartered Institute of England I have no objection. Just as we become solicitors after our being with a Solicitor for five years in the same way the patent agents should become patent agents. There cannot be any objection to that. But, to substitute that by this shortcut method, if I may be permitted to use that word, will not serve the purpose.

Shri P. S. Naskar: This is a means to an end. It is not a shortcut method.

Shri B. P. Ray: I would submit most respectfully that at present this method will probably be more than counterbalanced by the harm which it will do to the patentee, to the administration and to the profession as also to the inventors.

Shri R. Ramanathan Chettiar: You say that it will do harm to the Administration. Would you kindly elaborate that point?

Shri B. P. Ray: The Administration will not have the benefit of the experience of all the lawyers who have been practising in that line and who do not possess a science degree.

Shri R. Ramanathan Chettiar: I hope you will agree with me that the present Patent Act is a very outmoded one having been passed in the British days in 1910. With the changing conditions of our economic as also the new developments in science, particularly in the pharmaceutical industry, don't you think that a lawyer patent agent, apart from his legal knowledge, should have some experience of scientific knowledge as well? That is why, as my hon. friend Shri Naskar put it correctly, it is a means to an end. I am only reiterating as to what my friend has said. We want a lawyer who has not only got the legal acumen but also a scientific knowledge to help the administration.

Shri B. P. Ray: If the scientific knowledge were properly channelled and a syllabus or curriculum were framed by which the adequacy of knowledge can be rightly measured, probably, I have no objection. But, before we have actually established an Institute of Pantent Agents on the lines in England, I suppose, this will not meet the purpose.

Dr. C. B. Singh: Don't you feel that we should maintain the qualifications which will be necessary for future courses especially for this type of work? That is a very important thing; we should have a cadre of specialists for this purpose. The time may come when it will be worthwhile to have this qualification for the patent agents.

Shri T. Chengalvaroyan: There is this practice now obtaining before the Income Tax Appellate Tribunal that lawyers as well as Auditors are allowed to appear. Suppose there is this alternative qualification of a patent agent being a solicitor and a scientific man, have you any objection to that?

Shri B. P. Ray: I have no objection at all because it is not my object at all to restrict Patent law practice to advocates and solicitors only.

(The witness then withdrew)

(Thereafter the representatives of the Council of Scientific and Industrial Research were called in).

II. Council of Scientific and Industrial Research, New Delhi

Spokesmen:

1. Dr. S. H. Zaheer, Director General, C.S. & D.R. & *Ex-officio* Secretary tothe Government of India, Ministry of Education.
2. Shri Baldev Singh, Industrial Liaison & Extension Officer, Directorate of Research Coordination & Industrial Liaison, C.S. & I.R.

3. Shri R. B. Pai, Patents Officer, C.S. & I.R.

(The Witnesses were called in and they took their seats)

Mr. Chairman: The evidence that you give will be printed and published and given to all our Members and also laid on the Table of the House. Even if you want any portion to be kept confidential, it will be printed and published and given to members and laid on the Table of the House. We have seen your memorandum and it has been circulated to all our Members. If you want to add anything and stress upon anything, you may please do so. Thereafter our members will put some questions.

Dr. S. Husain Zaheer: We have already submitted in broad outline. I am in full agreement with the proposed Act. I feel that the existence of a system of patents where 90 per cent are foreign patents has obstructed the growth of certain industries in the country, chiefly the chemical industry with which can be related the pharmaceutical industry and has resulted in high prices in the pharmaceutical industry also on account of that in the agricultural chemicals connected with that. I feel that the provisions which are now proposed to be made in the Act are very much in the right direction although my personal feeling is that they are also a compromise.

The compulsory licensing provisions, in the past, have not been of much assistance in view of the inordinate delays which compulsory licensing provisions entail.

The Patent System has come in the way of indigenous manufacture, for example paludrine, radio opaque dyes, reactive dyes and pharmaceuticals like tolbutamide. Indian entrepreneurs refuse to undertake manufacture of patented items because they cannot depend upon compulsory licensing provisions because it takes years to get through. Therefore, my view is that no patent should be granted for the manufacture of compositions or end use of pharmaceuticals, fine chemicals and drugs. No patent should be granted for any item for its end use. The decision to permit manufacture under compulsory licence should issue within one year from the date of application for compulsory licence.

The high prices in India of a number of these drugs—for e.g. chloromycetin, tetracycline hydrochloride—I feel, are due to the patent system. The prices in India are very much higer than the international prices. Italy is a good example.

It is sometimes said that the removal of the patent system will reduce the expenditure on scientific research on these items. Factually it is not so. In America about 350 million dollars are spent by pharmecutical firms and chemical firms on scientific research while in India the total expenditure is less than Rs. 1 crore and 80 per cent of this also is from State resources.

Similarly, for food items also, I think the patent system, especially patenting of processes and patenting of trade names for food items also is not conducive to development of food technology and development of food trade in the country.

Patent system, in my view, has proved detrimental to starting of new industries in the country. This position has been fully admitted by the two earlier Government Committees on Patents.

Secs. 22 and 23 have been of no use as foreign firms have adopted dilatory tactics. The compulsory licensing provisions have been practically of no use because of the tortuous legal process involved. We have failed to get from May & Baker licence for sulphathiazol in spite of intense litigation. Similarly, for ICI's paludrine. Hindustan Anti-Biotics has lot of trouble with foreign patentees

even with regard to the manufacture of penicillin and tetracyclin although they got them under WHO patents. Litigation is still in progress with a very well-known German firm and the Indian firm has asked for the revocation of the patent and it is going on for several years. Therefore, no patent should be granted for process of manufacture or of the end product in pharmaceuticals, insecticides and food and chemical products. If this is considered an extreme step, then at least the provisions which are now contained in the Bill should be accepted.

These are my general views.

Dr. C. B. Singh: How many patents have been taken by the National Laboratories recently either for drugs or chemicals or dyes or something else?

Dr. S. Husain Zaheer: Nearly 1,200.

Dr. C. B. Singh: How many of them are being utilised?

Dr. S. Husain Zaheer: We may say between 150 and 200—that is over 10 per cent.

Dr. C. B. Singh: Have you taken any patents outside India?

Dr. S. Husain Zaheer: Yes, Sir, we have taken about 200 patents outside India.

Dr. C. B. Singh: Is that bringing any foreign exchange to this country?

Dr. S. Husain Zaheer: No, Sir.

Dr. C. B. Singh: How is that?

Mr. Chairman: Are you not getting any royalty on this?

Dr. S. Husain Zaheer: From abroad, no, Sir. From India we are getting. Although we have taken about 200 patents, none of them is being utilised, though we are making efforts to utilise them. Of course, there are reasons for it. We have not been able to evolve any proper machinery for exploiting them. Normally, either these local firms that are there contact the interested parties or they appoint agents. We have also appointed agents, but they are not proving very useful.

Dr. C. B. Singh: Won't you agree that taking up of the patents by foreigners depends entirely on the utility and the advantages that can be had by the producing firms? If those patents were of that order, probably they will take it up, use it and advance it. Is that a correct assumption?

Dr. S. Husain Zaheer: I daresay it is partly correct, but partly also utilisation depends upon the agency efforts of a middleman who is able to convince the exploiting parties that they are useful and that they can go into production. I will cite in that connection one example. A drug with which I had some connection was synthesised in a laboratory which now belongs to the CSIR and we wanted to take a patent, but the authorities did not allow us to take a patent. Now that drug is being manufactured and sold all over the world. But initially we were not very keen at that time. We just published it; we were more interested in scientific research. We did not take any patent in India. And that drug is now being utilised extensively all over the world.

Dr. C. B. Singh: That supports my view.

Dr. S. Husain Zaheer: I am not sorry about it.

Mr. Chairman: Is it not a disincentive to our inventors?

Dr. S. Husain Zaheer: No, Sir. As a matter of fact, in this particular case, it has not proved a disincentive because we are still carrying on a very big school of research on these types of drugs.

Dr. C. B. Singh: You know that in Pimpri, we have taken a patent for one of the antibiotic products, Haemycin. This patent is being talked about

by American firms and they are prepared to pay even a high royalty. If that patent was taken outside, don't you think the country will get benefit and we will be earning a large amount of foreign exchange if it succeeds?

Dr. S. Husain Zaheer: Sir, in this particular case, I am doubtful. Here we are concerned only with a developing country like India and it is with particular reference to India that I am speaking. I am not against patents, for example, in Germany or the United States, but I am definitely against patents in India.

Dr. C. B. Singh: But why you are against patents in India?

Dr. S. Husain Zaheer: As I have explained in my opening remarks, there are two important reasons: one, it obstructs development of indigenous industry and indigenous knowhow and two, it leads to artificial high-pricing of some of the essential drugs which are required for the health of the population of this country and for the economic development of our country.

Dr. C. B. Singh: I don't know, Sir, if the witness is aware that the question of high price is a highly disputed one. Several witnesses have come and given evidence. It is a highly disputed point. Any way, we will not talk about it with him now.

Recently we went to the CDRI and there we found that there are very great chances for certain important things and if patents are taken outside, we are likely to get a large amount of benefit. So, if Indian scientists under your guidance are able to produce some new drugs or chemicals, which are of such an order that they will be patented in the outside world and will bring in a large amount of foreign exchange, don't you think it is advisable to have those patents taken out in this country as well as outside?

Dr. S. Husain Zaheer: This is what exactly I would like to repeat, that I am not in favour of taking these patents in India, but in a country like the United States where the system is very well established and methods for exploitation also are available and where we have no say whether patents should exist or should not exist, as long as it does exist, if it can bring some benefit to this country, I am in favour of it. For example, we have actually entered into agreements with two firms in the United States—the CDRI and the regional laboratory at Hyderabad—for the testing and patenting and later exploiting of drugs developed and worked in that laboratory. But we have made an exception. We have given them the world rights and a share of royalties except in India.

Dr. C. B. Singh: Now there are three types of patents: process patent, product patent and a combination of the two, product by process patent. Out of these three, our Bill describes patent by process alone. What have you to say on that?

Dr. S. Husain Zaheer: I personally would not give any patent either to the product or to the process.

Dr. C. B. Singh: Knowhow is somebination of the two—product by process?

Dr. S. Husain Zaheer: My personal view is, I would not advise Parliament or Government to allow any patent on either the product or knowhow or process knowhow....

Dr. C. B. Singh: Knowhow is something different.

Dr. S. Husain Zaheer: I am against any patent for product or process or product-*cum*-process.

Shri R. Ramanathan Chettiar: One fundamental point. Mr. Chairman, the learned witness being Head of the C.S.I.R. has been kind enough to come here to give evidence. From the beginning uptil now, he has been saying that he is against patents and he has also made a remark that if he were to advise Parliament and the country,

he is against patents for process or even for product. Sir, once the principle having been conceded and Parliament having brought forward a Patent Bill and it is being discussed by the Select Committee. I think it is too late in the day for the learned witness to....

Mr. Chairman: One can express one's views. We may accept it or we may not accept it.

Shri R. Ramanathan Chettiar: No. Sir, if he has come with that prejudged view, we are helpless.

Shri Sham Lal Saraf: It is for you to bring him out.

Shri R. Ramanathan Chettiar: Sir, let my remark be recorded.

Shri Sham Lal Saraf: Why should we prevent him?

Shri R. Ramanathan Chettiar: Mr. Chairman, I would like my remarks to be recorded.

Mr. Chairman: All right. Let them be recorded.

Shri M. R. Shervani: It is absolutely unfair remark. It is in a way intimidation of the witness. He has come here to give his frank opinion. Why should we....

Mr. Chairman: It is for you to accept it or not.

Dr. S. Husain Zaheer: Let me say, Sir, I am against patents for process, for product or process-*cum*-product in the fields which I have enumerated.

Dr. C. B. Singh: Here in our Bill, we have mentioned that in case of dispute the final decision will lie with the Government. Will you say anything on that?

Dr. S. Husain Zaheer: I think that is very great advance that it is not justiciable but it is by an executive decision. Government takes a decision, whether to allow or not to allow it.

Dr. C. B. Singh: People have come to say that if you leave a decision to the executive, it cuts at the very root of the judiciary.

Dr. S. Husain Zaheer: We already have many decisions which are executive decisions. It is the overall well-being of the industrial development and also of the country which is involved here and Government, I believe, is fully justified in taking authority into its own hand to take a decision in public interest.

Dr. C. B. Singh: You agree that in the present state of advancement we are in need of foreign capital for our advancement? Do you agree or you do not agree?

Dr. S. Husain Zaheer: I think we do need for investment, but it should be on mutually agreed conditions.

Dr. C. B. Singh: But you agree to the need for foreign capital here. Don't you?

Dr. S. Husain Zaheer: Yes, but perhaps not in the fields which I have enumerated.

Dr. C. B. Singh: That is in drugs, chemicals, food stuffs.

Dr. S. Husain Zaheer: Broadly 'No'.

Shri M. R. Shervani: You have stated that industrial development has been retarded by the existing patent law and the present one, although an improvement on the same, is a sort of compromise. May I ask if you could suggest as a further inducement to industrial growth that the 10 years term be reduced to 7 years in drugs. I will explain it. In our Bill, we have given a 10 years period as the life of the patents on drugs and food stuffs. In view of your definite opinion that patent system retards industrial growth and research, would you recommend reduction from 10 years to 7 years?

Dr. S. Husain Zaheer: I am personally in favour of that.

Mr. Chairman: Shri Chettiar:

Shri R. Ramanathan Chettiar: In view of the pre-judged views of the learned witness, I, as a protest, am not participating.

Mr. Chairman: That is all right.

Dr. S. Husain Zaheer: What is the pre-judged view? I have given it in writing.

Mr. Chairman: He is not a Member of Parliament.

Shri R. Ramanathan Chettiar: He has not given in writing.

Mr. Chairman: In the Memorandum, he has said he is against all.

Dr. S. Husain Zaheer: The whole purpose of this meeting is that I have been called to give my views.

Mr. Chairman: That is his view. You may or you may not accept it.

Shri B. K. Das: There are other witnesses who have also said that. I do not know what objection my friend is taking. Dr. Zaheer, you have said in your Memorandum on page 15 that "reference to CSIR may be excluded from the definition of clause 2(1)(h) unless the original clause 41(10) referred to above is restored". Would you kindly explain this? What is the difficulty?

Dr. S. Husain Zaheer: Sir, we are a registered society of the Government and we would not like to exercise the authority of Government. It is the executive body of Government which should exercise that authority. They can ask for our advice and we will be very happy to give that and in fact it is our duty to do so.

Mr. Chairman: It is included there as Government undertaking. You are considered part of the Government. Your institution is tried to be included as a Government institution like hospitals, like universities. You have got any objection to that?

Shri R. B. Pai: There are certain penal provisions in the Bill under which if the Controller General asks for some information about the extent of exploitation and the Officer Incharge of Government undertaking is not able to satisfy him, then he is liable to be imprisoned. There are some penal provisions like that. That is one thing which we will be calling upon ourselves by being included in the Government undertakings, whereas we do not see any corresponding advantages by that inclusion. Formerly we had requested that we may be included as a Government undertaking, because there was a provision in the draft bill at the earlier stages that Government undertakings would be excluded from the application of provisions regarding compulsory licences, which would have been very advantageous for the Government undertakings.

Mr. Chairman: You refer to the original clause 41(10).

Shri R. B. Pai: I suppose so. That clause has been removed. There is really no benefit in being a Government undertaking. At the same time, we would be liable to this.

Shri B. K. Das: On page 16, you say the method of testing should be made patentable. Will you kindly explain this?

Shri R. B. Pai: We had a very good invention from the Central Leather Research Institute for a microscopic method of testing the wool to find out whether a particular sample of wool is good or bad. By chemical treatment followed by just looking into the microscope, we could vividly see picturesquely whether the sample was good or bad. That was a method of testing and a very meritorious invention. But under the existing law we could not patent that invention. Methods of testing can be very useful industrially. Just as a

process can be useful, a method of testing is also a type of process which is industrially useful and such processes are patentable in U.K.

Mr. Chairman: Are there any other countries?

Dr. S. Husain Zaheer: In the U.K. it is patented.

Shri R. P. Sinha: I will like this to be noted. If there is something which is used in the United Kingdom, that method should be looked into. We should incorporate that also.

Shri B. K. Das: That process includes testing also.

Dr. S. Husain Zaheer: Yes, Sir.

Shri Sham Lal Saraf: Mr. Zaheer, in the present state of development in our country it is an established fact that unless you get the knowhow or encourage research and inventive capacity in the country, perhaps the country may lag behind. Now keeping that in view and also keeping your views in our sight that you are absolutely against getting things patented, may I know what other ways would you suggest that would help in creating scientific knowledge within the country successfully?

Dr. S. Husain Zaheer: I think, Sir, that the progress in our scientific and technological levels has been quite adequate to supply the requirement of the country in these fields—chemicals, pharmaceuticals, agricultural chemicals, food, etc., these particularly. I would also, however, point out one thing, Sir, and that is that authorship certificate may be permitted to encourage further indigenous scientific work in the country.

Shri Sham Lal Saraf: That is quite a separate subject to be dealt with. But here I would like to know that keeping the present progress made in these pharmaceutical, chemical, food, processing industries in view, may I know if Dr. Zaheer is aware as to what percentage of it has come nder the Patent Law or has been registered under the Patent law?

Dr. S. Husain Zaheer: Sir, more than 90 per cent are foreign patents. And major products—some of which I may name, Sir, like Chloromycin, Tetracyclin, Tolbutamide—and even the intermediaries of these are covered by patents.

Shri Sham Lal Saraf: The hon. witness has not caught my point. As far as manufacture is concerned, what percentage of it has come under the Patent Law? I could say it is hardly 2 per cent. Therefore, 98 per cent of it is absolutely free for people to manufacture. 2 per cent of the lot are very important to life-saving drugs. I would ask Dr. Zaheer whether he knows of any inventive institutions that would go to help the country by manufacturing all the types of these life-saving drugs?

Dr. S. Husain Zaheer: We would certainly be able to develop process which can make these life-saving drugs. We may not be able to invent new life-saving drugs and if incentive and encouragement are given that will probably encourage to develop life-saving drugs.

Shri Sham Lal Saraf: I would like the hon. witness to tell us what incentive would he recommend to be given to scientists?

Dr. S. Husain Zaheer: The main thing is the development of a healthy indigenous industry free from the obstruction of patents which will itself be an inducement for scientists to assist and help these industries and they will become part of the industry itself. It will give them necessary encouragement and the excitement for better work and hard work.

Shri Sham Lal Saraf: May I ask the Director-General, CSIR, in these physical laboratories all over the country, so far how many such inventions have they found out which are patent or non-patent that have been translated

into practical work, whether in the factory or in the field? Would he be able to tell us?

Dr. S. Husain Zaheer: Sir, the investment of the scientific effort which is required for progress in original type of drug research is not adequate in the country. It is not comparable to what is being done in a country like Japan. Japan has attained a certain very great degree of self-sufficiency in this because of bigger investment and because of non-existence of patent laws.

Shri Sham Lal Saraf: There is a patent law in Japan.

Mr. Chairman: The patent law is there in Japan for a number of years. That is what the witnesses who came before us, told us.

Dr. S. Husain Zaheer: Sir, there is a general expectation that foreigners could not expect patent protection in Japan, and it is only recently that the situation has changed somewhat. They were allowed freely the utilisation of foreign know-how in the country. But the reply to the hon. Member on my right, as I have said in the beginning, is that discoveries of new drugs in the country have been almost nil. But the development of knowhow processes where patents have expired or where patents have either been bought or licensed, have been done in collaboration with people who have taken patents. There is one case where an entrepreneur developed the know-how at the National Chemical laboratory of a very important dye. He was threatened by the foreign patent-holder for prosecution. He went ahead and he said, 'All right, you can threaten me but still I will go ahead. I want to be in a position where I can bargain with you better'. He went ahead and eventually this patent-holder had to sell his patents to him and this material is being made by the Indian partner.

Shri Sham Lal Saraf: The hon'ble witness has said that today we are not rich in the know-how and secondly we are not in a position to manufacture life-saving drugs because the reasons are obvious. How does he propose to bring this country in line with the rest of the countries in the world who have gone far ahead of us in the scientific field?

Dr. S. Husain Zaheer: I am sure, taking two or three important drugs, for instance, Chloromycin, Tetracyclin and Tolbutamide, within a very few months we will be able to develop indigenous know-how to make these life-saving drugs irrespective of the Patents.

श्री ब्रज बिहारी मेहरोत्रा : सी० एस० आई० आर० में जो रिसर्च हो रही है इंडेजनस मैडीसिस के लिए तो क्या इसलिए कि पेटेंट के मुआफिक नहीं है और चाहते हैं कि नो हौउ लोगों के पास पहुंच सके और उससे लोगों को सस्ते में फ़ायदा पहुंच सके ?

डा० एस० हुसैन जहीर : जी हां एक वजह यह जरूर है ।

श्री ब्रज बिहारी मेहरोत्रा : दूसरी चीज मैं यह पूछना चाहता हूं कि यह जो इंडिजनस मैडीसिस के बारे में आयुर्वेद और यूनानी मैडीसिस के बारे में रिसर्च रही ही है उस में आपको आयुर्वेद की और यूनानी किताबों की फर्स्ट हैंड नौलिज मिलती है तो क्या यह अच्छा नहीं होगा कि आयुर्वेद के और यूनानी हिकमत के वहां जो साइंटिस्ट्स हों वह भी रक्खे जायें आपके इंस्टीच्यूट में उससे बहुत फ़ायदा होगा ?

डा० एस० हुसैन जहीर : जहां तक आयुर्वेद और यूनानी मैडीसिस के विद्वानों का ताल्लुक है उनसे हमारा ताल्लुक हमारा राब्ता बहुत करीबी हो गया है लखनऊ में लेकिन साइंस के तरीके और मैथड्स एक हैं और उनमें हमारा कोई तफरका नहीं कर सकते चाहे वह यूनानी हो, आयुर्वेदिक हो या एलोपैथिक मैडीसिन हो अगर वह साइंसी तरीका अख्तियार करते हैं और साइंटिफिक थिंकिंग के मुताबिक काम उनका हो तो वह साइंटिस्ट्स

हो जाते हैं और उनकी जगह जरूर हो जाती है ।

श्री ब्रज बिहारी मेहरोत्रा : शायद मैं अपने सवाल को साफ़ नहीं कर सका । क्या आपके यहां जो साइंटिस्ट्स हैं उन में ऐसे साइंटिस्ट्स भी होंगे जो खुद आयुर्वेद के विद्वान हैं यूनानी के विद्वान हों और साइंटिस्ट्स भी हों तो फर्स्ट हैंड नौलिज ज्यादा कारामद होगी आप के सी० एस० आई० आर० के लिए ?

डा० एस० हुसैन जहीर : ठीक बात है । एक ऐसा इंस्टीट्यूट खास तौर से आयुर्वेद दवाओं के लिए कायम किया है जामनगर में और उस से हमारे लखनऊ के इंस्टीट्यूट से बहुत काफ़ी और करीबी के ताल्लुक़ात हैं ।

श्री ब्रज बिहारी मेहरोत्रा : मैं यही पूछ रहा था कि क्या यह जरूरी नहीं है कि ऐसे एक दो इंस्टीट्यूशंस हों ?

डा० एस० हुसैन जहीर : मैं बिलकुल आपकी राय का हामी हूं ।

श्री ब्रज बिहारी मेहरोत्रा : आपके सी० एस० आई० आर० में अगर आयुर्वेद और यूनानी के विद्वानों को भी रखा जायेगा तो उनकी फर्स्ट हैंड नौलिज आपको ज्यादा यूजफुल साबित होगी ।

डा० एस० हुसैन जहीर : आप बजा फरमाते हैं । वहां हर किस्म के साइंटिस्ट्स हों चाहे वह आयुर्वेद के हों यूनानी के हों या एलोपैथी के हों और ऐसा होना जरूर कारामद साबित होगा ।

श्री ब्रज बिहारी मेहरोत्रा : शुक्रिया ।

श्री विभूति मिश्र : आयुर्वेद में चाहे यूनानी में जमाने दराज से दवाओं के फारमूले लिखे हुए हैं । उसकी खूबी यह है कि जो उन जड़ी बूटियों को लेकर उचित ढंग से औषधि तैयार करे तो दवा ठीक उतरती है उसी तरीके से यह पेटेंट्स हैं जो पेटेंट कराते हैं तो पेटेंट की जो इनग्रीडियंट्स और कम्पाउंड्स हैं उन को उसी तरीके से लेकर ढंग से अगर बनायें तब वह दवा ठीक तरीके की निकलेगी । आज तक आयुर्वेद या यूनानी में किसी ने पेटेंट नहीं कराया लेकिन हजारों लाखों वर्ष से वह दवाएं चल रही हैं बाकी आज यह पेटेंट की प्रथा चल गई है जिसमें एक आदमी को एक मोनोपली दे देते हैं जो कि मेरी समझ में तो मुल्क के लिए नुकसानदेह है लेकिन मैं जानना चाहता हूं कि आपकी राय उस बारे में क्या है ?

डा० एस० हुसैन जहीर : मैं बिलकुल माननीय सदस्य से उस में सहमत हूं ।

श्री विभूति मिश्र : इसके मानी यह हैं कि आप पेटेंट के कानून के खिलाफ़ हैं ?

डा० एस० हुसैन जहीर : जी हां ।

श्री विभूति मिश्र : मैं जानना चाहता हूं कि जिस समय सरकार इस पेटेंट कानून को लाई उस समय उसने आप की मिनिस्ट्री से या आप के डिपार्टमेंट से कंसल्ट किया था ?

डा० एस० हुसैन जहीर : हम ने अपनी तहरीरी राय पेश कर दी थी और आपकी जो राय है उससे वह बहुत मिलती जुलती है ।

श्री विभूति मिश्र : सरकार की तरफ से जो लोग इस बिल को लाये हैं मैं उनसे पूछना चाहता हूं कि जब साइंटिस्टस की राय इस पर इस किस्म की थी तो वह आखिर कौन सी जिम्मेदारी पर इस पेटेंट बिल को आगे लाये हैं ? यह मैं आप से नहीं पूछता हूं ।

Shri P. S. Naskar: That we shall discuss among ourselves. You may please ask the questions to the witness now.

श्री विभूति मिश्र : अब तक जो पेटेंट का कानून रहा है और हिन्दुस्तान में जो आगे बनेगा उससे दवाएं सस्ती रहेंगी या महंगी रहेंगी ?

डा०स० हुसैन जहीर : अब तक जो रहा है उसकी वजह से दवा महंगी रही है बाकी अब जो तजवीज पेश की जा रही है उससे मुझे उम्मीद है कि दवाओं की महंगाई में कमी होगी ।

श्री विभूति मिश्र : हिन्दुस्तान एक गरीब देश है और यहां प्रति व्यक्ति आमदनी का औसत बहुत कम है 20 या 25 रुपये के करीब है तो ऐसे लोगों के लिए आप के पास इस पेटेंट बिल में कुछ सुझाव हैं जिससे इस देश की गरीब जनता को सस्ते दामों पर दवाएं सुलभ हो सकें ?

डा० एस० हुसैन जहीर : मेरी राय है कि सरकारी बिना पर नेशनल ड्रग्स जो कि खास तौर से लाइफ़ सेविंग चीजें हैं वह सरकार द्वारा नेशनल स्केल पर न बनवायी जायें और यदि ऐसा किया जाता है तो दवाओं की कीमत कम होगी ।

श्री विभूति मिश्र : हम लोगों ने घूम फिर कर इस समस्या का अध्ययन करने का प्रयत्न किया है । जो दवाएं बनाने वाले हैं वह कहते हैं कि बाहर से हमारे पास चीजें आती हैं जिनके कि कारण दवाओं के दाम यहां पर ज्यादा बढ़ जाते हैं तो क्या आप कोई ऐसा सुझाव दे सकते हैं कि बाहर से जो यह दवाएं आती हैं उनके बदले यह कम्पोजिट चीजें यहां इस तरीके से मिल जायें ताकि हिन्दुस्तान की जनता को सस्ती दवा मिल सके ?

डा० एस० हुसैन जहीर : जी हां सिर्फ 50–60 दवाएं ऐसी हैं जो कि वाकई जरूरी और लाइफ़ सेविंग कही जा सकती हैं बाकी जो हैं वह सिर्फ़ कम्पोजिट मिक्सचर्स हैं लेकिन आपने जो सवाल किया है कि इन दवाओं के बनाने में जो इंटरमीडियरी दरमियानी चीजें लगती हैं वह भी हम फिलवक्त नहीं बना रहे हैं बाज उन में से पेटेंट के भी अन्दर हैं और हम उनको बना भी नहीं सकते । हम उन्हें बना नहीं रहे हैं वह चीजें भी हमको बड़े ऊंचे दामों पर हमारे हाथों में बेची जाती हैं जिसके माने यह होते हैं कि जो प्रोडक्ट्स हम बनायेंगे उनको इम्पोर्ट करके बनायेंगे तो उनकी कीमतें लाजिमी तौर पर ऊंची रहेंगी । यह पेटेंट बिल अगर मंजूर हुआ तो उसका लाजिमी नतीजा होगा कि हमको वह चीजें अपने देश में बनानी पड़ेंगी और हम उनको सस्ते दामों पर बना सकेंगे ।

श्री विभूति मिश्र : चंडीगढ़ में एक फाइजर नाम की दवाएं बनाने वाली कम्पनी है उसकी 90 लाख या उससे ज्यादा की पूंजी लगी हुई है । उस का हिसाब हमने देखा है तो मालूम हुआ है कि 30–35 लाख रुपया साल में उसको नेट प्राफिट होता है । अब इस तीस लाख की वह बाहर से दवाएं मंगाते हैं तो क्या आप ऐसा नहीं सोचते हैं कि हम यहां स्वयं अपने यहां दवाओं का इंतजाम करें ताकि वह किसी विदेशी कारपोरेशन से दवाएं लें हिन्दुस्तान में स्वतः यहां के आदमियों को दवाएं बनाने का अधिकार दें ?

डा० एस० हुसैन जहीर : मेरी यह राय होगी कि इन्हें अपनी देसी आदमियों से बनवायें ।

Shri K. K. Warior: I understand that the CSIR have been in the earlier days taking more patents but they have discontinued that in the later period. Is there any cogent reason for that?

Mr. Chairman: They do not want any patent now.

Dr. S. Hussain Zaheer: As long as the Patent system exists we are also taking patents but we are much more strict now than we were about four or five years ago. But we are very much stricter than we were about four or five years ago. We first assess the

value of the patents and then we go in for patenting. Formerely we had no idea or no new thought about this. Thereafter a little improvement was made. We used to go in for our own Indian patents. This tendency we are trying to discourage.

Shri K. K. Warior: We are given to understand that even now the C.S.I.R. have got certain processes which they are not willing to get them patented although the process is entirely new and it is valuable novelty.

Dr. S. Husain Zaheer: Inspite of our strict control, the number of patents that we took over was very much considerable. Last year we took about 115.

Shri B. K. Das: You are in favour of the C.S.I.R's continuing to act as patent Agents and this is what you have stated in your memorandum on page 4.

Dr. S. Husain Zaheer: Yes, Sir.

Mr. Chairman: Do you want your Patent Officer to act as an agent for foreign firms for the assessment of the value?

Dr. S. Husain Zaheer: My colleague will answer this question.

Shri B. B. Pai: In Russia, we have the Chamber of Commerce which acts as the patent agents for foreigners who want to take out patents in Russia. This is on an obligatory basis. Now, there is a suggestion that since the C.S.I.R. have got its own patent unit for helping the scientists to take out patents, we can extend this service to foreigners so that the foreign exchange which now goes from India as patent fees to patent attorneys who are of foreign nationality can be earned by us for our own country.

Mr. Chairman: Do you want the foreign patents to route through you?

Shri R. B. Pai: We do not want that to be routed through us on a compulsory basis. But, we can do that on a voluntary basis. We can do that to start with.

Shri B. K. Das: Your idea is that in that way you will be helpful to the foreigners and some foreign exchange earnings will be there in the whole to trade.

Dr. S. Husain Zaheer: The idea is no doubt to earn foreign exchange.

Shri Shyamnandan Mishra: I am not quite sure whether my questions have already been covered. However, one or two questions occur to me just now. Firstly, since the C.S.I.R. are concerned with research and development primarily, would they be good enough to tell us what steps they have taken to see that when a particular drug industry is not in a position to undertake the research on its own, the C.S.I.R. undertakes the research and development on the basis of a kind of united effort in a few units?

Dr. S. Husain Zaheer: We have proposed this to the Indian Pharmaceutical Manufacturers Association to form a Research Association actually two days ago when I was in Bombay. Speaking with their representatives, they said that the nature of their operations undertaken was such that they were inhibitive from taking a cooperative research. But, still, they want to do this. On the other hand, there are now parties who are coming to some of our own laboratories and sponsoring research in our laboratories and paying for them; but, they are managed on an individual basis and not on a team basis. But, I understand that a group of pharmaceutical manufacturers in Bombay comprising of four or five parties is considering to take this up.

Shri Shyamnandan Mishra: Here, my point is this. Suppose the individual units take a stand that they could not do this on a cooperative basis. Would it not be possible for the C.S.I.R. to undertake the research

on their behalf on the basis of making a matching contribution which the Government is always willing to share?

Dr. S. Husain Zaheer: An effort has been made to form a research association. We will give them 50 per cent of their expenses that they spend. But, they have not yet formed their association to undertake that job. However, they are coming to our existing laboratories and asking us to work for them on payment.

Shri Shyamnandan Mishra: Would it not be possible to make it a complusion that they should make some contribution?

Dr. S. Husain Zaheer: That was the recommendation of the Scientists and Industrialists. We are actively pursuing that with the Ministers of Finance and Commerce and Industry.

Shri Shymanandan Mishra: Let me ask about the foreign collaborations which are occurring just now. Whether the C.S.I.R. is convinced that if these foreign collaborations which are taking place just now are permitted to take steps in the same way, then there would be many unnecessary patents also taken out in India. Are the foreign collaborations in any way responsible for many patents to be taken out in India which may not be considered necessary?

Dr. S. Husain Zaheer: Yes, Sir. 90% of the patents in India are of foreign patents. It reacts and that leads to foreign collaborations. I can tell you as an example Tetracycline. It is covered under patent. We have to go to a foreign party if we want to make this drug in our country either by buying that or by persuading them to come here to set up a unit for this purpose.

Shri Shyamnandan Mishra: What is particularly important is that in the name of import substitution, at the moment, unnecessary things are being produced in India and many foreign collaborations are taking place. The term 'import substitution' is so fasionable that under this term, many things are being done in this country. Whether the C.S.I.R. has a particular role to play in this regard and whether they consider it necessary or not when many patents are being taken out in India because of foreign collaborations which are not necessary to-day. We are incurring a loss in terms of foreign exchange because of this.

Dr. S. Husain Zaheer: I am quite in agreement with you. When foreign collaborations take place, they must be closely scrutinised by technical people, by economists and by competent people who are able to give their unbiased and objective view on the necessity of such foreign collaborations.

Shri Bibudhendra Mishra: Has there been any case where the technical know-how has been taken by some party—I do not exactly remember the name of the party—from one of the national laboratories which subsequently has been found to be not workable.

There have been cases where it has been workable, *e.g.*, Vit C. Are there any case in the negative?

Dr. S. Husain Zaheer: The actual passing over of the know-how after a process has been patented is not done by CSIR but is done by the National Research Development Corporation which is not a part of CSIR. It is a separate society. Just at the moment the Director-General of CSIR happens to be the Chairman of that Corporation. My personal view is and I have also tried to persuade the NRDC as Chairman at a Board meeting that before we pass on the know-how and before we receive any lump sum royalty we must ourselves ascertain that the process is commercially workable.

Mr. Chairman: That is being done now?

Dr. S. Husain Zaheer: It is being done now very strictly and I would say in recent years any case of the type that you are mentioning is not most likely to occur. Earlier there was one case of aluminising which was a very important one where one of our laboratories has claimed and they have done a very good work and they sold it. There was one other case of manganese where we received a fair amount of royalty. But on close examination we found that it still required to be done. Therefore we have withdrawn our objection for holding up their work till we complete the know how and in another six months we feel we will be able in a position to say, 'We are now ready and go ahead'.

Mr. Chairman: How many of your processes have been patented and accepted by the industry in India?

Dr. S. Husain Zaheer: About 150—200.

Mr. Chairman: Industrially?

Dr. S. Husain Zaheer: About 150—200 patents have been licensed and about 80 are in production.

Mr. Chairman: Is there any liaison between the industry and your Department?

Dr. S. Husain Zaheer: We have taken very active steps in that direction. During the last few years there is a complete Directorate for liaison and co-ordination which establishes very close connection with the industry, in taking problems from them for research and in passing out our completed process to them and helping them and we have also established a design and engineering unit which helps the laboratories as well as the entrepreneurs who take our licenses to work out these processes so that these can be commercially exploited. We have formed also in collaboration with the Chemical Manufacturers Association a liaison bureau one of which works in Bombay and the other one is in Calcutta. We are in close touch with the Chemical Industry—taking out problems from them for research in the laboratories and passing out our know-how to them for exploitation.

Mr. Chairman: All the three organisations, *viz.*, The CSIR, Defence Research Organisation and the National Research Development Corporation—are working in close collaboration with each other or is there anything to be desired?

Dr. S. Husain Zaheer: There is so much to be desired for close collaboration.

Mr. Chairman: What are the methods you would suggest?

Dr. S. Husain Zaheer: We have taken some steps to have this collaboration. For example, the CSIR has organised a special unit which we call the Defence Co-ordination where we try to coordinate not only with the Defence Research Organisation but with scientific and technological problems of defence which we have and we can offer solution to them in our laboratories. During the last 3½ years we have actually taken nearly 175 problems and 84 of them have been solved and given over to them for exploitation. Similarly with the industries. The NRDC is a very small organisation really but the Corporation is established by having the present Director-General of CSIR as the Chairman and a number of Directors of the Laboratories of the CSIR are members of the Board of NRDC. Therefore we have close collaboration with the industry. In the 8 corporate industries we have very close collaboration, *viz.*, textiles, cement, tea, synthetic fibres, jute. There we have close collaboration and also we give representation to the Defence Science personnel in our executive councils and our Scientific Advisory Committees of the laboratories which formulate the research programme of the laboratories. So, in that way we are trying to get together, but I am afraid I am not satisfied with it. It should be much closer than this.

Mr. Chairman: Am I right when I say that all the National Laboratories are working under the CSIR?

Dr. S. Husain Zaheer: That is the name given. Of course apart from National Laboratories there are other laboratories which are not called National Laboratories but which are also working under the CSIR. We have got 34 institutions and 8 corporate institutions.

Mr. Chairman: Is there exchange of notes about the work done by each laboratory, for *e.g.*, as between these laboratories and the NRDC and the Defence Research Organisation so that there is no overlapping?

Dr. S. Husain Zaheer: One of the foremost functions of our own co-ordination and liaison unit is to keep a record of the scientific work going on in the different laboratories and when there is parallel overlapping work or work of similar type it is the duty of this organisation to bring the scientists from these different units where similar type of work is being done. For *e.g.* solid state physics and ferrites—there are 2 or 3 laboratories working on them. We bring them together and under the inspiration of the co-ordination unit the problems are discussed in all broader aspects and framed out depending upon the availability of equipment and scientists. They meet every year to discuss the progress made. But the NRDC itself does not do any research work at all. Actually it is only a very small office—with an executive director, a Secretary and a few clerks and only they peddle our processes and get the licence fee. Their work stops there. I think that is unsatisfactory. As I said earlier, they ought not to peddle our processes unless they have got a machinery and they are themselves convinced that those processes are workable.

Mr. Chairman: You told the Committee that you are against patents for chemicals and articles of food. But you know that one of the inventions in the Pimpri factory is Hyamycin and they have taken out a patent in America and they are getting Rs. 7½ lakhs royalty. If patents are abolished, anybody would be then free to use the processes and inventions that your scientists have made. Would it not be a disincentive to scientific inventions?

Dr. S. Husain Zaheer: I have made it clear that I would not advise abolition of patents in the United States. It is the state of our economic development which induces me to recommend that patents here should be abolished in these fields. I would be against taking a patent for Hyamycin in India but I would not be against taking a patent for it in the United States.

Mr. Chairman: If you are not willing to give protection in your own country for your scientists how can you ask for protection in another country?

There will be double-dealing. You must have some standard.

Dr. S. Husain Zaheer: We want another type of protection or inducement or encouragement, that is, diverting our attention to find out processes of manufacturing cheaply and economically medicines which are to-day covered by patents. Our gains will be much more at the moment by not allowing patents....

Mr. Chairman: If there is no patent law, anybody will be free to utilise your inventions anywhere in the world. How do you protect it?

Dr. S. Husain Zaheer: I have not the power to recommend that patents should be abolished in the United States....

Mr. Chairman: No, no; if we abolish the patent law here, anybody from U.S.A. or U.K. or Germany can exploit your invention and manufacture it in their country and also in this country.

Dr. S. Husain Zaheer: As long as they manufacture in this country, I

would have no objection at all. I would certainly be free in selective cases to take a patent where the patent system exists even though I may not take a patent here. As I mentioned to you, the agreements which we have arrived at with some American firms to utilise and patent our discoveries and inventions will apply to the whole world but not to India.

Mr. Chairman: I want to know how you are going to protect your own scientists here. They will exploit their inventions in India.

Dr. S. Husain Zaheer: I have suggested the authorship system. Even then, numerically, the number is so small that it is insignificant. Ninety per cent of the patents are foreign patents. The gains you will get in utilising these 90 per cent of patents will for outweigh the losses which you might suffer in not having patent protection.

Mr. Chairman: You yourself said that you have taken 1,200 patents.

Dr. S. Husain Zaheer: All of them are not in the field of drugs and pharmaceuticals.

Mr. Chairman: May be. Patents give protection for a particular period to the inventor to exploit his inventions. If you don't have any patent, anybody can come and exploit them.

Dr. C. B. Singh: If the SCIR does not patent a thing, somebody else will get it patented. As long as the patent law is there, it is better to get them registered as patents.

Dr. S. Husain Zaheer We are compelled to do so, as long as the patent law is there.

Mr. Chairman: You say "the system of utilisation of CSIR patents approximates to the Authorship system. It is felt that the CSIR system should be extended to Indian inventions in general." What is the system you are following now?

Shri R. B. Pai: The idea of the Authorship Certificate is that the exclusive privilege will vest with a statutory body or with the Government. Now the inventors take out patents here. But the patents are taken out in the name of the Council of Scientific and Industrial Research which is a public registered society anl also a statutory body. Now no one can blame the CSIR for exercising its monopoly privilege in a way that is not conducive to public welfare. So the idea that we suggested is that if we have the Authorship Certificate system, the inventor will get an authorship certificate but the monopoly will not rest with him. There won't be a private monopoly, but the State will take over the patent and exploit it and just as the CSIR does, give the inventor a liberal amount, say, Rs. 40 out of every hundred rupees....

Mr. Chairman: It does so at present?

Shri R. B. Pai: Yes. We can have the same sort of thing for drugs and pharmaceuticals also. For instance, we can say 'we won't give you the ordinary type of patent, but we will give you an authorship certificate so that the exclusive privilege rests with the Government and the patent may be exploited by the Government. If it is a profitable work, we will give a proportionate share of the value of the social utility of the patent to the authors, or if he has assigned it to a manufacturer, to the manufacturer or whoever steps into the shoes of the author." In this way, the patent can be used in the best interests of the country. There may be exclusive licences; there may be non-exclusive licences as we are doing it. We may grant it to a public body or to a private manufacturer. The freedom will be there and the discretion in every case will be exercised by a statutory body. That is the idea.

Mr. Chairman: On page 17, you have said "... patents should be granted for other plant inventions

such as a sexual reproduction (*e.g.*, by techniques such as grafting, budding, cutting, layering, division and the like) of new varieties of purely commercial plants, ornamental trees, flowers, bushes, hedges, etc." Is it prevalent in any other country?

Shri R. B. Pai: Yes, Sir, the plant patent system prevails in the U.S.A. and now there has been an international agreement between the U.K. and some other countries where new species of plants are granted a special protection. So this is an important field where our workers in the field of agricultural science will have a scope to practise new ideas in the field of generating new species of plants or biological inventions.

Dr. S. Husain Zaheer: There is a rose-breeder in England whose annual income from royalties is over £10,000. He gets, I think, three shillings on every rose plant which he has bred. We will have no objection to ornamental trees, but the commercial side should be protected with patents.

Mr. Chairman: You say on page 24, 'the practical difficulty of making a world-wide search has already been referred to. Novelty should be judged only with reference to what was known in India on the date of the patent." Is that method prevalent in other countries also?

Shri R. B. Pai: In a very large number of countries. I think it is prevalent in U.K. and all Commonwealth countries: There novelty is judged in the light of what was public knowledge, what was publicly known, in the country on the date on which the patent application was filed. This is a very economic system as compared with the American system where they go in for a world-wide search with a huge army of examiners. A tremendous amount of expenditure is incurred by the Patent Office, but still they are far from being able to catch up with the terrific pace of technology in the world. In any case, if a person in India makes an invention and somebody might have made it in a very remote part of the world and the information may not have reached this country at all. So why should this patent be invalidated? He has given some new knowledge to this country. Therefore, this should be patented.

Dr. C. B. Singh: There is a possibility that he might have copied it and brought it over here.

Shri R. B. Pai: If the knowledge has reached this country, then he has done a service to this country by bringing this knowledge promptly and disclosing it to our country.

Dr. C. B. Singh: But the one who first got it patented will object to it; won't he?

Shri R. B. Pai: That will be the case if we adopt the world system. But the system which is now worked in England and in many other Commonwealth countries is that the knowledge is judged by what was known in the country on the date the patent application was field.

Mr. Chairman: That means steeling somebody else's property.

Dr. S. Husain Zaheer: They are stealing only if it is known in the country.

Shri B. K. Das: Search should be of knowledge available in the country, not outside India, as has been provided here in the Bill.

Dr. S. Husain Zaheer: Outside knowledge also if it has reached India becomes Indian knowledge.

Mr. Chairman: On page 31, it is stated penal clauses require revision to ensure that bonafide inventors are not discouraged from filing patents. What is your suggestion for this?

Shri R. B. Pai: If the idea of Patent law is to encourage the inventor and to give him prbtection and a pat on

the back, he should not be threatened with imprisonment for not furnishing whatever information the Controller may ask for. As worded, the Controllor is free to ask for anything—there is no strict limit to what he may ask for—and if the inventor fails to provide that knowledge within a few weeks, it is stipulated that he could be sent to the prison. This may deter a large number of inventors from applying for a patent at all. It may be much better to keep it a secret and try to exploit it as a secret process or just publish it and not to bother to take out a patent.

Mr. Chairman: What are the functions of a Patents Officer in the C.S.I.R.

Shri R. B. Pai: To help our inventors to take out patents.

Dr. S. Husain Zaheer: Something similar to Public Patents Attorney, a kind of internal patents officer who drafts our patent applications, who checks up whether the application is right or not.

Mr. Chairman: Recognised as Patents Agent also?

Dr. S. Husain Zaheer: For other parties also.

Mr. Chairman: We have introduced a clause in the provisions regarding Patent Agents that whoever wants to be a patent agent should have some Degree in Science or Engineering. Does it in any way affect you?

Shri R. B. Pai: I am not in favour that provision so fas as Degree is concerned. Let us take the most advanced country—U.S.A. for instance. What is required is that the man who wants to practice as a patent agent should have the necessary legal and scientific background. This is interpreted in U.S.A. to mean that if a man has his name entered in the Bar of a District Court of a State Court—he is a Barrister—he is presumed to have the necessary academic scientific background. Apart from that let us take the case of the U.K. There are provisions which say 'if a man has worked in a patent agents' firm and is over 25 years, he is an experienced man in the line and they do not bother about this Degree at all. This is for the first time that such a provision is being brought in this country and there are very competent and experienced patent agents who have been in the line for over 25 years nearly, they have got the necessary technical and scientific background by working in colaboration with inventors. We should not be very rigid about this.

Shri K. K. Warior: Have you come across a similar provision in any other country?

Shri R. B. Pai: I am not aware. I think there is no country in the world where a Degree in Physical Science or Engineering is regarded as an essential qualification. I have tried to look into this matter. There are two things—one is for the new entrants. For that Australia is one of the countries where they insist on a technical degree. But taking the case of people who have already been in the line, there is no country in the world which would debar a man from registration just because he does not have a degree. If we admit a raw graduate to become a patent agent, the idea of excluding a man who has been in the line for 25 years, who has done brilliant work, whose work is appreciated, is not reasonable.

Dr. S. Husain Zaheer: Some safeguard to protect such people who have attained efficiency through actual practice over a certain period of years, we suggest, would be desirable.

Shri B. K. Das: For new entrants?

Dr. S. Husain Zaheer: Perhaps, you can.

Mr. Chairman: Do you think there is sufficient arrangement for basic re-

search in India in the laboratories under your control. You know all process research is a result of basic research.

Dr. S. Husain Zaheer: We are not equipped properly for some sophisticated type of research like space research, or some very expensive type of nuclear and atomic research, but for other types, I think our Indian laboratories are reasonably well-equipped. Some of the University laboratories also, but not all. My personal view is much more basic research is required to be done, particularly in the Universities, especially in fields like Mathematics and things of that type. CSIR is spacially convening a conference in October where we are inviting brilliant mathematicians from all over the world who have spread out and gone away to come and discuss with us and recommend to us what method should be adopted to encourage the study of Mathematics and methematical research in the country, because we feel this is the basis of all physical research. For actually all types of science, Mathematics is the basis.

Mr. Chairman: Is there close liaison between the University CSIR and the University Grants Commission?

Dr. S. Husain Zaheer: There is no formal liaison with the University Grants Commission. Our Reviewing Committee had recommended formation of a Liaison Committee between the University CSIR and the University Grants Commission, but the University Grants Commission was not particularly favourable to that idea. Because of the reluctance from the U.G.C., we have dropped the idea of forming a formal committee. We have got a kind of Expert Committee on which representatives of CSIR and some University Science Professors sit together and advise us how collaboration could be developed. But there are any fields—for example about 70 per cent of scientific research in the Universities is financed by the CSIR—these schemes of research are approved by Research Committees of the CSIR where predominantly professors from the Universities are members. It is they who sanction research schemes in the Universities. Then we give a very large number of research fellowships which are mostly in the universities—nearly 80 per cent are in the universities. These are meant to induce people to take up science as a career and for training in resarch, because we feel that unless brilliant students take science as a career and get training in research, our talent will be dried up. Also a number of CSIR laboratories are recongnised bases for Ph.D. work and also a number of CSIR laboratories actually do regular teaching work in special branches of technology for neighbouring universities.

Mr. Chairman: What is the progress that the CSIR has made in its laboratories regarding import substitutes and export promotion.

Dr. S. Husain Zaheer: We have tried to reorient all our programmes. We must say that to some extent we have attained success. But we are still moving forward. After all, I do not want to be in the defensive, but I feel that science is rather new in India and at least the interest in the investment in science is even now not quite adequate. It is something about which we may not feel complacent but we cannot also feel apologetic. I think we have, on a rough calculation which was made about two years ago, saved the country about 22 crores of foreign exchange, which, of course, is not very much, considering that our annual budget now is Rs. 17 crores. But still it is only indicative of the manner in which we are moving forward and we feel that if we make this calculation four years hence this figure would be more than doubled.

Mr. Chairman: How are these problems taken? Are they referred to by the Ministry or the laboratory takes them on its own?

Dr. S. Husain Zaheer: Each laboratory takes up its own problems. Of

course, as I mentioned to you earlier, we have established a coordination—a liaison—unit, which establishes contacts with the technical Ministries of the Government of India. They are regularly in touch with their corresponding industry both in the public and private sectors and the administration. Then in our scientific advisory committee and executive councils of the laboratories as well as in our Board of Scientific and Industrial Research, we have representatives of private sector industry, public sector industry and Government economic and technical Ministries. So, in this way we try to pick out the problems which are of interest to industries and then based on the results of our research the industry, both in the public and private sectors, have their utilization. Also, the industry asks us to do any particular type of research in which they are interested.

Mr. Chairman: Coming to the Patent Bill, we have for other patents 14 years, for food, chemicals we have 10 years. One argument advanced before us is that even the 10 years period is too small and unless we give 4 to 5 years for technical know-how to be translated into industrial production, afterwards it will only be two to three years left. If we reduce the period, no benefit will come to India; we will not be able to get any knowhow from the advanced countries. What is your view?

Dr. S. Husain Zaheer: As I have suggested earlier, Sir, the period could be reduced from 10 years to 7 years. I do feel that if there is any patent of the kind of 7 years period, it will ensure a reasonable return. I am not particularly enamoured of foreign firms investing in our pharmaceutical industry. And they will be pharmaceutical or food or chemical industries generally, except one or two cases where we have not adequate technique. If the patents are removed I can assure you that we will be in a position to develop the knowhow, manufacture, etc. with our own resources. Only the profit will be less; it may not be 30 or 50 per cent. Our expenditure on development will not be 70 to 75 per cent, but prices will definitely come down at least for life-saving drugs. We will be able to meet the situation particularly if patents are also removed from the intermediates, because intermediates are important and we can manufacture intermediates also connected or required for the manufacture of these drugs or chemicals, on which you are proposing to apply this Act.

Mr. Chairman: Do you want 7 years from the date of specification, of the date of sealing?

Dr. S. Husain Zaheer: Date of application; the date of filing the complete application.

Mr. Chairman: There are three dates—date of application, date of specification and date of sealing.

Dr. S. Husain Zaheer: Date on which complete specifications are filed. That would be considered as the date of patent. 7 years from that time.

Shri R. P. Sinha: I wanted to know from the learned witness if he has given his thought to this problem. He is an eminent scientist of our country. I would like to ask him about purely scientific aspect and connected with pure research. You see we have now established very many research institutes all over India and you are coordinating in the CSIR. You have got a buget of Rs. 17 crores. I undersand there are two types of research: one is basic research and the other is applied research. Now, we would like that the process of research should be quite substantial, although it is difficult to force the pace of research, as I understand it. But we would like some tangible results. But there is another aspect and that is we would like to know how much commercial use we can put to our research that is being done. Now, you have taken about 200 patents out of that. 200 are being

commercially used. Is it possible that at least in time to come a part of our research expenditure could be met from the income, from the research work on patent? You can say that I do not believe in that; research should be financed by the State. Now, in the debate that is going on we say that public sector factories must pave their way; they must be commercially profitable. I am not talking of the basic research; I am talking of applied research. The community is paying for that applied research work. The community is entitled to ask from this organization how much you are giving to the community by way of concrete results. Now, could you give us some idea how applied research could become self-sufficient, or at least a good portion of it is self-sufficient while that is being exploited by the country.

Dr. S. Husain Zaheer: I think it can do. I can give you one example of a laboratory where I worked for 16 years which is now earning nearly 30 per cent of its revenue expenditure through receipts but not from royalty and others also. That is also a small part. But it gets its receipts from fees for doing certain work and from selling some specialised products which it makes. I am strongly of the opinion that the applied research can to a very large extent be made self-supporting and should be made self-supporting.

Shri R. P. Sinha: Do you think we should limit our research more particularly to basic research to the public sector, that is Government laboratories financed by the State, or do you want extension of research in the private sector as well?

Dr. S. Husain Zaheer: I would not lay hard and fast rule. During the last 7 or 8 years, CSIR has been actively assisting in the development of scientific research by private industries by the formation of cooperative research associations. We have 8 such active associations in the country today where the expenses are shared. 50 per cent is shared by the members of the association, that is, by private industry, and 50 per cent is shared by CSIR While I am in favour of encouraging this, as has been pointed out in our third reviewing committee report which we have drafted, our technological development or the interest or support to research has not been so much developed to an extent that we can rely on private enterprise, to support it to the extent that it is required for the economic and industrial development of the country.

An hon. Member: Is it project orientated?

Dr. S. Husain Zaheer: All programmes of CSIR laboratories as well as cooperative research laboratories are project orientated.

Shri R. P. Sinha: In other countries there are some research organisations which finance such research projects or research as a whole without any motive of compensating for all the expenditure on research. But I understand that some of the investment on research is on the basis that they will become commercially exploitable. The inventions will become commercially exploitable and therefore they will recover back the investment on research. Now, this we are told, is possible only under a patent system. Now if we do not have that—I am talking completely of India—how can the Indian research develop? Parliament is responsible for financing all those things. Take private industry. How can we expect that development to take place unless they are in a position to recover back expenditure on research by investing something which they can commercially exploit and recover back?

Dr. S. Husain Zaheer: I do not think that it is necessary to patent the process before you can commercially exploit it. It is possible to commercially exploit a process and earn profits, without the necessity of patenting it.

Shri R. P. Sinha: The learned witness feels that research should be

extended and it should be self-supporting. How to do it? I do not think the learned witness is competent enough to answer that question. One more question. When we abrogate patents here, should we not take advantage of patents somewhere else? I wonder if it is possible. There is this question of reciprocity. An American firm is willing to pay 7½ per cent for heymicin of Pimpri; the USA Government is not according sanction to it. USA Government is not prepared to grant that because they are looking to what we are going to do here. I wonder if the witness is aware that there is always a question of reciprocity. If we abolish patents here, we can't take advantage of what is there somewhere else.

Dr. S. Husain Zaheer: I am not aware that such reciprocity is obligatory. However I am prepared to forgo the advantage in the present stage of our development because the gains we are likely to get will fall out in place of the losses which we might suffer.

Dr. C. B. Singh: If the research work in each and everyone of your national laboratories is problem or project orientated, will it be helpful?

Dr. S. Husain Zaheer: I agree with you. They are now project orientated in almost all our laboratories. Allocation of funds, time-limit, time-target of equipments required, all are project orientated. I would submit to you some of the reports of the laboratories.

Mr. Chairman: You said that the tribunal will avoid delays? What do you suggest as the composition of the tribunal? Suppose the committee recommends such a tribunal. What would you suggest to be its composition?

Dr. S. Husain Zaheer: I would like to leave it to the Ministry because the cases might vary from one to the other and therefore the type of scrutiny might also differ between one and the other. I would not like to have a permanent tribunal.

Mr. Chairman: You do not want a permanent tribunal. Would you like to have an *ad hoc* tribunal?

Dr. S. Husain Zaheer: Yes *ad hoc* tribunal for specific groups of cases.

Mr. Chairman: Thank you very much.

Dr. S. Husain Zaheer: Thank you.

(The witnesses then withdrew)

(The Committee then adjourned)

MINUTES OF EVIDENCE GIVEN BEFORE THE JOINT COMMITTEE ON THE PATENTS BILL, 1965.

Friday, the 26th August, 1966 at 14.40 hours.

PRESENT

Shri S. V. Krishnamoorthy Rao—*Chairman.*

MEMBERS

Lok Sabha

2. Shri Dinen Bhattacharya.
3. Shri Bibhuti Mishra.
4. Shri P. C. Borooah.
5. Sardar Daljit Singh.
6. Shri Basanta Kumar Das.
7. Shri V. B. Gandhi.
8. Shri Kashi Ram Gupta.
9. Shri Prabhu Dayal Himatsingka.
10. Shri Mathew Maniyangadan.
11. Shri Bibudhendra Mishra.
12. Shri Chhotubhai M. Patel.
13. Shri Naval Prabhakar.
14. Shri Sham Lal Saraf.
15. Dr. C. B. Singh.
16. Shri K. K. Warior.
17. Shri Balkrishna Wasnik.

Rajya Sabha

18. Shri Babubhai M. Chinai.
19. Shri D. P. Karmarkar.
20. Shri Shyamnandan Mishra.
21. Shri R. P. Sinha.

REPRESENTATIVES OF THE MINISTRY OF INDUSTRY

1. Shri K. V. Venkatachalam, *O.S.D.*
2. Shri B. N. Atrishi, *O.S.D.*
3. Dr. A. Joga Rao, *Controller General of Patents, Designs and Trade Marks.*

REPRESENTATIVE OF THE MINISTRY OF HEALTH

Shri S. K. Borkar, *Drug Controller of India.*

REPRESENTATIVE OF MINISTRY OF LAW

Shri R. V. S. Peri Sastri, *Deputy Legislative Counsel, Legislative Department, Ministry of Law.*

SECRETARIAT

Shri M. C. Chawla—*Deputy Secretary.*

WITNESSES EXAMINED

I. Directorate General of Technical Development, Government of India, New Delhi.

Spokesmen:

(1) Dr. B. Shah, *Industrial Adviser.*

(2) Dr. P. R. Gupta, *Development Officer.*

(3) Dr. S. S. Gothoskar, *Development Officer.*

II. Dr. M. L. Dhar, *Director, Central Drug Research Institute, Lucknow.*

I. Directorate-General of Technical Development, Government of India, New Delhi.

Spokesmen:

(1) Dr. B. Shah, *Industrial Adviser.*

(2) Dr. P. R. Gupta, *Development Officer.*

(3) S. S. Gothoskar, *Development Officer.*

(*The witnesses were called in and they took their seats*).

Mr. Chairman: Gentlemen, these witness are Government witnesses. They cannot give any opinion on the Bill. They have been summoned here only for factual information. So, I would request you not to place them in an embarrassing position. You can ask only factual information from them.

Shri K. K. Warior: Whichever question is not in order, you will please let us know.

Mr. Chairman: Gentlemen, whatever evidence you give here will be public and it will be given to our Members and laid on the table of the House. Even if you want any particular answer to be confidential, that will be printed, published and given to the Members of Parliament. Now, you can give your opinion if you have any on the Bill. Afterwards, our Members will put to you some questions

Dr. B. Shah: I have no opinion to offer on the Bill. I have already summitted to the Committee the answers to questions sent to me.

Shri Sham Lal Saraf: I have seen a report complied by Dr. Shah which is very much appreciated. Keeping in view the idea behind this Patents' Bill that is on the anvil at the moment, I would ask him two or three questions.

He is known to the Industry and is known everywhere. May I know, keeping in view the know-how in which we have a great paucity in the country to-day and which we mostly import, how the Technical

Directorate of the Ministry of Commerce and Industry, at the moment, is able to help the country in knowing more and more about the technical know-how in the pharmaceutical industry?

Dr. B. Shah: The technical know-how is very much different from laboratory processes and or specifications in patents and so on. The technical know-how is developed with the technical experience and competence of workers in the country. It very much depends on them, to translate these laboratory processes into commercial production. We have to gain more experience in this field. In fact we have been fortunate to have contacts with the many advanced countries of the world since a long time and we are progressing towards that direction. By gaining more experience in traslation of processes to commercial exploitation, in the form of pilot plant operations, semi-commercial operations and also in the erection and construction of large-scale units this technical competence and experience will improve.

There is a considerable need for more experience in this field. With the development of the industry, this is slowly coming up and the people are also getting considerable experience by working with the firms abroad and with the technical collaboration with these firms and also during the process of construction of factories.

Shri Sham Lal Saraf: The Directorate of Scientific and Industrial Research has a net work of laboratories in the country. May I know if his Directorate is in a position to coordinate the different efforts and the different processes evolved in the Drug Research Laboratory in order to make the know-how or the process available to the entrepreneurs or any people who would like to go into the business? And when these inventive processes are passed on to the persons concerned whether in the factory or in the field, do you see whether the pilot project has actually been put up in some of the laboratories in order that the finished end-product can be taken up for commercial production?

Dr. B. Shah: This is developing in our laboratories. In fact as I have already mentioned this is the main lacuna now in our research in the country. Industries also have research laboratories where similar work is being undertaken. For example, you might have heard of the Vit. C. project which was recently worked by the N.C.L. All the process details were worked out by that laboratory. But it has taken 2-3 years for H.A.L. to translate it into commercial production. Hindustan Anti-Biotics is now in a position to design and build a large plant. But this gap in our research effort has to be bridged. Now, the National Laboratories themselves are trying to put up their own pilot plants to make their processes more commercially feasible and acceptable to the industry.

As far as licensing is concerned, we see that whether there is a local know-how available of equal competence, it is given preference to any foreign know-how, for putting up units in the country.

Shri Sham Lal Saraf: Keeping in view the stage that we have reached and also keeping in view the fastness at which the modern scientific world is going, do you consider that the import of know-how is necessary and might continue for some time more to come? If that be so, may I know for what period these patents should be permitted? What should be the duration of patents?

Dr. B. Shah: If we have to go forward and catch up with the rest of the world, we certainly need to import technical know-how and construction and design facilities for large-scale plants and so forth. Moreover, even in the rest of the world these are progressing so fast that it is very difficult to cope up with them if we start work-

ing on them and trying to investigate what has already been discovered. We would rather use those energies to develop processes and know-how that have not already been developed in the other parts of the world. It is very difficult to say how long it will take. It all depends upon the efforts and also on our scientists and assistance we get from abroad for catching up with the rest of the world.

Shri Sham Lal Saraf: About the period of patent he has not said anything. He is in favour of importing the know-how. Naturally it will come under the Patent Law. What period would you recommend for the duration of the patent? To-day it is 16 years. In this Bill 10 years is suggested. From your vast experience what would you think should be the reasonable period for a process patent or a product patent?

Dr. B. Shah: That would really depend upon the willingness on the part of the collaborators to give us the know-how. When the protection is for a shorter period, I mean, if they are willing to be satisfied with a shorter period and are prepared to give us the latest know-how, then the period is not a very important factor. If they think that the period is too small for them to realise the costs they have incurred on the development of the know-how, then a longer period may be given.

Shri Sham Lal Saraf: We are framing a law. Under the law you cannot have different periods for different people. You will have to treat them all on par. What shall be the reasonable time limit for duration of a patent—10 years or 16 years?

Dr. B. Shah: As we develop our own know-how and there is a free flow and exchange of know-how between our country and other countries —that is what we call, two-way traffic—I think most of these things will become unimportant. It is only where we continue to pay money for the know-how and do not get anything in return, and the know-how we can offer has yet to develop, the period and other things really assume great proportions. But it is mainly the willingness with which we can get the know-how from manufacturers abroad that will decide the actual period that we should fix for protecting the flow of know-how into this country.

Mr. Chairman: That depends upon what amount you are prepared to pay them.

Dr. B. Shah: In other words, it is so.

Dr. C. B. Singh: Dr. Shah with his experience as Industrial Adviser to the Government of India and with our desire for improvement of our industry in all spheres will you please answer one straight question? It has been suggested that complete abrogation of the Patent law will help in this direction? People have come forward and said 'You abrogate the patent law. You will see industry will advance by leaps and bounds.' What is your opinion on that?

Dr. B. Shah: As I just now mentioned, it is the technical base that we develop in the country and the way we use the scientific research made abroad for our industrial progress—that is the most important thing. As long as we do not have this technical base, competent and experienced men to translate into commercial production chemical processes and research work done elsewhere, we will continue to need certain amount of assistance, at least till we are able to reach the same level of competence as that of the other advanced countries.

Dr. C. B. Singh: In short, you do not agree with that view?

Dr. B. Shah: I don't think so.

Dr. C. B. Singh: Quite right. Now how can you remove this lack of experience for translating laboratory processes to what you call actual products? This is our weakness. The laboratory processes we know but to bring out, as a commercial

proposition, the products and put them in the market, lack of experience comes there. How can we remove this lacuna? You are an Industrial Adviser; you should be able to tell us.

Dr. B. Shah: We are now depending a good deal for this sort of translation on people who have gained a certain amount of experience of large-scale production, construction of factories and designing of plants and factories abroad. In fact there have not been many many facilities in the country to acquire it. We would certainly need a large number of people of this type who actually will be the future builders of our industry and we would certainly need assistance for training in this field by people who have had this experience or by giving them facilities to gain this experience abroad.

Dr. C. B. Singh: Modern countries like Germany or Japan—I am told—are very highly advanced and you agree that by the end of the last World War, they were completely razed to the ground. Could you tell us how these countries have made such phenomenal advance in the industrial field?

Dr. B. Shah: This is very easy, because the people who rea ly build the industries were there. Although the factories were destroyed, the men who had this technical competence to design and bui'd plants were there. It is not merely the processes and factories that decide ultimately our competence in industrial development. The young men who are now working in the modern units and who are bringing modern technology into this country and who are playing a very vital part in building up of factories—they are the builders of our future. It is not merely dependent on the laboratory workers, the people who are doing experimental research work in the laboratories, but on those people who are doing work in the factories in India and abroad and have brought with them all the experience of modern technology with them. Even if the factories are razed to the ground, they will be able to duplicate the equipment and bui.d the factories again and with their experience regenerate the whole economy.

Dr. C. B. Singh: Do you think that foreign capital and foreign equipment and plant both in Germany and Japan played an important part in this direction?

Dr. B. Shah: Some resources in men and material might have helped; but the main builders are the competent technicians and scientists which they already possessed which we don't possess to the same extent.

Dr. C. B. Singh: You said that for quite some time we will need foreign know-how and foreign experience. What can we do to attract this foreign know-now to this country?

Dr. B. Shah: There are many ways of attracting this know-how. Government already has a policy in this matter. We have allowed considerable foreign participation. We have paid technical fees for bringing in processes, design and other work and also protected them so far against . . .

Dr. C. B. Singh: Supposing we make the patent law very weak, will that attract foreign know-how?

Dr. B. Shah: I think that is for you to judge.

Dr. C. B. Singh: No, no. You are an industrial adviser and this is a very important and simple question. We want a clear opinion from you on this point.

Dr. B. Shah: In this connection, I would refer you to the report of the ECAFE when certain studies were made for the ECAFE region countries South East Asian countries—and some of the difficulties were discussed by the ECAFE conference about their trying

to get know-how for ther development. Some of them are even prepared to pay quite a handsome amount of money for technology and so on. But it was felt by the committee that since they did not have proper patent protection, they would not be able to attract really good know-how and one of the recommendations was that they must first protect the know-how before they can attract foreign know-how.

Shri Prabhu Dayal Himatsingka: You said that we will require technical know-how to catch up with the rest of the world. That is to say, you think that getting the know-how will be more convenient for us than to start finding from scratch?

Dr. B. Shah: Yes. If we try to cover the ground that has already been covered in other countries, we will always remain behind because they are progressing now in geometrical progression in the field of science. If we go on trying to cover what has already been covered in science, all our scientists will be employed in that kind of work, but if we get the technology that has already been developed from other countries, our present resources can be used for further progress and for maintaining our level of industrial growth as in other advanced countries.

Shri Prabhu Dayal Himatsingka: Supposing the patent of a product expires. Ordinarily, is it easy or difficult to manufacture that product without getting the know-how from the party?

Dr. B. Shah: There are two ways; either you have to work out your own know-how or you have to get it from the party. As I said already, for working out the know-how, you need a considerable amount of technical competence and experience and till that is developed, it will be much easier to get it from the parties straightway rather than waste several years trying to work out what the party has already got.

Shri Prabhu Dayal Himatsingka: Therefore, the expiry of the period of a patent, in itself, will not be of much use unless we have got competent persons who can do the follow-up work?

Dr. B. Shah: Yes, Sir.

Shri K. K. Warior: May I know whether Technical Development has got an advisory body?

Dr. B. Shah: We have got a development council.

Shri K. K. Warior: Who are the members of the development council?

Dr. B. Shah: There are about 30 members and the Chairman is Mr. A. V. Modi. In that council, there are representatives of owners of industrial undertakings, technical men in the undertakings, representatives of consumers, representatives of trade (chemists and druggists) and labour representatives.

Shri K. K. Warior: What is the any discussion on this Patent Bill in your council?

Dr. B. Shah: Yes, Sir.

Shri K. K. Warior: What is the general consensus?

Dr. B. Shah: The council has always recommended that the patent is very necessary for the development of industry.

Shri K. K. Warior: You want a stricter or a weaker law?

Dr. B. Shah: They have not gone into the details, but generally they have supported it.

Shri K. K. Warior: What was the consensus about the existing Act and the present Bill? Was any difference felt or. . .

Dr. B. Shah: Unfortunately during this period *i.e.* after the Bill had

come in, it has taken a lot of time for the council to be reconstituted. Only recently it was reconstituted and they didn't have much time to discuss these aspects.

Shri K. K. Warior: Generally, are they for or against this patent law?

Dr. B. Shah: Generally, they are for this patent law.

Shri K. K. Warior: Any representatives of the Government undertakings in this council?

Dr. B. Shah: Yes.

Shri K. K. Warior: What is their opinion?

Dr. B. Shah: I think you interviewed some of the representatives of the Government undertakings recently.

Shri K. K. Warior: What is their opinion according to your knowledge in your association with the council?

Dr. B. Shah: Well, Sir, some of the industrial undertakings have done very well and they have taken out patents for some of their drugs discovered in their research laboratories. I feel they would naturally be for patents. They have taken world patents for some of their drugs which earn very good foreign exchange for the country.

Dr. C. B. Singh: What is the total number of such patents?

Dr. B. Shah: There are about two or three drugs for which they have taken out world patents. The recent one Antiamabin, is going to be most fruitful because the terms offered are very good.

Shri K. K. Warior: I understand from some source that our Government pharmaceutical industry is not fully represented and their views are not taken into consideration in the development council. Is that a fair criticism?

Dr. B. Shah: No, Sir, the Managing Directors of both public sector pharmaceutical industries are there.

Shri K. K. Warior: But the views of those who are not falling in line with the general thinking in the council are not taken into consideration?

Dr. B. Shah: That is not correct. We always send the minutes for circulation and the dissenting views will also be recorded.

Shri K. K. Warior: You said that the general feeling in the ECAFE was that unless protection is given for the know-how, know-how will not come into this country.

Dr. B. Shah: Yes.

Shri K. K. Warior: Now, how can a patent law give any protection to know-how?

Dr. B. Shah: Probably the feeling was that once a know-how is known anybody can use the patent and the know-how can pass on from one party to another, who has not paid for the patent.

Shri K. K. Warior: Is not the know-how quite different from what is patented?

Dr. B. Shah: Yes, Sir. They are two entirely different things.

Shri K. K. Warior: How is it that a patent law can protect the know-how? Know-how whenever it comes is known and it can be given. Only the process or the product can be protected.

Dr. B. Shah: But the other man can't undertake production without infringing the patent although he may have the know-how.

Shri K. K. Warior: Now we are providing patent right only for the process. Suppose there is a new process through some new know-how. Is that to be excluded?

Dr. B. Shah: If we are only going to have process patent. Certainly other processes can be worked. There is no restriction at all.

Shri K. K. Warior: Then where is the question of protection to know-how. Proection to know-how with regard to a particular process, that is all the protection. According to the Development Council and your knowledge, how much of our development has been blocked by this existing patent law. Has it blocked also the development of technical know-how in our country?

Dr. B. Shah: Sir, as I have already mentioned, development of the industry has been mainly handicapped for want of this technical competence to translate processes and even our own laboratory processes to commercial production. This is playing the main part in our not having been able to catch up with the rest of the world. Other aspects are very minor.

Shri K. K. Warior: Now we are told that at least in the drug and pharmaceutical industry, we have almost 99.9 per cent know-how and we can manage without any form of foreign collaboration.

Dr. B. Shah: It depends on the product. Where the processes are fairly simple that we can develop with our existing competence, we have put up plants without foreign collaboration, but where the processes are more complicated, where several steps in the reaction are involved and where even a small fall in yield in each stage would mean a considerable increase in cost, we have had to take know-how from abroad.

Shri K. K. Warior: When a process or a product is available by paying a lump sum which can be realised from the consuming public, is that not creating a sense of complacency even amongst our own industrialists and investors not to go in for all these expenses on research and for our own inventions and development of know-how. Now sugar is available from foreign markets at a cheaper rate. If we take it, there is no necessity for developing our own sugar industry and loading the consumers with all the prices. The Bill is essentially intended for our own research development and development of our own technical know-how and our own industry.

Dr. B. Shah: There is some protection of the industry. If we produce something, we naturally prevent it from being imported and a competition being set up within the country. Somebody may be prepared to dump sugar in our country and kill our industry. That is the sort of protection which pharmaceutical and chemical industries are getting today. When anybody develops his own process and puts up a factory, we see that it is not being prised out by somebody bringing in imports and ruining the industry. That is what has been the object of the present import regulations and the Industries Development and Regulation Act.

Shri K. K. Warior: We have provided in the Bill that Goyernment can in spite of all the patent rights import whenever there is an emergency or whenever there is a critical situation in the country like epidemic, drugs for the consumption of the country. Do you think that this patent right must be given to those industries which are only importing either in the form of the last stage or an intermediate stage just to cover the provisions of the law and then having it packed here and given to the consumer. Can we not block it? Why should we give that protection?

Dr. B. Shah: Whenever we set up a production unit here, we see that it is not just from the penultimate stage, but there is a regular development from basic raw materials which should ultimately become available in the country. That is the object of the Industries Development and Regulation Act. Most of the industries set up have been based on basic raw materials that we are either producing in the country and are ultimately going to produce.

Shri K. K. Warior: Is that the case in the pharmaceutical industry?

Dr. B. Shah: Yes, Sir, we have achieved basic production in most of the products.

Shri K. K. Warior: I am a layman, I do not know, but those people who are in the know of things, especially those engaged in the pharmaceutical industry in the private and public sectors have complained that only the penultimate stages are coming here and we are paying through our nose for the intermediate stages and only packing and labelling is done as a matter of fact, and the reason is that the patent law is giving the protection. What is your experience?

Dr. B. Shah: Pharmaceutical industry initially developed by merely processing imported bulk drugs. That was the first activity. But progressively during the last 8 to 10 years, Government have followed a regular policy of encouraging basic manufacture within the country. As you might see, substantial portions of the drugs are being made in the country from basic chemicals and intermediates and we are also setting up units to produce these very intermediates, because these intermediates cannot be made by the pharmaceutical industry; they come within the purview of the chemical industry. So we are setting up units to produce these intermediates in separate units. Actually we are bulking up the demands of other allied industries like dyes, plastics, rubber chemicals, and so on, so that we could have economic units for manufacturing these intermediates to feed these industries. As you might see, for nearly Rs. 18 crores worth of bulk drugs that we are producing, which are being processed into finished pharmaceuticals, we are importing only about 2½ crores worth of intermediates. It has been planned that HOC will produce nearly 1½ crores worth of intermediates required by the drug industry. The synthetic project in Hyderabad will produce a crore worth of intermediates. The fertiliser plants will also produce certain solvents and this alongwith the production from petro-chemical complexes, the balance requirements will be met. Then there are private chemical industries which are coming up with production of several required items. We have planned in India production of basic pharmaceuticals from intermediates and basic chemicals in the pharmaceutical industry. We have planned production of these chemical intermediates in the chemical industry. These two activities have been dovetailed. It is only when it is uneconomic to make goods (our demand being low) that we may continue to import. Where we feel that we should certainly not burden the industry with very expensive intermediates made in small quantities, we may continue to import them and pay for them by means of export of items which we can make more economically and in which we can compete in the world markets. For example we have developed our export of plant products to nearly 1½ crores. That is last year's exports. We have put up units which make the intermediates for hormones from plants which are growing widely in the Himalayas. We have put up recently for Menthol a unit which is going to export nearly 25 lakhs worth of Menthol from this country. Where we think we are in a more suitable position to produce and compete in the world market, we are concentrating on those lines rather than on items where we find we will always be out-beaten in price by other countries which have various other facilities. We have got varying climatic and soil conditions. We can very well produce a number of plant products. India is known as the botanical garden of the world. Our approach in planning has been to produce only the intermediates which we can make economically at competitive prices and produce more of them so that we can export them to the world markets.

Shri D. P. Karmarkar: In respect of industrial development in general, and the drug industry in particular, is it more often that we have gone

to them to make offers or they have come to us and made offers? Which is the trend?

Dr. B. Shah: This is where the Industries Development (Regulation) Act comes into play. In some cases people have come up for making some profitable items from their side. We have had people who come up with projects that are more economical for us and which will help in the development of our industry. We have screened these offers when they come to us. In some cases we have persuaded them to come up with schemes where we felt that they will be helpful to us. Indian Investment Centre is doing a good deal in this respect and we give them from time to time items for which we need collaboration and the lines of development that we need. So this has been more or less a very regulated development.

Shri D. P. Karmarkar: I appreciate that. Coming to the drug industry, can we say it is fifty-fifty?

Dr. B. Shah: Yes, it is both ways.

Shri D. P. Karmarkar: Has it been our policy in the past, other things being equal, to invite foreign collaboration and develop our industry, particularly drug industry, as early as possible? Has it been our own anxiety?

Dr. B. Shah: Wherever there is equivalent skill available in the country our own scientists have been given preference. Where we wanted the know-how, the technology or processes and so on, we have had to invite people from outside.

Shri D. P. Karmarkar: I put it like this: Had it been our anxiety during the last ten years, particularly during the last five years, to speed up as much as possible our industrial development and the drug development?

Dr. B. Shah: That is certainly true.

Shri D. P. Karmarkar: Have we been seeing to it that as much of our advantage should be protected as possible with foreign collaboration?

Dr. B. Shah: Yes.

Shri D. P. Karmarkar: In cases where we thought it was not so, have we rejected that?

Dr. B. Shah: Yes.

Shri D. P. Karmarkar: So far as our own law is concerned, have you any suggestions to safeguard our interests as much as possible in respect of the return that we may give to the foreign collaborators?

Dr. B. Shah: After all, most of these are foreign agreements. There have been various committees of Government known as the Foreign Agreements Committee, Capital Goods Committee, which have been mainly concerned with the objective to see that the payment is not excessive, compared to the return that we get and all these aspects. We have the Industries Development (Regulation) Act and various regulations. It is ensured that they get a reasonable return.

Shri Babubhai M. Chinai: Will you kindly refer to your answer to question 5(b)? Will you explain more clearly what you mean by "technical base"? How far the country has acquired modern technology to build the industry on its own?

Dr. B. Shah: Sir, by "technical base" what is implied is the technical competence and experience of the workers to be able to work out the necessary details on their own to make a process commercially successful. In other words, it is the experience for translating the process specifications or even laboratory processes developed by research laboratories into commercial production. In comparison with advanced countries we are lagging behind in this respect.

We should be able to produce all items where comparatively simpler techniques are involved without much foreign assistance, but where more complicated techniques involving a large number of steps are involved it has been necessary to obtain collaboration for establishing commercial production.

Shri R. P. Sinha: I would refer the witness to the statement which he has given along with his replies on the question of First Five Year Plan targets. He has also given the Fourth Five Year Plan targets. He has also explained the shortfalls that have taken place in some of the items. And mostly I find that this is due to the fact that the public sector units have not gone into production. So they have to lag behind. Then am I to conclude from this that so far as the targets set for the private sector in the pharmaceutical industry are concerned, they have been achieved?

Dr. B. Shah: Sir, it appears from the statement that the public sector has lagged behind very much but this is because most of its units are nearing completion and there has been some marginal delay in getting into production within the plan period due to various factors. And it has happened that most of the private units have come up but here are also cases where there have been delays and they are also completing their construction work by the end of this year.

Shri R. P. Sinha: I want to refer to anti-leprotic drugs for which you have given "Production was low as under assistance programme considerable amount of this drug was being imported."

Dr. B. Shah: It means that certain quantity of this drug was given probably very cheap or almost free by UNICEF. This is a peculiar Phenomenon for the market of this drug. In this case it is not a leper who goes to purchase the medicine in the market but some Leper Associations or some Philanthropic bodies which buy and UNICEF supplied large quantities to the Government and hence the capacities were not fully utilised as these were being probably distributed free.

Shri R. P. Sinha: Isn't it proper that we must develop the production from these units so that we may become self-dependent? How has it lagged behind?

Dr. B. Shah: As I have already said the capacity is there and they can always produce whenever required. They produced it to a particular stage so that whenever time comes they can convert it within a short period to the finished product.

Shri R. P. Sinha: In reply to question No. 1(f) you have said "The value of production of bulk drugs is estimated at Rs. 18 crores|annum. This along with an import of bulk drugs of Rs. 7 crores is processed to finished pharmaceutical preparations with a sale value of Rs. 150 crores." Now I would like to point out Rs. 18+Rs. 7 crores come to Rs. 25 crores. Now Rs. 25 crores worth of bulk drugs is valued at Rs. 150 crores drugs so far as sales is concerned. This appears to be a very high proportion. Now, is this a correct thing? Have you made proper technical assessment that the same values are correct or do you think there is good deal of profiteering in this sale.

Dr. B. Shah: There is considerable amount of work that is undertaken between a bulk drug and its conversion to a finished drug. It costs considerable amount of money in the from of other ingredients, maintenance of aseptic conditions and various manufacturing operations to convert bulk drugs into dosage forms. In this case the margin might be about 5 to 6 times. It is quite low as compared to other countries. If it is an injectible preparation the mark-up is very high—it is about 1 to 10. If it is tablet it is hardly 1

to 2., 1 to 5 is an average. It includes packaging, the cost of glass bottles or vials with aluminium seal, etc. in which the finished product is marketted.

Shri R. P. Sinha: Do you mean to say this also includes the cost of advertisement and cost of educating the doctors.

Dr. B. Shah: Yes, Sir. Certain kinds of promotional expenditure are also included in the cost.

Shri R. P. Sinha: Have you studied whether this mark-up is reasonable and the people who are manufacturing are not profiteering?. What is your system of checking up these things? How do you check up that marking up is correct?

Dr. B. Shah: Before a licence is given to a firm these prices are also looked into now. Actually they are asked to give full details. Various break-ups are given by them and they are being scrutinised by the Government.

Shri R. P. Sinha: Do you mean to say the manufacturers cannot put up their prices and they have to get the sanction before they can sell at a particular price?

Dr. B. Shah: It is so now.

Shri R. P. Sinha: It has been represented to us by many witnesses and also the Drug Controller has circulated to us a statement of prices in which it is alleged that the prices of these products in India are very high and we are also told that the manufacturers are profiteering. Mind you, they are not making profits but they are profiteering. What you say is contrary to the above. You say you keep a control and, as such, do not allow the prices to be charged over and above what you give them authority to charge. How shall we reconcile the two points of view? Secondly we are told that even in a country like Pakistan the drugs are very much cheaper than the drugs sold here. Could you give us some information as to whether the prices are reasonable? Secondly, why the prices in this country are higher than Pakistan? Have you checked up the customs duty and excise duty in Pakistan? Let us know the correct position and comparison of prices in these countries.

Dr. B. Shah: I have not received this statement. I will check up and let you know. You can always make a statement by selecting a few things where others prices are lower and ours are higher. It is a very fallacious thing. You have to see the general trend of cost of drugs of the entire range of products and by mere selecting a few and getting a statement prepared you can prove anything you want.

Shri R. P. Sinha: Mr. Chairman, I would like to repeat to you one thing that all the cost statements that have been given to us, so far as prices are concerned, are from two sources—One from the witnesses, foreign and Indian, they have given to us the prices obtaining in India and outside. Two sets of such figures have come to us. One set of figures tell us that prices are cheaper in India. The other set tells us that these prices are very high in India. The other point is his telling us that the prices are very costly. The Drug Controller has given to us some statements showing that prices in India are very much higher than prices in Pakistan. As technical expert of the Government Mr. Shah may please give us a proper assessment so far as this aspect is concerned. I request you that all those figures given to us may be sent to Mr. Shah. He has promised to give us his own assessment. This may be sent for his proper notation on each of these things. He may give us his considered opinion on this aspect of the question. In reply to Q.4(a) you have said that in case of finished drugs, the committee has observed that the cost of basic drug is high in India; but the cost of

finished preparation is much less than in foreign countries. What is this about?

Dr. B. Shah: This is the finding of one of the committees of the development council, the technical sub-committee of the development council. They have given these figures. They have compared with other countries, Italy, UK, USA and so on. This is the conclusion which they have drawn which I have quoted here.

Shri R. P. Sinha: Were you a member?

Dr. B. Shah: Yes.

Shri R. P. Sinha: Do you stand by this report?

Dr. B. Shah: This appears to be....

Shri R. P. Sinha: We would like to have the details. You have given the conclusion only. What are the details from where you have drawn all these conclusions?

Dr. B. Shah: These are given in the Report. I have got a copy of the Report.

Shri R. P. Sinha: Sir, we would like to have all these things sent to us in cyclostyled form or in whatever manner you like. Members may like to study on those facts. For that we should have the factual data.

Dr. B. Shah: I have already given.

Shri R. P. Sinha: What is the page number?

Dr. B. Shah: Page No. 21.

Mr. Chairman: This is different.

Shri R. P. Sinha: Let it be circulated to us. On behalf of Shri K. K. Warior, I want to ask one question. What is the meaning of the word 'International price'? Is there anything like 'International price'?

Dr. B. Shah: I do not know what is the context in which it is used. We buy certain drugs in the world on tender basis. We get various quotations. This varies from period to period. We buy streptomycin on world tender basis and our prices have varied considerably, sometimes it has gone as low as 105 and it has gone up to as high as 200. It is all a matter of supply and demand in the world market and the price it fetches. It is something that is varying depending upon the supply and demand position.

Shri R. P. Sinha: About the research programmes for basic drugs in our country, are you satisfied that research programmes for basic development of drugs in this country is satisfactory? If not do you think what we should encourage such research in the private sector industry-wise?

Dr. B. Shah: It is very essential for the industry to establish more independent research laboratories to undertake all the three spheres of research—producing new drugs, improvements to existing processes, as well as formulation research. There is considerable work being done on development research with regard to formulations and process improvements. But very little is being done on the development of new drugs. On this sphere, we need a large number of laboratories to come up.

Shri R. P. Sinha: The ECAFE Committee went into it. What is the committee's report?

Dr. B. Shah: These are certain countries which are very much underdeveloped than us. There, the very question of basic manufacture of drugs and even formulating units being set up and things of that sort were taken up. They don't have the personnel to do such advance research yet. Their technology is still far, far, behind. This aspect does not come up to the front in this report. This committee has recommended that research should be encouraged with regard to

plant products that are grown in these countries.

Shri R. P. Sinha: One last question. You say basic research is important. We were told that it requires lot of money to make investment in research. Could you tell if it is possible to attract foreign know-how and foreign capital for research work because I understand that many of these foreign big research units and pharmaceutical companies are negotiating with the Government of India for setting up such laboratories in India? Do you think that they will be attracted to come to set up the research laboratories in India for basic research, if we encourage or plan for that?

Dr. B. Shah: There have been several proposals made by foreign firms to set up independent research laboratories but they are all awaiting the outcome of your report before they finalise their programme.

Shri R. P. Sinha: What do you mean by that?

Dr. B. Shah: They want to see how patent law is going to be amended by you.

Shri B. K. Das: You have given your opinion that progress of pharmaceutical industry in our country depends more on collaboration with other countries. But we have certain Indian companies, advanced companies also which have no collaboration. Is it your opinion that there would be greater progress if they take up foreign collaborations?

Dr. B. Shah: Even some of the Indian companies have been utilising foreign know-how and have availed of this know-how to catch up with the rest of the industries. A firm like Alembic for instance. They have put up a penicillin plant. The cost was high. They did get collaboration from a Japanese firm for improving their methods. They would have been able to solve it themselves, but it would have taken a long time and meanwhile they would have to face uneconomic production. So even these firms which are Indian firms have availed of this know-how by getting into foreign collaboration by getting some assistance on lump-sum payment basis and improved their technology.

Shri B. K. Das: Do you think that there are any provisions in our present Bill which in the opinion of collaboration companies will work as a great disincentive?

Dr. B. Shah: This is a matter of opinion, which I would not like to enter.

Shri B. K. Das: We have provided for process patent and not for product patent. Which one will be more helpful for the successful development of our pharmaceutical industry?

Dr. B. Shah: I would like to be excused from expressing my views on this subject.

Shri V. B. Gandhi: We find that your evidence has been very interesting and it will be of benefit to us. The principal object of this legislation is that the pharmaceutical industry in this country should grow and that we should be in a position to rely less and less on imports. This effort has been viewed in different angles. One set of people thinks that the terms and conditions should be so laid down or so tightened that the payment which we have to make by way of royalties and such other benefits to foreigners should be as less as possible. The other set of people says that we should not tighten our terms and conditions so much that in the process our own people who are to benefit from the provisions of this legislation will suffer. You have of course gone through the Bill. What do you think about the term of a patent? You know what we have proposed? What is your opinion about the rate of royalty? Should the rate fixed be so rigid or there should be a ceiling over it or it should be left to the discretion of the authorities? What I am

really wanting to say is that in the last analysis our efforts should not result in defeating the very purpose, the purpose of promoting indigenous pharmaceutical industry.

Dr. B. Shah: This is a very difficult question, but I would try to answer it in my own way. After all, what we are now trying is to get into the country the technical know-how from abroad. There are different types of know-how, some adopting the latest technology and some obsolete technology. We have to decide what is best for our country and in that respect we should not get lost in the rates of royalties, terms and conditions and things of that sort, because we may not be doing any good to our pharmaceutical industry in getting some obsolete know-how at a low price. We have to weight the various circumstances and after all the know-how is given voluntarily by the party; you cannot force him. You could only use his process, but the know-how is something that comes voluntarily. We have to consider the rate of royalties that exists for different technologies in other advanced countries. This is the aspect you have to consider.

Shri P. C. Borooah: In answer to Question 6(b) you have stated that facilities available in India for Group Research are limited. May I know what, according to you, will be the ideal condition for promoting Group Research in our country?

Dr. B. Shah: Group Research is something new to this country. Few of our industries have put up laboratories for carrying out Group Research. We need organised effort and a number of scientists in different disciplines of science; it needs a huge laboratory, a lot of equipment and a lot of money: There must be somebody who is prepared to spend all the money, even with the chance of not getting any return, because after all the discovery of a drug is a chance; you may spend lakhs of rupees and you may not get anything; on the other hand you may not spend very much and yet get something. It is more a lottery. It is only the pharmaceutical industry that can do this. They can always plan their expenditure in such a way that what they lose in a particular place they gain somewhere else. You cannot expect the Government laboratories to try Group Research in a big way by spending a lot of money with a chance of not getting any result and then answer questions later on. It is not possible for the Government to spend so much money on Group Research.

Shri P. C. Borooah: You say that a number of foreign firms are interested in setting up research facilities, but they are waiting for the decision of the Government on patents. For what decision of the Government they are waiting?

Dr. B. Shah: They probably want to see how the results of their research are going to be protected by this country.

Shri Kashi Ram Gupta: In developed countries, the pharmaceutical industry is on a different footing. The big concerns have got their own basic research arrangements and facilities. In India, we totally lack in that. Either the public sector in our country should do much of the basic research or we should invite foreign firms to put up their own laboratories. You have just now mentioned that these foreign firms are waiting for the enactment of our Patent Law, which means they want to see whether it will be beneficial for them or not. Should we not lay stress on our public sector enterprises for basic research because in the long run that can only pay us?

Dr. B. Shah: It is working both ways. Public sector enterprises are entering the field of research and the private institutions have also produced good results.

Shri Kashi Ram Gupta: I am talking about pharmaceutical industry only.

Dr. B. Shah: In the public sector, the Hindustan Antibiotics have developed several new antibiotics. CIBA Research has developed 5 or 6 synthetic drugs, which are promising. I don't think we should cut off one for the sake of the other. There should be competition from all sectors. Research is a vital thing for pharmaceutical industry and development of research should be given a free scope so that new knowledge may contribute to the supreme effort of ameliorating the suffering of humanity.

Shri Kashi Ram Gupta: The foreign concerns want to come only when it suits them. Seeing to the limited resources in the country the private sector in the country is not able to undertake big research programmes. Such being the condition, the collaboration arrangement also may not work well. In that event also, we have to depend on our own public undertakings. What I mean by this is that we should base our patents in futures more on research done by public undertakings side rather than on the private sector side. That is my point.

Mr. Chairman: He says that it should be based on both sides.

Dr. B. Shah: I do not agree that the pharmaceutical industry as such cannot undertake research. There are big concerns which are certainly undertaking research in this country. There are small concerns which may not be able to undertake research. But, bigger concerns (private industry, can certainly afford to undertake research and they should be encouraged to undertake research. Public sectors also should undertake research. All of them should contribute to the research. There is no special stress to be laid on a particular sector.

Shri Kashi Ram Gupta: So far as the period is concerned, it has much to do with the type of research being done by the concern. Therefore, I am stressing on this point. If we do not get that type of quality research from the private sector, at least, we cannot wait for a very long period. From that point of view, whether the hon. witness is of the view that the public sector undertakings must play a more important role than what they have been playing uptill now?

Dr. B. Shah: There are research institutes run by Government.

Shri Kashi Ram Gupta: No doubt the institutes are run by Government. And more institutes may also be there.

Dr. B. Shah: I think that there is scope for more research institutes being run both in the private sector as well as in public sector. For such a vast country like ours, the research done at present is very limited.

Shri Kashi Ram Gupta: Are our scientists getting their due share in the research in the present set up?

Dr. B. Shah: This is a question on which I have no information.

Shri Kashi Ram Gupta: You have stated that in your Council, formerly, they considered so many points about the industries. May I know whether the point about the period of a patent was also taken into consideration at that meeting?

Dr. B. Shah: All these details were not discussed by the Council at their meeting. It has been reconstituted very recently.

Shri Kashi Ram Gupta: From the period point of view, was this at all discussed?

Dr. B. Shah: They have not considered that.

Shri Kashi Ram Gupta: You have mentioned that units should be fairly large for production purposes. Of course the producers should be seeing to the demand about the consumption of the products. Has it been

analysed as to what should be the basic minimum standards by which a unit can be measured to be economical or uneconomical so far as pharmaceutical industry is concerned?

Dr. B. Shah: There is no yardstick for this. Actually, from my personal experience, I can say when I visited factories in 1956 in Europe I found that a particular product was being produced with a capacity of 50 tonnes. We set up a certain unit with a capacity of 10 to 15 tons with the hope that it could be expounded later on to 30 to 40 tonnes. In 1964, all these units were producing 300 tonnes annum. It is all a question of demand and production. We produce more when the demand is more. But, if there is no demand, there is no use putting up a higher capacity. We have to weigh various factors before establishing the capacity. We have to see whether it is very uneconomical and the production is not too small. We always examine this aspect.

Shri Kashi Ram Gupta: In answer to question No. 6(b) about the facilities that are available in India, you have mentioned the names of the Central Drug Research Institute, CIBA etc., etc. Whether any assessment has been made about the future set up of the institutes in the next Five Year Plan?

Dr. B. Shah: In the Plan to be drawn up for pharmaceutical industry, we have not included the number of research units to be set up. Probably in the Research Department of the Council of Scientific and Industrial Research and so on, they might have planned this.

Shri Kashi Ram Gupta: On page 13 of your replies to the questions, it has been stated that 'cooperative research organised by pooling the resources of a number of firms set up under the auspices of the association is not common in the pharmaceutical industry'. What are the reasons for this?

Dr. B. Shah: Because it is mainly competitive research. One firm produces a product more economically than the other. It will produce a new drug and profit by it before the other has an access to it. There is a certain amount of competition. There are few general problems which these cooperative research organisations can really tackle. It is a question or trial and error. Somebody might have screened 4,000 compounds and spent a lot of money which may not be useful. There are some who might have screened about 400 compounds of which some might be useful. There is a sort of competition between one and the other unit in the industry to have something new. It is very difficult to have a cooperative research. That is the sum and substance of this.

Shri Kashi Ram Gupta: We are judging all these industries on the basis of their being of commercial value. Now, in the future set up of the country, the Government which is wedded to socialism or socialistic pattern of society, might take their help for production of medicines both on the protection as well as on the treatment side. If a large proportion of the population is to be covered by the health insurance schemes, in that case, the commercial aspect of the pharmaceutical industries will have a definite change. Has this been considered by the Government for the future set up at least for the next ten or fifteen years?

Dr. B. Shah: If you are referring to the National Health Schemes of UK, I don't think that it has anyway changed the pattern of prescribing the medicine and treatment. It has not changed the whole set up of the pharmaceutical industry in that country at all. There are a number of private firms as well as government establishments producing drugs and competing with each other.

Mr. Chairman: It has been brought to the notice of this Committee that

certain foreign firms have tried to profit by the exploitation of Indian products such as the Chloromysitin, Tolbutomide and some other drugs. Like that, what is the remedy you would suggest in this Bill to prevent such abuses?

Dr. B. Shah: As far as my knowledge goes, most of the difficulties have arisen when the parties try to import the know-how from the third party and not develop on their own. We have similar problems in India not only for pharmaceutical industry but also in the chemical industries. When somebody develops the know-how, what he actually does is that he makes efforts to get a compulsory licence and goes ahead with the production and waits for results. He is not prevented from doing that. When he has to get a know-how from the third party, probably, it amounts to infringing the rights. Then the difficulty comes in. The other difficulty comes in only where they have developed processes in certain research laboratories and they have not been able to translate them into commercial production due to various lacunae which, I have mentioned, and the people have not been able to get the desired results. These factors have been more or less responsible rather than the efforts of these firms in preventing anybody to utilise any research of know-how locally developed

Mr. Chairman: Is it your opinion that the claim put forward by the Indian scientists is not quite correct?

Dr. B. Shah: No, Sir. I don't say that their processes are wrong. But, they have not been developed to that stage of commercial exploitation which is very essential for any industry to take up. Our country has to overcome this difficulty. Then only our research becomes more useful. It is not very much the patent but it is this aspect that comes in the way.

Mr. Chairman: India is a very large country, has a very large population and the people are poor. It has been brought to the notice of this Committee that foreign firms are only importing the final stage of the product and then perfect it and sell it at a very high price, thereby exploiting the country. What are the measures you are taking to prevent such abuses and to enable the foreign firms to start the manufacture here of the basic products and sell them at reasonable prices and in sufficient quantities to meet the demands of the country?

Dr. B. Shah: We have established production of various drugs from basic stages. I can give you the saving in foreign exchange which will give an indication as to how final products are being made from mainly indigenous raw materials. We have instances where this saving in foreign exchange for bulk drugs manufacture is as much as 90 per cent—where only 10 per cent of the value as raw materials is being imported. Some save 50 per cent; still others in the later stages 20—30 per cent. Government is always seeing that whenever production is established within the country there is a saving in foreign exchange by way of basic production. In other words, the product really becomes available to the consumer in the country at a much lower price in terms of foreign exchange than it would have been available if the product is imported in the final stage. It may be that the prices are higher, but what we pay in the form of foreign exchange is much less. For example, tetracycline we pay only 10 per cent of the imported price in the form of imported raw materials. So we see when the schemes are taken up for production that they are based on as many indigenous raw materials as possible and schemes which had been taken up from the penultimate

stages—most of them—have disappeared by adopting a phased programme which ensures production from more and more basic raw materials. We have also, as I mentioned earlier, taken up the production of these very intermediates to improve further the saving in foreign exchange. Of course, some of the intermediates cannot be legitimately taken up for production m the pharmaceutical industry. Some of these have to be pooled with the requirements of same or similar items required by other industries. If you see this brochure, (IPI booked) on pages 36-37 we have given the various raw materials of the pharmaceutical industry which are at present either being produced by our units or are still being imported. If you see page 36, you will find a much larger capacity has been licensed than what is required by the pharmaceutical industry. Take Acetic Anhydride. We need only 1400 tonnes for the pharmaceutical industry. Its capacity is more than 5,000 tonnes. That makes it more economic in production. So, this way, we are trying to cover up most of the requirements of the intermediates by pooling with the requirements of other industries, but it still leaves certain intermediates which are required in small quantities which it will be very uneconomical for us to produce and will have to continue to be imported. If you see these various intermediates given on pages 36—45, it covers an import of intermediates of the value of about Rs. 7 crores which we need to achieve our Fourth Plan target. Schemes have been undertaken to produce as many of them as possible within the country which will bring down our import bill for the industry to something like Rs. 4-5 crores ultimately which the industry can always earn by developing its exports.

Shri Kashi Ram Gupta: There are a lot of patented medicines whose patents have lapsed, but in spite of this the industry is not able to produce such medicines in this country. Did you consider this point and what are the reasons behind it?

Mr. Chairman: No know-how.

Dr. B. Shah: As I told you earlier if it is a complicated process. We need the know-how. When it is a simple preparation we can develop our own. It is again a question of developing our own technical base so that we may be able to produce all the items within the country either with our own know-how or with imported know-how.

Shri Kashi Ram Gupta: Whether efforts have been made in this direction to produce our own know-how so far as such medicines are concerned whose patents have lapsed?

Dr. B. Shah: Yes, Sir. There have been several efforts. This is the aim of all our various Plans, Third Plan, Fourth Plan, etc. Based on our demands we fix our targets and license the capacities. We request the research laboratories also to develop the know-how for their manufacture and we encourage entrepreneurs to take up these processes and start producing them within the country.

Shri Kashi Ram Gupta: Have you been successful?

Dr. B. Shah: Yes, we have achieved more or less our Third Plan targets to a great extent. We hope the same co-operation will come forward to achieve our Fourth Plan targets.

Dr. C. B. Singh: Dr. Shah just now read some statistics from some paper. We would like to have a copy of that.

Dr. B. Shah: I will send it to you.

Mr. Chairman: Thank you, Mr. Shah, and your colleagues.

(The Witness then withdrew)

II. Dr. M. L. Dhar, Central Drug Research Institute, Lucknow

(The witness was called in and he took his seat).

Mr. Chairman: Those of us who had gone to Lucknow had the benefit of his evidence and that has been circulated to the members. If you want to ask any new questions, you may ask.

Mr. Dhar, the evidence that you give is published and whatever you say will be printed and published and given to our Members and also laid on the Table of the House and even if you want any particular portion to be kept confidential it will be published and given to all the Members and laid on the Table of the House.

We had a discussion with you at Lucknow. The gist of that discussion has been distributed to all the Members. If you want to add anything you may kindly do so and then our Members will put some questions.

Shri Kashi Ram Gupta: I would invite the attention of the witness to one aspect that has been raised again and again, and about which a great controversy is raging—that is the period for the patent. One view is that it should be protected and it should not be more than 3 or 5 years. There is another view that it should be 10 years and another view is that it should be 16 years. I want to know the basis on which the period should be fixed.

If it is on the basis of return on the investment and all these things, it must be backed by some data. On that occasion no such data was given by you. If such data is there which can rather go to prove that such and such period will suffice—in certain special cases it may not be so; in general cases it may be so—please give us that data. This is the most crucial and controversial point. On the one side, there are the scientists who say that the period should be the minimum. On the other side, there are the industry people who say that the period should be more. There is a midway between the two, which is the Government side and which is before us. Please elaborate on this point.

Dr. M. L. Dhar: I said in Lucknow, my personal opinion is that in the interests of the country and scientific and technological advance in particular, abrogation of patents is ideal. I still hold to that view. However, if a stand is to be taken that patent in some form or other has to remain, I suggest that a patent must be given from the date of first filing for a maximum of 10 years, because filing of detailed specifications takes some time, or from the date of sealing 7 years, whichever is lower. The other part of the question is: on what do I base these figures of time? As a laboratory worker, I should like to point out that a research worker in a laboratory, as soon as he has found out that one of his materials has biological activity and has potentiality of being used as a drug, files a patent. He works on this and tries to complete the biological data on this point within a period of one to one-and-a-half years. During the same period, a good laboratory gets going on developing the industrial method of making this compound. Then comes the stage of chronic toxicity tests, that is, you want to find out over a period of time whether it is going to be toxic to the human system or whether it is going to be harmful to the progeny of the person who is taking this drug. So that takes another one year. So it comes to 2½ years. I am talking of a good laboratory which means business. So, 2½ years is, in my opinion, sufficient for this. Then comes the clinical pharmalogical test where the drug is tried on normal human beings, which again is done by the laboratory itself. This test is to find out what will happen if the compound is given to a normal person who is not suffer-

ing from any disease. That takes another six months. So you have in all 3 years. By this time, the laboratory must have developed also the know-how for the production of this compound on a commercial scale. Then you must take one to two years for complete clinical trials. If the clinical trials indicate that there are no harmful effects from this drug, it comes to the market. From this date, five years is a very very considerable time to make whatever money anyone wants to make.

Shri Kashi Ram Gupta: This is the main point on which I put the question. How can it be possible for a concern to take out money in five years when the amount of investment is very huge? Has it been calculated on a commercial basis or only on a pilot project basis?

Dr. M. L. Dhar: I am a research man essentially and my opinion is based upon the data which I have gathered from the industrialists in this country, in the United States and in Europe. It is well-known that any industrialist must make most of what he has in the first three years after the introduction of the drug because they make a very very pronounced effort on advertisement or what they call 'market promotion' of the drug as soon as the clinical trial is over. As a matter of fact, they invest very nearly twice the amount and sometimes more on this aspect of the problem than they do on research. Therefore, it is my belief that a period of five years is thoroughly sufficient for a drug. Further it is now accepted by people in this field of drug research that the average life of a modern drug is 5 to 7 years and at the outside, ten years. So if the life of a drug is that limited, the drug industry must make the money in the shortest possible time.

Shri Kashi Ram Gupta: The industry has given us a different picture altogether. They try to show that 5 years is not at all sufficient for them to make up the money. So, is that a wrong statement of fact according to the information that you have given us, or that has got some other aspect which remains unexplained?

Dr. M. L. Dhar: I am not competent to comment upon the data provided to you by the industry. I am only saying that I am a scientific worker and I have been in the research field for over a quarter of a century and I think that I am supposed to know a little about what happens in this field. Of course, one can get together statistics on points which are favourable to the view one holds. But I want to emphasise the basic point that the industries invest very much more money on the selling aspect of the various drugs. Here in India, we don't spend very much money on this, but in the U.S. and other countries, they spend 8 to 10 per cent on research and 25 per cent on propaganda. Now one can make all the money in one year if the drug is good. But if the drug is not good, one may not make any money. We had discovered an anti-thyroid drug at the CDRI, but fortunately there are not many people suffering from this disease and we cannot cover the expenses in too short a time. But there are life-saving drugs like tetracyclines and penicillin, where money gets made much faster than most people imagine.

Shri Kashi Ram Gupta: Is it possible for you to give statistical data on an average scale?

Mr. Chairman: How can he.....

Shri Kashi Ram Gupta: My point is whether statistical data of this sort can be prepared to show that 5 years would be enough.

Mr. Chairman: He is not a statistician. I don't think he has got statistics.

Dr. M. L. Dhar: I would like to answer that point. As I said a little

while ago, I would not like to comment on data given by an agency which is doing business. I am a laboratory worker and my contacts are fairly wide in the industry. There are drugs and drugs. There are life-saving drugs which save millions of people, and on which money gets made. There are other drugs, prestige drugs, on which money never gets made, but they are put on the market. I am sorry it will not be possible for me to give statistical data on this point.

Shri V. B. Gandhi: Is it your experience that in most advanced countries the period or the term of licence is as short as you propose. Our impression is that the term of a patent is much longer than you have proposed in most of the advanced countries.

Dr. M. L. Dhar: My principal belief is abrogation of patents. That is my ideal.

Shri B. K. Das: Only one point I want to know. We have got in evidence from other scientists also, they think that after invention of some drugs, it takes several years for clinical and other tests, but you are saying that it does not take more than three years or so to put in into the market as a medicine..

Dr. M. L. Dhar: I said 4 or 5 years from the date of filing the first patent. That is an sufficient length of time for a laboratory to get going.

Shri B. K. Das: There may be certain drugs which may take a longer period.

Dr. M. L. Dhar: I do not think so, Sir.

Shri B. K. Das: The other day we asked something about investigation on indigenous medcines and plants and certain information was given to us about that. And here also in your note, we have some figures on the work that has been done in this field. But I am not sure whether out of these so many plants that you have experimented upon, only a few have been found to be effective. What is the reason?

Dr. M. L. Dhar: I think the reason is obvious. I think I explained the reason why one does not get as much success in indigenous medicines as one ought to. My personal opinion is that if ultimately we get one drug out of these 489 (the figure that you have before you), the Drugs Research Institute will be exceedingly lucky. Even these figures are high. They are at the primary and secondary stages. Many we drop at the secondary stage and even later.

Shri B. K. Das: Is it your opinion that out of these plants that you have experimented upon in your laboratory, only on these few you want to have follow up studies and others you discard. In that case, where is the chance of success?

Dr. M. L. Dhar: My data is based upon laboratory findings.

Shri R. P. Sinha: I would like to know from the learned witness as to what is the annual budget of his laboratory.

Dr. M. L. Dhar: I have said our annual recurring budget is today 28 lakhs and an odd thousand rupees.

Shri R. P. Sinha: I would also like to know how many patents have been taken by this institute.

Mr. Chairman: That also he has given.

Shri R. P. Sinha: Probably if he says it will get recorded.

Dr. M. L. Dhar: I thought it was on the record. I have provided all the information in the note that you have before you.

Shri R. P. Sinha: May I know what time it takes for a basic new drug to pass. Once it is established as a new

drug which is good for clinical purpose what time it takes for him to get it passed by the Drug Controller, so that he can use it on human beings.

Dr. M. L. Dhar: I did not have any difficulty with the Drug Controller.

Shri R. P. Sinha: I am not saying that. I want the time taken.

Dr. M. L. Dhar: I get my replies within 15 days.

Shri R. P. Sinha: I am not talking about replies to letters. What I am saying is this. What I understand as a layman, the Drug Controller has prescribed certain clinical tests, certain procedure that must be undergone, certain tests must be done before the Drug Controller sanctions a new drug to be used on human beings on a large scale. Now what is the time taken for completition of that?

Dr. M. L. Dhar: I thought I had answered that question earlier. It is at the outside 5 years, in a good laboratory. For the colletcion of this data, it takes upto a maximum of 5 years in a good laboratory. I would like to underline the words "good laboratory".

Shri R. P. Sinha: How many such good laboratories have you got in India?

Dr. M. L. Dhar: This is a very interesting question, Sir. I wish there were a hundred. We have one drug research, laboratory which is sponsored and provided for by the Government of India with a budget of 28 lakhs of rupees. We have one more laboratory sponsored by Ciba at Bombay who have a nice staff, about one-third our staff and about twice our budget. Effort is being made also by a few firms in Calcutta like the Bengal Chemicals, and at Baroda and so on. The total amount of money that this country spends on drug research, in my opinion, is of the order of 1 crore. As a sequence to this question—because I think my answer will assume a meaning—I should like to explain, Sir, what expenditure is invested in other countries of the world on drug research. As I told you when you came to Lucknow, according to the information that I have, the United States of America's drug industry spent 360 million dollars on drug research last year, and the Government of the United States, through their National Institute of Health, have spent I billion dollars. Now this 1 billion dollars was not all spent on drug research as is understood commonly. It was spent on the understanding of the disease conditions as also on the finding of new drugs, so that the total research effort of the United State of America in 1965 was 1 billion 360 million dollars. Our total research effort, I said a little while ago, is of the order of 1 crore of rupees, or 10 million rupees, and our other research effort corresponding to that of the National Institutes of Health U.S.A. is of the order of about 1.5 crores or 15 million. So it comes to a total of 25 million rupees. If you want to stretch it as far as you wish to and put everything in, it comes to something like 3 crores of rupees, as against 1 billion 360 million dollars.

Shri R. P. Sinha: The witness has given very interesting figures. I will come to these figures later. At present I will take the thread of my original question. The witness has said that it takes for a good laboratory 5 years time to complete the clinical tests before the Drug Controller can certify a drug for commercial marketing.

Dr. M. L. Dhar: I said from the date a scientist discovers an activity in a particular material and upto the stage of clinical trials in a good laboratory it will not take more than 5 years. It may take less.

Shri R. P. Sinha: You have said because of our research expenditure being low there are not many such laboratories. Now, I would like to

know for an ordinary laboratory where the facilities are not adequately provided how many extra more years, i.e., more than 5 years, will be taken?

Dr. M. L. Dhar: I said a good laboratory. What time an indifferent laboratory will take, to that my answer is....

Shri R. P. Sinha: An average laboratory and not an indifferent laboratory.

Dr. M. L. Dhar: An average laboratory in various universities in India may never find it.

Shri R. P. Sinha: What would the correct average, say in India, for getting a clinical test?

Dr. M. L. Dhar: Not more than five years.

Shri R. P. Sinha: Mr. Chairman, he says five years period is taken up with regard to getting to the clinical test. Now, my second question is: how many years it will take for a laboratory stage pilot plant to pass into a commercial stage? Has that point been studied by the learned witness? Can he tell us in Indian conditions of technology what time it will take for developing a laboratory stage plant to commercial stage. Here we are not discussing any proposition in a theoratical way. We are here called upon to apply our mind to give a practical hape to this Bill which will be a workable proposition for the development of industry in this country. We are not concerned with theories. Therefore, I would like to know from the practical experience of the learned witness, of his own experience, that in the Indian conditions how many years it will take to get the commercial stage production after the laboratory tests are over?

Dr. M. L. Dhar: This will require an extended answer. The answer is two-fold. Firstly, are we dealing with a drug which has been discovered today or are we dealing with a drug which has been announced and has been patented & produced by somebody. If we are dealing with a drug which has been discovered *de novo* under our conditions as they are today—I may point out in this connection that the conditions of technological development, availability of raw materials, availability of equipment which we need for working up these raw-materials we had nothing at all in this direction a few years ago. We are still getting most of the equipment from abroad. We still import a large number of intermediate chemicals. But in the recent past and now, very serious efforts are afoot by Government agencies and by private sector to get fine chemicals and intermediates and the equipment made in this country. Sir,—in the meantime naturally the technologists get trained. I will give an example. At the Central Drug Rerearch Institute we started a process development unit roundabout four years ago. It took 1½ years to get it equipped. We started functioning about 24 to 30 months later. In this period we have worked on 15 different processes, synthetic processes, of producing drugs. I am talking about known drugs. We have developed the technical know-how about these. We have demonstrated the technical-know-how of a number of these to the industries. Two products are under-production by the industry in the country now.

Mr. Chairman: His simple question is: what time does it take from clinical stage to commercial stage?

Dr. M. L. Dhar: Sir, the words used are 'Indian conditions' and it wants an extended reply. Under the Indian conditions, if I know what I have to make, I should be able to bring it to commercial stage in about a year's time.

Shri R. P. Sinha: Will it be correct to say that on an average it will take one year to develop from pilot stage to commercial stage?

Dr. M. L. Dhar: I have said normally it will take, for a simple known drug, one year whereas it may take more than one year in others. On an average I said one year.

Shri R. P. Sinha: Is the witness aware that at Pimpri for haymycin it is now more than three years when they completed their pilot production and they have not yet gone into commercial production because of the technological development available in India and so many other difficulties are there.

Mr. Chairman: We have already gone to Pimpri and the information is available with us.

Shri R. P. Sinha: I want the answer from the witness.

Dr. M. L. Dhar: If you like, I would perhaps say something about haymycin because I happen to be concerned with Hindustan Antibiotics. I have earlier said we are making efforts to make equipment in this country. If we have to import equipment it must take time. I know the difficulties involved. Some of the equipment had to be imported.

Shri R. P. Sinha: What I understand from the witness is this: it takes some time in Indian conditions because we are technologically backward, we have got to develop our own process, we have got to import technology and equipment, therefore it takes some time to deve'op from the initial stage to the commercial stage. Now, supposing 6 year's time is required for clinical test, if I would say one to three years may be required for developing commercial stage production, that means that seven to nine years will be taken up before the commercial production starts. The witness has stated that seven years' period should be enough for grant of patent . . . .

Shri Kashi Ram Gupta: From the date of sealing.

Shri R. P. Sinha: Now, if 7 to 9 years, according to the witness, will be taken up for the purpose of coming into commerical production then the patent will have expired before it goes into commercal production. The witness has given very informative information with regard to research work that is being done in India. He has stated the amount of money spent in India and the amount of money that is spent in America. What is necessary according to the witness is that more and more money should be spent both on the research in the private sector and in the public sector. For the public sector Parliament can provide money to the Drug Research Institute without asking whether we are getting adequate return or not. So far as the private sector research is concerned as in America and other places, there should be adequate investment in it in time to come. We are going to have a patent law of seven years period and if we take about seven to nine years, according to the witness, to go into commercial production, how do we expect that the research in the private secter will develop either with the assistance of the Indian investment or by inviting foreign capital for research work? These are contradictions. I shall be greatful if the witness can throw some light on this subject.

Dr. M. L. Dhar: In my first statement that I made I said that the people in the laboratory do two things. They do biological tests of the compound. They also go on simultaneously developing a process for the production of the drug. So, by the time the drug is clinically tried the method for its commercial production is ready. Therefore, the figure of 7 to 9 years is not correct. I will say five years. I think I have answered the question, Sir.

Shri Kashi Ram Gupta: Question is this, CIBA spends, with one-third scientists, doub'e the amount which our Institute spends. Is there some

reason behind it? What is the correct position?

Mr. Chairman: He does not say it is sufficient. He says more must be spent.

Shri Kashi Ram Gupta: No, Sir; I want to know the reason behind it. The point is that CIBA's expenses are unusually high.

Dr. M. L. Dhar: I would like to answer this question, Sir. It is common knowledge all over the world—I am not talking about the USSR, I am talking about Europe, USA and also our country—that industry always pays a lot more to their scientists, provides much better facilities tha what the Government provides. Yet, it does not mean that spending a lot more money for lesser effort is wise.

Shri K. K. Warior: In the ancient Ayurvedic system, in our place in Kerala, we are told that there are about one thousand combinations. Then it is called 'Shastra yoga.' I wish to know whether the Lucknow Laboratory is passing it only as a single substance or in combination with herbs, etc.?

Dr. M. L. Dhar: The correct assessment of the combination can be done in a hospital. If the hospital establishes the usefulness of a a combination then the laboratory can work on the components of these combinations. I have been trying to say this before the Indian Council of Medical Research and Health Minister that clinical trials and introduction of modern medicines must go on simultaneously.

Shri K. K. Wariar: Now I wish to know whether the activity of a single substance will be the same or different?

Mr. Chairman: It has to be different. It cannot be the same.

Shri K. K. Warior: Thirdly, how our old knowledge is integrated into the new system I speak from political knowledge and not from scientific knowledge. What is the activity of the Lucknow Laboratory to enrich itself and enrich our knowledge already there? It has stagnated for some time. It is my information. Otherwise, I don't mind exploiting our drugs by somebody else—which they are doing.

Dr. M. L. Dhar: I would only say, as the learned Member here has himself said, that there is stagnation in this. The whole system has remained stagnant for about 2000 years. Knowledge has advanced. I, as a scientific worker, would like to look at it in an analytical manner. I would like to be assured that the knowledge that was available about 2000 years ago has not been passed on to us in an adulterated form. If this could be resolved it would be a wonder, and this is the effort which we have to make.

Shri K. K. Warior: Is there any mutual understanding to integrate the modern scientific technological knowledge with the old wisdom so that we will have an indigenous content in the system with modern standardised pharmacology.

Mr. Chairman: That is what they are trying to do.

Dr. M. L. Dhar: We are doing our best to find out objectively by means of modern scientific methods what we can get out of the ancient drugs.

Shri K. K. Warior: How long will you take to have a complete indigenous pharmacopoea in which all our Indian drugs would be included?

Dr. C. B. Singh: All of them!

Mr. Chairman: Out of about 4000 drugs how many CDRI has taken up?

Dr. M. L. Dhar: About 400 of them.

Shri K. K. Warior: In how many we have succeeded so far?

Mr. Chairman: It takes time.

Shri Warior: I don't say that all of them should be taken up at a time. I only want to know whether they are inclined to take up these ancient drugs also or whether they will be guided purely by the modern technology.

Dr. M. L. Dhar: The CDRI was set up to find out new drugs; whether they came from the ancient system or from the modern system was not emphasised. Naturally, we as a laboratory are anxious to discover new drugs from whatever system it may come. We are doing our utmost in that direction.

Shri K. K. Warior: How many patents this Institute has taken now? How many of them are successful?

Dr. M. L. Dhar: I think I have given all the information in my note. We have reluctantly taken 36 patents.

Shri K. K. Warior: Is there any possibility of foreigners stealing our processes?

Dr. M. L. Dhar: I don't think I can answer this question.

Shri K. K. Warior: Have you taken patents for your drugs in foreign countries?

Dr. M. L. Dhar: Two or three.

Shri K. K. Warior: Has it given foreign exchange earnings?

Dr. M. L. Dhar: We are not expecting at present.

Shri Prabhu Dayal Himatsingka: You know the difference between the patehted drug and the developed drug as sealed for use. You think that your drugs will be accepted by the Doctors very quickly immediately after the drug is perfected, which will enable you to realise your investments?

Dr. M. L. Dhar: In a democracy, it will depend upon how much sales promotion the manufacturer is able to do and also on his persuasion of the Doctors. In a more rigid system of Government, if it is prescribed that the Doctors will use Drug A then the Doctors will have to use the Drug A.

Shri Prabhu Dayal Himatsingka: Will it be possible to sell these drugs quickly for the ordinary people who are not big manufacturers?

Dr. M L. Dhar: I don't think that the drug industry can be run by an individual or as a cottage industry.

Dr. C. B. Singh: There was a proposal to have a hospital for drug trials.

Dr. M. L. Dhar: There was a proposal to have a hospital. But my personal belief is that a research laboratory finding out a drug must not have a hospital attached to itself because the clinical tests must be completely objective and independent of the influence of the laboratory.

Dr. C. B. Singh: Where are these clinical tests done now?

Dr. M. L. Dhar: King George's Medical College, Seth G. M. Medical College and also in the Indian Council of Medical Research.

Dr. C. B. Singh: As the proposal was to send them to Kanpur or Lucknow. I asked this question for my information.

Dr. M. L. Dhar: The Lucknow Medical College has tried one of our drugs on over a 100 patients by now.

Mr. Chairman: We thank you, Dr. Dhar.

(The witness then withdraw).

(The Committee then adjourned)

Minutes of Evidence given before the Joint Committee on the Patents Bill, 1965

Saturday, the 27th August, 1966 at 10.65 hours.

PRESENT

Shri S. V. Krishnamoorthy Rao—*Chairman*

MEMBERS

Lok Sabha

2. Shri Bibhuti Mishra
3. Shri P. C. Borooah
4. Sardar Daljit Singh
5. Shri Basanta Kumar Das
6. Shri V. B. Gandhi
7. Shri Kashi Ram Gupta
8. Shri Prabhu Dayal Himatsingka
9. Shri Madhavrao Laxmanrao Jadhav
10. Shri Mathew Maniyangadan
11. Shri Bibudhendra Mishra
12. Shri P. S. Naskar
13. Shri Chhotubhai M. Patel
14. Shri Sham Lal Saraf
15. Dr. C. B. Singh
16. Shri Balkrishna Wasnik

Rajya Sabha

17. Shri Shyamnandan Mishra
18. Shri M. R. Shervani
19. Shri R. P. Sinha

REPRESENTATIVES OF THE MINISTRY OF INDUSTRY

1. Shri K. V. Venkatachalam, *O.S.D.*
2. Shri B. N. Atrishi, *O.S.D.*

REPRESENTATIVE OF MINISTRY OF LAW

Shri R. V. S. Peri Sastri, *Deputy Legislative Counsel, Legislative Department, Ministry of Law.*

SECRETARIAT

Shri M. C. Chawla—*Deputy Secretary.*

WITNESSES EXAMINED

I. (1) Shri S. K. Borkar, *Drug Controller, Government of India, New Delhi.*

(2) Shri P. S. Ramachandran, *Deputy Drug Controller, Government of India, New Delhi.*

II. (1) Dr. A. Joga Rao, *Controller General of Patents and Designs, Government of India, Bombay.*

(2) Shri R. V. Pai, *Joint Controller of Patents and Designs, Calcutta.*

1.(1) Shri S. K. Borker, *Drug Controller, Government of India, New Delhi.*

(2) Shri P. S. Ramachandran, *Deputy Drug Controller, Government of India*

(The witnesses were called in and they took their seats)

Mr. Chairman: I must repeat the formula. You know the evidence that you give is public. It will be printed and circulated to the Members of Parliament and placed on the table of the House. Even if you feel that any part of the evidence to be confidential, it will be printed and circulated. Have you got to say anything on the Patent's Bill? You may please give us your opinion.

Shri S. K. Borkar: Sir, the period of the validity of a patent as proposed in the Bill is ten years. I would submit that ten years is more than adequate to meet the needs of the situation, and if it is possible it may be lowered to seven years, because 7 years period is more than adequate to compensate for the research costs that the manufacturer incurs and will also give him sufficient returns for the expenditure that he makes on drug research.

The provision for licence of rights is absolutely a must because merely having compulsory licensing which provision exists in the present Act is not enough for the development of this industry in this country. If it is possible by some ways to provide for getting the technical know-how from the patentee that would be a desirable addition to the present provisions.

These are the general remarks I have to offer in regard to the provisions of the present Bill and if there are any questions, I would be glad to answer.

Mr. Chairman: You said that the period of patent should be 7 years. The present Bill provides 10 years from the date of specification.

Shri S. K. Borkar: From the date of final specification.

Mr. Chairman: Suppose we make it 7 years from the date of sealing?

Shri S. K. Borkar: It depends upon the time taken between the date of filing the specification and the date of sealing. If it is about a year or so, one would not mind, but if it takes an inordinately long time, the actual period to which the patent would be applicable should be 10 years from the date of filing.

Mr. Chairman: 10 years from the date of specification?

Shri S. K. Borkar: From the date of filing the complete specification.

Mr. Chairman: What is the time given for filing the complete specification after the application?

Shri S. K. Borkar: It is 18 months.

Shri K. V. Venkatachalam: It is about a year. One year is given for filing the complete specification.

Mr. Chairman: The present Bill provides 10 years from the date of specification. Suppose we make it 7 years from the date of sealing?

Shri S. K. Borkar: After filing the complete specification till the date of sealing—that period we will have to take into account.

Mr. Chairman: What is that period?

Shri S. K. Borkar: That could be reduced to one year—that is from the date of filing the complete specification till the date of sealing. In that case, 7 years after the date of sealing is acceptable.

What shall have to be done could be done better perhaps by administrative action. Under the Industries (Development and Regulations) Act there are certain provisions which the applicant for patents has to comply with and perhaps these provisions could be made use of for getting the knowhow. Merely providing in law perhaps may not meet the situation because we cannot force the party to give the know-how. Then again we are not quite sure whether the know-how that is available is the best know-how. This is a matter which will have to be examined by a very high technical Committee. Even at the moment we are not quite sure whether the technology that is available here is the best technology. After all the criterion for a good technology and the index of that would be the ultimate price at which the product is made available. The better the technology the lower should be the cost. But our experience here has been quite the opposite.

Mr. Chairman: Can administrative measures get us the technical know-how? Is it possible? It may be done by administrative measures—you said.

Shri S. K. Borkar: Both administratively and there should also be some provision in this Act.

Mr. Chairman: That is what I say. What do you propose as Drug Controller? Suppose you want to provide some provision whereby the technical know-how is made available.

Shri S. K. Borkar: At present the maximum rate of royalty has been fixed at 4 per cent. That is only to enable one to work a patent. If there was an additional incentive given—say if the best know-how is also made available, the rate of royalty could be slightly increased or some *ad hoc* money sanctioned—that would be a sort of incentive.

Mr. Chairman: What will be the proper percentage you would suggest?

Shri S. K. Borkar: If the know-how is made available, another 4 per cent. To-day I find a lot of money is spent by way of giving know-how to us.

Mr. Chairman: Have you got any idea of what they pay now for the know-how?

Shri S. K. Borkar: Those figures I do not know. Royalty is a sort of perpetual payment. If some *ad hoc* money could be sanctioned, we could save a lot.

Shri V. B. Gandhi: Is not the royalty a kind of consideration for giving the know-how?

Shri S. K. Borkar: I will come to you.

Mr. Chairman: Can we provide by law here for the additional percentage for know-how? Or should it be a matter for negotiation?

Shri S. K. Borkar: It would be a matter for negotiation. I cannot suggest what provision can be made in the law.

Mr. Chairman: Can you suggest how it could be brought into the Bill itself?

Shri S. K. Borkar: I will think over it.

Mr. Chairman: You consider the licence of right is a must. If the Government is to have that power, is it not necessary to pay some compensation to the man?

Shri S. K. Borkar: That does not preclude the paying of royalty. There is a provision in the Bill—clause 88(5).

Mr. Chairman: Where the Government want to import, do you think that the Government can import or get those medicines without even payment of the royalty?

Shri S. K. Borkar: You refer to Section 48, the right of Government to import. It would be quite fair if a provision is made for paying compensation.

Mr. Chairman: Yes, there should be some compensation; otherwise, it means expropriation.

Shri S. K. Borkar: Rate of compensation may be the same as provided in the case of royalty. About a—maximum of 4 per cent subject to tax.

Mr. Chairman: Suppose a patent is taken and then what steps are carried out? What is the time taken by your office to give a licence to the manufacturer?

Shri S. K. Borkar: In the case of an entirely new drug it takes on an average about 2 years.

Mr. Chairman: When it takes so much time, can you not reduce that period?

Shri S. K. Borkar: That depends upon the facilities available in the country for carrying out clinical trials and the nature of the drug. At the moment we do not have enough facilities. Suppose a new drug is developed at a stage where it has passed the toxicity and other pharmocological trials. When it comes to trial on human beings it has to go to the hospitals and the trials should be carried out under expert supervision. We try to see where the specialists are available and where the facilities exist. At present these are not enough. The result is if one individual specialist is busy trying one drug it takes him quite some time before he undertakes to try another drug. Unless these facilities are expanded, the time cannot be shortened. There have been some drugs which have taken as much as 36 months whereas there are others where it has taken about 8-9 months depending upon the nature of the drug.

Mr. Chairman: Also the side effects have to be taken into account.

Shri S. K. Borkar: Naturally clinical trials and toxicity tests are for that. We are trying to expand the facilities. In the case of drugs which are liable to be used on a long-term basis for chronic cases, as for instance the drugs for diabetes or drugs which patients have to live with such as anti-hypertension drugs, it is necessary to be very very cautious and you should also see the long term effects of using them.

Mr. Chairman: Does it take the same time in other countries?

Shri S. K. Borkar: In the United States, of late, since the Thalidomide incident, they are more cautious than what they used to be. There again they have got greater facilities. They spend a lot of money on medical research. We cannot strictly compare the facilities available there with the facilities that we have here. I should

say that for complete investigation, a period of about 2 years would not be too much. After all we must be sure that the drug is safe. Then it must be efficacious.

Mr. Chairman: We have heard that it takes about 5-7 years to bring it into use. How can we reduce the period to the minimum?

Shri S. K. Borkar: There are certain trials which cannot be accelerated, particularly if you want to see the long term effect of the drug.

Dr. C. B. Singh: Evidence has come before the Committee that it takes about 7 years.

Mr. Chairman: First the discovery is made and then tried on animals and then tried on human-beings. Evidence has been given before the Committee that it takes about 7 to 10 years before it reaches the production stage and the marketing stage. So there is hardly any time to recoup the research costs and also to make some profit. Your argument is that this period cannot be reduced.

Shri S. K. Borkar: I was making the point about the clinical trials only.

Shri R. P. Sinha: What are these clinical trials and who does them?

Shri P. S. Naskar: The Chairman has put three points specifically and you may answer those three points.

Shri S. K. Borkar: I stated only the time taken for clinical trials on human-beings. I was not referring to the earlier period.

Mr. Chairman: The point is that it takes about 4 to 5 years to discover the drug and then including the trials on animals and on human-beings it takes about 7 years to reach the production and the marketing stage.

Shri S. K. Borkar: It all depends upon the facilities that the manufacturers have. In most cases, the various operations are collatual.

Dr. C. B. Singh: The CDRI has got the best facilities—will you agree with this?

Shri S. K. Borkar: I agree with that.

Mr. Chairman: It takes about 3 to 4 years earlier also; that is what the evidence before the committee says.

Shri S. K. Borkar: Maybe in the case of some drugs the time taken is that much.

Shri R. P. Sinha: There is a point of order which I would like to submit for your ruling. This is a parliamentary committee and we enjoy all the privileges of Parliament. I would like to say that the Ministers and the officers must be careful before they answer our questions and should also be conscious of this fact that on factual matters they do not mislead the committee. The Ministers and the officers may mislead the Cabinet and we don't know what happens there. But misleading the parliamentary committee involves a breach of privilege.

Mr. Chairman: I agree with you, but there is no point of order.

Shri Bibhuti Mishra: You just now mentioned that the period of validity of patents after sealing should be 7 years. What did you suggest to the Government about this period?

Shri S. K. Borkar: Our original proposal was 7 years. We tried to put our own views....

Shri P. S. Naskar: To the Health Ministry.

Shri S. K. Borkar: Yes. 7 years from the date of final specification. 7 years has been made into 10 years perhaps to accommodate the various views as represented to Government.

Shri Bibhuti Mishra: How much time will it take for the department to finally seal the patent from the date of application?

Shri S. K. Borkar: The Member probably wants to know how long it will take for anyone to put into the market a drug from the date it has been patented.

Shri Bibhuti Mishra: How much time your department will take to finally seal the patent from the date of its application?

Shri S. K. Borkar: My department is not concerned with the granting of patents.

Mr. Chairman: Mr. Mishra, he is the Drugs Controller.

Shri Bibhuti Mishra: But he is an expert and he may give his views about this.

Mr. Chairman: The Patents Controller is coming to give his evidence and you can ask him this question.

Shri Bibhuti Mishra: What is your view about India becoming self-sufficient in drugs and medicines and how long will it take?

Shri S. K. Borkar: First we have to build up our basic organic chemical industry and till such time as we don't have the basic organic chemical industry we cannot hope to become self-sufficient. Attempts are now being made to start Hindustan Organics; maybe next year it might go into production. It is only then we can think of self-sufficiency.

Shri Bibhuti Mishra: Can you give us any idea as to how much of medicines and intermediates we get from abroad?

Shri S. K. Borkar: About the patented medicines, as it is commonly understood, there is a slight difference from what we mean by patents in this Bill. The common conception of a patent medicine is any tonic. But anything that you take as a patented medicine is commonly deemed to be a patent. That is not the meaning conveyed by patents in this Bill. The total import bill in respect of drugs including the chemicals and intermediates comes to about Rs. 13 crores.

Mr. Chairman: Can you give the break-up?

Shri S. K. Borkar: I will certainly send the information. Intermediates worth about 2½ to 3 crores are imported. We don't allow the finished drugs to be imported. We get the things in a basic form; basic drugs are imported and then formulated.

Shri Bibhuti Mishra: In India certain factories have been set up on collaboration basis. As the Drug Controller, are you in favour of collaboration?

Shri S. K. Borkar: In the absence of our own industry and in order to maintain the health of the people, collaboration is a second line of approach. The first line of preference would certainly be to have our own industry whether it is in the public sector or in the private sector. Collaboration will come next. We must have our own industry. But if that is not possible, then we can go into collaboration.

Shri Bibhuti Mishra: You said that we import Rs. 13 crores worth of drugs and out of that Rs. 2½ crores worth are intermediates. Can we get alternative supplies? For example, if we don't get sugar, we can use gur.

Shri S. K. Borkar: Whether it is sugar or gur, what is needed is sugarcane. Now when I mentioned the Hindustan Organic Chemicals, I was referring to the basic industry. It is only then we can think of a lower chemical or a higher chemical. At the moment, we don't have any basic industry.

श्री विभूति मिश्र : पटेंट दवाइयां क्या आप समझते हैं कि १०० परसेंट सही होती हैं।

Shri S. K. Borkar: The quality of the drug has no relation to patents. The quality is governed by the Drugs Act. Whether a drug is patented or not, the standards are controlled under a separate legislation.

Shri Bibhuti Mishra: In Ayurvedic medicines there is no patent. But it has also got some formula. Any doctor can produce the medicine from that formula, like Chavanprash. If the doctor makes it well, then it works. So patent is harmful to India.

Shri S. K. Borkar: Patents relate only to the basic drugs and not to the formulations.

Shri Sham Lal Saraf: To what extent have our laboratories shown all-round progress in ensuring creative capacity so that they are able to manufacture these basic drugs?

Shri S. K. Borkar: So far as the development of new drugs is concerned, our contribution has not been very sizeable. But so far as formulations are concerned, our industry has done very well and it can compare with any in the world. About basic drugs, there are a few factories where we have started making them from intermediates and even lower chemicals. In this connection, I would refer to the attempts made in the Calcutta and Baroda regions. There are two or three firms there who have been poineers in this effort and I might make myself bold to mention their names—the Bengal Immunity, the East India Pharmaceuticals, Bengal Chemicals and Alembics. Benticals and Alembics have done their best to make their drugs from the basic stages without any foreign know-how and without any foreign collaboration. They have done much better in the manufacture of basic drugs than some of the Western India counterparts.

Shri Sham Lal Saraf: Out of the total drugs that are being prescribed, only 2 per cent are patented drugs and out of this, 98 per cent is imported. Now keeping that in view, may I know how our Drug Controller proposes to remain in touch with the creative capacity vis-a-vis the life-saving drugs being achieved or maintained in the foreign countries, particularly in the advanced countries? How does he propose to do it when he suggests that against the accepted period of registration of these patentable drugs in the rest of the world, particularly the advanced countries, and a period of 10 years initially as recommended in this Bill, he still wants 7 years?

Shri S. K. Borkar: In regard to the first question, namely, that out of the drugs that are consumed in this country, only 2 per cent constitute the patented drugs, Sir, I beg to differ ...

Shri Sham Lal Saraf: It is not my statement; this is what we have been given.

Shri S. K. Borkar: I really do not know the source. Here I have got only a cross-section of the drugs which are currently marketed in this country and out of a total turnover of Rs. 150 crores in drugs, the patented items constitute about Rs. 60 crores worth. It may be, Sir, that the drug ingredient in a tablet or in an injection forms a small proportion of the total cost or the price of the formulated product. For example, I will take the case of a drug which is used against inflammations. Now if you go into the cost of the drug itself, it may be about 8 paise in a five milligram tablet—I am only giving you a rough idea; if I am allowed to calculate, I will be able to give a correct figure, but now I am only giving a case in point. When it is sold, I will have to pay something like 80 paise. If you take 80 paise as the turnover, the ingredient is only 10 per cent. From that point of view even, I guess that the statement that only 2 per

cent of the patented drugs are in use in the country is far below the factual position.

Mr. Chairman: What is the percentage according to you?

Shri S. K. Borkar: About 60 per cent of the drugs currently marketed consists of patented drugs. That is to say that in these formulations there is an ingredient which is patented. Now we say that our drug industry has made phenomenal progress. Certainly from Rs. 10 crores in 1948 to Rs. 150 crores today is really phenomenal progress. But if you analyse the figures to see how this amount of Rs. 150 crores is made up, I would say that at least 50 per cent of Rs. 150 crores consists of drugs which are sold over the counter. Tonics and vitamins and medicines like anacin and aspro constitute by and large a large share of this Rs. 150 crores. So, if we exclude this, the remaining portion of the drugs—say about Rs. 80 or Rs. 90 crores—is actually prescribed by the physicians. Out of this amount of Rs. 90 crores, I would certainly say that at least Rs. 60 crores are those which are patented, or which contain an ingredient in them which is patented.

Shri Sham Lal Saraf: Another thing. It is corollary to this question. Is it 60 per cent from the point of view of ingredients as far as the drug is concerned or from the point of view of the total cost factor?

Shri S. K. Borkar: It is from the turn-over.

Shri Sham Lal Saraf: You mean the sale price, not the cost.

Shri S. K. Borkar: Yes.

Shri Sham Lal Saraf: I was under the impression that it is too less a proportion. Because of the explanation that he has given, it seems the proportion is much more. All the same it becomes very necessary for us to know one thing. Most of the foreign know-how is imported into this country, particularly with regard to these basic drugs and advanced drugs and all these life-saving drugs. When compared to the rest of the advanced countries of the world, he suggests that the patentable period under these registered patents should be brought down to 7 years. May I know whether it will be compatible with all that is prevalent in other such countries, whether they could be prepared, or such persons who are in the possession of this know-how in those countries will be prepared to come to this country or allow this country to import the know-how.

Shri S. K. Borkar: Foreigners may be reluctant to come under these conditions. But that itself might promote our own industries. That might be conducive to ourselves becoming self-reliant. If anything comes in the way today in our becoming self-reliant, it is the Patent Law.

Mr. Chairman: They say, necessity is the mother of invention.

Shri Sham Lal Saraf: A little earlier, the Drug Controller said that we are pretty backward in creative capacity with regard to the basic drugs and at the same time he says if we almost ban indirectly or discourage import of foreign know-how or inventive inventions, it will help us, because, as you said Sir, necessity is the mother of invention. We agree. But how will he balance the two. Whether in his view the first position will be correct or the second. If the first position is correct, he will have to explain how it will be possible for this country to remain in touch with the modern progress in the advanced countries of the world if we directly or indirectly ban import of know-how into this country.

Shri S. K. Borkar: In any case, we shall have to be in touch with the developments in other countries. Now to be in touch, to be acquainted with

the developments in other countries, whether it is necessary for the foreigners to come here or can we not do it ourselves is the question. The literature is there, the patents are published and it is for us how to organise our own services, our own departments and to get the know-how.

Shri Sham Lal Saraf: Another question. It may not have a direct bearing on this subject. Will you please apprise us as to the prevalence or the presence of spurious drugs in the market? Whether you have got anything to do with that, whether you have in any way been able to lay your hands on the spurious drugs that are being manufactured. You may be knowing that spurious drugs that appear in the market today are almost the drugs that have been patented. To that extent also, spuriousness has come into the market. May I know what he has got to say with regard to that.

Shri S. K. Borkar: A reply to this question will involve entering into the provisions of the Drugs Act, but without trying to enter into that I might say that first of all the common conception of a spurious drug is that any drug which is not standard is spurious.

Mr. Chairman: Sub-standard drug.

Shri S. K. Borkar: Yes, sub-standard drug. There must be a clear distinction between spurious and the sub-standard drug. Every drug manufacturer in this country must be licensed, otherwise he cannot make drugs. The Government of India had appointed a Committee under Mr. Naskar—the Drugs and Equipment Standards Committee. They went thoroughly into this question and they did come across spurious drugs in the market i.e. drugs which were quite different from what they were represented to be, and they came to the conclusion that the incidence of spurious drugs is not so large as it was originally supposed to be. Then again, spurious drugs were manufactured by unlicensed manufacturers whose whereabouts were not known and who were not licensed of course. But amongst the licensed manufacturers, there are a large number of drugs which do not conform to standards. It is all uniform whether it is a big manufacturer or a small manufacturer. Even we have got reports on samples manufactured by very good manufacturers which were not found to be of standard quality. It is mostly in respect of vitamin preparations which are liable to deteriorate, whose standards go down. But in regard to spurious drugs we are concerned with it and we are taking whatever steps we have to take to see that spurious drugs are not coming into the market.

Dr. C. B. Singh: I wonder if you have seen the Supplementary Memorandum on the Patent Bill of OPPI. If you see Appendix No. 5—it is a very important Memorandum and I want you to look into it carefully—they have given statistical figures of the various drugs and the time it took to bring them into the market from the date of filing of the application, from the date of the patent right being given, in the two countries—India and the U.S.A. If you look to the figures given for India, you will be surprised that except one drug, majority of them have taken more time—you can see from top to bottom, I have drawn a line there. In view of the statistical figures that are given there, would you like to change your mind that it takes round about 5 to 6 years to introduce a drug into this country.

Shri S. K. Borkar: Now I will read only the first item—Chlortertracycline. Under that in India patent was granted in 1950, but the product was introduced in 1959—i.e. space of 9 years. Now to what this is attributable is the question.

Dr. C. B. Singh: That is not the point. Kindly see the figures. The figure is given all along about the

period taken in India from the date of the filing of the application, figure is also given from the date of grant of patents right and then the date of introduction. Kindly see that and let me know what time you think it takes to produce the drug in this country.

Shri S. K. Borkar: With due respect, unless you know what is it that prevented them from intorducing the product earlier ,it is difficult to say. There might be various reasons which may be coverd by the provisions of the Drugs Act or Industries (Development and Regulation) Act. They may not be wanting to introduce the product because they may not be wanting to manufacture it here if they could import it. These are some of the considerations which weight with them before introducing the product in the country.

Dr. C. B. Singh: Explanations are also given. I wanted your opinion. In view of these statistics will you still stick to the figures you have given? This is an important point.

Shri R. P. Sinha: I would like the Drug Controller to examine the reasons given there and give us a note as to whether the reasons that are given here are correct or not. Secondly, we in this Committee are to be guided by the time actually taken. We are not going behind the reasons. We have to go by the factual data available in this country. Based on that we will draw our own conclusion. We want more help to correctly assess the situation. Based on that we will be guided by our own judgment.

Mr. Chairman: Before the manufacturer produces a particular drug, he has first of all to pass through the patent process. Then he must obtain clearance from you. Then he has to get clearance from the Industries (Development and Regulations) Act. Is there anything else?

Shri S. K. Borkar: So far as regulations are concerned, these are the only three.

Shri R. P. Sinha: The fourth one is obtaining foreign exchange.

Mr. Chairman: Please give us an idea of the time each of these takes.

Shri R. P. Sinha: We have to go by the actual position. We should not proceed on theoretical basis.

Mr. Chairman: You take two or three patent drugs and give us what time each has taken.

Dr. C. B. Singh: This is an important point. Otherwise we will be groping all the time in the air.

Mr. Chairman Then he has to obtain the raw-materials; then machinery. Please give us a note on all these.

Dr. C. B. Singh: The Health Ministry has produced before us a comparative statement showing the prices of drugs in India and Pakistan. First of all, is there a patent law in Pakistan.

Shri S. K. Borkar: The patent law is the same there. Both of us inherited it from the British.

Dr. C. B. Singh: What according to you is the reason why the drug is cheap in Pakistan? Will you be able to throw some light on this?

Shri S. K. Borkar: That will be a hazardous guess on my part.

Shri R. P. Sinha: Then we can adopt the same method here also.

Shri S. K. Borkar: Perhaps the importer brings it at a lower price.

Shri R. P. Sinha: Please don't say 'perhaps'.

Dr. C. B. Singh: How many of the drugs are locally manufactured?

Shri S. K. Borkar: About India I can give this information. None of these drugs mentioned here under Imperial Chemicals is manufactured here. All of them are imported. Even the basic drug is imported.

Dr. C. B. Singh: Do you think that the import duty and customs are lower there?

Shri S. K. Borkar: I won't be able to say.

Shri R. P. Sinha: Will it be possible to find out?

Dr. C. B. Singh: This information may be gathered by your office. This is important.

Mr. Chairman: With the present relationship with Pakistan, we do not known whether we will get the information. Anyhow they will try.

Dr. C. B. Singh: Thank you. This is a statement giving the comparative prices of drugs in several countries. It is commonly said that the prices of drugs in this country are the highest. If you see this statement you will find that it is not a fact.

Shri S. K. Borkar: I will go through these figures. My guess is that in absolute terms you may be right. But in terms of the earning capacity, they are very high.

Shri R. P. Sinha: I could not follow.

Shri S. K. Borkar: If a drug costs in the United States five dollars, then that amount can be converted into rupees at the pre-devaluation rate and then you get Rs. 22. This drug may cost in India Rs. 18. On this basis you may say that it costs less in India than in the United States. But that is a fallacy because in India to earn Rs. 18 an average man has to work for ten days. From that point of view the price in India is very high. We shall not go by the absolute figures that may be available.

Dr. C. B. Singh: I think these are your figures. It gives you a comparison of current domestic and comparative prices in USA, Germany, Italy, Japan and India.

Shri S. K. Borkar: It is not mine.

Dr. C. B. Singh: These are the figures which are supplied to us by the office. Here we find that the prices of these drugs in India—with the exception of one or two countries—are lower than in many other countries.

Shri R. P. Sinha: If the earning capacity is less, if the cost of production of drugs in India is more, the selling price will also be more; because the selling price has to be equated with the cost of production.

Dr. C. B. Singh: Let his study and give the reply. This is an important point.

Shri R. P. Sinha: Mr. Chairman, I have only one question for you, and not for the witness.

Mr. Chairman: I am not an expert.

Shri R. P. Sinha: From the way you put questions, I can say you know much more than what we know. The point to make is this. They are Government witnesses. They are part of the same Government machinery, whether it is the Health Ministry or whether it is the Ministry of Industries.

Mr. Chairman: Birds of the same species!

Shri R. P. Sinha: Now, for us it becomes very difficult if we get two different sets of facts from the Ministry of Health and from the Ministry of Industry. I would like to have your ruling. I suggest that both the officers of the Ministry of Industry and the Ministry of Health sit together and check up the facts, instead of giving contradictory facts—I think in the presence of Shri Venkatachalam. Let us first bring out the facts. They have given two different sets of figures. Mr. Shah yesterday deposed before us that the production is two-third from the basic stage and we permit only such quantities of bulk imports of such drugs which are now being manufactured here. Now, he

says that ICI are only formulating drugs and they are not making any basic drugs. Two different statements are being made by two Government offices. I would like you to appreciate my difficulty. I suggest that both the officers of the Ministry should sit together and sort out among themselves and tell us what the facts are. I will illustrate. From where the manufacture is started? What is the quantum of manufacture of basic drugs here? They say something and they say something else Both are quoting documents. Both cannot be correct. Evidence has been recorded and they have given statements which are contradicting each other on facts—on price, on formulas, on fact wherefrom the basic manufacture starts.

Shri Bibhuti Mishra: It is beyond our scope.

Mr. Chairman: It is all right.

Dr. C. B. Singh: One more question—important one. You know Prof. Kilbridge from USA has produced before us a chart which shows that the prices of patented drugs available in the general market have fallen over a number of years while the prices of non-patented drugs have more or less remained the same. Are you in a position to give your opinion on that?

Shri S. K. Borkar: I do not know the basis on which the Professor made the statement. But our experience is—I can support by facts—that drugs which are patented remain at a high level though in course of time they come down, but generally they remain at a high pitch. When the Japanese delegation came, they also gave some graphs and if we see those graphs we will find that there are certain drugs and that the prices of patented drugs remain at a high level I can give you one concrete example. I will take the question of Tetracyclines—a life-saving drug. Its price was Rs. 3000 per Kg.....

Dr. C. B. Singh: We are not discussing this point.

Mr. Chairman: Let him finish.

Shri S. K. Borkar: The price did fall down. Today it is about Rs. 1157 per Kg. There is no doubt there has been a fall here, but the fall has not been appreciable as compared with the non-patent drugs. Penicillin, which is not patented, sells even in this country at 40 paise per m.u. If it is imported, it is 6 paise per m.u. In the case of non-patented drugs there is a steep fall in prices as against the patented drugs, and to support my submission. I can submit definite information on the patented as well as non-patented drugs.

Dr. C. B. Singh: I will like Mr. Borkar to give us a graph of the cost of non-patented drugs and patented drugs for the last ten years in this country. I will be sastisfied.

Shri S. K. Borkar: I will do that.

Shri Prabhu Dayal Himatsingka: Penicillin is being manufactured by Government?

Shri S. K. Borkar: Both Government as well as private sectors.

Shri Prabhu Dayal Himatsingka: Government charges the same price as private sector?

Shri S. K. Borkar: Almost the same.

Shri Prabhu Dayal Himatsingka: The cost must be more; that is why they are charging more?

Shri S. K. Borkar: Might be. We may not have the latestest technology on Penicillin. But the fact is that prices are higher here than of imported Penicillin.

Shri Prabhu Dayal Himatsingka: Patent or no patent; the position is that because we cannot produce cheaper things, therefore the price is high? Patent does not come in the way?

Shri S. K. Borkar: Patent is only one of the contributory factors.

Shri Prabhu Dayal Himatsingka: Just assume that if there is a patented drug and the manufacturer says 'well, you are free to manufacture it'; can it be manufactured without some know-how being given by the party who had been manufacturing it?

Shri S. K. Borkar: That depends upon the drug. If it is entirely new, it will be difficult to manufacture with our old units without the know-how. There are a large number of drugs which could be manufactured and they are being manufactured even today by a process which has been developed in our own country.

Shri Prabhu Dayal Himatsingka: If the process is only patented, and not the drug, then there is no difficulty in manufacturing this drug?

Shri S. K. Brokar: There should be no difficulty, excepting, of course, if it requires entirely new techonology, such as the anti-cancer drugs, in which case it may be initially difficult for our own people to do it on their own.

Shri Prabhu Dayal Himatsingka: The delay in introducing a drug manufactured here may be due to many factors and these factors will always be there. You will agree that if a drug is manufactured, having been manufactured the manufacturers will certainly be anxious to put it in the market as quickly as possible. He will also try to find all possible ways He would not be a party to the delay?

Shri S. K. Borkar: This is an assumption. Naturally the manufacturer will see to the profitability of it. If the size of the market is small and his investment is relatively large, he may try to postpone the manufacture of the drug till such time as the market develops. That condition will always be there.

Shri Kashi Ram Gupta: The witness has stated that out of Rs. 150 crores worth of drugs about Rs. 60 crores wroth of drugs include patented drugs —may be in proportions. Now, how much of it is such which is totally patented drug and how much is there where ingredients are there in large proportions.

Shri S. K. Borkar: That will have to be worked out. If I have a multiple composition preparation, for instance, a tablet containing Aspirin....

Mr. Chairman: You may not give for each tablet but on the whole.

Shri Kashi Ram Gupta: My question is: how much out of these Rs. 60 crores worth of drugs—what percentage—are patented drugs.

Shri S. K. Borkar: I could give the exact information later but just to give the Committee an idea—I have taken production in 1965 of about 21 drugs—the cost of basic drug, as such, when manufactured here is Rs. 15.7 crores. If they were imported they will cost us Rs. 5.3 crores. When these drugs are formulated into products and sold in the market the total sales turnover is worth Rs. 61.2 crores.

Shri Kashi Ram Gupta: So it comes to 1/4 of the total production. Now, there are two kinds—onewhich can be used on a mass scale and the other which can be used in a particular disease. Can you categorise the value of these in these two categories, that is, how much is there which is used in mass scale and how much is there which is used in a particular or specific disease?

Shri S. K. Borkar: The items mentioned earlier,most of them, are used in mass-scale except for two or three. If the Member insists I can work out.

Shri Kashi Ram Gupta: Please work out and send it to us.

You are well aware that uptil now patents have been taken by foreign

concerns and under the present Bill we are hoping that our own people will be able to come forward and have new patents. Are you in agreement with this idea of the present Bill or not?

Shri S. K. Borkar: Sir, our own people may not come forward for patents but the provisions of the Bill will enable them to manufacture the drugs here which are already known and patented. To be able to patent it must be entirely a new drug and that may take some time before our industry develops to that extent but the provisions of the Bill certainly will enable them to put up their own plants.

Mr. Chairman: So far as you are concerned you are in favour of this Bill.

Shri S. K. Borkar: Subject to the remarks I made in the beginning.

Shri Kashi Ram Gupta: The main point is: the witness says that they may not be able to have new patents whereas the purpose of the Bill is to enable them to have patents. That is the first purpose of the Bill and when he says they may not come forward..

Mr. Chairman: That may take some time but they will come forward.

Shri Kashi Ram Gupta: After what time they will be able to come forward.

Shri S. K. Borkar: That will depend on how our research progresses? How much money we are able to spend on research?

Shri Kashi Ram Gupta: Until and unless we specifically know where we stand....

Mr. Chairman: By and large this Bill will promote research and development and he says that this Bill is allright.

Shri Kashi Ram Gupta: My next question is: One is the invention side of it and the other is production side of the present drugs. Now are you of the opinion that a clause like this may be put: 'That those who invent in this country may be given greater period and those who do not invent in this country may be given a smaller period'. Are you in favour of such a clause?

Shri S. K. Borkar: There should be uniformity. If you go for one principle that should be uniform. I personaly am not for discrimination.

Shri Kashi Ram Gupta: What is generally the period taken by your Department for giving a certificate to put the drug in the market? Does it vary from drug to drug or is it uniform?

Shri S. K. Borkar: It does vary from 9 months to 3 years.

Shri Kashi Ram Gupta: Has it been compared with other countries?

Shri S. K. Borkar: Two years, I said, was the average. There are many drugs which have to be tried for longer period but the average comes to 2 years.

Shri Kashi Ram Gupta: It means it may take even three years. Have you got a list of such patented drugs which are in mass use and which are used for very important diseases and which are required at such intervals when such diseases occur. Have you got a list of such medicines?

Shri S. K. Borkar: I have got a list but that list is not exhaustive. I do have a list but I do not have the complete information about every drug that has been patented in this country.

Shri Kashi Ram Gupta: You may scrutinise the list and categorise.

Mr. Chairman: What is the use?

Shri Kashi Ram Gupta: It will be useful for us in determining the period.

Shri P. C. Borooah: You are a Drug Controller for a long time and one of your main functions is to see that spurious drugs and sub-standard drugs do not find their way in the market. Are you satisfied that in the present Bill enough has been provided in regard to that?

Mr. Chairman: This is a patent bill and not drug control bill. We are not concerned with it.

Shri P. C. Borooah: Are you satisfied that the Bill, as drafted, will go, at least, to some way in putting down the spurious and sub-standard drugs?

Mr. Chairman: There is nothing he has to say.

Shri P. C. Borooah: If you have no suggestion that means you are fully satisfied—

Mr. Chairman: Does this Bill in any way help in controlling the spurious drugs?

Shri S. K. Borkar: It is entirely a different aspect.

Shri R. P. Sinha: I would like to know what does the Controller think as to the impact of patents on the price structure of the drugs?

Shri S. K. Borkar: Sir, the impact of patents on price structure is that the prices of drugs are high and they are maintained at a high level for a considerable time.

Shri R. P. Sinha: I want to know: (i) whether it is a fact that our drug prices have been pitched at 1963 prices level; (ii) while determining the prices the machinery of the Government—whether it is Drug Controller or Ministry of Industry—go into the entire cost structure of the drugs and then they fix up the price at which any particular drug will be sold. If that is so, how can we complain that the patent system is responsible for the high prices? If the Government is satisfied that there is profiteering going on in a patented drug can they not force that manufacturer to bring down the price? Do they not take into account the cost structure while determining the price of any drug under the Essential Commodities Act?

Shri S. K. Borkar: Sir, the first part of the question relates to the pegging of the prices at the level of April, 1963. This was done under the Defence of India Regulations and now it has been done under the Essential Commodities Act. All that the Government at that time, following Chinese aggression, did was to accept the prices as were available in April, 1963 and they did not question the price structure of the manufacturers. The anxiety of the Government was to see that there was no further rise in the prices of drugs. Government had not determined the cost or price structure of those drugs.

In regard to the second part of the question, Sir, to determine the cost structure of a patented drug requires a large machinery. Now a patent drug is assumed to be a new drug for which you cannot have a parallel to compare even the prices. It is only when you have a corresponding drug with which you can compare that you can arrive at some approximation of price but in the case of an entirely new drug it is not possible unless a Body like Tariff Commission goes into the question.

Shri R. P. Sinha: One of the main complaints is that because of patents the prices of the patented drugs are high. Now, I would like to understand from the Drug Controller whether he has got enough powers under his armoury, under the various laws, under the Defence of India Rules or Essential Commodities Act so that when he feels that a particular set of drugs or a particular new drug or a patented drug is

selling at a very high price and the particular manufacturer is profiteering he can enquire into the cost structure of that particular drug or he does not have any control over the selling price?

Shri S. K. Borkar: So far as the Drug Controller is concerned he does not have the powers. The Government does have both under the Industries (Development and Regulation) Act and also under the Essential Commodities Act.

Mr. Chairman: Government has powers....

Shri S. K. Borkar: It is the Ministry of Industry and Petroleum and Chemicals.

Mr. Chairman: And you don't have powers.

Shri S. K. Borkar: I do not have.

Shri R. P. Sinha: He may not have the power. What I want to understand, to check up my own self, is if a patented drug is there of which the Drug Controller brings to the notice of the Government that a particular manufacturer is charging high and we have got the machinery to control the price of that drug. So, we can very safely construe that the patent cannot stand in the way of bringing down the price of any patented drug.

Here is a statement which has been given by the Drug Controller in which he has given a list of the drugs with the quantity of imported drugs and the indigenously manufactured; then he has given the retail price and sale value. Could you tell us to which period it refers to?

Shri S. K. Borkar: The figures in the statement pertain to 1965 and this was compiled only recently.

Shri R. P. Sinha: The figures given in the statement refer to 1965. Now, I would like to know whether you have given the retail prices of all these things. If so, can you give us the cost of production of some of the items to see whether the retail prices are proper or not; or they are reasonable or unreasonable.

Shri S. K. Borkar: This statement was prepared with a specific purpose of giving information to the Committee as to the extent to which patented drug figures in the overall turnover of the drugs.

Shri R. P. Sinha: Do you mean to say that all the names of the drugs mentioned here are of patented drugs?

Shri S. K. Borkar: Yes, Sir.

Shri R. P. Sinha: The retail prices are given here. Whether the retail prices of patented drugs are reasonable or unreasonable? All these prices mentioned here, I presume, must be prices as settled by Government.

Shri S. K. Borkar: No, Sir. They are those that are given in the price-lists of the manufacturers.

Shri R. P. Sinha: If the manufacturers charge more price than 1963 price, you will always come on their head.

Shri S. K. Borkar: That is correct. One can presume that these were also the prices which were available in 1963.

Shri R. P. Sinha: Quite right. May I know whether this is the retail price as approved by Government of India under the Defence of India Rules?

Shri S. K. Borkar: I would not call it as approved price but as pegged price.

Mr. Chairman: Does it mean that that is what is accepted by the manufacturers?

Shri S. K. Borkar: It does mean. But, the Government does not go through the price structure.

Shri K. V. Venkatachalam: Just prior to the Chinese invasion, certain prices were in force. Government, at that time, wanted to see that there was no unreasonable rise in prices. They used the Defence of India Act to peg those prices at that level. So, it is not correct to say that there has been an investigation into prices and you cannot take it that the Government has agreed that those prices were reasonable.

Shri R. P. Sinha: Prices which are given in this statement are those that have been pegged under the Defence of India Rules, 1963.

Shri S. K. Borkar: I would not like to answer this question. I would only say that for such of them as were marketed in 1963, the prices were the same as were prevailing at that time.

Shri R. P. Sinha: This is the pegged price of those items.

Shri S. K. Borkar: That is correct.

Shri R. P. Sinha: Am I correct to assume—this is my misunderstanding —that if a new drug comes out, under the Essential Commodities Act, you have got to obtain the sanction of the Government before fixing the prices?

Shri S. K. Borkar: It is so now.

Shri R. P. Sinha: Nobody can market any drug without getting the prior approval of the Government.

Shri S. K. Borkar: That is correct.

Shri R. P. Sinha: I think all those items have got the approval in that sense.

Shri S. K. Borkar: No, Sir. These are the prices of drugs as in 1963.

Shri R. P. Sinha: I know that. There was also a press report that many manufacturers wanted the price to be raised again because the production cost had gone up. There are many new things which have come out in the field. They wanted the approval of the Government of India. I presume that for every drug that is marketed in India, the prices are checked and approved by the appropriate ministry. Are these figures in the statement related to those drugs?

Shri S. K. Borkar: I will explain that. Those figures that are shown here relate to the price-lists that were available to 1963. At that time, the Defence of India Rules did not require probing into the prices. Now that is required under the Essential Commodities Act.

Shri R. P. Sinha: Will you kindly send us the price-lists to check up whether these are correct figures or some variations have taken place.

Shri S. K. Borkar: Are you talking of the approved price-lists?

Shri R. P. Sinha: I am talking about the items which are mentioned in the lists.

Mr. Chairman: How could that help us?

Shri R. P. Sinha: I would like to have the list as approved under the essential Commodities Act for patented drugs as mentioned here.

Shri S. K. Borkar: We do not have the approved prices of the drugs. These are the prices fixed under the Essential Commodities Act. At the moment the re is not a single preparation which has been examined and price determined under the Essential Commoditions Act.

Mr. Chairman: Government has not fixed any price.

Shri S. K. Borkar: They have not fixed any price.

Shri R. P. Sinha: But, the Government have powers to go into the cost structure of any drug.

Shri S. K. Borkar: Yes, Sir.

Shri R. P. Sinha: I would like you to refer to this statement. Let me draw your attention to column 5 in which you have given the quantity produced indigenously. You have given only three, four or five items which are being produced indigenously according to the statement. Am I to conclude that the rest of the items which are shown here are not being produced indigenously?

Shri S. K. Borkar: There are two or three items which are made indigenously *viz.*, Chlorpropamide (fourth from the bottom), Amodiaquin etc. I do not have the figures of the local production. That is why it does not figure in this statement.

Shri R. P. Sinha: Dr. Shah of the Ministry of Technical Development has also given some figures about these items. He says that most of these items are being manufactured and many more are going to be manufactured indigenously. Then, there are figures which I will give you There are certain items which, Dr. Shah says, are not included in the Fourth Five Year Plan. Number one is the first item 'Flouthane (Halothane)'. Next is the item 'Spiranolastone' on Page 2. The others are Chlordiazepoxide and Thioridazine on page 2. These are shown as not being manufactured. Now, what happens is this. Every product in this country is governed by the Industries Development Regulation Act. It is controlled by that. Only those items can be manufactured which get clearance from Government. I understand that the items that you have mentioned just now are being put in the Fourth Five Year Plan as to be manufactured. The Government would not like to manufacture them for the reasons best known to them. There are good reasons for that. There are other items also which have recently been included in the production programme. They are: Neomycin, Erythromycin, Triamcinolone and Ethisterone (page 2.) These are the new items which have recently been brought under the programme of manufacture. Industrial licensing procedure has undergone some change under which some have been given licences while others have not been given a licence. They have given us certain figures which were also circulated to us the other day. What is the target that has been fixed for that. Unless those figures are also given here, this statement of your's appears to be misleading. Therefore, what I suggest is: this statement given to us shows as to what are the items that are now being manufactured and What are the items that are now not being manufactured. Different things have come to us from different Ministries. Therefore, both of them should sit together and give us one set of figures so that there may not be any complaint later on.

Take item No. 3—Chloromphenicol—25 tons. One thing we have finalised is: the patent is not so important; it is not an important factor for controlling the price.

Mr. Chairman: We are not on the control of prices of drugs now. Your query may be interesting from that point of view. How is it important from our point of view—I do not know. We have to get whatever information we want on the Patents Bill.

Shri R. P. Sinha: Patents Bill is an instrument for bringing down the prices of drugs.

You may give that information afterwards.

Mr. Chairman: You are going far beyond the scope of the Bill.

Shri R. P. Sinha: The Patents Bill is an instrument for manufacturing any patented drug. What I say is that both the Ministries should sit together and give us a complete statement.

One Ministry says that the Patents Bill is important from the point of view of regulating production and controlling and regulating the prices.

Mr. Chairman: He has said that certain drugs have been sanctioned for manufacture here and others have not been sanctioned. Prices we are not concerned with. So far as the cost is concerned and so far as the manufacturing programme is concerned we have nothing to do.

Shri R. P. Sinha: I am glad you have confirmed this.

Mr. Chairman: Still you are pursuing.

Shri R. P. Sinha: As you have said, I will not pursue that. I would like to know from the learned witness something about the clinical tests. I would like him to explain to me how these clinical tests are being conducted and what are the different stages and how it works.

Shri S. K. Borkar: It is a test carried out on human beings to verify whether a particular drug about which certain claims are made is effective and whether it is safe. This, in substance, means clinical trial.

Shri R. P. Sinha: How do you do it. What are the stages?

Shri S. K. Borkar: First of all we screen the pharmacological data and the toxicity data. Once it is found that when used on animals the drug can be considered to be safe, it is then given to experts in the particular field. If it is a cardiac drug, then we send it to the specialist in cardiology and we prefer those institutions which are attached to medical colleges and hospitals so that a full-time officer there devotes himself to carry out the clinical trials. Then he chooses the patients under his supervision and finds out the defects in the drug. This takes quite a long time. Then there are certain drugs which are to be used for diseases which are life-companions like diabetes. The long term effects of these drugs have also to be found and it has to be seen. whether the kidneys or any other organs are affected. After the specialist is satisfied or if he is not satisfied, he gives his objection on the drug and he gives his recommendation that the drug has to be administered in such and suchway. If the investigator says that the drug is quite perfect but such and such precaution has to be taken the manufacturer takes note of it and mentions it in the literature so that any physician may know exactly how to administer that new drug.

Shri R. P. Sinha: I have read some books and I have found that in some of the new drugs which were experimented clinically in foreign countries. particularly, in America, they had a very bad effect on the progeny and after that they had become very strict in these matters. I also understand that these clinical test sometimes kill the patients. There is a lot of criticism against these clinical tests being done on human beings. We have, therefore, to be very very careful and not in a haste to get a new drug, especially at the cost of many patients. Therefore, I would like that this clinical test should be not so much with a view to test its efficacy but it should be seen that no harm is done on the patients on whom the trial is being done. Keeping that in view—where that abundant precaution is necessary not to injure any patient who subjects himself to clinical tests, what do you consider should be the time for clinical test that because of the lack of facilities the time taken should be such not with a view to get a patented drug to commercial production quickly but to see that no harm is done to the patient and that maximum precaution is taken.

Shri S. K. Borkar: It will depend upon the nature of the drug. In acute diseases where there is some infec-

tion the chances of a drug being used will be only for a limited period—may be about a week; so the question of chronic toxicity of such a drug will not arise. On the other hand, in case of drugs such as hypotensives and anti-diabetics which are bound to be used frequently and continuously we must lay greater emphasis on the safety aspect. So, we cannot compare both the types of drugs in the same plane. Whereas in one case you require to be ultra-cautious to see that as a result of a long-term action there is no harm done, in the other case where the diseases are acute, you cannot prolong your trial to the same period. So there are types of drugs where this period will vary. That is why I said earlier that on an average our own experience is that the average is about 24 months.

Shri B. K. Das: In the beginning Mr. Borkar said that he is in favour of some compensation to be provided in the case of Government use. Can he give instances of other countries where such provision is there?

Shri S. K. Borkar: I won't be in a position to give that.

Shri B. K. Das: Cl. 48 there is no provision for compensation, but in clause 100 there is a provision. In that case, can you not do away with clause 48 altogether?

Shri S. K. Borkar: How it should be framed is a matter for the committee. But the principle, Sir, is this that Government should not be prevented in particluar circumstances to import a drug for their own use.

Mr. Chairman: Thank you, Mr. Borkar.

(The witness then withdrew).

II. (1) Dr. A. Joga Rao, Controller General of Patents and Designs, Government of India, Bombay.

(2) Shri R. V. Pai, Joint Controller of Patents and Designs, Calcutta.

(The witnesses were called in and they took their seats).

Mr. Chairman: Well, you know the formula; the evidence that you give is public and it will be printed, published and distributed to our members. Even if you want anything to be confidential, that will also be printed and distributed to our members. We have visited your institute and seen all the sections. What are your views about this Bill? Let us have a brief resume. Then members will put questions.

Dr. A. Joga Rao: I may be permitted to mention a little about my background prior to my joining as Controller-General in the department. That was about 3½ years ago. Prior to that I had about 25 years of experience, as a scientific research worker, relating to both pure and applied sciences in the Government departments and in the CSIR. I was also for sometime in charge of the Central Salt and Marine Chemicals Research Institute and the Central Electro-Chemical Research Institute, under the CSIR. I had some acquaintance with work in the Defence Metallurgical Research Laboratory and one or two private sector laboratories, so that I have a little background about the importance of research and what exactly is meant by technical know-how with respect to particular industries, and what generally are the problems which we as research workers, and also as those responsible for the development of industries on an industrial scale, are up against. I may be permitted to introduce Mr. Pai, who is the Joint Controller of Patents and Designs; he holds a degree in Engineering from the Banaras Hindu University. Incidentally I also hold a doctorate of science from the Banaras Hindu University.

As far as the present Patents Bill is concerned, I have studied it not only from the point of view of the Act as

it exists in our country but also comparative legislations which are currently on the anvil or which have recently been passed, as in Canada and in Ireland, and also the manner in which the socialist countries of the Soviet bloc are trying to develop their industries, because all that has a bearing on this problem. The main purpose of patents, of course, is that it should help invention and the development and establishment of industries by way of giving incentives and so on. It is almost an axiomatic thing and it is more or less accepted by the developed countries that the original purpose for which the patent grants used to be made is no longer very much there and the reason has been beautifully summarised in just one or two paragraphs in the Melman's Report. I shall read out those paragraphs just now.

At the same time, the developed countries are still very actively thinking and very actively involving themselves in the ramifications and in making the clauses more and more sophisticated as far as the patents laws are concerned. For the consideration of grants of patents, one had to locate or identify the inventor; that was so back in the years probably a century ago when you had to locate the inventor because it was the individual initiative that counted.

That position has completely changed now if the researches in the modern times which are to be applied on a large-scale are to be considered. If you permit me, I may just read out one or two sentences . . .

Mr. Chairman: Now it has passed on to the hands of the manufacturers.

Dr. A. Joga Rao: Yes. The fundamental purpose for which these incentives are to be provided to the individual inventor for doing his best, is not so much served because it is really difficult in modern times of industrial development to really identify who is the inventor. It is a big problem. Co-operation, Collaboration, team-work and that kind of things are necessary now. In view of these things, it has assumed a different significance. Therefore, broadly speaking, the inventor nowadays may be regarded as the concern which is financing the research. So the definition of inventor which is required in some of these laws has to be carefully studied in the light of this.

Now I may read a few sentences from the foreword to Melman's Report, 1958. "The industrial and technological economy of today bears little resemblance to that of yesterday . . . The garret, garage, or basement inventor to a marked extent has given way to the laboratory technician who is both scientifically trained and versed in the latest techniques of experimentation and invention. The independent 'lone wolf' inventor"—Prof. Sir C. V. Raman used to put it as the 'lone furrow'; that is all right for fundamental research because it comes from intuition, but here it is a lot of development work—"has given way to the co-ordinated group activity of the research laboratory. What do these changes augur for the patent system? How shall the patent system respond the better to discharge its constitutional purposes? Professor Melman addresses himself to these issues . . .". I shall read the next important part—Prof. Melman is an Industrial Engineer himself of long standing of the Columbia University—" . . . The historical justification of a patent system is rooted in two propositions; first, that it is possible to identify the creators of new articles and techniques; second, that the privilege of exclusive property rights granted for a given period will yield a material return to the creators of new things . .". Two problems are at the centre of this study. What are the conditions under which technical knowledge is produced? The answer to this question should indicate whether it is indeed possible to identify inventors and inventions in a workable way. This problem is surely of more than formal interest, for the course of recent patent litigation has

indicated that the criteria for invention—often tied in with the identification of the inventor—lie at the heart of many cases in which patents granted by the United States Patents Office have been held invalid by the courts". He has given figures. "Of 50 inventions held invalid by the U.S. Court of Appeals, 43 were invalidated on grounds of "lack of invention or anticipation". The second problem of the enquiry was: "what has been the effect of the patent system on the promotion of science and useful arts. This question is a critical criterion for the evaluation of the function of the patent system. Clearly, it is possible to suggest many criteria by which to evaluate an institution like the patent system". Now what he goes on to say is, undoubtedly the system of patents may be necessary and is necessary for the establishment of industries, for the development of industries by so many other ways but not necessarily by providing incentive to "inventors". This is how he puts it: "Patent arrangements have far reaching effects on economic institutions, on property relations, on profits of industrial firms, on concentration of control in industry, on monopolistic practices (anti-trust policy), on the role of Government as a decision-maker in industry, and on the scope and characteristics of the legal profession. Any one of these areas of effects could be utilised for the purpose of evaluating the functioning of the patent system." In other words, he does not dismiss the patent system as worthless. It is very useful from those points and for those purposes. But the fundamental point and the basic idea with which the patent system originally came into existence is not served. That is, granting of patent will enable more inventions to flow out from the individual inventor. It need not. It can flow, of course, from a team-work; for that purpose of course, the patent system is very necessary. And for enabling foreign investment and other things also, the patent will serve as a very good means for negotiations and other things. That is the value of the patent system and it is for these reasons that the Judge, considering all the aspects, had decided that we must have the patent law. Of course, each country of the world is constantly revising its patent laws to suit the current circumstances and the current needs. There is nothing wrong in it. Now, our Patents Bill, as far as I have seen, therefore, serves that purpose in the present context of circumstances and probably at any time afterwards, changes will have to be brought about and may be brought about even after the Bill is passed into law, just as various other countries are doing.

Again, this team-work is very important in foreign countries. It has not yet developed in our country. Still here we have to look for an occasional individual incentive and so on. How best this can be done may be a fairly important question in the present level of the development of the country. For this kind of thing in the USSR, what they have established is an Inventor Certificate. The United Nations, the Paris Convention and all the important international agencies and various other developed countries have also recognised these Inventor Certificates as at a par and equivalent to the patents, and that is how the USSR became member of the Paris Convention.

Mr. Chairman: What is actually an Inventor Certificate. Can you give us an idea?

Dr. A. Joga Rao: An Inventor Certificate often arises from the effort of a single individual inventor by reason of his own skill. The right of inventor certificate automatically vests in the State in return for some consideration and recognition which the State accords to the inventor. He himself cannot exploit it in any way he likes, *viz.*, by establishing industry and all that. The Soviet citizen can still have it exploited provided it is approved and for approving it they send it to their workshop and when favourable report from the workshop comes, then it can be used. But he

has no rights at all. If he wants the right of exploitation, he has to apply for patents and he is free to take a patent. The only difference is that in the case of Inventor Certificate, the charges that are paid are absolutely negligible or 'Nil' for the grant of the Inventor Certificate. But for the grant of patent the charges are exorbitant.

Mr. Chairman: What is the use of the Inventor or Authorship Certificate to the inventor?

Dr. A. Joga Rao: The use is like this. He gets monetary reward from the State, he gets a roll of honour, he gets credit and recognition for it. Another aspect in which also we may have some kind of similarity is the smaller inventions which are more possible in our country because of various reasons. (It is very difficult to have more sophisticated inventions here). For these small inventions in the USSR, they give rationalisation proposals. They are legally recognised, and they are less than the Inventor Certificate in their worth and magnitude. Possibly that kind of thing might be useful in some of the developing countries. Then as far as the Patents Office is concerned, any details of course of a procedural nature or factual data, Mr. Pai will be able to give. He is directly incharge of the Patent Office. In my capacity as C.G., I am in charge of both the Trade Mark Registry and its branches and the Patent Office; the various offices are day to day administered by the Joint Controller and the Joint Registrar.

I have noted down a few important points relating to the clauses, a few which might involve procedural matters, a few which might involve administrative complexities in the administration of these particular provisions when the Act is brought into force and a few others which are of policy nature, in which I have nothing to say as that is Government policy, and a few, of course, are verbal changes here and there of a drafting nature or typographical nature. These I have noted and I shall submit these.

Mr. Chairman: If you could give any suggestions regarding how we can improve the Bill. That also you may give.

Dr. C. B. Singh: Mr. Joga Rao said just now he has got certain suggestions. Will it be possible to give them to the Members of the Committee. It will be helpful.

Dr. A Joga Rao: I have no suggestions. Some provisions which are of a procedural nature . . .

Dr. C. B. Singh: Whatever it is.

Mr. Chairman: I have you got anything more to say.

Dr. A. Joga Rai: No, Sir.

Shri Bibhuti Mishra: What is the total number of patents and out of these how many patents are Indian, how many in collaboration and how many foreigners?

Dr. A. Joga Rao: The total number of patents so far granted is about 67,000. Out of these, roughly 10 per cent are Indians and between 97 or 88 to 91 per cent are foreigners. This ratio has remained practically the same throughout the First Plan period, Second Plan period and the Third Plan period.

Shri Krishi Ram Gupta: Is this the total for drugs? He wants for drugs.

Dr. A. Joga Rao: I have got the data from 1912 to 1965. The total number of patents so far granted is 75,000. Of these 7,700 and odd are Indian and about 67,000 foreigners, i.e., a ratio of 1 : 9.

From 1912 to 1965 this is the ratio.

Now, patents granted for drugs and medicines: Indian—386 and foreign 8,000. The ratio is 1:20. This is an interesting fact. While the Indian inventive skill or Indian investment in

other industries is fairly good, in pharmaceutical industry it is not upto that mark.

But I must mention that a similar ratio generally does prevail in all the countries with the exception of West Germany, Japan and USA. That is for the simple reason that soon after the invention, the inventor applies to 70 or 80 countries and takes patents there. Sometimes he applies for patent even for an invention which he knows is useless and which he is not going to exploit. Why? Because he does not want others to tread on his toes.

Then, patents other than for drugs: The total number of patents in force as on January 1966 is 31,000. Out of these 31,000 the ratio of Indian to foreign is: 1:11. Out of this the ratio in respect of drugs and medicines is 1:30.

Shri K. V. Venkatachalam: You can give the absolute figures and that statement you can circulate.

Shri Bibhuti Mishra: To what extent these foreigners have been helpful to make Indians now know the know-how and develop Indian industry regarding drugs and other things?

Dr. A. Joga Rao: It is a very important point. There are three or four ways in which they can help. One, they can set up full-fledged research institutions in the country. They have not done it except that CIBA have set up an excellent research laboratory for pharmaceutical and drug research near Bombay.

Dr. C. B. Singh: Pfizer has done in Chandigarh.

Dr. Joga Rao: That is only for production. They are anxious to set up factories to produce. Sandoz and Glaxo have done it.

Secondly, they can enter into collaboration agreements for starting factories where Indians and foreigners have some kind of participation. The Punjab Government have given to the Pfizer's some facilities for this in the form of land, water, local amenities etc. They are running it in Chandigarh. When I look at some of the factories what impresses me is that our own young men are fully manning these institutions. They are in complete charge. They are really the masters of the show as far as production aspects are concerned.

Shri Bibhuti Mishra: We have visited this in Chandigarh. They are doing it with selfish motive because our boys can only manage other's factories.

Dr. A. Joga Rao: I am not denying it. But incidentally, at least as a by-product, our people do learn and get some kind of acquaintance with the job.

The third kind of help they can do is to give some kind of grant to some of the research establishments here or invite some of these people to foreign countries for giving them training. But this is very insignificant.

Shri Bibhuti Mishra: Is it not a fact that Pfizer's perior has expired and still they are doing it?

Dr. A. Joga Rao: Yes.

Shri Bibhuti Mishra: How far this Patents Bill is helpful to develop our industry?

Dr. A. Joga Rao: It is helpful because it gives large powers to the Government while it does not deny patents. It enables others just to walk into the country for the purpose of securing patents. Having secured patents and having divulged their specifications, at any stage, it is possible for the Government to control some of these factories which they set up, on payment or without payment.

Dr. C. B. Singh: We are not trying to do that.

Shri Bibhuti Mishra: In Ayurveda they do not get their medicines patented. They have got a formula for Chyavanaprash, Yogaraj, etc. and anybody can see that formula and manufacture these medicines in their own way. But this patent here is a sort of monopoly. How is it? It is because of the materialistic view of people.

Dr. A. Joga Rao: I am not very competent to say on Ayurveda. What they do in Ayurveda is like this. There are books like Chintamani and Sarangadhara Samhita etc. They contained most of these yogas. In those days even the wives in a family used to prepare medicines. My grandfather used to prepare medicines and his brothers also prepared them. If they could not get Amalaka for a particular medicine, they had recourse to substitute because it is prescribed somewhere else or they thought it was useful. For instance, Sataputha Abhraka used to be prepared using cow-dung cakes as fuel. But modern people may use electric furnace for the same, rightly or wrongly. Now in the case of modern industry also, for instance, if a more competent scientist were to take up to the application of the modern technology, to the implementation of the requirements as given in these books, it is possible because by appropriate regulation of electrical controls the temperature can still be regulated and can be controlled. There are some who try to go in for substitution. Now, in the matter of patents the specifications, of course, are laid bare. anybody can get a copy of it easily for one rupee or two rupees or five rupees in any country. There is no control. But the question here is having got a patent specification, in what industries is it possible, and for what type of countries to straightaway set up production, which they can do, of course, in case they have no patent law, and in what kind of industries and in what kind of setup of a country can it not be done, even if all the specifications are laid before them? I tell you, for example, in the case of metallurgical industries, it is possible for our country to do it provided the law does not come in the way. Alloys etc. have been grouped for two reasons. One, these we can produce based on the specifications or slight variation in the process. The other kind of things are more sophisticated. Even if the patent specifications are laid bare for us, it would not be possible, and therefore for these things we do not want to give any kind of patent rights for the products. There is nothing strange in this. Many of the foreign and developed countries have also similar exceptions and this is nothing unuseual. It is decided by the Government in, what they call, public interest. What public interest is and how it is to be estimated are very complex matters.

Mr. Chairman: Which are the foreign countries?

Dr. A. Joga Rao: Germany, Neitherlands, Austria. These are there in the statement which was originally submitted to the committee. If necessary, we can submit a complete list.

Shri Bibhuti Mishra: Practically the period for patents is from 8 to 10 years. One gentleman said that it should be seven years. What is your opinion?

Dr. A. Joga Rao: The period was 14 years in India in 1930 and before. It is only in 1930 or after that it became 16 years. But then we had a different set-up and a regime. Possibly each Government looks on these in different ways and they bring out regulations, such changes, as they think necessary in the contemporary state of affairs. So 16 years is now being brought back to 14 years. I do not think it is unreasonable, though a matter of fact, there is a general trend in international circles to push it up to 20 years. Many countries which had lower periods in the past have now begun to replace it.

Shri Bibhuti Mishra: Do you think that even after granting patents,

Government should have some control over the patentee to control the price so that the patentee may not monoplize the industry and may not take too much advantage from the consumers?

Dr. A. Joga Rao: Government control is absolutely necessary in the public interest, because under the law they are conferring a grant to the patentee. In some European countries' laws they express it as an authority which is given to him to preclude others.

Mr. Chairman: Could you give us a draft to be included in this Bill regarding price control?

Dr. A. Joga Rao: I am sorry I cannot. How can I?

Mr. Chairman: Just as control must be there. Price control should be there by the Government.

Dr. A. Joga Rao: Government will always look to the public interest. It may be in the public interest to supply the goods at the cheapest possible price even by importing it to stave off a situation. That may be public interes in certain countries, whereas in certain other countries we cannot cite this point of cheapest price from whatever competitor as public interest because that way, it may be said they cannot lay the industrial base, they cannot gain self-sufficiency. And therefore if that be the idea the manner in which they serve public interest will have to be different. So it is a question of expediency in the public interest.

Shri Bibhuti Mishra: Are you in favour of putting some clause in this very Bill to control prices of the patents?

Dr. A. Joga Rao: Control of the price is, to a certain extent, in the existing Act. It is not there in the Bill.

Shri Kashi Ram: The witnesses that have come forward uptillnow can be divided into so many different categories. There were some who advocated total abrogation; others who advocated 7 years from the date of application; others 7 years from the date of sealing; others 10 years from the date of specification and some others for 10 years from the date of sealing of the patent, while the foreigners mostly have advocated for the period of 16 years as it was in the former Act. You must have analysed and studied all these points of view. May I know in what background these people have been demanding different periods?

Mr. Chairman: For their own reasons they have been demanding different periods.

Dr. A. Joga Rao: According to me—this is reasonable as also legally a correct thing because the wording is there—the date of filing of the complete specification would be better for counting the starting of the term of the patent. Of course, it is quite possible for the statute to specify that the term shall commence only from such and such date, but there are one or two anomalies. Once a patent application is filed—I am now referring to the complete specification—the applicant secures certain limited rights, certain amenities and certain protection. If, therefore, it is included for the counting of the term of the patent, I don't think it will be fair and proper. If it is to be counted from the date of sealing of the patent, I think it may lead to anomalous situations. The sealing date may be anything and it will be difficult for the public to know that, the date of the patent and all that. Another notification has to be issued for this purpose. My personal view is that the clause as stated in the Bill is perfectly in order.

Shri Kashi Ram Gupta: I want to know what has prompted these people to plead for different periods. For instance, I may give the example of foreigners demanding for 16 years. What can be the background of this? Have you studied it or not?

Dr. A. Joga Rao: As far as I have tried to understand it, the background is that the foreigners have a vital interest in a strong patent law in the developing countries and India is more or less regarded as a leader of developing countries. If the patent law in our country is weak, then the Southeast Asian or other countries will emulate and follow that. If it is strong here, that it should be 16 years or 20 years from the date of sealing and not from the date of filing the application, it is good for them. I have tried also to analyse the pharmaceutical opinion from the evidence we have received from them. It is not unanimous. There is a clear cleavage into two groups. A certain group of pharmaceutical concerns want us to further weaken this law; there is another group which wants us to strengthen it further, if possible. I have tried to analyse the reasons why this group is feeling like this and the other just in the opposite manner.

Dr. C. B. Singh: We would like you to tell us your analysis.

Mr. Chairman: He has given the reasons also.

Shri Kashi Ram Gupta: Now I come to another point. The former Act had a provision for timelimit for sealing. But the present Bill does not have it. You are of the opinion that the period should be from the date of specification. Are you sure that there should be a clause by which the time-limit should be fixed for the final date of sealing.

Dr. A. Joga Rao: The final date for the sealing is there in the present Bill; it is from the date of acceptance.

Shri Kashi Ram Gupta: It is not there.

Dr. A. Joga Rao: For acceptance, 15 months is the period from the date of first Examination Report.

Shri R. V. Pai: The time-limit is specified with reference to the date of acceptance and not from the date of application or date of complete specification. In the existing Act the maximum time-limit of 24 months is prescribed with reference to the date of application.

Shri Kashi Ram Gupta: The former Act provides a time-limit in which it should be sealed.

Mr. Chairman: It gave 2 years; the present Act has nothing.

Shri Kashi Ram Gupta: The present Bill does not have it. The former Act had it. What is your opinion about the time-limit for sealing?

Dr. A. Joga Rao: The time-limit for sealing may be there, but it will not be possible to any patent office to implement it, if it is universal search system. That is the system of search of world-wide novelty of an invention according to which the patent has to be examined even at the first stage and then only the patent will be proceeded with. This examination is a very difficult and complicated thing and the time-limits for sealing will be very impractical. The Statute did not provide in so many words the examination of novelty, with reference to India or with reference to any other countries and also whether it is in reference to the patent existing or non-existing. It is implied by the whole Act. When a patent is accepted, the fundamental element required is inventive ingenuity and the examiners have to determine this. The law did not state in so many words. In the present bill it is stated that the examiners *shall* examine as far as novelty goes; the Controller may direct the examiner to refer to such and such things for determining the question of novelty. It has to be verified whether anywhere in the world it is published in written documents or whether even otherwise it is there.

Shri Kashi Ram Gupta: In your opinion this new clause of novelty search is very necessary.

Dr. A. Joga Rao: The law of universal novelty as opposed to local novelty is of a highly important nature and most valuable. The Government guarantees the patent as far as novelty and all the things are concerned. In West Germany they have universal novelty and along with that the guarantee is also there. In our country we have accepted that part of the process, but the Government does not give guarantee. But all the same once we do the worldwide novelty search at the examination stage, the value of patent is enormously enhanced. To the extent I have studied this problem, in this process of worldwide novelty, things get bogged down and there are delays of 3 to 5 years even, for acceptance. Unless the novelty is determined, neither it is accepted nor refused, It is estimated that one million applications will be the back-log by 1980 in the U.S.A., they give the figures of back-log for the year 1970 and also 1980. Therefore, the general trend has been more or less to step down from the universal novelty to local novelty or to mere registration of patents. That will not give any value to the patent, though it may have financial or other usefulness. The trend of thinking seems to be that the Government is allowing patents to be granted and if it is a wrong patent it will go into the dust-bin and if it is a worthwhile patent, somebody will exploit it. We in the examination stage cannot undertake this stupendous amount of work which may lead to 5 years back-log. Another alternative is to introduce mechanised searching system, mechanised computorise system, just as is done for administrative studies, even for novelty search, limiting for the time being to certain categories. This of course is a helpful thing, but it is a costly thing. Japan has started this recently as an experimental measure in 4, 5 categories.

On novelty examination—just like a computorised system—this is also being done. I think that in Sweden, they have got an equipment for that. They have been making experiments on that. Experiments have been started in one or two countries.

Some countries have introduced what is known as "deferred examination system". Under this system, a patent need not be examined as and when it is filed. It is only after five years that they will take it up for examination. During these five years, unless any other party evinces any interest, they don't examine. So, less examination work devolves upon the Patent Office. They are already overburdened with their work. What is known as "common searching system" is prevalent in the Scandinavian countries where they receive scores of applications. E. C. M. countries have similar conventions. Swiss have their own conventions. They also receive scores of applications. Their Patent Laws' aim is that they can pool their resources so that the examination work can be shared more or less by all. If one country examines a certain thing, others can accept their findings more or less. The International Patent Institute at the Hague undertakes examination on novelty on payment under the Paris Convention. The general trend in all these things is to give this up more or less. As a matter of fact, in Netherlands, they have given this up; West Germany is also going to give up the 'universal novelty examination.'

Shri Kashi Ram Gupta: May I know whether the period for acceptance includes the period for novelty examination as well?

Dr. A. Joga Rao: Yes, Sir.

Shri Kashi Ram Gupta: Fifteen months are there within which the examination should be completed.

Dr. A. Joga Rao: Yes, Sir. From the date of completion of specification it should be completed.

Shri Kashi Ram Gupta: Just now you have said that if we put the period for the date of selling, it may

not be possible to complete the examination. How much time does this take?

Dr. A. Joga Rao: I am sorry there is a mistake in what I said. With Chairman's permission let me correct that. The period is 15 months from the date of the examination report from the Patents Office and not from the date of completion of specification.

Shri Kashi Ram Gupta: What is the time taken for the date of sealing?

Dr. A. Joga Rao: That time can be indefinite. Because of the world-wide novelty, it has to be left like that.

Shri Kashi Ram Gupta: The time is indefinite; we don't guarantee the period for the date of sealing. From the date of specification, it may take years together till final sealing is done. We have got ten years period from the date of completion of specification. That means the period is practically over.

Dr. A. Joga Rao: My submission on this is that in any case even if the time is statutorily fixed as 16 years, for a compulsory licence for example being granted to a party, there are so many other factors under which the compulsory licence is really issued to the party. The party may not be able to accept the case. Suppose there is a patentee. He goes on dragging his case for eight or ten years out of the 16 years statutory period. And ultimately, he wins his case. There will be only five or six years left. There are other causes and considerations also which reduce the effective term that a patentee may enjoy. We do not expect that this universal novelty will take inordinate time; we need not fix a time-limit.

Shri Kashi Ram Gupta: The model law has provided a clause for the period to begin from the date of sealing. If we begin the period from the date of sealing—whatever may be the period—then, the argument of the patentee will not be real that the period has been covered by litigation etc. There should be one way of safeguarding this interest. Are you in agreement with that?

Dr. A. Joga Rao: I was present at the deliberations, when the Model Law was discussed, as a Member from India. The Model Law was completely directed to helping such developing countries as are very much less developed than our country. It is not intended for a country like India which has a well-developed Patent system and which has a beautiful Statute and all the best experience, I believe, there are many other developing countries in the world. In Africa, for instance, a number of States have gained independence. Similarly, some States in other parts of the world, have just gained their nationhood. They do not have any such law. The model law is designed to improve their present stage of development.

Shri Kashi Ram Gupta: You have given an example that in Russia there is an inventor's certificate. Is there a group system also in Russia as is present in other countries?

Dr. A. Joga Rao: In the U.S.S.R., an inventor's certificate shall be granted only to an individual inventor. It is never granted to any group of persons.

Shri Kashi Ram Gupta: Whether the group system of research is there?

Dr. A. Joga Rao: Yes, Sir. There is some group system. The inventor's certificate is only to encourage the precocious persons who have rendered some account of themselves.

There are also what are known as rationalisation proposals which are of a lower order than the inventor's

certificate. In the U.S.S.R., they give some kind of credit to these things.

Shri Kashi Ram Gupta: In what way the present policy will accelerate basic research on medicines in our country?

Dr. A. Joga Rao: As I mentioned by way of general observations, no Patents Law either in this country or in any country can help in the making of inventions though it may help in the development of industry.

Shri Kashi Ram Gupta: My point is this that the group research is the main-stay of the industries these days. We have also to follow the group system in our country. In what way the Patent Law or Bill as it is can help us in the research?

Mr. Chairman: It can only help in formulations and developments of industries on basic research.

Dr. A. Joga Rao: It can help in one way. A big financier or a number of financiers can gather together and establish a good research centre and as any of the private foreign concerns are doing, patents can be taken of course in the name of that concern.

Shri Kashi Ram Gupta: My point is different. All the foreign concerns have an argument with them that they can establish research institutes on their own here provided a longer period is given. While the other's point of view is that we must have our own institute in India. It may be a subsidised institute even which may be do research work. We do not need any foreign research if the period of patent is to be increased. These are my points.

Dr. A. Joga Rao: The question is as to in what sector the research organisation will function better. This cannot be answered by me though I have some experience of it. Dr. Govindachari of the CIBA, the other day, did point out when this question was put to him. It seemed to him somehow that—he originally belonged to the Madras University Laboratory—certain conditions prevail there where he is working. That enabled not only him but many of the younger men also to undertake research in a cooperative way with a team-spirit. Team spirit is not so easy to obtain.

Shri Kashi Ram Gupta: The main point was this. Research is a main-stay for the drug industry. Which pattern is fit for our country he cannot very definitely say. That is my point.

Mr. Chairman: He has said enough on this.

Shri Kashi Ram Gupta: We would like to know as to whether research has anything to do with the period of the patent?

Dr. A. Joga Rao: I don't think it has.

Shri Kashi Ram Gupta: We have here in India at present some Institutes. Are you of the opinion that in future the research institutes shall have to be of the size as is prevalent in other countries or we need not copy other countries?

Dr. A. Joga Rao: We have already copied other countries in the matter of our Research institutes and as far as the equipment and laboratory facilities are concerned.

Shri Kashi Ram Gupta: Magnitude also?

Dr. A. Joga Rao: Yes, magnitude also. I can say that every Indian can really be proud of these National Laboratories from the point of view of equipment and other laboratory services, materials and especially working-space, for which they are very hard-pressed in those countries.

Dr. C. B. Singh: You are a graduate of Metallurgy from Banaras?

Dr. A. Joga Rao: I am a pure Electro-Chemistry M.Sc., not Metallurgy though I had occasion to study it.

Dr. C. B. Singh: Supposing your process or whatever processes you employ was patented by you, for what period for which you would like to have the benefit of it?

Dr. A. Joga Rao: In that particular patent I never thought of it.

Dr. C. B. Singh: You are so unfortunate—that I know. Have you become wiser? But we have got to think about the young men who are working. Supposing it was patented by you, what would you like to be the royalty or the period for the patent?

Dr. A. Joga Rao: Even if it was patented and even if the period was 20 years, in that particular instance I would not have benefited much because the lion's share would have gone to the organization of which I was an employee and for doing the research I was paid the salary.

Mr. Chairman: He is giving evidence here as Controller-General of Patents & Designs and not as an individual.

Dr. C. B. Singh: I am asking from an entirely scientific point of view. He made a great invention. If he made that invention on his own as many others have done, what would have been the period for the patent? Now for what period he would like the patent to be given to him?

Dr. A. Joga Rao: In the case of pharmaceutical patents, I believe it is not worthwhile to give a longer period even from the patentee's point of view. In the case of non-pharmaceutical industries like heavy industries I think it is worthwhile to give a longer period.

Dr. C. B. Singh: You said that in the case of pharmaceuticals it is not worthwhile. On what grounds you are basing this?

Dr. A. Joga Rao: The grounds are mostly those that I find in the rapid manner in which any drug, whether it is sulpha drug or whether it is anti-biotic, is more or less superseded faster by a further development and the further development is generally found to be better.

Dr. C. B. Singh: Here I have got an appendix—a statement. What time does it take for a firm to bring the product into the market after it has been sealed in the Patent Office?

Dr. A. Joga Rao: I am sorry—how can I say that?

Dr. C. B. Singh: Please see the comparative statement there.

Dr. A. Joga Rao: In USA it is stated that it takes one year; in India it is 9 years. The ratio is more or less like that.

Dr. C. B. Singh: It takes round about 8-9 years to bring the product in India to the market—majority of them like that. You said that you will not like them to be given a longer period.

Dr. A. Joga Rao: Once a patent is granted and once they have worked the technical know-how and set up the base—they can almost remove a chunk of land from Switzerland and set up a base here—if they are permitted, they will be able to put the product in the market within 2 years at the maximum though they are not able to do it now. Why they are taking 6 or 7 years—for that one has to look for reasons elsewhere.

Dr. C. B. Singh: What are the reasons elsewhere?

Dr. A. Joga Rao: That I cannot say because I do not know what are the reasons.

Dr. C. B. Singh: Without knowing them how do you say that the reasons are somewhere else.

Dr. A. Joga Rao: Elsewhere in the sense—in the necessity for permits, in the necessity for securing foreign exchange and in the necessity for having available the necessary land and other services nearby and also the technical base with which to start.

Dr. C. B. Singh: That is not connected with the Patents Bill.

After all you fix the period on a certain basis. It is not an arbitrary figure. That figure has got to be based on certain basic factors which go into operation.

Dr. A. Joga Rao: In this case some of these listed pharmaceutical products are anti-biotics. The question depends again on what particular product he wants to take the patent. If it is a completely new drug for the first time discovered and if it is to be put into the market, I doubt very much whether anybody would make any headway.

Dr. C. B. Singh: When we think about patent it is always a new drug. Patent means a new drug and a novelty something very new. We are talking about that novelty only. We are not talking about something which is produced somewhere else.

Dr. A. Joga Rao: These figures relate to the present position as uptill now. The question of novelty and worldwide novelty is involved when this Bill comes into force. Till now it is not necessary whether it is a new drug as far as the world is concerned. Only it is novel as far as India is concerned for the purpose of patentability.

Dr. C. B. Singh: In C1.87 there is a provision for licence of right. Have you any idea as to how many countries in the world have got this provision?

Dr. A. Joga Rao: This is an automatic endorsement—deemed to be automatic endorsement of licence of right. I don't think in that form it is there in any other country.

Dr. C. B. Singh: No country has got it—there I agree with you. Can you give any reason why we should have it here? You have come as an expert from the Government side. That is why I want you to tell us as to what are the reasons.

Dr. A. Joga Rao: My reasons are of course the Gov't views.

Mr. Chairman: That question we may better put to the Minister.

Shri P. C. Borooah: One of the important objects of the Bill is to provide incentives for inventions and also for development, and it is guided by two things: one is the time factor and the other is royalty. Some of us feel that this time factors is a bit too much. Suppose we cut down the time-limit and increase the rate of royalty. Will that serve the purpose of giving incentives? Or let there be less of royalty and increased time-limit. Which one would you prefer?

Dr. A. Joga Rao: It cannot be said which will be better uniformity or universally in respect of all kinds of inventions. But in the field of pharmaceuticals, food, drug or chemicals and alloys, where process patents are allowed and not product patents. I think it may be better to give a higher royalty; I am not suggesting that, but of the two, if one were to be selected, it would be better to give a higher royalty rather than increase the term for the simple reason that even if you increase the term, the manner in which the process is actually operated can become known fairly soon and by

slight variations in the process, it is possible for others more or less to copy that. Therefore, a patentee would prefer an increase in royalty rather than an increase in the term. That is what I feel in certain kinds of industries. It may be different in the case of other types of inventions.

Shri Kashi Ram Gupta: I am not able to understand his reply. Royalty is charged when there is compulsory licence and licence of right. Otherwise a patentee has no right to charge royalty. Royalty cannot be charged in all cases. Therefore, the period has nothing to do with the rate of royalty. There is no co-ordination between the two.

Shri R. P. Sinha: It has been said by many witnesses who have come before us—I am only talking about the Patent Office and patent procedures—that the whole process of granting a patent has been made so elaborate and cumbersome in this Bill that it will be very difficult for the applicants to furnish all the information. One or two instances were given that they have got to give all the information in different languages which the patent office will not be able to make use of unless they have a very elaborate system of translation. Then they have got to keep the patent office furnished within a certain prescribed time with all the suits that may be going on in other countries. Therefore, they say that the procedure should be more easy not only from the point of view of the applicants, but also from the point of view of the Patent Office itself. It has been represented to us that if the whole procedure is to be implemented, the Patent Office has to be expanded vastly. We have not got the resources—technical resources, not financial resources—to fully carry out the intentions of the Bill. Now what has the Patent Controller to say about this?

Dr. A. Jaga Rao: I do agree that it is very necessary to grately fortify the Patent Office both in the matter of strength, that is numbers, as well as quality, that is at higher supervisory levels. Besides, extensive facilities will have to be given an sufficient finance provided in order to implement the various provisions. Some of the clauses which are of particular relevance to these administrative aspects of implementing the various provisions, I have got here, but it will take some time. I have also listed some of the matters where procedural changes in the provisions may be considered by the Committee without loss of any time to anybody, which will probably facilitate the work of the Patent Office well as the patent applicants . . .

Mr. Chairman: When we visited Calcutta, after we visited the Institute, I had a discussion with the Director-General and a note was distributed. I have also written to the Minister and the Minister, Mr. Sanjivayya has replied saying that he will consider those suggestions and take steps.

Shri R. P. Sinha: Now I would like to refer to the financial memorandum that has been drawn up in this Bill. Is that memorandum adequate, financially speaking, to fortify the Patent Office to the extent that is needed?

Mr. Chairman: That we will discuss with the Minister when he comes here.

Shri R. P. Sinha: What I feel is that the financial memorandum that has been given along with this Bill is not very adequate . . .

Mr. Chairman: Let us discuss it. Afterall he is an official. Let us discuss it with the Minister.

Shri R. P. Sinha: We must have figures. This figure which is given to us is too little to carry the entire Bill

into effect. He must get what is the amount involved in the matter of expenditure.

Mr. Chairman: Can you give it?

Dr. A. Joga Rao: I was trying to put it this way. Rupees four lakhs as the recurring expenditure which, I think, we have mentioned in the financial memorandum, excluding a small sum—probably Rs. 20,000—for the non-recurring expenditure. But this provision relates to the financial requirements during the first year or so when the Bill actually is passed into Act and brought into force. The work has to develop and it has to develop in stages. So depending on the phase-wise or stage-wise development of the work, you will have to gradually enhance the financial provisions. I agree that the provision made here would appear to be rather small, but I submit that this would suffice during the first year or two. This would certainly need further strengthening afterwards and this could possibly be taken care of by the increased revenue that the Patent Office may get or may not be taken care of, because as the Judge mentioned in his report, this system of granting patents is to be regarded not as a revenue earning service but as a public utility service, and, therefore, about the financial aspect we need not very much think what it is going to be in the years to come. In the first one or two, probably that would suffice. Later it may have to be increased.

Shri B. K. Das: Then there are some provisions regarding appeal against the decisions of the Controller. Have you any comment on that?

Dr. A. Joga Rao: There are quite a number of appeal provisions. In fact the strong objection which most of the Memorandists from abroad have taken is on the basis of some kind of dictatorial powers which either the Controller or the Government have kept to themselves in some of these important clauses. Some of them, the Committee must have noted, have stated that the appeal provisions more or less are like an appeal from Caesar's decision to Caesar. That is what they have expressed, but with the experience and whatever knowledge I have of the working of these appeals which have gone to the Central Government, I have every confidence that the Central Government, whateve is the decision that they give, are not in the least worried as to whether it is going to be against or in favour of the earlier decision of the Controller. The past experience too is, it has never been uniformly Q. Kaying the earlier decisions, thereby annuling more or less in effect the appeal provisions which existed. It has not been so. The Central Government would be more expeditious and it does not do any injustice to any party. The thing is it is expeditious and as against that I am aware of the elaborate time even in the trade mark cases that is taken when the parties go in appeal to the Bombay High Court or to any other High Court. The Trade Mark Agents' fees in many cases are very very high—three figure fees are charged. Considering these high figures, an appeal directly made to the Central Government would be much simpler. Then the High Court proceedings even in Trade Mark cases have been dragging on at least for 6 to 8 years in quite a number of cases. There is hardly a case which has been finished by the High Court in 3 years.

Shri B. K. Das: If there are Special Appeal Tribunals?

Dr. A. Joga Rao: As regards the Special Appeal Tribunal, I think it can be considered, but it should be open—of course as it is the Bill does make a provision for having a notification—to take advantage of the technical knowledge in any case.

The decision by the Central Government must necessarily have to be based on the technical content of the patent specifications no less than the legal aspects. As far as the technical content is concerned, the Central Government will normally have to either secure it from any one of the technical experts who are at the same time in the service of the Government, or alternatively they can secure it from independent technical experts. Now it would reassure the parties and instil greater confidence if this kind of technical opinion is openly sought and made use of by the Central Government from any outside expert.

Shri B. K. Das: You mean there is no obligation for seeking that opinion openly. But the Government must seek that opinion openly. In that case the Tribunal may create greater confidence in the appellants.

Dr. A. Joga Rao: It will, because it is said: Justice should not only be done, but it should also appear to be done.

Shri R. P. Sinha: Will you kindly direct the Government to give us a correct Financial Memorandum, because as it is it is absolutely misleading.

Mr. Chairman: We will discuss that with the Minister. We are discussing the whole Bill with the Minister. You may raise this point.

Shri R. P. Sinha: The time will be short. If you write to them....

Mr. Chairman: We are sitting for 7 days.

Shri R. P. Sinha: If you write to them that Members are not satisfied, that would be better.

Mr. Chairman: Mr. Misra will please make a note of this.

Shri R. P. Sinha: You may say at the next meeting, we must be given a revised Memorandum.

Mr. Chairman: Mr. Misra may make a note. What is your suggestion for reducing the period for the date of sealing? You said 6 to 7 years. We want that period to be reduced. It should not take more than 2 years.

Dr. A. Joga Rao: That will depend on a number of factors. If there is no opposition.....

Mr. Chairman: Even if there is opposition.

Dr. A. Joga Rao: If there is opposition, normally the due process of law has to be gone through. Notices have to be issued. They will ask for time. That has to be served and they will be submitting affidavits....

Mr. Chairman: Can't that period be reduced?

Dr. A. Joga Rao: Statute can fix it that all procedures should be completed within the such and such period. They can say that submissions have to be made by either party once and not again. But that will be denying more or less one of the important rights which the contending party has. He will say I have not looked into the report or the affidavit which he has placed before me. I have seen it just now. For that I may be given time. How can you meet that objection?

Mr. Chairman: He can be given 15 to 20 days. Why should he take years? Just as they had fixed 2 years in the previous Bill....

Dr. A. Joga Rao: In the existing Bill, it is there.

Mr. Chairman: We can also fix a period like that. Are you in favour of that?

Dr. A. Joga Rao: If a period like that is to be fixed, under normal conditions, when there is no opposition, when there is no application

for extension of time at any stage, I believe that period can be fixed in relation to date of acceptance of the application or in relation to the date of the first examination report issued.

Mr. Chairman: All right. Thank you.

(The witnesses then withdrew)

(The Committee then adjourned)