REPORT

ON THE

REVISION OF THE PATENTS LAW

BY

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Report on the Patents Law
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REPORT

To

THE MINISTER FOR COMMERCE AND INDUSTRY,
GOVERNMENT OF INDIA,
NEW DELHI.

A REPORT ON THE REVISION OF THE LAW IN INDIA RELATING TO PATENTS FOR INVENTIONS

SIR,

By a resolution of the Government of India dated 1-10-1948 a Committee was appointed to review the Patent Laws in India with a view to ensure that the patent system was more conducive to national interests.

Report of the Patents Enquiry Committee 1948—1950

2. This Committee was presided over by Dr. Bakshi Tek Chand, a retired Judge of the High Court of Lahore, and consisted of six others with Shri K. Rama Pai, former Controller of Patents as a Member-Secretary. The Committee submitted an interim report in August, 1949 suggesting the immediate amendment of the Patents and Designs Act, 1911 with a view to counteract the misuse or abuse of patent monopolies in India by the enactment of provisions for compulsory licensing on the same lines as those suggested by the Swan Committee.[1] The Government accepted this recommendation which resulted in the amended sections 22, 23 and 23A to 23G of the Indian Patents and Designs Act, 1911 (*vide* Act 32 of 1950). The Committee submitted their final report at the end of April 1950. It is not necessary to set out at this stage the recommendations contained in this report, since I would be dealing with them in some detail at the appropriate places in the course of this report.

Patents Bill, 1953

3. A Bill generally based on the U.K. statute of 1949, with a change that opposition proceedings should be deleted as recommended by the Committee, was introduced by Shri T. T. Krishnamachari, the then Minister for Commerce and Industry, in the Lok Sabha as Bill No. 59 of 1953. The Bill, however, was not proceeded with, and it lapsed. Sometime later the provisions of the Bill, including the phraseology employed were subjected to a close scrutiny by Dr. S. Venkateswaran as well as by other officials of the Ministry of Commerce & Industry and they reached some tentative conclusions in regard to these matters.

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1. A Departmental Committee appointed by the Board of Trade of the U. K. in April, 1944 to consider and report whether any, and if so what, changes were desirable in the Patents and Designs Act and in the practice of the Patent Office and the courts in relation to matters arising therefrom under the chairmanship of Sir Kenneth R. Swan (a very distinguished Patent Lawyer). This Committee submitted two interim reports in March 1945 and April 1946 and a final report in September 1947. The changes made by the U. K. Patents Act of 1949 were mainly in implementation of the recommendation of this Committee.

The present Inquiry

4. Subsequently in April 1957, the Government of India requested me to advise them as regards the revision of the law relating to Patents and Designs and on my agreeing to do so, I was entrusted with that task. Dr. S. Venkateswaran, the Officer on Special Duty in connection with the revision of the law relating to Patents and Designs, was deputed by Government to assist me in this task.

5. Though I started on this work in or about June, 1957 the work was stopped in the beginning of August owing to the illness of Dr. Venkateswaran whose services could not be available for about four or five months. I resumed this work from the beginning of January, 1958.

Questionnaires, answers and memoranda

6. Materials in the form of memoranda and answers to questionnaires submitted to the Patents Enquiry Committee were made available to me and I have profited by them. I further considered it necessary to ascertain the views of those who were interested in particular topics which were of a controversial nature in the revision of the Patents Law at the present stage of industrial development of this country, namely, (1) patentability of inventions relating to food, medicine and chemical products and substances; (2) the degree of patent protection that ought to be afforded to these inventions; (3) the conditions subject to which patents in general should be open to compulsory licensing and the terms and conditions subject to which licences should be granted; (4) the countering of attempts by patentees seeking to extend the scope of patent monopoly by entering into restrictive contracts touching the use of unpatented articles. I accordingly prepared questionnaires on these topics and circulated them to about 300 selected individuals, firms and institutions and also to all the members of Parliament. The response, however, was very poor. I received just 79 replies. No reply to the questionnaires was received from any Member of Parliament. This must no doubt be due to the highly technical and difficult nature of the subject and the unfamiliarity with the problems involved. Even of the replies received, several of them, I must say, were not very helpful, since no reasons were given for their 'yes' or 'no' answers to the questions raised. I have taken the views expressed in these answers into due consideration in framing my proposals and making my recommendations in this report.

7. Besides these, I prepared two special questionnaires in relation to patents relating to Atomic Energy inventions and those relevant for Defence and circulated them to the concerned authorities. My recommendations in respect of these matters have taken note of the answers I received.

Recent Patent Committees and legislations in the U.K., Australia and Canada

8. At the time when the Patents Enquiry Committee were considering the questions referred to them, they had before them the report of the Swan Committee, which was appointed by the Board of Trade in the United Kingdom. It is hardly necessary for me to say that I have carefully considered the several points urged for and against the particular course of action suggested by the Swan Committee and have considered the appropriateness or applicability of their conclusions in the context of our national economy. I would only add that in formulating my proposals I have borne in mind the provisions of the U.K. Patents Act of 1949 which implemented the recommendations of the Swan Committee.

9. Subsequent to the U.K. enactment of 1949, the Australian Patent laws were revised and a revised Patents Act was passed in 1952. This enactment was preceded by the appointment of a Committee presided over by Mr. Justice Dean to advise on the revision of the Patent Law. This Committee gave due consideration to the conclusions reached by the Swan Committee in the U.K. and while accepting some of their recommendations rejected others as not suited to Australia. This report is interesting as in the nature of a comment on the report of the Swan Committee and I must acknowledge the assistance derived from this report and from the phraseology adopted in the Australian Patents Act, 1952-1955 on the recommendations of this Committee.

10. The present Canadian Patents Act is a consolidating enactment of 1951 though many of its provisions are bodily taken from the enactments of an earlier date starting with the basic Act of 1935. It is somewhat remarkable that notwithstanding the considerable American influence which is reflected in the form and contents of the Canadian Patents Law, (*e.g.* the lack of opposition proceedings to the grant of a patent, the provision for 'interference' procedure etc.) the Canadian Act still retains, departing in this respect radically from the American Law, the compulsory working and licensing provision (*vide* section 64 of the Act of 1952 which follows section 62 of the Act of 1935), a provision which was the major feature of even the earlier Canadian Patents legislation. A Committee was appointed by the Canadian Government in 1954 for suggesting the manner in which the Patent Law ought to be revised but I understand that the Committee has not finished its labours yet and that it has not issued any interim report either. Taking into account the time which this Committee has taken, its report must form a valuable contribution to the elucidation of the problems connected with designing a proper system of patent laws and it is a matter of regret that it is not available to me for being considered.

Scope and contents of the present Report

11. The present report is framed in two parts. The first part deals with the general aspects of the various questions, a discussion of the evils which I consider beset the present patent system and the broad lines of my solution to the problem; as also with the main changes which I would recommend in regard to the law. The second part is in the form of notes on the several clauses of the lapsed Bill of 1953 which for convenience of reference I have included as Appendix C to this Report and is devoted to a consideration of the details of my proposals including generally the phraseology I would suggest to implement the alterations I recommend or to avoid ambiguity or overcome any particular decisions on the construction of

words used in the corresponding provisions in the U.K. statute which have been adopted in the Bill. In the notes to the several clauses, I have suggested the manner in which they could be redrafted. It should not, however, be taken that these redrafts are final. They are set out merely as a convenient and concrete method of elucidating my ideas. I am conscious that between the discussion in what I term the first part and in that dealing with the details in the second part, there is bound to be and there is some little overlapping, but I have tried to avoid this to the extent possible.

Separate enactments for Patents and for Designs suggested

12. I agree with the Patents Enquiry Committee that it would be convenient to have separate enactments dealing with Patents and Designs, and in fact the Patents Bill, 1953 proceeds on that basis. The present report deals only with the revision of the Patents Law and I have reserved to a further report my recommendations in regard to the appropriate changes to be made regarding the Law of Industrial Designs.

Interim Report for Patents for Atomic Energy inventions already submitted

13. The last matter I desire to mention is in respect of patents for inventions relating to Atomic Energy. At present the patentability of such inventions depends on the same tests as are applicable to inventions in other fields—*viz.* whether it is a manner of new manufacture [section 2(8) of the Indian Patents & Designs Act, 1911]. The applications for those patents are, however, subject to the provisions of section 12 of the Atomic Energy Act, 1948, under which the Controller is directed to impose an order as to secrecy on the applicant restraining him from disclosing the invention to others, until this ban is lifted by the Central Government and not to proceed with the application beyond the stage of acceptance, so long as the secrecy direction is in force. As the inventions in this field are *sui generis* and required to be separately treated owing to their importance for national well-being, I considered it proper to deal with them comprehensively in an independent report confined to that topic. In view of the urgent need for Government taking a decision in relation to these inventions, I have submitted this already as an interim report in April 1959 and consequently the present report does not deal with any matter arising with reference to patents for inventions relating to Atomic Energy.

Acknowledgments

14. Dr. K. Vasudeva Rao, Chairman of the Pharmaceutical Development Council convened a meeting of the sub-committee of this body at Madras at which the questionnaires issued were discussed in detail. I must express my indebtedness to Dr. Vasudeva Rao as well as to the members of the Committee for the assistance they gave me by elucidating the practical difficulties which they experienced in the provisions of the existing law and the manner in which

they would like the law to be amended. In addition, Dr. K. S. Krishnan, F.R.S., Director, National Physical Laboratory, Dr. A. Nagaraja Rao, the then Chief Industrial Adviser to the Government of India and Dr. K. Ganapathi of the Hindustan Antibiotics, Pimpri, Poona, were kind enough to go over here for a personal discussion of the problems raised in the field of chemical and pharmaceutical patents and compulsory licensing. I must express my indebtedness to them all for so readily acceding to my request and assisting me with their views on the subject.

15. There is one further obligation which it is my duty and pleasure to acknowledge and that is the assistance I have received from Dr. S. Venkateswaran* in discussing the problems and their solution. He began his official life as an officer in the Patent office and his deep knowledge of the practice of that office has been of invaluable help to me. Besides, he is a distinguished chemist. I derived the utmost assistance from him in understanding the problems arising in the field of chemistry. He has sat and discussed matters with me day after day, during these nearly two years on which I have been engaged on this work and his assistance has served practically to eliminate the handicap of an one-man Committee on an assignment as this.

*Now Controller of Patents and Designs and Registrar of Trade Marks.

PART I
REPORT

PART I

I. SOME GENERAL CONSIDERATIONS

Basis of the Patent System

16. Patents may broadly be defined as statutory grants of mo poly for working an invention and vending the resulting produ Possibly the expression 'monopoly' might not be strictly accura for the inventor does not derive the right to work his invention fr the patent grant and the idea might be better indicated by stati that a patent disables others than the patentee or those authoris by him from manufacturing and selling the patented article or usi or imitating the patented process or vending the resulting produc Though monopolies were frowned upon by the English common la the monopolies involved in patents for inventions were held to fa outside this ban for the reason that they were needed to encourag invention and afford increased opportunity for industrial developme and achieving gainful and diversified employment. It would not b an exaggeration to say that the industrial progress of a country considerably stimulated or retarded by its patent system accordi as to whether the system is suited to it or not.

17. Patent Laws rest upon the assumption that it is desirable t encourage inventions for their own sake and that monopoly priv lege is the best way of doing it. The Swan Committee observed:

> "***The theory upon which the patent system is based is tha the opportunity of acquiring exclusive rights in an inven tion stimulates technical progress in four ways: first, tha it encourages research and invention; second, that it in duces an inventor to disclose his discoveries instead o keeping them as a trade secret; third, that it offers a re ward for the expenses of developing inventions to th stage at which they are commercially practicable; and fourth, that it provides an inducement to invest capital i new lines of production which might not appear profitable if many competing producers embarked on them simul'a neously. Manufacturers would not be prepared to develop and produce important machinery if others could get the results of their work with impunity". (Second Interim Report, para 9).

Rewarding inventors by patent grant

18. The patent system of rewarding the invention is based on the idea that the grant of a monopoly will automatically secure to an inventor a reward which is commensurate with the value of his invention. In theory, if the invention is good, the inventor should be able to exploit or sell his patent and thereby make a profit. If the invention were useless, he would receive nothing. In practice, however, even if the invention is good, and useful, the inventor, owing to factors beyond his control, might be unable to make a profit out of this patent; and on the other hand, in some cases the reward which an inventor obtains for his invention might be out of all proportion to the benefit conferred on the general public.

19. The desire for economic reward is undoubtedly an important factor motivating inventions. The possibility of obtaining an exclusive right to exploit an invention for a given period gives the inventor an assurance that his efforts would be rewarded with financial return. Men who are motivated by the prospect of economic reward might normally not be expected to invent if they could not obtain patents, freeing them from competition, and thus opening the prospect of large financial returns which a grant of a patent might involve. A patent monopoly has much to offer by way of prospect of good profits whenever a useful invention is made and such a prospect would have a tendency to bring forth new ideas at an earlier date than would otherwise have occurred. In short the patent system tends to encourage and maintain a continuous flow of inventions. Invention breeds invention and thus the pace of inventive activity is accelerated.

20. As Michel points out—

> "* * * Patents play the role of the pike in the carp pool; they prevent stagnation and stimulate progress. Industrialists are forced to forge ahead to improve their machines and processes for the further reason that each one fears that if he does nothing some other will do something and exclude him from the field for a considerable number of years. This result produced by the patent systems is sound because it requires, as nothing else would require that industry go forward; it gives primarily the true justification for patent protection."—(Michel on Principal National Patent Systems, Vol. I, page 21).

New products and processes are created, industry encouraged to manufacture new and better products and an expansion of the industry based upon the invention takes place. Thus, employment, national wealth and a higher living standard are created.

21. **Consideration for grant: Disclosure and Working.**—But this assumes that patent monopoly is used for the purpose for which it is granted. As Michel observes—

> "* * * Patent systems are not created in the interest of the inventor but in the interest of national economy. The rules and regulations of the patent systems are not governed by civil or common law but by political economy" (Michel *ibid* Vol. I, p. 15).

Several theories have been put forward as regards the consideration or the *quid pro quo* which society receives in return for the grant of the monopoly. In the earliest law on the subject of the grant of patents in the United Kingdom, the consideration received by society as justifying the grant of monopoly was stated to be the introduction of a new manufacture within the country. At a later date it was stated that the consideration consisted in the disclosure to the public of the invention which they were at liberty to use at the expiry of the period of monopoly.

22. In the statement of objects and reasons prepared by the Board of Trade in connection with Patents and Designs Amendment Bill of 1919, they said:

> "The object of granting patents for new invention is to benefit the trade or industry of the United Kingdom. For this purpose it is not enough to reward the inventor; it is also necessary to secure that new inventions be brought into commercial use without delay. To bring a new invention into commercial use requires in many cases the cooperation of the capitalist, and the readiest way of securing this cooperation is a grant of a monopoly. A monopoly being contrary to the common law right can only be justified by some consideration moving to the public. The consideration justifying the grant of a monopoly for a new invention is not only the disclosure to the public of information which they can use when the period of monopoly expires but the benefit to trade by the new invention being brought into commercial use during that period. The public therefore are entitled to have the monopoly so framed and guarded that they are not deprived of this consideration. The real difficulty is to prevent the abuse of the patent monopoly without so restricting it as to deter the capitalist from financing the inventor."

The Country must be technologically advanced to work the invention

23. The advantages accruing to a nation's economy from rewarding inventors with the grant of exclusive privileges for a limited time are dependent on two main factors: (1) The country must be technologically advanced to maintain the rate of invention which is brought forth by the promise of the reward. This in its turn would be dependent upon (a) the degree of diffusion of scientific and technological education and the number of persons reaching high proficiency by such education; (b) a massive industrial production which could absorb the products of the education and develop the instinct for research and direct it to useful and productive channels; (c) the amount of speculative capital which is forthcoming for being risked in investment in new ventures and for profitable utilisation in such industries. (2) The patented invention must be worked in the country which grants the patents. It goes without saying that if the first condition which I have set out above obtains in any country, there may not be much difficulty in the second one also being fulfilled.

24. From the above it will be seen that the monopoly created by the patent and the reward to the inventor by the grant of such monopoly offer advantages which have been claimed for the system, only in the highly industrialised countries which have a large capital available for investment in industries and a high degree of scientific and technological education.

Patent system in under-developed countries: Failure of the Patent system in India

25. It is further obvious however that the system would not yield the same results when applied to under-developed countries. I entirely agree with the views of the Patents Enquiry Committee that "the Indian Patent system has failed in its main purpose, namely, to stimulate invention among Indians and to encourage the development and exploitation of new inventions for industrial purposes in the country so as to secure the benefits thereof to the largest section of the public." (Interim Report p. 165).

26. The Patents Enquiry Committee have in their interim report (*vide* pp. 165-166) set out the figures of patents granted in various countries during the period 1930—37 together with the proportion of grants to its own nationals as compared with the number granted to foreigners (The figures were apparently taken by them from 'Patents and Industrial Progress' by George E. Folk, 1942). During this period the proportion of grants to Indians and foreigners is stated to be roughly 1:9. Even with the attainment of independence and rapid growth of scientific education by the opening of more institutions for post-graduate training and the establishment of several national laboratories, the proportion of Indian to foreign patents still remains substantially the same as during the earlier period, and is roughly 1:9 [See Appendix "A" Table (i) and Table (5)]. This is, however, without taking into account the economic or industrial or scientific importance of the inventions. If this factor were taken into account [for break-up of the figures of the patents sealed according to the class of inventions, see Appendix 'A' Table (2)], our nationals would appear to be at even less advantage. Further, if account were taken of the number of inventions for which renewal fees have been paid beyond the 6th Year, which gives a rough idea of the value attached to the invention by the patentee, the proportion of Indian to foreign nationals would be shown to be in still less favourable light, [*vide* Appendix A Table (6) which sets out the number of patents for which renewal fees are being paid, also Appendix A Table (4)].

27. This apart, there are no statistics available for computing the precise extent to which inventions patented in India are being worked within the country either by the patentees themselves or by being made available to others by means of licensing. But it might broadly be asserted that compared to the number of patents on the register those which are actively worked bear only a very small proportion.

Why are patents taken in foreign countries

28. The first subject that suggests itself for examination in this context is as to why foreigners take patents in this country when admittedly they have no intention of working the patents here and possibly even in cases where it may not be commercially possible to work them here. Mr. Langner giving evidence before the Temporary National Economic Committee of the U.S.A., which was set up in 1941, speaking of the American Patent system said:

> "Patents are taken out in foreign countries, (by Americans) for two main reasons. One is that we are doing business abroad and we want to protect our article, so that the German manufacturer or the English manufacturer is not able to copy it immediately and go into competition with us. In other words, it is a great selling point for our goods to have a protected inventive feature and we have kept ahead of the whole world in the export markets through our patent system."

Bennett in his treatise on "The American Patent System" says:

> "* * * When inventors take out patents in the several countries of the world, those patents establish a monopoly over the inventions in the various countries * * *. By taking out patents only in the industrial countries it is usually possible to stop competition at its source. It is unnecessary to patent an invention in all foreign countries. In this way patents can be used to establish protected foreign markets. Others can neither produce nor sell the invention in the foreign countries without the patentee's permission. The German chemical industries were able to reserve the American market in this way before World War I. During that war the United States Government confiscated the German patents and established a system for licensing American manufacturers to use them. The extensive American chemical industries date from that time."

29. These patents are therefore taken not in the interests of the economy of the country granting the patent or with a view to manufacure there but with the main object of protecting an export market from competition from rival manufacturers particularly those in other parts of the world.

This explains the phenomenon of a large proportion of patents being held by foreigners not merely in the industrially backward countries but also in the comparatively more industrialised countries. For instance, the following figures show the high proportion of foreign patents in Canada, Holland, U. K. and Switzerland, though these are by no means industrially backward:—

	Average annual number of patents granted during the years 1930—1937	Number granted to foreigners	Per cent granted to foreigners
United States	48,697	6,421	13.2
Germany	20,621	5,327	25·8
France	20,025	9,994	49·9
Great Britain 1930-35	18,417	9,522	51·7
Italy	10,634	6,782	63·8
Canada	9,269	8,368	90·3
Switzerland (1930—36)	7,307	4,066	55·6
Japan (1930—36)	4,845	1,165	24·0
Czechoslovakia	3,613	2,749	76·1
Holland (1930—35)	2,674	2,164	80·9
Denmark	1,590	1,056	66·4
Norway	1,428	1,031	72·2

Balance of gains and losses to under-developed countries by the grants of patents to foreigners

30. The existence of the monopoly enables the patentee to dictate the price at which the article could be sold and where he has his manufactory in several of the countries of the world enables him to choose the source from which the product could be obtained with the maximum profit to him. Of course the grant of a patent in a country like India with a teeming population offering an extensive market must be to the advantage of the national economy of the particular foreign country in which the industries covered by the patent are worked, for a larger and assured market would mean a corresponding increase in the size of the industry with consequent absorption of its labour and scientific personnel and also capital for profitable investment. This might no doubt result in a reduction in the cost of production in the foreign manufacturing country and a portion of which might possibly be passed on to the consuming public in the importing country, where the patent is granted but not worked. In the discussions in what might be termed the International aspects of the patent, as distinguished from purely national ones, this small possible advantage has sometimes been strongly stressed, and it is said that the grant of such patents to foreigners who do not work the invention in the country of grant, is not harmful as it tends to locate the industry in the place where it is most economical to manufacture. No doubt the imported product might be cheaper, but even if the cost of the article manufactured in the country might be considerably higher, it might in the long run prove an advantage to national economy in (1) the saving of foreign exchange, (2) the absorption of surplus labour, (3) the utilisation of the country's scientific and technical talent, (4) the utilisation of indigenous material not hitherto used which in its turn would have beneficial repercussions on other industries, (5) the increase in technical knowledge by the establishment of a new industry by the working of the invention, (6) the utilisation of bye-products which might lead to a diversified economy and (7) greater security particularly in emergencies and economic independence arising out of increased self-sufficiency, to mention only the more important. If therefore the problem is viewed as one of balancing gains and losses to the economy of each nation, it does not need much argument to show that the costs to an under-developed country where a patent is worked wholly abroad far exceed any possible gains in any such exchange.

31. In this connection I cannot do better than give a few extracts from Edith Penrose's penetrating study entitled "The Economics of the International Patent System":—

> "* * *When a country grants patents to foreigners for inventions which the foreigner is not going to work in the country himself, but which he is willing to make available to domestic producers at a price, the price paid to the foreigner is clearly one of the costs of granting the patents and just as clearly must restrict the use of the invention to those who can pay the price. From the point of view of producers, this cost is simply the royalty payment made to foreign firms" (page 102). "From the point of view of the economy as a whole it is a tax paid to a foreign firm and

> requires a transfer of real income from one country to another * * *. Any country must lose if it grants monopoly privileges in the domestic market which neither improve nor cheapen the goods available, develop its own productive capacity nor obtain for its producers at least equivalent privileges in other markets. No amount of talk about the 'economic unity of the world' can hide the fact that some countries with little export trade in industrial goods and few, if any, inventions for sale have nothing to gain from granting patents on inventions worked and patented abroad except the avoidance of unpleasant foreign retaliation in other directions. In this category are agricultural countries and countries striving to industrialise but exporting primarily raw materials." (pages 116 & 117).*** "Most countries have little if anything to gain economically from granting patents to foreign firms; and they do so partly because the custom is old and firmly established, partly because of the pressures of vested interests and partly because the ideals of 'international co-operation', 'non-discrimination' and similar laudable sentiments have been influential in shaping the thoughts of lawyers and statesmen." (p. 142).

32. The author is here considering the effect on the economy of the industrially under-developed countries, of the grant of patents to foreigners who work their inventions abroad and use the patents merely as a means of ensuring a monopoly of importation. There have not been wanting competent experts who express a similar view even in regard to the more advanced countries. Thus Floyd L. Vaughan, says speaking of the position of Patents in America—

> "It is a contravention of our patent law and an economic injustice to the American manufacturer to allow a foreigner to take out a patent in this country merely for the purpose of reserving the United States as a market for his patented product which is manufactured abroad exclusively. It means the exclusion of all other would-be inventors and competitors from the industry covered by the patent and at the same time, the building up of the industry in other countries, all to the detriment of the United States"—[F.L. Vaughan on 'Suppression and Non-working of Patents' with special reference to the Dye and chemical industry, American Economic Review Vol. 9 (Dec. 1919) page 693 at page 700].

Non-working of patents of foreigners detrimental in two respects

33. I shall next proceed to consider the cost to the country, particularly an under-developed country like India, of the grant of these patents which the patentee has no intention of working in this country. These patents may be broadly classified under two heads: (1) where a particular invention is not patentable under the laws of the patentee's home country but it is patentable under the Indian Patents Act; (2) where an invention is covered by patents in several countries of which India is one but the manufacture is carried on

either in the home country of the patentee or in some other country outside India where he has obtained patent protection.

34. A well-known example under the first head where an invention is not patentable in the patentee's home country but is patented in India relates to patents for medicines and drugs taken out by Swiss nationals in India. Where the substance is new but the process by which it is produced is not new, no patent can be obtained in Switzerland, whereas a claim for a new product made by the process which is not novel but is merely described in the specification may be patented in India. The result of the grant of an Indian patent to any Swiss firm in such circumstances would be to eliminate the competition of other Swiss firms from the Indian market. These firms, however, have freedom to compete with each other in the Swiss market but the benefit of this competition would not be available to the Indian consumer. As in most of the European countries, the law does not permit the patenting of chemical products, but allows only the processes for manufacturing those products to be patented, the situation for this country is greatly aggravated.

35. In the second type of cases listed above, a patent is applied for and obtained for the same invention in several countries of the world. This is done in order to ensure an export market to the producer as stated by Mr. Langner in the passage I have already quoted. As the right granted by a patent for an article includes the exclusive right to import the patented article from abroad (subject to general import restrictions, if any), the country selected by the patentee becomes the sole source on which the importing country has to depend for meeting its requirements. This acts detrimentally in more ways than one. In the first place, the existence of the patent prevents the importation of the product manufactured by the same or similar process from a country which might offer the article at a lower price. In this connection it might be pointed out that where the same patentee manufactures the same article in different countries, the price of the product might not be the same in each country, and besides there is nothing to prevent a patentee from selling the same article at different prices in different markets based on local conditions as to demand, the availability of alternative products etc.

36. The above is on the assumption that in the several sources, there is patent protection for the article. But this might not always be the case. Where the invention is not protected by a patent in any particular manufacturing country, the price differential is likely to be more. In recent times there have been many instances of this type of price differential, owing to the inventions in western Europe, the United Kingdom and U.S.A. not enjoying patent protection in the Soviet and the East European countries, the inventors not having applied for patents in the latter counries. Most of the patents granted in India to foreign nationals are to those belonging

to the U.K., the Commonwealth countries, U.S.A and the western European countries who do not seek patent protection in the Soviet and the East European countries. Consequently this country is deprived of getting in many cases goods, even though they are essential for industrial production or for the health and safety of the community at cheaper prices from available alternative sources, because of the patents protection granted in India.

II. THE PATENT SYSTEM IN INDIA

What safeguards are necessary in India against patents of foreigners

37. In the present decade under the impact of the national plans that have been formulated for the economic uplift of the country and the raising of the standard of living of its people, the conservation of foreign exchange is a matter of prime importance. In the context of this need, it would be seen that any increase in the price of the patented products imported into the country must to that extent be a disadvantage to the nation's economy. This apart, there is also the factor that by reason of these patents, our country is deprived of the benefits of importing from that country, payment in whose currency would be the least burdensome to India. Due to the existence of the grants, this country has no choice as regards the currency to be paid for the importation because this depends not on our choice but on the location of the patentee's manufactory or the country from which the patentee chooses to import for sale in India.

38. I have already set out the considerations which are said to constitute the *quid pro quo* for the grant of the patent monopoly, namely, (1) the working of the invention within the country so as to result in the establishment in the country of a new industry or an improvement of an existing industry which would profitably employ the labour and capital of the country and thus increase the national wealth, and (2) disclosure to the public of the invention and the manner of its working so that on the expiry of the life of the patent the public are enabled to work the invention themselves and in competition with each other. Where the patentee has no intention of working the invention in this country either because he considers that this is not profitable or because he prefers to expand the production in his home country so as to achieve there greater efficiency and more production or is otherwise not interested in working the invention in India, the grant of the Indian patent might tend to improve the economy of the patentee's home country but offers little advantage to us. Unless therefore the law provides for measures to be taken to compel the patentees to work the invention within the country, and these measures are effective to achieve their purpose, the social cost involved in the grant of the patent is not offset by any benefit to the community. As regards the possible advantage which might result by disclosure it should be noted that most of the inventions patented by foreigners in this country are also patented abroad and the theory therefore that but for patent

protection the invention would have been worked in secret and that the public would have been deprived of the knowledge of the invention has no relevance in the case of the large majority of patents granted in India. As neither of the above considerations seems to be present in the case of patents granted to foreign nationals which are not worked in this country the cost to the community by the grant of the patents is unrelieved by any positive advantage by way of an increase of technical skill or of national wealth.

Is the Patent system necessary in India?

39. Having made this appraisal of the effect of the Patent system in India, the next question is whether the system should be continued. With all the handicaps which the system involves in its applications to under-developed countries, there are no alternative methods for achieving better results. At present there is no country in the world that does not adopt the patent system of rewarding inventors. whatever differences in detail there might be in the laws of the various countries due to local conditions or historical reasons. Switzerland which for long resisted the adoption of the Patent system adopted it in June 1888 and has continued it ever since. Holland adopted the system in 1817 but as a result of the free-trade ideas which prevailed in the middle of the 19th century the Law was repealed in 1869 and the country was without a patent system. In 1910, however, a Patent Law on nearly the same lines as that which prevailed in Germany was adopted. Though there has been some controversy as to whether the Dutch industry suffered a set-back as a result of the abrogation of the Patent Law in 1869, there is no dispute that the country has achieved a considerable technological advance since the introduction of the Patent system. It is, however, not possible to relate the industrial advance of any country to the Patent system or any provision contained in it, because there is no way of showing what would have happened if at the same period in a country's history a different system or different provisions had obtained.

40. Even in a country which has adopted a socialistic economic system such as the U.S.S.R. the law makes provision for the grant of patents in the same manner as in the rest of Europe. But along with patents, the U.S.S.R. has a system of authorship certificates—which broadly approximate in the U.K. terminology to patents endorsed with the words "licences of right". Every inventor has an option to apply either for patents or for authorship certificates, though in respect of certain inventions, and inventions evolved by the use of facilities afforded by the State or State agencies, only authorship certificates are allowed. Besides, a patentee may convert a patent into an author's certificate provided no licence has been granted. There are elaborate procedures for the determination of the royalty or remuneration payable to holders of author's certificates. Besides these two types of patent grants—the State also remunerates inventors by the grant of cash awards on the inventor making over the invention to the State. In regard to all these, however, I will only repeat what the Swan Committee said "We have little information as to how the system functions in actual practice."

41. I need only add that a patent system on the same lines as is found in Western Europe also prevails in the other Socialist countries of Eastern Europe, like Czechoslovakia, Poland, Hungary as also in Yugoslavia.

42. A system therefore which has been universally adopted, and which the experience of the world for well over a century definitely favours, cannot be discarded without the weightiest of reasons, and I see none such.

43. I consider that the Patent system is the most desirable method of encouraging inventors and rewarding them and though at present Indian inventors take a very small share in the benefits of that system, with the increasing emphasis on technical education and the number and quality of the research institutes that have been established in the country, together with the rapid industrialisation that is proceeding, one may look forward to a time when the Indian research worker and inventor will take full advantage of the patent law. Besides, the security and immunity from competition which patent protection affords are very necessary inducements for the working of an invention. Further, the Patents system has been working in India for over a century. There is therefore sufficient justification for the retention of the patent system.

What changes are necessary in the Indian law

44. The precise provisions of the Patent law, however, have to be designed, with special reference to the economic conditions of the country, the state of its scientific and technological advance, its future needs and other relevant factors and so as to minimise if not to eliminate the abuses to which a system of patent monopoly is capable of being put.

45. Bearing in view the matters I have set out above, I would recommend the retention of the patent system, but that it should be improved—

(1) by defining with precision inventions which should be patentable and by rendering unpatentable certain inventions, the grant of patents, to which will retard research, or industrial progress or be detrimental to national health or well-being;

(2) by expanding the scope of "anticipation" so as to comprehend not merely what is known or published in this country, but also what is known or published outside India;

(3) by providing remedies for the evils which India, in common with other countries, experiences from foreign owned patents which are not worked in the country, but which are held either to block the industries of the country or to secure a monopoly of importation;

(4) by providing special provisions as regards the licensing of patents for inventions relating to food and medicine;

(6) by providing remedies for other forms of abuse resorted to by patentees, to secure a more extended monopoly or a monopoly for a longer duration than what the statute grants.

There are several other matters of procedure and detail which are no doubt of importance but which do not require to be mentioned at this stage. These latter have been dealt with in their appropriate places.

III. RESTRICTIONS ON THE PATENTABILITY OF INVENTIONS: PATENTS FOR CHEMICAL SUBSTANCES, FOOD AND MEDICINE ETC.

What is patentable invention

46. The matter that stands at the threshold of the enquiry is as to what should be the scope of patentable inventions in this country, bearing in mind the economic position of the country, the degree of scientific and technological progress achieved and other relevant factors.

47. Under the Indian Patents and Designs Act, 1911, the test of patentability of an invention is furnished by the formula—is it a "manner of new manufacture"—a phrase coming down from the U.K. Statute of Monopolies, (21 Jac, 1 ch. 3,1623), and contained in the successive U.K. Patents Acts. These words have been the subject of innumerable decisions and though several general principles have been evolved, there is still a considerable area of uncertainty. The Patents Enquiry Committee suggested that the term "invention" might be defined in exact terms so as to be capable of application to determine with precision whether a claim to an "invention" was within the statute or not. They however refrained from attempting such a definition themselves. The difficulty, however, in any definition is due to the circumstance that what is termed "subject matter" or "obviousness" is "always the most uncertain issue in patent cases depending as it does upon the temperament and experience of the Judge" (Terrell on Patents, 8th Edition, page 65). The decisions are therefore decisions dependent on one's feeling, each Judge viewing the invention against the background of his own experience. The philosophy of this field of human activity has been the subject of discussion and investigation at the hands of German Patent lawyers, but even they left the task of defining 'invention' as beyond the realm of the practical.

What inventions should be non-patentable

48. Positing 'invention'—understood in the sense generally attributed to that term—there is considerable advantage in the statute specifying with clarity which 'inventions' alone are patentable and which inventions' should not be patentable. This would (1) eliminate ambiguity and (2) prescribe in precise terms inventions for which patents should be refused in the interests either of national economy or national health or well-being.

49. Clause 3 of the Bill [vide Appendix C] seeks to lay down the degree of patentability of certain inventions and what shall be

unpatentable. I have suggested a redraft of that clause into two parts setting out in the first those inventions which are universally or almost universally not patentable and these comprise the class of inventions for which patents are not now grantable under the Indian Patents and Designs Act, 1911, and in the second those inventions as regards which I have suggested a change in the law.

50. I have explained the details of the matter in category (1) in the notes to that clause and this does not call for any comment at this stage.

51. I have, however to explain the ratio of the changes in the law which I would recommend in regard to those in the second part and in particular regarding—

(a) patents for chemical inventions; and

(b) patents for inventions relating to food and medicine.

Before doing so, however, it is convenient to deal with one recommendation of the Patents Enquiry Committee which is implemented in the Bill. The Patents Enquiry Committee said—

> "Invention should be given a wider meaning than in the present Act, so as to include inventions concerned with processes for testing materials even though they did not result in the manufacture of any article".

In suggesting this as a reform to be adopted in the Indian Act, the Committee had in mind the views of the Swan Committee expressed in paragraph 123 of their final report, which ran—

> "The term 'manufacture' implies the making of something, and difficulty has been experienced in applying it to useful industrial devices where nothing tangible is made, such as processes for testing material or performance in the course of manufacture. The result has been that many such inventions of undoubted industrial value have been refused the grant of Letters Patent because they cannot be legitimately regarded as any 'manner of manufacture'. We therefore recommend that the definition of 'invention' be amended in such a way as to make it clear that any new method or process of testing applied for the purpose of improving or controlling manufacture may be treated as coming within the expression 'manner of new manufacture'."

52. This recommendation was accepted by the Parliament of the United Kingdom and the expression 'invention' was defined in Section 101(1) of the U.K. Patents Act of 1949 so as to include 'any method or process of testing applicable to the improvement or control of manufacture'. The Patents Enquiry Committee suggested a definition of 'invention' in the Indian enactment on the same lines and this recommendation has been adopted in the definition of manufacture' under Clause 2(j).(ii) of the Patents Bill, 1953. This extended scope of the definition of 'invention' does not find a place in the United States, which is without question the country most

advanced in the matter of industrial production and undoubtedly where the largest number of patents are applied for and obtained among all the countries of the world, nor in Germany where the rate of invention might be said to be next to the U.S.A. When the Dean Committee in Australia considered the revision of the Australian Patents Law, they did not think it necessary to expand the definition of 'invention' in the Australian enactment on the lines which were recommended by the Swan Committee for use in England. Similarly in the other leading Commonwealth country of Canada, in their Patents Act, revised after 1949, this provision does not find a place and in fact the U.K. is the only country where inventions which consist of method or process for the testing of materials or for control of manufacture are regarded as patentable. Before a provision of this sort is adopted as part of the law of this country, one has to ascertain its economic implications. It does not need much argument to establish that if the scope of patentable invention were widened the persons to benefit would be mostly inventors in the highly advanced industrial countries and for the use of these inventions which are not subject to patents in any country of the world other than in the United Kingdom, the industries in India would have to pay a tax in the shape of royalty.

53. I am therefore against the adoption of this proposal of the Patents Enquiry Committee and would accordingly recommend the deletion of sub-clause (ii) of Clause 2(j).

Inventions relating to chemical substances and for food or medicine etc.

54. Another recommendation made by the Committee which is also found in the Bill was "that inventions relating to substances prepared or produced by chemical processes or intended for food or medicine should not be patentable except when made by the invented processes or their obvious equivalents" [*vide* paragraph 139(b) of the Report]. This recommendation figures as Clause 3(d) of the Bill reading—

> "The following shall not be patentable under this Act:—
>
> * * * * * *
>
> (d) a substance prepared or produced by a chemical process or intended for food or medicine other than a substance prepared or produced by any method or process of manufacture particularly described in the complete specification of the invention or by its obvious chemical equivalent."
>
> "*Explanation.*—In relation to a substance intended for food or medicine, a mere admixture resulting only in the aggregation of the known properties of the ingredients of that substance shall not be deemed to be a method or process of manufacture".

In substance the language adopted in Clause 3 of the Bill, which I have extracted is a reproduction of Section 39A(1) of the U.K. Patents and Designs Act, 1907 as it stood when it was repealed by the U.K. Patents Act, 1949 as a result of the recommendations of the Swan Committee.

55. It would be convenient to consider the two matters dealt with by this provision separately:—

(1) The precise degree and extent of patentability to be permitted in regard to inventions of chemical products in general; and

(2) the law determining the patentability of inventions relating to food and medicine.

Product claims for chemical substances not recommended; history of the law.

56. As regards inventions relating to chemical products, or products produced by chemical processes, I am clearly of the view that the interests of the country would be best served by confining patentability to the processes by which the products are obtained and to deny patents to the products either *per se* or in the qualified manner suggested in the Bill.

57. The reasons for this recommendation are based on (1) the history of the law relating to patents regarding chemical inventions in Europe during the past nearly 100 years and the lessons to be derived therefrom; (2) the experience of other countries somewhat similarly situated like India; and (3) the disadvantages to an underdeveloped country of permitting product claims for such inventions.

58. The history of the law relating to patentability of chemical products in Europe is briefly as follows: A special rule negativing product claims for chemical substances was first introduced into the German Patent Law of 1877. Before 1877, Germany had no unified patent law, the constituent states each having a law of its own with fundamental differences both as regards the substantive provisions as well as the procedure for obtaining patents. At that time, the French patent law was considered the model generally followed in Europe. Under the French statute of 1844, patents were granted to chemical products *per se*, i.e. without reference to the processes by which the product was obtained. The French chemical industry was considered somewhat backward and there were scientists and research workers who were inclined to attribute this condition to the French Patent system though there were others who differed from this view. The former view was strongly held by German scientists and manufacturers, their theory being that the grant of a patent to a chemical product *per se* had a deadening effect on research since it precluded attempts to arrive at the same product by other alternative processes, whereas if patentability was restricted to novel processes, it stimulated research in regard to other alternative methods for producing the same product. This view found general acceptance and became one of the basic features of the German Patent Law of 1877 which for the first time unified the law of the entire German Empire. It must, however, be mentioned that though under the German law patents were granted only for the processes of manufacture of chemical products, the protection afforded by the law extended to the products made by the patented process. In other words, a patent for a process was infringed not merely by the use of that process, but also by the vending of the

product resulting from such use. The rise of the German chemical industry dates from 1877 and in the course of the next 30 years it came to occupy the foremost position in Europe. This phenomenon was attributed by acute observers in great part to the provision of the German Patent Law of 1877 which confined patent grants to process claims, and thus left an open field for research in new methods of manufacture. Dr. Ing observes:

> "* * *This patent law gave an immense impetus and aid to the development of German industry. The fact that in Germany henceforth chemical process only, not however chemical products as such, were patentable, thus leaving an open field for the search for new methods of manufacturing known chemicals, was of great advantage to the chemical industry. Technical progress in general was fostered by the excellent mental schooling which the combined examination and opposition proceedings gave to inventors". (Dr. Van Ing: "A Survey of the Principal National Patent Systems", page 145).

59. The results achieved by German industry and economy by this system of patent protection for chemical products led to its adoption by most countries of the world—in fact at present the United States of America, the United Kingdom and some commonwealth countries (and even here Canada is an exception) are among the few countries in the world whose patent laws confer patent protection for chemical products as such.

60. The system of confining the patentability of inventions relating to chemical products or substances to process claims, which originated in Germany, is the law that now obtains in most countries of the world. Thus, to mention a few of the more important ones, in Austria, Brazil, Czechoslovakia, Holland, Hungary, Japan, Mexico, Norway, Poland and the U.S.S.R. products produced by chemical process are not patentable though processes for such products are patentable, of course if they satisfy the other tests of patentability, e.g. novelty, subject matter, etc. The law as to patentability of chemical inventions in some of the countries of the world is set out in the footnote[1].

61. It would be seen that some of these countries are now industrially advanced and that this law has come down from a time when they were not so advanced. It is also interesting to note that the Peoples' Republic of China recently enacted a Patents Law that follows the U.S.S.R. pattern and refuses patents for chemical products but grants it for the processes by which the products are produced.

Restricting patents to process claims encourages invention; provision in some foreign statutes.

62. It is still the experience of these countries that a system which provides for the refusal of patents for chemical products while

1. Law relating to patentability of inventions for chemical products.-

Argentina.—Law of 1864 as subsequently amended. Chemical products are patentable per se.

25

permitting the grant of patents for new processes of manufacturing such products, is the one which encourages research and facilitates invention.

63. At the recent conference at Lisbon of the International Union a suggestion was made by some of the member nations whose patent laws permitted the patentability of chemical products, that an Article should be inserted in the International Convention as settled at Paris, requiring the members to amend their patent laws by granting patents for chemical products. This proposal was opposed by a large number of the delegates and was ultimately lost. The following reasons given by the Government of Czechoslovakia, a country whose delegates opposed the move, is typical generally of the grounds of opposition to the new Article:—

> "To grant patents of invention in respect of chemical products would not promote the development of the chemical industry. The exclusive right to prohibit the manufact[illegible]

Austria.—Basic law of July 1950.

Substances produced by chemical processes not patentable although processes themselves may be patentable.

Belgium.—Basic law—May 1854.

Art. 1—Chemical substances patentable as such.

China.—Law of 1925 as subsequently amended.

Art. 5—All kind of chemical preparations and articles and combinations are not patentable, but according to Art. 4(f) new processes for the preparation of chemical products and new methods of extraction and separation of natural substances are patentable.

Czechoslovakia.—Patents Law No. 34 of 1957.

Sec. 1(3)—Inventions for products obtained by chemical processes are not patentable but definite processes for obtaining the articles are patentable.

Denmark.—Patent Act of 1st September 1936 as subsequently amended in December 1950.

Sec. 1—Product claims for inventions relating to chemical substances are patentable.

(Though on a superficial reading of the Patent Laws of Denmark, chemical products are patentable; according to Danish practice, however, they are not patentable, since new chemical products are looked upon in Danish law not as inventions but only as discoveries. Claims however have been allowed in some cases for chemical products only to the extent that the applicant can show one or more fields in which the product concerned can be used in practice—(See observations of the Danish Government to the proposal to amend Article 4 of the Paris Convention at Lisbon in 1958, Vol. IV of the Proceedings of the Lisbon Conference, page 40).

Finland.—Law of Patents—1st Jan. 1944.

Chemical products as such are not patentable but manufacturing processes are patentable.

France.—Basic Law—5th July 1844.

Chemical products are patentable.