

THE
INVENTOR'S ADVISER

AND

MANUFACTURER'S HANDBOOK TO PATENTS, DESIGNS & TRADE MARKS.

BEING

*An Instructional Guide to the Commercial Development of
Inventions, their Protection by Patents at home and
abroad, and the Valuation and Disposal of
Patent Rights.*

WITH A

TREATISE ON PATENT LAW AND PRACTICE IN GREAT BRITAIN
PRÉCIS OF FOREIGN PATENT LAWS, &c.,

AND CHAPTERS ON THE

NATURE AND REGISTRATION OF DESIGNS AND TRADE MARKS,

ALSO

APPENDICES OF FORMS FOR EVERY COUNTRY, AUTHORITIES,
SIZES OF DRAWINGS, &c.

BY

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Fellow of the Chart. Institute of Patent Agents

(Of the firm of Herbert Haddan & Co., Patent Agents, &c.).

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PREFACE TO THE FOURTH EDITION.

ALTHOUGH the number of text books dealing with the Laws of Patents is very great, there is not, so far as the writer is aware, any text book dealing with Patents in their commercial aspect. This omission is the more striking, since the commercial question is of primary importance to the inventor and patentee. For this reason, although many books dealing with the Law of Patents give most valuable, necessary and correct information, that alone is not sufficient for those who require a hand-book to the subject in general. The fact that the pecuniary value of patent rights depends not merely on their legal validity, but also on a proper development of an invention on paying lines, on a choice of methods of patenting, and on considerations affecting the negotiation and maintenance of the patent should be sufficiently obvious, but owing greatly to the absence of adequate treatment of this feature in text books, too little attention is given to the causes which render a patent a *valuable* monopoly, and consequently many essential points conducive to pecuniary success are overlooked until it is too late to remedy false steps. The writer's attention has been especially drawn to this part of the subject, owing to the frequent necessity of advising the Chief Official Receiver in Bankruptcy upon the commercial value of patents placed by him for report in the hands of the firm of which the writer is a member.

Part I of the present volume has therefore been devoted to the commercial aspect of Patent Law for the inventor and to questions affecting the obtaining, valuation, realization, negotiation, or sale of Patent Rights, believed to be altogether new in

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text books on Patent Law, but nevertheless appearing to sum up those features of the subject to which every inventor must give attention if he wishes, on the one hand, to avoid losing time and money in following a commercially worthless idea, or, on the other, to get a patent of the *full* value to which he is entitled, and to afterwards deal with it to the best advantage.

Part II is confined to consideration and explanation of the legal questions in British Law which will arise in carrying out the policy outlined in the first part, special attention being given to the pitfalls into which the unwary usually stumble. The Law in all its aspects has been very fully treated in this part, which alone contains far more matter than will be found in books of twice the cost. Part III contains a full synopsis of all the Patent Laws of all foreign and colonial States, with methods of patenting, fees, etc.

To the above is added in Part IV chapters upon the Nature and Registration of Trade Marks in Great Britain, and details of the requirements for registration abroad, with similar information as to Patents for ornamental and other Designs, which, owing to inclusion in the same British Act of Parliament, are generally comprised in text books of this class.

The favourable reception given to this book since the issue of the first edition in 1894, and the steadily increasing demand for copies have been very gratifying to me, as it is an evidence that such a work was required and has indeed been found to supply the inventor with necessary information otherwise obtainable only from scattered sources or from experience.

In the four years that have elapsed since the first edition was published, several changes have become necessary in the text of Part II owing to various judicial decisions, of which note has been taken wherever necessary. Particularly in the foreign section, new legislation or rules will be found in *Austria, Denmark, Hungary, India, Japan, Mexico, Mysore, New South*

PREFACE.

Wales, Norway, Sweden, Queensland, Rhodesia, Russia, South African Republic, United States of America, Portugal and Western Australia.

In the revision of Parts III and IV, I have been greatly indebted to the foreign correspondents and agents of my firm for valuable information and assistance.

Should changes occur before the issue of the next edition, they will be noted on slips inserted from time to time, so that whenever the book is purchased the information may be entirely up to date.

THE AUTHOR.

18, BUCKINGHAM STREET,
STRAND, W.C., LONDON.

1st May, 1898.

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THE INVENTOR'S ADVISER.



Part I.—The Commercial Aspect of Inventions and Patents.

CHAPTER I.

THE NATURE AND POLICY OF PATENTS.

A Reward for Invention.—Whenever any person has, by his own ingenuity or by his own trouble and experiment made and developed a new invention, whether an actual article of sale or a method or process of manufacture, or any new and useful improvement on either of these, by the disclosure of which his fellow-citizens are more or less directly benefited, it may be recognised as fit and proper that that person should receive some reward for the good that he hath done to the realm.

The patent system may in a measure be said to rest on the foundation of this broad principle, but not so much because of its equitable nature as because it directly tends to be of great political and economic usefulness.

Whatever be the reward, it must and can only be given by the State which represents the interests of the whole community, for it is given on behalf of the community. Its character, therefore, must not be that of private benevolence simply, but principally of public policy the ultimate purpose of which is something entirely beyond the personal consideration of the inventor.

Reason for Reward.—If the inventor is not rewarded purely out of regard for his personal merit, why, then, is the reward given? The reward is offered to promote the disclosure of the invention solely in order that the public may have the benefit of it, to encourage the practical reduction of ideas or crude inventions by the offer of the reward for their actual disclosure, to attract the attention of possible inventors to the

development of ideas and to induce a train of inventive thought and emulation in individuals generally, not only by the offer of a definite kind of reward for whatever they may produce of new and useful commercially available knowledge, but by the general publicity which the rewards granted must necessarily attain and the public showing of the advantageous use of such rewards to their possessors.

Here, then, is a sufficient explanation of the value to the State as a whole of recognising some such system of rewarding those who benefit the State; it raises questions of wide political importance against which the personal consideration of the inventor in itself alone, and not as a means to an end, is but a feather-weight. The consideration of the inventor, who is but a unit among millions, must always remain secondary to the fulfilment of the political objects of the State.

This at once shows that, whoever desires to benefit by the system of reward which we shall afterwards explain, must obtain his personal advantage incidentally, so to speak, by fulfilling the more important political requirements without which he will fail in his more personal aspirations, as many have done who put the cart before the horse in this respect. Let us begin, then, with the general political aspects of Patent Law.

Benefit of Trade.—Patent Law had its origin principally in the desire to improve trade. Its entire development has been devoted to this object, and consequently its present foundation may be said to be entirely the benefit of trade.

Trade, in the widest sense of the term, that is, the whole art and science which lies in utilising the natural wealth of the land and the industry of the inhabitants to the best commercial advantage, is of paramount importance in the prosperity of a country.

In the existence of valuable minerals and the potentiality of vegetable production we have one factor, and in the capacity of labour to win and adapt such natural wealth for the uses of mankind we have another factor of prosperous trade; but these in themselves are inert,—it requires the vitality of the brain to adapt and control the process; for making use of known methods, a general business aptitude; for improving on these methods, inventive genius.

The commerce of nations is in its essence competitive. The requirements of individuals form the component parts of the demand by the supply of which commerce thrives, and in default of which the latter would cease to exist. To supply this demand, which education is always rendering more exacting, and to keep in the forefront of supply, continual

improvement is essential. To lead in improvement necessitates invention.

Benefit from Invention.—It is the policy of every trading nation to aspire to a leading position in commerce by encouraging inventive improvement, since clearly no nation can improve on its natural supply of raw materials, but only in the winning of these, in the arts and processes by which the natural advantages of raw materials are developed and brought into practical use, in mining, agriculture and manufacturing processes generally; these being done, in the distribution of the products to the consumers.

Improvement can be had by copying the arts and manufactures of other nations, but this presupposes a secondary position for the nation copying. A nation in the front rank in manufacture can lead the way only by devising improvement itself, by exercise of the inventive faculty of its people. The improvement in the arts and manufactures which are the basis of trade is essentially the function of invention, and every new invention, small or great, advances the knowledge of those engaged in the particular trade and enables them to better meet the demands of competition. There is no manufacture of any sort or kind which in its present state is not the result entirely of invention, in other words, of numberless small and great improvements which have gradually led up to the result as we have it. From the time the raw product is taken from the earth, even in matters of agriculture, from the time the surroundings are prepared for the natural phenomena of production, till the finished article is made, transported and furnished to the consumer, every step of the process is the result of a foregone invention of some person. Thus to stimulate the inventive faculty of its subjects, and so promote improvement, while a matter of policy with every trading nation, is one fundamentally essential to a leading nation.

Inducement for Invention.—There then arises the question how invention should be best developed, and it is noteworthy to observe that every nation of importance in modern civilisation has adopted substantially the same course, namely that of rewarding the inventor of a novelty or improvement with a monopoly of the advantages derivable from it for a definite term of years.

These monopolies or exclusive privileges are termed Patents, and the circumstances affecting their grant, duration, &c., are determined by laws and enactments in various countries known as Patent Laws.

In especial instances sums of money have been offered by Governments for solution of certain widely important and difficult problems, but in the present day the reward held out to all inventors of matters and processes useful to trade, is the monopoly of the respective invention for a limited time, so that only the inventor, or such others as he may authorise, may use the invention to his or their profit and advantage. Primarily the value of a patent is proportional to the value of the invention, and the realisation of this value is dependent on the energy shown by the inventor in bringing his invention quickly and effectively into public notice, so that he may obtain the fullest remuneration before the term of his exclusive monopoly expires. This form of reward is therefore pre-eminently a suitable one, since on the one hand it tends to make the inventor's profit proportional to the value of the invention to the State, operating, so to speak, automatically in this respect, and on the other induces the inventor to work his invention energetically, so that it is the sooner brought into public use.

It has been previously pointed out that the State, in giving monopolies to inventors, is not acting with a view to benefit individuals, but for the general welfare of the community. Inventions are protected not for the sake of simply rewarding inventors, but for obtaining the benefit of the improvements for the State. The monopoly of an invention is an inconvenience for the time to the State, and the only reasons for its existence are the ultimate and general benefits to the country which are derived from holding out this monopoly as an inducement to invent and improve.

Should Patents be Granted.—The propriety of granting protection for new inventions has always been a matter of much discussion, and although the law has remained practically the same, the prevailing fashions of different times in regarding patents sometimes as a benefit, at other times as the reverse, have left their mark in alternate laxity and strictness in constraining the rights given by the patent in the past. Hindmarsh argued¹ that an inventor has no equitable right to an exclusive property in his invention, since it may occur equally to others. The Americans, however, base their laws on the recognition of such equitable right, and with the better reason, since a patentable invention is the practical form of an idea produced by specially directed thought of the individual. Nevertheless,

¹ Hindmarsh; Law of Patents.

whichever view be correct the State cannot afford to recognise an *unlimited* right. Very brief consideration would show the pass affairs would come to if patents lasted for ever. Broadly speaking, no inventor can retain any exclusive property in an invention unless he keep it secret or unless, after publishing it, such right is allowed him by the pleasure of the community as expressed in the law.

The only question then is, should such protection be granted? It may be taken as true that if no reward be given there would be no inducement to invent, or perhaps, more properly speaking, to reduce crude ideas into good working practice; thus, though crude ideas might be disclosed, there would be no practically useful inventions brought out. It is the experiments and personal endeavours of the individual that render the crude idea valuable to trade, and protection is clearly necessary as an inducement to such exertions. The State thus gains even by the temporary exclusion of public opportunity involved in the grant of the monopoly of an invention.

Suitability of Patent as Reward.—We have seen that no more suitable way of rewarding inventors can be devised than the grant to them of an exclusive right in their inventions for a certain length of time, since whatever the length of the term, the grant gives the inventor the opportunity of obtaining whatever value there may be in the invention during that term, and no more. The potentiality of remuneration is therefore exactly proportional to the value of the invention, while it rests with the inventor to obtain the whole value or such proportion as his personal exertions accord him. It will be seen that every invention receiving the same reward proportional to its value, is justly recompensed on the same scale; that all patents being of the same length in a country, there can be no favouritism, each inventor obtaining exactly the same conditions. Also, the recompense being dependent on the patentee's exertions in bringing his invention into notice and use, there is every incentive to carry out the invention in practice, so that it comes into general employment and benefits trade. Broadly, such a system is one of payment by results in its happiest working conditions, and that it meets with the inventor's approval on its broad lines, and acts as an incentive to improvement, is shown by the fact that no voice has ever been raised against its principle from the ranks of inventors. Its general suitability must therefore be taken to be beyond question.

As to the details, however, there may be differences of opinion. For instance, as to the length of the term for which protection should be granted, and the conditions to be imposed on the inventor, if any, for obtaining the patent or keeping it up to the full term.

Length of Term of Patent.—It is in the nature of the subject that a patent should be more valuable during the last part of the term than during the commencement; the invention becomes better known and appreciated, perhaps growing to be an absolute necessity. Not only does an invention require some time to make it pay in the beginning, when the profit obtained is for the most part used in pushing the invention, but in the later part of the term the balance is more than redressed by the extra income, "unearned increment," which flows in from the tribute known as "Royalties," paid by others who in making improvements are obliged to obtain the license of the original patentee to use such parts of the original invention as may be necessary to enable them to work and use their improvements. A year at the end of the term will often be worth as much as five or six years at the beginning; some patents indeed especially difficult to introduce into general use, but nevertheless valuable, do not commence to pay till the patent is near the end of its term. Thus, taking an instance at random, a patentee who made no profit during the first ten years of his patent obtained 7,000*l.* during the last four years of the term.¹ Now, as the patentee's profit is the tax that he levies on the public for the use of his invention, every year that the patentee's monopoly can be properly shortened will be productive of considerable direct gain to the public, the more so, as we have seen, that the last years of a patent are far the most valuable.

But, on the other hand, may there not be countervailing advantages to the public generally in granting patents for a long term? Is a long term an inducement to an inventor? Where the working of the Patent Law is very generally understood this no doubt should be so to a great extent, and we do find it to be so in the United States, where all patents (with few exceptions) endure for the whole of the term for which they are nominally granted, but in Great Britain and other countries where a patent, being subject to annual or other taxes, does not, as a rule, last to the end of its nominal term, but little attention is given by inventors to the length of term that can be obtained. As a fact, even ^{the} inventors recognised that every additional

¹ *Re Ryder's Patent, Johns, 213.*

year is practically worth two preceding ones, most of them here regard the question as too remote in interest to be of much practical consequence to them in the present. Therefore, whether the protection given is for 14 years, as in Great Britain and her colonies, or 15 years, as in France, Germany, and most foreign countries, or 17 years, as in the United States, or 20 years, as in Belgium and Spain, is a matter the practical interest of which appears to the inventor too remote. It is a noteworthy fact that Great Britain gives a shorter term than any other country of importance in the manufacturing sense, the countries which give a shorter term of maximum protection being few in number, and for the most part comparatively unimportant as commercial centres.

It does not, however, follow that the term of protection given by the State should be curtailed to any marked degree, for in the broader objects of Patent Law and the general inducement to invent, long terms of protection are valuable, in that they enable the inventor to make a greater personal success of his invention, which is the feature of the system most likely to attract the attention of outsiders, and induce them to attempt to do likewise. As we have seen, the concluding years of the term are those in which the substantial profit is made; if the maximum term is curtailed there is not so much opportunity of that profit, and though the public, as users of the respective invention, would gain in that respect, the State would lose the valuable object-lesson which the successful inventor offers. So on the general grounds of political expediency, the successful inventor is well worth his profit as an advertisement of the patent system, just as on the same ground the unsuccessful inventor, as a monument of failure, is an advertisement against the system. The term of a patent should, therefore, be long enough to enable every possessor of a valuable invention to obtain a substantial profit; if, under prevailing conditions, it were too short for this, cases of hardship would arise tending to defeat the very objects of the patent system. Though Great Britain in this respect is not so generous in the treatment of inventors as most other countries, the term of 14 years under the conditions prevailing here would appear to be sufficiently long to attain the required result, especially since in special cases of hardship provision is made for extension of the term of 14 years even to a further 14 years, where an inventor of a meritorious invention, having used his best endeavours to bring the invention into use, has not met with adequate remuneration.

Terms for keeping Patents in Force.—Another feature of the grant of patent which may be open to discussion is the nature of the terms, if any, imposed on the inventor as a price for keeping up his monopoly during the full extent of the maximum duration allowed by law. Here there is great diversity of treatment in different countries, some adopting one method, others another. The principal terms imposed on inventors are—working of the invention within a certain time; payment of certain annual or other taxes, usually termed renewal fees, to the Government during the existence of the patent.

On these three points—the length of term of the patent, the conditions as to compulsory working, if any, and the imposition of renewal fees, if any—each State adopts that policy which is presumably best suited to the idiosyncracies of its citizens, best suited to obtain for that State the most advantage that can be obtained from the development of invention. The details of the systems adopted must also always be subject to change as the inventive capacity of the people is found to be or not to be properly developed under the system in force. For an actual inventor, however, the details of renewal fees, &c., are not of much consequence; they alter but slightly the net value of a good patent.

Working.—There is a large class of inventors who, having taken out their patents, are content to do nothing with them, but let them lie fallow; whether they do this unwillingly or not is, as far as the State is concerned, a matter of indifference, the result is the same as affecting the public; the invention is not brought into use, so the public get no advantage from it, and as “shining examples” such inventors are a failure. A system which allows inventors to do nothing with their inventions for the full term of the patent is not in all respects a desirable one, and, as a rule, is avoided. Thus, in some countries, a patentee is required to bring his invention into public use within a definite time or abandon his monopoly. In some, also, having brought the invention into use, the inventor must not abandon the use of the invention for longer than some definite period at a stretch. As an example, in France the employment of the patented invention must be commenced within two years of the date of signature of the Letters Patent, and must not be abandoned for any period longer than two years or the patent is liable to be declared forfeited, unless the patentee justifies his inaction. Germany requires that the patentee shall have brought his invention into use within three

years of the date of the grant of the patent, or at least have done all in his power to so bring the invention into use within that time. Conditions of working in other foreign countries will be found under the respective headings, and general rules for the performance of working sufficient to satisfy the law will be found there and in the chapter on "Foreign Patents." Great Britain and most of the colonies, and the United States of America, are the only countries that have not made this compulsory working of patented inventions a part of their systems. The United States make no restrictions whatever in this direction, leaving the inventor to work his invention or not entirely at his own discretion, but in Great Britain, as a protection to the public, the Board of Trade is empowered to order a patentee to grant a license on such terms as the Board may think fit and reasonable, where it is shown that the legitimate wants of the public are not supplied and the patentee refuses a license to others to manufacture or use his invention.

Renewal Fees.—As to the other principal condition attached to the holding of a patent, the payment of certain taxes or renewal fees without which the patent will cease, this is, or should be, looked upon as an indirect means for causing patents which are useless to their owners to lapse and fall into the public domain, but it is unfortunately true that the temptation to regard these payments as a source of public revenue tends to make them larger than their ostensible purpose would require. The controversy over these fees and their amount never sleeps, but truly speaking the only question should lie in their effect in retarding invention. Primarily any repressive measures of this kind must tend to lessen the number of patents applied for, which is equivalent to the number of inventions given to the public, but in practice it is found that by removing them into the later part of the life of a patent their direct repressive effect is more than correspondingly lessened. We have seen this in Great Britain as the effect of the Act of 1883, by which the initial fees payable on obtaining a patent were reduced more than five-sixths, the total fees only about one-eighth, with the result that the number of applicants for patents was immediately trebled. Where these renewal fees are imposed, they should be sufficiently heavy to cause indolent patentees to abandon their patents rather than pay them, but at the same time not so heavy as to deter an inventor from taking a patent, or to be felt as a tax on meritorious inventors. If the renewal fees absorb an undue share of the inventor's profits they tend to prevent the

inventor from bringing his invention into use. On the whole, it seems advisable that the first fee should not fall due until ample time has been given for the invention, if properly pushed, to become profitable, and then the fee should be small enough not to be felt as an undue tax on such profit, though large enough to deter a patentee who does not see a likelihood of his invention becoming profitable from paying it. If the patentee is thereafter charged with further fees, it should be, so to speak, not with a view of taxing the patentee's industry, but as a continual weeding process to cancel those monopolies of which the patentees can make no practical use, so as to give the public enjoyment of the inventions for what they may be worth and free the way for more fortunate improvements.

These considerations have latterly met with increasing attention. Even so late as 1892 the renewal fees were materially reduced in Great Britain and a more equitable scale of payment provided.

Comparison of Renewal Fees, &c., in different Countries.—In most countries where renewal fees are imposed, these are annual and of successively increasing amount. In some, however, such as France, the tax is the same every year. Many countries do not commence to impose taxes until the third, fourth, or even seventh year of the patent, as may be seen on reference to the different foreign countries in Part III. Many countries which require the invention to be worked within a certain time do not require any future renewal fees.

A useful comparison may also be made between the effects noticeable in countries adopting different methods of practice in respect of payment or absence of payment of these renewal fees; thus in Great Britain it is found that under the scale of fees recently in force only about 30 per cent. of the patents granted are renewed when the first tax becomes due in the end of the fourth year, and only about 7 per cent. remain in force in the fourteenth year. Compare this with the large number of patents granted in the United States, about 23,000 a year, all of which with certain unimportant small percentage, remain in force for the whole term for which they were granted. We have an average duration of patents say sixteen years, as against an average duration in Great Britain of about five years only. Whatever may be the value found in a patent at the end of its term, this value should therefore be easily disposable in United States patents, and indeed it is found in innumerable instances continually occur in which a patent

which has not been worked to any profit directly is nevertheless the cause of a large indirect profit afterwards when the principles first covered by that patent are improved upon by others and brought into practical use. In every art instances of this arise, as an example the history of sewing machine patents in the United States may be studied. In Great Britain there are at present but few examples and those the exception rather than the rule, owing to patentees preferring to drop their patents rather than pay heavy fees, while they remain without prospect of being remunerative. As to the effect which knowledge of these facts may have on the invention of a nation, it is difficult to trace with any exactness, but it is important to bear in mind that there are doubtless important effects in favour of the long term patents; the value of patents increasing towards the end of the term, the longer average termed patents will have an average greater value, be the more remunerative and consequently more productive of benefit to the State in encouraging invention. Owing to the recent reduction of the renewal fees in Great Britain the end-term value of patents due to above causes cannot fail to increase very greatly in future years.

CHAPTER II.

PATENTABLE INVENTIONS.

Benefit of Trade.—The Patent Law being in its objects entirely for the benefit of trade, the inventions which the law is designed to protect must naturally be such that they assist in the fulfilment of this purpose. It will be unnecessary here to recount in what manner those inventions which are patentable assist trade, since this has been sufficiently explained in the preceding chapter, suffice it to note that it is not every invention which confers an advantage upon trade, and consequently it is not every invention that can be patented. The question of benefit to trade, which is somewhat different to that of commercial value in the invention itself, is very important for inventors, because the various tests by which the patentability of an invention is determined are based upon this question and are intended to distinguish those inventions which practically conform to the desired answer from those that do not. It is of the utmost importance to every intending patentee to distinguish the exact features of his invention which are of value to trade, first in order to ascertain whether the invention is patentable at all (for the Patent Office gives no help in this respect), and secondly, so that the invention may be so described, that it may be equally apparent to others, principally judges and lawyers, that it contains such useful features, or in other words that it answers the various tests which the experience and legal acumen of centuries have found and laid down as necessary, applicable, and advisable for arriving at an accurate determination of the broader main question of trade benefit.

What is an Invention.—It is impossible to arrive at a base for the various tests of an invention until we have practically found what an invention itself is. The usual meaning attached to the word "invention" is an act or discovery of the mind or brain to which the previous knowledge of the inventor does not directly lead, it is of the nature of an idea suggested perhaps by some occurrence but essentially the

result of a train of reasoning of other than usual nature leading to the perception of a fact or facts recognised as wholly novel. So far this is the meaning attributed to the word invention in the Patent Laws of most countries, but in Great Britain a somewhat extended meaning is given to the word under the Patent Law, principally arising from its antiquity; it has been recognised, and judicially determined,¹ that the importation of an invention or manufacture previously known and practised abroad may still be considered an invention within the meaning of the Patent Law so long as it was unknown in this country previous to its importation. In this rendering of the word, the benefit to trade, which has the wider opportunities through this interpretation, accounts for the retention of what is generally considered an obsolete meaning. "Invention" is derived from the two Latin words, in--in, and venire--to come; and the wording of the older judicial decisions and the first Patent Act² show that the sense attached to the word was a matter or knowledge "brought in" or "caused to come in," not into a man's head, but into the kingdom--in other words, a new invention was a novelty introduced to the public by the "Inventor." The "Inventor" is not the person to whom the invention "comes in" or occurs, but by whom the invention becomes delivered to the rest of the subjects of the realm. The termination of the word inventor does not signify reception but causation. An invention is thus a piece of knowledge proceeding from or through the inventor, and having its origin in him so far as the remaining inhabitants of the realm are concerned.

Subject Matter.—The first test applied to an invention to ascertain if it is patentable relates to the nature of the invention itself, and concerns more particularly its subject matter. It has generally been found that in order that the invention may be useful to trade it must have something to do with production or manufacture. It must either concern some article or product capable of being bought and sold, or it must have to do with the method or manner of manufacturing such article or product. Trade depends upon production so far that without production there is nothing with which to trade. Patent Law has nothing to do with particular methods of trading or carrying on business, because it is presumed that each man is at liberty to adopt such methods as he may see fit, and that it is already

¹ *Edgeberry v. Stevens*, 1691, 1 *Feb. P.C.*, 35.

² See Part II, chapter I, page 75.

within the capacity of a trader to adopt such methods or improve upon them so far as he may find it desirable in his business. Thus no patent can legally be held for any financial scheme, method of conducting business, method of keeping accounts, or for any proceedings of persons of whatever nature¹ so long as they are not directly concerned with the steps or stages of some manufacturing process. Similarly, there can be no right of patent in any new game, for the object of a game is not the production of a vendible material. The implements with which the game is to be played may, however, present patentable subject matter. A bare discovery of a new principle, theory, or law of nature previously unknown may be a discovery, but it is not sufficient to constitute a patentable invention, for so long as it remains in its abstract and unapplied state it is of no use to trade. To entitle the inventor to a patent for it he must reduce it to a practically useful form, he must embody it in a machine or implement or composition, or in a method or process of manufacture; in fact, he must show a definite commercial use for it in production, and how that use is to be made. An "idea" so long as it is not worked out is only in the state of an abstract principle, and consequently is not in a patentable condition. The patent is not for the idea, which is usually only an object to be attained, the patent is for the method or result of working out the idea. It will also be obvious that there can be no patent for an effect only. A person may discover useful qualities in a machine or in a composition or in a natural product, the existence of which qualities was previously unsuspected, but so long as the machine, composition, or natural product remains in itself exactly the same as it was before, he cannot legally possess a patent, because there is no new production or improvement in the article itself. A purpose alone cannot be patented, since to use an article for one purpose which was previously used for another purpose does not necessitate any instance of a new or improved production. The use of ether as an anæsthetic was a valuable discovery, but not a patentable invention. The inventor must clearly distinguish between the invention which results in a new or improved production and that which is simply a use of known material, for the first is patentable and the second not.

Novelty.—The second test of an invention is its novelty. When an invention occurs to anyone, it does not follow that

¹ Many foreign laws specially name such proceedings as not patentable.

that invention is necessarily new and previously unknown to others, yet it would be clearly unjust to the public generally to grant a monopoly to an individual for a matter of which the public already had sufficient knowledge. When Patent Law was still in an unsettled state, the grant of many obnoxious patents led to the determination that no patent could legally be granted which would or could have the effect of preventing any person from doing that which he had a perfect right and capacity to do before the grant of the patent. This is a perfectly true and equitable statement, since patents are only granted to inventors for the good they do to the realm in the disclosure of such information as was previously unknown and unattainable. The inventor receives his monopoly for a time in consideration of the public receiving new and useful information. If under pretence, or belief, of disclosing such new and useful information the inventor is only telling what was known or had been published before, he is giving nothing to the public. It is plain that the simple repetition of former disclosed information is of no such benefit to trade that it should entitle the rediscoverer to a monopoly for any length of time, so no justification exists for the grant of patents where the invention is found lacking in novelty. The methods of testing the novelty will be better reserved until the legal side of the patent system of Great Britain is considered at length in Part II, since we design here only to outline the law to show its general character for the purpose of inquiring into its actual commercial value for an inventor.

Utility.—The third test of an invention is its utility. As a requirement of the law this rests upon a foundation of less actual importance than the requirement of novelty, since if an invention is not useful the monopoly of its use will not be felt as a hindrance. Nevertheless, as it is not to the advantage of the patent system that patents should be granted for useless inventions, the possession of utility is imposed as a test. It has been stated that a reason for this requirement lies in the fact that the grant of a patent on a useless invention might have the effect of hindering the use of a similar but useful invention. Cases may be conceived in which inventors may carry out their ideas in practice in such a way that they cannot usefully be worked. They may be overloaded with unnecessary details, and in effect useless to the public, yet may serve for grounds for asking royalties from those who may afterwards be so fortunate as to bring out a simplified and really useful improvement. But Patent Law cannot measure the amount of

utility or draw a line between great and little utility; sufficient is it, therefore, if the invention shows any utility at all. Whatever utility the invention possesses must naturally be a utility for trade. Pecuniary success is not a proof of utility, nor the want of it the reverse. An invention need not be better commercially than others that have gone before, but it must show some utility in being capable of performing the purposes for which it is intended. The manner of applying the test of utility will be shown more fully in the chapter so headed in Part II.

Ingenuity.—A fourth test is sometimes applied to arrive at a final judgment on the question of patentability of an invention, and that is whether sufficient ingenuity has been shown in the actual novelty of the invention that it may be considered worthy of a patent. This question is apart from the actual value of the invention, and must be decided more or less solely on the evidence producible in each case of the difficulties to be overcome in bringing the invention into its completed state. The question is in truth subsidiary to that of novelty, and is principally an extension of the terms of the latter. An invention is not new if it has been previously disclosed in its entirety, but we may equally say that an invention loses its character of novelty if so much of it has been previously known that the completion of the result under question would have required only the ordinary skill of a workman in the respective art. If it was within such workman's ordinary capacity, as to which evidence can be produced, the patent would have the effect of preventing him using his professional skill in that direction, and consequently would prevent him doing what he could have done before without the assistance of the pretended inventor. Evidence of want of ingenuity is equally evidence of the previous capacity of members of the public, and proof of the one is proof of the other, so that the question of ingenuity really forms no further test, but only part of that necessary to decide novelty, for the importance of novelty makes it requisite to ascertain that there is *substantial* inventive novelty, and not mere colourable novelty in the patented invention.

Merit of Invention, and of Inventor.—We have thus ascertained what peculiarities an invention must possess in order to render it patentable; it must possess proper subject matter, utility, and novelty of a substantial character; in fact, it must be a meritorious invention. When it is said, therefore, that patents are granted as rewards to meritorious inventors,

it must be understood that the merit does not lie so much in the time, trouble, or expense, that the elaboration of the invention may have caused to its producer, for where the invention is not new that labour is but valueless for the public; it lies in the invented matter itself. The merit in the invention is the same whatever the actual difficulties of its production. Nevertheless, it is allowable in a sense to ascertain what those difficulties were, not because the inventor happened to experience them, but in order to show that such difficulties surrounded the attainment of the end, that the carrying out of the invention required a faculty of invention distinct from the ordinary application of expert knowledge which might have been predicated in those skilled in the relative art. Do not, then, let an inventor be misled into the supposition that the extent and difficulty of his trials will have much weight in obtaining a favourable verdict on the patentability of his invention, much less that the legal validity of his patent will be judged upon a consideration of his actual endeavours alone; his invention will be judged by considerations wholly regarding its own nature, and the capability of others performing it before the present inventor brought it on the scene.

Disclosure of Inventions.—It is obvious that so long as an inventor keeps the secret of his discovery locked up in his own breast, the public are none the wiser and none the better off for his invention. The whole object of the system of granting patents is to obtain the disclosure of new inventions, so that the knowledge of them may be of public use. So self-evident is this object of the Patent Law that the offer of the grant of a patent has been likened to an invitation to enter into a bargain, in which the patent is considered as a return for the disclosure of the invention, and the grant of a patent is a ratification of the bargain. As an analogy, this falls somewhat short of exact truth, just as does the theory which represents a patent as simply a reward for the disclosure of the invention, given entirely out of grace and favour, the inventor not having any absolute right to demand such recompense. Patent Law is, in truth, a compound of both these, and the State appears to rest on the one logical foundation or the other as best serves the turn of the moment. Thus, if a meritorious inventor happen to disclose his invention before he applies for a patent, it is said that the public, being thereby freely possessed of it, receive no further advantage on or by grant of the patent, for the latter must be for something absolutely new.

and unknown to others at the time of its grant; on the contrary, should the invention not have been previously disclosed, but the actual inventor in this country have imparted it to another person who applies for the patent, even though he have the full consent and approbation of the inventor to this course, the patent is held invalid since the applicant is not entitled to the reward. The first instance upholds the bargain theory in the face of the equities of the reward theory, while the second, apparently showing all essentials of a good bargain, nullifies the practical qualities of the latter as a working theory, by recourse to the most abstract qualities of the reward theory so conveniently overlooked in the first case.

True and First Inventor.—The value of disclosure has a great influence on the meaning of the words "true and first inventor." Under the Statute of Monopolies of James I, a patent can be granted in Great Britain only to the true and first inventor of the "manufacture" or invention; nevertheless, it is obvious that no benefit results to trade by the simple discovery of the invention so long as it is kept secret, the benefit of trade commences only with the disclosure of the invention. To harmonise the theory with the practical advantages it is designed to produce, the true and first inventor is not presumed to become such in the eye of the law until he has made a disclosure of his invention, or, in other words, made the invention a part of the public stock of knowledge, and this view of the law is followed in nearly every country in which patents are granted, the United States of America being the only notable exception.

Applying for a patent is considered the same as imparting the invention to the public, because the latter is a necessary incident of the application, therefore the first applicant for patent is preferred to all subsequent applicants, even though in truth the later applicant may be the first actual discoverer of the invented matter. The same effect is produced by disclosure of the invention without applying for a patent, the disclosure is sufficient to prevent any subsequent applicant for patent from calling himself in law the "true and first inventor," whatever may have been the date on which the invention was already in his mind.

Time for Disclosure.—The importance of a full and early disclosure has been seen, but we must not jump to the conclusion that a too early disclosure will benefit the inventor, on the contrary, we have already incidentally referred to the fact that if the invention is disclosed to the public before the date

of the patent, the inventor loses his right to the latter, since the public are then already in possession of the invention. There is a time for all things, and this maxim has its force in Patent Law. In a system of such far-reaching importance great care must be exercised to avoid loopholes for abuse; to once allow that an inventor was entitled to a patent at any time after the invention has been given to the public would open the door to a great deal of fraud on the public. Inventors would wait and see if their inventions became appreciated by the public, that is, used by others, before they applied for patents. Anyone then using would have to cease, perhaps at great inconvenience and loss. Persons would claim to be inventors of matters already in public use, and few means would exist of testing the truth of their claims. Rival inventors would arrive and dispute priority. Some such results as these are seen in the United States, where an inventor is permitted to apply for a patent at any time after he has completed his invention so long as the invention has not been known more than two years preceding the date of his application. In some countries, India for example, the inventor is permitted to take a patent after the invention has become known or used, provided he applies within a certain mentioned time after the disclosure or the use occurred. There appears, however, to be little advantage in these special dispensations compared with their public disadvantages, and any advantage they may have for an inventor in enabling him to test his invention before taking a patent, are equally provided for in a different and more unobjectionable way in the "provisional protection" accorded under the British law, on which we shall have occasion to comment fully hereinafter.

Nature of Disclosure.—When a patent is offered to an inventor in return for a disclosure of what is presumed to be a secret unknown to others, it is upon the clear understanding that the disclosure is to be full and complete in every direction. The inventor should give such information that others having only an ordinary knowledge of the particular trade to which the invention relates may be able, from that information alone, to fully practise the new invention in as beneficial a manner and with as complete knowledge as the inventor himself possesses of all its peculiarities. This information, though complete in itself, must not be too discursive or overshadowed by unnecessary details, tending either to obscure the real points of the invention or to cause people to believe that the monopoly covers more than the inventor is entitled to claim, for the public are

not only justified in obtaining a description which shall contain full information on the invention, but also equally full instruction as to what the invention or novelty itself exactly embraces. Not only should the invention itself be pointed out, or, as the Act says, "its nature be particularly ascertained and described," but the disclosure must contain also a statement "particularly ascertaining and describing how it is to be performed." This information is distinct from the nature of the invention itself, and should, therefore, be held distinct in the description, though this is not absolutely necessary so long as the specification which the inventor is required to furnish contains both. In describing the manner of performing the invention every detail that may be necessary or advisable for a workman in the relative trade to know, should be carefully pointed out in unmistakable terms; where more than one method is known to the inventor each should be described, care being taken, however, to point out which is the best according to the inventor's experience, so that the public may have equally beneficial knowledge. The specification should not contain reference to needlessly expensive ingredients or time wasting or roundabout methods nor be in any respect misleading. It must be clear, candid, and sufficient.

CHAPTER III.

OPERATION OF THE PATENT SYSTEM.

Necessity of Safeguards.—We have now traced the nature and general policy of the patent system, distinguished those kinds of inventions which the system is intended to develop, and shown on what theory their production and disclosure are promoted, but we have yet to consider how these theories actually work in practice, and more especially that further most important aspect of the whole system, namely, the very necessary provisions for safeguarding existing rights which might be prejudicially affected by patents granted, and in general to prevent abuse of the opportunities afforded to individuals by the patent system to the detriment of the nation.

It must be considered what an immense power is placed in the hands of an inventor by absolutely securing to him the profits of the particular manufacture which he has invented, and expressly excluding everyone else within the country from practising the invention without his permission, how the slightest overstepping of the bounds of what is new in the invention may have incalculable effects if upheld. The patent may embrace ever so little of what was formerly known and practised, but the evil effect of that small encroachment on public property is magnified a thousand fold by the immense number of the population which it will affect. Such an occurrence would affect every citizen more or less directly, for while manufacturers would be precluded from making that particular article, its price would be raised to the public generally.

Equally evil effects would be caused by any uncertainty as to the nature or extent of the particular invention under protection of the patent, any error or inaccuracy of description or ambiguity of terms likely to lead to misapprehension.

In all such cases it is not simply one or two who are prejudiced but the whole nation which suffers, consequently the imperative need of preventing any such state of things is obvious.

This circumstance also proves the necessity of the strictest possible application of any test that may be suitable.

The Origin of Safeguards will be best seen on reference more particularly to the English Patent Law.

Before the true equitable conditions under which patents should be granted had come to be generally understood, and while, in fact, the system was in its infancy, it was no unusual occurrence for patents to be granted vesting in individuals the monopoly of whole trades to the great injury of those who had up to that time obtained their living by them. Amongst such grants were patents for the sole right of importing sweet wines into the port of London. Patents for iron, vinegar, salt, sea coals, paper, and lead are amongst them, monopolies of necessaries of life.

In 1601 Parliament made strong remonstrance to the Crown and amendment was promised, only, however, to be soon forgotten in the grant of further privileges of equally intolerable nature.

Matters continued in this unsettled state until after the death of Elizabeth, when James I sought to pursue the same courses.

A successful stand was at last made in 1623 by the introduction and passing of the Statute of Monopolies which was in effect forced upon the King and received the Royal assent.

This Act is in part still in force and forms the basis of the present Patent Law in Great Britain.

According to this Act, monopolies in general were declared void, but Letters Patent for inventions were specially excepted under certain provisos which most effectually restrained the injustice which characterised the majority of patents before that date.

This is practically the first introduction into Statute Law of the grant of patents for invention, but it did not state any novelty, for the common law concerning patents had already been sufficiently clearly expressed by Judges in various patent causes. The Statute of Monopolies is, doubtless, an authoritative statement of the law, but it did not bring into force any new law beyond that it limited the duration of patents to fourteen years.

The Inventor and the State.—It is essential that the reader should recognise at the outset that the interests of the individual inventor and of the State are very different owing to the different utility the patent system has for each. In many points, indeed, the several interests are clearly antago-

nistic, since the inventor's profit being at the expense of the remainder of the inhabitants of the State, is no profit to the State, but, indeed, a loss, since the profit which the other subjects might have made if free to use the invention is lost. It is to the advantage of the State that the novel features of the invention should be distinctly valuable, and not that patents should be upheld for inventions in petty details which in truth required no inventive faculty. It is also the State's object that the invention should be clearly described, so that the public may be able to perform the invention when the monopoly expires, and that the novelties should be clearly distinguished, so that it may be easily seen what the monopoly covers. From the inventor's point of view, the patent should cover all that it can, so that the monopoly may be the broader and more valuable; vagueness of description being possibly an advantage as tending to widen the limits of the patent. The temptation to patent what was not really new would also lead to great abuse of the system if it were not sharply checked.

Monopolies of known Manufacturers.—It was already, and is now, a maxim of law, that no monopoly should be granted which would have the effect of preventing any person from doing that which he was lawfully entitled and able to do before the monopoly was given. It needs but very slight consideration to understand that such a maxim is not only equitable and just, but absolutely necessary for the development of trade generally.

Not only would it be wrong to deprive one man of his legitimate right of trade for the benefit of another, but it would be immeasurably worse to deprive a whole nation of such a right for the benefit of an individual.

This applies not only where the persons deprived are actually carrying on that trade at the time, but also, though perhaps in a less degree, to all the remainder who up to such time had both the opportunity of such trading and general indirect benefits therefrom as consumers or otherwise.

There is another reason against such monopolies, that is, that they are quite gratuitous and unwarranted by any benefit conferred by the individual on the community, for unless the trade monopolised be based on some novelty introduced, the public gain nothing.

Such invalid monopolies are thus doubly impolitic; they deprive others of exercise of their lawful rights, and they give nothing in return.

Where, however, the monopoly concerns a new invention,

the case is entirely altered, the very fact that the invention is new presupposes that others neither already use it, nor know of it, nor can know of it. No man is deprived of any rights which he had before, for there can be no right of use in what does not exist, and no right of knowledge where there is no source of information. On the other hand, the inventor presents to the State something new, some addition to the stock of common knowledge, and his patent is the reward therefor.

These maxims are just as applicable in the present day as they were in the beginning of the seventeenth century, but the inventor has the advantage that they are better understood and more logically followed.

Ambiguous Monopolies.—Equal public disadvantages can be urged against those monopolies the extent and limits of which are not exactly defined. Whenever a patent is granted it should be easily determinable what is and what is not within the patent, otherwise the public cannot be presumed to know either what the new knowledge is which the inventor pretends to disclose, or what, at the same time, he intends the public to be prevented from using.

It is discordant with public policy to compel obedience to a patent founded upon an indefinite or unintelligible specification, and it is equally contrary to the theory of the Patent Law to admit and uphold the patent where the patentee has not properly fulfilled his part of the bargain and disclosed his invention so that the public have a sufficient knowledge of what it comprises. Double ground therefore exists for declaring the invalidity of an ambiguous patent.

Uncertainty of Inventorship.—It is also impolitic to grant patents, even for new inventions, to others than those whose personal merits have entitled them to such monopoly. This is recognised under the British system so far as to be carried to a length which actual circumstances hardly justify. It requires little proof to show that a general sense of insecurity and injustice would be felt by inventors generally if the law were to uphold patents granted to persons who had become possessed of the invention of others by unworthy means. This circumstance alone in its repressive effect on the development of invention would be sufficient to secure disapproval of the policy of such a course, even though it may be urged that the public are *equally* affected whether the patent is in the hands of one person or another.

Great Britain in denying the existence of a personal right to receive a patent refuses to uphold a patent granted to any

other than the true and first inventor himself. Most other countries, on the contrary, allow the inventor to transfer to others his right or permission to apply for a patent, and will equally uphold a patent granted to such transferee, so long as the patentee has secured the inventor's permission.

Nature of Patent.—It will be gathered from the foregoing that when we say that a patent for an invention is a monopoly of that invention for a limited time, so that only the inventor or those to whom he has given permission can use the invention, this statement requires some qualification. The patent is more truly a deed issued by the government to the applicant as an evidence that the applicant has laid claim to be the inventor of the particular matter of which he has furnished a description, and that, presuming his statements to be true, he is entitled to the monopoly that the Patent Law gives in such cases. In no case is a patent an absolute assurance that the monopoly can be upheld, for reasons that will be more fully understood after further explanation. This fact, which is fundamentally necessary in all systems of patent law that have ever been devised, however they may approach perfection, must be always borne in mind by inventors and others dealing with patents. Questions concerning this point are said to refer to the validity of the patent.

Validity of Patents.—Thus, although the law only intends that there shall be certain patents, there are, in fact, many patents granted which are contrary to the law, either, perhaps, in the invention being unsuitable or wanting in novelty or utility, or in some fault in inventorship or otherwise. What is to be the policy of the State in dealing with this state of affairs?

It is clear that the simplest method is that adopted; those patents which satisfy the law are declared to be valid, and will be sustained, those which prove to be contrary to the law are held invalid and will not be enforced. Decision on the question of the validity of any point is left to the judiciary.

No country has yet been able to devise a system under which application for patents can be so perfectly sifted and adjudicated upon that all those granted shall be, *ipso facto*, valid, and at the same time all those rejected assuredly invalid; the conditions under which patents are upheld renders such a system practically impossible, for no body of persons, however learned and however well provided with sources of information, can absolutely pronounce on either the novelty of the invention, the sufficiency of description, or the truth of the allegation of

inventorship. There is no escape therefore from the liability to after decision of any such question adverse to the patent, for either the courts must have power to pronounce upon a patent when called upon to do so, or public rights must be liable to be quashed. The overwhelming importance of the community with regard to the individual precludes any attempt in the direction of the last alternative.

Enforcement of Patent.—As the certainty of validity of the patent does not depend on its grant or the questions arising at the grant, a patent, although usually worded in vigorous terms of admonition, cannot be summarily enforced. Should any party make use of the invention unauthorised by the patentee, and not desist on demand, the patentee's remedy lies only in an action before the competent tribunal (in England, the Chancery Division of the High Court of Justice) to obtain the order of the court for the appropriate relief—that is to say, for an injunction or interdict against the continuance of the infringement, and either for recovery of the amount of the damage the patentee may have sustained through such unauthorised use, or for an account of the profits made by the infringer for the purpose of handing over the sum to the patentee. The alleged infringer may, however, prove the invalidity of the patent, or that his acts are not an infringement, or not within the invention patented to the plaintiff, and in any such event the action cannot be supported.

Distinction between Executive and Judicial Functions.—Questions which in any way concern the right and authority of the inventor to hold and exercise his patent rights are, as we have shown, of great public importance, and require the most careful consideration for their judgment. The whole theory of patent practice in this country, and in nearly every other country granting patents, places all these questions without reserve in the hands of the Courts of Justice. Great distinction is usually placed between the functions of the executive and of the judiciary. The grant of a patent is simply an executive operation, and, consequently, the officers entrusted with the necessary duties have but to satisfy themselves that the official requirements are carried out; they are not intended to judge questions of law or fact, and consequently their acceptance of documents in no way renders those documents unassailable at law. To render a patent absolutely valid without appeal, simply because an examiner has passed the specification as sufficient, would lead to intolerable injustice to the public, especially where, as in Great Britain, the examiner has

no means of testing the novelty of the invention or the personal rights of the applicant for the patent. Very wisely then, in a certain sense are these duties not put on the shoulders of the examiners, for as we have seen that the only *absolute* necessity is a complete disclosure for the performance of the invention by the public; so long as this duty is performed the other questions may be left entirely to the Courts without any proffer or assistance of previous decision in the Patent Office.

In some countries the executive and judicial features are to a certain extent confided to one and the same body. Thus, in Germany the Patent Office in the first instance judges not only if there is novelty in an invention, but whether the actual novelty shown is sufficient or of such a kind as to, in their opinion, be patentable in (German) law. There is no appeal from the Patent Office in this respect. Further, if any person disputes a German patent, the suit of nullity which he must bring is in the first instance decided by the Patent Office, though in this case there is an appeal to the High Court of Leipzig.

Opinion generally favours an independent tribunal for adjustment of such differences as rest upon matters of opinion or estimation rather than on ascertained and definite facts.

Policy in Grant of Patent.—It is a question of considerable importance whether the system of patents shall be, so to speak, allowed to run free, and all patents asked for be granted, relying on the simple declaration that those found invalid in law shall be inoperative, or whether steps shall be taken to prevent, or at least minimise, the granting of invalid and unsustainable patents.

Those in favour of the former method argue that the whole spirit of law and constitution of this country points unmistakably to regarding the grant of a patent as an executive act, they deprecate the mingling of judicial functions, and declare in favour of the absolute freedom of the individual to receive such patent as he may ask for without control or guarantee. Those in favour of the latter method point to the detrimental effect of such freedom of grant in the preparation of applications, in the uncertainty of the validity of patents granted, and in prejudicing the more important sociological and educative effect of the patent system which may be said to be its end and aim.

The present policy of Great Britain leans to the former method, but with a care for the public advantage in obtaining a full disclosure of the matter alleged to be invented.

Policy of British Patent Grants.—So long as the monopoly in any invention lasts it is important for the public to know the exact limits of that monopoly, but if there is no patent, or the patent is one which, for some reason or other, cannot be upheld, then information on this point is not required by the public since the public may use the whole. Whether the patent is good in law or not, however, the public are equally concerned that the disclosure of how the invention is to be performed shall be complete in every respect, because any deficiency in this respect is so much loss to the public when eventually the invention becomes public property. Disclosure of the means of performing the invention, and disclosure of the nature of the invention itself to distinguish new from old, thus stand on somewhat different footings; the first is absolutely necessary to the public whatever the validity of the patent, the second is only necessary so long as the patent is in force. If then it be made a condition that no patent shall be considered valid, unless it sufficiently distinguish new from old in the invention, the onus in this respect is shifted on to the shoulders of the inventor or patentee, and the latter may be allowed to fulfil the condition, or neglect to do so, without any loss to the public. A short consideration of this point, which is a very important one for the inventor, will show that it is even to the public interest, as opposed to that of the inventor, that the latter should not point out new from old, for in such case the public obtain the information as to how to practice the invention without the disadvantage of having to wait before using this knowledge until the patent is expired. Under such circumstances it is not to the public interest to see that the inventor does what is necessary for his protection; in this and other instances it is always presumed that the inventor will take sufficient care of his own interests. If he neglect to help himself, the State is not called upon to help him, much less when to do so would mean that the vast majority would be deprived of a benefit.

Examination.—From the previous paragraph it will be obvious that the only point that is of direct importance under any circumstances to the public in the disclosure is that the specification or description which the inventor is required to furnish shall contain sufficient information to enable the public to carry the invention into effect, because this information will be advantageous to the public when the patent has expired. Under the British law this is provided for by an examination at the Patent Office before the patent is granted. This examina-

tion is applied only to the specification filed and not to the inventor personally, so far therefore it cannot be in every respect complete because the examiner cannot go farther than the papers before him. So far as those papers describe an invention the examiner may see that the information of the details is in his opinion, sufficient to enable the invention to be carried out in practice, but inasmuch as inventions cover a very wide field, and from their very nature are presumed to be novelties which the world at large is not acquainted with, a complete and sufficient examination cannot be in every case relied on. It should be observed that the examiner can only judge of the invention put before him, he cannot detect omissions in the principle of the invention, nor can he ascertain that the inventor has described his invention correctly. So much for the examination actually made or attempted, but no examination is made at all as to the novelty of the invention or its utility, nor as to the inventor distinguishing what is new from what is old, nor even so far as this may be within his knowledge. No examination is made as to whether the invention presents proper subject matter, nor whether the applicant is the true and first inventor in law, because all these matters concern the applicant alone and are not deemed absolutely necessary to the public benefit, yet they also must every one be correctly attended to by the inventor for his own benefit, or his patent will be of no force or validity.

Examination Abroad.—All countries are at one in considering certain classes of inventions as not being fit subjects for patents, for instance, those lacking subject matter—novelty and utility—terms previously explained; all also are agreed that a patent for an invention not properly described according to the law cannot be upheld, yet but few countries make any pretence of examination on those points before granting the patent, and in those countries where there is an examination it seldom extends in any adequate way to every point on which inquiry is needed. Of all government examinations that made in Germany is nominally the strictest, extending not only to novelty and proper presentation, but also to subject matter, utility, and merit of the invention, so that no patent is granted for an invention which does not fulfil all the conditions as clearly as these can be ascertained by the Germans. In the United States, where an examination as to the novelty and presentation of the invention is especially logical and strict, but little account would appear to be taken of the merit and utility of the invention or improvement. In Canada, Sweden,

and Austria, the examination extends more to the sufficient disclosure of the alleged invention than to its novelty and merits, though these latter are within the purview of the examination; in Victoria and Queensland examination is made as to novelty and sufficient disclosure, but not as to the accurate definition of the invention. The United States system of "claims," than which none other is logically more exact, is "anathema maranatha" in Victoria. In Great Britain the examination extends only to sufficient disclosure of the manner of performing the invention, and not to the merit, novelty, or utility of the invention or to its accurate definition. Most of the British Colonies follow Great Britain, or else do not make any examination at all. Russia examines the sufficiency of the specification, and to a certain extent the novelty and utility. Denmark, under a new law, following substantially the German law, will doubtless embody the German method of examination. Peru, Chili, Guatemala, and Hawaii nominally examine the novelty of the invention. Other important countries, for instance, France, Belgium, Italy, Spain, grant patents without any examination whatever.

There is a great diversity of practice in this as in every other particular of Patent Law.

Policy of Examination.—The diversity is due to a varying estimate of the general expediency of an examination. The examination made in Great Britain in what it includes and avoids rests, as we have seen, upon an easily explainable logical basis, namely, that the examination is only to avoid detriment to the public in any event, not to protect inventors; this very strict interpretation of the benefit of trade is nevertheless somewhat narrow and illiberal, and practice has shown that it fails in its object by being misunderstood by inventors.

Considering the subject under the broad objects of Patent Law, it must be remembered that while the effects of the patent system present themselves only as a general whole to the public from whom the ranks of inventors are recruited, every useless and non-productive patent not only goes to diminish the apparent usefulness of the system as a reward for invention, and so renders it less an object for public attention, but it does more than this: it tends to promote a want of confidence in the solidity of the ostensible benefits of the system. Patents may be unproductive from many causes, but these may be divided under two heads, viz., those referable to faults in the invention itself or to the inventor or patentee as such, and those referable simply to informality in patenting an otherwise valuable inven-

tion. For causes under the first head there is, of course, no direct remedy; no law can make a man discover a profitable invention or give him that business aptitude necessary to make an invention a good success, though its educative influence may even help in this direction by assisting an inventor to distinguish a good from a worthless invention, but for causes under the second head a remedy may easily be found. It is also patents under this latter head that are more pernicious in their general effects. Though every invalid patent is an advertisement against the patent system, those whose unproductiveness is evidently due to want of value are not responsible for the want of confidence in the honesty of the system which the existence of patents for good inventions held invalid on technical grounds induces. To produce confidence in the honesty of a system, the benefits which the system pretends to give to inventors should be universally and generally recognisable as realities; as more substantial than empty promises or assurance, as more certain than gifts presented as it were with one hand and withdrawn on some legal or technical pretext with the other. If it is good policy that an inventor should have an actual monopoly of his invention for a time as an encouragement to others, then the State should take all reasonable precautions that the monopolies granted should be capable of being upheld. If the State affirm the policy and neglect the precaution, the State acts in a way exactly contrary to its own policy.

Where an examination does not extend to all the points necessary to be determined to ascertain the validity of a patent, reliance can only logically be placed on the assumption of law that every person knows the law. If it were a fact that the knowledge of the theory and practice of Patent Law were universal, then an examination of all applications for patents would not be needed, since they would invariably be found to be correct in every particular. Even where the majority of the applications are correctly prepared the whole might not unreasonably be left to take care of itself, but when, instead of universal knowledge of Patent Law, we find almost universal ignorance, it would appear that the best cure is to be found in a strict examination.

Disadvantages of present British Patent Act.—It is well known to all those whose business leads them into intimate association with matters relating to patents for inventions in this country that the system pursued here in the grant of patents on the one hand more or less indirectly causes many persons to throw away their time and money in obtaining

patents for inventions which afterwards prove to be wanting in patentability, and, on the other hand, leads many persons having valuable inventions into losing their rights by inattention to some essential of the law the existence of which they are ignorant of. Of late years, since 1883, the effect has become vastly more noticeable, and its increase is directly attributable to the Act of 1883.

The avowed intention of the framers of the Patent Act of 1883 was, by simplifying the procedure and lowering the initial cost of a patent, to bring the advantages of the patent system within the reach of all. No doubt the attainment of these ends is a great advantage in itself, but such are not without minor disadvantages which the Act has done nothing to minimise. Thus the lowering of the initial cost of a patent naturally widens the field, not so much for bringing in the more valuable but rather the less valuable inventions which were formerly considered not worth the expense of a patent. This lowers the average value of inventions, and consequently tends to lower the average care taken in patenting them. The cheapening of a patent also lessens its apparent importance, in the minds of those who are apt to estimate the value of a thing by the time and cost necessary to obtain it, and in any case removes the incentive to careful consideration on the part of a prospective patentee which the necessity of disbursing heavy payments formerly afforded. The simplifying of the procedure necessary to obtain the grant of a patent has the same effect of lowering its apparent importance. There is but little true simplification, that is to say, it is more in outward show than in the fundamental necessities. It is no longer nominally necessary for such a high official as the Law Officer to the Crown to examine a provisional specification, nor is a special warrant now required before the patent can be sealed. The Letters Patent themselves, formerly a most portentous document upon a square yard of parchment, with an impression of the Great Seal of England in wax weighing about a pound attached, have from time to time been shorn of their glory, until they are now but a double sheet of type-printed paper with a red wafer in the corner. But just as much care is still required in wording the specifications, &c., and in all other steps pertaining to the obtaining of the patent.

It is not the writer's intention to cavil at this simplification of Patent Grants, or in any way to suggest that the old solemnities should be revived, but simply to show that, while the lowering of fees and simplification of procedure have the ill-

effects that have been mentioned, steps should be taken to counteract these tendencies which are so contrary to the general utility of the patent system. If the individual inventor were alone concerned there would not be this necessity, since it may be the policy of the State to drive a hard bargain with him, but as we have seen, the question concerns the whole public, indirectly as potential inventors interested in obtaining valuable monopolies, directly as users of patented matters desirous of certainty as to what may or what may not be used without permission, and as potential buyers or manufacturers of patents, &c. There cannot be a doubt that the existence of a host of invalid patents tends to annul general confidence in patents, to lead to litigation, and to rob a good patent of that self-evident value which an inventor has a right to expect.

Such invalid patents further greatly confuse the records, adding to the cost of proving or ascertaining the validity of any patent and to the cost of searching, usually requisite in preparing an application for a patent.

There may be several ways of preventing the grant of invalid patents, but the best in practice is undoubtedly an official examination of every application for patent. No method can be absolutely perfect, an examination however good cannot be absolutely complete, but if carefully and intelligently made, it approaches certainty more than any other method.

Examination of Validity.—The uncertainty as to the validity of a patent arises mainly from two considerations, namely, whether the invention is new and a proper subject for a patent; and what exactly the inventor intends to put forward as his invention, where the invention begins and where it stops. Now, although an examination on the first of these points may possibly fail to find some existing antecedent matter rendering the patent void, and therefore can only approach and never touch absolute certainty, there is no reason why a logical examination on the second point should not be made with success. Yet it is unfortunately true, and inventors should bear it in mind, that even this examination is not made, and in fact it is further off now than ever it was, for firstly the jurisdiction of the Comptroller of Patents to control the claims in which alone the invention can be accurately limited, was reduced to *nil* by the decision of the Solicitor-General in *re Smith's Patent*,¹ and secondly, even the claims themselves by which it was hoped that some more certainty would be forthcoming, have been

¹ *Griff. P.C.*, I, 268.

held to be not absolutely required by the law as defined by the Court of Appeal in *Siddell v. Vickers*¹ and affirmed in the House of Lords.²

The present examination made by the Patent Office extends only to ascertaining that the invention, or rather the manner of performing it, is *fairly* disclosed in the specification to enable others to carry it into practice, but it does not extend to ascertaining if the applicant has sufficiently protected his invention so as to exclude others from using it during his term. This is left entirely at the risk of the applicant; and the Patent Office, in Sect. 17 of the Patent Office Circular, especially disclaims the giving of any legal advice or opinions on any subject connected with the Patent Law.

Summary.—Patents or monopolies of new and useful inventions for a limited time are for the benefit of the trade of the nation, and the only inventions which can be protected are those useful in trade. The question of usefulness for trade has for convenience been split up into various minor tests for the better unanimity of decision. The inventor must possess certain characteristics and perform certain duties to entitle him to a patent.

The question of validity of any such patent when granted depends upon circumstances removed from the power of the Executive to decide and relegated to Courts of Law. Patents which are found to satisfy the law are upheld, while those that do not are left unsustained and are consequently useless.

The tests of validity are strict because the interests of the community, compared with those of the individual inventor, are of immeasurably superior importance.

As, however, the intention of the Patent Law is to promote a general development of inventive faculty, the more advanced nations in this particular have instituted examination to, as far as possible, stop the issue of invalid and ambiguous patents. Great Britain, however, prefers to leave each inventor entirely to his own resources to secure validity in his patent.

As all Patent Law is construed with relation to public policy, the inventor must conform to the latter to obtain its benefits.

¹ *R.P.C.* V, 432.

² *R.P.C.* VII, 292.

CHAPTER IV.

THE UTILITY OF THE PATENT SYSTEM FOR THE INVENTOR.

Absence of Commercial Text Books on Patent Law.—We can now pass to the opposite side of the question, and consider the utility of the patent system for the individual inventor, an aspect which may be presumed to be of more direct and personal importance to the reader.

It was necessary to commence with general policy of the Patent Law, and the intentions of the State, because the inventor cannot be in a position to judge of the system and employ it for his own advantage, without he is acquainted with the general purpose of the law, and the reasons which underlie its particular provisions. To say this is to bring forward no abstract theory, but simply to assert what may be daily proved by examples. That many fail when they attempt to use the patent system for their pecuniary advantage, is due to misunderstanding of its nature, for there is no need of such failure if only every intending applicant for a patent will carefully ascertain beforehand what it is that is necessary for success, and whether he and his invention answer the requirements; all these are ascertainable by those who will pursue the necessary investigations, all that is wanted being to set the enquirer on the right track, and point out the questions to which he must direct his attention. It is to be regretted that there are no authorities to which the inventor can refer upon the commercial aspect of the question of patenting inventions; admirable text books there are in great numbers explaining the Patent Law, but without any guide to its practical and commercial side. Patent agents' circulars are but a poor substitute, their small limits prevent adequate discussion, and the more rosy aspect of affairs is often dwelt on to the exclusion of the drawbacks.

The inventor requires to have fully put before him every *pro* and *con* which may affect a just estimation of the advisability of perfecting, patenting, and developing an invention. The ultimate decision on the advisability of procedure must rest with himself.

The **Utility of the Patent Law to an Inventor** may be summed up in its capacity to afford him the assurance of profitable recompense for his invention. So far as the inventor is concerned, the whole question simply resolves itself into how the greatest amount of profit may be derived from his invention, and the patent system enters into the calculation only as a means to an end. To answer the question fully, the manner in which the invention is best to be dealt with in trade must be determined, and its value deduced therefrom; the method of securing this value and retaining the profit of its use to the inventor merit equal consideration. These two questions are distinct, and the answer to one is not in any way an answer to the other. The invention must have value, or the exclusive monopoly of it will be profitless; and equally the monopoly must be secure, or the profit of the invention will slip into other hands.

As the valuation of the invention and patent rights depend greatly on an accurate knowledge of the effect of the Patent Law, this process, though strictly antecedent to procuring protection, must be reserved for a later chapter. For the present we will assume that the invention possesses a sufficient commercial value to overbear the expense of securing that value to the inventor.

Possibility of Secret Use.—There is, firstly, the choice of two courses open to an inventor, namely, to keep the invention secret from everyone, or allow it to become known to others.

Naturally, if an invention be kept secret other persons cannot employ it to their advantage, because they are ignorant of it; or if not in any particular case entirely ignorant of it, yet so far without knowledge of the way in which the invention is carried out as to prevent them from performing it. In such a case the problem to be solved will be how to work the invention to a profit without disclosing it to others, or allowing it to become known; for directly other persons become possessed of sufficient knowledge to practice the invention, the original inventor will be left without any advantage over his competitors in the trade, and consequently his invention will cease to be the source of especial profit to himself.

Brief reflection will show that there are very few inventions which are even of such a nature to admit of their being secretly employed to advantage, and even in cases where such secret use is possible, it is usually not advisable. Chemical processes, or methods of manufacture, can sometimes be carried on in secret, where the nature of their practice or of the result

afforded does not cause them to become known; the advantage lying, for instance, in the cheapening of the cost of manufacture, giving more profit, or in an improvement in the quality of the product causing it to be preferred on the markets, or fetch higher prices. Though there are in such cases considerable difficulties to contend with in keeping the invention secret, they are not necessarily insuperable; but a manufacturer using a secret process is always more or less at the mercy of his workpeople, while a number of competitors in trade will be continually on the alert to discover all he is or may be doing, more especially if there is anything noticeable in the product which may lead them to suppose that it is not produced altogether by the known methods. Failing their obtaining any information, directly or indirectly, from the user of the invention, they will naturally be led to experiment to produce the same result, and thus probably light on the same discovery; whereupon the first inventor's exclusive monopoly would vanish. The anxiety and, indeed, extra cost entailed in various ways by secrecy must also be taken into account.

The advantage to the original inventor would, therefore, be in all probability temporary only, and for that reason correspondingly small, while the expenses would be greater. Even though the inventor be ready to sell the secret, a price would not be easily obtained for it, considering the necessary absence of any reliable guarantee that the invention will not also be sold or imparted to others, the danger of others inventing the same thing, and the inability of the inventor to transfer his personal right of patent under the law in force.

Where Secret Use is Impossible.—By far the larger number of inventions, however, fall into that class in which there is no possibility of special commercial advantage from their secret use under any circumstances. In this class may be included all new machines, instruments, or articles of commerce considered as vendible commodities themselves, and distinguished from those used simply to manufacture the vendible commodities. It is obvious that no person can obtain any special advantage, for instance, from a domestic knife-cleaning machine, that he would not equally have if not kept secret, or a new inkstand, or a toy puzzle, or, in fact, anything not used by him as a special engine of advantage in his trade or profession. An inventor of anything in this category will at once discard all thought of keeping the invention secret, and recognising the necessity of its becoming known will look further and ascertain what other protection can be had for it.

No man has any exclusive right to the use of an invention, except so far as the laws in force of the various countries allow him such protection. So long as the use of an invention is maintained secret, the claim of inventorship is liable to be taken away by a subsequent discoverer of the invention being the first to disclose it to the public. The only alternative course, if any rights are to be retained in the invention, is to protect it by patent.

Value of Patent.—It is very important to understand in what the value of a patent consists.

The patent itself does not make a newly invented article more saleable than it otherwise may be, but it reserves the rights of sale, and therefore the profits, wholly to the inventor, and so enables him to make a pecuniary success of his invention if it be one capable of such success. All novelties require pushing, and considerable time and trouble must, in the majority of cases, be given in getting the invention introduced and well known to the public in order to induce business in the article. The patent helps but little in this; but when the invention once becomes known and in demand, then the value of the patent becomes apparent, and will be seen to be of the very greatest importance, for the following reasons: supposing that the invention has not been patented; after the inventor has been at the trouble and expense of creating a public demand, and has turned the corner, so to speak, and is beginning to make profits, competitors and imitators will arise and participate in the trade, cutting down the prices, which they can well afford to do, seeing they have had none of the initial expense of creating the business. The inventor will thus make but a slight profit, if any at all, to set off against his pecuniary outlay; but on the contrary, had the invention been properly patented, the inventor, after the public demand has been created, may defy competition, since he retains the sole monopoly of that trade by virtue of his patent, a monopoly not only of the whole supply, but of the fixing of remunerative prices. The difference in such case is very great, and practically means so much clear profit. Even if an invention take several years to introduce, the monopoly for the remainder of the 14 years of the patent, considering the extent of the territory covered and the number of the population, must be of sufficient value to far outweigh the expense of the introduction of a good invention, and to render the cost of the patent itself practically infinitesimal.

It is the millions of users, all directly or indirectly forced

customers of the patentee, which give such value to small but useful inventions in matters of everyday use, as shown by often repeated instances of fortunes to the inventors of *patented* pencil cases, toys, penny puzzles, and like articles of catchy novelty resulting from a happy idea. On the other hand, it is the breadth and importance of the interests effected which render the improvements in the more important manufacturing processes equally, if not more, remunerative to their inventors when properly secured by patents; for the patent is absolutely necessary to the defence of the inventor against appropriation of his ideas without his permission, and is therefore absolutely necessary for the security of his profit.

But the patenting of an invention alone does not cause a fortune to fall into the lap of the inventor; however good the invention may be it will not be remunerative without it is brought to the notice of the public or the manufacturers or of that class of persons, whoever they may be, who will find most advantage in taking it up.

For these reasons patents should be looked upon not so much as actual producers of wealth but as *investments* or *security* for the remunerative character of the business in the invention which it will then be to the advantage of the holder of the patent to quickly and widely develop. An unused patent will bring in nothing unless by luck some person notices it; and so long as it remains unused it remains unproductive; but once let the invention become known and in demand, the patent will prove the most valuable item of the business, and, in fact, the only security for retaining the sole business in the grasp of the owner of the patent.

Utility of Invention.—Of course, where the invention is worthless, that is, offers no actual commercial advantages, a patent for it will be equally worthless, for no patent can give value to an invention when the latter possesses none. A patent gives no value to an invention at all in one sense; it only *secures to the inventor* the value which the invention already possesses. Thus a great number of patents are unremunerative, the inventions on which they rest being useless, but this fact has no bearing on the value of those granted where the invention is useful. Every person who contemplates applying for a patent should therefore assure himself that his invention possesses a sufficient value, so that, setting off the cost of the patent and of the introduction of the invention into public notice against the profits likely to be thereafter gained, a balance be left in favour of the latter.

The same preliminary study should be made even when the inventor only intends to take a patent in order to sell the patent rights to others, for a patent will not be saleable unless the invention when protected by it promises a return sufficient to more than cover expenses.

Rough Valuation of Invention.—The first question which the inventor should settle in his mind is the likelihood of value in his invention. It may seem unnecessary to mention this, but experience has shown that inventors do not always pay attention to this fundamental feature so necessary to success. The inventor should inform himself of the advantages and cost of existing machinery, process, or what-not with which his invention would compete; he should ascertain, not necessarily minutely, but broadly, that whether in cheapness or advantages his invention presents valuable features over existing appliances or methods. He should estimate roughly the value of the predominance of his invention, taking into account on one side the vastness of the field which he can reserve exclusively to himself, not less, if he so desires and affords the outlay, than nearly the whole world, and on the other side the cost of perfecting and reducing the invention to practice, and diffusing knowledge of it to those who would be directly interested in using it. If the inventor, summing up these rough figures, estimates that the exclusive rights, without which he has no hold on his market, are valuable to him he should take the proper steps to protect himself under the Patent Laws wherever such advantage extends; leaving those countries where the advantages are slight, or not worth the comparatively small cost of the patent there. Many inventors fail to attain pecuniary success by omitting such preliminary balancing of the cost and profit; some have designed useful articles or machines only to find that the cost of manufacturing them was greater than other equally useful articles or machines for the same purpose. Others have considered to be advantages what have not proved to be such in practice. Some have lost profits by omitting to take out foreign patents, others have lost money by taking patents and setting up foreign establishments to work inventions not required there.

Temporary Protection while Value Ascertained.—Happily the English Patent Law, which we presume is of the greatest interest to the reader, embodies a useful feature which at a comparatively trifling cost enables an inventor, even before he has been at the expense of working out his "idea," to take what is usually termed a "provisional protection," and thus

save the priority of an option to receive full patent rights : in Great Britain, and in any or all of those foreign countries which are parties with Great Britain to the Convention for the Protection of Industrial Proprietary Rights.

During this option, which lasts nine months in Great Britain and six months in the foreign countries,¹ the inventor has ample opportunity to test the full question of value above mentioned, to work out his invention and demonstrate its practicability.

If it is found a success he can proceed to take full patents, if not he need go to no further expense. It may be argued that the inventor can look into all these questions before taking patents, or in any way taking a protection, provisional or otherwise, under the law. True, he may do so, but with risks which the provisional protection was instituted to avoid; the reasons will be more fully understood from subsequent chapters, but briefly here they may be summarised as follows:—Whoever first applies for a patent or provisional protection gets the priority, so that delay may mean absolute exclusion in favour of a more speedy rival. Any disclosure of the invention to the public *before* applying for a patent or provisional protection destroys the validity of the patent afterwards granted. Such disclosure is often advantageous or necessary in getting estimates for manufacture, and often cannot be wholly avoided in testing and working out the invention, and, in short, in obtaining full answer to the main question, Will the invention pay? For these reasons it cannot be considered otherwise than running a wholly unnecessary and very dangerous risk to avoid taking advantage of the provision of the law allowing the inventor to obtain “provisional protection” by making an application for patent in the prescribed way. It may be thought that the probability of two or more inventors independently working on the same problem is not large enough to be taken into account, but the experience of those acquainted with the working of the system proves that it is not at all infrequent.

Nature of Provisional Protection.—By filing an application, accompanied by a provisional specification, the applicant retains a certain date, the day on which the application is filed, for the date of the patent which can eventually be had for the invention whose nature is described in the specification. This gives priority over any subsequent applicant, for the patent dates from the day of application; if the inventor, for

¹ The list of these countries is given on page 42.

instance, files his specification on the 1st of January, a similar application by any other person, say on the 2nd of January, will be of no avail if the former application is completed. The same priority of date protects the inventor against the direct consequences of any disclosure of the invention between the date of the application and the eventual completion of the patent; for such disclosure, where no protection is obtained, renders the patent afterwards obtained void. The opportunities for negotiation and for open experiment are both very beneficially furthered under a provisional specification.

A provisional protection does not give protection against infringement, since until the invention is fully worked out its nature is not rendered sufficiently certain to afford grounds for forbidding others to use similar contrivances. Since, however, the complete specification, when accepted by the Patent Office and published, contains full details of the invention, protection against infringement may well be given, and is given, from the date of its publication. If a holder of a provisional protection finds that his invention is being infringed, he can at once complete the application for patent by filing a complete specification, on the acceptance of which, in about four to six weeks, the infringement would have to cease. Under these circumstances inventions covered by provisional protections only are very seldom infringed.

Option of Foreign Patents under Convention.—Another feature connected with an application for patent, and equally applicable to provisional protection, has been referred to. Under a Convention adopted in 1883, and to which Great Britain became a party on 26th June, 1884, certain foreign States—at present, Belgium, France, Italy, Norway, Portugal, Servia, Spain, Sweden, Switzerland, Tunis, Brazil, East Indian Colonies of the Netherlands, and the United States—entered into a reciprocal arrangement for mutual protection of inventions and trade marks, under which, amongst other provisions, any person who has applied for a patent in one of the countries obtains a certain period of time during which he may apply for patents in any of the other countries named, with the privilege that all such patents shall be accounted to give protection from the date on which the first application was made, thus antedating any patents for the same invention or any publication occurring in the interval. This period of time is nominally six months, but is extended to seven months for countries “beyond the sea.” It is doubtful if Great Britain is to be considered “beyond the sea,” so six months should be held the proper

term for this option to take foreign patents in the above countries when application is first made in Great Britain. As this option is practically exactly the same as a provisional protection in Great Britain, we may truly say that the applicant for a British patent or protection obtains *ipso facto* provisional protection for six months in all the above States as well as in those of the British colonies and dependancies, which, without being parties to the actual Convention, have made similar arrangements with Great Britain alone.

It may be observed that the existence of the time limit in the Convention does not exclude inventors who may not have applied within that limit from obtaining at any time foreign patents so long as they can fulfil the requirements of the various foreign laws.

Experimental Development.—Owing to the delays inseparable from experimenting to prove the best method of carrying the invention into effect, and to disclosure often necessary in the course of experiments, it is advisable to make application for “Provisional Protection” before experiments are undertaken, for so long as the principle or idea is recognised as capable of being rendered practical, that is all that is necessary at the time of protecting. The exact details of the practical application are left to be defined in the complete specification, and the nine months of provisional protection are principally intended for devising the best method of carrying the invention into effect. This must, however, not be misunderstood; the inventor is not intended simply to propose to himself an object to be attained and then have protection for nine months while he is making inventions to fulfil his object. He must start with an invention or principle recognised as effective for attaining the object in view, and use the nine months in bringing that particular principle into a practically and commercially workable form.

All through the progress of the nine months’ protection he should keep an eye upon the wording of his provisional specification to see that he is working under it and not going beyond the principle described.

Many inventors when experimenting see reasons to change the whole principle of their inventions; as soon as the new and better principle is recognised a new protection for it should be taken. Do not confuse the purpose of the invention with its nature, if the latter is changed a new application should be made; for though, in describing the invention in the complete specification, modifications in working details are allowed, and even

desired if the alterations are advantageous, changes of nature or principle are inadmissible.

Abandonment and Renewal on Application.—If circumstances should render it impossible or inadvisable to proceed with the application for the complete patent before the expiry of the provisional protection, the latter can be abandoned and no further costs incurred.

In the event of a provisional protection being suffered to lapse without a complete specification of the invention being filed within the time appointed, the provisional specification filed remains unpublished, and to all intents and purposes it is as if no protection had ever been applied for or granted. It would therefore appear that a protection which has lapsed is no bar to the obtaining of a valid patent for the same invention on another application made during the time the protection was in force, or after it has expired. If the said protection had been "completed" then the patent eventually granted would have been dated the day of the application for the protection, and consequently would antedate any patent that could be obtained on a subsequent application, and render the latter invalid, but if the protection be not completed no patent is ever granted to invalidate a subsequent patent. So it appears that if an inventor from any cause does not desire to "complete" a provisional protection granted to him, he may at any time within the period of his protection, or subsequently, make another application for a patent with a provisional or complete specification as he may desire, but this latter application will be altogether independent of the first and stand on its own merits entirely. A provisional protection simply gives to the applicant during a certain time (nine months, or if extended, ten months) the right to obtain a patent having a certain date which will be prior to any patents granted to subsequent applicants, and should be prior also to any publication of the invention by the applicant or any other person. The inventor should always apply for provisional protection at the very earliest possible moment to secure this priority of date; or, if desirable to renew it, apply for the renewal without delay and without waiting for the expiry of the first protection.

CHAPTER V.

HOW TO PATENT AN INVENTION.

Commercial Aspect of Application for Patent or Protection.—As the various documents and the mode of application will be fully described in the second part, it will only be necessary here to consider the commercial aspect of the application. So far as the inventor is concerned, the method in which the application is to be made is just as much a commercial question as the taking of a patent at all. Speaking commercially, there are two ways in which the patent may be had, the one is to commence with a provisional protection, the other to take out a complete patent at once. Each has some special advantages. Under the provisional protection the inventor need only point out the nature or principle of his invention, and he obtains a respite of nine months' duration for his experiments and practical testing of the invention, before he is required to state exactly how the invention is to be carried into practice. These nine months are invaluable, not only for bringing the invention into the best commercial form, but for testing its value so that the advisability of taking a full patent may be judged. As the first applicant is preferred, the taking of a "provisional" secures priority of date over any subsequent applicant and also affords a security against possible ill-effects of public exposure of the invention which may be at any rate advisable, if not inseparable, from experimenting. On the other hand, the taking of a complete patent at once gives the fuller patent rights at an earlier date, for during the course of the provisional protection the applicant is not defended from infringement. This is, however, amply set off by the advantage of being able to add modifications of the original idea under the provisional method which is denied in the complete, and inasmuch as any infringer during the period of provisional protection would immediately have to cease when the complete specification is accepted, which the applicant can generally carry through in five or six weeks, the danger of infringement

before the invention is fully patented is practically so small that it may be neglected.

Nature of Application for Provisional Protection.—It is of advantage then to speedily take a provisional protection, but this should not be done without a sufficient study of the consequences of the step; because the application for provisional protection is in truth nothing else than the commencement of an application for patent, and although it may be abandoned if the invention is found to be of insufficient value, the steps then taken will govern the whole patent, if the latter is proceeded with. They may possibly detract from its value very materially if not performed and written entirely according to law and rule as will be hereinafter seen.

Thus the provisional specification which must accompany the application must describe “the nature of the invention.” It may be thought that to do this, while the invention is, so to speak, but an idea, without the opportunity of correction by practical test would be a matter of difficulty, and indeed it is so, for the inventor is afterwards bound down to the “nature” therein expressed. To word the specification on the one hand sufficiently narrowly to show a legal invention, and on the other so widely that it will be found to embrace and cover the practically complete invention when afterwards worked out, is a matter requiring considerable skill for which long practice in such matters can alone be relied on with any certainty.

Strictness of Law.—Nevertheless the law renders it essential that this should be done exactly, for to err in either direction would entail loss of the patent.

The reason for this lies in the fact that the application for provisional protection gives the inventor priority over other later applicants and also over any public disclosures he may make, so that the law to fulfil its third object before stated requires to treat provisional specifications just as much as other matters the patentee is required to furnish, with strictness.

“Taking a Patent.”—The question of “taking a Patent” is especially one in which the maxim holds good that “what is worth doing is worth doing well,” and this for several reasons.

First of all, the protection of the inventor’s monopoly is entirely dependent on the patent, so that a patent that does not properly cover the invention, or which for some informality or other cause cannot be sustained in a Court of Law, is perfectly worthless to the inventor. It must be remembered that the patent, if valid and sustainable, covers the invention *as described in the specification or description*, which must be filed at the

Patent Office. If this description does not, therefore, legally conform with the invention in its actual state, the latter is not protected by it. It may be supposed impossible that an inventor should describe any other than his actual invention, but experience proves the opposite, there are some inventors whose descriptions do not cover their actual inventions. There are also many more inventors who do not cover *all* their invention by their patent and so lose a great part of the value their patent would otherwise have given them.

Take, for example, a new machine, the inventor working on his plans and models produces a machine which works in a certain way and effects certain results, he then proceeds to patent this machine and, as required by law, writes a description of it on which his patent is to be based. Now, relying on his patent, he manufactures and offers the machine for sale, charging a considerably increased price in view of his monopoly. But now perhaps A starts to make a similar machine in competition, and, working on the inventor's original ideas, makes some alterations here and there. B, C, and D also do the same, making other alterations which perhaps embody all the useful results without copying the exact means of the original inventor. The latter tries to stop this competition of A, B, C, and D, by claiming that they are infringing his patent, but it is found that the *description* the inventor has given *does not cover these varieties of his original idea*. Consequently the competition cannot be stopped, the high prices must be cut down, the profits, such as they are, do not go all to the originator, and the patent loses the greater part of its value.

This is a very usual picture and to be avoided only by the exercise of the utmost skill, of almost prophetic nature, in drawing up the description of the invention in the first place so that it will be found to *legally* cover not only the actual machine or matter then produced, but all alterations, variations, imitations, substitutions, &c., which may hereafter be made on the same general principles or groundwork.

It is the greatest mistake to omit precautions in this respect, since errors of that kind cannot be afterwards corrected. This applies equally if the inventor intends to sell his patent instead of working it himself. Purchasers naturally look to obtain broadly covering patents, and take the opinion of experts as to the scope and novelty of any patent they think of purchasing before parting with their money, or even often before settling the price, since the actual value so much depends on the scope of the patent.

We have illustrated the description of the invention as exceedingly important, but in truth every step taken in protecting an invention under Patent Law is fraught with some danger or other, necessitating more than simply reasonable care and common sense, namely special technical and legal knowledge, the nature of which it is our object to point out in subsequent chapters.

Narrow and Broad Patents.—In the previous paragraph an instance was given of loss through failure of a patent to include modifications adopted by infringers. As this involves a point of the greatest consequence to patentees some explanation of the cause is needed. It is extremely difficult, apart from any definite example, to explain the difference between a "narrow" and a "broad" patent, since it lies almost wholly in the wording of the specification of the invention. Many inventors indeed are wholly ignorant of the difference that exists, many suppose that there can be but one protection, and that its extent is the same whatever the terms employed in the description. This is often a fatal error, for the extent of the patent rights will vary very much according to the description of the invention. Thus, if an inventor has made a machine, say, for making nails, he will have adopted certain means such as levers, wheels, acting in a certain manner to effect the various movements that he desires, and the resulting machine is the product of his invention. Now, if an exact description be made of that machine simply and the claims be devoted to the machine as a whole, there will be nothing in the description to cover any modification operating in the same way, but if on the contrary the writer of the description avoids mere superficial description of the parts and seeks for and shows the underlying principles on which the various elements of the machine co-act to produce the result intended, and describes the parts as components of the result in generic terms, it will be found that when a machine containing different elements, but working on the same principle, is attempted to be used in infringement, the description of the first machine will contain the second, in fact it will be also a description equally applicable to the second, and the latter will therefore come within the terms of the patent.

Thus a broad patent is one in which the description of the invention is drawn in generic terms and with absence of special detail, yet of course absolute in its expressions so that no ambiguity exists in its meaning, and sufficient in its description to enable others to produce the invention.

A broad description should avoid every qualifying word that is not essential, thus if an invention employs a vessel of iron, cubical shape, one yard every way, whereas neither the material, the shape, nor the size is important, it is simply necessary to refer to the same as "a vessel." If metal is necessary, say "a metal vessel," if of a certain capacity, say "a metal vessel of the capacity of . . ."

Each qualifying word so far narrows the patent by excluding from its scope the employment of all other articles in the same category to which that qualifying word will not apply, for a patent will only extend to the invention *described in the specification*.

The great loss of ground covered by a patent where the description is narrower than the novelty of the invention warranted, will be easily apparent, but at the same time if the specification be so wide as to include in the scope of the invention what is not new, the patent is invalid. The science of drawing up a specification for patent consists in skirting the edge of what is already public knowledge so as to obtain the broadest possible value for the patent without overstepping the line dividing new from old.

The Cost of Application for Protection or Patent.—As the taking of a patent is equivalent to the purchase of a security, the amount necessary to do the work properly should alone enter into consideration. The necessary papers for an application consist of a form of application which has to be stamped with an impressed stamp of 1*l.*, and either a provisional or a complete specification, according as a provisional protection or a complete patent at once is desired. The provisional specification bears no stamp, but the complete specification must bear a 3*l.* stamp. The patent depends entirely on these specifications so that the services of an expert in Patent Law is necessary for drawing them up. Charges for these services vary according to the length of the specification judged to be needful, and it is naturally a most false economy to cut down the necessary length to save expense. The usual charge for preparing a provisional specification is 2*l.* 2*s.*; or inclusive of all charges for filing, government stamp, 3*l.* 3*s.* to 4*l.* 4*s.* Some agents charge 5*l.* 5*s.* to 7*l.* 7*s.* for this work, but less charges than 3*l.* 3*s.* may be taken as evidence that the ability of the services rendered, on which of course everything depends, are not recognised as sufficient to command the usual professional fees. The usual charge for preparing a complete specification is 3*l.* 3*s.* to 7*l.* 7*s.*, or with filing and other charges, including the government

tax, 8*l.* 8*s.* to 13*l.* 13*s.*, but, of course, this is greatly dependent on length of description, and number and complexity of the drawings. When searches are desired to ascertain novelty, &c., the charges are according to the time employed. Unless such work is entrusted to absolutely competent men, it is often worse than useless. An opposition to the grant of a patent is so unusual that the cost of defending the application in such case may be neglected. No opposition is possible to a provisional application.

Patent Agents.—As the fact of the extreme dependence of the patent rights on the manner in which the invention is set forth is an argument for exercise of considerable care in choice of a professional adviser, a few words on the nature of patent agency may be advisable.

The patent agent should naturally be, first and last, an expert in the Patent Law, and especially legal decisions of the Courts, having all precedents at his fingers' ends. He should combine a mental capacity of broad grasp of detail with an automatically dissective and critical faculty of discerning underlying principles, should be a master of logic, and of the legal phraseology, hallowed by practice in Patent Law. To these qualities, which more strictly concern Patent Law, he should add a sufficiently complete acquaintance with mechanics and chemistry, and the manufactures which are based on one or the other, to be able to fully comprehend the inventions of his clients, and so far as may be, suggest natural impediments to, or improvements in, the details of their execution.

A patent agent conducts his clients' business with the Patent Office, or with foreign patent agents, prepares and advises on specifications, makes searches as to novelty, &c., gives conferences, and reports on the scope of patents and questions of infringement, collects and gives technical and expert evidence in cases of infringement, &c., and acts as arbitrator in patent matters.

A patent agent will also usually keep his client advised of taxes as they become due, thus preventing accidental loss of patent rights by omission to note some government requirement.

Registration of Patent Agents.—Always numerically few, patent agents in Great Britain were, till lately, in no way as a profession under any special authority; the sudden increase of business in 1883 and 1884, however, led to an increase of patent agents. In 1888 the general public importance of the duties of the profession, the ease with which unqualified

persons could set up business as patent agents, and the difficulties which inventors had in discriminating between the firms of genuine credit and ability and their irresponsible imitators, led the Government to pass an Act providing *inter alia* for the registration of patent agents.¹

Any person on satisfying the Board of Trade that he was then practising as a patent agent was, on the Board certifying to this fact, to be admitted to the register without examination. The existence of a name on the register is, therefore, no guarantee of professional standing, nor are any such words as "Certified by the Board of Trade," which are simply misleading.

There are about 240 registered patent agents in the United Kingdom, of which the greater number are in London, where the Patent Office is situated. A London resident agent has the greater opportunity for personal explanation, often desirable, before the Patent Office examiners, attending hearings, performing work quickly when time presses, and making searches in the Patent Office Library and records.

On Choosing a Patent Agent.—Should the inventor be unable to hear of a patent agent through personal recommendation, the following may be useful to note. Excessively high prices should be avoided, since the cost of the work, especially of foreign patents, does not necessitate them. Very low prices, however, should be the very reverse of a recommendation, as proper work not only fairly asks reasonable prices, but cannot be had for less. Avoid free opinions advertised, free searches, &c. If the work is of value, it should be charged for. A busy and well employed man has no time for free opinions and conferences; he devotes his time to the interests of those who have already paid fees to retain him. His clerks answer ordinary inquiries. Direct solicitation of work by circulars addressed to inventors, above all, is discountenanced by all who may be considered in the higher ranks of the profession. See that your agent gives his personal attention to such of your affairs as require a patent agent's skill; some entrust such work to clerks, and though these are possibly well informed, the client would probably get better attention, and at a less cost, from an agent doing a smaller business more entirely under his personal control.

Attention should not be given to professed dealers or sellers of patents, the obtaining of a patent and the selling of it are

¹ The provisions are embodied in the Patents, &c., Amendment Act of 1888.

distinct businesses, requiring entirely different aptitudes. A lawyer does not act as a merchant, nor a consulting physician as a drug seller. The first point is to obtain a patent or protection, and if the inventor desires the best advice on that, he will avoid those who make a parade of selling inventions, since the best known agents do not profess to act as sale agents.

It naturally follows that the better the patent the more readily it is saleable. There is also a prejudice against the employment in obtaining a patent of any person who may possibly be financially interested in a rival invention.

Patents in Courts of Law.—The inventor should always keep this fact before his mind, that a patent is not indefeasible, that as his ultimate resort, should others infringe his rights, is to the Courts of Law, his patent must be one which the Courts will uphold. If it is not so, it is worth nothing, since if he cannot prevent others from using the invention as freely as they choose, his monopoly vanishes, is non-existent, and his rights are lost. It is true that a patent may never be fought in a Court of Law, but it should be strong enough that the holder will be successful if it is fought. A weak patent will be more readily infringed than a strong one, because infringers rely on the fact that the patentee will not venture to try and maintain his rights, having before his eyes the vision of double costs in an unsuccessful suit. A similar reason makes a person chary of infringing a "strong" patent, where it is probable that the result of a trial would be in favour of the patentee. The strong patents seldom need to come to the Courts to uphold them, an infringer will more readily pay the damages asked than contest the case in Court, and have heavy costs in addition.

If the result of lawsuits is pointed to as uncertain, the reason is given above; it is only the doubtful patents upon which the Courts are called to decide, the strong patents subsist unaided, while the weak are afraid of legal criticism.

Foreign Patents on any particular invention are of greater or less value according to the general state of commerce in that country, the particular circumstances of the industry to which the invention relates, the number and wealth of the population, and the presence or absence of high customs duties in relation to importation of the products of the invention. Each of these circumstances should be kept in view in deciding which, if any, foreign patents shall be taken. Particular note should be made of the existing state of the art there, as the invention will be more or less valuable according to the methods, &c., with which it will compete. Manufacturing countries

should be included, even if the goods are not intended for use there, so that the patentee may not have competitors in his exporting business to non-manufacturing, importing countries. Hostile customs tariffs are only effective to exclude a foreigner's goods when they can be freely manufactured by others in the particular country. Patents there will, in such cases, be necessary to prevent competition, which would prevent the patentee from recouping himself for the extra cost and difficulties of export to such countries.

In most countries the law requires a foreign inventor to appoint an agent in the country to represent him before the Patent Office, and so that any legal notices in respect of the patent may be served on a resident in the country. Such agent, naturally, need have nothing to do with the commercial development of the invention.

Obtaining Foreign Patents.—Some misapprehension appears to exist as to the cost and other matters incident to the obtaining of foreign patents. At least as much care must be exercised in obtaining each individual foreign patent as in obtaining the British patent. In every country, the specification, that is to say, the proper legal and logical definition of the invention, is the basis of the rights obtained, and just as the laws vary and the legal aspect of patents varies in different countries, so must the presentation of the invention vary if the inventor is to get a proper and adequate patent.

Mere translation of the specification drawn up for the English law is usually insufficient; the translation also, though but one feature of the work, must be thoroughly technical, *i.e.*, made by a translator thoroughly versed in technical terms, and well paid accordingly. For obtaining a reliable foreign patent, whatever the country, first a specification should be drawn up with special view to the law and general aspect of the patent system of that country; secondly, translated by a competent translator; and, thirdly, remitted to an agent in the country who should be capable of revising it, not only as an expert in the law of his country, but so far as possible, also as an expert in the particular art. The latter is important, since features which may add to the inventor's novelty in one country may not be new in the foreign country, and, conversely, there may be features which, not being new in Great Britain, cannot be, and are not claimed there, while if still unknown abroad they may add materially to the scope of the invention and value of the patent there.

As an inventor will seldom know even the names of any

foreign patent agents, he must more or less rely on an agent here to name the best, or those which he himself may work with. Charges are not conclusively a proof of competent foreign agency. The inventor will do best to consult any of the firms doing large agency business for other agents, Colonial, American, and others, since the comparative magnitude of their foreign business necessitates dealings with a much larger number of foreign patent agents, and better personal acquaintance with such agents, and the requirements of the foreign practice. Each case can be sent to the agent best qualified to deal with the particular subject matter of the invention, and saving in cost will often be obtainable without any loss of efficiency, owing to special arrangements as to terms, where large mutual business is done between agents.

The charges will usually amount to those mentioned in Part III at the end of the Précis of the law of each country, for inventions of ordinary complexity, including, say, 1,000 words of specification, and one sheet of drawings.

Attention should not be paid to circulars sent by a certain class of practitioners abroad, some even masquerading under the form of learned (?) societies, with offers of diplomas, medals, &c.

Value of Searches.—It is advisable, either before or after the filing of the provisional application, but at any rate before completing the patent, to make a search among the Patent Office records to ascertain the novelty of the invention.

This search should extend not only to previous British patents but to United States patents and other foreign patents, the specifications of which are all visible in the Library of the Patent Office. Technical works should also be consulted; in fact, search should be made in any and every place where an anticipation of the invention may possibly lurk.

As this is a somewhat lengthy matter it is, perhaps, not advisable to delay the filing of the "Provisional," but it should be done before money is spent in developing the invention or on full patent.

The value of a search is, of course, great in its information on the industry and in giving a sufficiently close approximation to certainty in the question of novelty, but a search is not solely intended to show whether an invention is new or old as a whole, it is also to show how much of the invention is new. The Patent Law requires an inventor not only to give a full description of his invention so that others may practice the whole when the patent expires, but to distinguish in the specification those features

which are new from those which are not, so that the public may know just what features or principles they must not infringe. To enable an inventor to state positively what points are new and claimed under the patent, he must know first all what is old, so that the novelties introduced by him may be clearly defined. The search is intended to afford this information. If the inventor claim too much the patent is void; if he claim too little he loses so much of his monopoly, and if he leave the novelty undefined he risks the loss of his patent for ambiguity.

The search has thus great value in preparing an application for patent, more especially the complete specification, which contains the "claims."

The general value of certainty of title is also considerable, since the patent is but the forerunner of an establishment of business whether by the inventor or others to whom he may sell or license the patent.

Even if a professional man does not make the search he should be consulted as to the legal effect of whatever to the searcher may seem similar or bordering on either the invention or its object.

The British Patent Office makes no search whatever before granting the protection or patent.

Application in the United States as a Substitute for Search.—In addition to the many special advantages of the United States patents for English and other foreign inventors, the application for patent in the United States possesses another and by no means unimportant advantage.

The examination made by the officials of the United States Patent Office before granting a patent is by far the most complete and satisfactory examination made by any Official Patent Office in any country, being, as we know from experience, far superior to that made in the other "examining" patent offices, the German, Austrian, or Swedish. The search extends to British, German, and other foreign patent specifications, as well as to the United States specifications, and to technical works relating to the respective industry, of which also each examiner has a most complete library.

This search is alone worth the money paid by the inventor for the patent, if the latter be applied for in time to be of use in preparing the specifications for other countries.

Although a British specification is not generally sufficiently formal to pass the United States Patent Office, a specification which has been allowed a patent there is an excellent specification on which to obtain a complete British patent, and where the

latter agrees in wording with an American patent to the same inventor it is not usual with purchasers, and, in fact, seldom necessary to inquire further into its novelty (pre-supposing that the patent in Great Britain has been applied for in time).

If a United States patent be applied for simultaneously with an English provisional protection, the former will probably be examined and the most similar antecedent inventions pointed out, enabling the application to be re-drawn and allowed before the nine months' time arrives for filing the English complete specification. The American specification can then be used for the English patent, with perhaps at most slight and unimportant alterations and much greater certainty will be had of the validity of the latter. The same agent should be chosen to prosecute the English and the American patents, so that the advantage of the examination and correspondence with the United States Office may be applicable when the agent prepares the English complete specification or those for English colonies or foreign patents if desired.

CHAPTER VI.

HOW TO DEVELOP OR NEGOTIATE PROPERTY IN PATENTS AND INVENTIONS.

Unprotected Inventions Unsaleable.—Apart from a patent, an invention itself has no saleable value (speaking now of those inventions which cannot be advantageously carried on in secret), and as the law recognises the grant of a patent as a personal reward to the inventor, and (in Great Britain at least) a person who is not the inventor cannot receive a valid patent, the inventor cannot sell to others the right to apply for patent. Thus unpatented inventions are not saleable because the purchaser cannot obtain the only form of protection which will give him a commercially valuable right.

The absolute necessity of any such provision of the law is not apparent, but since there are several practical reasons against any attempt to dispose of rights in an invention before it is protected, the refusal of the State to permit an inventor to assign his right of application for patent works for good.

Many inventors prefer to dispose of their inventions rather than retain them in their own hands to work: such inventors wish equally to spend no more than is needed to enable them to sell the invention to some manufacturer or capitalist.

Naturally the manufacturer or capitalist who is willing to purchase must first be found, and to do this it is necessary to publish the invention more or less fully. The more an invention can be made known the more likelihood is there of finding a purchaser and the better the price obtained, but it must be remembered that it is not the invention that is sold but the patent rights.

An inventor may very reasonably ask, Can I not first look for a purchaser, and when I have found one take out a patent as the inventor and sell him the patent? The answer is practically No, for the reason that to find a purchaser the invention must be more or less disclosed, since no man will buy a pig in

a poke. By such disclosure before protection the inventor runs the risk of others depriving him of his invention, not necessarily patenting it, though that is possible, but by employing it for their own ends; or by speaking of it to others who may do so, so that the inventor finds himself forestalled when he comes to apply for the patent; or else the invention by that time has become so far known that at the date of the application for the patent it has not that character of novelty which is essential to obtaining valid rights. These facts are well known to purchasers likely to be interested in patents, so that the very fact of finding an invention offered for sale in unprotected condition is sufficient to prevent a purchase, for the stability of the patent rights obtainable thereon is at once shaken; the invention may have been offered to fifty men before, it may have already become known sufficiently that you may say it is no longer new. A further consideration influences the mind of the possible purchaser. What faith can an inventor have in the alleged invention or in his own rights thereto if he is not willing to part with the comparatively small sum necessary for its proper protection?

Saleability of Provisional Protections.—A provisional protection is but that form of temporary protection given from the time the patent is applied for till the complete specification is filed and accepted and the fuller patent rights begin. In truth, therefore, a provisional protection does not in itself confer saleable rights, but inasmuch as it lies only with the applicant to take the proper steps to complete the patent, he can at any time undertake that he will hand over the patent when obtained to the purchaser and the latter may properly agree to the purchase on that understanding.

It will be usual for the applicant to give his undertaking to complete all the necessary steps to get a full patent, though he cannot absolutely undertake to obtain the patent, as he cannot control the Crown in the grant. A good part of the purchase-money would usually remain to be payable on the handing over of the Letters Patent.

As the provisional specification is intended to describe fully and properly the nature or principle of the invention, the purchaser already has a firm basis for the transaction and knows what he is getting for his money. Many, indeed, prefer to purchase before the complete specification is filed in order to get a voice in the preparation of the latter and opportunity of taking foreign patents, if so agreed, before the invention becomes published.

The best course then for an inventor to pursue who wishes to sell his patent rights is to cause application to be made for provisional protection, remembering that the invention should always be kept secret until the application has been filed at the Patent Office.

Various Methods of Disposal of Patent Rights.—The benefit of the privileges which the patentee receives may be transferred to others in two ways: the first is by absolute transfer of the patent rights by means of an assignment, the second by way of a permission to employ certain of the privileges by grant of a license. In the first case the patent, or a definite part of it, passes to the assignee, while in the second it remains wholly with the original patentee.

The assignment of a patent will usually be for a definite sum paid down, but it may be arranged that the purchase money be paid in instalments, or worked out in goods, or that the patentee be employed at a salary or in any other manner, as the parties may agree. The assignment may also refer only to a part of the invention instead of the whole, the part intended being, of course, some separately usable part and accurately defined in the deed of assignment. An assignment may also transfer the whole or part of the patented invention for a part of the country covered by the patent without extending to the remainder, suitable arrangements being made to avoid clashing of interests.

In all these arrangements the patent passes to the assignee just as if it originally extended only to the part of the invention transferred or to the special district to which the assignment is confined.

Under a license the patentee may extend an exclusive or non-exclusive permission to do any of the acts that his patent reserves to him. Thus to manufacture, to sell, to work, or to use the invention or a part of it, or to do that only within a certain place. The usual return received by the patentee is so much on each article, or certain number of articles dealt with by the licensee, or so much per annum during the continuance of the license. Sometimes a sum down is included or accepted in full.

Under an exclusive license, it is usual to stipulate that the royalties shall never be less than some definite sum per quarter.

The above are merely suggestions among the manifold methods in which parties may agree as to the use of the invention and the return therefor.

Patents may be mortgaged or sold on the hire system. Professional advice should always be sought in the arranging of terms and drawing up of formal deeds.

Proof of Satisfactory Title.—Every intending purchaser of a patent before closing the bargain should ascertain that the patent is valid. A patent agent will usually advise on the validity of a patent for a fee of 2*l.* 2*s.*, exclusive of any searches that may be necessary in proof of novelty. The various points to be considered need not be repeated here, as they have been already fully explained, but the purchaser should seek advice on the scope of the patent, and how far and what infringement could be stopped thereunder. The value of the patent will, to a great extent, govern the question of search as to novelty, since the expense of the latter is entirely dependent on how far it is to be carried. In some instances a search as to novelty will be unnecessary, but in most cases it is advisable, in order not only to see that the invention possesses novelty, but more particularly to ascertain the exact extent of its novelty, which will so greatly govern the value of the patent rights. The greater number of patents do not so sufficiently distinguish exactly what they are intended to include from what is outside their monopoly that their scope can be properly found merely by inspection of the specification.

To licensees the question is perhaps simpler; they do not need so much to ascertain the exact validity of the patent, for they are not buying the rights, they are merely hiring the use of the invention. A question equally important, however, to licensees as to assignees is, whether the actual invention can be used without infringement of other existing patents. Many patents are for improvements on some subsidiary invention also protected by patent. It will very materially govern the amount of profit derivable from the improvement, whether any royalty has to be first paid to some prior patent. A search among British patents for so much of the last 14 years as is prior to the date of British patent proposed to be sold or licensed will be sufficient to answer that question. The cost will depend upon the amount of patents looked through and the time necessary for comparison. Usually, 5*l.* 5*s.* to 10*l.* 10*s.* will be sufficient.

No reliance whatever can be placed on inventors' own searches, as, whatever their honesty of purpose, the task of comparison requires a legal knowledge of Patent Law such as they do not as a class possess.

If a report of a search is presented, its wording should be

carefully considered. Since no person however learned can guarantee any patent, the extent of the search upon which alone a professional man can properly give a report on the novelty of an invention should be exactly stated. As there are no generally recognised exact limits for a search, broad assertions, such as "a search has been made," or "I have searched and do not find," &c., are really without meaning.

The reports sometimes read in the prospectuses of companies for the purchase of patents are usually too vague to be of any true value.

Security of Transfer under Provisional Protection.—

As no assignment can be properly made until the full patent is granted, it becomes necessary to find some means of insuring a purchaser of a provisional protection against any other dealings with it behind his back.

This can be done in Great Britain by filing at the Patent Office a form of request bearing a stamp of 17. 10s. to amend the original application by adding the name of the purchaser as a co-applicant. This will be granted, and thenceforth the purchaser will join in the possession of the protection and ultimately of the patent.

The purchaser's name can only be added to the application, and not entered in substitution of the original applicant, for the inventor must always remain a partner in the application until the full patent is granted. If the purchaser is to be entitled to the full patent, the original applicant can, after the patent is granted, assign or release to the purchaser his remaining share.

On the applicant's side, however, it may not always be advisable to admit a purchaser as a partner in the application unless the terms of the purchase are definitely settled, and some money paid down, since it would be a difficult matter to oust any name once added to the application.

Rights of Joint Patentees.—The above, amongst other reasons, renders it advisable to consider carefully the respective rights and duties of joint applicants. English law permits joint inventors to apply jointly, and allows any inventor or joint inventors to add any other person or persons (not necessarily inventors) in the application, but the inventor or inventors must be included amongst the applicants. A limited company may be added under this part of the law, but not a trading firm other than by the names of its individual partners.

The individual rights of co-owners of a patent, in the absence of any agreement between them, have never been

really determined. In *Mathers v. Green* it was held by Lord Cranworth, where a patent had been granted to joint patentees, "each and every of them," that either patentee might use the invention without obtaining consent of the others, and that the user could not be called upon to pay any proportion of the profit to the others.

From this it is apparent that each patentee is at liberty to work the invention entirely on his own account unless it has been otherwise agreed between the joint owners of the patent. The decision has been since upheld.

As, however, this decision may be said to turn on the wording of the patent, it may be noted that the present form of patent to joint applicants does not mention the patentees separately, but that only "that the said patentees by themselves their agents, or licensees, and no others," may make, use, &c., and further on, that no persons are to use the invention, &c., "without the consent, license, or agreement of the said patentees in writing under their hands and seals."

It may be a matter for diverse opinions whether either patentee alone can now grant a license; it had been formerly held that he could do so, but whether in such case he would be liable to hand over a proportion of the royalties to the co-owners of the patent is also quite an open question; the point was left undecided in *Mathers v. Green* on appeal owing to absence of evidence of their having been any royalties to divide. In the Court below it had, however, been held that the royalties should be divided between the co-patentees.

As under the present form of Letters Patent, the intending licensee should always require that all owners of the patent join in the license, the question is not likely to arise. Of course, in no case can one of joint patentees acting for himself alone grant an *exclusive* license.

Agreements between Joint Applicants.—In view of the foregoing, joint applicants or patentees should in all cases enter into agreement defining in what way their respective rights are to be construed, and, in general, as to the working of the patent, finding capital, terms of licenses, &c., so as to avoid any disputes that might afterwards arise.

The Practical Negotiation of Patent Rights.—Having considered the rights and privileges attaching to provisional protections and patents and the various methods of assuring and transferring such rights to others, we may now profitably consider some of the practical points connected with the development of crude inventions, finding purchasers or licensees

for patents, and the like, on which information will often be of service to inventors.

It is unfortunately true that many inventors are led to suppose that on obtaining their protection or patent the hard work is practically over and they will at once reap the fruit.

This is seldom the case. All inventions, however good, require pushing; time must be allowed for the public to become acquainted with them, and exertions made to overcome the apathy with which all novelties are at first regarded. In no case should an immediate success be looked for, since it is contrary to reasonable expectation that the public, under which generic name those likely to be specially interested in the invention may be designated, will at once grasp the merits and details of an invention which even the inventor may have taken a considerable time to develop.

The taking up of an invention is in itself not to be hurriedly done; in many instances it will mean the discarding of old plant and provision of new, an alteration of business methods, a preparation for a different class of trade, all which require not only time to perfect, but careful consideration of ways and means and calculation of results.

Many inventors allow no time for manufacturers to consider if and how a novelty is to be made to pay, yet such is of equal importance to the likely purchaser or licensee as the original production of the finished invention was to the inventor. Estimates of expenses of manufacture, stock, travellers' salaries, advertising, and profit are amongst the necessary work of the person intending to deal commercially with the invention, the novel nature of which will in itself add proportionate difficulty to the estimate.

Valuation antecedent to Negotiation.—Whether the inventor intends to work his invention himself, or dispose of the patent to others, or grant licenses, it is advisable, indeed almost necessary, to arrive at a fair and correct valuation of the patent. A subject of too complex a nature to be dealt with in a paragraph, this valuation has been reserved for a separate chapter. Its utility consists in this; that on it will first depend if and what patents shall be taken, how they shall be taken, how the invention shall be developed, whether the inventor will obtain the greatest profit from working it himself, licensing it exclusively or otherwise, or selling it outright. What selling price, royalty, cash down, or equivalent, he shall ask for it, how he will best find purchasers for the novelty, licensees to manufacture it and work it, or buyers of the

patent. In fine, the valuation should determine the commercial dealings of the inventor for his best advantage.

It should also assist in effecting license or sale, by proving the correct value and affording a ready proof to lay before manufacturers or capitalists.

As this valuation is necessarily antecedent to a commercial working of the invention and will have most important bearings on the actual practical form given to the latter, it should be more or less always in view and in process of development as the invention itself gradually assumes form and grows to completion.

How to commercially develop a Patent.—The pecuniary and other circumstances of the inventor, the nature of the invention, and the general methods of the trade to which the invention most nearly relates will decide whether the inventor should work his invention himself or find others to do so. Decision on such point must naturally be left to the personal judgment of the inventor. Should the latter decide to retain the working in his own hands, the methods of working must also so far depend on the nature of the invention and of the trade that no rules can be stated. As the principal purposes are to create a public demand and to prevent competition, the various means of advertising would require more than usual attention on the one hand, and a careful eye kept on the patent on the other. The patent is of the nature of an absolute and exclusive goodwill of the invention, so care should be taken to avoid forgetting the renewal fees as they become due. It should be also borne in mind that as improvements may be brought out by others the use of which may require infringement of the patent in question, the new applications for patents should be carefully scanned, not necessarily solely to oppose the grant of similar patents but to obtain the royalties from patentees of improvements, which are a distinguishing and valuable feature of property in patents, and which tend to increase in value and amount as the life of the patent gradually moves to its expiry.

Patent Sale Agents.—There are no recognised "patent brokers," or persons who truly make a business of buying and selling patents, and a short examination will show the reasons for their absence. First of all, such business would require a diversity of knowledge and qualities seldom if ever met with in any individual, since the negotiating of a patent requires a very intimate knowledge of the practical side of the trade to which it particularly relates, and no one man can claim the

possession of such experience in every trade. Nor would the commission chargeable be a sufficient remuneration for the time such a study would require. A further reason lies in the inutility of such a profession, for every patentee can equally do for himself all that such a broker or sale agent could do for him, thus saving the commission. We must presume that every patentee at this stage has acquired a considerable knowledge of the practice of the trade to which his invention relates. The working out of his invention, the inquiries necessitated during its development and the like, will have brought him into touch with the trade, if he was not already connected with it, and given him a knowledge of its conditions probably superior to that of any so-called sale agent. The inventor does not need a sale agent as he needs a patent agent, for the latter business is more concerned with the *legal* side of the patent system, with which the patentee is not brought into personal contact, as he is with the practical side of the patent. It must indeed be assumed that if the patentee has not acquired a sufficient knowledge of the trade into which it is his object to introduce a new invention, and simply trusts to a sale agent, his efforts will be unsuccessful, for no man embarks on a direct business of which he knows nothing simply trusting to the trade knowledge of a manager, especially when he is unqualified to judge whether that manager has any such trade knowledge at all.

There is a class of practitioners who make a great pretence of negotiating patents. Such business is entirely foreign to the proper avocation of a patent agent, and it is to be feared that it is resorted to in many instances simply to attract business from inventors.

The principal patent agents do not hold themselves out as sale agents, though in their connection they will often number manufacturers interested in patents to whom they are not averse from introducing inventors with genuine novelties.

How to Sell or License a Patent.—To effect the sale of a patent the first consideration should be given to selecting the class of persons to whom the public use of the invention would be capable of bringing the most pecuniary profit. Such a class will most usually be the manufacturers of like goods, first, because they, as producers, are at the commencement of the chain of middlemen trading to the probable consumer of the particular article in question, and, secondly, because they will already have their staff of workpeople, travellers, and others by which the article may become made and delivered

to the retailer, and no great initial expense on that score will be laid against the introduction of the patent. The study of directories at the centres of such industry and inquiries in the locality will discover the best and most likely names, and in no case will any introduction from a third party be necessary to obtain courteous hearing from men of trade who are as interested in extending their range of paying manufactures as the patentees are in their particular inventions. The patentee should prepare himself with a reasoned account of the commercial value of the invention, showing the cost of manufacture, selling price, and estimated profit, so that business men may be provided with the material on which they may come to a judgment. He should provide samples or models, finished as far as possible, as the invention will be when put on sale, drawings should be neat and clean. A copy of specification should be taken, though if a provisional only it is not always advisable to disclose the exact terms of this document till negotiations are sufficiently advanced to point to a definite conclusion. If the patentee has a *written* report of a patent agent on the novelty, that will be of assistance, but verbal assurances on the patentee's part that the invention is new have but little weight. A previous valuation of the patent will show the patentee what amount he can reasonably ask either for an outright sale or a license upon royalty.

Cautions on Assignment.—To give the purchaser of a patent a *legal* title, the patentee requires to sign a deed of assignment, usually prepared at the expense of the purchaser, to be registered at the Patent Office. The patentee should be cautious in signing the deed put before him as the wording may commit him to guarantees which he did not intend. The seller should not be required to guarantee the validity of the patent, that the patent is valid should be taken as an admitted fact between the parties, and therefore placed in the commencement of the deed among the "recitals." The purchaser before closing the bargain should cause the register of patents to be examined at the Patent Office to ascertain that no previous assignment by the seller to anyone else has been registered. The purchaser should register the deed of assignment without delay. The costs of registration, stamp fees and revenue fees, if any, are usually borne by the purchaser, unless otherwise agreed.

Cautions on License.—The remarks as to assignments apply also to licenses, which may be "parole," but are best made by deed. All possibilities that may occur as to the patent,

or between the licensee and licensor, should be provided for and as these are much more complex than a simple sale, which is completed and finished then and there, the license presents considerable difficulties in drawing up, and innumerable pitfalls. On the drawing up of the deed a professional man should be consulted, and a knowledge of Patent Law and practice is essential for the proper practice of this difficult branch of conveyancing. The general terms of the license must, however, be settled beforehand by the parties, and it should be clearly ascertained who is to pay the renewal fees, &c., bring or defend suits against infringement, revocation, &c., how the royalties are to be computed, checked, and paid, what is the minimum of such payment, in what events the parties shall be at liberty to cancel the license, and what shall be the penalties for breach of any condition.

Sale to Companies, Syndicates, &c.—The “capitalist” whom the sale agent professes to have on hand is usually a myth of the imagination, but inventors will often be able to influence their friends and others to speculate comparatively small amounts by forming small companies or “syndicates” to purchase or work their inventions, or to form a larger company to do so. The value of the invention and the amount of capital required should be estimated, and the shares of the syndicate appropriately divided, thus if the inventor be content with a third share of the profits, and 600*l.* be sufficient working capital, he may find six men to take a 100*l.* share each in a syndicate of 900*l.* capital, he himself taking three shares as fully paid in return for his invention. Such syndicates are often formed to provide expenses for formation of a public company, in which advertising, brokerage, and expenses generally will often amount to from 500*l.* to 3,000*l.* or more, but from which perhaps ten times as much is expected for the invention, in such cases the patentee may retain more than half the shares of the syndicate, perhaps two-thirds, as may be agreed. The success of such companies depends greatly on the management; many have failed through proceeding to allotment on insufficient subscriptions, and then using up their modest capital in elaborate offices, &c. The prospectus of any company formed to purchase a patent should contain professional reports on the validity of the patent, and the wording of such reports should be closely noticed by intending investors.

Arbitration.—In view of the proverbial uncertainty of legal proceedings, and the comparatively high cost to the loser, recourse is often had to arbitration to settle disputed questions

of infringement. If a trustworthy arbitrator be chosen, whose opinion in questions combining the law of patents with considerations affecting the particular art to which the invention relates, is entitled to recognition, the cost of such an inquiry will be found to be materially reduced, perhaps to one-fifth or one-quarter, and a decision will be more speedily arrived at. The parties should agree to abide by the decision of the arbitrator.

General Advice.—Before instituting or threatening any suit of infringement, the patent should be carefully examined, with a view to ascertaining its validity in every particular, and the question of infringement should be submitted to a patent agent whose work eminently fits him to recognise the “points” of the infringement, as well as the construction of the specification of the patent. Many useless suits are brought which, if such opinion had been taken, would have been abandoned or compromised. A mere offhand opinion should not be taken, but a thorough examination, coupled with such search as may be considered necessary. Care in the original patenting will greatly do away with the necessity of risking a lawsuit, and will render the result of any suit more easily foretold. Especially in this connection a stitch in time saves nine.

CHAPTER VII.

THE COMMERCIAL VALUATION OF PATENTS
AND PROVISIONAL PROTECTIONS.

Factors for Valuation.—Many inventors have very erroneous ideas as to the value of their patents, because judging the matter solely from the point of view of the value of the invention, they neglect to take into consideration the various modifying factors which the practical working of the patent system brings into operation to effect the result. They judge wholly from the invention, and not from the patent.

Commercial Value of Invention.—First it must be recognised that the value of the rights given under the patent is not necessarily determined by the commercial value of the invention, though the latter must always be a principal factor in the calculation. The estimated commercial value of the invention is the value of the superior efficacy of the invention over the best of its competitors, in each instance of its employment multiplied by the number of instances of its employment, or likely employment, and by the time during which it is likely to have pre-eminence. It is impossible to calculate beforehand an absolute commercial value for any invention, because though its value over competitors may be stated with exactness, commensurate with sufficiency of calculation, the number of instances of its employment, its rate of output of product, and the duration of its use, can only be matters of conjecture, more or less accurate, according to the practical experience of the calculator.

Commercial Pre-eminence.—Value of use is the advantage possessed by the invention over previously existing processes, methods, machines, &c., in use with the same object. It is capable of exact calculation and expression in terms of value, thus whether a machine or process, the advantage may be in decrease of initial cost of construction or installation, decrease of working expenses, improved number or quality of vendible

or usable product, in any or all these. The advantage in each case may be expressed as so much monetary saving.

Value of Production.—It is true that when the invented matter itself is the vendible product, or where it is for personal or domestic use, or for affording pleasure or instruction, or for any other purpose than commercial use, it is difficult to state a definite monetary value in its use for want of any commercial basis of comparison. In such case its estimated selling value, less the cost of its production, must be taken as the value of the invention as an article of trade. Inventions must, therefore, be first divided into two classes, according as to whether it is their use or their production which shows commercial value.

Instances of Use.—Having found the commercial value of the invention *per se*, the next point for consideration is the extent of its probable employment. For this, in every case statistics will be necessary, from which may be learned the volume of trade in or from the similar articles or methods which the invention is designed to supersede. If the invention is for use in production, an estimate should be made of the number of producers likely to be influenced to abandon the old for the new process (perhaps more or less dependent on the amount of profit in favour of the new invention, and the persuasiveness of the introducer). If the invention is itself an article for sale, the likely demand on the part of buyers of the articles which the invention supersedes should be considered.

Length of Time of Monopoly.—Presuming the invention patented, the calculator should take note of the length of the term of the patent, as the term (14 years in Great Britain) is that during which the patentee retains the control of the trade in the invention, and, consequently, the opportunity of the profit. Nevertheless, as an established trade will continue to be profitable for some time after the monopoly expires, a slight additional amount may be reckoned for value of establishment, especially where the inventor is his own salesman.

Cost of Introduction.—On the other hand, there must be deducted the cost of introduction, and that, again, is a matter in which exact computation cannot be had, as it will depend on the peculiarities of the respective trade. Cost of starting works, if they are necessary, or of fitting up machinery for manufacture, or of altering such already fitted, and similar charges incidental to production must be estimated. Next, the cost of diffusion of knowledge of the invention or product to the

ultimate buyers or consumers, offices, travellers' expenses, advertising, and salaries of officials enter into consideration, these being all necessary expenses of manufacture which must be borne by the selling price of the product, whether the inventor engages in the business personally or seeks others to do so under license from him.

Where, however, the invention consists in a method of manufacture, cost of introduction will reduce itself to the expenses of the personal time, journeys, and experiments of the inventor or his substitute for information and proof to manufacturers likely to be interested in taking up the invention.

Value of Patent.—The above simply concerns the value of the invention in commerce and the probable profit that the inventor could make out of it according to the method of working that he may adopt, and this, of course, *should* be the value of the patent rights after deduction of a sum equivalent to the value of the patentee's time occupied in working the invention and interest on the capital employed.

In valuing a patent, however, the question arises: Does the patent retain absolutely in the patentee's hands all the commercial value we have found to exist in the invention, or is not some of this value or even all of it lost to the patentee through a partial or total failure of the patent?

It must be remembered that as a monopoly for the inventor the invention in itself possesses only a potential value, to which the patent may or may not give full practical effect.

Now, the effect of the patent depends on the manner in which the necessary application papers are made out, so that the actual value which the patentee has been able to secure for himself out of the amount of potential value in his invention will depend on the amount of care employed in patenting the invention, and particularly in the specifications. Presuming that the patent well and truly covers all the patentable novelty that there is in an invention, then the full value of the invention is secured to the patentee and represented by the patent, but just in proportion as the invention is deficiently protected or features of novelty omitted or not fully developed in the statement of the invention, by so much will the patent be reduced in value, until, in such lamentable cases where the patenting has been so badly done that the patent cannot be upheld at all, it is clear that its value is absolutely nil. Although these last mentioned cases are rare, they are not by any means unknown, it may be estimated that they amount to perhaps 10 per cent. of

the total number of patents granted. A far greater number, however, fail to secure the full value of the invention, frequently falling short of the latter by a considerable quantity.

If there is a point which an inventor often misses it is usually this; nevertheless, it is, commercially speaking, for him perhaps the most important feature of the whole patent system. It rests entirely in the method of definition of the invention in the specifications.

This point has already been more fully explained in Chapter V.

Estimation of Value of Patent.—The principal difference between estimating the full value to commerce of a new invention and the value of a monopoly secured by patent, is that, in the first instance, the full value of the improvement is allowed for, while in the second the question first is to ascertain what the patent covers prior to calculating the value of that.

The question may be put in the following words: What exact acts does the patent prevent others from doing, and what is the commercial value of those acts? The answer, which naturally varies greatly according to the specification of the patent, is the basis upon which the value of the patent rights can be judged. This, in fact, is the nett value of the monopoly over ordinary trading profits, and when followed by estimation on likely instances of user, during time of monopoly (14 years) and deduction of cost of introduction and of maintenance of patent, will give the estimated return from the patent during the term of the grant.

Present Value.—As to what sum would represent a fair price at the commencement of its term for a patent estimated to bring in during its term a certain sum, it is needless to say that property in patents has not a security equal to Consols, so that it must not be valued on the basis of such security. The present value of 14 years equal profits, say at 10 per cent., is about eight and a-half times one year's profit; 10 per cent. must, however, be considered as a somewhat small return for such a speculative investment, and, moreover, it is frequently found that the profits are less in the beginning than the end of the term. Probably four or five years' purchase would be a fair amount in average cases, but the amount must vary inversely with the probability of further improvements arising to oust the invention from commercially profitable use.

Infringement of prior Patents.—Amongst causes for deduction in estimate of value, it must not be forgotten that the employment of the invention may entail infringement of previously existing patent rights. The invention may be per-

fectly new and valuable so far as it goes, but it may not be possible to employ it without using also some other invention protected by a previous patent. In such a case it would be necessary to seek the leave of the former patentee to use his invention, or such part of it as may be needed. This he will doubtless be willing to do on satisfactory terms as to payment of royalty. Such amount or royalty must, of course, be deducted in estimating the value of the new patent.

Naturally this necessity of payment of royalties to former inventors only exists where the patents of the latter are valid and properly worded so that the new invention cannot be used without infringement of the patent rights of the former inventors. An inventor who aspires, therefore, to be some day in position to receive royalties himself from succeeding inventors, must be exceedingly careful in the wording of the specification for his patent.

Even presuming that the patent in itself is in every way valid, a search should always be made among the patents in force, if not by the inventor, certainly in any case by the intending purchaser to ascertain if the use of the patent is not in fact an infringement of existing rights of others.

Part II.—The British Law of Patents.

CHAPTER I.

HISTORICAL DEVELOPMENT OF THE PATENT LAW.

The Statute of Monopolies.—The first statutory definition of a patentable invention is found in the Statute of Monopolies, passed in 1623, in the 21st year of the reign of James I. Delivered against the unjust and intolerable monopolies of common articles of merchandise and necessaries of life issued to courtiers and others to swell the Crown revenues, this Statute declared all such monopolies in general to be void and of no effect, but by Sect. 6 made exception in favour of patents for new inventions in the following words:—

“ Provided that any declaration before mentioned shall not extend to any Letters Patent and grants of privilege for the term of fourteen years or under hereafter to be made of the sole working or making of any manner of new manufactures within this realm to the true and first inventor and inventors of such manufactures, which others at the time of making such Letters Patent and grants shall not use, so as also they be not contrary to the law nor mischievous to the State, by raising prices of commodities at home, or hurt of trade, or generally inconvenient, the said fourteen years to be accounted from the date of the first Letters Patent or grants of such privilege hereafter to be made, but that the same shall be of such force as they should be if this Act had never been made, and of none other.”

As may be seen from the concluding words of this section, which is still in force, the Act introduced no new law, but left Letters Patent for inventions in the same state as they were before, merely limiting their duration and distinguishing them

in terms from the monopolies declared to be illegal. The basis of the patent system is, therefore, the common law.

Nature of Illegal Monopoly.—An illegal monopoly, according to Sir Edward Coke, is “a grant or allowance from the King by his grant, commission, or otherwise, to any person or persons, bodies politic or corporate, of or for the sole buying or selling, making, working, or using of anything whereby any person or persons, bodies politic or corporate, are sought to be restrained of any freedom or liberty that they had before or hindered in their lawful trade.” It cannot be said that any man is directly hindered in his lawful trade by the Crown granting a monopoly for a time of a new invention, which, under the very terms of the grant as now practised, being undisclosed at the time, could not have been known to any such individual; nor can such a monopoly deprive a manufacturer of any freedom or liberty that he had before, since such freedom or liberty necessarily implies a then existing knowledge on his part of the alleged invention, which would at once deprive the latter of its character of novelty, and the claimant of his title to pose as true and first inventor.

But, on the contrary, when the matter of the invention is new and not already within the lawful capacity of any other person to put in practice, that is to say, following the words of the judgment given in the previously decided case of *Darcy v. Allin*,¹ “where any man, by his own charge and industry, or by his own wit and invention, doth bring any new trade into the realm or any engine tending to the furtherance of a trade that never was used before, and that for the good of the realm, in such cases the King may grant to him a monopoly patent, for some reasonable time, until the subjects may learn the same in consideration of the good that he doth bring by his invention to the commonwealth, otherwise not.”

That the original object of the grant of the patent was to encourage the setting up of a new manufacture, “so that the subjects may learn the same,” is also clearly shown in *re Clothworkers of Ipswich*,² decided in 1615, where it is stated that the patent is granted to the inventor, “that he only shall use such a trade or traffic for a certain time because at first the people of the kingdom are ignorant and have not the knowledge or skill to use it.”

Instruction of Public in Invention.—For the succeeding hundred years but little advance was made in Patent Law;

¹ 1 *Web. P.C.*, 6.

² *Godbolt's R.*, 252.

the provision was usually inserted in the Letters Patent that the patentee should keep and instruct one or more servants or apprentices in the use and practice of the invention, and in some instances the Letters Patent themselves contained a short though usually most inadequate account of the invention. It was not until the reign of Anne that the custom arose of requiring the inventor to deposit as a public record a description of his invention. The utility of this change in practice was soon so apparent that all patents granted thenceforth contained the proviso that the grant should be void if a specification particularly describing the nature and mode of practice of the invention was not enrolled within a certain time. This important stride in patent practice opened the field for a new series of questions requiring judicial determination. The specification of the patent always presented a vulnerable object for the attack of infringers, and the great public importance of the sufficiency of that document naturally led to a series of decisions requiring such perfection that in the absence of a definitely adopted scheme of draughting few were found to stand the tests successively imposed.

Amongst the reported cases may be found many references to the object of the specification; thus in *Rex v. Arkwright*, 1785,¹ it was stated that the specification is to put the public in possession of the secret in as ample and beneficial a manner as the patentee himself uses it. Seven years before, the absence of a direction as to the use of tallow to temper the steel used in making a patent truss was held to vitiate the patent.² If the patentee knew of a better way than that mentioned in his specification his patent was held bad,³ even when the way described was itself perfectly operative.⁴ Similarly, if the patentee described needlessly expensive materials,⁵ or a needlessly protracted process, such as describing how to make materials necessary which could already be purchased in the trade,⁶ or so wrote his specification that the public would be induced to make experiments which he knew must fail, as, for instance, where a patentee had claimed the use of a suitable cloth, but preferably a particular kind described, whereas in truth he had found that only that particular description of

¹ 1 *Web. P.C.*, 66.

² *Liardet v. Johnson*, 1 *Web. P.C.*, 53.

³ *Bovill v. Moore*, 1816, *Dac. P.C.*, 400.

⁴ *Wood v. Zimmer*, 1815, 1 *Web. P.C.*, 82.

⁵ *Turner v. Winter*, 1787, 1 *Web. P.C.*, 81.

⁶ *Savory v. Price*, 1823, 1 *Web. P.C.*, 83.

cloth would answer the purpose,¹ patents were held void. Everything described was held to be claimed unless it were specially disclaimed, therefore it became settled that if the invention resides in an improvement only, the specification should not include the whole apparatus as improved but only the improvement.² Nevertheless, the question was raised in *Hornblower v. Boulton*³ whether such a description was sufficiently extensive. The practice thus arose of requiring the patentee to distinguish new from old,⁴ and the nature of an invention began to be discerned as something apart from the performance.⁵ It was already recognised that a patentee might claim too much,⁶ and that such would render the patent void, whether done unintentionally or fraudulently.⁷ It was also decided that if the invention comprises several things and one of those is wanting in patentability the whole patent is invalid;⁸ the failure must, however, be in a material part.⁹

These decisions rendered it advisable to provide for the correction of specifications after they were filed, and by the Act of 1835 this and other reforms were instituted. This act of 5 and 6 William IV, c. 83, usually known as Lord Brougham's Act, enabled a patentee to disclaim any part of his specification or title of his invention to which he could not properly lay claim, made provision also for prolongation of a patent for a further term of seven years, where the patentee proved to the Privy Council that he had not received adequate remuneration, and also permitted patents in certain events to be confirmed and declared valid where doubt or adverse evidence existed proving anticipation.

This Act was amended in relation to the prosecution of petitions for prolongation in 1839 by Act of 2 and 3 Vict., c. 67, and again in 1844 by 7 and 8 Vict., c. 69, to permit of the prolongation of patents for any term not exceeding in ordinary cases seven, and in extraordinary cases fourteen years.

In 1849 the Act of 12 and 13 Vict., c. 109, named the Record

¹ *Crompton v. Ibbotson*, 1828, 1 *Web. P.C.*, 83.

² *Williams v. Brodie*, before 1785, cited *Dav. P.C.*, 96; *Hill v. Thompson*, 1818, 1 *Web. P.C.*, 247.

³ 1799, 8 *T.R.*, 103.

⁴ *Manton v. Manton*, 1815, *Dav. P.C.*, 349.

⁵ *Harmer v. Playne*, 1809, *Dav. P.C.*, 316.

⁶ *R. v. Else*, 1785, 1 *Web. P.C.*, 76; *Huddart v. Grimshaw*, 1803, *Dav. P.C.*, 279.

⁷ *Bovill v. Moore*, 1816, *Dav. P.C.*, 414.

⁸ *Branton v. Hawkes*, 1821, 4 *B and Ald.*, 549.

⁹ *Hill v. Thompson*, 1818, 1 *Web. P.C.*, 249.

Office of the Court of Chancery as the sole place for deposit of specifications.

In 1852 the procedure in the grant of patents was radically amended by the Patent Law Amendment Act, 15 and 16 Vict., c. 83, the fees were reduced, and provision was made by statute for the filing of a provisional specification with each application which was not accompanied at the time by the complete specification eventually necessary. In pursuance of a system inaugurated some few years before by the Law Officer, this rule was aimed at obtaining from the applicant such a description of his invention that it might afterwards be ascertained that the complete specification was the legitimate outcome of the invention in the mind of the applicant when the patent was applied for, whereas formerly the applicant obtained his patent simply on the title of the invention such as "Improvements in the manufacture of bricks," and did not specify what the improvement was till afterwards. This Act was amended in 1853 by the 16 and 17 Vict., c. 5 and 115, and certain minor improvements relating to protection of inventions for munitions of war and at exhibitions were made by the Acts of 1859, 22 Vict., c. 13; 1865, 28 and 29 Vict., c. 3; and 1870, 33 and 34 Vict., c. 27.

The Patents, &c., Act of 1883, which came into force on the 1st of January, 1884, repealed the above Acts with the exception of Sect. 6 of the Statute of Monopolies, and under certain savings as to patents then in force, again greatly changed the nature of the procedure. The fees payable on application and on complete specification were reduced to 1*l.* and 3*l.* respectively, the filing of the latter specification was made a condition precedent to the grant of the patent, the Patent Office was placed under a Comptroller of Patents assisted by a staff of examiners, and provision was made for ordering the grant of compulsory licenses by the Board of Trade. The condition formerly inserted in patents under the Act of 1852 that the patent should expire with any previously granted foreign patent was omitted, and many other changes were made which will be noticed at their proper places in the text.

The Act of 1883 as amended in some minor particulars in 1885, 1886, and 1888, together with Sect. 6 of the Statute of Monopolies, still unrepealed, are the only statutes at present in force in Great Britain in relation to patents for inventions.

CHAPTER II.

LETTERS PATENT: TERMS AND CONDITIONS OF GRANT.

Kinds of Patents.—There is but one kind of patent for invention contemplated by the British Patent Law, and it is granted equally whether the invention be wholly new, or only an improvement or addition to some foregoing invention. There are no patents of addition, as there are, for instance, in France, by means of which the patentee of an invention can add to his original patent from time to time such minor improvements of detail as come within the general scope of the manufacture of the original. All such improvements if to be specially protected must receive separate patents.

By Sect. 33 of the Act of 1883 a patent shall be granted for one invention only, but (the specification)¹ may contain more than one claim; it is not competent for any person in an action or other proceeding to take any objection to a patent on the ground that it comprises more than one invention. For Provisional Protection see Chapters IV and XIII; Protection at Exhibitions, Chapter XXII.

Form of Patent.—The form in which patents are granted is as follows:—

VICTORIA, by the grace of God, of the United Kingdom of Great Britain and Ireland, Queen, Defender of the Faith: To all to whom these presents shall come greeting: WHEREAS John Smith, of 29, Perry Street, Birmingham, in the county of Warwick, engineer, hath represented unto us that he is in possession of an invention for “Improvements in Sewing Machines,” that he is the true and first inventor thereof, and that the same is not in use by any other person to the best of his knowledge and belief; AND WHEREAS the said inventor hath humbly prayed that We would be graciously pleased to grant unto him (hereinafter together with his executors,

¹ These words were omitted from the Act, doubtless by error, since it is the specification and not the patent deed that includes the claim.

administrators, and assigns, or any of them, referred to as the said patentee) our Royal Letters Patent for the sole use and advantage of the said invention: AND WHEREAS the said inventor hath by and in his complete specification particularly described the nature of the said invention: AND WHEREAS We being willing to encourage all inventions which may be for the public good, are graciously pleased to condescend to his request:

KNOW YE, THEREFORE, that We, of our especial grace, certain knowledge, and mere motion, do, by these presents, for us, our heirs, and successors, give and grant unto the said patentee our especial licence, full power, sole privilege, and authority, that the said patentee, by himself, his agents, or licensees, and no others, may at all times hereafter during the term of years herein mentioned, make, use, exercise, and vend the said invention within our United Kingdom of Great Britain and Ireland, and Isle of Man, in such manner as to him or them may seem meet, and that the said patentee shall have and enjoy the whole profit and advantage from time to time accruing by reason of the said invention, during the term of fourteen years from the date hereunder written of these presents: AND to the end that the said patentee may have and enjoy the sole use and exercise and the full benefit of the said invention, We do by these presents for Us, our heirs and successors, strictly command all our subjects whatsoever within our United Kingdom of Great Britain and Ireland and the Isle of Man, that they do not at any time during the continuance of the said term of fourteen years, either directly or indirectly, make use of, or put in practice, the said invention, or any part of the same, nor in anywise imitate the same, nor make, or cause to be made, any addition thereto or subtraction therefrom, whereby to pretend themselves the inventors thereof, without the consent, license, or agreement of the said patentee in writing under his hand and seal, on pain of incurring such penalties as may be justly inflicted on such offenders for their contempt of this our Royal command, and of being answerable to the patentee according to law for his damages thereby occasioned: PROVIDED that these our Letters Patent are on this condition: that if at any time during the said term it be made to appear to Us, our heirs, or successors, or any six or more of our Privy Council, that this our grant is contrary to law or prejudicial or inconvenient to our subjects in general, or that the said invention is not a new invention as to the public use and exercise thereof within our United Kingdom of Great Britain and Ireland and Isle of Man,

or that the said patentee is not the first and true inventor thereof within this realm as aforesaid, these our Letters Patent shall forthwith determine, and be void to all intents and purposes, notwithstanding anything hereinbefore contained: PROVIDED ALSO, that if the said patentee shall not pay all fees by law required to be paid in respect of the grant of these Letters Patent, or in respect of any matter relating thereto, at the time or times, and in manner for the time being by law provided; and also if the said patentee shall not supply or cause to be supplied, for our service all such articles of the said invention as may be required by the officers or commissioners administering any department of our service, in such manner, at such times, and at and upon such reasonable prices and terms as shall be settled in manner for the time being by law provided, then, and in any of the said cases, these our Letters Patent and all privileges and advantages whatever hereby granted shall determine and become void notwithstanding anything hereinbefore contained: PROVIDED ALSO, that nothing herein contained shall prevent the granting of licenses in such manner and for such considerations as they may by law be granted: AND lastly, we do by these presents for us, our heirs and successors, grant unto the said patentee, that these our Letters Patent shall be construed in the most beneficial sense for the advantage of the said patentee. IN WITNESS whereof We have caused these our Letters to be made Patent this day of , one thousand eight hundred and , and to be sealed as of the day of , one thousand eight hundred and .

Term of Patent.—By Sect. 17 of the Act of 1883 the term limited in every patent for the duration thereof shall be fourteen years from its date. By Sect. 13 every patent shall be dated and sealed as of the day of the application therefor. The term may be extended in exceptional cases. (See chapter on Prolongation of Patents.)

Territory covered by Patent.—Every patent when sealed shall have effect throughout the United Kingdom of England, Scotland, Ireland, and Wales and in the Isle of Man. It does not now extend to the Channel Islands or to the British colonies or dependencies.

Provisos for the Determination of Patent.—These contained in the deed are only two in number as shown in the above form of patent; the first of these is intended to comply with the concluding words of Sect. 6 of the Statute of Monopolies, and so far as the proviso intends anything more

than to ensure a means of revoking unlawful patents, for instance, with regard to patents that may prove to be "prejudicial or inconvenient to our subjects in general," it is sufficient to say that it has never been put in operation, for no one has yet applied to the Privy Council to revoke the patent on that ground. So far, however, as it concerns the revoking of patents contrary to law there are other means of securing the revocation of invalid patents, so that except *pro formâ* this proviso is useless. The second proviso concerns the payment of renewal fees and supply of invention for the service of the Crown.

Renewal Fees.—Sect. 17 provides that every patent shall, notwithstanding anything therein or in the Act, cease if the patentee fails to make the prescribed payments within the prescribed times. The renewal fees prescribed in the schedule of the Act have under Sect. 24 been reduced by the Board of Trade, with the consent of the Treasury, and since 30th September, 1892, have been and are as follows:—

	£	s.	d.
Before end of 4th year, and in respect of the 5th year ..	5	0	0
„ „ 5th „ „ 6th „ ..	6	0	0
„ „ 6th „ „ 7th „ ..	7	0	0
„ „ 7th „ „ 8th „ ..	8	0	0
„ „ 8th „ „ 9th „ ..	9	0	0
„ „ 9th „ „ 10th „ ..	10	0	0
„ „ 10th „ „ 11th „ ..	11	0	0
„ „ 11th „ „ 12th „ ..	12	0	0
„ „ 12th „ „ 13th „ ..	13	0	0
„ „ 13th „ „ 14th „ ..	14	0	0

Formerly the fees were 10*l.* per year for the 5th, 6th, 7th, and 8th years; 15*l.* per year for the 9th and 10th years, and 20*l.* per year for the 11th, 12th, 13th, and 14th years. Fees are the same for all inventions. The Comptroller has no power to remit or reduce the amount of any fee. Patent agents usually advise their clients of each fee shortly before it becomes due to avoid risk of loss of patent by oversight.

Extension of Time for Payment of Renewal Fees.—Fees are receivable at any time up to and including the anniversary of the date of the patent. If that day fall on a Saturday, Sunday, Christmas Day, Easter Friday, or any day observed as a holiday at the Bank of England,¹ or as a day of public feast or thanksgiving,² the payment may be made on the day next following such day or days.³

¹ These are, the day following Christmas Day, Easter Monday, Whit-Monday, and the first Monday in August.

² Usually only the Queen's Birthday.

³ Patents Act, 1883, Sect. 98.

If, nevertheless, in any case, by accident, mistake, or inadvertence a patentee fails to make any prescribed payment within the prescribed time, he may apply to the Comptroller of Patents for an enlargement of time for making that payment, and thereupon the Comptroller shall, if satisfied that the failure has arisen from any of the above-mentioned causes, on receipt of the prescribed fee for enlargement, not exceeding ten pounds,¹ enlarge the time accordingly subject to the conditions that the time for making shall not be enlarged for more than three months, and in case of a suit of infringement the Court may, in its discretion, refuse damages for any infringement occurred between the usual due date of the fee and the date of the enlargement of the time for payment.²

If more than three months has elapsed since the fee became due, the patentee can only recover his patent by way of a private Act of Parliament.³ If no extension is had, the patent is considered to have become non-existent on omission to pay the fee.⁴

User by the Crown.—The proviso that the patentee shall supply goods for the service of the Crown is controlled and rendered effectual by Sect. 27 of the Act of 1883. By this section patents dated since the beginning of 1884 have the same effect against the Crown as against private persons, but the authorities of any department of the service of the Crown may use an invention on terms to be agreed, either before or after such use. In case of disagreement the Treasury shall settle the terms.

Patents prior to 1884 are not subject to this clause, but, in accordance with law in force when they were granted, may be used by the Crown Authorities or their Agents without remuneration.⁵

But a contractor who has taken work from the Crown on his own responsibility may not use such invention without infringement.⁶

Compulsory License.—If any person on petition to the

¹ The present fees are 1*l.* for one month, 3*l.* for two months, and 5*l.* for three months. The respective fee is payable at the time the renewal fee is paid.

² Patents Act, 1883, Sect. 17, Sub-sect. 2-4.

³ There have been several examples of such Acts; the expense, if unopposed, may be taken at from 600*l.* upwards.

⁴ *Hazlehurst v. Rylands*, IX *R.P.C.*, 7.

⁵ *Feather v. The Queen*, 2 *B and S.*, 257.

⁶ *Dixon v. London Small Arms Company*, 1877, *L.R.*, 1 *App. C.*, 632.

Board of Trade¹ proves that by reason of the default of the patentee to grant licenses on reasonable terms either (a) the patent is not being worked in the United Kingdom; or (b) the reasonable requirements of the public with respect to the invention cannot be supplied; or (c) any person is prevented from working or using to the best advantage an invention of which he is possessed; the Board may order the patentee to grant licenses on such terms as to the amount of royalties, security for payments, or otherwise, as the Board, having regard to the nature of the invention and the circumstances of the case, may deem just.

The Patent Office rules specify the method of procedure, but from the infrequency of such cases, they will not be here repeated. There have not been many applications to the Board under this section, and the cases are not reported.

There is no appeal from the decision of the Board of Trade. The order may be enforced by mandamus.

Patents granted before the 1st January, 1884, or on any application then pending are not subject to this section relating to compulsory licenses.²

Working.—Apart from the right of Government interference to order the grant of a compulsory license, which is designed simply to prevent the patentee from acting the *rôle* of the dog-in-the-manger, which as a rule he is certainly not anxious to do, a patentee may proceed to work the invention or not as he pleases. There is no legal requirement to work the invention in Great Britain within any specified time, or indeed at all.

Expiry with Foreign Patents.—Patents dated before 1884, by provision of the Act of 1852, expire with any previously granted foreign patent, and were not relieved from the liability by the present Act; but patents dated on and after 1st January, 1884, are not liable to expire with any prior patent abroad, owing to the omission of such provision from the Act of 1883.

Models.—An applicant for patent does not need to file a model of his invention, nevertheless the Department of Science and Art *may* at any time require a patentee to furnish a model on payment to him of the cost of the manufacture; in case of dispute the amount to be settled by the Board of Trade.³

Foreign Ships.—A patent shall not prevent the use of an

¹ Patents Act, 1883, Sect. 22.

² Patents Act, 1883, Sect. 45 (2).

³ Patents Act, 1883, Sect. 42.

invention for the purposes of navigation of a foreign vessel within the jurisdiction of any Court in the United Kingdom, or Isle of Man, or the use in a foreign vessel, provided such use is not connected with the manufacture or preparation of anything intended to be sold in or exported from the United Kingdom or Isle of Man,¹ but this section does not extend to the ships of any foreign country which refuses such license to British ships.²

¹ Patents Act, 1883, Sect. 43 (1).

² Patents Act, 1883, Sect. 43 (1).

CHAPTER III.

LETTERS PATENT: ENFORCEMENT DEPENDENT
ON LEGAL VALIDITY.

Validity of Patent.—In addition to the provisions contained in the Letters Patent for rendering them void in certain events, the patent is ineffectual against infringers, and is liable to revocation, *ab initio*, if it is contrary to law, that is to say contrary to the Statute of Monopolies.

Invalid patents of this nature could be repealed before the Act of 1883 by proceeding by "*scire facias*," but although this proceeding was done away with by the Act of 1883, Sect. 26, all the grounds of repeal were retained and made available, not only as grounds of revocation of the patent, but also by way of defence to action of infringement.

Whether revoked or not, a patent cannot be enforced so long as any ground of invalidity can be proved against it.

Grant of Patent no Proof of Validity.—An "invention," for which Letters Patent may be granted, is defined by Sect. 46 of the Act of 1883, to be "any manner of new manufacture the subject of Letters Patent and grant of privilege within Sect. 6 of the Statute of Monopolies and includes an *alleged* invention."

Letters Patent may therefore be lawfully granted in respect of any matter, provided it be alleged to be an invention; the validity of the grant will, however, be dependent on the truth of the allegation. Thus, Letters Patent can be granted, and in fact are granted, without previous examination as to the alleged invention being one for which a valid patent can be given, and the grant or existence of a patent is no ground for concluding that the invention is a patentable one.

Grounds of Validity.—Referring to the Statute of Monopolies, it will be seen that a patent shall be granted only in respect of a "manner of new manufacture within this realm. . . . which others at the time of making such Letters Patent shall not use," that is to say, only for manufactures new to the realm and not in use by others at the time.

Moreover, any such patent shall be granted only to the true and first inventor or inventors of such manufactures, and must not be "contrary to the law nor mischievous to the State by raising prices of commodities at home," nor to the "hurt of trade, or generally inconvenient."

The ideas formerly prevailing with monarchs as to the broad latitude of subjects for patents will provide a sufficient explanation for the concluding words which, though included in a somewhat similar proviso in each patent deed, are never raised severally against a patent. From them, as pointed out by Baron Parke in *Morgan v. Seward*, may be derived the dictum that an invention to be patentable must possess utility, which is certainly insisted upon in law, though not found in the first part of Sect. 6 of the Statute, which requires only that the invention be new and not in use by others.

The words "manner of manufacture" presume a certain class of "subject matter," which may be called patentable to the exclusion of other classes; and "new within the realm, and not in use by others," illustrate other attributes to be possessed by such invention, which may be treated under the head of "novelty." The attributes of the rightful applicant, entitled "true and first inventor," also need further elucidation. Separate chapters are devoted to these subjects.

"Contrary to Law."—The Statute of Monopolies did not displace the common law, but merely gave form to the vaguer definitions previously advanced from time to time. To obtain a euphonistic formula for declaring void any patent once granted by the Crown, it was usually said that the patent must be held to be void as obtained by deceit upon the Crown.

Where the applicant was not the inventor, alone worthy of such reward, or where the invention was not new or not proper subject matter, the state of the law did not permit such facts in themselves to be grounds for voiding the patent, but only to serve as evidence that the Crown was deceived either to grant the patent to one not entitled in himself as inventor, or for an alleged invention which did not possess the value of novelty or otherwise imputed to it. It was already considered that patents were contrary to law if obtained by such so-called deceit, and one form of such deceit, namely, want of consideration for the grant was a convenient reason in itself, where the ground of the common law depended so much on the value of the invention to the State. Nevertheless, whether the invention is new and proper subject matter or not, the patent

must not be contrary to law in having been obtained by "deceit" on the Crown of any kind.

Deceit on the Crown is not necessary to be pleaded now, since the Statute of Monopolies has definitely stated requirements, of which non-performance may be pleaded in place of the broader ground, but one form of such plea, namely, want of—

Consideration for the Grant may be still desirable to retain under the present conditions. Before 1884, patents were granted before the complete specification was filed, under the proviso that if the specification "particularly ascertaining and describing the nature of the invention, and in what manner the same is to be performed," were not filed within a definite time the patent became void. If this specification, when filed, was afterwards proved to be in any way insufficient or misleading, the proviso was held not to have been properly complied with, and the patent was void. Under the Act of 1883, however, the grant of patent follows the filing and acceptance of the complete specification, and contains a recital that the latter has been filed. Under these circumstances, supposing the specification to be found in any way inadequate for its purpose, reliance must be placed on the ground of failure of consideration for the grant as a defence against the patent, being one of the grounds on which the patent might have been revoked by *scire facias*, which are retained in full by the present Act.¹

Partial Failure of Consideration.—It has always been considered that if a part of the patent is bad in law the *whole* is invalid, and cannot be enforced, even for that part which is proved to be good in law. The invention, whatever it may be, which is disclosed and stated to be such, is accepted by the Crown as a whole, and becomes the consideration for the patent which the inventor receives in return. If there is no consideration, or if the consideration is valueless, which is in effect the same thing, the grant is void.² If, also, the inventor points to a whole as his invention, whereas it is only a part to which he can properly lay claim, this is called "false suggestion,"³ and is in law a deceit on the Crown, principally because the consideration which the Crown actually receives is something different from that which the inventor has led the Crown to believe that he possesses. So also if a patent is taken out for several different things, the entire discovery of all these things

¹ Of 1883, Sect. 26 (8).

² *R. v. Mussary*, *Bull. N.P.*, 76a; 1 *Web. P.C.*, 41.

³ *Re Jessop's Patent*, 1 *Web. P.C.*, 42.

is the consideration upon which the patent is granted; and consequently, if any one of those things turns out to be no invention, the consideration fails as a whole, and the patent, being equally a whole, fails also.¹ This confirms a previous decision, that if any material part of the alleged discovery fail the patent is altogether void.² If part of what is claimed, for instance, is wanting, either in subject matter for a patent, or in novelty, the whole patent is void.³ However, where a patentee had described a part as useful which afterwards proved useless, he not having claimed it as essential to his machine, the patent was upheld.⁴ An inventor of railway signalling had failed to distinguish cases in which it would answer from those in which its use would be fraught with great danger from failure: the patent was held void.⁵ A separate claim for a method of cutting nails proved to involve unnecessary waste, and consequently of no utility, was held to invalidate the whole patent.⁶

Even so late as 1893 a patent was held void on account of want of novelty of one of five claims, though the claim was for a practically unimportant part.⁷

Variance is another form in which the Crown may be deceived in relation to the consideration for the invention. Thus, when an inventor, commencing his application with a provisional specification, had stated his invention therein to be of a certain nature and had received his patent on that invention, under the proviso that within a specified time he should file a complete description of that invention, the description of a different invention or a further invention in the complete specification, was held to be a fraud on the Crown, which rendered the patent void. Cases showing the practical aspect of the question are referred to in the chapter relating to the "Complete Specification."

"**Variance**" under Act of 1883.—It has been supposed by many, taking but a superficial view, that under the Patents Act of 1883 the fatal effect of variance would be lost, since the procedure was altered to make the grant of the patent follow the filing and examination of the complete specification. It

¹ *Brunton v. Hawkes*, 4 *B. and Ald.*, 552.

² *Hill v. Thompson*, 2 *B. Moore*, 457; 1 *Web. P.C.*, 249.

³ *Kay v. Marshall*, 5 *Bing N.C.*, 501; 7 *Scott*, 561.

⁴ *Lewis v. Marling*, 1 *Web. P.C.*, 496.

⁵ *Easterbrook v. Great Western Railway*, 1885, 20 *R.*, 210.

⁶ *United Horseshoe, &c., Company v. Swedish Horseshoe Company*, VI *R.P.C.*, 1.

⁷ *Murchland v. Nicholson and Gray*, X *R.P.C.*, 428.

was argued that there could be no deceit on the Crown under these new conditions.

But "deceit on the Crown" is merely a formula really intending deceit on the public; and it is equally a deceit on the public, if the inventor, having obtained priority of date by filing a provisional specification, is to be allowed under a technical plea to "vary" his invention within the succeeding nine months so far as to include any other invention, in place of, or in addition to, that in his mind when he commenced his application. The door would be opened wide to fraud. Speculations, however, have been since set at rest, since variance as a ground of invalidity has been expressly decided in the House of Lords as still existing in full force.¹

For amendment generally, to cure such of the defects in a patent as are thus curable, see the chapter on "Amendments."

¹ Vickers, Son and Company, Limited, v. Siddell, R.P.C. VII, 203.

CHAPTER IV.

NATURE AND EXTENT OF PATENT RIGHTS.

Right of Application.—Sect. 4, Sub-sect. 1 of the Patents, &c., Act of 1883, accords right of application to any person, whether a British subject or not. But such person must be the true and first inventor, as stated in the Statute of Monopolies, and explained in Chapter X. The British law, however, does not allow the true and first inventor to obtain the patent of right, since it is granted entirely by grace and favour, and not of right.¹ Consequently the inventor cannot assign to others his right of application which is entirely personal to himself.² The British law, furthermore, contains no provision for assigning the application when made, and before the patent issues; thus, a provisional protection cannot be legally assigned. The most that can be done is under the permission accorded by the Act³ to the true and first inventor to associate any other person or persons, or a corporation, or limited company with himself in the application; either at the time of making the same, or by way of amendment, at any time up to the sealing of the patent.

A special exemption is made by Statute, where an inventor dies without having made application for patent; in such case an application can be made by and patent granted to the legal personal representative of such deceased inventor, provided the application be filed within six months of the inventor's death.⁴

Prerogative of Crown.—Sect. 116 provides that nothing in the Act of 1883 “shall take away, abridge, or prejudicially affect the prerogative of the Crown, in relation to the granting of any letters patent or to the withholding of a grant thereof.”

Rights Given by Patent.—The Letters Patent granted to the applicant invest him with “especial licence, full power,

¹ *Feather v. The Queen*, 6 *B. and S.*, 285.

² *Marsden v. Saville Street Foundry*, 1878, *L.R.*, 3 *Ex. D.*, 203.

³ Patents Act, 1883, Sections 4 and 5.

⁴ Patents Act, 1883, Sect. 84.

sole privilege, and authority" by himself, his agents, or licensees, and no others, to make, use, exercise, and vend the invention within the United Kingdom of Great Britain and Ireland and Isle of Man, in such manner as to him or them may seem meet, and assures to him or them "the whole profit and advantage from time to time accruing by reason of the said invention," so long as the patent remains in force; and, further, strictly commands all subjects whatsoever that they shall not "directly or indirectly make use of or put in practice the said invention, or any part of the same, nor in anywise imitate the same, nor make, or cause to be made, any addition thereto or subtraction therefrom, whereby to pretend themselves the inventors thereof, without the consent, license, or agreement of the patentee in writing under his hand and seal."

Any act performed in contravention of the above commands is termed an "infringement."

Commencement of Protection against Infringement.—Although the Act provides that the patent shall be dated and sealed as of the day of application, Sect. 13 provides, that no proceedings shall be taken in respect of any infringement committed before the publication of the complete specification. This occurs on the acceptance of the complete specification by the Comptroller after examination; and from that day forward, until the patent is actually sealed, the applicant obtains, under Sect. 15, the same rights as if the patent were already sealed, except that he may not institute any proceeding for infringement until the patent has been actually granted him. Protection from infringement thus occurs from the date of the publication of the acceptance of the complete specification, and anyone who has been infringing before that date will have to cease doing so. It has been held that an applicant whose complete specification has been accepted, may sue for an injunction against the continuance of the infringement, and such may be granted before the Letters Patent are actually issued.¹

Provisional Protection.—According to Sect. 14 of the Act of 1883, where an application for a patent in respect of an invention has been accepted, the invention may, during the period between the date of the application and the date of sealing such patent, be used and published without prejudice to the patent to be granted for the same; and such protection from the consequences of use and publication is referred to in the Act as provisional protection.

¹ Dowling v. Billington, 1890, *R.P.C.* VII, 191.

There is no difference in the procedure between obtaining provisional protection and full patent, the former is in every case given on acceptance of the application for a patent, as a matter of course; and this equally whether the application is accompanied by a provisional or complete specification in the first instance.

Duration of Provisional Protection.—This extends from the day of the application till the patent is sealed, and consequently the term varies according to the celerity with which the latter is accomplished. It may last from three months to fifteen or longer, but it has become the practice when speaking of a provisional protection to denote such as is obtained on filing a provisional specification with the application for patent, whereby the applicant obtains a respite of nine months to develop his invention and prepare and file the complete specification on the acceptance of which the fuller patent rights are obtained as before mentioned.

Nature of Provisional Protection.—The Statute of Monopolies requires an invention, the subject of a patent, to be new and not in use by others at the date of the making of the Letters Patent. To avoid the disadvantages to the applicant of having to keep his invention secret until the patent is actually sealed, the institution of provisional protection saves him from all consequences adverse to his patent arising from any publication or use before the actual sealing of the patent, and after application has been filed. The result is, therefore, to shift the determining date from the sealing to the date of application, so that the invention must be new, and not in use or known, at the date of application, to preserve the validity of the patent. The effect of an application for patent is therefore to give the applicant a defined date from which his priority over use and publication, and also over any other possible subsequent applicant, is assured. By Sect. 13 of the Act of 1883 the sealing of a patent on an application shall not prevent the subsequent sealing of a patent on an earlier application, so long as the latter is not abandoned, thus overruling cases¹ to the opposite effect decided prior to the Act.

Abandonment of Application.—It is provided that if the COMPLETE SPECIFICATION is not filed within nine months of the date of application,² or within ten months with the addition of a fine of 2*l.*,³ the application shall be deemed to be abandoned.

¹ *Bates v. Redgate*, 1869, *L.R.*, 4 *Ch. D.*, 577, and others.

² Patents Act, 1883, Sect. 8.

³ Patents Act, 1885, Sect. 8.

If, also, the complete specification, whenever filed, is not accepted within twelve months of the date of application, except in the case of an appeal having been lodged against the refusal to accept, the application shall become void.¹ The Comptroller has, however, power to extend this period, that is to say, will accept the complete specification, within an extended time, not exceeding three months, on payment of an additional fine of 2*l.* for one month; 4*l.* for two months; or 6*l.* for three months.²

It is a question of considerable importance to applicants how far the protection given under an abandoned application can be relied on. Before the Act of 1883 it was held that the abandonment of an application was not in itself an abandonment of the invention to the public,³ and in the same case (on the reading of the Act of 1852 declaring that upon the acceptance of the application, "the invention therein referred to may during the term of six months from the date of the application be used and published without prejudice to *any* Letters Patent to be granted for the same"), it was held that the patent would be equally valid, if granted on a new application for the same invention, the first being abandoned. In a subsequent case,⁴ this judgment was followed and extended by decision, that publication during the six months following on the abandoned application was no anticipation of the patent granted to the same person on a later application, filed just before the expiration of the six months. In view, however, of the different wording of the Act of 1883, which only saves the patent from the consequences of use or publication occurring between the date of application for patent and the date of sealing *such* patent, it is probable that any publication, &c., which may have occurred under a former abandoned application is no longer saved. As provisional specifications are now no longer published when the application is abandoned or rendered void⁵ there can occur no dedication to the public thereby and the first part of the decision in *Oxley v. Holden* above referred to may be presumed to stand.

Right of Assignment.—That the patent rights are assignable is inferred from the terms of the patent which confers the rights upon the inventor, his executors, administrators, and assigns. The Act of 1883, Sect. 36, permits a

¹ Patents Act, 1883, Sect. 9 (4).

² Patents Act, 1885, Sect. 3.

³ *Oxley v. Holden*, 30 *L.J.*, *C.P.*, 68.

⁴ *Lister v. Norton*, *R.P.C.* III, 206; *Griff. P.C.*, 153.

⁵ Patents Act, 1885, Sect. 4.

patentee to assign his patent for any place in, or part of, the United Kingdom and Isle of Man, as if the patent were originally granted to extend to that place or that part only. The patentee may also grant by assignment a part or share of the patent,¹ usually referred to as an undivided share, or he may assign the whole interest in some distinct part of the patented invention.² The right of assignment only accrues on the sealing of the Letters Patent under which the assignment purports to be made; but an applicant, in expectation of receiving patent or having a right of application, can enter into an undertaking to assign if and when such patent is granted, and specific performance of such a contract will be decreed when the patent is granted.³ A covenant in an assignment to secure any further improvements, &c., that the assignor may make is not contrary to public policy and may be enforced.⁴

Rights obtainable under Assignment.—The patent being a deed, assignment can only be made by deed, but a parole assignment may operate as an agreement to assign and be enforced accordingly. Under Sect. 87 where a person becomes entitled by assignment, transmission, or other operation of law, to a patent, the Comptroller shall, on request and on proof of title to his satisfaction, cause the name of such person to be entered as proprietor of the patent in the register of patents. This course is desirable immediately upon assignment for the protection of the purchaser, since the person for the time being entered in the register of patents as proprietor “shall, subject to the provisions of the Act and to any rights appearing from such register to be vested in any other person, have power absolutely to assign, grant licenses as to, or otherwise deal with the same, and to give effectual receipts for any consideration for such assignment, license, or dealing. Provided that any equities in respect of such patent may be enforced in like manner as in respect of any other personal property.”⁵

An unregistered assignment is valid between assignor and assignee and also against subsequent licensors holding from the assignor after the date of and with notice of the unregistered assignment,⁶ but is not effectual to enable the assignee to sue

¹ *Walton v. Lavater*, 8 *C.B.*, *N.S.*, 162.

² *Dunncliff v. Mallet*, 7 *C.B.*, *N.S.*, 209.

³ *Cogent v. Gibson*, 33 *Beav.*, 557.

⁴ *Printing, &c., Reg. Company v. Sampson*, *L.R.*, 19 *Eq.*, 464.

⁵ *Patents Act*, 1888, Sect. 87.

⁶ *Hassall v. Wright*, *L.R.*, 10 *Eq.*, 510.

infringers until registered;¹ it being undecided, but probable, that the registration when effected will in this case confer rights relating back to the date of the assignment subject to any intermediately registered assignment or license without notice.

Right of License.—A license is a permission granted by the patentee to some other person or persons to use or deal with the patented invention, or part of it, generally or in some particular manner, either throughout the whole or part of the territory covered by the patent, which without such permission would be contrary to the terms of the patent. In effect it is a limited exemption from liability in respect of infringement. Since the patentee cannot bring a suit of infringement until the patent is granted,² a license before grant is unnecessary, and since no act is an infringement until the complete specification is accepted, the license if retrospective need not relate back to before that date.

Nevertheless it is competent to an inventor having only provisional protection to grant a license thereon, and such license is not void for want of consideration though the subsequent patent is not so broad as the provisional specification appeared to warrant.³

A license is exclusive or non-exclusive. An exclusive license is usually held to exclude also the patentee himself, as well as to prevent grant of licenses for the same matter and place to others,⁴ but it is usual for the patentee to specially covenant not to use the invention or grant other licenses. An exclusive license practically vests the patent rights in the licensee for the time being, and *may* be construed as equal to, or containing a grant which will permit the licensee to sue infringers in his own name, but this is not necessarily so,⁵ for an exclusive license is only an ordinary license, coupled with a contract by the patentee that no other license shall be granted or use made. The validity of any further license granted in contradiction of such contract would depend upon notice, and registration of the exclusive license would probably in such case be sufficient notice; but registration is not a sufficient notice to all the world in respect of use of the invention, so that a sole licensee for a district, who could not prove that persons using machines, obtained from the patentee

¹ *Chollett v. Hoffmann*, 7 *Ell and Black*, 686.

² Patents Act, 1883, Sect. 15.

³ *Otto v. Singer*, *R.P.C.* VII, 7.

⁴ *Hindmarsh*, *Law of Patents*, p. 241.

⁵ *Heap v. Hartley*, 1889, *R.P.C.*, 495.

outside and brought into the district, had received notice of his exclusive license, was unable to sue such persons in his own name for infringement; it being the opinion of the Court that his was a license only, and contained no grant of the patent rights.¹

A license should be under seal, and preferably delivered as a deed; but a parole license will be upheld.² Whether estopped by deed or not, so long as the relation of licensor and licensee subsists,³ even under parole license,⁴ the licensee cannot put in issue the invalidity of the patent as a ground for non-fulfilment of his covenants to pay royalties or otherwise; nor can he, unless otherwise provided for in the license, release himself, where the patent has already been declared void in action between the licensor and third parties, until he has terminated the license,⁵ provided it be terminable, when he may raise the invalidity of the patent in opposition to any further call for royalties or suit of infringement. A license being a personal right or exemption, is not assignable unless stated so to be in the license; and since the assignees of a licensee are not in law bound to perform the personal covenants of the license, but only in equity, taking with notice, to observe such of them as attach to the patent rights themselves, or modify or limit the extent of user permitted, it is advisable to stipulate for the consent of the licensor to any assignment.

Subsequent assignees, taking with notice from first assignee holding under arrangement to pay a percentage of profits to the assignor, were held bound by such covenant.⁶ A covenant for quiet enjoyment does not presume that the licensor will keep up the patent;⁷ and where licensees had covenanted to pay an exact sum throughout the term of the patent, the lapsing of patent, through non-payment of a renewal fee, was held not to destroy the liability for subsequent payments under the covenant;⁸ nor were the defendants in this action allowed to raise a defence of want of novelty, though it was expressly stipulated that the payments were to cease if the invention were not novel.⁹

¹ *Heap v. Hartley*, 1889, *R.P.C.*, 495.

² *Crossley v. Dixon*, 10 *H.L. Cas.*, 293.

³ *Smith v. Scott*, 6 *C.B.*, 771.

⁴ *Crossley v. Dixon. Supra.*

⁵ *Neilson v. Fothergill*, 1 *Web.*, 290.

⁶ *Werderman v. Soc. Gen. D'Electricite*, *L.R.*, 19 *Ch. D.*, 247, *C.A.*

⁷ *Mills v. Carson*, *R.P.C.* IX, 838, *affirmed on appeal*, *R.P.C.* X, 9.

⁸ *Mills v. Carson*, *R.P.C.* IX, 838, *affirmed on appeal*, *R.P.C.* X, 9.

⁹ *Mills v. Carson*, *R.P.C.* IX, 838, *affirmed on appeal*, *R.P.C.* X, 9.

Licenses should be registered, to obtain the certainty of legal title against subsequent assignees or licensees.

If fraud is alleged to procure the annulment of a license, a very clear case must be proved.¹ An agreement for a license is equivalent to a formal deed of license.²

Rights of Joint Patentees.—Beyond the statement in Sect. 87, that the registered owner of a patent shall have absolute power to deal with it subject to the rights, appearing from the register to be vested in other persons, and to equities in respect of the property; the Act of 1883 contains no reference bearing on the respective rights of joint patentees. Such rights can only be ascertained by reference to the patent deed. In the case of *Mathers v. Green*,³ question arose as to the relative rights of joint patentees who held a patent granting to "each and every of them" the usual privileges: it was then held that in the absence of any special agreement to the contrary, each patentee was at liberty to work the patent at his own risk, without being answerable for profits or having any right to call on his co-patentees to share losses. The question whether a patentee would be answerable to his co-patentees for moneys received on account of licenses granted by him, was left undecided on appeal, but decided in the affirmative in the Court below.

Under the present form of patent grant⁴ to two or more persons the words are simply put in the plural, "each and every" being omitted. It would appear, therefore, that while each patentee may work for his own account separately, licenses can only effectively be granted by all the patentees together: for though each patentee may for himself assure a license, the licensee may still be open to suit of infringement from the co-patentees whose permission he has not obtained. The point has not been decided, and is not likely to arise, since an intending licensee will doubtless insist on all the patentees joining in the license. In any case, one of joint patentees is in no position to grant an *exclusive* license.

The case of *Mathers v. Green* was upheld in *Steers v. Rogers*,⁵ carried to the House of Lords, where the principle was extended to assignees of part shares, on the ground that a patent right is not a right to manufacture, but a right to forbid others

¹ *MacDougal v. Partington*, 1890, VII R.P.C., 223, C.A.

² *Post Card Auto. Sup. Co. v. Samuel*, 1889, VI R.P.C., 560.

³ L.R., 1 Ch., 29.

⁴ See page 80.

⁵ R.P.C. X, 245.

manufacturing, and the latter carries with it no obligation to account for profits to another having a similar right in respect of the same invention.

The holding of a patent by co-owners does not constitute a partnership.

One of joint patentees can assign his share in the patent subject to any agreement between the patentees, but the assignee will not necessarily be bound by any personal covenants which the assignor may have made with his co-patentees.

Agreements defining the relative positions and rights of the parties should, in view of above, always be made, and registered at the Patent Office.

Rights of Joint Applicants.—Joint Inventors.—Presumably one of two or more joint inventors is not entitled to claim a patent for the invention in his own name alone since he cannot truly describe himself as the true and first inventor. Thus, even with the permission of his co-inventors, his legal position would not be necessarily secure; if it has been agreed that he alone should hold the patent the safer course is for all parties to join in the application, and after grant assign their rights to the one of their number to whom the patent is to belong.

Where a joint application has been made it sometimes unfortunately occurs that the parties fall out before the patent is granted, and it is also possible that one of them may become obstructive, it may therefore be desirable to ascertain what can be done under such circumstances. A co-applicant wishing to retire can do so, the others being agreeable, by an amendment of the application to exclude his name, but if he is a joint inventor that course may not be advisable. If a co-applicant refuses to sign a complete specification and withdraws his authorization from the Patent Agent, the Comptroller will, nevertheless, accept the specification signed by the other co-applicant or co-applicants alone, but the patent will still issue jointly to the co-applicants.

If co-applicants individually tender separate complete specifications the Comptroller will not take upon himself to decide between them, and having no power to accept more than one complete specification he will refuse them,¹ and unless the parties agree on a specification the application will have to be perforce abandoned.

It is obvious that a co-applicant is entitled to prevent the grant to himself of a patent of which he may disapprove, since he might render himself liable in case of an action of revocation.

¹*Re Apostoloff and another's application, 1897, XIII R.P.C., 276.*

CHAPTER V.

SUBJECT MATTER: MANUFACTURE AND IMPROVEMENT, COMBINATION OF PARTS.

Definition of Invention.—By Sect. 46, “invention” means any manner of new manufacture the subject of Letters Patent and grant of privilege within Sect. 6 of the Statute of Monopolies,¹ and includes an alleged invention. The difficulty of finding an exact definition of patentable subject matter—or rather of its converse, non-patentable subject matter—was referred to by Mr. Justice Grove in *Bamlett v. Pinksley*.² In his own words, “No terms can be used which will so absolutely exclude any possible misconception as to lay down an abstract definition of what is not the subject matter of a patent, because it must involve something plus the mere terms used in the limited definition.”

Nevertheless, from study and co-relation of various decisions given since, and some even before, the Statute of Monopolies, it seems possible to evolve a test or series of tests by which to try the question of subject matter, which without doubt is of considerable importance. That such decisions severally contain but little, if any, approach to full definition of patentable subject matter is natural, considering the diversity of inventions and the sole necessity of judging each upon its own merits without reference to other classes of invention.

Meaning of Manufacture.—In *Darcy v. Allin*³ it was stated that any man “bringing a new trade into the realm, or any engine tending to the furtherance of a trade, that never was used before,” might have a patent for it. Nevertheless, the custom seems to have arisen of considering only the tangible article or result as the subject of a patent; thus in *Boulton v. Bull*,⁴ Mr. Justice Heath stated that a patent could only be for

¹ See page 75.

² 1 *Griff. P.C.*, 43.

³ 1 *Web. P.C.*, 6.

⁴ 1795, *Dav. P.C.*, 162.

a vendible matter, and that the "manufactures" intended by the Statute were divisible into two classes, namely, machinery, or substances made by chemical or other processes, where the vendible substance is the thing produced, and that which operates retains no permanent form.¹ In *Hornblower v. Boulton*,² Chief Justice Kenyon understood the word to mean something made by the hand of man. The idea that manufacture might include the art or process of making, apart from the means employed or result produced, does not seem to have been generally held, for in 1819 we find Chief Justice Abbott³ stating that the word manufacture had generally been understood to denote either the thing made, which is useful for its own sake and vendible as such: or an engine or instrument, or some part of an engine or instrument, to be employed in the making of some previously known article or for some other useful purpose. He, however, was of opinion that the meaning might perhaps be extended also to a new process to be carried on by known implements or elements acting upon known substances, and ultimately producing some other known substance, but producing it in a cheaper or more expeditious manner, or of a better and more useful kind. More recently, in 1837, speaking of a machine, Baron Parke concluded that the word manufacture would apply either to the machine itself or to the mode of constructing it;⁴ and in *Bush v. Fox*⁵ it was stated that manufacture included process as well as result; eventually the question was settled in favour of the patentability of a process by opinions of the Judges in the House of Lords in *Ralston v. Smith*,⁶ where it was held that a new manufacture comprehends not only a production, but a means of production, it includes a new machine, a new combination of machinery, a new process, or an improvement of an old process.

Combination of Parts.—That a combination of parts is a patentable manufacture was recognised before the case of *Ralston v. Smith*. Thus, in *Boulton v. Bull*⁷ it was pointed out by Buller, J., that mechanical and chemical discoveries all come within the description of manufactures, it being no objection to either of them that the articles of which they are

¹ 2 *H. Bl.*, 482.

² 1799, *Dav. P.C.*, 225.

³ 1819, *Rex v. Wheeler*, 1 *Carp. P.C.*, 397.

⁴ *Morgan v. Seaward*, 1 *Web. P.C.*, 193.

⁵ 1854, *Macrory P.C.*, 176.

⁶ 11 *H.L. Cas.*, 223.

⁷ *Supra.*

composed were known and were in use before, provided the compound article which is the subject of the invention is new.¹ A combination of old materials may be patentable, if it produces a new effect,² even if the materials of which it is composed were already in use for the same purpose.³ There may be a patent for a new or improved combination of mechanical parts, already known in combination;⁴ and also for a new or improved arrangement of the constituent parts of a combination.⁵

The utility of considering a manufacture as a combination of parts for the purpose of testing its patentability will be afterwards further explained.

Improvement in Manufacture.—When we speak of a new manufacture, whether product or process, we do not necessarily mean that every part of the manufacture is new, but only that it is new as a whole. So far it may therefore only be an improved manufacture, but will nevertheless be equally patentable subject matter. It is obvious that a patent for an improved manufacture does not give any exclusive rights to practice such parts of the manufacture, as were old at the date of the patent, but only the whole manufacture consisting of those old parts combined with the improvement introduced by the inventor; in fact, the patent covers the combination of the new with the old.

We have also the authority of the House of Lords in *Ralston v. Smith*⁶ that an improvement on an old process may be the subject matter of a patent; and this, indeed, might be easily assumed, since the effective gain to the public is only the improvement, whether claim be made for it alone, or in combination with the rest of the process. Nor is this reading really a widening of the patent right, as might at first be supposed, since an improvement assumes a basis on which it must be founded; and if it is not in itself a separate "manufacture," it must be an element in combination with other old elements to make up such manufacture. Whether an invention is described as an improved manufacture, or an improvement in a manufacture, is practically immaterial; but if a distinction is required, we may perhaps describe as improvements separable parts or stages, almost in themselves amounting to separate

¹ 2 *H.Bl.*, 487.

² *Huddart v. Grimshaw*, 1803, *Dav. P.C.*, 267.

³ *Hill v. Thompson*, 1 *Web. P.C.*, 287.

⁴ *Carpenter v. Smith*, 1841, 1 *Web. P.C.*, 538.

⁵ *Foxwell v. Bostock*, 1864, 12 *W.R.*, 725.

⁶ *Supra*.

manufactures, and applicable to more than one variety of the substratum process or article; reserving the title of an improved manufacture for cases where the improvement is in such intimate connection with the particular basis to which it is applied that it is not usable in other similar processes or machines; or where there is more than one minor improvement, not perhaps capable of being separately dignified as patentable inventions, but valuable in their collective entirety and in combination with the older elements to which they are applied.

Inventions as Combinations of Parts.—Whether the “manufacture” be wholly new, or whether, as in the great majority of cases, its novelty only lies in an improvement upon the pre-existing manufacture, it can equally be represented as a combination of parts. The value of this method exists principally in the fact that it takes note more particularly of the relationship which the parts bear to one another, and which gives to each manufacture its individual nature. That it is equally applicable, and has been applied to all manufactures, whether machines, processes, or products, is evident from decided cases.

Every manufacture, whether new or improved, is a compound of many details or parts, the total of which constitutes the manufacture. A machine is an aggregate of various mechanical parts; a process is a series of several distinct operations or manipulations; a product is a compound of materials. Each of these is best described according to the parts it possesses, and in distinguishing one from another notice is taken of the variation of certain of the parts. Nevertheless a manufacture is more than a mere unordered collection of parts, its nature depends not only on the parts themselves but on their mutual relationship. This relationship of the various parts is in fact more important than the actual nature of the parts themselves as a means of distinguishing one manufacture from another, for it may be unimportant whether one means takes the place of another, so long as it acts in the same way and produces the same result. It is the relative more than the individual qualities of the elements employed that give character to the combination as a whole.

Manufactures have often been considered as combinations of parts, for the reason of facility of comparison, and the value of this method of representation lies in the fact that it shows the common structure or type of all manufactures and facilitates the development and application of distinguishing tests of patentability. The parts are termed elements.

Variations of Combination.—As every manufacture is representable as a combination of parts, so every alteration that can be made in a manufacture may be presented as a variation of the combination. An alteration in a combination may occur in one of four ways: firstly, there may be the simple addition of a further element or elements to those already combined; secondly, there may be a simple subtraction of one or more elements; thirdly, there may be both addition of new elements and withdrawal of old, effecting a substitution of elements; and fourthly, there may be simply a rearrangement of the elements already combined without adding to or diminishing the number. This last class is in truth only a variety of the third class, for rearrangement implies a series of local substitutions.

Invention by Addition.—Broadly speaking, addition alone is not sufficient to support a patent;¹ nevertheless there *may* be good subject matter for a patent covering an addition,² if there is anything material and new which is an improvement of the trade,³ or if the added matter is itself a novelty⁴; where the added matter is in itself not new, the addition must come under the rule laid down by Lord C. J. Denman in *R. v. Cutler*,⁵ that where the inventor has no claim either to the mode of producing the article or to the mode of applying it for attaining the result desired by him, the addition is a mere application which is not patentable.

Invention by Subtraction.—Similarly with subtraction: a bare subtraction will not afford ground for a patent, nevertheless there may be invention solely resulting from, or evidenced by subtraction of a formerly used element from a manufacture. Thus, the omission of an interior mandrel, or former, previously supposed to be essential for the rolling of metal tubes, was held sufficient to constitute a patentable invention, the tubes made without the mandrel being cheaper and better than by the older process.⁶ An invention relying solely on subtraction of an element used is very infrequent.

Invention by Substitution.—That is to say, by removal of an element or elements, and replacement by another or others is perhaps the most common form in which an invention manifests itself.

¹ *Bircot's Case*, 3 *Inst.*, 184; *Bamlett v. Picksley*, 1 *Griff.*, 40.

² *Morris v. Branson*, 1776, 1 *Web. P.C.*, 51.

³ *R. v. Arkwright*, 1785, 1 *Web. P.C.*, 71.

⁴ *Boulton v. Bull*, 1795, 2 *H.Bl.*, 489.

⁵ *Macrory P.C.*, 124.

⁶ *Russell v. Cowley*, 1835, 1 *Web. P.C.*, 463.

Nearly all inventions which consist in the alteration of an original machine, process, or article, for improving its working or purpose, are of this nature. Where the element added in substitution is itself new there can be no doubt that there is subject matter for a patent;¹ and where one element of the old combination is modified there may be subject matter.² Even where a known element is substituted for one in the original invention,³ or where there is only rearrangement of the elements already existing in the invention,⁴ invention may exist; but in every case it appears necessary that there must be either a new effect,⁵ or a new result,⁶ or a better effect than before.⁷ The mere employment of mechanical equivalents does not constitute patentable invention, being in fact no invention at all, but only result of skill in handicraft,⁸ and there is thus always a tendency to apply the test of ingenuity to the alleged invention;⁹ but "where a slight alteration turns that which was practically useless before into that which is very useful and important, judges have considered that though the invention was small, yet the result was so great as fairly to be the subject of a patent."¹⁰ In ninety-nine cases out of a hundred a useful novelty will have required inventive faculty, but there may, nevertheless, be instances of valuable novelties which have not required invention.¹¹

Divisibility of Subject Matter.—As a combination is distinguished by the relative features of its parts, a combination can possess no *utility*, and, therefore, not be patentable unless it is complete in itself and operates to a complete result.¹² The mere collection of mechanical parts in a heap is no patentable combination, the collection must be such that it affords a definite result. Nor should redundant parts unnecessary to that result be included in the combination. It is unnecessary that the combination alone should produce the finished product or entire action of the invention, since it may set in action, or act

¹ Foxwell v. Bostock, 1864, 12 *W.R.*, 725.

² Edison and Swan Company v. Woodhouse and Rawson, IV *R.P.C.*, 79.

³ Hinks v. Safety Lighting Company, 1876, 4 *Ch. D.*, 615.

⁴ Foxwell v. Bostock. *Supra.*

⁵ Huddart v. Grimshaw, 1803, *Dav. P.C.*, 267.

⁶ Brunton v. Hawkes, 1821, 4 *B. and Ald.*, 550.

⁷ Morton v. Middleton, 1863, and *Cr. S.*, 3rd *Sect.*, 721.

⁸ Per V. C. Bacon, in Murray v. Clayton, 1872, doubted on appeal, but in the form stated in the text practically upheld in later decisions.

⁹ Williams v. Nye, 1890, *C.A.*, *R.P.C.* VII, 67.

¹⁰ Hinks v. Safety Lighting Company, 1876, 4 *Ch. D.*, 615.

¹¹ Hayward v. Hamilton, *C.A.*, 1881, *Griff.*, 121.

¹² Parkinson v. Simon, XI *R.P.C.*, 493.

conjointly with another, or perhaps several other combinations, to effect the ultimate result, but it must, nevertheless, produce a definite subsidiary action or result. Thus, in a steam engine the piston with its packing ring and cylinder may produce an operative combination being for the purpose of the air-tight movement of the piston in the cylinder. A valve for admission of steam may form of its parts another combination, the reversal gear a third, and so forth; but the elements enumerated in each must be sufficient to produce the desired effect of that combination.

It is in this manner that an invention may be split up into its component parts so that each component, presenting patentable subject matter and novelty, may be secured to the inventor, whether used with the other components or not.

CHAPTER VI.

SUBJECT MATTER: PATENTABLE INVENTION,
APPLICATION AND PRINCIPLE.

Invention Needed.—In the older judicial decisions it was thought that if a new or improved result flowed from an alteration the latter must be *ipso facto* patentable, the benefit resulting was considered evidence that the manufacture must have been materially altered.

The question did not arise whether there had been invention shown in the alteration; this appears either to have been neglected as a test, or to have been considered proved by the fact that the beneficial change had not been made by others before. Lord Justice Brett pointed out in *Hayward v. Hamilton*¹, that the fact that invention was necessary could not be predicated as an absolute rule of law; and in the later cases of *Blakey v. Latham*,² and *Williams v. Nye*,³ both in the Court of Appeal, it was stated that to sustain a patent there must always have been a distinct exercise of inventive faculty.

This throws the consideration of an invention more upon its own nature than on its effects, and gives greater importance to the actual change made by the inventor than to the commercial result of that change.

In considering the patentability of any variation of a combination we may approach the matter in two ways: we may either consider the nature of the alteration which the change has made in the combination and judge whether it is a material change needing inventive faculty for its production; or we may have regard to the origin or previous use of each new element in the position given it, and from that standpoint judge whether any invention was needed to recognise the suitability of that element for its position, or, having recognised its suitability, to adapt it to the purpose to which it is devoted.

¹ *Griff.*, 121.

² *VI R.P.C.*, 188.

³ *VI R.P.C.*; 528.

As pointed out in the previous paragraph, the fact that a valuable result is obtained by the modification, and that others had not up till that time been able to effect that result, may be very strong evidence that the change introduced needed the faculty of invention, but this does not remove the necessity of considering whether the change made was not already within the competence of members of the public acquainted with such matters. The means of effecting the object desired must be such that they are not so obvious as to occur to any one contemplating the use of the particular materials used for the purpose.¹ But every case must stand on its own merits in judging this question of necessity of inventive talent for production of the result,² and herein, the matter being one of personal opinion principally, lies one of the greatest difficulties of Patent Law.

The question of origin of the introduced element will be again referred to, after discussion of the patentability of an application of known means to particular purposes.

Application to a Particular Purpose.—There can never be any patentable invention in the mere application of any article to a particular purpose, unless the application in itself constitutes a method or process of manufacture, or a stage or step in such a process, or unless the article enters into a combination with other articles to constitute a machine or a vendible product. Even then the application cannot be patentable unless it needed exercise of ingenuity.

Lord Chancellor Cottenham, in 1841, gave it as his opinion in *Kay v. Marshall*,³ that, if a patentee has discovered any means of using a machine which the world had not known before the benefit of, he was entitled to a patent; but it will be seen that in the discovery of particular means of using the invention can hardly differ from a method or process into which the machine in question will enter only as an appliance.

In a later case (1847) Lord C. J. Denman pointed out that the mere application of a thing which existed before did not appear to be a subject for a patent, nor indeed the application to produce any particular result, "the party having no claim either to the mode of producing the article or to the mode of applying it for attaining that result."⁴

The dictum that a mere application is not a new manufacture

¹ *Thomson v. Am. Braided Wire Company, H.L., 1889, VI R.P.C., 528.*

² *Clark v. Adie, H.L., 1877, 2 App. Cas., 335.*

³ *2 Web. P.C., 82.*

⁴ *Reg. v. Cutler, Macrory P.C., 124.*

and therefore not the subject of a patent, was also affirmed in *Bush v. Fox*,¹ carried up to the House of Lords.

The application of any existing matter to any particular purpose is no patentable invention, because if the public is possessed of any particular apparatus or thing the public may use it for any purpose to which it is suitable.²

Discovery of Unsuspected Quality.—Even if the inventor shall have discovered a latent or unsuspected quality in a machine or part of a machine, that does not give a right to a patent, for it is obvious that the machine or part can only act according to the particular qualities it already possesses, and the discovery of them is not a “new manufacture.” This was clearly stated in *Ralston v. Smith*,³ where, before the date of the patent, a smooth roller and bowl revolving at different velocities had been used to calender fabrics, also an embossed roller and bowl revolving with equal velocities had been used for embossing fabrics. The plaintiff’s invention consisted in making a particular engraving of the pattern, enabling the same operation to cause both the calendering and the embossing.

Lord Cranworth said: “How is this possible to be called a new manufacture? I, as a manufacturer, have my roller which I am in the habit of rolling upon a bowl, the fabric passing between the two at equal velocities, then I can impress my pattern on it. I have my roller without any pattern engraved upon it. I can impress that at an unequal velocity and it will calender. But I do not do them both at the same time, because I suppose that in doing so I shall tear my fabric, and I rightly so suppose, until the plaintiff makes the discovery that there is one particular sort of pattern which may be produced without tearing the fabric. Now that is a very useful discovery, but it would be strange to say that that is a new manufacture, and that therefore I am to be deprived of the most useful way of using my roller. There is nothing new in the invention except that I now know what I did not know before, that by a particular use of it I shall obtain a result which I did not know before that I could obtain.”

The bare fact therefore of recognising that something new can be done with a known “manufacture” is not patentable.

Application to Cognate Purpose.—Even if the application shows a new manufacture it will not necessarily be patentable,

¹ 1856, 5 *H.L. Cas.*, 707.

² Per Wightman, J., in *Reg. v. Cutler*, *supra*.

³ 11 *H.L.*, 223, A.D., 1865.

since, if the original use of the matter applied be similar to the use to which the inventor puts it, so that the one naturally suggests the other, the invention is not patentable.

In *Harwood v. The Great Northern Railway Company*,¹ Lord Chief Justice Cockburn put forward the following rule for judging whether any application of an old thing to a new purpose is to be considered patentable: "Although the authorities establish the proposition that the same means, apparatus, or mechanical contrivance cannot be applied to the same purpose, or to purposes so nearly cognate and similar, that the application of it in the one case naturally leads to the application of it when required in some other, still the question in every case is one of degree, whether the said amount of affinity or similarity which exists between the two purposes is such that they are substantially the same, and that determines whether the invention is sufficiently meritorious to be deserving of a patent."

This case was carried up to the House of Lords, where opinions were unanimous to the same effect.

The above was quoted and agreed to in *Penn v. Bibby*² by the Lord Chancellor, who added: "In every case of this description one main consideration seems to be whether the new application lies so much out of the track of the former use as not naturally to suggest itself to a person turning his mind to the subject, but to require some application of thought and study."

The following examples of decided cases will assist in judging what applications are patentable; nevertheless, as might be supposed, the earlier decisions are more lenient than the later.

Application of known Materials.—The following were held patentable inventions:—

Application of indiarubber in state of solution between two fabrics to manufacture waterproof material, though other substances and indiarubber in other states had been similarly employed before.³

Application of indiarubber as a substitute for leather in the manufacture of "cards" for the carding of wool, &c.⁴

Application of sheets of a certain alloy of metals for the sheathing of ships' bottoms, with a view to provide a coating

¹ Referred to in *Penn v. Bibby*, *L.R.*, 2 *Ch.*, 127; 35 *L.J.*, *Q.B.*, 33-38.

² *L.R.*, 2 *Ch.*, 127.

³ *Macintosh v. Everington*, 6 *Rep. Arts.*, *N.S.*, 317.

⁴ *Walton v. Potter*, 1841, 1 *Web. P.C.*, 597.

which would oxidise sufficiently to prevent adherence of impurities, yet not wear away too quickly; though the alloy in itself for other purposes was not new.¹

Use of wood as actual bearing surface of the propeller shafts of vessels, water being allowed to flow freely between the shaft and metal outer bearing.²

Mohair and silk combined in a specified way to imitate seal-skin, though same materials had already been combined in manufacture of glacé goods.³

The following were held not patentable:—

Substitution of iron for wood in construction of floating docks.⁴

Use of watch-spring steel in place of whalebone, &c., for crinolines.⁵

Use of animal fibre such as Russian wool in the manufacture of artificial hair.⁶

Application of cardboard to the construction of window blinds.⁷

Use of solid naphthaline in place of other forms for enriching gas.⁸

Application of known Machinery adjudged patentable:—

The employment of two drums moving at unequal speeds for testing wire, such drums having been used before for straining and unkinking wire.⁹

The use of a flat rotating disk in place of a long band as "music sheet" in mechanical musical instruments, though a similar disk had been used to replace a similarly operating band in figure looms.¹⁰

The following were not considered patentable:—

The application of tubes of a particular construction to boilers in place of such tubes as were formerly used, the construction of the tubes being not new.¹¹

Application of a caisson already used with compressed air

¹ *Muntz v. Foster*, 1844, 2 *Web. P.C.*, 103.

² *Penn v. Bibby*, 1866, *L.R.*, 2 *Ch.*, 127.

³ *Lister v. Norton*, 1886, III *R.P.C.*, 199.

⁴ *Mackelcan v. Rennie*, 1862, 13 *Com. B., N.S.*, 52.

⁵ *Thompson v. James*, 1863, 32 *Beav.*, 570.

⁶ *Rushton v. Crawley*, 1870, *L.R.*, 10 *Eq.*, 522.

⁷ *Sharp v. Brauer*, 1886, III *R.P.C.*, 193.

⁸ *Albo Carbon Light Company v. Kidd*, 1887, IV *R.P.C.*, 535.

⁹ *Johnson v. Rylands*, 1873, *Griff.*, 138.

¹⁰ *Ehrlich v. Ihlee*, *C.A.*, 1888, V *R.P.C.*, 437.

¹¹ *R. v. Cutler*, 1847, *Macrory P.C.*, 124.

for excavations on land, to the excavation of foundations of structures under water.¹

Employment of a mandrel shaped like a bottle for making straw envelopes for bottles, a mandrel being a common appliance for forming a basis of shape.²

Application to treatment of wool and hair of burnishers formerly used for a similar purpose for linen and cotton.³

The use of a guide in a frilling machine for the purpose of keeping down the work, similar guides being employed in many other machines.⁴

Use of springs under the fore part of a carriage, similar to some formerly used only under the hind part.⁵

Application to bottles of a special barrel cock similar to cocks previously applied to tea urns.⁶

Application of known Methods or Processes.—Held patentable:—

The application of a combination of chains and cross beams to compress and retain fodder in its compressed state for the manufacture of ensilage.⁷

The use of anthracite coal with a hot blast in place of bituminous coal in the same connection in view of the benefit resulting from the invention.⁸ Though the decision has since been often called in question, the invention may be said to lie on the very verge of patentable subject matter.

The combined use of heat to soften umbrella handles for bending, and a clamping frame to hold them till cold, though it was common to soften wood by heat for bending.⁹

The application to gasometers of certain methods of construction formerly applied to pontoons and floating docks was held subject matter, in view of practical difficulties to overcome which were not obvious to persons of ordinary skill acquainted with gasometers.¹⁰

¹ *Bush v. Fox*, 1852-6, *Macrory P.C.*, 166; affirmed in H.L., 5 *H.L. Cas.*, 707.

² *Patent Bottle Envelope Company v. Seymer*, 1858, 28 *L.J., C.P.*, 22.

³ *Brook v. Aston*, 1859, 28 *L.J., Q.B.*, 175.

⁴ *Hill v. Tombs*, 1881, *John*, 82.

⁵ *Morgan v. Windover*, *H.L.*, 1890, VII *R.P.C.*, 131.

⁶ *Hazlehurst v. Rylands*, IX *R.P.C.*, 1.

⁷ *Reynolds v. Amos*, 1886, III *R.P.C.*, 219.

⁸ *Crane v. Prico*, 1842, 1 *Web. P.C.*, 393.

⁹ *Dangerfield v. Jones*, 1865, 13 *L.T. Rep., N.S.*, 142.

¹⁰ *Gadd v. Mayor, &c., of Manchester*, 1892, IX *R.P.C.*, 516.

Held not patentable:—

The employment for joining the rails of railways of a method already employed in joining up girders of bridges.¹

The casting in a whole piece of a boiler formerly made in cast sections.²

Holding strips of leather on metallic rollers by the use of spiked bars.³

Fastening hooks to a frame by first securing them to a bar and the latter to the frame, though better and cheaper than direct fixing to the frame formerly employed.⁴

Making sheet metal signs by pressing between a hard die and a yielding matrix, such method having been previously used for embossing wall paper, leather, &c.⁵

Treating cotton seed by hypochlorite of soda, in view of prior use of same substance in a similar manner on analogous materials.⁶

Mechanical Equivalent.—When in judging the amount of invention involved in the substitution of an element in a combination by another, attention is directed to the similarity of the element discarded with that by which it is replaced, it may often be found that the action of the new element is so similar to that of the discarded element that the replacement does not alter in any way the general character of the combination. The elements are then said to be mechanical or chemical equivalents of each other as the case may be. There will seldom be any invention needed in the substitution of one mechanical equivalent for another, for as a rule the equivalent will be well known and within the competence of any person skilled in the particular trade. For this reason, also in addition to the fact that there is no substantial change in the manufacture, the substitution of mechanical equivalents cannot be the subject of a patent.

Nevertheless, there may be several roads to the same place, and the fact that one set of means is known for arriving at a given result will not prevent grant of a patent for another set of means for attaining an identical result.⁷ Such a set of means

¹ *Harwood v. G.N.R. Company*, 1860-65, 35 *L.J.*, *Q.B.*, 38.

² *Ormonson v. Clarke*, 32 *L.J.*, *C.F.*, 8.

³ *Oddy v. Smith*, 1888, V *R.P.C.*, 503.

⁴ *Longbottom v. Shaw*, *C.A.*, 1889, VI *R.P.C.*, 510.

⁵ *Embossed Metal Plate Company, Limited, v. Sawpe and Busch*, 1891, VIII *R.P.C.*, 355.

⁶ *Wilson v. Union Oil Mills Company*, 1892, IX *R.P.C.*, 57.

⁷ *Walton v. Potter*, 1 *Web. P.C.*, 590.

is in truth a mechanical equivalent, but the latter words are intended more properly to be confined to the individual members which in a combination make up the whole manufacture.

Abstract Principle.—Abstract discoveries, such as the recognition of the existence of principles heretofore unknown in themselves, cannot be protected by patent because, except in the concrete form of their application, they do not exhibit the essential features of a “manufacture.”

In the case of *Boulton v. Bull*¹ (1795), brought to defend the patent of James Watt for a steam engine, Justice Heath put forward the following proposition: “The Marquis of Worcester discovered in the last century the expansive force of steam and first applied it to machinery. As the original inventor he was clearly entitled to a patent. Would the patent have been good applied to all machinery or to the machines which he had discovered? The patent decides the question. It must be for the vendible matter and not for the principle” (that is to say, a bare theoretical principle).

In *Jupe v. Pratt* in 1837² it was laid down by Baron Alderson that “You cannot take out a patent for a principle; you may take out a patent for a principle coupled with the mode of carrying the principle into effect, provided you have not only discovered the principle but invented some mode of carrying it into effect.”

Again in 1841 in *Neilson v. Harford*³ the same judge said: “I take the distinction between a patent for a principle and a patent which can be supported, is, that you must have an embodiment of the principle in some practical mode described in the specification of carrying the principle into actual effect, and then you take out your patent, not for the principle but for the mode of carrying the principle into effect.”

In our own times, 1839, in the *Automatic Weighing Machine Company v. Knight*, Lord Justice Cotton while affirming that a patent could not be taken for a principle alone, but only for a principle coupled with the mode of carrying it into effect, added, “Where there is a principle first applied in a machine capable of carrying it into effect, the Court looks more narrowly at those who carry out the same principle and say they do it by a different mode, and looks to see whether in effect, although the mode is not exactly the same, it is only a colourable difference.”⁴

¹ *Dav. P.C.*, 162.

² *1 Web. P.C.*, 146.

³ *1 Web. P.C.*, 342.

⁴ *VI R P.C.*, 304.

And in *Thomson v. Moore*,¹ 1889, in the Court of Appeal (affirmed afterwards by the House of Lords), per Pallas, L.C.B.: "Although a principle, as distinct from the machine by which it is proposed to be applied, cannot be the subject of a patent, the consideration of the principle sought to be so applied may be material in determining the essence of that invention."

Principle.—It is natural, and indeed logically essential, that a principle should underlie every invention, there cannot be any invention which does not embody some principle; the principle must first occur to the mind before the practical application can be made. 'The test of the invention is its principle.'² Thus, taking the case of an invention of a machine, it may consist of a collection of wheels, levers, springs, framings, &c., but there is no invention in simply bringing these together, but in the way in which they are arranged and combined together to work in a given way according to the intention of the inventor. It is the recognition of the principle of action desired that guides the intention of the inventor in contriving the machine. It may well be that the same principle of action could be arrived at by other means than those actually employed by the inventor, chains may take the place of cords, weights replace springs, &c., but the principle remains the same, and, therefore, the invention also. The putting together of a machine or the working out of a manufacturing process is the concrete embodiment of a principle. There may be invention in the principle alone, but there is no *patentable* invention without such concrete embodiment of the principle, for the Patent Law does not recognise bare principles, but only matters useful in trade which may be included under the general term "manufactures." Thus it will be seen at once that principles which cannot receive embodiment in a "manufacture" cannot be protected under the Patent Law. Combinations and operations of commerce, finance and credit, methods of advertising, methods of amusement, games of chance or skill and all such *personal* proceedings not connected with a manufacture are, therefore, excluded. But principles underlying manufactures, although not separately, and, therefore, *per se* patentable, can be protected or covered by the patent, if their concrete embodiment, which the inventor is bound to make, is described and claimed in the terms of the principle on which it is based.

In plainer language, this amounts to saying that a group of mechanical elements, for example, should be described not so

¹ VI R.P.C., 450.

² *Thomson v. Moore*, quoted in text.

much with regard to the shape and constitution of its individual parts, as to the manner in which these parts act together to produce the mechanical action intended, that is the principle of the combination of those elements. In a process or method of manufacture stress should not be laid so much on the actual appliances that are used as upon the qualities to be possessed by these appliances to cause the process to proceed as intended, that is the principle of a process. In effect, the principle is the "nature of the invention," the concrete embodiment is the "manner in which it is to be performed." The complete specification required from the inventor is expressly intended to state "the nature of the invention and the manner in which it is to be performed," and to describe and ascertain this particularly; that is to say, by way of particulars, in detail. Thus both are required from the inventor, but it is best to keep the nature of the invention and its performance distinct from one another.

Principle of Result.—The principle of the invention must not be confounded with the principle of the result obtained by the invention, or of the purpose to which the finished invention is to be put.

Beyond the fact that all inventions to be patentable must be suitable for fulfilling some useful purpose, the purpose of the invention has nothing at all to do with the invention itself, nor, therefore, any principle that may lie in the purpose of the invention. The manufacture, whether machine or process, is made up of different factors, generally each in itself old, and the invention consists in bringing together these factors into a certain order or interdependence, and it is the principle of this order or interdependence that constitutes the essence of the invention.

Even where a patentee has produced a new result, and also invented and specified one way of producing that result, he cannot claim every way of producing such result, but only such methods as do not colourably differ from the method he has himself specified.¹

¹ *Nobels Explosive Co., Ltd., v. Anderson*, XI *R.P.C.*, 527.

CHAPTER VII.

NOVELTY: PRIOR PUBLICATION.

Novelty Generally.—Presuming that the invention is one which appears to be proper subject matter for a patent, the question of its patentability is, nevertheless, still undecided, since it must also satisfy the required conditions of novelty.

The Statute of Monopolies requires that an invention shall be “new within the realm,” and one “which at the time of making such Letters Patent and grants others should not use,” otherwise it is not patentable.

Broadly speaking, there are but very few inventions which can be called entirely new, and as knowledge progresses the number is likely to become fewer and fewer. The great majority depend on some known basis, being practically improvements on preceding inventions. It thus becomes the question, not so much as to whether the “manufacture” as a whole possesses novelty at all, but how much novelty it shows, and in considering its patentability from this point of view; it is the novelty or novelties only which are to be judged in the light of subject matter. It may be that the amount of novelty is so slight, or has so little utility, that there cannot be said to be subject matter for a patent at all.

Date of Determination of Novelty.—As to the time when the presence or absence of novelty is to be determined this is said to be at “the making of such Letters Patent or grants.”¹ As a matter of fact, under present practice patents are not actually granted until the necessary steps to obtain them have been completed and a certain time is allowed, from the date of the application for patent, for carrying out these steps, the total period not usually exceeding fifteen months,² and depending mainly on the manner in which the inventor chooses to prosecute his application.³ By Sect. 14 of the Act

¹ Statute of Monopolies, *see* page 75.

² Act of 1883, Sect. 12 (3).

³ *See* Chapter XIII.

of 1883, however, any publication or use of the invention subsequent to the date of application is not held to be any bar to the patent to be granted on said application, so that the date at which novelty is determined is now the date of application for the patent. If at this exact date the invention was novel the patent will be so far valid, if not novel the patent will not be valid.

Novelty Lost.—An invention has not the character of novelty if, previous to the date of application for a patent, it was publicly known or used, or published so that it was or might have been known or used by the public in this realm.

Novelty is therefore lost by either prior publication or prior user in this realm, but not, so far as Great Britain is concerned, by anything occurring abroad.

In respect of publication it is immaterial in what form it is, written or printed, or even verbal, in a book, or in a previous patent specification, in a newspaper or in a technical work in English or foreign language. The test being, the amount of discovery given in the respective publication, whether it is sufficient to enable a person skilled in the art to construct or perform the invention without additional invention being required of him.

In respect of prior user; it may be by the inventor or others, by the public, or in public, it must not have been merely experimental or abandoned as experimental; the test being that the public did or could have operated the invention from, or by reason of, the user, had by, or among, them.

Inasmuch, also, as the first applicant is preferred and taken to be the "true and first inventor," a previous patent applied for by another person for the same invention, even if not published at the time of the subsequent application for a patent, will, if granted, be a bar to the validity of the subsequent patent.

Prior Publication Abroad or use in Foreign Countries does not invalidate a British patent, as it was principally for the introduction into Great Britain of manufactures previously known abroad, that the British patent system was instituted, as shown in many old reported cases, notably in *re Hastings' Patent*,¹ 1567; *Darcy v. Allin*,² 1602; and *Edgeberry v. Stevens*,³ the latter being accepted as having definitely settled the question of the patentability of an "imported

¹ 1 *Web. P.C.*, 6.

² 1 *Web. P.C.*, 6.

³ 1 *Web. P.C.*, 35.

invention." As respects publication or use in the British Colonies it has been held that publication, &c., in Natal, a British colony with an independent legislature and patent laws of its own, does not invalidate a British patent subsequently applied for.¹ British Colonies possessing independent governments in this respect may therefore be considered on a par with foreign countries. It may be presumed also that even colonies or possessions having no independent legislatures may be placed in the same category so far as they are not covered by the British patent.

The British patent covers England, Wales, Scotland, Ireland, and the Isle of Man, so that presumably any prior publication or use outside these countries has no effect on the patent. Formerly the Channel Isles were included in the grant, but since the Act of 1883 this portion of British territory is omitted.

Anticipation by Publication.—A book printed and published in England prior to the patent was held to invalidate the same in *The King v. Arkwright*.² Even a single copy of a French work deposited in the library of the British Museum, and thus attainable by the public, was an anticipation, although nobody was proved to have read it,³ but later decisions go to prove that the simple existence of such a previous source of information is not alone sufficient to invalidate a patent. Thus in *Plimpton v. Malcomson*,⁴ 1876, Jessel, M.R., upheld the decision in *Stead v. Anderson*,⁵ to the effect that in the case of a "book," it must be made public to such an extent as to be known among persons "practising in such matters." Thus if the evidence went to show that the public knew no more about the book, than seeing the back of the book in a bookseller's window, and that none had been sold, though exposed for sale, that is not a sufficient publication.⁶ This appears to contradict the older decision of *Lang v. Gisborne*,⁷ where it was held that the bare fact of publication in a book was a dedication to the public, sufficient to invalidate a subsequent patent, and that it was not necessary to prove sale of even one copy. The latter decision appears to have been acted upon in *Plimpton v. Spiller*,

¹ *Rolls v. Isaacs*, 1881, 19 *Ch. D.*, 268.

² 1785, 1 *Web. P.C.*, 72.

³ *Re Heurteloup's Patent*, 1836, 1 *Web. P.C.*, 553.

⁴ *L.R.*, 3 *Ch. D.*, 553.

⁵ 2 *Web. P.C.*, 149.

⁶ *L.R.*, 3 *Ch. D.*, 562.

⁷ 31 *L.J.*, *Ch.*, 770.

in the Court of Appeal.¹ It was proved that a copy of an American book containing a brief description of the patented invention, roller skates (but not sufficient for manufacturing the skates), and also a copy of the United States Gazette containing drawings and claims of the patent, had been received and placed on the shelves of the Patent Office Free Library before the date of the patent; the Gazette was not indexed. The patent was upheld, the fact of publication not being judged sufficiently proved; per James, L. J.: "As a matter of fact, it is impossible to say that this American book ever was in the library in any sense in which it could be construed to be accessible to the public, or that portion of the public which consists of persons conversant with this particular subject;" per Brett, L. J.: "The real question to be decided by the Court is whether the invention was before the patent in question known to the public, not known to all the public, but known to a sufficient number so that you may properly say it was known in England. In order to prove or disprove that fundamental proposition, you may show by way of evidence that there has been a prior invention, and that it has become, as a fact, although it has never been written, known to the people in the trade. That is what Baron Parke says in *Stead v. Anderson*,² that it has become generally known in the sense that it has become known to the people in the trade. This is only one form of evidence which may be given in proof of the fundamental proposition. Another mode of proving the fundamental proposition is to show that a description of the invention has been published. But then to show that, it is not sufficient merely to show, that it has been published in one sheet or book. As Baron Parke himself says:—'Published means offered or dedicated to the public.' He then goes on to say that the question with regard to this is, was this invention published or offered to the public to such an extent that it was generally known among engineers or persons interested in the matter? The mere fact of its being dedicated, the mere fact of its being published is not sufficient, it must be so far published that you may fairly say it is known to a sufficient number of the public."³ It will be noticed that this case did not turn at all upon the fact of the disclosure of the invention being full enough or not in the alleged anticipations. Also in the *United Telephone Company v. Harris and Others*,⁴ a copy of

¹ *L.R.*, 6 *Ch. D.*, 412.

² *Supra*.

³ *L.R.*, 6 *Ch. D.*, 434.

⁴ 1882, 21 *Ch. D.*, 720.

a German paper, the "Zeitschrift," of the German-Austrian Telegraph Union, was on the file in the free library of the Patent Office in London, and another copy in the library of the Institute of Civil Engineers, not catalogued under telephones or telegraphs. Evidence was given by a telegraphic engineer, that before the date of the patent he had seen the description in the "Zeitschrift," alleged to be an anticipation relied on, and although ignorant of German, had been able to understand the substance of the invention from the technical terms and plates. It was held that this was evidence sufficient to prove that the description in the journal must be considered to have been within the knowledge of persons skilled in such matters in this country. As a matter of fact, however, the matter contained in the description was held not to be the same as the particular invention in question.

Also in *Otto v. Steele*,¹ the proof of existence of a book in French in the British Museum was held insufficient as proving prior publication, the existence of the book there having been previously unknown.

In *Harris v. Rothwell*, 1887, in the Court of Appeal, Lord Justice Lindley said: "*Primâ facie*, a patentee is not the first inventor of his patented invention if it be proved that before the date of his patent an intelligible description of his invention, either in English, or in any other language commonly known in this country, was known to exist in this country, either in the Patent Office, or in any other library to which the public are admitted, and to which persons in search of information on the subject to which the patent relates would naturally go for information. But if it be proved that the foreign publication, although in a public library, was not in fact known to be there, the unknown existence of the publication is not fatal to the patent."² In this case the invention was held to have been anticipated by previous arrival of German Patent Specifications in the Patent Office Library.

In *Patterson v. The Gas Light and Coke Company*³ per Lord Blackburn: "The consideration for a patent is the communication to the public of a process that is new. In *Hindmarsh on Patents* it is laid down that 'if the public once become possessed of an invention by any means whatever, no subsequent patent for it can be granted either to the true or first inventor himself or any other person, for the public cannot be deprived of the right to use the invention, and a

¹ 1886, 31 *Ch. D.*, 241; III *R.P.C.*, 109.

² 35 *Ch. D.*, 431.

³ *H.L.*, 1877; *L.R.*, 3 *App. Cas.*, 244.

patentee of the invention could not give any consideration to the public for the grant, the public already possessing everything he could give.' This is, in my opinion, a correct statement of the law." It is not necessary that the invention should be used by the public as well as known to the public. If the invention and the mode in which it can be used have been made known to the public by a description in a work which has been publicly circulated,¹ or in a specification duly enrolled,² it avoids the patent, though it is not shown that it ever was actually put in use.

Amount of Publication.—As to the fulness or otherwise of the publication it should be sufficient to enable any person skilled in the trade to which the invention relates to perform the invention patented,³ or even those only who are most skilled in the trade.⁴

A specification may so insufficiently describe the process in the machine patented, or may be so encumbered with useless matter as to render the patent therefor invalid. It may, nevertheless, contain sufficient description to disclose or publish the invention so as to prevent its being validly patented on a subsequent application⁵ (and this is a most important point for inventors to note), but it is not sufficient to have simply disclosed the object to be attained unless the mode of attaining it is clearly pointed out.⁶

Even a drawing of a machine alone, if any machinist could understand it sufficiently to make a machine from it, is a sufficient publication.⁷

Form of Publication.—From the foregoing cases it will be seen that the actual nature of the book, print, or writing in which the publication is found is immaterial. There may be sufficient publication contained only in a previous provisional specification.⁸

An official report to the Board of Trade, being a document drawn up for the public benefit, may be an anticipation.⁹

¹ *Stead v. Williams*, 7 *M. and G.*, 842.

² *Bush v. Fox*, 5 *H.L. Cas.*, 707; *Betts v. Menzies*, 10 *H.L. Cas.*, 117.

³ *Hills v. Evans*, *Ch.*, 1862, 31 *L.J.*, 463.

⁴ *Philpot v. Hanbury*, 11 *R.P.C.*, 43.

⁵ *King, Brown and Company v. Anglo-American Brush Company*, 1889, VI *R.P.C.*, 414; also *Kayo v. Chubb*, *H.L.*, 1888, V *R.P.C.*, 641; *Pooley v. Pointon*, 1885, II *R.P.C.*, 171.

⁶ *Neilson v. Betts*, *H.L.*, 1871; 5 *H.L.*, 2.

⁷ *Herburger Schwander and Co. v. Squire*, 1889, VI *R.P.C.*, 194.

⁸ *Lawrence v. Perry*, 1885, II *R.P.C.*, 187.

⁹ *Patterson v. Gas Light and Coke Company*, *L.R.*, 3 *App. Cas.*, 239.

Published Matter.—It is not necessary, in order to anticipate a patent, that the old things should be exact and identical with the patent. Would the effect of the patent, if held valid, be to stop the public from using them? If it would, and they had been used before, then the patent is bad, because a patentee has no right to stop the public who used such things before.¹

Therefore, any matter, the use of which subsequent to a patent would be held to be an infringement of the patent, will, if published or used before the date of the patent, be an anticipation sufficient to invalidate the latter, and the test of a previous publication is whether it is infringement of the terms of the patent.

Novelty is lost if the public be already possessed of the invention, publication is an anticipation only as evidence of public possession.

Viva Voce Publication.—It is, of course, possible also to disclose an invention so that it loses its character of patentable novelty, by verbal communication to others. An invention may be communicated in confidence to another, or possibly to several persons, so long as secrecy is imposed as a condition; and, apart from the danger of disclosing the invention before the patent is applied for, as pointed out in Part I, this information will not affect the legal force of the patent afterwards asked for. But a disclosure to any other person without requiring secrecy is fatal to the validity of the patent, much more also any such disclosure as a lecture, whether delivered actually in public before any who care to attend or only before a select circle of interested persons.

¹ Young v. Rosenthal, 184, I R.P.C., 2).

CHAPTER VIII.

NOVELTY: PRIOR USER.

Anticipation by Prior User.—Where there has been a general use of any supposed invention by the public, or any considerable section of the public, the invention and the way of performing it cannot be considered otherwise than part of the stock of common knowledge; and inasmuch as there is no addition to this general fund of knowledge by the disclosure or publication of the details, by one or another, even though that person may *bonâ fide* have discovered it for himself, there can be no patent for such invention. It is, therefore, always open to any interested party to dispute a patent on the ground that the invention had been previously used, that is: used in such a way that the alleged invention might fairly be said to be already known to the public. Such prior user upsets the patent, because it is evidence of want of novelty in the invention as regards the public generally. It operates in exactly the same way as a prior printed or other record does;¹ publication—*i.e.*, public knowledge—of the latter must be proved, otherwise it is no anticipation; equally so public knowledge of the invention through the user must be established if prior user is relied on. The test of prior user is therefore whether it was or was not sufficient to disclose the invention publicly, so that others could reproduce it.²

Anticipation by Public User.—Of course, where there has been a general use of the particular alleged invention by the public before the date of the patent the public must *ipso facto* have knowledge of the invention. The inventor might not have been aware of such previous or existing use by the public or some of the public, but inasmuch as he gives nothing to the public which they had not before, there is no consideration for the grant and the patent is void.

Public use, however, does not necessarily mean use by the

¹ *Croysdale v. Fisher*, 1884, 1 *R.P.C.*, 17; 1 *Griff.*, 73.

² *Hancock v. Somervell*, 1851, *Newton's L.J.*, 89, page 158.

public, it signifies use in public; ¹ nevertheless, it must be such a use that the public were virtually put in possession of the invention by that use. If the public have used *with knowledge* of the invention the patent is void, but if the use by the public, as, for instance, of a lock on a gate, is not such as to disclose, and has not in fact disclosed, the invention, it would appear that the subsequent patent may be upheld.² A use without any concealment is a public use.³ It is immaterial how many persons have publicly used the alleged invention; the use of a piece of wood pavement laid in a special way in the courtyard of a house, though one to which the public had not right of access, was held a sufficient use to invalidate a patent.⁴ An invention for an improved mode of driving tricycles was held anticipated by the previous employment of mechanism on the same principle on a tricycle used by one person, and well known in his neighbourhood.⁵ A single proved instance of prior user is sufficient to destroy the patent.⁶

But it is not essential that the previous use shall be still continued at the date of the patent in question, provided the art has not been altogether lost,⁷ and the anticipation itself was complete.⁸

Prior Publication or Use by Inventor.—Although the Statute of Monopolies speaks only of such inventions which others do not use, prior use by the inventor is equally fatal to the patent, for, so long as the invention becomes publicly known, the source of the knowledge is clearly immaterial.

This prior public use by the inventor, if sufficient to disclose the invention to the public, will cause the invention to lose its character of novelty.

As a rule such use as the inventor may be inclined to make will be either a use for profit or a use for experiment. Reserving the effect of experimental user for treatment later, we may here state that use for profit has been clearly condemned,⁹ on the ground that to allow such use for profit before the commencement of the 14 years' patent rights, would be in effect to permit a lengthening of the term of the monopoly.¹⁰

¹ *Croysdale v. Fisher, supra*; *Carpenter v. Smith*, 1 *Web. P.C.*, 540.

² *Hancock v. Somervell, supra*.

³ *Heath v. Smith*, 1854, 2 *Web. P.C.*, 268.

⁴ *Stead v. Anderson*, 1846, 2 *Web. P.C.*, 149.

⁵ *Brereton v. Richardson*, 1884, 1 *R.P.C.*, 174.

⁶ *Westley Richards and Co. v. Perkes*, 1893, X *R.P.C.*, 181.

⁷ *Househill Company v. Neilson*, *H.L.*, 1843, 1 *Web. P.C.*, 710.

⁸ *Morgan v. Windover*, *C.A.*, 1888, V *R.P.C.*, 296.

⁹ *Wood v. Zimmer*, 1815, 1 *Web. P.C.*, 44.

¹⁰ *Betts v. Menzies*, 1859, 28 *L.J.*, *Q.B.*, 365.

The use by the inventor of a new staging for the construction of a pier, not being experimental but for profitable employment in carrying out a contract, was held to invalidate the patent afterwards asked for.¹

Even if the use of the invention be only known to persons sworn to secrecy it nevertheless vitiates the patent if it was in any sense an actual commercial or useful employment of the invention as distinguished from an experimental use.²

In case of sale also, the sale of one single article would be sufficient to invalidate the patent,³ or even offer for sale when no sale is effected,⁴ it also appears that if the sale were simply for export,⁵ and the manufacturer was sworn to secrecy⁶ the result would be the same.

The use of an invention by the servants or agents of an inventor by his authority would naturally be the same as if made by himself.

Experimental User.—It has often been stated in the Courts that where the prior user is only experimental it will not defeat a patent subsequently taken out. So far as this refers to user by others than the inventor, it is not strictly true without some reservation. Thus in *Jones v. Pearce*,⁷ the presiding judge in speaking of an alleged anticipation of a wheel by a Mr. Strutt, said to the jury: "If you are of opinion that Mr. Strutt's was an experiment and that he found that it did not answer, and ceased to use it altogether, and abandoned it as useless, and nobody else followed it up, and that the plaintiff's invention which came afterwards was his own invention, and remedied the defects, if I may so say, although he knew nothing of Mr. Strutt's wheel, there is no reason for saying the plaintiff's patent is not good." And in *Galloway v. Bleaden*⁸ it was said that "a mere experiment, or a mere course of experiments, for the purpose of producing a result which was not brought to completion, but begins and ends in uncertain experiments," is not an anticipation. Experiment itself is, therefore, not a sure test; it is simply a practice of saying that there has not been a substantial use of the invention,⁹ in other words, it is equivalent to an insufficient user.

¹ Adamson's Patent, 1856, 25 *L.J., Ch.*, 456.

² *Saxby v. Gloucester Wagon Company*, *H.L.*, 1883, 2 *Griff.*, 51.

³ *Losh v. Hague*, 1838, 1 *Web. P.C.*, 205.

⁴ *Oxley v. Holden*, 1860, 8 *C.B., N.S.*, 666.

⁵ *Carpenter v. Smith*, 1841, 1 *Web. P.C.*, 536.

⁶ *Morgan v. Seaward*, 1837, 1 *Web. P.C.*, 187.

⁷ 1832, 1 *Web. P.C.*, 122.

⁸ 1839, 1 *Web. P.C.*, 525.

⁹ 1860, *Hills v. London Gaslight Company*, 29 *L.J., Ex.*, 409.

The experiment might have actually reached the stage of completion, but so long as it is only an experiment it is no anticipation.¹ It would be analogous to a complete printed statement in, say, a book, of which the publication could not be proved.

Greater latitude appears to have been given to experiments made by the patentee before taking the patent; these, so long as they are truly and solely experimental, have been held to be permissible, even when accompanied by necessary and unavoidable disclosure of the invention to others.² But inasmuch as provisional protection now gives the inventor a wider power of protecting himself during experiments reliance had better not be placed on such decisions. In any case a *demonstration* of the invention before patenting cannot be called an *experimental use*, it is usually intended, or desired to be, for profit. Whether an alleged experiment is or is not an anticipation depends on the merits of each case.

Secret Use.—It may be considered questionable whether a secret use of an invention by others is sufficient to prevent a patent being afterwards legally held by a *bonâ fide* inventor. On the one side there is the Statute of Monopolies, which distinctly states that only such new inventions shall be patentable “which others at the time of making such Letters Patent shall not use,” and the general dictum of Sir Edward Coke, that no patent could be granted the effect of which would be to prevent any other person from doing that which they were doing, or capable of doing, before the date of the patent. On the other side there is the fact that the inventor introduces to the general public what, to them at least, is new and otherwise undiscoverable without invention; so no failure of consideration can be urged against the grant.

So far as abandoned secret user is concerned, it should be noticed that the statute only speaks of use “at the time of making the Letters Patent.” Abandoned secret use will seldom be other than experimental, and there are cases which clearly show that the rediscoverer’s claim to be considered the “true and first inventor” is not vitiated by such abandoned and publicly unknown use or knowledge.³

But of secret user proved to be in practice at the date of the patent there appears to be no case more recent than 1802,⁴

¹ *Bovill v. Goodier*, 1866, 2 *Griff.*, 48.

² *Newall v. Elliot*, 1858, 4 *C.B.*, *N.S.*, 269.

³ *Dollond’s Case*, referred to in Chapter 10.

⁴ *Tennant’s Patent*, 1 *Web. P.C.*, 125.

where a patent was held void on account of two grounds, one being that a certain dyer had used the same method in his business for five years, though in secret, only his partners and two workmen sworn to secrecy knowing it. Later, in 1857, the question was put to the jury in *Smith v. Davidson* whether the defendant, who had also invented the same machine independently of the plaintiff, had used his machine in his trade before the date of the plaintiff's patent; on the answer being in the negative the patent was upheld.¹

This case shows the importance to inventors of making up their minds quickly whether they will take a patent or not, since delay may allow a more energetic rival to slip in and oust the original inventor from the use of his own invention.

Recently, in the absence of corroborative evidence which should have been forthcoming without much difficulty, a patent was held not to be anticipated by the alleged previous use of the invention in secret by the defendants.²

¹ *Smith v. Davidson*, 1857, 19 *C.B.*, 697.

² *Dick v. Tullis & Son*, 1897, XIII *R.P.C.* 149.

CHAPTER IX.

UTILITY.

Importance of Utility.—The question of utility, though important, is not so important as that of novelty. In judging utility of an invention it must be remembered that it is that portion which is new and proper subject matter for a patent which requires to be useful.

Mischievous to the State.—As expressed in the Statute of Monopolies the invention must not be “contrary to law or mischievous to the State by raising the prices of commodities at home or hurt of trade,” nor “generally inconvenient.” As to contrary to law and mischievous to the State, the Comptroller of Patents is empowered¹ to refuse the grant of a patent for an invention the use of which would be contrary to law or morality, under which power an application for a patent for apparatus connected with lotteries was refused.

It is difficult to conceive an invention which would raise the price of any commodity, except perhaps raw materials required in performing the invention, of which there may be only a limited supply.

If such materials had been or were at the time used in other industries, the latter might suffer from the raising of price. An invention, however, to so raise the price of a raw material, must necessarily be of considerable importance; the raising of the price would depend on the demand, and the latter on the extent to which the invention was employed. Such an invention would, from the fact of its extensive use, be probably exceedingly useful, and its use would far outweigh the minor disadvantages of the raising of price in the raw material. So far as the writer knows, such a point has never been raised against any patent, nor could it be reasonably admitted as a proof of want of utility. By the present form of Letters Patent the Privy Council are at liberty to revoke the patent in event of its being shown to be inconvenient, or in

¹ Act of 1883, Sect. 86.

hurt of trade, but as a matter of fact this process of revoking a patent is never exercised, the only method being by recourse to the Court of Chancery.

Amount of Utility.—It has always been admitted by patent lawyers that an invention must be useful, otherwise it is not patentable, and this is generally explained by inferring that a patent for a useless invention would stand in the way of the just enjoyment of patents for possible future improvements of utility. Such a patent would be to the “hurt of trade,” and in this sense utility is necessary, as laid down in *Morgan v. Seaward*.¹ It is clear, also, that if the invention be useless, there is no valuable consideration received by the State for the grant of the patent, so that the latter is therefore void in law;² but the amount of utility necessary to support a patent is very small, and provided that there is utility its amount is not essential to the consideration of the question of validity.³

Continuance of Utility.—It appears that a patented invention must be useful, not only at the time of the grant of the patent, but throughout the term of the latter;⁴ nevertheless, an objection to a patent founded on the allegation that it was not commercially useful, owing to its being immediately superseded by simpler constructions, was not admitted in proof of absence of patentable utility.⁵

Nature of Utility.—To what quality then does the term utility refer? In *Young v. Rosenthal*, a comparatively recent case, it was laid down that in law utility indicates that the invention is better than preceding knowledge of the trade, it does not mean abstract utility. Thus in reference to any particular article, to say that an invention relating thereto has utility, does not mean that the said article is useful, but that the improvements made whereby the article differs from similar articles, used or known before, render the article more useful than it was before. However, in the case of a machine it was stated that it is not necessary that it should be so useful as to cut out every other such machine, but it is quite sufficient if on any occasion it is useful.⁶

Evidence of Utility.—It is considered a good proof of

¹ 1 *Web. P.C.*, 197.

² *Turner v. Winter*, 1 *Web. P.C.*, 77.

³ *Philpot v. Hanbury*, 1884, II *R.P.C.*, 37.

⁴ *Simpson v. Halliday*, 1864, 20 *New Lond. Jour.*, N.S., 120.

⁵ *United Telephone Company v. Bassano*, 1886, III *R.P.C.*, 295.

⁶ I *R.P.C.*, 29, *Griff.*, 249, 1883-4.

utility if the invention meets with a large sale,¹ or if the defendant in a suit of infringement is proved to have adopted the invention,² but it is not absolutely necessary to prove commercial success.³

A patent may be held void when the effect intended to be, or said to be, produced is not properly produced by the invention;⁴ or where, from the vagueness of definitions given, the invention may be carried out in various ways, some of which have no utility in respect of producing the effect intended.⁵

Inutility of Part.—In respect of part of an invention being found to be wanting in utility it will depend whether such is or is not held out to be a material part, or not distinguished as being immaterial.⁶ Unless it is so distinguished or seen to be immaterial the patent is void for want of utility. It is bad on the ground of deception.⁷ Utility is a question of fact rather than of law.⁸

¹ Tetley v. Easton, 1852, *Macr. P.C.*, 63.

² Cole v. Saqui, V *R.P.C.*, 495.

³ Lucas v. Miller, II *R.P.C.*, 155.

⁴ *Badische Anilin, &c. v. Levinstein*, *H.L.*, 1887, 12 *App. Cas.*, 710.

⁵ *Easterbrook v. Great Western Railway Company*, 1885, III *R.P.C.*, 94.

⁶ *Bailey v. Robertson*, *H.L.*, 1878, 3 *App. Cas.*, 1078.

⁷ *Lewis v. Marling*, 1829, 1 *Web. P.C.*, 496.

⁸ *Hill v. Thompson*, 1817, 1 *Web. P.C.*, 237.

CHAPTER X.

THE INVENTOR OR APPLICANT FOR PATENT.

Who may apply for a Patent.—Under the Patents, Designs, and Trade Marks Act of 1883, Sect. 4, “Any person, whether a British subject or not, may make an application for a patent. Two or more persons may make a joint application for a patent, and a patent may be granted to them jointly.”

Although under Sect. 4, above mentioned, “any person” or persons may apply for a patent, under Sect. 5 the application must contain a declaration to the effect, amongst others, that the applicant, or in the case of a joint application, one or more of the applicants claims to be true and first inventor of the invention for which the patent is asked. Therefore the applicant, or if more than one, then at least one of the applicants must be the “true and first inventor,” or what the law considers as such.

The Act of 1883 gives no special definition of the word “inventor,” nor do any of the subsequent amending Acts in 1885, 1886, or 1888; the word “invention” is defined in Sect. 46, as “any manner of new manufacture the subject of Letters Patent and grant of privilege within Sect. 6 of the Statute of Monopolies,” and so the word “inventor” must be taken to refer to the same source. Its meaning will depend on the construction given to the word in that statute by the Courts of law.

Merit of Inventor.—A reference to the Statute of Monopolies will show that not only must the “invention” be a new one, so far as this realm is concerned, but that even in this case the patent can only be granted to the “true and first inventor” of the respective invention.

Thus, in the case of *Cornish v. Keene*,¹ Tindal, C.J., in summing up, said: “Sometimes it is a material question to determine whether the party who got the patent was the real and original inventor or not, because these patents are granted

¹ 1835, 1 *Web. P.C.*, 507.

as a reward, not only for the benefit that is conferred on the public by the discovery, but also to the ingenuity of the first inventor; and although it is proved that it is a new discovery so far as the world is concerned, yet if anybody is able to show that the party who got the patent was not the man whose ingenuity first discovered it, that he had borrowed it from A. or B., or taken it from a book that was printed in England, and which was open to all the world, then, although the public had the benefit of it, it would become an important question whether he was the first and original inventor of it."

If a patent were solely, as some have said,¹ a matter of contract or bargain, in which the State assures to an individual certain exclusive rights for a limited time, as an equivalent for the disclosure of an invention, then there would appear to be little object in confining that peculiar method of bargaining to one small set of persons, namely, those who fulfil the qualifications of "true and first inventors." It would appear immaterial who should disclose the secret of a new invention so long as it is disclosed by someone. A reason is, however, to be seen in the fact evidenced by the above decision, that the grant of a patent was looked upon more as a reward for valuable service than as a price to be paid for the disclosure of a secret. A patent for practising a new invention was itself a rare matter even among the total number of patents granted in the commencement of such things, which were not very numerous, being most of them for monopolies of manufactures already known. All of these were, ostensibly at least, granted as rewards for services; although as respects the greater number, as the Statute of Monopolies declares, illegally. Sir Edward Coke, in his "Institutes," states that an inventor receives a patent "on account of the good that he doth bring to the realm," not as a price for revealing a secret.

"Though the matter may not have been used, the party is not entitled to his patent unless he is the first and true inventor; therefore, if the subject matter of the patent has been discovered . . . though it has not been reduced into practice, if a man merely adopts it, the merit is so small that his patent for it would be worth nothing."¹

It is curious to note that about the time this Statute of Monopolies was passed and for some time afterwards, it was not the practice to grant patents solely to the inventors. Thus, in Mansel's patent for making glass, several other persons were

¹ *Walton v. Potter*, 1 *Web. P.C.*, 592.

associated with the inventor. It was reserved for later times to construe the words in strictness as applicable to the inventor alone, and to no other person with him. The amendment made in the practice in this particular, by the Act of 1883, under which the inventor may now associate others with himself in the application is, therefore, in effect, a return to an ancient usage.

Right of Application not Transferable.—The method of considering patents as a reward, presupposes in the inventor a moral claim to a recompense for his exertions, of which others are not possessed. It may be termed a right of application strictly personal to the inventor. It must be borne in mind that it is a moral right of application only, and in no case a legal or enforcable claim to receive a patent. As it is clearly within the discretion of the State to grant or refuse a patent, so it must equally be within the discretion of the State to draw the distinction between persons fit and not fit to receive patents.

In most foreign countries, whose laws on patents are not of the antiquity of the English patent system, and where the more commercial aspect of the grant of a patent is given prominence, this right of application, which the English law considers to be personal to the inventor as a deserving person, is looked upon as a transferable right; so that any person who may have obtained the invention together with the right to apply for the patent from the true inventor, may apply for the patent in his own name and hold the same validly when granted to himself. It is not incompatible with the "reward" theory, as it may be termed, to allow that an inventor may assign his right of application; but at the same time the bare fact that it is not incompatible is not a sufficient reason in itself that such course should therefore be allowed by the English law. There may be other reasons against the practice; it may well be that the public disadvantages which might arise if the true inventor of any patented invention were kept in the background or liable to be so, may be rightly supposed to outweigh the possible private advantage (in any case a very problematical one) which the inventor might obtain by recognition of a right to transfer or sell his invention before patenting it.

The present Patent Law in Great Britain does not, moreover, afford any provision for enabling an inventor to request that a patent may be granted to his nominee or assignee, either at the time of making the application or at any time thereafter. He can amend his application to associate another person with

him in the application at any time before the patent is sealed and issued, but cannot totally eliminate his own holding in the application, as he may do in the United States, Queensland, Victoria, &c.

Application by a Person not the Inventor.—Let us suppose that “any person,” not being the “true and first inventor,” applies in this country for a patent on an invention; should he fail to subscribe to the declaration, contained in the form of application, that he is the true and first inventor, or should he designate some other person not associated with him in the application, as inventor, the patent would be refused since the papers necessary to the application are, on the face of them, incorrect or insufficient in law, as would be obvious to the examiner to whom the application is referred under Sect. 6 (1883). If, on the other hand, the applicant, not being truly the inventor in law, signs the declaration that he is so, the patent will be granted, since the Patent Office has no means of testing the truth of the declaration, but it will, nevertheless, have no value, since not only is it revocable at any time on proof that the applicant was not the “true and first inventor,” but the same proof is also a sufficient defence to an action of infringement, under Sect. 26 (as indeed are all other grounds for revocation), so that the patent will always be inoperative, even if not revoked. Apart from the statutory grounds above mentioned, such patent is bad at common law on the ground that it was obtained by deceit.

Special attention should be given by or on behalf of the applicants to this point, since it appears to be one of those defects in a patent for which there is no remedy. No method at present exists by which the name of a grantee can be changed. Therefore, when once the patent is sealed it will stand or fall as the grantee was, or was not, the “true and first inventor.” It is perfectly useless for the inventor to have authorised the grantee to apply in his own name, quite useless also for the latter to assign the patent when granted to the inventor after it is granted, either of these, or both may occur: but the patent will remain invalid and consequently useless.

Although the fault cannot be remedied after sealing of the Letters Patent, it may be corrected during the course of the application by the leave of the Comptroller of Patents, under the general powers vested in him for permitting under such terms as he may impose the correction of documents as to which no special provisions exist in the Acts or rules. (*See Amendment of application on page 227.*)

True and First Inventor.—In general parlance, an inventor is one who, by thought or experiment, finds out or produces something new, and to a certain extent this is a true definition; but in British law the term inventor intends something beyond the above definition.

The term inventor primarily intended an importer, as we should now call it, one who caused the invention to become known in this realm. The etymology of the word supports this view. It is derived from two Latin words, *in*—in or into, and *venire*—to come. As we speak of an inventor of a manufacture, we must imply that the word inventor is used in a transitive sense, that causation is implied in the suffix, *or*. The meaning will be, “he who causes the invention to come in.” The same causation implied in such words as “grantor,” “assignor,” “lessor,” &c., each meaning the person who causes the act, and from whom it proceeds, thus proving that the above is the correct definition. The popular notion more nearly coincides with a person to whom an invention occurs, one to whom ideas come, such a person would more correctly be termed an “inventee.” Stress must be laid on the causation implied in the word inventor, since on this view only is its legal meaning at all understandable and reconcilable with the judicial decisions to which we shall presently refer, and with the present state of the law on the subject.

In the time of Queen Anne we find the first record of an importer's right to a valid patent called in question. It was settled in favour of the validity of the patent in *Edgebury v. Stevens*,¹ in which it was held that provided an invention be new in this realm, a patent may be upheld, even if the invention had been already known and used abroad; it being immaterial whether the inventor has learnt the invention by travel or by study. This dictum has been upheld ever since and regarded as good law. Thus in *Walton v. Bateman*² it was distinctly affirmed that the party obtaining the patent must be the true and first inventor *in this country*. If he import from a foreign country that which others at the time of the making of such Letters Patents and grants did not use, it will suffice; and again in *Nickels v. Ross*,³ a party who simply avails himself of information from abroad may be the true and first inventor. It is under this reading that residents in Great Britain may obtain patents in their own names, on inventions communicated to

¹ 1 *Web. P.C.*, 35.

² 1 *Web. P.C.*, 615.

³ 8 *C.B.*, 679.

them from abroad, which we shall have occasion again to touch upon.

Allowing that the inventor is the person who causes the invention to come in, it will be seen that the definition is practically incomplete until we find the destination into which the invention is to come. The very existence of the definition given implies also the existence of a place or places from which the invention may come, a place or places where it may have existed before, and where it is, therefore, no longer a novelty. The Statute of Monopolies itself gives the geographical definition of the place into which the invention is to come, viz., "this realm," it may, therefore, have had a previous existence in places outside the realm. In those days the realm consisted of England and Wales only, now it includes also Scotland and Ireland and the Isle of Man. The Channel Islands, which were included in the territory covered by the patents granted under the Act of 1852, up to the end of 1883, were not included in the Act of 1883 now in force. The term "realm," therefore, now covers what we know as the United Kingdom of Great Britain, Ireland, and the Isle of Man.

"First" Inventor.—It is a cardinal feature of the policy of the British Patent Law that the disclosure of an invention is to be encouraged; in fact the reward of a patent is not granted so much for bringing the knowledge of an invention into existence, or into the United Kingdom, which is the same thing, as for disclosing the knowledge so brought that others may learn the same. Now the patenting of an invention is synonymous with a disclosure of the invention, since it is but an exclusive right granted in lieu of the exclusive property of the knowledge of an undisclosed invention. As it was presumed that an inventor would naturally prefer to disclose his invention under protection of a patent, we find that it was decided that the first to patent an invention was held to have the prior right, even though not actually the first in point of time to have invented the matter. Thus, in *Forsyth v. Riviere*,¹ it was held that "of two simultaneous inventors he who first communicates the invention to the public under the protection of Letters Patent, is the true and first inventor." The wording is slightly inaccurate, but the intention is clearly to make the date of disclosure of the invention a determining factor, at any rate, in cases where the inventions are simultaneous. Thus, where there were two concurrent applications for Letters Patent for the same invention, he who obtained the Letters Patent first,

¹ 1819, 1 *Web. P.C.*, 97.

by getting quickest through the various stages, was held to have the sole right in law;¹ not only so, but the grant of such patent was held sufficient and valid to prevent the grant of another patent on an application which in point of time was the first filed.² This clearly shows that the date of inventorship was not considered at all, the date of communicating the invention to the public under the protection of the patent being the only point of which notice was taken. Although it is no longer possible under the Act of 1883 for a later applicant to obtain a patent which shall prevent grant of another patent to a prior applicant, the rights of the first applicant in this respect being now saved under Sect. 13, yet this very saving clause enforces the reading of the law which makes the first applicant for patent the inventor as against any subsequent applicant.

Thus we see that an inventor is not one in law, unless and until he shall have disclosed his invention; by being the first to do this by way of making an application for patent he will become possessed of a patent, valid so far as this point is concerned; by being the first to disclose the invention otherwise than by an application for patent, he will still become "the true and first inventor," and will for that reason prevent any other person from thereafter truthfully claiming such title; but he himself will then lose his right to the patent because by already having disclosed the invention to the public the latter have become possessed of the knowledge of the invention which is the sole consideration for the grant of the patent; the invention being then no longer a *new* invention.

Inventorship by Disclosure.—From this, it follows that if any person become possessed of an invention and does not disclose it, he is not an inventor within the meaning of the law. Proof of this is afforded by Dollond's case;³ Dollond received a patent for a new method of making the object glasses of telescopes. It was proved that before the date of the patent Dr. Hall had made object glasses in precisely the same way, and had used them in his observatory, but as he had not published his discovery the patent was upheld. And again, in *Lewis v. Marling*,⁴ if any person makes a discovery and is enabled to produce an effect from his own experiments, judgment, and skill, it is no objection (to his patent) that another made a similar discovery unless it has become public. Also in

¹ In *re Dyer's Patent*, 1812, *Holroyd*, 59.

² *Bates v. Redgate*, 1869, *L.R.*, 4 *Ch.*, 577.

³ *Dav. P.C.*, 170, 199; 1 *Web. P.C.*, 43.

⁴ 1829, 1 *Web. P.C.*, 493.

Stead v. Williams,¹ if a person has had a scheme in his head and has carried it out, but after trial has thrown it aside, and the thing is forgotten and gone by; then another person reintroducing it may, within the meaning of the Act, be the inventor and the first user of it, so as to justify a patent. It is true that in an earlier case,² where a patent was disputed on the ground, amongst others, that the invention had been practised about five or six years by another person, although in secret, this was held a sufficient ground for holding the patent void; but this is referable more particularly to the question of novelty of the invention, and may be considered overruled by the later cases given above, and especially by the case of *Smith v. Davidson*,³ previously referred to, in which the user of the same invention by another person in secret was also not held to invalidate the subsequent patent to the applicant.

A disclosure of the invention, or its equivalent an application for patent, which is a privileged disclosure, must occur before any person can claim the title of "true and first inventor" in the Patent Law sense. An inventor is therefore in law "one who, having obtained the invention by his own mental efforts or by instruction or knowledge obtained abroad, is the first to disclose the invention in the United Kingdom."

Inventions originated in the Realm. It will be noticed from the definition of the true and first inventor above given, that as far as concerns discovery originating in the United Kingdom, and not imported from abroad, the "inventor" must by his own mental skill have found out the invention; that is to say, an inventor of a discovery originating in the realm conforms to the popular definition of the word. Even if there be no fraud in obtaining the invention, but the latter be voluntarily imparted to another person by the inventor, or the secret sold to him by the inventor *in this country*, that other person cannot receive a valid patent on an application in his own name; a communication from one to another in this country not being recognised as a communication from abroad is recognised.⁴ Such person could not moreover truthfully state that he was the true and first inventor in this country, as he is required to do in the application form, since, although he is the first to disclose the invention, he has not the attribute of independent inventorship in this realm.

¹ 1843, 2 *Web. P.C.*, 135.

² *Tennant's Patent, Dar. P.C.*, 429.

³ 19 *C.S.*, 691.

⁴ *Marsden v. Saville Street Foundry Company, C.A., L.R.*, 3 *Ex. D.*, 203.

Inventions resulting from Joint Discussion, &c.—An invention may apparently be the result of discussion between different persons without invalidating the right of the inventor who afterwards developed the practical result. Thus in *Winby v. The Manchester, &c., Steam Tramways Company*¹, a patent for tram points came in question; Bristowe, V.C., in summing up said: "Is the plaintiff the first and true inventor of the invention he claims? . . . The true conclusion from this part of the case, I think is, that the subject was a matter of constant and common discussion in Mr. N.'s office, and that some method of remedying the evils of the old dummy and drop-off points was often discussed. But I do not find myself able to come to the distinct conclusion that the particular thing described in the plaintiff's Letters Patent was ever exactly foreshadowed or put into shape, though some sketches of such a thing may have been made and discussion thereupon may have taken place. Upon this issue therefore, the plaintiff's evidence being clear and affirmative, and the defendant's not so definite, and open to the observation that no sketch, drawing, or writing has been put in evidence in support of their view, I come to the conclusion, that, apart from any anticipation the plaintiff was the first inventor, . . . but this conclusion is arrived at subject to the question of anticipation, which I now proceed to deal with."

But where it appeared that an invention was partly the work of one inventor, and partly the work of another, namely, a master and his foreman, it was held that the patent should only be granted on terms that it should be vested in trustees for the master and foreman.² One of joint inventors is not entitled to the patent so as to exclude the other, at least, it is to be presumed so, since in various cases of opposition to the grant of patent in which the opponent has proved his joint inventorship, either a joint patent has been granted, or separate patents of the same date have been granted one to each, which is in effect the same thing.³ These were, however, cases in which the grant of a patent was opposed by the aggrieved party; there would appear to be no reported case in which a patent once granted to one of two joint inventors has been found void on that account alone. If it can be shown that the grantee of a patent was not the inventor of a material part of

¹ VIII R.P.C., 65.

² *Re Russell's Patent*, 2 *De G. and J.*, 130.

³ *Evans and Otway's Patent*, *Griff.*, 279; *Garthwaite's Patent*, *Griff.*, 284.

the invention claimed, then the patent is void; but where it is impossible to distinguish between what was invented by one and what by the other, both of such joint inventors would appear to have just claim to the title of inventor; just as if they were rival and independent inventors. Therefore, if the person aggrieved has acquiesced in the grant by failing to oppose, the patent should be held valid. In the *Lifeboat Company, Ltd., v. Chambers Brothers and Co.*,¹ the defendants sought to upset the patent on the ground amongst others, that they were joint inventors with Robert Chambers, one of the petitioners' grantees. In the lower Court it was held that it was enough to dispose of this contention that the respondents allowed the petitioners to obtain their patent, being all along aware of the proceedings of their brother Robert, and taking no steps to assert their own rights for a year after the first patent had obtained; that they also admitted that the original idea was that of their brother Robert; and that although they claimed to have a share in the invention by taking part in repeated discussions with him during the construction of the model, they could point to no one particular or improvement which any of them was the first to suggest. On appeal to the Court of Session this point was not decided, the patent being held void on other grounds.

An inventor discovering the principle of an invention may employ skilled assistance in working out the details, and any details suggested by the person so employed in working out the idea may be embodied in the patent without rendering the latter void.² Such suggestions become the property of the employer, and the servant cannot take out a patent for them.³ It is, however, difficult to define how far the suggestions of a workman, employed in the construction of a machine, are to be considered as distinct inventions by him; each case must depend on its own merits.⁴

In *Healey's Application*, 1872, a warrant was granted to servants for patents on inventions, the result of experiments paid for by their employers, the opponents, on condition that the specifications should be submitted to the opponents, and the portions struck out that might be objected to by them.⁵

¹ VIII *R.P.C.*, 420.

² *Bloxam v. Elsie*, 1825, 1 *Web. P.C.*, 132.

³ *David and Woodley's Application*, 2 *Griff.*, 26; *Re Healey's Application*, *John*, 165.

⁴ *Allen v. Rawson*, 1845, 1 *C.B.*, 574.

⁵ *John*, 165.

If a person is pursuing an inquiry as a servant of the Government, he cannot take a patent on any invention the result of information produced by such inquiry, the information being already the property of the State.¹

Inventions obtained by Fraud.—Where it is proved that the invention has been obtained by fraud, the patent will of course be invalid as a deceit on the Crown. A petition for revocation can be presented under Sect. 26 of the Act of 1883 by any person alleging that the patent was obtained in fraud of his rights, or of the rights of any person under or through whom he claims. Where a patent has been revoked on the ground of fraud, the Comptroller of Patents may, on the application of the true inventor, grant to him a patent in lieu of and bearing the same date as the date of revocation of the patent so revoked, but the patent so granted shall cease on the expiration of the term for which the revoked patent was granted.² It is difficult to see how such a patent to the true inventor can be valid, since by Sect. 35 a patent granted to the true and first inventor shall not be invalidated by an application in fraud of him, or by provisional protection obtained thereon, or by any use or publication of the invention subsequent to that fraudulent application *during the period of provisional protection*. Now, as the period of provisional protection extends only from the date of the application to the date of sealing under Sect. 14, and revocation cannot take place, nor even a petition be presented for that purpose, until the patent is already granted, there will be a period previous to the grant of the new patent to the rightful person during which publication will presumably occur which will disadvantageously affect the new patent. Before a patent is granted the application passes through a stage in which it is open to opposition; this stage commences on the date of the Patent Office Journal advertising the "acceptance" of the complete specification, and its duration is two months. During this time a defrauded inventor may oppose the grant, but no power is given to the Comptroller to grant a patent to the opponent, even though he is successful in his opposition; unless he, the opponent, has filed an application himself, which will be dealt with in the usual way. With regard to Sections 26 and 35, any inventor who is defrauded should not only oppose the sealing of a patent to the person who has defrauded him,

¹ *Patterson v. Gas Light and Coke Company, H.L., 1876-7, 2 App. Cas., 251.*

² *Patents Act, 1883, Sect. 26 (8).*

but he should also, to save his own rights, file an application for himself before the sealing of the first application is refused. It is presumed that this would be sufficient to save the rights of the defrauded inventor, but whether this is so or not may still be a matter for dispute, having regard to the decision of the Court of Appeal in *Humpherson v. Syer*, in which the patent of the plaintiff, in an action of infringement, was held void by reason of prior user by the defendant under a provisional protection, and, according to Lord Justice Fry, "On the further ground that it was a fair conclusion from the evidence that some English people under no obligation of secrecy, arising from confidence or good faith towards the patentee, knew of the invention at the date of the patent."¹ Looking to the expense and uncertainty of ousting a prior applicant by proving fraud, coupled with the further uncertainty that the true inventor will possess a valid patent himself; the latter intending to apply for a patent, will best consult his own interests by lodging his application at the earliest moment, and before disclosing his invention to possible rivals.

Firms, Partnerships, and other collections of persons, other than bodies corporate,² cannot as such apply for patent either alone or in conjunction with an inventor. Members of firms cannot, therefore, apply in the name of the firm, but only as so many individual persons of which at least one must be the true and first inventor. If the patent is to become a partnership asset, this must be done by assignment after the patent is granted.

Infants and Married Women.—An infant may be a grantee,³ and a married woman may hold a patent independently of her husband.⁴

Death of Inventor.—In the case of the death of an inventor without making application for a patent, a patent may be applied for by and granted to his legal representative, provided the application is filed within six months of the death of the inventor.⁵ It is presumed also that when an inventor dies during the progress of an application, the application can be amended so that the patent may issue to the legal personal representative of the deceased applicant. Certified copy of probate will be asked for.

¹ *IV R.P.C.*, 24.

² See page 153.

³ *Cheavin v. Walker*, *L.R.*, 5 *Ch. D.*, 858.

⁴ Married Women's Property Act, 1882.
Patents Act, 1883, Sect. 34.

CHAPTER XI.

THE INVENTOR OR APPLICANT FOR PATENT;
FOREIGN INVENTIONS.

Fraud Abroad.—As to alleged fraud in obtaining an invention abroad, there is great doubt if the policy of the British Patent Law can admit that there can be fraud unless the fraud can be said to have been committed in this country. Thus A., a citizen of the United States, instructed an agent in the States to obtain a British patent; the agent forwarded the patent to one L., who applied for and obtained a patent in his own name, having added certain novel features of his own invention. The fact of communication was not stated. A. petitioned first by power of attorney, and afterwards in his own name, that the patent might be revoked on the ground that it had been obtained in fraud of his rights. Petition refused, but without prejudice to any further petition that A. might be advised to file under Sect. 26, Sub-sect. 4 (d); relying on the ground that he was the inventor of any invention included in the claim of the patentee.¹ No further petition is reported to have been brought.

An opposition to the grant of a patent, based on the allegation that the invention had been obtained by fraud was held to fail in *re Edmond's Patent*,² per Webster, A.G.: "Prior to the passing of the Act of 1883, the law was well settled that a person importing into the realm an invention was the true and first inventor within the meaning of the Statute of James, and it mattered not under what circumstances he had obtained the invention abroad. In my judgment the Act of 1883 has made no alteration in the law in this respect. In the case of an imported invention the merit of the invention is in the importation—the communication to the public in the United Kingdom and the Isle of Man; and I think the Comptroller has no jurisdiction to enquire into the circumstances under

¹ *Re Avery's Patent*, IV *R.P.C.*, 152, 322.

² 1886, *Griff.*, 281.

which the invention was obtained by the importer. Of course, there may be cases in which the relations between the parties may be such that the person who has first imported the invention may be guilty of some breach of contract, or breach of duty, towards the person from whom he has obtained the invention abroad, and the importer may be liable to proceedings in respect of the breach of any such contract or duty, but in my opinion those are matters which the Comptroller and the Law Officer cannot enquire into, but must form the subject of independent proceedings either in this country or abroad, as the case may be."

It would appear, therefore, that an importer cannot be assumed guilty of any fraud on the rights of a foreign inventor. The latter may, perhaps, get the patent revoked on the ground that he was the true inventor,¹ though this is doubtful, but even if it should be revoked, it is not clear that the true inventor could get a new patent under Sect. 35, as there is no legal fraud.

Imported Inventions : Communications from Abroad.
—The very clear exposition of the law given in the decision just quoted shows that there is an assumption of merit in the mere importation of an invention. As we have seen from other cases cited, there may have been, and doubtless was, a very considerable amount of merit in the importer, if trouble and expense indicate merit; but in modern days there is but little other than the merit inseparable from the discovery of the invention itself, and due to the foreigner who originated the invention. It cannot be said that the merit of the origination passes on to the importer, it is a matter personal to the original inventor as such and cannot so pass, for neither here, nor in any case, must the merit of the invention be mistaken for that of the inventor, the two being very distinct. The reason that so little merit now entitles an importer to hold a patent, is probably to be found in the very gradual stages by which the degree of difficulty connected with the importation has diminished, until it is at present almost zero. A very instructive judgment in this sense was given by Jessel, M.R., in *Marsden v. The Saville Street Foundry* previously referred to.² "It is difficult to say, *à priori*, on what principle a person who did not invent anything, but who merely imported from abroad into this realm the invention of another, was treated by the judges as being the first and true inventor. . . . It has never been

¹ See previous page.

² 39 *L.T. Rep.*, N.S., 100.

declared by any judge or authority that there is such a principle, and, not being able to find one, all I can say is that I look upon it as a sort of anomalous decision which has obtained by time and recognition the force of law."

Indeed, before the passing of the Act of 1883 there were very serious thoughts of totally abandoning the practice of granting patents to English residents on inventions communicated from abroad, and it was only after strong representations as to the usefulness of the practice that its continuance was tacitly allowed, for be it observed it is nowhere expressly stated as allowable by the Act; the only approach to recognition being the inclusion among the body of forms prescribed to be used under the Act of a special form of application to be used in such cases. We have seen that the grant of a patent is no proof of its validity, and from the decision in Avery's case before noted, there is at least a possibility that the foreign true inventor might be able to upset the patent on proving that he was the true inventor of the invention included in the claim of the patentee. We do not say that there is a probability, but only a remote possibility sufficient to say that the matter cannot be said to be definitely settled in favour of the importer, when the latter takes the form of a resident in the realm "who has not invented anything," and who simply receives a communication from abroad. The question may some day arise whether a person resident here, who himself has done nothing to bring the particular invention of which he becomes patentee, into the realm, but has merely received a postal communication forwarded and caused to be sent him by some other person abroad, can be called an "importer" or inventor at all within the meaning of the Statute of Monopolies.

It would rather appear that the sender is in such case the active agent to cause the invention to come into Great Britain. This question has never been put or answered, the saying of Jessel, M.R., above quoted was *obiter dicta*, not essential to the decision of the case in which it was spoken. Patents granted on communicated inventions have from time to time come before the Courts on various issues, but since the days of *Beard v. Egerton* (1846) none has been challenged on this issue, although that patent case only proved that the grant was valid, although, in fact, the patent was taken out and held in trust for a foreigner, the subject of a State in amity with this country.¹ It is right to say that there may be valid patents

¹ 3 C.B., 97.

for communicated inventions, right also to say that such may be held in trust for residents abroad, but the applicant for patent must still in any event be the "importer" and apart from the "custom" that has gradually sprung up there would appear to be no warranty for considering such a person as before defined, an importer within the meaning of the law.

Although we find that an "importer" may possess merit, the merit of importation, this merit is not so great as that of an original inventor. The merit of either is sufficient to sustain a patent, but should an extension of the patent be sought beyond the legal term of 14 years, the Privy Council, being extremely jealous not to prolong other than exceptionally meritorious patents, will only advise the grant of an extension, after satisfying themselves of the merit of the inventor that he is worthy of such reward. "The merit of an importer is less than that of an inventor; we are now sitting judicially, and it is an argument against the patent that it was imported and not invented."¹ It is for this reason probably that the fact of communication must be stated when the invention has been communicated from abroad. Thus a patent taken out as for an original invention, when in truth communicated from an Englishman resident abroad, was held void,² since to conceal any material fact voids a patent as a deceit on the Crown. If only part of the invention has been communicated from abroad it will be preferable to state the fact, in view of remarks made in the decision on Avery's patent;³ but the "importer" may add improvements to the original apparently without needing to state that the invention is only partly a communication from abroad.⁴

A person resident abroad may take a British patent on an invention communicated to him by another resident abroad. This was decided in *re Wirth's Patent*,⁵ where the fact of communication was stated. The decision, however, loses its importance in view of the fact that since 1883 there has been no means for doing this, there being no form by which it may be done, stating the fact of communication. As any person, discoverer or not, if resident abroad, may still be the "true and first inventor" as far as this realm is concerned, and all importers are in that respect of equal merit; it follows that any

¹ In *re Soames' Patent*, *P.C.*, 1813, 1 *Web. P.C.*, 733.

² *Milligan v. Marsh*, 1856, 2 *Jur.*, *N.S.*, 1,083.

³ See page 145.

⁴ *Moser v. Maraden*, *C.A.*, 1893, X *R.P.C.*, 350.

⁵ *L.R.*, 12 *Ch. D.*, 303.

person resident abroad may still take out a British patent without stating the fact of communication.

Although a patent may be held in trust for persons resident abroad (*Beard v. Egerton, supra*), it does not necessarily follow that all patents for communicated inventions are held in trust for the communicators; they may be held in trust for others than the communicators named, or they may not be held in trust at all. The naming of the communicators is not evidence of a trust for them, but is done to avoid deceit in obtaining grant. It should be noticed that the words in the Letters Patent do not speak of any trust; the grant is to the inventor named in right of his inventorship. The true inventor abroad, should he choose this mode of obtaining an English patent, will, therefore, do well to so word his instructions that no question can afterwards arise to frustrate his intention of retaining the property in his own invention.

Residents Abroad.—The point has been mooted that no person resident abroad can receive a valid British patent granted to him in his own name, but this assertion lacks logical foundation on the law and facts.

Previous to 1870 aliens were legally under disabilities as regards the holding of property in Great Britain, but this was principally the case with regard to land. Aliens could not purchase or inherit land. "If an alien friend purchase a copyhold in the name of A. in trust for him and his heirs, the king shall have the trust."¹ An alien friend might take an estate for years in a house for his habitation; but not meadows, &c., nor if he is an enemy or not a merchant. If he died or left the realm his leases went to the king. By Statute 1, Richard II,² no alien might purchase a benefice within this realm without the license of the king; and by Statute 12 and 13, William III, chapter 2, no person other than born in England, Scotland, or Ireland, or of English parents, even though naturalised or made a denizen, could have any grant from the Crown of lands to himself or in trust for him. But patents are not real estate, but incorporeal personal chattels, so they are not subject to these disabilities. If they were so, they could not have been granted so as to be held in trust for aliens as we have seen from *Beard v. Egerton* was the case. Aliens might hold personal property; thus we find that aliens might dispose of personal property by will.³ Patents being franchises, more nearly resembling bene-

¹ 21 *Rol.*, 194, 135.

² *Comyn's Digest*, 1792, *Vol. IV*, page 271.

³ 2 *Rol.*, 94; 1 *And.*, 25.