PATENT LAW

AND

PRACTICE:

SHOWING THE MODE OF OBTAINING AND OPPOSING GRANTS, DISCLAIMERS, CONFIRMATIONS, AND EXTENSIONS OF PATENTS.

With a Chapter on Patent Agents.

BY

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PREFACE TO THE ENLARGED EDITION.

In preparing for the Press a New Edition of PATENT LAW AND PRACTICE, I have modified the text to meet some minor changes arising out of new legislation and new rules of the Commissioners of Patents. Extended experiences have also enabled me to throw some new light upon doubtful points of practice. Thus the powers of the Law Officers in respect of the granting and annulling of disclaimers, and the awarding of costs, as a condition of the grant of a disclaimer, having come under review in the Courts, and been to some extent settled by the decision of the Judges, are now more clearly indicated.

The importance to inventors of an accurate appreciation of the requirements of the law in respect of the subject matter of inventions, I seem, in common with all other writers on Patent Law, to have dismissed with but a brief notice. Private

practice has, however, convinced me of the desirability of setting out more clearly, than mere definitions could do, the scope or requirements of the law in this respect. In a new chapter, entitled Patentable and Non-Patentable Invention, will be found as thorough an exposition of the subject as the limits of the work will allow. Opinions must necessarily differ on this, as on all other controversial subjects, and exceptions may be taken by the thoughtful critic to some of the conclusions arrived at. It is, however, only fair to say that nothing has been set down rashly, although no uncertain judgment has been pronounced on any one of the many phases of the question presented to view. Some of these conclusions have recently been put to a severe test, and have been accepted by the administrators of the law. In saying this, I do not forget that the Law Officers, as administrators from whose decisions there is no appeal, are not called upon to interpret the law with the strictness required from Judges of Appeal; but it may well be assumed that Patents allowed to pass after contention will come within the scope of the Patent Laws.

I must here acknowledge with grateful thanks the assistance afforded me by friends who were able to

give me precise information respecting cases, which are unnoticed, or but indifferently reported, in the Law Books.

A summary of the Commissioners' Rules will be found in the Appendix; and a list of the Costs relating to Patents and Disclaimers, conforming to the present practice, is also added.

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PREFACE TO THE FIRST EDITION.

In preparing this little work, I have had chiefly in mind the requirements of inventors and patentees who, without possessing either the wish to make, or the opportunity for making, a study of patent law, nevertheless desire to know somewhat of its nature,—not so much for their own guidance, as to prevent them from having to trust ignorantly to the guidance of those to whom they may be led to confide their patent business, and to enable them to appreciate at its just value the advice that may be offered for their acceptance. The work is also designed for the use of such solicitors as may, although unfamiliar with the principles and practice of patent law, be suddenly called on, in the course of a very miscellaneous business, to advise on some point connected with this speciality of the law.

To facilitate reference to any single point on which information is sought, the work is divided into chapters, which severally treat of one subject, indicated by the heading; and the chapters are sub-divided into numbered paragraphs, the subject-matter of each of which is notified at the head of the chapter. This arrangement necessitated a style of writing which, however familiar to Parliamentary Bill draughtsmen, entailed upon me, from its inherent difficulty, a labour which I can only hope will find its equivalent in the advantage thereby afforded to my readers of readily selecting such paragraphs as will afford them the information they are in search of.

This work not being intended as an exhaustive treatise on patent law—which would be very unacceptable to inventors generally, and has moreover been attempted by abler hands than mine—I have not touched upon purely legal matters relating to the infringement of patent rights and the repeal of patents, but have confined my remarks to those subjects which should be within a patentee's own cognisance; it being, as I think, beyond his province to master the intricate proceedings of law suits. Moreover, I am sanguine

enough to hope that these intricacies, and the evils attendant thereon, will soon be of the past, and that the statement of a great legist, that "such litigation had acquired a reputation infamous beyond any other," will be no longer applicable to patent suits. If this my hope should be realised, I shall only be too happy to add a supplementary chapter, with this heading, "*Mode of testing the merits of allegations of infringement, and of the defence set up thereto, preparatory to resort being had for relief to the Courts of Law.*" Such a scrutiny as these proceedings imply is, in my judgment, the only means for giving security to patentees and the public in the enjoyment of their respective rights and privileges.

In order not to encumber the text with details of the cost of patents, disclaimers, &c., I have thrown into an Appendix the schedule of stamp duties payable on patents, and the fees due to the law officers and their clerks on hearings and oppositions to the grant of letters patent and disclaimers; and as these are of themselves imperfect guides to the costs incurred by inventors when employing professional assistance, I have added a group of accounts which represent the average charges for

work performed by a competent patent agent. These accounts, which fairly represent the customary charges of the profession, will, it is hoped, enable patentees who are lured by tempting offers of cheap agency, to judge how far their actual disbursements have exceeded the fair rate of remuneration, and teach them circumspection for the future.

A Chapter on "Patent Agents" is given, with the view of still further impressing on the novitiate in patent matters the lesson of prudence.

A. V. N.

April, 1871.

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PATENT LAW AND PRACTICE.

INTRODUCTION.

The Nature and operation of Patents, and the Laws relating thereto recited.

THE right of granting to individuals or corporate bodies, by letters patent, the sole enjoyment for a given period of the profits accruing from certain branches of industry, was claimed, and exercised for many centuries as a prerogative of the Crown. This prescriptive right was, not infrequently, both wisely and beneficially employed; inasmuch as ingenious foreign workmen were from time to time drawn to these shores by the promise of substantial commercial advantages being secured to them by Royal Letters Patent; and enterprising men were induced to travel abroad and acquire a practical knowledge that would enable them to establish at home some branch of manufacture new to these islands. Thus, by a wise exercise of the Royal prerogative, fresh sources of profitable occupation were opened to the labouring classes. But while the

pecuniary value of such privileges made many persons eager to gain them, at the cost even of a heavy fine or yearly tribute, the oft recurring necessities of the Crown served as a spur to the reigning Sovereign to exercise his prerogative without regarding too closely the consequences of his acts. Thus not merely were patents granted to merchants for the sole right of importing certain goods, or trading with certain distant countries, or to inventors and travellers for the sole exercise of newly-devised or imported manufactures; but the exclusive privilege of carrying on some old-fashioned branch of industry was often conceded to a favoured individual, who, farming out his patent or entrusting the collection of his dues to unscrupulous agents, established a system of grinding oppression which, from its extent and severity, became at last unbearable. It was towards the end of the reign of Elizabeth that the discontent caused by these extortions forced the House of Commons, in the year 1601, to a course of action which, as it threatened a curtailment of the prerogatives of the Crown, brought about a concession to public opinion. In order to stop the passage through the House of "An Act for the Explanation of the Common Law in Certain Cases of Letters Patent," Secretary Cecil was instructed to signify Her Majesty's intention to revoke the patents relating to the following important manufactures, viz.:—salt, aqua-vitæ (spirits), vinegar and algar; train oil, oil of blubber, brushes and bottles, pouldavies (sáil cloth), oade (woad), starch, new drapery, Irish yarn, calf skins and fells, steel, leather, cards, and glasses. This

sample of patents (which, however, owing to the death of the Queen, were not immediately cancelled) indicates pretty clearly the extent to which industry was hampered by the Crown assuming the right to dispose of established trades, and thereby preventing industrious citizens from exercising their craft except on payment of the arbitrary exactions of the patentees. In some cases these illegal demands were successfully resisted by a trade combination ; but the only course open to the greater numbers of sufferers was to petition.

The abuse of granting letters patent was carried to a greater length by Elizabeth's successor than by herself; for James I. did not scruple, after making the best possible terms for the grants, to share the spoil with the patentees. The proceedings of some of these patentees having become so infamous as to bring upon them the sentence of fine and imprisonment, Parliament, in the year 1623, again took the matter in hand, and passed the Act of 21 Jac. I., c. 3, by which all injurious monopolies were abolished, and the power of granting Royal Letters Patent having reference to manufactures was limited to conferring on inventors the sole right to the working and making of any manner of new manufacture for the term of fourteen years.

For a considerable period the means provided for ensuring to the public a knowledge of the inventions secured by letters patent was limited to the occasional insertion in the grant itself of a description of the

manufacture to which it referred,* or to the addition to the patent of a proviso, to the effect that the patentee "does hereby covenant and promise that he will from time to time during the said term keep one servant born in England and instruct him in the said science." Eventually, however, it was found expedient to provide for the enrolment of a specification setting forth the nature of the invention for which the grant was sought. The first specification was enrolled by and at the suggestion of John Nasmith, who obtained a patent for the "preparing and fermenting of wash from sugar and molasses and all sorts of grain to be distilled," bearing date October 3rd, 1712, but although after this date, a clause providing for the enrolment, in the Court of Chancery, of a specification was often inserted, the practice does not appear to have become invariable until the year 1740, after which the non-enrolment, within a limited period, of a specification setting forth in detail the nature of the patented discovery rendered the grant null and void.

After the establishment of this important principle, the law and practice relating to patents for inventions continued without further change until the year 1835, when the Act 5 and 6 William IV., cap. 83, commonly known as Lord Brougham's Act, introduced some very important reforms, which had become essential, owing chiefly to the view taken by the judges respecting the validity of patents. For example: If,

* The first example of this is to be found in Robert Crump's Patent for Raising Water, dated April 9th, 1618.

in his specification, a patentee claimed more than he could substantiate as new, however subordinate to the main invention might be the part so inadvertently claimed, the patent was adjudged invalid, and no means existed of setting it right. The same remark applies to the case where the title of a patent was found too large, or otherwise inaccurate; and thus much injustice was inflicted upon patentees. By Lord Brougham's Act, power was given to the Law Officers of the Crown to allow alterations to be made in the titles and specifications of patents. The Judicial Committee of the Privy Council was also empowered to consider, on petition, cases where patents might be or had been invalidated by the production of evidence of the prior use of the invention under peculiar circumstances, and to report to the Crown in favour of a confirmation of such patents. And the act further empowered the Crown to prolong the grant of letters patent for seven years beyond the original term.

In the year 1839, a difficulty having arisen as to the meaning, in the extension clauses of this act, of the expression, "prosecuted with effect before the expiration of the term originally granted in such letters patent," this was explained in the Act 2 and 3 Victoria, cap. 67. Subsequently, in the year 1844, power was granted to the Crown by the Act 7 and 8 Victoria, cap. 69, to renew expiring patents for a period of fourteen years, or any lesser term, instead of the more limited term of seven years. A further enactment in the year 1849, 12 and 13 Victoria,

cap. 109, ordering the enrolment of all specifications (which had hitherto been recorded in one or other of three offices) in the Enrolment Office, concluded the legislation upon patents up to the time when a new system of granting patents was established by the Act 15 and 16 Victoria, cap. 83. The scope and provisions of this Act (The Patent Law Amendment Act, 1852), in the modified form it has received by subsequent legislation, it is the object of the present work to trace, while at the same time its relation to the above-mentioned acts (most of which are still in force) is set forth. It should be remarked that the system of granting patents which obtained before the law of 1852 came into operation was founded on immemorial custom, and that, among other defects in the system, was that of granting patents without any guarantee that the petitioners were deserving of the privilege, or had, at the time of petitioning, any invention to protect. The evils which this lax mode of administering the laws engendered were partially removed by an order of Mr. Attorney-General Pollock (afterwards Lord Chief Baron of the Exchequer), enforcing the deposit, in all cases of opposition, at the offices of the Attorney or Solicitor-General, of an outline description of the invention sought to be patented. This very important provision was subsequently extended by an order of Mr. Attorney-General Romilly (afterwards Master of the Rolls), in the year 1850. By it all applicants for patents were compelled at the outset to deposit an outline description of their inventions; and thus was established the principle, which was embodied

in the law of 1852, of subjecting all applications for patents to the scrutiny of the Law Officers of the Crown.

Up to the end of the year 1877 all patent grants had appended to them an impress in wax of the Great Seal, measuring some 6½ inches in diameter and 1 in. in thickness. This adjunct to the grant was enclosed in a tin case to protect it from fracture, and being considered by the uninitiated as a relic of barbarism, it was frequently a butt for their shafts of ridicule. By an Act, 40 & 41 Vic., cap. 41, which came into force January 1st, 1878, a Committee of Council was appointed, with power to change the form of documents issued from the office of the Clerk of the Crown in Chancery, and by an order of this Council the use of the wax seal was abolished. Patent grants, therefore, now consist simply of a single printed skin of parchment, stamped with a "wafer Great Seal."

CHAPTER I.

SCOPE OF THE PATENT LAWS.

1. *New Law—Term of Patent. To whom Patent Granted.* 2. *Meaning of 'Inventor.'* 3. *Anticipatory Publication.* 4. *Meaning of 'Realm'* 5. *Foreign Patented Inventions.* 6. *'New Manufacture'—an elastic term.* 7. *Extent of Grant.*

1. The Patent Law Amendment Act, 1852 (15 and 16 Victoria, cap. 83), under which letters patent for inventions are now granted for the United Kingdom, in no respect changes the primary condition upon which such grants had heretofore been made; nor does it shift the ground on which the rights to those exclusive privileges are based; although the system under which they are issued has been entirely remodelled, and some secondary conditions, unknown to the old law, are annexed to the patent. Thus, letters patent are still granted for the term of fourteen years to the true and first inventor for "the sole working or making of any manner of new manufactures within this realm." (21 Jac. I., cap. 3.)

2. In the eye of the law the *true and first inventor* is he who first seeks protection for an invention which has either originated with himself, or has been

obtained from a foreign country;* the secret working, therefore, by another (even if that working has been continuous) of an improvement anterior to the application by an inventor for letters patent for his discovery, does not of necessity affect the validity of the patent when granted.† When, however, the invention sought to be protected forms the subject of an expired foreign patent, no valid patent can be obtained for it. (Sec. xxv. P. L. Act, '52.)

3. An invention, although unknown in a practical form in this country, is not patentable when publicity has been given to it through the press. Thus the official publications of the U.S.A. Patent Office have frequently had the effect of preventing American patentees from profitably introducing their inventions into Great Britain. The rule for determining an anticipatory publication of this class is to ascertain whether the description is or is not sufficient to enable a competent workman to carry out the invention. Publication short of this leaves the inventor free to patent, but with restricted claims, or claims from which is excluded the main principle on which the invention is based.

4. The term *realm*, in which the "manufacture," to be a patentable invention, must be new, is considered to mean the whole dominions of the Crown;

* The discovery in Great Britain among the papers of a deceased inventor will not entitle an executor to apply for a patent of communication. Dalton v. The Saville Street Foundry and Engineering Company, Limited. Court of Appeal, March, 27, 1878.

† Webster's Pat. Law, p. 50 (Dollond's Case).

thus, to use the words of Lord Chancellor Lyndhurst, "If a patent were granted for England, and it was not new in Jamaica, it would be void, because Jamaica is part of the realm." *

5. When the new manufacture sought to be patented is of foreign origin, and forms the subject of one or more foreign patents, the duration of the British patent will terminate with that of the foreign patent first obtained, provided such patent right expires within the period of fourteen years expressed in the British grant. (Sec. xxv. P. L. Act, '52.)

6. Much needless perplexity has been created by the somewhat vague attempts to define the term *new manufacture* (which occurs in the statute of James I.), in consonance with the ruling of the courts, and with such precision as to mark what is and what is not a proper subject for a patent. By the Patent Law Amendment Act, 1852, this point is fortunately left untouched; the elastic term "new manufacture" is therefore still available for further expansion by the interpreters of the law, to meet the growi ng requirements of the age.

7. In place of three separate patents being required, as formerly, to secure an invention in England, Scotland, and Ireland, a patent now affords protection throughout the three kingdoms. Provision is also made in the Act for including the colonies, or such of them as possess no local patent law; but, in

* *Webster's Reports*, Vol. I., p. 449. Brown *v.* Annandale.

accordance with special instructions of the Government, all applications made for the extension of patent grants to the colonies, since the passing of the Act, have been refused.*

* Some of the English dependencies, as India and Victoria, grant patents under an Act of the local Legislature, and others by the deputed authority of the Crown. In Canada it was contrary to the Provincial Statute, 12 Vic., c. 24, to grant patents for inventions of British origin. This is now modified by the Act of 1872, which allows any inventor to obtain a patent for his invention, provided it has not been patented abroad more than twelve months prior to making his application.

CHAPTER II.

PATENTABLE AND NON-PATENTABLE INVENTION.

1. *The term 'New Manufacture' liberally interpreted.* 2. *Proportion and Ornament not Patentable.* 3. *Invention must be beneficial.* 4. *Some Deceits Patentable.* 5. *Border-line of Patentability.* 6. *Principle or Idea—how Patentable.* 7. *Examples of Embodied Principles.* 8. *Classes of Patentable Inventions Defined.* 9. *Improvements in Existing Machinery.* 10. *Substitutes for Manual Labour.* 11. *Combined Machines.* 12. *New Combinations of Parts.* 13. *Non-Patentable Combinations.* 14. *Aids to a Manufacture.* 15. *New Applications of Motive Force.* 16. *Patentable Principle.* 17. *Chemical Discoveries—when Patentable.* 18. *New Applications of Raw and other Materials.* 19. *Patentability not gauged by Importance of Invention.*

1. The design of the Patent Laws, as enunciated by the Act of James I., and not since modified in any respect by statute, being to confer upon inventors a right to "the sole working or making of any manner of new manufacture," exception has been taken to the sufficiency of this expression to cover all classes of improvements in the industrial arts. The Courts, however, notwithstanding the absence of precision in the Statute, have, whenever the question of patentability has been raised, found no difficulty in giving a liberal interpretation to the phrase "new manufacture," judging that it was not so much the

intention of the legislature to define what class of inventions should come under the ægis of the Patent Law, as to enunciate what kinds of manufactures should be left free for public use, and what should be discountenanced.* It will be the object of the present chapter to shew the limits of this elastic term, by explaining both what is and what is not a patentable invention.

2. As a patent is a property, it is essential that its limits shall be clearly definable. Any invention, therefore, of a character that will not admit of this definable limitation cannot be a patentable invention, however great may be its merits. Thus :—

a. The system of standard gauges introduced by Sir Joseph Whitworth was a new and most important invention destined to produce a revolution in practical mechanics; but it was not a patentable invention; because it was based on the adoption of definite proportions, and had no necessary relation to novelty of construction. When applied to the production of screw-taps and dies, a new manufacture certainly resulted, but only in the sense that one tap or die of a series had a certain definite relation to all the others. In fact, the novelty was based on proportion;

* In the appeal case of Crane *v.* Price, Sir N. Tindal, in pronouncing the judgment of the Court, said, "We are of opinion that, if the result produced by such a combination [hot blast and anthracite; applied to the manufacture of iron] is either a new article, or a better article, or a cheaper article to the public, than that produced before by the old method, that such combination is an invention or manufacture intended by the statute, and may well become the subject of a patent."—*London Journal of Arts*, vol. xx., p. 467.

and proportion in mechanics is not a patentable element.*

b. A textile or other fabric ornamented with a new device is in one sense a new manufacture; but it is not such a new manufacture as is contemplated by the Patent Law. For novelties of this class, the Ornamental Designs' Act is provided. 5 and 6 Vic., c. 100.

3. In ascertaining what inventions are patentable, it is important to keep in mind what is the motive for the royal grant. This is stated in the patent to be "to give encouragement to all arts and inventions which may be for the public good." All inventions, therefore, that do not subserve this purpose are clearly not proper subjects for a patent. Thus the moulding of chicory into the form of a coffee-berry for the purpose of deceiving the intending purchaser of the more expensive natural product, although patented, was clearly an improper subject for a patent.

4. When the object sought is to produce a manufacture at a reduced cost, without sacrificing appearance, as, for example, a woven fabric with a silk or a woollen face by the use of less silk or wool than has heretofore been required, such a process, although in one sense a deceit, may be a fair subject for a

* A patent for shortening the reach in a flax drawing and spinning frame failed to be sustained, the Courts deciding that "a patent cannot be taken out for placing the retaining rollers and the drawing rollers within two inches and a half of each other, that being a consequent of the right judgment of the spinner." See Kay *v.* Marshall, *London Journal of Arts*, vol. xv., c. s. p. 54.

patent. When, however, a deceit is pushed to the hurt of trade, or to the inconvenience of the public, no amount of ingenuity in the process devised will render the invention patentable.

5. The border-line between patentable and non-patentable invention is sometimes very nearly approached. Thus: Topham's Improved Railway Time Table (patented in 1848), which consisted in giving the times for the up and down trains in columns placed in juxta-position, and reading the one from the top and the other from the bottom, was a manufactured article having a very definite character, and possessing the merit of subserving the public good; moreover, it was clearly out of the scope of the Copyright Act; and yet it was considered very doubtful whether that patent, if brought into question, could have been sustained in a court of law.

6. It has frequently been stated in the law courts that no *principle* or *idea* is patentable. In one sense, this is correct; but if the principle or idea be embodied in a practical form, it may be secured to the inventor by a patent, because the claim in the specification may be made to include all means of obtaining the new result. Thus, for example, the idea of printing on the travelling riband of the Morse Telegraph transverse, instead of longitudinal, lines of dots and dashes or strokes (which removed the liability of errors through dots being run together and forming dashes, and dashes being sub-divided into dots), although in itself not patentable, became a patentable

subject so soon as the mechanical means for its development was contrived.*

7. A patentable improvement worthy of the name of an invention will be found to consist of an embodied principle, no matter whether the invention relate to a mechanical construction or process, or to a chemical process. Thus :—

a. The screw propeller embodied the principle of continuous propulsion as contrasted with the intermittent propulsion of the floats of the paddle-wheel.

b. Preparing veneers by cutting them with a corrugated, in lieu of a straight, knife, and afterwards flattening them by pressure, embodied a principle of action which served to increase the natural wavy irregularity of the grain of ornamental woods, and, thereby, to enhance their beauty.

c. The electro-chemical telegraph of Bain embodied the principle of printing by electro-chemical decomposition.†

8. Patentable inventions may be classed under one or other of the following general heads, viz. :—

(1) An article of manufacture designed to meet a newly-discovered or unsupplied want, or to displace some less efficient contrivance :

(2) An improvement on a known article of manufacture, such improvement having relation to in-

* See Herring and Novarre's patent, dated October 28, 1870.

† It may here be remarked that no invention can be properly protected unless the principle underlying the invention is clearly ascertained before the specification is prepared.

creased utility, to durability, or to simplicity of construction:

(3) New mode of, or machinery or apparatus for, manufacturing a vendable article:

(4) New mode of, or machinery or apparatus for, economizing labour:

(5) New mode of, or machinery or apparatus for, producing or transmitting light, heat, electricity, sound, or motion:

(6) New mode of, or machinery or apparatus for, utilizing or economizing the use of the elements of nature, such as light, heat, electricity, and also of steam, or other source of motive power:

(7) New mode of, or machinery or apparatus for, utilizing new materials and waste products, and for economizing the use of raw and other materials employed in the manufacturing arts.

It does not follow, however, that every improvement which falls under one or other of these heads is patentable, even though the public benefit therefrom should not admit of question. This will be better understood when the examples given below are carefully considered.

9. By far the largest class of patentable inventions is that which relates to the improvement of existing machinery or apparatus. The object of the improvement may be either to cheapen the construction of the machine or apparatus; to increase its capabilities of production; to produce, by its use, a superior article; or to attain any two or more of these results.

a. An improvement directed solely to cheapen the

construction of a machine or apparatus must, to be patentable, involve the simplification of parts, or the lessening of their number, without detracting from efficiency. When this result is attained by the simple substitution of one well-known material for another, as, for example, cast metal for wrought metal, the improvement will not be patentable.

b. If the object of the improvement is to increase the productive capability of a machine or apparatus, it will not suffice to enlarge its proportions, thus giving, for example, greater weight to the steam hammer, or greater width to the loom or the lace machine; but there must be evidence of some contrivance which will tend to enlarge the working capacity of the machine irrespective of its proportions: say, in a throstle by giving increased steadiness to the flyer spindle, and thereby allowing of its being driven with advantage at a higher speed; or by giving to the chuck of the lathe a more facile means of centreing the work; or to the embossing press a better mode of discharging the work.

c. To produce a superior article, accuracy of workmanship in the machine employed will often suffice. Thus the operations of slotting, boring, and turning depend for their perfection on the use of tools of the best manufacture; but a patentable improvement directed to this end has no reference to quality of workmanship. There must be evidence of novel construction or arrangement of parts in the machine employed to produce the improved result.

10. A small class of patentable inventions is directed

to the production of machinery for performing what has hitherto been done by manual labour. Notable instances of this class are the sewing machine, the rotary knife cleaner, and the envelope folding machine. Such patented inventions, although occupying the same position in their sphere as does the first application of a law of nature in another sphere of invention, cannot monopolize the ground which they are designed to occupy, as would a patent for an applied natural law; for the result attained by one inventor in adapting machinery to perform a given manual operation is open to other inventors to effect in another manner, so long as the principle of construction on which the first machine was based is not interfered with.

11. A combination of two or more well-known machines, employed in connection with each other so as to produce substantially a new result, is a patentable invention. To determine the question of patentability or non-patentability of inventions of this class, the novelty of the result must be kept in mind. Thus:—

(*a*) By fitting a turnip cutter to a cart, and driving it by the rotation of the travelling wheels, two operations were simultaneously performed, viz., the roots were divided up in the ordinary manner, but as they left the machine they were distributed over the land by the traversing cart.*

(*b*) By combining two rotary moulding presses

* See Gardner's patent, dated 11th January, 1837.

with one hopper, and alternating the compression of the blocks in the two presses and also their delivery, this new result was attained, viz., the rate of moulding was doubled without an increased pressure of steam being required to work the machinery.* The patentability of this class of invention rests mainly on the fact that an economy is effected in the motive power employed.

12. When a new or an improved result is obtained by a novel arrangement of mechanical parts, which parts, in their combined use, may already be well known, that combination is patentable. Thus, by fitting a sewing machine with a shuttle to move above the work, and lay a locking-thread into the loop of the hook or needle thread, a new feature was introduced—providing for the use of waxed threads, for the first time, in a shuttle machine; and thus rendering the lock-stitch applicable to the stitching of boot soles to their uppers.†

13. When a combination consists of an aggregation of well-known parts, which do not necessarily subtend to a desired result, then such combination is not a patentable invention. Thus, in his judgment on the case of Lynch and Raff *v.* Dryden *et al.*, the American Commissioner Leggett said, "It would seem from the decisions of the Courts respecting combinations * * that two things are always essential [to produce a

* See Yeo's patent, dated 5th November, 1874.
† See Keats and Clark's patent, dated April 14th, 1863.

patentable invention]. First, a novel assemblage of parts exhibiting invention. Second, that the parts shall co-operate in the production of a useful result. By the term co-operate, as here used, the Courts do not mean merely acting together or simultaneously, but acting to one common end, to a unitary result. Each and every part must have its sub-function to perform, and each must have a certain relation to, and dependence upon, every other, and all must act in producing the result. Invention must be exhibited in the sense that some difficulty or obstacle had to be overcome requiring more than ordinary mechanical judgment." As a test of patentable combination it may be stated that if a combination is susceptible of being broken up into minor combinations, which may be used independently of each other, then the combination so divisible is not a patentable invention.

14. New steps in, or aids to, a manufacture are patentable, irrespective of any special appliances necessary to their use. Thus, the application of a blast of air between the acting surfaces of millstones, for preventing the heating of the stones and effecting the rapid discharge of the flour, was accepted by the Courts as a patentable invention. So also was the exhaustion of the millstone case to prevent the blast from driving the stive into the atmosphere of the mill.

15. Motive forces, when applied to a new purpose, form the strongest grounds for patents. Thus, the direct application of steam for raising and depressing

a drop-hammer, although acting precisely in the same manner in this case as in the ordinary steam-engine cylinder, was a patentable invention.* Again, when steam and compressed air were used to propel a stream of sand for the purpose of cutting or ornamenting glass, stone, and other materials, a patentable process was introduced.†

16. Magneto-electricity in its various applications as a motive force, a generator of heat and light, and a decomposer of chemical combinations, was patentable as a principle so soon as a practical mechanical contrivance was devised for its use. Thus, a patent would have held for the first use of the current to produce a visible or an audible signal, irrespective of any special contrivance designed for effecting such objects; but no patent would hold for applying magneto-electricity, or any other force, or modified natural force of nature to the curing of disease or mitigation of human suffering. Invention, in this direction, to be patentable must relate to the mechanism or apparatus devised for the purpose of applying the remedial agent.

17. Chemical inventions are patentable only when directed to the improvement of an established industry, or the manufacture of a new industrial product. Thus, the discovery of some unknown reaction in certain chemical elements presents no ground for a patent; neither does the publicity of that discovery

* Nasmyth's patent, dated June 9th, 1842.
† Tilghman's (A. V. Newton's) patent, dated August 1, 1870.

interfere with a patent granted to the first applier of this newly-enunciated law. For example: a prior public knowledge that oxide of iron saturated with sulphur would yield up that sulphur on being exposed for a time to the air, would not have anticipated Hill's claim for purifying gas by hydrated oxide of iron revivified by exposure to the air.*

18. The application of raw or other materials to a new purpose is patentable, but only when invention is called forth to adapt the same to its new use. Thus, the application of straw and also of wood to the manufacture of paper was patentable, because a special process was required in each case to convert the material into pulp. The use, however, (to cite a familiar example) of alpaca for covering umbrellas was not a patentable invention, nor was the use of glass for roof-tiles patentable. In general, it may be assumed that any article that is attainable in the open market may be applied to any purpose for which it is obviously applicable, notwithstanding that exclusive claims may be set up to such user.

19. A small class of labour-saving inventions has reference to the packing of goods for the market, and does not necessarily involve any new manufacture, in the form of a box, case, or envelope, that is in itself patentable. Yet such inventions, although running very near the confines of patentability, have, when

* One of the most difficult things in Patent Law is to determine the relation between the experimental stage of knowledge, as recorded in chemical text-books, and practical knowledge, as illustrated by a new manufacture.

patented, run their course without contention. Thus, the winding of tapes upon strips of wood or card, and the arranging of these cards in trays so as to present, at a glance, to the purchaser an assortment of widths and qualities for selection, proved to be a good subject for a patent. So also might protection have been secured for that ingenious device by which the depositor of a penny in a box was automatically presented with a cigar of corresponding value, had the inventor so desired it.

Patentability is not to be gauged by the public importance of the invention. It is utility, but not any given degree of utility, which the law requires in a patented improvement.* In disregard of this fact, patents have more than once been pronounced frivolous by an equity Judge, on the ground that the patent related to an improvement in a manufacture, which the Court deemed either unimportant or unnecessary for the public good. That such a decision was not set aside can only be accounted for on the assumption that the patentee concurred in the Judge's opinion of the merits of his invention.

* On this point, Baron Alderson, when directing the Jury, in the case of Morgan v. Seaward, said: "It is not for you to consider to what extent the thing is useful. If it is a useful invention, then it is a subject to be protected by Patent. . . . . It is not material that the improvement should be great. It is sufficient if it is an improvement at all."—(Webster's Reports, Vol. I., p. 172).

CHAPTER III.

PROCEEDINGS REQUISITE TO SECURE A PATENT.

1. *Form of Application.* 2. *Where Obtained.* 3. *Professional Assistance Optional.* 4. *Declaration and Nature of Title.* 5. *Provisional Specification and its Nature.* 6. *One Invention only Admissable.* 7. *Certificate of Provisional Protection Granted.* 8. *Notice to Proceed.* 9. *If not Opposed, Patent may Proceed.* 10. *Sealing Patent.* 11. *Specification to be Filed and When.* 12. *Periodical Taxes.*

1. Patents are obtained by petitioning the Crown, after the manner prescribed in the Act of 1852 (Sec. vi.), viz :—the Petition, accompanied by a Declaration, setting forth the title of the invention desired to be secured, and also by a Provisional Specification describing the nature of the invention, must be lodged at the Office of the Commissioners of Patents for the examination of one of the Law Officers of the Crown ; and if the form of the application is approved, a Certificate of Provisional Protection will be issued.*

* Instead of a provisional specification accompanying the petition and declaration, a complete specification embodying the details of the invention may be added, as however this course possesses no conceivable advantage, but, on the contrary, is open to grave objections, the chief of which is indicated at sec. 5, it is seldom adopted.

2. The forms of the petition, declaration, and provisional specification are appended to the Act; and the details to be observed in the preparation of the papers, and the conducting of applications through the Patent Office, are clearly set forth in the sets of rules issued by the Patent Commissioners, and hereafter more particularly referred to.

3. In order to obtain a patent for a new discovery it is customary with inventors to secure the services of a "patent agent," whose acquaintance with the progress made in the various branches of the arts, combined with a practical knowledge of patent law, is presumed to afford inventors the means of giving validity and scope to their patents. Professional aid is not however to be sought, save at the option of inventors, as the Patent Office is open to all comers.

4. The petition being merely a set form, its preparation requires no care; but it is otherwise with the declaration. In this document, the *title* of the patent to be granted must be set out; and upon its construction will, in a great measure, depend the scope of the claims which are intended to define the boundary of the invention. Thus, supposing an intending patentee to have invented an improved valve for steam cylinders, he would, perhaps, consider "an improvement in steam engines," a good title; but prior to filing the specification or detailed description of his invention (which he is bound to do within six months from the date of applying for the patent), he might find that his valve was even

more valuable for gas meters than for steam engines; in that case his title, from having been drawn in too contracted a form, would debar him from making a general claim to the application of the valve. On the other hand, it is important that the title be not too general; for it must be a truthful index of what is to be found in the specification. If the title contains less or more than is claimed in the complete or final specification, the patent will be invalid.

5. The *provisional specification* is intended to set forth the object which the inventor has in view, and to define the principle (whether it be embodied in manual, mechanical, or chemical operations) which he designs to employ in attaining the desired end. In the words of the Commissioners' rules "the provisional specification must state distinctly and intelligibly the whole nature of the invention, so that the law officer may be apprised of the improvement and of the means by which it is to be carried into effect." It is, however, to be observed, that although no important or claimable point should be omitted in this preliminary specification, yet no claims should be appended, and the details of the *modus operandi* should as far as practicable be withheld, in order that the six months allowed for the preparation and deposit of the complete specification may be made available for perfecting the invention and drawing such a specification as will, while embracing the latest improvements, at the same time accord with the preliminary or provisional specification.

6. Under the old system, which the Act of 1852 has swept away, it became the practice to include several distinct inventions under one patent. This induced and even necessitated the employment of what were known as "blind titles," which gave a very faint and sometimes a false notion of the nature of the invention sought to be protected. Hence arose great difficulties in ascertaining, even with the most careful scrutiny, what inventions were new and what had already formed the subject of letters patent. But besides this evil, inventors were at a great disadvantage when defending their patents in a court of law; for instead of having to prove simply the novelty and utility of one improvement, they were frequently called upon to defend, not the chief subject in dispute, but some unimportant matter that had been included and claimed, to the novelty or utility of which exception might fairly be taken. Encouragement was thus inadvertently given to infringers; for on a patentee failing to substantiate any one point of his patent, his rights were set aside; the rule of law being—though with what justice it is hard to say—that a patent is either wholly good or wholly bad. To remedy these evils, the Commissioners have adopted and now rigidly enforce the following rule, viz.:—"Every application for letters patent and every title of invention and provisional specification must be limited to one invention only, and no provisional protection will be allowed or warrant granted where the title or the provisional specification embraces more than one invention."

7. When an application for a patent has been examined and approved, the Law Officer to whom the papers have been referred grants a certificate of provisional protection, which secures the invention for six months from the date of the application; the patent may then be forthwith completed, or it may be allowed to rest for a time at this stage of progress, but not without risk to the inventor's interests.

8. In order to push forward the patent, the applicant or his agent must give notice at the office of the Commissioners of his intention to proceed; and this notice is then made public in the *Gazette*, to ensure to all persons who may have reason to object to the granting of the patent an opportunity of opposing the application. This notice must be given within four calendar months of the date of provisional protection; if this is neglected, the application will fall to the ground. (Commissioners' Rules.)*

9. Should no notice of objection be lodged against the granting of the patent within twenty-one days from the date at which the notice to proceed was published in the *Gazette*, the patent may then be pushed on to completion.

10. To complete the patent, the intention of the

* When special circumstances exist for mitigating the severity of this rule, a petition to the Lord Chancellor, setting forth those circumstances, will obtain for the applicant an extension of time for giving notice to proceed with his patent. The precedents ruling in cases of this kind may be seen at the Patent Office,—the greatest courtesy being shewn by the officials to all persons requiring such information.

inventor in this respect must be made known at the Commissioners' Office not later than twenty-one clear days before the expiration of provisional protection; the warrant for preparing the letters patent will then be made out, and the Great Seal being affixed to the grant, the patent (of fourteen years duration) will issue, bearing date as of the day on which the application was made.* At this stage, also, a delay beyond the time mentioned in seeking to obtain the Great Seal will be fatal to the application. (Commissioners' Rules.)†

11. The patent when granted will contain, among others, a proviso that the patentee "shall particularly describe and ascertain the nature of his invention, and in what manner the same is to be performed by an instrument in writing, under his hand and seal, and cause the same to be filed in the Great Seal Patent Office within six calendar months next and immediately after the date of these Our Letters

* The decision of Lord Chancellor Hatherly in the matter of Bates and Redgate's patent, shows that it is by no means desirable to delay the sealing of the patent, especially when any publicity has been given to the invention, either in this country or abroad. This judgment establishes the point that an applicant for a patent, slumbering on his rights conferred by provisional protection, may be prevented from completing his patent by a second applicant for a patent for the same invention pushing his application to the Seal, and then opposing the grant of a patent to the first applicant. Proof, or even strong presumptive evidence, of fraud or trickery on the part of an opposer will secure a different judgment: the Lord Chancellor allowing in that case the first patent to be sealed and dated as of the day of deposit of the papers, and thus reinstating the first applicant in his position of priority.

† Provision is made for extending the time for sealing under certain circumstances, the course to be taken being that indicated in the note on page 29.

Patent." The omission to file the complete specification in due time will therefore vacate the patent, unless the Lord Chancellor, on special application made to him, should think fit to exercise the power vested in him, and extend the period for filing the specification: this power is, however, rarely exercised.

12. A further proviso in the Patent grant will be to the effect that a payment of £50 must be made before the expiration of the third year, and £100 before the expiration of the seventh year, to keep the patent in force for the whole term of fourteen years, and that the document stamped with these respective amounts shall, within the periods specified, be produced at the office of the Commissioners, to have a certificate of the payments endorsed thereon.

CHAPTER IV.

ON OPPOSITION TO PATENTS.

1. *Patents Opposed at Two Stages.* 2 *At First Stage Law Officer Hears Case.* 3. *Grounds for Opposition.* 4. *Opposition before Lord Chancellor.* 5. *Sealed Patents affected only by Scire Facias.*

1. Patents are liable to be opposed at two stages of their progress, viz., within twenty-one days of the date when the notice to proceed was gazetted, and at any time before the actual sealing of the patent.*

2. When opposed at the first stage, the grounds of the opposition must be left at the Commissioners' Office; and the Law Officer to whom the petition for the patent was in the first instance referred, will appoint a time for the hearing of the opposition.

3. In order to stop the grant of a patent, it will not be sufficient, as it formerly was, for an opponent to show to the Attorney- or Solicitor-General, that he is in possession of similar improvements to those now sought to be patented; but he must prove, either (1)

* As no caveat can be entered against the progress of a patent, and no opposition will be received in anticipation of the patent arriving at either opposition stage, the *Gazette* must be searched weekly to ascertain whether notice to proceed has been given; or if the intention is to oppose the sealing of the patent, then almost daily enquiry at the Patent Office must be made to ascertain whether the warrant for sealing has been granted.

a fraudulent possession, on the part of the applicant, of the invention: or (2) its publication in a recorded specification or a printed book; or (3) a prior user of such a nature as would render the invention public property; or (4) that the invention forms the subject of a patent in course of completion, but of prior date to that of the applicant's. In the event of either of these cases being proved to the satisfaction of the Law Officer (who may call upon both parties to lodge affidavits in support of their respective allegations), the patent will be stopped; and should the rightful owner of the invention not yet have taken steps to secure his improvement, he may then proceed, without risk of interference, to obtain a patent for the same.

4. When an opposition is intended to be made to the sealing of a patent, particulars, in writing, of the objection to the sealing must be left at the Commissioners' Office: the applicant must then petition to have the seal affixed, and thus the case will come before the Lord Chancellor for decision. It will either be argued in open Court or will be referred for the decision of the Law Officer by whom the application was in the first instance examined. If the opposer satisfactorily proves his title to the invention, the Lord Chancellor will stop the sealing of the patent, and allow the true inventor to proceed.

From the above explanation, it will be understood, that it is useless to oppose a patent unless there is good ground for believing that the intending patentee has either been anticipated by a prior application, or a publication of the invention, or that he has wrongly

possessed himself of the invention for which a patent is sought, or that it clashes with a pending application. It is important to keep this fact in mind, as failure to stop a patent will generally involve the opposer in the whole costs of the examination

5. Patents, when once granted, can only be repealed by a writ of *scire facias*, which is a writ in the name of the Queen, calling upon a patentee to show cause why his patent shall not be cancelled. This proceeding, though instituted nominally as a Crown prosecution, is, in fact, never commenced, except by some person who considers himself aggrieved by the grant; and as a guarantee that his opposition is *bonâ fide*, he is compelled, by the Attorney-General, to enter into a bond, securing to the patentee all his legal expenses in case the validity of the patent should be substantiated. By the Act of 1852, the trial consequent on the issuing of a writ of *scire facias* is assimilated to trials for infringements; that is, instead of the impugner of the validity of the patent first gaining the ear of the jury, the patentee has first the opportunity of dealing, by means of his counsel and witnesses, with the objections alleged against the patent. If the novelty of the invention at the date of the patent, or the utility of the invention, cannot be substantiated to the satisfaction of the jury, a verdict will be pronounced against the patent, and its repeal will then be simply a legal formality.*

* It is a question whether the repeal of a patent should be the consequent of, or an act concurrent with, the proof of its invalidity, instead of subsequent proceedings being required to cancel the grant.

CHAPTER V.

DUTIES AND POWERS OF THE COMMISSIONERS.

1. *Who are the Commissioners.* 2. *Their Corporate Duties.* 3. *Law Officers' Duties of Examination.* 4. *Of Decision on Hearings.* 5. *Lord Chancellor's Court Duty.* 6. *Costs at Hearings.* 7. *Extension of Time for Sealing, &c.* 8. *Re-issue of Letters Patent.* 9. *Disclaimers Granted by Law Officers.*

1. The Commissioners for carrying out the provisions of the Patent Act of 1852 are the Lord Chancellor, the Master of the Rolls, the Attorney-General, and the Solicitor-General, for the time being.

2. Their corporate duties are to make rules and regulations (subject to the approval of Parliament) respecting the government of their office, and the mode in which the provisions of the Act are to be fulfilled; but besides these, the Lord Chancellor and the Attorney- and Solicitor-General have special duties, as implied in Chapters III. and IV. *ante.*

3. The Attorney- and Solicitor-General, by virtue of their office, examine all the applications for patents, both as respects the oneness of the invention, the sufficiency of the provisional specification, and the

title of the patent; and, when requisite, order the papers to be amended, or, if found satisfactory, they grant the certificate of provisional protection. When deciding upon any scientific point that may arise, they can, at their option, call in the aid of a scientific or other person, and order the payment to such person, by the applicant, of such remuneration as they shall appoint.

4. When notice of opposition has been lodged against the grant of a patent, the clerk of the Law Officer before whom the papers were laid for examination, appoints a convenient day for the hearing of the case at chambers. The opponent then explains, either personally, or by his agent or counsel, his grounds of objection; and the applicant, if called upon, having replied thereto, the Law Officer decides upon the merits of the case; causing a warrant to be made for the sealing of the patent, or withholding the warrant, as he may deem proper.

5. If the opposer is not satisfied with this decision, or if, by inadvertence, an intending opposer has missed the opportunity of opposing at this stage of the patent, he has the option of appealing to the Lord Chancellor, by whom the case will be heard in open court, and promptly disposed of; or it may be remitted by him to the Law Officer who issued the certificate of provisional protection.

6. The costs of any hearing or inquiry upon any objection to the grant of letters patent may be awarded or apportioned at the discretion of the Law

Officers or the Lord Chancellor, as the case may be; but it by no means follows that a favourable decision will carry costs.*

7. The Lord Chancellor has also the power to extend the time for sealing the patent, and for the filing of the specification, to the period of one month beyond the duration of the provisional protection. To obtain this privilege, it is requisite to petition the Lord Chancellor, and to show that the delay in sealing or specifying the patent (as the case may be) has arisen from accident, and not from the neglect or default of the patentee. At the expiration, however, of one month from the termination of the provisional protection, this power of the Lord Chancellor ceases.† When the delay to seal the patent has been occasioned by a caveat or an application to the Lord Chancellor against or in relation to the sealing of the patent, there is no limitation to his power of extending the time for sealing the patent and for filing the specification. (Sec. xx. P. L. Act, '52.)‡

* Such a decision will, however, in general carry the costs of the hearing, and an order obtained from the Law Officer for payment of costs may be made a rule of one of Her Majesty's Superior Courts to the effect that execution may pass thereupon in common form. Sec. xiv. 15 and 16, Vict., cap 83

† See 16 and 17 Vic., cap. cxv., sec. 6. By a decision of Cairns (L. C.) on an application made to extend the time for the sealing of Johnson's Patent, and heard by him in November, 1878, this limitation is not considered to apply in cases where the delay has arisen in the office of either the Attorney-General or the Solicitor-General, the applicant being no party thereto, and the Law Officer certifying to that effect.

‡ By Sec. xxi. of the Patent Law Act, 1852, provision is made that in the event of an applicant dying during the continuance of provisional protection, the patent may be granted to his executors at any time within three months after the death of the applicant, notwithstanding the expiration of the provisional protection.

8. In cases where it is desired to obtain duplicate letters patent, in place of such as may have been destroyed, lost, or are inaccessible, in order to comply with the provision of the grant respecting the keeping of the patent in force by payment of the periodical taxes, the Lord Chancellor will, on a petition to that effect, make an order for the preparation and issue of like letters patent. (Sec. xxii. P. L. Act, '52.)*

9. The power of granting disclaimers and memoranda of alterations in letters patent and specifications, whereby defects tending to invalidate the letters patent may be removed, is held by the law Officers of the Crown,† and against their decisions there is no appeal.‡

* Although petitions for duplicate letters patent are liberally dealt with, yet proof of a patent being held as a security, and its loan for stamping refused, will not suffice to obtain an order for a re-issue (Cairns, L. C.), *re* Newton's (Gwynn's) Patent, No. 190—'70.

† Sec. I., 5 and 6 Will. IV., cap. 83.

‡ An attempt was made to bring the power of the Commissioners of Patents to bear upon the Solicitor-General in the matter of a disclaimer allowed by him on Medlock's aniline dye patent, and afterwards recalled (from the assignees of the patent refusing to accept the conditions appended to the fiat). This application, although made under the advice of counsel of high standing, utterly failed; the petition being simply returned, endorsed with the word "Refused."—*London Journal of Arts*, vol. xxii., p. 69, *N.S.*

CHAPTER VI.

OF FINAL OR COMPLETE SPECIFICATIONS.

1. The Specification (the Inventor's Title-deed) is Required to Record the Invention. 2. It must properly Instruct the Public. 3. This Requirement how best Fulfilled. 4. The Scope of the Invention should be Defined. 5. How this may be Performed. 6 Time Allowed for Filing Complete Specification. 7. Which must be Prepared with Reference to Provisional and Title. 8. Allowable Departures from Provisional. 9. The Best Means of Working the Invention must be Described. 10. Specification should Contain no Superfluous Matter. 11. Language of Specification, to whom Addressed. 12. Correct Nomenclature Important. 13. Inclusive or General Terms Dangerous. 14. Expressions Liable to be Interpreted Literally. 15. Geometrical Drawings should Illustrate Machinery, &c. 16. Specifications are Published by Commissioners.

1. The specification has been correctly described as the inventor's title-deed, for by it the boundaries of his property are (or ought to be) defined. The design of the legislature, in ordering a specification of every patented invention to be recorded, was to ensure to the public the means of acquiring an accurate knowledge of the principles and details of every new manufacture, so that no improvement of which the public had once enjoyed the benefit should, by accident or design, be lost, like many important processes in vogue during the middle ages; and the further to carry out this object, the Patent Law Amendment Act of 1852 directs the Commissioners to print and publish all specifications "as soon as

conveniently may be after the filing thereof respectively." (Sec. xxx.)

2. The directions given by the Act of 1852, for the preparation of specifications, are that the complete specification of a patent "shall particularly describe and ascertain the nature of the invention, and in what manner the same is to be performed." If this provision be complied with, the validity of the patent, so far as it may be affected by the construction of the specification, cannot be successfully disputed; but it does not follow that the specification is not then defective or unsatisfactory as respects the material interests of the patentee. The first object in framing this instrument is, however, to comply with the prescribed provisions; that is to say, the patentee must, in his specification,—first, describe the nature of the invention and the manner of putting it into practical use; and, second, also ascertain and fix the boundaries of the invention, or the novel features designed to be secured under the letters patent. These are duties essentially distinct, and demanding performance for two very different reasons. A description in writing of the manner of working the invention is required to prevent, as was stated above, the loss to the public, at some future period, of the advantages derivable from the invention; but as it is essential that the way to improvement opened up by a successful inventor should not be closed to all others during the existence of his patent, he is compelled, instead of asserting claims over an undefined region of thought, to fix the limits

of his discovery, and thereby to leave no doubt respecting the ground that is open to other explorers.

3. There are various ways of fulfilling this double requirement of the law. The best course when, as is most commonly the case, the invention relates to an improvement upon an established process or well-known article of manufacture, is, perhaps,—first, to state succinctly the object of the invention, referring at the same time to the defects which it is intended to remedy; then, to describe in detail the means of effecting the object in view; and, lastly, to indicate, in the form of a claim, the principle of construction or action on which the improvement is based. The specification may, however, be quite sufficient in point of law, without possessing a formal claim, or even without defining, in precise terms, the object of the invention. Thanks to the generous leaning of the Courts, specifications may be distressingly vague, and yet, if faulty in no other respect, receive a lenient and liberal interpretation from the Judges.* It should, however, be borne in mind that when a claim is made to any portion of an invention described in a specification, all that is not embraced in the claim will be considered as abandoned by the patentee; and, again, in the absence of a claim or of words of limitation, the whole subject-matter of the specification will be held to be claimed.

* On this point, in Russell *v.* Cowley, Baron Park said :—"In the construction of a patent, the Court is bound to read the specification so as to support the patent, if it can fairly be done." And, again, in the case of Neilson *v.* Harford, it was remarked that "it is a just rule of construction to judge of the meaning of a specification by taking the whole of the instrument together."

4. Although it is not essential that the specification should be anything more than a lucid explanation of the process, manufacture, or mechanism constituting the patented invention, the nature of which is capable of definition by the Courts, yet it will be readily understood how desirable it is that it should be something more than this when it is remembered that a specification which fails to mark, with a well-defined line, the limits of the invention it is designed to disclose, not merely offers a temptation to the unscrupulous to infringe, but is frequently the cause of honest men unconsciously infringing, and being thus brought into active hostility with a patentee whose interests would not otherwise have been interfered with. It is not, therefore, simply necessary that a specification should be drawn so as to stand the test before a legal tribunal; but it should, in respect of the scope as well as the nature of the invention, commend itself to the understanding of the general public.

5. To present no weakness that may invite attack, the specification will clearly mark the advance made on preceding inventions, and will distinguish the new ground taken up from that occupied by previous labourers in the same field of discovery. This may be done, indirectly, by an explanatory introduction, or, as is more common, by a well-defined claim or claims—and preferably by both means. The power to indite such an introduction as will serve the purpose indicated, pre-supposes a knowledge of what has been done in the branch of industry to which the

invention relates. A no less important qualification is needed for framing the claims; for it is frequently only by a prevision of what subsequent ingenuity may suggest (after a study of the specification) towards obtaining the advantages of the invention by kindred means, that the requisite elasticity can be given to the claims.

6. It has been stated that an application for a patent may be made by the deposit either of a provisional or a complete specification; the latter course is, however, rarely adopted, because the complete specification, so soon as filed, is made public, and thus the right of the inventor to obtain foreign patents is seriously interfered with. Another objection is, that access being had to the specification by the public, increased facilities are provided for successfully opposing the grant of the patent. But perhaps the strongest objection to this course is, that the term of six months otherwise allowed by law for experiments and perfecting of the invention is sacrificed, and thus any improvements which might arise during the existence of the provisional protection are necessarily absent from the complete specification.

7. In preparing the complete specification of a patent which has been granted on the deposit of a provisional specification, it is necessary that the two documents shall be in accord; that is to say, that the invention, the nature of which is set forth in the provisional specification, shall be described,

and none other, in the complete specification.* It is, however, obvious that there must be marked differences between these two documents, as the one is intended only to describe the nature of the invention, whereas the other is also to show in what manner the invention is to be carried out. The complete specification must also be prepared with careful reference to the title of the patent, and that for the reason stated at Sec. 4, Chapter III. *ante*.

8. With respect to allowable departures from the provisional, in framing the claims of the complete, specification, many differences of opinion have arisen. It has been contended, in the Courts of Law, that a claim for an improvement not shadowed forth in the provisional specification is invalid; and it has further been contended that the complete specification must embody all the matter contained in the provisional specification, unless, under the authority of the law officer, any such matter as it was deemed undesirable to hold is disclaimed. Several decisions of the Judges have cleared up doubts as to the bearing of the provisional specification on the validity of the patent. Thus it has been held that a claim may be sustained for new matter which is found essential to the carrying out of the invention; and, further, that a defective provisional specification, when once ap-

* This dictum may be said to be opposed to the judgment of Wood (V. C.) in the case of Curtis *v.* Platt (reported in the *London Journal of Arts*, Vol. 19, p. 44, N.S.); but having regard to the difficulties which might accrue from rashly following this leading, the author prefers to rest upon the above statement.

proved by the law officer, cannot be set up to invalidate a patent granted on that defective document.*

9. An inventor is bound to disclose in his specification the best means with which he is acquainted of carrying out his invention; and it is not infrequent that during the six months' protection allowed him to perfect and specify his invention, he will have devised new and greatly improved means of carrying out his object, which means may be applicable, moreover, to some manufacture foreign to the title of the patent. A case of this kind presents undoubted difficulties, for if the improvements are withheld, the law is not fulfilled; and if they are specified, the right to their exclusive use cannot be maintained. The only remedy is, to apply for a patent for the improvements under a title that will embrace their extended application, and to specify those improvements under the original or first patent, as illustrating the best known means of carrying out the object,

* In the case, Newall *v.* Elliot and Glass, Mr. Justice Byles (C. P., 1857), in reply to an objection that the provisional specification contained no mention of certain guiding rings which had been claimed in the full specification, ruled that the provisional specification was sufficient in law, because "the office of the provisional specification is only to describe generally and fairly the nature of the invention, and not to enter into all the minute details as to the manner in which the invention is to be carried out; otherwise, the provisional specification must be as full as the complete specification, and drawn with as much care and deliberation." Again, in his judgment on the case, Curtis *v.* Platt, Vice-Chancellor Wood said:—"The fact that the provisional specification does not say enough, is a matter for the law officer to consider when it is laid before him; but there is nothing in the Act of Parliament which says that the patent is invalid because the provisional specification is not sufficient."

which is the claimable matter of the invention; referring at the same time to the fact that the means shown form the subject of an unspecified patent. No substantial objection can be taken to this course of proceeding; and by its adoption, not only can a new process of manufacture be secured, notwithstanding that the means at first suggested for carrying it out proved impracticable, but also the subsequently invented efficient means can be protected, both in its application to the original object for which it was designed, and also to kindred objects for which it was found equally applicable.

10. A specification should contain nothing superfluous in the way of description or illustration; and to ensure this, preparatory to the drafting of the specification, a clear understanding must be first come to respecting the nature of the invention. This having been determined, the next point is to describe the best means known of carrying it out. There may, however, be several methods of attaining the desired end, but the mention of more than one is superfluous, and should, for prudential reasons, be omitted* If the invention consist in the discovery that the action of a given substance on another given substance will produce a new result, then a correct description of one well-tried means of applying the

* In the aniline dye case, Simpson *v.* Halliday, it was shown that Dr. Medlock (the patentee) had invented a mode of treating aniline with dry arsenic acid, to produce a rich purple colour. In his specification he described two processes, one of which was efficient, while the other proved to be useless. From this resulted an adverse decision, which ultimately destroyed the patent.

invention will ensure to the patentee a right to the exclusive use of the materials for attaining the end sought, whatever variations of method may be hereafter devised. No good can therefore accrue from burdening the specification with supplementary or alternative processes; but, on the contrary, the liability to error in description is necessarily increased. When, however, the invention consists in new means for effecting a well-known object, all the matured plans available may properly be included, provided they are foreshadowed in the provisional specification, and were in the mind of the inventor at the time of applying for his patent. The insertion of these serves to extend the scope of the patent, and so far to strengthen it.

11. The language of the specification must be equal to sustaining a double scrutiny. These documents are said to be addressed to workmen familiar with the trade to which they respectively refer, and they must therefore bear a trade construction; but, as it is the duty of the Courts to interpret specifications, they are consequently addressed to the legal mind, and must, like other legal documents, bear a literal and grammatical construction.* The difficulties that arise out of these two considerations, which

* In writing on the Law of Patents, Mr. C. S. Drewry, Barrister-at-law, says:—"The most difficult, perhaps, of all legal documents to prepare, is a specification of a patent; and for this reason—that it fulfils a double function. It is an explanatory direction to workmen, which must be couched in language intelligible to them, and sufficient to teach them how to produce the patented thing. It is also a document supporting *legal title*, and as such is subject to the same rules of construction of the language as are applied to any legal instrument."

sometimes conflict, are not infrequently very serious. Dismissing altogether that class of questions which are provoked by words that have never been clearly defined,—as "shale"* and "paper,"† both of which were elaborately discussed in the Courts,—it may be well to notice one striking case in illustration of this important point, where an inventor, who unquestionably anticipated a subsequent and competing patentee, was unable to give his friends the benefit of his priority of invention.

12. In the early stage of the litigation on Hills' purifying gas patent (dated 1849),‡ in which hydrated oxide of iron was claimed as a purifier, it was contended that the invention was anticipated by Laming's patent (1847), in which he proposed to use a substance popularly known as "carbonate of iron," but which is in truth identical with the substance claimed as a purifier under the later patent. Evidence having been given to establish this point, the question was reserved for the judges, whether the expression "carbonate of iron," as it occurred in Laming's specification, would bear the interpretation "carbonate of iron of commerce," or really meant a very different and unstable substance—the true carbonate of iron—known only to chemists, and

* The litigation on Young's paraffine oil patent turned chiefly on the meaning of "shale," as distinguished from a low class of coal.

† In manufacturing the material which was known as "factitious parchment," the Excise claimed the right to subject it to the paper duty; but it was, on the other hand, contended that the material could not fairly be denominated paper.

‡ Hills *v.* The London Gas Company, Exchequer Court, 1856.

utterly useless as a purifier of gas. In this case, the judges decided that the expression "carbonate of iron" must be taken literally; and thus Hills' patent was sustained, while Laming and his friends were restrained from the use of the material incorrectly designated by his specification. Correctness of nomenclature is not, however, so important in descriptions of mechanical inventions; as reference to the illustrative drawings commonly appended to such descriptions will solve any doubts that might arise.

13. A further illustration of the importance of precision of expression is afforded by the litigation on Hills' gas purifying patent. It was contended that Hills' claim for the use of hydrated oxide of iron was anticipated by Croll's patent of 1840, under which a claim for the use of oxides generally was made; but it was held by Lord Chancellor Westbury that this was no disclosure of Hills' invention, for the term was not sufficiently specific, as it included all oxides of iron, whether hydrated or anhydrous, and there were some of each class which were not applicable for gas purifying. This decision establishes inferentially the point that a specification setting forth an invention in a manner that will necessitate a resort to experiments to determine in what way or by what means the invention is to be carried out, is legally defective, and renders the patent void.

14. Simple redundancy of expression, if not, as it is little likely to be, strictly correct, should be carefully guarded against; as it may cause much trouble, even if consequences fatal to the validity of the patent

do not result therefrom. Thus an objection was taken to the specification of the famous Daguerreotype patent, that although the most carefully elaborated details were given of the process of preparing the silvered plate for the camera, and afterwards developing and fixing the image received on the plate, yet there was an interpolated instruction which, if followed, would certainly have rendered the work useless. This instruction was as follows:—"It is, however, considered indispensable just before the moment of using the plates in the camera, or the reproducing the design, to put at least once more some acid on the plate, and rub it lightly with pounce, as before stated." If literally carried out, the effect would have been to wipe off the iodine preparation just applied to sensitize the plate: yet, notwithstanding the contradiction thus involved, and the obvious meaning of the passage, it was ruled by the presiding Judge to be fatal to the validity of the patent; * but an appeal to the full Court served to re-establish the patent.†

15. When the invention refers to improvements in machinery or apparatus, it is essential—to the proper understanding of the specification—to illustrate it with drawings, which should be geometrical, and drawn

* On this point Judge Bradley, of the Supreme Court, U.S.A., said (Brown *v.* Guild):—"A literal construction is not to be adopted when it would be repugnant to the manifest sense and reason of the instrument."

† Beard *v.* Egerton. In the Court of Common Pleas, the Lord Chief Justice, in delivering the judgment of the Court (June 25th, 1849), said:—"Although there may be some appearance of obscurity in it [the specification], we think it is cleared away by a consideration of the whole, and it is sufficiently plain to be understood by an operator of fair intelligence."

to a scale that will exhibit the minutest parts clearly; but the details requisite in working drawings are not needed. Side and end elevations, a plan view, and one or more sections, will in general suffice; and it is convenient to indicate the new parts, when that is possible, by colour, leaving the other and incidental portions of the drawing in outline. Two copies of the drawings, one on parchment and the other on paper, are required to accompany the specification, which is also on parchment; and these are filed, together with a copy of the specification on brief paper, in the Patent Office. If, however, colour is used; an additional copy in bold outline must be provided. The regulations as to size and form of the specification and drawings are given in the Commissioners' Rules, and must be strictly adhered to.

16. All complete specifications, soon after filing, are published in full by the Commissioners, together with the provisional specifications, if any, pertaining thereto; and all disclaimers are also published soon after the filing of the same.* These are put on sale at cost price, and copies are presented to all public libraries in the United Kingdom desirous of possessing them, and willing to afford facilities to the public for their inspection and study. At a small cost these printed copies may be certified and made office copies, admissible as evidence in courts of law. (Secs. xxx. and xxxiii. Patent Law Act, 1852.)

* The specifications of patents relating to instruments or munitions of war, which the Secretary of State for War has thought worthy of securing for the exclusive benefit of the country, may, on the certificate of that officer, be kept secret under the seal of the Secretary of State (22 Vic. c. 13, sec. 3).

CHAPTER VII.

PREPARATION AND ALLOWANCE OF DISCLAIMERS.

1. *Formerly Specifications could not be Amended.* 2. *Grantee or Assignee may Amend.* 3. *Meaning of Act Misconstrued.* 4. *What Disclaimer Should and Should Not Be.* 5. *Law Officers' Reading of their Duties.* 6. *Formalities of Procedure for Applicant.* 7. *Ditto for Opposer.* 8. *Grounds for Opposition.* 9. *Duties and Action of the Law Officers.* 10. *Disclaimer when Allowed may be Void.*

1. Before the passing of the Act 5 and 6 William IV., cap. 83, no error or other defect found in a recorded specification was capable of removal; and the ruling of the Courts being then, as now, that proof of insufficiency or ambiguity of description, or want of novelty in any claim appended to a specification, destroyed the validity of the patent, it followed that many ingenious inventors were deprived of their well-earned reward through inadvertence, inexperience, or pardonable ignorance of the labours of their predecessors. The excessive cost of patents under the old system induced a practice of including two or more inventions under one application, which practice was encouraged by the formal character of the procedure. Moreover, in the offices for recording specifications (of which there were three) diffi-

culties almost insuperable were placed in the way of patentees seeking information as to the state and progress of the arts. From these causes, the liability, under any circumstances sufficiently great, of some one claim of a specification proving untenable from want of novelty was proportionately increased.

2. To provide a remedy for this evil, it was enacted "that any person who, as grantee, assignee or otherwise, hath obtained, or who shall hereafter obtain, letters patent may, if he think fit, enter with the Clerk of the Patents—having first obtained the leave of His Majesty's Attorney-General or Solicitor-General, . . . certified by his fiat and signature—a disclaimer of any part of either the title of the invention or of the specification, stating the reason of such disclaimer; or may, with such leave as aforesaid, enter a memorandum of any alteration in the said title or specification, not being such disclaimer or such alteration as shall extend the exclusive right granted by the said letters patent."

3. Much misconception has arisen as to the precise meaning and scope of the words above quoted; and in consequence, diversities of practice in respect of details of procedure and in the administration of the law have ensued; but, owing to the comparative privacy given to business of this nature, personal experiences rather than public records are mainly relied on for furnishing the basis for the following

remarks, which are intended to bring out clearly the observances that should be adhered to by practitioners and by the administrators of the law.

4. A disclaimer or memorandum of alteration being intended to remove from a specification defects which have arisen either through inadvertence, through ignorance of what has gone before, or an imperfect knowledge of the action of the process or machinery described, it is essential that it shall effect that object by giving completeness and consistency to the specification. This is, however, very far from the course generally adopted. Thus, a practice was formerly favoured of limiting the extent of a claim, not by altering its wording, but by introducing into the specification what may be termed an interpretation clause, which should eliminate the true meaning of an objectionable phrase or sentence, and fix upon it a new meaning quite irreconcilable with the words employed. This was most perplexing and unsatisfactory, as it allowed a patentee to play fast and loose, according to the requirements of his position. Another practice, or rather another phase of the same practice (which proved illusory when brought to the test of a court of law), was to set up, by the insertion of a disclaiming clause, a purely arbitrary distinction between a claim requiring amendment and an anticipatory publication. Both these modes of disclaiming have, however, properly given place to that of amending by the excision of words, and the supplementing of the specification with additional

words and phrases calculated to restore or clear the meaning of the specification.*

5. The evils arising from the eccentricities of practitioners sink, however, into insignificance in comparison with those induced by the adoption of erroneous views respecting the principle of the law of disclaimers by the administrators of that law, because from their decisions there is, unfortunately, no appeal. One serious matter of complaint—which must here be noticed, because the law is what its administrators make it—is that the intention of the Disclaimer Act has in some marked examples been overlooked, and it has been put in force not for the benefit of the patentee but for the infringers of his rights, inasmuch as conditions at variance with justice —and it is believed also with the letter as well as the

* One example will suffice to explain the practice of setting up arbitrary distinctions. In the specification of the original sewing machine patent of Mr. Thomas, a claim was made for "the application of a shuttle in combination with a needle, as shown in Sheet F. of the drawings; &c." An embroidering machine having been found described in an earlier patent (Fisher and Gibbons'), possessing many needles and shuttles which worked abreast of each other, it was attempted to clear this claim from the earlier patent by entering a disclaimer in the following terms: "I do not claim the use in a machine of several needles and shuttles." The amendment being brought under the consideration of the Judges, the Lord Chief Justice Campbell, after comparing Thomas's arrangement with that of Fisher and Gibbons, said:—"They are both applications of a shuttle in combination with a needle for forming and securing loops of thread for the purpose of producing stitches either to unite or ornament fabrics. Therefore, if the plaintiff's claim No. 2 be general, as we construe it to be, Fisher and Gibbons' machine, if posterior to it, would be an infringement, and being anterior, disproves the novelty of the invention." Thus, although a sufficiently well-marked distinction existed between the two inventions, the disclaimer proved inadequate to remove the legal objection raised to the validity of the patent.

spirit of the law—are now, under certain circumstances, forced upon applicants for disclaimers, leaving them no choice between accepting them or having their disclaimer disallowed.*

The first example of the imposition of conditions occurs in the case of the disclaimer sought for by the assignees of Medlock's aniline dye patent in 1865, when Collier (S. G.) allowed the disclaimer, subject to the free working of the patent, during the whole remaining term, by seven large manufacturing firms who had already extensively infringed the patent and appeared to oppose the disclaimer. Under these conditions, the owners of the patent refused to accept the disclaimer, and the fiat was consequently cancelled.† The second example occurs in the case of

* A remedy has been suggested in the form of an application for a *mandamus* against the law officer. This, however, is a luxury which few patentees can contemplate with equanimity. In relation to this matter, Mr. Manisty, on a case submitted to him immediately before his promotion to the bench, advised as follows: "I do not think the Legislature ever intended to invest the law officers of the Crown with the power of reserving to an individual or particular individuals rights and privileges which could not be exercised or enjoyed by the rest of the public. There is, so far as I can discover, no authority upon the point. If a patentee is entitled to a fiat, he is, in my opinion, entitled to it free from conditions in favour of individuals. The only ways which occur to me for raising the question (of the validity of enforced conditions) are (1) for a patentee who is offered a conditional fiat to decline to accept it, and to apply to the Queen's Bench Division of the High Court of Justice for a mandamus to compel the Attorney- or Solicitor-General to hear and determine the application according to law; (see the recent cases Reg. *v.* Sykes, Law Report 1., Q.B. Div., 52, and Reg. *v.* De Rutzen, J.D., 55); and (2) for a patentee who has obtained a fiat, by giving an undertaking to allow certain persons to use the invention without a license, to bring an action against one of such persons for an infringement."

† Reported in *London Journal of Arts*, vol. xxii., New Series, p. 69.

Chatterton's disclaimer, 1869, when Brett (S. G.) in consideration of litigation pending between the petitioners and the opponents of the disclaimer, granted his fiat on condition that the amendment should not be availed of in the Chancery proceedings instituted, and that no injunction should be applied for, to stop the completion of any contract already entered into by the opposing parties.*

This case established a precedent of interference, which was pushed a little further by Collier (A. G.), when in allowing a disclaimer on Kaberry and Mitchell's patent, he compelled the assignee, Mr. Davenport, to enter into an undertaking that no legal proceedings should be taken against four firms who appeared to oppose the application, or against any of their customers, "by reason of the use or continued use of any part of the invention, the subject of the said letters patent, in any machine already constructed or being constructed" by the said

* The following extract from the judgment will give the grounds of the decision:—"As to the second objection, it appeared that there is a dispute and litigation between the parties upon the subject of an alleged infringement of the patent by a mode of using a compound of Gutta Percha. The one side, by the proposed disclaimer, hoped to protect the patent against being rendered invalid, as for some claim of some prior compound under the words 'or suitable material,' whilst the other side hoped to invalidate the patent by objecting to the disclaimer and discovering the want of novelty alluded to. Under these circumstances, I have come to the conclusion to allow the disclaimer upon condition that the petitioners undertake that they will not amend the existing Chancery proceedings by introducing into them this disclaimer, and that they will not apply for an injunction upon the basis of the patent and the disclaimer against the fulfilment by the I. R. Gutta Percha and Telegraph Works Company (Limited), of any contract entered into by them before the date of the hearing before me."

opponents. In this instance no legal proceedings had been commenced.

6. Applications for disclaimers are made on petition to the Attorney-General or Solicitor-General, setting forth the reason for the disclaimer, and this petition is accompanied by the disclaimer itself, which enumerates the alterations desired to be introduced into the title or specification, or into both, and which may advantageously recite the specification as it will appear when amended. These documents are to be left at the Patent Office, and they are then referred to the law officer to whom the petition is addressed. The law officer, as empowered by the Act, almost invariably orders an advertisement to be inserted in the *Gazette* and two or three daily papers, notifying that oppositions to the grant of the disclaimer may be lodged, within ten days from the date of the notice, at the chambers of the law officer.

7. An intending opposer has the option of entering a caveat at the Patent Office,—when he will be entitled to notice of any application made for a disclaimer to a given patent—or of relying upon seeing the advertisement in the *Gazette*. On applying to the law officer's clerk, he may obtain an office copy of the papers, and thereby ascertain whether the proposed disclaimer is likely to affect his interests. Notices of opposition are lodged with the clerk of the law officer to whom the application is made, and they must set forth the grounds on which the opposition is based. Copies of these notices are furnished to the petitioner,

and if he decide to meet the opposition, an early hearing is appointed, at which all parties are summoned to attend, either in person or by their agents or counsel, as they may elect, when the case is entered into in the presence of the petitioner and his opponents.

8. The grounds for opposing the allowance of a disclaimer must be clear and definite, so that the petitioner may not be taken by surprise at the hearing.* Formerly the only tenable grounds for opposing a disclaimer to the title or the specification of a patent were, either that the proposed disclaimer or alteration would extend the exclusive right granted by the letters patent, or that the specification as filed fraudulently contained matter for which the patent was not granted. Now, however, if the new practice of imposing conditions (noticed at Sec. 5) is to be maintained, an allegation of this nature would appear to suffice—viz., "that the patent having, by its invalidity, courted infringement, a trade had sprung up in fraud of the inventor's undeniable rights, and that such trade ought not to be interfered with, or that at least the offence should be condoned."

9. The chief duty of the law officer at the hearing

* An objection was taken to the following ground of opposition, by reason of its unsatisfactory character, viz. :—"I oppose the grant of leave to enter a disclaimer . . . on the ground that such disclaimer ought not to be allowed, or allowed only on condition that no legal proceedings should be taken against the said A. B., or against any of the customers of his firm, by reason of the use or continued use of any part of the invention, the subject of the said letters patent." The law officer admitted the objection, and offered the suitor the costs of the hearing.

is to satisfy himself that by the disclaimer the basis of the invention is not shifted, or that the scope of the patent is not enlarged. In general the opposition will be directed to these points, and the law officer will require to be fully satisfied that he is doing no wrong to the public by granting his fiat in conformity with the law. Questions relating to the novelty or utility of the invention under discussion he will not entertain, nor will he receive any evidence bearing on such points.* When not satisfied with the form of disclaimer, the law officer may, in any opposed case, refer the same back to the parties to the hearing, to enable them to agree upon the form of the disclaimer; or he may himself amend it to meet some or all of the objections urged against it, or to remove those which have occurred to his own mind. The fiat may be accompanied by a certificate enabling a patentee to bring actions for infringements committed prior to the allowance of the disclaimer, but this privilege is seldom granted.† When the disclaimer is allowed, the parchment document lodged with the petition is endorsed to that effect, and filed at the Patent Office with the

* "It must be conceded on all hands that I have nothing to do with the validity of the patent, and I won't try the patent." Giffard, S. G., *re* opposed disclaimer of the National Arms and Ammunition Company, Limited. (Jones' Patent, No. 2542.—'65.)

† In Sec. xxxix.. Patent Law Act, 1852, it is enacted that "no action shall be brought upon any letters patent in which, or on the specification of which, any disclaimer or memorandum of alteration shall have been filed, in respect of any infringement committed prior to the filing of such disclaimer or memorandum of alteration," without the certificate of the law officer; but before this enactment, the right of the patentee in this respect was not restricted.

original specification. No costs are awarded to either petitioner for, or opponent of, a disclaimer.*

10. The allowance by the law officer of any disclaimer or memorandum of alteration which can be shown to have extended the claims or scope of the patent—or, by some ingenious device, to have changed the character of the invention for which the patent was originally granted—will have no effect in law against the public, but such disclaimer† will be treated as

* Doubts having arisen as to the power of the law officer to order the payment of costs incurred on hearing oppositions to disclaimers (the practice having been opposed to such order), this matter was set at rest by the case "Kynoch *v.* The National Arms and Ammunition Company," which was heard on the 17th April, 1877, by the Court of Queen's Bench, before Justices Mellor and Manisty. The defendants, as owners of Jones' Cartridge Patent, dated October 4th, 1865, had applied for a disclaimer, which was allowed, but on onerous conditions; costs being at the same time awarded to the opponents of the disclaimer. As the National Arms Company declined to accept the disclaimer on the conditions appended thereto, they declined also to pay their opponent's costs; there being no precedent for the enforcement of costs under the like circumstances. By an ingenious constructive argument Mr. Macrory attempted to show that Clause 14 in the Patent Law Act, 1852, gave the law officers power to order the payment of such costs, his contention being that, as the legislature had enacted that the disclaimer when granted became part of the original patent, the rule which applies to patents as respects the awarding of costs must apply also to disclaimers. In his judgment, Mr. Justice Mellor said:—"As the Disclaimer Act gives no such power [to give costs], and as, notwithstanding the incorporation of the Disclaimer Act with this Act [Patent Law Act, 1852], the power to give costs is not for all cases, but is confined either to the grant of a patent or in relation to the provisional specification, I am afraid it is a *casus omissus*." The application was, therefore, refused. On an appeal, this judgment was confirmed.

† In the sewing machine case, Foxwell *v.* Bostock (*London Journal of Arts*, Vol. 19, New Series, p. 236), Westbury (L. C.), in speaking of a disclaimer to the patent, said:—"The combination of machinery now described in the amended specification is different from the combination of machinery described in the original specification, and for which the patent was granted. The question then arises, Is the patent void, or is the disclaimer void?"

invalid. The specification may, however, be still amended by a fresh disclaimer or memorandum of alteration, and if this correction is not found to suffice, the patent may be amended any number of times in the manner above described, according to the desire of the patentee or assignee.

CHAPTER VIII.

CONFIRMATION AND EXTENSION OF PATENTS.

1. *Privy Council may confirm and extend Term of Patents.* 2. *Grounds for Seeking Confirmation.* 3. *Rights Conferred Thereby.* 4. *Nature of Proof Required.* 5. *Petition may be opposed.* 6. *Grounds for Extension of Patent.* 7. *If a Communication, Extension Refused.* 8. *Time for Applying.* 9. *Merits and Profits of Invention.* 10. *Conditions of Extension.* 11. *New Grant for any Term not exceeding Fourteen Years.* 12. *Regulations Respecting Petitioners and Opposers.* 13. *Complete Disclosure of Facts Required.* 14. *Failure of Application may give Opposer his Costs.* 15. *Copies of all Papers Lodged Obtainable.*

1. The Act of 5 and 6 William IV., cap. 83, besides conferring upon patentees the right to amend their specifications, provides, by Section 2, a means of restoring validity to patents which are affected by prior user; and, by Section 4, for the extension of the term of patents about to expire, when a sufficient reward has not been secured to the patentee or his representative. The power to administer the provisions of the law is vested in the Judicial Committee of the Privy Council, and applications are made, in either case,* by petition to Her Majesty in Council, who, on the recommendation of their Lordships, grants the prayer of the petitioner.

* The formalities of procedure are given in the Rules obtainable at the Privy Council Office.

2. An application for a confirmation must be based on the fact that the patentee (believing himself to have been the first and original inventor), or his assignee, has discovered "that some other person had, unknown to such patentee, invented or used the same, or some part thereof, before the date of the patent;" and to ensure the successful prosecution of the application, the Committee must be satisfied, not only that such patentee believed himself to be the first and original inventor, but also "that such invention or part thereof had not been publicly and generally used before the date of such first letters patent." The scope, therefore, of this provision is very limited, and but few cases have arisen to which the Act was found applicable.*

3. It had been supposed that evidence of the secret working of an invention subsequently re-invented and patented, or the public continuous working, to a very limited extent, of an anticipatory invention, would not debar an inventor from obtaining a confirmation of his patent; but a consideration of those words of the section which show the power conferred on the patentee by the act of confirmation, is enough, without reference to the recorded decisions, to dispel this illusion. For the Act says, "the said letters patent shall be available in law and equity to give to such petitioner the sole right of using, making, and vending such invention as *against all*

* The first—and, indeed, as the writer believes, the only successful—application for confirmation was that made by Baron Heurteloup, May 22, 1834.

persons whatsoever, any law, usage, or custom to the contrary thereof notwithstanding." It follows, therefore, that the confirmation of a patent which had been affected by a prior user would act as a restraint upon trade, which is a result opposed to the principle of a patent law.*

4. The proper grounds for a confirmation are thus stated by Lord Campbell, in his judgment on Card's application:—"In a case where it appears that the invention has been carried on to a certain degree and abandoned, the Act of Parliament may most beneficially be acted upon." It does not appear from the decisions of the Privy Council that any other kind of case can be successfully prosecuted, and that being so, it is hard to see what is the value of this provision of the Act, having in mind the decision on Dollond's case, where proof of a continuous private working was held not to affect the validity of the patent. When a decision of a jury is given against a patent on a point of this nature, it may be well to resort to the Privy Council, as an Appellate Court, to obtain, by a confirmation of the patent, the reversal of the verdict of the jury.

* Lord Campbell, in delivering judgment on Card's application for a confirmation of his patent for candle-wicks (Webster's Reports, Vol. 2, p. 163), said:—"Under these circumstances, see what gross injustice would be done if the patent were confirmed. Immediately the trade of Mr. Howe, who has been examined here as a witness, must be stopped. He would be liable to an action if he were to continue his trade in the manner in which he has carried it on for many years. . . . It has been said that this may be guarded against by the petitioner undertaking to give Mr. Howe a licence. I do not know that it would be fair to subject him to the risk that he would undergo by a licence of this sort, or with regard to the terms of that licence."

5. Provision is made by the Rules of the Privy Council to ensure the publicity of all applications for confirmation, and any person opposing a petition shall be entitled to be heard before the Judicial Committee; but any person, "party to any former suit or action touching any such first letters patent, shall be entitled to have notice of such petition before the presentation of the same."

6. The prolongation of the term of a patent is obtained by the patentee or assignee of a patent petitioning the Privy Council, and satisfying the Court—(1) That there is great or substantial merit in the invention protected by the patent; (2) That it has conferred, or is capable of conferring, important advantages on the public; and (3) That the owner of the patent has not been sufficiently remunerated. Unless all these points can be substantiated by evidence deemed satisfactory by the Court, the prayer of the petitioner will be refused. When the patent sought to be extended is one of a series depending the one on the other, proof must be forthcoming that the patent under consideration is useful in itself, and that it does not require the addition of subsequent invention to make it useful; otherwise the Privy Council will consider that the inventor may yet reap adequate remuneration through the later patents.*

* An apt illustration of the effect of this dependency is afforded by a case reported in the Official Gazette of the U.S.A. Patent Office, Vol. VI. p. 391, when Thacher, acting Commissioner, deciding on Root's application for an extension, gave judgment to the effect that the patent would not be extended, because the demand for it had been very limited, until a patented improvement upon the invention had been applied to it, when it was found useful, and met with large sales.

7. By Section 25 of the Patent Law Amendment Act, 1852, patents obtained in the United Kingdom for foreign inventions already patented abroad will, notwithstanding any term in such letters patent limited, cease and be void immediately upon the expiration or other determination of the foreign patent. The practical effect of this provision is to debar the patentee of an imported invention, previously patented abroad, from the privilege of obtaining an extension of his patent; for the Privy Council, not satisfied with acting up to the letter of the law, conforms its judgment to the spirit of the provision, and ignores the question of whether the foreign patent was obtained before or after the English grant.*

8. In order to ensure that the Privy Council shall entertain the application for the extension of a patent, it is necessary either that the petition for the extension shall be presented six calendar months at the least before the expiration of the term of the patent, or that the petition shall be presented in such ample time as will admit of the prosecution, with effect, of the application during the existence of the patent. (2 and 3 Vic., cap. 67, sec. 11.)

9. There is great uncertainty in determining what degree of merit in the invention, and of advantage

* In an application for the extension of Newton's (Bentz') Patent, the case was stopped *in limine*, on its being shown that the invention was the subject of an American patent on the point of expiring, but obtained subsequently to the English patent. (*Weekly Reporter*, 1862, Vol. 10, p. 731.)

accruing to the public therefrom, and what scale of profit yielded, by the diligent working of the invention, will secure to the applicant for an extension a favourable judgment from the Privy Council. It may, however, be stated that, to ensure success, the invention should embody some new principle of action, or produce some new result, and that of a character which shall set its mark on the industry of the country. With respect to the profits, they must be shown not greatly to have exceeded fair manufacturing profits, as computed on the amount of capital embarked in the trade. In estimating the profits arising from the working of a patent, all fair deductions for the personal superintendence of the patentee, and for legal expenses in sustaining his rights the patent, will be allowed; but manufa.. .s' profits, if such have been obtained by the patentee, must not be deducted to lessen the seeming amount yielded by the working of the patent.

10. When the application for an extension is made by an assignee, the Privy Council will consider the interest of the inventor; and when deciding in favour of an extension, they may impose conditions on the assignee in the form of an annuity, or otherwise, for the benefit of the inventor. This was done in Russell's case (1838), where an annuity of £500 per annum was allowed to Whitehouse, the patentee, for the extended term. The interests also of licensees will be considered; and when the invention is of a nature to be useful to any department of the Govern-

ment, the right to use it without remunerating the inventor may be made a condition of the extension. In Francis Pettit Smith's case (1850), where a prolongation of his propeller patent was allowed, a provision was enforced to the effect that the Ordnance and Admiralty departments should be free to apply the improvement without licence.

11. The prolongation of the term of protection is effected by the grant of new letters patent, the duration of which was limited to seven years by the Act of William IV., and was subsequently extended to fourteen years by the Act of 7 and 8 Vic., cap. 69; but the grant may be for any lesser term than that prayed for, at the option of the Judicial Committee.

12. Preparatory to applying for an extension of a grant, the intention of the patentee or assignee of the patent must be advertised in the *Gazette* and other papers, and the day notified on which he intends to apply for a time to be fixed for hearing the matter of his petition. This is to enable all interested in the proposed extension to elect whether they shall oppose the application. On or before the day notified in the advertisements, caveats may be lodged at the Council Office entitling parties to have from the petitioner four weeks' notice of the time appointed for the hearing. The petitioner is bound to serve copies of his petition on all persons who have lodged a notice of opposition at the Council Office, or have entered caveats, or have been parties to a suit or action touching the patent in question;

and all who may desire to oppose the application must, within a fortnight after such service, lodge at the Council Office notice of the grounds of their objections to the granting of the prayer of the petitioner. The petitioner and his opponents are heard by their counsel, and all the formalities usual in law suits will be required to corroborate the statements relied on by either party. The Attorney-General will also appear in person, or by deputy, to watch the proceedings on the part of the Crown.

13. A complete disclosure of all matters relating to the working, or non-working, as the case may be, of the patent will be required, in order that the Privy Council may be satisfied—where profits are admitted—not merely as to the correctness of the accounts of profits realised, but also of the contingent or prospective profits; and where losses have occurred, or no profits have been made—owing to the partial working or the non-working of the invention—that this has resulted from circumstances beyond the control of the owner of the patent; and that there is now a reasonable prospect of the invention being brought into general use.

14. When a petitioner whose application is opposed shall fail from any cause to satisfy the Judicial Committee, that there were reasonable grounds for the application, he will be liable for the costs of his opponents. Thus, in Hills' application for an extension of his patent, for purifying gas by oxide of iron, where the application was refused, the petitioner

was ordered to pay, at his option, either the taxed costs of his opponents, or a sum of £1000 in lieu thereof.

15. The petitioner for an extension must lodge six printed copies of his specification, and four copies of the balance-sheet of expenditure and receipts, relating to the patent in question, not less than one week before the day fixed for hearing the application, and copies of these may be had by any person requiring the same, at his own cost.

CHAPTER IX.

RIGHTS CONFERRED AND CONDITIONS IMPOSED ON A PATENTEE AND HIS REPRESENTATIVES.

1. *Rights of Patentee.* 2. *How Transferred.* 3. *On what Terms.* 4. *Register of Assignees and Licensees.* 5. *The Crown may use Invention.* 6. *Provisions Relating to Inventions for use in War.* 7. *Periodical Payments.* 8. *Extension of Time for Payments.*

1. The grant of a patent to the first and true inventor confers upon him, or upon his assignees or executor, the right to "make, use, exercise, and vend his said invention within the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man," and assures to him "the whole profit, benefit, commodity and advantage from time to time coming, growing, accruing, and arising by reason of the said invention, for and during the term of fourteen years," subject, however, to some important provisions to be presently noticed.

2. The patentee may retain the exclusive right to work the invention in his own hands, or he may confer that right upon another, or upon a trading company, or he may licence manufacturers upon any terms that may be mutually agreed on; limiting their operations to a county or district, or giving them a general power to make and sell in any part of the

kingdom. When a licensee is restricted to a district, the patentee cedes that district to him, but retains the power to prosecute infringers.

3. The terms of agreement for licences will vary, according to the nature of the invention; but it is prudent in most cases to make the licence terminable, at the option of the contracting parties, after a three or six months' notice, unless certain stated conditions are fulfilled. The consideration for a licence may be an annuity payable during the existence of the patent, or a sum payable on the signing of the deed, or a royalty on the goods manufactured. In the last case it is usual for the licensee to guarantee a minimum sum per annum as the yield of the licence.

4. By Sec. 35, Patent Law Act, 1852, there is kept at the Patent Office a Register of Proprietors, in which is entered a copy of the deed of assignment of any letters patent, and of any share or interest therein, and of any licence under letters patent; and it is advisable that every assignee or licensee should avail himself of this provision, because it is expressly enacted that until an entry is made of any deed creating an interest under the patent, "the grantee or grantees of the letters patent shall be deemed and taken to be the sole and exclusive proprietor or proprietors of such letters patent, and of all the licences and privileges thereby given and granted."*

* An assignee of a patent not complying with this provision of the law has necessarily no legal status. He cannot, therefore, grant a licence, prosecute infringers, or petition for a disclaimer, or for the confirmation or extension of the patent.

This register is open to inspection, and office copies of, or extracts from, the entries may be obtained.

5. Although a patent gives to the grantee or assignee the right to "have and enjoy the whole profit" arising therefrom, yet the owner or owners of the patent are bound by the terms of the royal grant to "supply, or cause to be supplied, for our service all such articles of the said invention as he or they shall be required to supply, by the officers or Commissioners administering the department of our service for the use of which the same shall be required, in such manner, at such times, and at and upon such reasonable prices and terms as shall be settled for that purpose by the officers or Commissioners requiring the same." By a decision of the Court of Queen's Bench (in the case of Feather *v.* the Queen),* it was established that no patentee could support a claim against the Crown for an infringement of his patent, as there are no express words in the grant to take away from the Crown the right of using his invention. It is only, therefore, by an act of "grace and favour" that a patentee is remunerated for the use of his patent by the Government.† The right of the Crown to use a patented invention does not, however, shield contractors from liability if infringing a patent in carrying out a Government contract.‡

* Reported in *Practical Mechanics' Journal*, Vol. IX., p. 321.

† In the United States, a patentee has a legal remedy against the Government for the use of his invention.

‡ Dixon *v.* The Small Arms Co., Court of Queen's Bench (in Banco), January 26th, 1875.

6. All interest in inventions relating to instruments and munitions of war may (by the Act 22 Vic., cap. 13) be assigned to the Secretary of State for War, either for or without valuable consideration, and any patents obtained for such inventions will confer on the assignee not only powers to prevent the use, but to maintain the secrecy of the invention. The communication of an invention of this class to the Secretary of State, or to any person authorised by him to investigate the merits thereof, and the experiments instituted for the purpose of such investigation, will not be deemed a publication of the invention.

7. To keep a patent in force for the whole term of fourteen years, it is requisite, before the expiration of the third year, to have the deed stamped with a fifty-pound stamp, and before the end of the seventh year, to have it stamped with a hundred-pound stamp; and when so stamped, the patent must be produced "before the expiration of such three years and seven years respectively, at the office of the Commissioners," to have endorsed thereon a certificate that the patent has been duly stamped, and a record made of the same in the office. An omission of either of these provisions will vacate the patent.

8. Where, through unavoidable circumstances, a patent has been permitted to lapse from non-fulfilment of the above-named conditions, the patentee or assignee can only reinstate himself by a successful

application to Parliament for a special Act to allow the patent to be stamped and certified, and to confirm the validity of the patent. Several applications of the kind have been made, but not with invariable success.*

* In an Act obtained in 1868 to render valid a patent granted to Perry Green Gardiner, on which the third year's tax was omitted to be paid, occurs the following proviso, "that no action or suit shall be commenced or prosecuted at law or in equity, nor any damages recovered for or in respect of any infringements of the said letters patent, which shall have taken place after the expiration of the said three years from the date of the said letters patent, and before the payment of the said fifty pounds, and the stamping of the said letters patent, in pursuance of this Act." This proviso is now invariably included in Acts relating to the rendering valid of lapsed patents.

CHAPTER X.

ON PATENT AGENTS.

1. *Introduction.* 2. *Constitution of the Profession.* 3. *Primary Qualification of Patent Agent.* 4. *Knowledge of Manufactures Needed.* 5. *Analytical Mind Required.* 6. *On what to be Exercised.* 7. *How Applied.* 8. *Exact Knowledge of Language Requisite, and Ability to Read Drawings.* 9. *Patent Agent will Interpret Specifications.* 10. *Must Write with Precision.* 11. *Must Solve Questions of Novelty.* 12. *Has to Meet and also Enforce Objections.* 13. *Attends Hearings and Oppositions.* 14. *Advises Respecting Working and Protection of Patent.* 15. *Conclusion.*

1. A practical treatise on the Patent Laws would hardly be complete without reference to the profession which these laws have, within the lifetime of the author, called into being. It is, therefore, proposed to say something of the duties of patent agents, in the hope that intending patentees may be enabled to judge—first, whether it is prudent or necessary to entrust their business to a member of that profession; and, secondly, how far the person selected is competent to guard an inventor's interests.

2. Patent agents represent an extemporised profession, which, as such, has no legal status. This body possesses some members who, if not specially

trained for, have at least grown up to, their work It has been recruited from the professions of the law and civil engineering, and also from general agency offices and kindred occupations wherein the exercise of no special qualifications was demanded. Whether the profession would benefit by being rendered more exclusive is a matter that admits of question; but it is manifest that when no test for admission is required, the probabilities lean rather to incompetency than competency in the practitioners.*

3. The primary and most obvious qualification of a patent agent is the possession of a knowledge of the principles of the patent law. He must know what is and what is not a proper subject for a patent, and must be able to support his opinion by reference to pertinent cases (when such exist), and by good sound reasoning when the recorded cases do not touch the point.

4. In order, however, to make his legal knowledge available, the patent agent must—without necessarily

* "The class of p agents is by no means a well-defined one; they are essentially legal practitioners, and analogous to attornies and solicitors, but without legal qualification or incorporation, so that there is no power to exclude a man without character or capacity for taking up the business, or to strike off the rolls in case of flagrant misconduct."—*Counsel to Inventors, by Thomas Turner, Barrister-at-Law.*

"Some patent agents are persons of skill and probity; but, as every person who can obtain employment is at liberty to act as a patent agent, the consequence has been that grossly incompetent and fraudulent persons have acted as patent agents, to the great loss and injury of unwary inventors induced to employ them."—*Report of Mr. W. M. Hindmarch, Q.C., one of the Royal Commissioners appointed to enquire into the working of the law relating to letters patent for inventions* (1864).

being intimately acquainted with analytical chemistry and applied mechanics—have such a general acquaintance with the various branches of manufactures, that when an invention is submitted to him he shall, from his cognate knowledge of the subject to which it relates, be able readily to understand its character and appreciate its merits; and that, notwithstanding the incomplete and unsatisfactory way in which it will probably be presented by the inventor; who, from inability to see that what he has been thinking over for months requires a full explanation to make it comprehensible to another, often presents the scantiest possible description of his invention. This cognate knowledge of the patent agent, which is only gained by a wide and lengthened experience, enables him to detect missing links of information, and obtain from the inventor, by verbal description, explanatory diagrams, or otherwise, an explanation of points untouched in his primary statement, but requisite for the preparation of a satisfactory provisional specification.

5. To determine with certainty whether a given process or manufacture is a proper subject for a patent (independently of its novelty), something more than a knowledge of patent law and of our manufactures is required, and that is the power of ascertaining what is the nature of—or, in other words, what is the principle of action or of construction involved in or constituting—the alleged invention. The possession of this power indicates the presence of an analytical mind, which can sepa-

rate the subordinate parts from the leading features, and determine what will admit of a substitute without affecting the desired result, and what, if removed or altered, would change the character of the invention.

6. This analytical power requires, for its exercise, to be supplemented by a knowledge of the elements contained in the invention to be analysed. Thus, before it can be applied to the investigation of a chemical invention, a knowledge of the *rôle* which the chemical elements severally play in the working out of the desired result must be clearly before the mind, in order that the possibility of substituting equivalent substances for some or all of those employed may be considered. Again, the analytical power cannot be applied to a mechanical invention where the ability is wanting to determine the relative importance of the several mechanical appliances that go to make the complete invention. And so also in dealing with a manufacture as distinguished, on the one hand, from a process, and on the other, from a mechanical contrivance, a familiarity with kindred manufactures is required, to allow of the alleged improvement being compared therewith, in order to the setting in action of the analytical power which will eliminate from the patentable matter the unimportant or accessory elements.

7. It is not pretended that a patent agent must necessarily possess all the knowledge thus indicated; but he must at least be qualified to draw from the inventor who is consulting him, or from some other

available source, such information as may be needed to supplement his own deficiency, and to apply the information so obtained, in order to determine what is the nature of the invention submitted to him.

8. A patent agent must moreover possess a true and exact knowledge of the value of language, and also a facility and correctness of expression; for he is continually called upon to interpret written documents; and his chief business is to express in writing the ideas of others in a manner that will not admit of doubt or misunderstanding. Another power which he will be constantly called upon to exercise is the reading of that universal language—mechanical drawing, which should be as intelligible to him as a page of music to a musician; thus, as the musician will instantly detect an error in the harmony of a written chord, so must the patent agent be able to detect in the drawing any defect of mechanical construction, and any omission or other inaccuracy in the delineation of the various parts.

9. Although the patent agent is bound to take his law from the finding of the Courts, he must depend upon himself for a reliable interpretation of the specifications which are brought under discussion, as it must frequently depend on the fair reading of a specification, whether he shall advise his client to commence an action, or defend an action, for infringement, or effect a compromise.

10. In drawing a claim or a disclaimer, it is not only necessary that he should have clearly in mind

the matter he desires to hold or to get rid of; but he must so express his intention that no doubt can arise as to the meaning of the expressions used, much less as to their sufficiency to express the intention of the writer; failing this, the most serious consequences may result, and indeed have often resulted.

11. As the law throws the duty of determining the question of novelty on the inventor, the patent agent must be enabled tc advise on this point, either with or without the aid of assistant examiners, both in respect of the grounds on which to base a new patent, and also of the nature of the claims that may be maintained; and here again the power of interpreting the documents brought under his examination is put in requisition; for it not infrequently happens that a first glance at a specification will induce a belief (to be removed by a fuller examination) that an invention intended to be secured by a new patent is anticipated; and the reverse of this as often occurs.

12. The patent agent will have to meet objections raised by the law officer to the patentability of the invention, or to the sufficiency of the title or of the provisional specification; and, not infrequently, alterations will be suggested, or additions required, that would be injurious to his client's interests. These objections he must be able to combat successfully, or to resolve, as circumstances may determine. He will also be required to shape the objections [illegible]s

clients to applications for patents and for disclaimers, giving them that point and pertinency which will ensure for them the attention of the law officer.

13. In appearing to support his client's interests, either in respect of an application for a patent, or for a disclaimer, or in opposition to such applications, the patent agent is often required to encounter, as his opponent, the practised advocate, who is more familiar with precedents bearing on the case in hand than the law officer before whom he is pleading; and who, from his legal status, is not unlikely to have, to some extent, the ear of the Court. The patent agent, without attempting to meet his subtle opponent on his own ground, must be able to strip the case of technicalities, and put it in the clearest light, and, by familiarity with the cases cited against him, show what is their true or favourable bearing; and when encountering objections that cannot be removed, he must promptly determine what, if anything, is left to his client, and secure so much as is worth holding for his use.

14. The patent agent is the adviser not merely of what is patentable, but what is worth the expense of a patent; how a patent may be best worked; what are the chances of infringement; how to diminish the liability of the patent being infringed; and what course to adopt when it is infringed. Thus, besides being a good patent lawyer, he should have a practical knowledge of trade transactions, of the tendency of competition, of the direction taken, at particular

times, by invention, and of the trade necessities, whether mechanical or chemical, of manufacturers. He should also, as a diligent student of political economy, possess a knowledge of the workings of self-interest: for it is only by the application of these miscellaneous acquirements that he can advise with confidence on the above-named points.

15. The foregoing statement of the duties and qualifications pertaining to a patent agent, so far from being an exaggeration, is, as experienced patentees would confirm, but a faint indication of what is required in and from a professional adviser on patents, whose constant effort—no matter what his past experience—must be, to keep abreast of accomplished facts, whether in practical science or in legal decisions bearing on patent questions. How far the standard above indicated is approached by those members of the profession who enjoy the highest reputation, it is beyond the scope of this work to inquire; but the above remarks will do good service if they should induce the reader to be cautious in entrusting his interests to those who have had few opportunities of learning the nature of a patent agent's duties, and fewer of measuring their capacities for the work.

APPENDIX.

THE following pages contain a summary of the Rules issued by the Commissioners of Patents for the carrying out of the business of the Patent Office; and they are also intended to show—first, what fees are payable by legal enactment in relation to patents; secondly, to what fees inventors and patentees are subject in conformity with the rules of the Commissioners of Patents; and thirdly, what are the total costs of obtaining patents, whether unopposed or opposed, of preparing complete specifications, of effecting disclaimers to patents, and of opposing applications for patents and for disclaimers. It is manifest that a mere table of Government and official fees would form no guide to the expenses which the clients of patent agents must incur, and it has therefore been thought desirable to give a series of examples, which have been approved by several houses of repute, illustrative of the customary charges for the efficient performance of various kinds of work. Exceptional circumstances will, of course, increase certain items, or render additional items necessary; but it is believed that the appended examples of accounts (which represent average cases) will afford reliable data on which to base a calculation of the expenses attendant on the various

proceedings relating to the granting and the amendment of patents. A comparison of some of these accounts with others of the like kind rendered before the Act of 1852 came into force would show that the expenses, instead of diminishing, had increased; and that for a reason that may well be mentioned here, as it has never yet received public attention. One of the main objects of the promoters of the Act of 1852 was to reduce the cost attendant on the grant of patents; and it was also hoped that a practice of opposing applications for patents might be encouraged, so as to make the granting of patents less a matter of course than heretofore. The schedule of the Act therefore, besides showing a material reduction of the fees on patents, included also this item, "On leaving notice of objections, £2," which was the amount supposed to be payable for the privilege of opposing the grant of a patent. When, however, the Commissioners of Patents settled the fees to be paid to the law officers, they retained the customary fees due by the applicant for the hearing of an opposition to his patent, and by the opponent of the grant; and thus oppositions, instead of being reduced in cost, were rendered two pounds dearer than formerly. Similarly, in the case of disclaimers, the schedule contains this item: "Filing application for disclaimer, £5," which sum might well be supposed to cover the official cost of that privilege; but in the fee list settled by the Commissioners the customary double fees are retained, and thus five pounds extra is officially charged on a disclaimer. This is in some degree mitigated by the consideration that formerly

the disclaimer carried a "follower" stamp, as forming part of the original specification, and it was also chargeable with a small enrolment fee; but there is little doubt that in this, as in the former case, the intention of the legislature has been defeated by the action of the Commissioners. The item, "Caveat against disclaimer, £2," was also evidently intended to cover the cost of an opposition to the application for a disclaimer.

The practice which has recently obtained of remunerating the law officers and their clerks by salaries in place of fees, offers an opportunity for reverting to the duties enacted by the legislature, and hopes are entertained that this grievance will ere long be removed.

I.

RULES AND REGULATIONS made by the Commissioners of Patents, and the Lord Chancellor, under the Act 15 & 16 Vict. c. 83., for the passing of Letters Patent for Inventions. [As these Rules were made at various dates, and modified or repealed as circumstances dictated, they are not given literally, but condensed and altered to avoid repetitions and contradictions; and no mention is made of the Rules which have been recalled.]

Dated 1st October, 1852, *and 30th November*, 1878.

All petitions for the grant of Letters Patent, and all declarations and provisional specifications, shall be left at the Great Seal Patent Office, and shall be respectively written upon sheets of paper of twelve inches in length by eight inches and a half in breadth, leaving a margin of one inch and a half on each side of each page, in order that they may be bound in the books to be kept in the said office.

The drawings accompanying provisional specifications shall be made upon a sheet or sheets of parchment, drawing paper, or cloth, each of the size of twelve inches in length by eight inches and a half in breadth, or of the size of twelve inches in breadth by seventeen inches in length, leaving a margin of one inch on every side of each sheet.

Every provisional protection of an invention allowed by the Law Officer shall be forthwith advertised in the Commissioners of Patents' Journal, and the

advertisement shall set forth the name and address of the Petitioner, the title of his invention, and the date of the application.

Every invention protected by reason of the deposit of a complete specification shall be forthwith advertised in the Commissioners of Patents' Journal, and the advertisement shall set forth the name and address of the Petitioner, the title of the invention, the date of the application, and that a complete specification has been deposited.

Where a Petitioner applying for Letters Patent after provisional protection, or after deposit of a complete specification, shall give notice in writing at the office of the Commissioners of his intention to proceed with his application for Letters Patent, the same shall forthwith be advertised in the Commissioners of Patents' Journal, and the advertisement shall set forth the name and address of the Petitioner and the title of his invention; and that any persons having an interest in opposing such application are to be at liberty to leave particulars in writing of their objections to the said application at the office of the Commissioners within twenty-one days after the date of the Journal in which such notice is issued.

The Lord Chancellor having appointed the Great Seal Patent Office to be the office of the Court of Chancery, for the filing of specifications, the said Great Seal Patent Office and the office of the Commissioners shall be combined; and the Clerk of the Patents for the time being shall be the Clerk of the Commissioners for the purposes of the Act.

The office shall be open to the public every day, Christmas Day and Good Friday excepted, from ten to four o'clock.

The charge for office or other copies of documents in the office of the Commissioners shall be at the rate of twopence for every ninety words.

All specifications in pursuance of the conditions of Letters Patent, and all complete specifications accompanying petitions and declarations before grant of Letters Patent, shall be filed in the Great Seal Patent Office.

All specifications in pursuance of the conditions of Letters Patent, and all complete specifications accompanying petitions for the grant of Letters Patent, shall be respectively written bookwise upon a sheet or sheets of parchment, each of the size of twenty-one inches and a half in length by fourteen inches and three fourths of an inch in breadth; the same may be written upon both sides of the sheet, but a margin must be left of one inch and a half on every side of each sheet.

The drawings accompanying such specifications shall be made upon a sheet or sheets of parchment, each of the size of twenty-one inches and a half in length by fourteen inches and three fourths of an inch in breadth, or upon a sheet or sheets of parchment, each of the size of twenty-one inches and a half in breadth by twenty-nine inches and a half in length, leaving a margin of one inch and a half on every side of each sheet.

Dated 15*th October*, 1852.

The Office of the Directory of Chancery in Scotland, being the office appointed by the Act for the recording of transcripts of Letters Patent, shall be the office of the Commissioners in Edinburgh for the filing of copies of specifications, disclaimers, memoranda of alterations, provisional specifications, and certified duplicates of the register of proprietors.

The Enrolment Office of the Court of Chancery in Dublin, being the office appointed by the Act for the enrolment of transcripts of Letters Patent, shall be the office of the Commissioners in Dublin for the filing of copies of specifications, disclaimers, memoranda of alterations, provisional specifications, and certified duplicates of the register of proprietors.

All such transcripts, copies, and certified duplicates shall be bound in books, and properly indexed; and shall be open to the inspection of the public at the said office, every day from ten to three o'clock.

A provision is to be inserted in all Letters Patent in respect whereof a provisional and not a complete specification shall be left on the application for the same, requiring the specification to be filed within six months from the date of the application.

No amendment or alteration, at the instance of the Applicant, will be allowed in a provisional specification after the same has been recorded, except for the correction of clerical errors or of omissions made *per incuriam*.

The provisional specification must state distinctly and intelligibly the whole nature of the invention, so that the Law Officer may be apprised of the improvement, and of the means by which it is to be carried into effect.

Every application to the Lord Chancellor against or in relation to the sealing of Letters Patent shall be by notice, and such notice shall be left at the Commissioners' Office, and shall contain particulars in writing of the objections to the sealing of such Letters Patent.

Dated 12*th December*, 1853; 17*th May*, 1876; *and* 14*th May*, 1878.

Every application for Letters Patent, and every title of invention and provisional specification, must be limited to one invention only, and no provisional protection will be allowed or warrant granted where the title or the provisional specification embraces more than one invention.

The title of the invention must point out distinctly and specifically the nature and object of the invention.

The copy of the specification, or complete specification, directed by the Act 16 & 17 Vict. c. 115. sect. 3. to be left at the office of the Commissioners on filing the specification or complete specification shall be written upon sheets of brief or foolscap paper, brief-wise, and upon one side only of each sheet.

The extra copy of drawings left with the same must be made on good white smooth-surfaced drawing paper of the same dimensions as the parchment drawing. All the lines of the drawing must be absolutely black, Indian ink of the best quality to be used, and the same strength or colour of the ink maintained throughout the drawing. Any shading must be in lines, clearly and distinctly drawn, and as open as is consistent with the required effect. Section lines should not be too closely drawn. No colour must be used for any purpose upon this drawing. All letters and figures of reference must be bold and distinct. The border line of the drawing to be one fine line only. This drawing must not be folded, but must be delivered at the Office of the Commissioners either in a perfectly flat state or rolled upon a roller, so as to be free from creases or breaks.

In all cases where the original drawing on parchment is coloured, there must be left, in addition to the above copy, another copy coloured.

The copy of the provisional specification to be left at the Office of the Commissioners on depositing the same shall be written upon sheets of brief or foolscap paper, briefwise, and upon one side only of each sheet.

The extra copy of drawings left with the same must be made on good white smooth-surfaced drawing paper of the same dimensions as the original drawing. All the lines of the drawing must be absolutely black, Indian ink of the best quality to be

used, and the same strength or colour of the ink maintained throughout the drawing. Any shading must be in lines, clearly and distinctly drawn, and as open as is consistent with the required effect. Section lines should not be too closely drawn. No colour must be used for any purpose upon this drawing. All letters and figures of reference must be bold and distinct. The border line of the drawing to be one fine line only. This drawing must not be folded, but must be delivered at the Office of the Commissioners either in a perfectly flat state or rolled upon a roller, so as to be free from creases or breaks.

In all cases where the original drawing is coloured, there must be left, in addition to the above copy, another copy coloured.

All specifications, copies of specifications, provisional specifications, petitions, notices, and other documents left at the Office of the Commissioners, and the signatures of the petitioners or agents thereto, must be written in a large and legible hand.

In the case of all petitions for Letters Patent left at the Office of the Commissioners after the 30th June, 1878, the notice of the applicant of his intention to proceed for Letters Patent must be left at the Office of the Commissioners within four calendar months from and after the date of application; and the application for the warrant of the Law Officer and for the Letters Patent must be made at the Office of the Commissioners twenty-one days at the least before the expiration of six calendar months from and

after the date of application: Provided always, that when the last day for giving such notice or making such application falls on Sunday, Good Friday, or Christmas Day, such notice may be given or application made on the following day: Provided also, that the Lord Chancellor may in either of the above cases, upon special circumstances, allow a further extension of time on being satisfied that the same has become necessary by accident, and not from the neglect or wilful default of the applicant or his agent.

Dated 17th July, 1854.

Every petition addressed to the Lord Chancellor, praying for the extension of time for the sealing of Letters Patent, and for the filing of the specification thereon under the Provisions of the Act of the 16 & 17 Vict. c. 115., and the affidavit accompanying the same shall be left at the office of the Commissioners of Patents. And in every case where the delay in sealing such Letters Patent and in filing such specification is alleged to have been caused by adjourned hearings of objections to the grant of such Letters Patent before the Law Officer to whom such objections may have been referred, the Petitioner, before leaving his petition as aforesaid, shall obtain the certificate of such Law Officer to the effect that the allegations in respect of such adjourned hearings and causes of delay are, in the opinion of such Law Officer, correct, and that the delay arising from such adjourned hearings has not been occasioned by the

neglect or default of the Petitioner; and such certificate shall be written at the foot of, or shall be annexed to such petition.

Dated 23rd February, 1859.

In any application for a Patent which is stated to be a communication, the declaration must state the name and address of the party from whom it has been received in the following manner:—

No. 1. When declaration is made in the United Kingdom—"That it has been communicated to me from abroad by (here insert name and address in full)."

No. 2. In other cases—"That it is a communication from (*A. B.*) a person resident at (here insert address in full)."

All provisional specifications must be written on one side only of each sheet.

Dated 14th May, 1867.

No stamp duties payable upon Notices to Proceed, Notices of Objection, or Warrants and Letters Patent shall be received in the Office of the Commissioners after 2 o'clock in the afternoon of Saturdays, nor after 3 o'clock on other days: Except that on the last day for the payment of any of such stamp duties they shall be received up to 4 o'clock.

II.

THE SCHEDULE OF STAMP DUTIES

TO BE PAID UNDER THE PATENT LAW AMENDMENT ACT, 1852.

On Petition for Grant of Letters Patent ...	£5	0	0
On Certificate of Record of Notice to proceed...	5	0	0
On Warrant of Law Officer for Letters Patent	5	0	0
On the Sealing of Letters Patent	5	0	0
On Specification	5	0	0
On the Letters Patent, or a Duplicate thereof, before the Expiration of the Third Year ...	50	0	0
On the Letters Patent, or a Duplicate thereof, before the Expiration of the Seventh Year ...	100	0	0
On Certificate of Record of Notice of Objections	2	0	0
On Certificate of every Search and Inspection...	0	1	0
On Certificate of Entry of Assignment or Licence	0	5	0
On Certificate of Assignment or Licence ...	0	5	0
On Application for Disclaimer	5	0	0
On Caveat against Disclaimer	2	0	0
On Office Copies of Documents, for every Ninety Words	0	0	2

III.

LIST OF FEES

ORDERED BY THE COMMISSIONERS OF PATENTS UNDER THE PATENT LAW AMENDMENT ACT, 1852, TO BE PAID,

By the Person opposing a Grant of Letters Patent, on the Hearing of the Case	£3	10	0
By the Petitioner on the Hearing of the Case of Opposition	3	10	0
By the Petitioner for the Hearing, previous to the Fiat of the Law Officer allowing a Disclaimer or Memorandum of Alteration in Letters Patent and Specification	3	5	0
By the Person opposing the Allowance of such Disclaimer or Memorandum of Alteration, on the Hearing of the Case of Opposition ...	3	5	0
By the Petitioner for the Fiat of the Law Officer allowing a Disclaimer, or Memorandum of Alteration in Letters Patent and Specification	3	15	6

IV.

CHARGES OF PRACTITIONERS IN RELATION TO PATENTS.

The following accounts are intended to illustrate the system and rate of Patent Agents' charges; but it must be understood that they are illustrations of average or ordinary cases.* When drawings of an elaborate character are needed to set forth the invention clearly, the specification will require to be proportionately elaborated, and instead of its preparation costing four guineas, it may well be charged any sum within that and twenty guineas or more, according to circumstances: the cost of the drawings also, if not provided by the patentee, will necessarily increase in like proportion. The charges for the patent will rarely exceed those set down. The costs of oppositions to patents depend greatly on the nature of the case, some being conducted without, and some with, the aid of oral or declaratory evidence; and the cost of disclaimers also will vary according to the intricacy of the case, and whether an opposition is to be encountered or not. In some cases several oppositions, each based on distinct grounds, may have to be encountered, but these are rare exceptions. It may be remarked, that there is a strong tendency for the costs of all contentious business to increase, owing mainly to the more thorough investigation of such matters by the law officers.

EXPENSES OF PATENT TO GREAT SEAL.

Taking instructions for Patent, preparing Provisional Specification, passing the Patent, paid for Declon. Stamp, &c.	£10 0 0
Paid Government Fees	20 0 0
	£30 0 0

* These accounts have been submitted to, and have been approved by, the following London Patent Agents, as fair illustrations of their charges, viz., Messrs. Abel, Brookes, Carpmael, Johnson, and Spence

EXPENSES OF COMPLETE SPECIFICATION.

Taking instructions for Specification, and drafting, revising, and settling the same	£4	4	0
Making original Drawing (one sheet), and two copies of the same, on parchment and paper, to accompany Specification	4	4	0
Engrossing Specification, Stamp (£5), parchment, and examination	6	2	0
Copy Specification for the Commissioners, and attending to file same	0	11	0
Letters, postage, &c.	0	7	6
	£15	8	6

EXPENSES OF OPPOSITIONS TO PATENTS.

(NOTE.—The failure of an Opponent to stop an application for a Patent may render him liable for the costs of the Applicant.)

I.

WHEN NO AFFIDAVITS ARE PUT IN EVIDENCE.

Preparing Grounds of Opposition, and depositing Notice of Objection in the Patent Office ...	£1	1	0
Paid Opposition Fee	2	0	0
Consulting as to the Opposition, preparing for and attending Hearing at the Attorney General's chambers	3	3	0
Paid Fees on Hearing of Case	3	10	0
Blue Books, Diagram Models, Sketches, and Miscellaneous Expenses	1	11	6
	£11	5	6

II.

WHEN AFFIDAVITS ARE USED IN EVIDENCE.

Drawing up Grounds of Opposition and depositing Notice of Objection in the Patent Office ...	£1	1	0
Paid Opposition Fee	2	0	0
Consulting as to Opposition and drafting Affidavits to be made by Messrs. A and B in support of same	3	3	0
Attending at the Solicitor General's chambers to procure office copies of Declarations and Exhibits, and paid charges thereon	1	1	0
Perusing Affidavits in preparation for the Hearing, and attending the Solicitor-General at chambers on the Hearing of Opposition ...	3	3	0
Paid Hearing Fees	3	10	0
Blue Books, Diagram Models, Sketches, and Miscellaneous Expenses	2	2	0
	£16	0	0

EXPENSES INCURRED IN MEETING OPPOSITIONS TO APPLICATIONS FOR PATENTS.

(NOTE.—The failure of an Applicant to obtain a favourable judgment on his case may render him liable for the costs of his Opponent.)

I.

WHEN NO AFFIDAVITS ARE PUT IN EVIDENCE.

Attending at office of Commissioners of Patents to obtain copy of Particulars of Objections filed against the grant of Patent, considering the nature of the Objections, and writing you thereon, with copy of same	£1	11	6
Preparing for and attending Hearing before Attorney-General	2	2	0
Paid Hearing Fees	3	10	0
Blue Books, Diagram Models, Sketches, and Miscellaneous Expenses	1	11	6
	£8	15	0

II.

WHEN AFFIDAVITS ARE USED IN EVIDENCE.

Attending at office of Commissioners of Patents to obtain copy of Particulars of Objections filed against the grant of Patent, considering the nature of Objections, and advising you as to the nature of the evidence required to support the application...	£2	2	0
Attending at the Solicitor-General's chambers to procure copies of Affidavits filed by opponent	1	1	0
Preparing drafts of Affidavits, and copies of same for use	2	12	6
Perusing Affidavits in preparation for the Hearing, and attending the Solicitor-General at chambers on the Hearing	3	3	0
Paid Hearing Fees	3	10	0
Blue Books, Diagram Models, Sketches, and Miscellaneous Expenses	2	2	0
	£14	10	6

EXPENSES OF DISCLAIMER TO PATENT.

UNOPPOSED.

Taking instructions for and drawing Disclaimer and Petition to accompany the same, and afterwards attending appointment at Law Officer's in support of application	£5	5	0
Engrossing Disclaimer on parchment and making copy thereof, and of Petition to accompany the same; drawing up and making copies of advertisement of Disclaimer, and attending to file documents, and paid Stamp (£5)	7	10	0
Paid for Advertisements in "London Gazette," "Times," "Standard," and "Daily News"	6	0	0
Paid Fees on Hearing and Fiat of Law Officer ...	7	0	6
Letters, Postage, and Blue Books	0	15	0
	£26	10	6

EXPENSES OF DISCLAIMER TO PATENT.

OPPOSED.

Advising as to desirability of applying for Disclaimer, preparing draft of Disclaimer and Petition to accompany the same, considering Objections entered to Disclaimer, and afterwards attending Hearing at Law Officer's in support of application (opposed by Counsel, but ultimately allowed)	7	7	0
Engrossing Disclaimer on Parchment, making copy thereof and of Petition to accompany same, drawing up and making copies of advertisement of Disclaimer, and attending to file documents, and paid Stamp (£5)	7	10	0
Paid for Advertisement of Disclaimer in "London Gazette," "Times," "Standard," "Daily News," and "Liverpool Mercury"	6	0	0
Paid Attorney-General's Clerk for copies of Objections to Disclaimer	0	15	0
Paid Fees on Hearing and Fiat of Law Officer...	7	0	6
Blue Books, Sketches, and Miscellaneous Expenses	2	2	0
	£30	14	6

[When the assistance of Counsel is called in, the costs will be increased by the amount of Counsel's Fees, the preparation of a Brief, and by charges for additional attendances consequent thereon.]

NOTE.—Expenses of Searches are determined by the time employed by the Examining Clerk in their completion: his services may in general be estimated at one guinea per diem. When, however, the search involves, as it frequently does, a report more or less elaborate, the fee for an opinion is added to the cost of the search. There is necessarily no general rate of charges for opinions, for, like pictures, their value and cost depend on the signature they bear.

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