The "Westminster" Series

PATENTS, DESIGNS AND TRADE MARKS

THE LAW AND COMMERCIAL USAGE

OF

PATENTS, DESIGNS AND TRADE MARKS

BY

KENNETH R. SWAN, B.A. (Oxon.)

OF THE INNER TEMPLE BARRISTER-AT-LAW

LONDON

ARCHIBALD CONSTABLE & CO. LTD.

10 ORANGE STREET LEICESTER SQUARE W.C.

1908

TT
Sq72pa

BRADBURY, AGNEW, & CO. LD., PRINTERS.
LONDON AND TONBRIDGE.

PREFACE

Though Patents, Designs and Trade Marks cannot be said to be very intimately related to one another from a purely legal point of view—at any rate not to the degree to which their previous collocation in a single Act of Parliament would seem to imply—nevertheless they undoubtedly possess affinities of a practical kind, amply justifying their traditional association. Lodged together under the roof of the Patent Office and jointly supervised by the Comptroller-General of Patents, Designs, and Trade Marks, they are not unnaturally linked in the public mind as the three principal forms of monopoly, the aim and object of which is eminently *commercial*. No excuse, therefore, is needed for uniting these subjects in the compass of a single volume.

Nor is excuse needed for producing a treatise of this nature at the present time. Such radical changes have been effected by recent legislation in the law of patents, designs, and trade marks, that existing works upon these subjects published prior to the passing of the Patents and Designs Act, 1907, and the Trade Marks Act, 1905, respectively, have been rendered to a great extent obsolete.

In producing this book, the author's aim has been not only to present the existing law accurately, and as fully as is possible in a volume of this size, but also to present it in such a form as to be readily comprehensible to the layman

L 73165

unfamiliar with legal phraseology, and of value to those engaged in the trades and industries concerned with the patenting of inventions and the registering of designs and trade marks. In pursuance of this object, and particularly in dealing with patents, the writer has endeavoured to handle the subject from a commercial, as well as a legal, point of view; paying regard both to the interest of the inventor and registered proprietor on the one hand, and of the general public on the other. For the guidance of those interested in exploiting their inventions abroad, two chapters have been added to the Patents section of the book, touching upon the subject of foreign patents and containing a synopsis of the patent laws of the United States of America, Germany and France, together with information in tabular form as to the term, fees and conditions as to working of patents in the more important of the other foreign countries.

Since to have printed *in extenso* the text of the two Statutes, with their respective Board of Trade Rules, now governing the law and procedure in regard to patents, designs and trade marks, would have added unpleasantly to the bulk of this volume, the author has endeavoured to give instead a comprehensive epitome of their provisions, adding such references to individual sections as will enable the reader, if he so desires, to refer to the Acts themselves.

Similarly, in regard to case-law, as the present volume is not intended to be in the strictest sense a legal text-book solely for the use of lawyers, the pages have not been encumbered with a mass of references to decided cases; on the contrary, cases have been somewhat sparingly cited, and are introduced rather for the purpose of illustration than as authority for statements of law.

A list of the cases cited and the places where they are reported will be found on p. xi. At the end of each of the three sections of the book a table is appended giving the forms and fees prescribed for the various applications to the Patent Office in regard to patents, designs and trade marks respectively.

KENNETH R. SWAN.

7, CROWN OFFICE ROW,
INNER TEMPLE, E.C.
March, 1908.

CONTENTS

CHAP.		PAGE
	TABLE OF CASES CITED	xi
	PART I.—LETTERS PATENT.	
	INTRODUCTION. GENERAL—HISTORICAL	1
I.	THE ESSENTIALS OF PATENTABLE INVENTION— INVENTION	12
II.	THE ESSENTIALS OF PATENTABLE INVENTION (*continued*)— NOVELTY	18
III.	THE ESSENTIALS OF PATENTABLE INVENTION (*continued*)— SUBJECT MATTER AND UTILITY	30
IV.	SPECIFICATION	44
V.	CONSTRUCTION OF SPECIFICATION	68
VI.	WHO MAY APPLY FOR A PATENT	73
VII.	HOW TO OBTAIN A PATENT	78
VIII.	OPPOSITION	94
IX.	PATENT RIGHTS—THEIR LEGAL VALUE	107
	THEIR COMMERCIAL VALUE	111
X.	AMENDMENT	118
XI.	INFRINGEMENT OF PATENT	126
XII.	ACTION FOR INFRINGEMENT	137
XIII.	ACTION TO RESTRAIN THREATS	155
XIV.	NEGOTIATION OF PATENTS BY SALE AND LICENCE . .	160
XV.	LIMITATIONS ON PATENT RIGHT	167
XVI.	REVOCATION OF PATENTS	183
XVII.	PROLONGATION	189
XVIII.	MISCELLANEOUS	196
XIX.	FOREIGN PATENTS	202

CHAP. PAGE

XX. FOREIGN PATENT LAWS—
UNITED STATES OF AMERICA—GERMANY—FRANCE . 212
TABLE OF COST, ETC., OF FOREIGN PATENTS . . . 282

APPENDIX A.

1. TABLE OF FORMS AND FEES 286
2. COST OF OBTAINING A BRITISH PATENT 288
3. CONVENTION COUNTRIES 289

PART II.—COPYRIGHT IN DESIGN.

INTRODUCTION 240
I. REGISTRABLE DESIGNS 243
II. REGISTRATION 254
III. MARKING 268
IV. INFRINGEMENT 266

APPENDIX B.

1. TABLE OF FORMS AND FEES 275
2. CLASSIFICATION OF GOODS 277

PART III.—TRADE MARKS.

INTRODUCTION 278
I. MEANING OF TRADE MARK 288
II. QUALIFICATION FOR REGISTRATION 296
III. RESTRICTIONS ON REGISTRATION 311
IV. REGISTRATION 320
V. EFFECT OF REGISTRATION 333
VI. MISCELLANEOUS 341

APPENDIX C.

TABLE OF FORMS AND FEES 349

INDICES.

1. PATENTS 351
2. DESIGNS 369
3. TRADE MARKS 374

TABLE OF CASES.

PAGE

Adamson's Patent, (1856) 25 L. J. Ch. 450 22
Albo-Carbon Light Co. *v.* Kidd, (1887) 4 R. P. C. 535 . . . 37
American Braided Wire Co. *v.* Thomson, (1890) 7 R. P. C. 152 . 36
Anti-Vibration Incandescent Lighting Co., Ld. *v.* Crossley, (1904) 22 R. P. C. 157 38
Apollinaris Co.'s Trade Mark, (1891) 8 R. P. C. 137 . . . 292

Bach's Design, (1889) 6 R. P. C. 376 250
Badische Anilin und Soda Fabrik *v.* Isler, (1906) 23 R. P. C. 173 167
—— —— —— —— *v.* Levinstein, (1887) 4 R. P. C. 449 68
Bailey *v.* Airey & Co., (1906) 23 R. P. C. 277 130
—— *v.* Roberton, (1878) 3 App. Cas. 1055 56
Bancroft's Application, (1906) 23 R. P. C. 89 65
Baxter *v.* Marsden, (1904) 22 R. P. C. 18 34
Bayer's Design, (1906) 24 R. P. C. 65 246
Beard *v.* Egerton, (1846) 19 L. J. C. P. 36 70
Betts *v.* Menzies, (1862) 10 H. L. C. 117 . . . 23, 25
—— *v.* Neilson, (1871) L. R. 5 H. L. 1 135
British Mutoscope Co. *v.* Homer, (1901) 18 R. P. C. 177 . . 134
Brook *v.* Aston, (1859) 28 L. J. Q. B. 175 35
Bunge *v.* Higginbottom, (1901) 19 R. P. C. 187 39

Carpenter *v.* Smith, (1841) 11 L. J. Ex. 213 21
Case *v.* Cressey, (1901) 18 R. P. C. 417 35
Cash *v.* Cash, (1902) 19 R. P. C. 181 299
Castner-Kellner Alkali Co. *v.* Commercial Development Corporation, (1898) 17 R. P. C. 593 55
Chesebrough Manufacturing Co.'s Trade Mark, (1902) 19 R. P. C. 342 303
Clarke's Design, (1896) 13 R. P. C. 351 250

PAGE
Clement Talbot, Ld. *v.* Wilson, (1907) 24 R. P. C. 511 . . 150
Compagnie Industrielle des Petroles' Application, (1907) 24 R. P. C. 587 312
Cooper *v.* Symington, (1808) 10 R. P. C. 264 240
Craig *v.* Dowding, (1907) 25 R. P. C. 1 157
Croll *v.* Edge, (1847) 10 L. J. C. P. 261 48
Crompton's Trade Mark, (1902) 19 R. P. C. 205 208
Cross, Beavan & Beadle's Patent, (1906) 23 R. P. C. 485 . . 191
Currie & Timmis's Patent, (1898) 15 R. P. C. 68 194
Curtis *v.* Platt, (1866) L. R. 1 H. L. 337 . . . . 72, 180

Dellwik's Patent, (1898) 15 R. P. C. 682 123
Denshum's Trade Mark, (1895) 12 R. P. C. 271 300
Dewhurst's Trade Mark, (1896) 13 R. P. C. 288 313
Dollond's Case, (1776) 1 W. P. C. 43 75

Easterbrook *v.* Great Western Ry. Co., (1885) 3 R. P. C. 94 15, 43
Eastman's Application, (1898) 15 R. P. C. 476 . . . 284, 290
Edison & Swan, Ld. *v.* Woodhouse, (1887) 4 R. P. C. 99 . . 64
Ellis & Co.'s Trade Mark, (1904) 21 R. P. C. 617 . . . 318
Eno *v.* Dunn, (1890) 7 R. P. C. 311 311

Farbenfabriken's Application, (1894) 11 R. P. C. 84 . . . 284
Fielding *v.* Hawley, (1888) 48 L. T. (N. S.) 639 264

Gormully & Jeffrey Manufacturing Co.'s Petition, (1899) 16 R. P. C. 641 178
Grocott's Design, (1899) 17 R. P. C. 139 262

Hare's Trade Mark, (1907) 24 R. P. C. 263 314
Harrison *v.* Anderston Foundry Co., (1876) 1 App. Cas. 574 . 65
Hart's Trade Mark, (1902) 19 R. P. C. 569 191
Haskell Golf Ball Co. *v.* Hutchinson, (1904) 21 R. P. C. 497 . 21
Haws *v.* Harding, (1897) 14 R. P. C. 930 62
Hayward *v.* Hamilton, (1881) Griff. Pat. Cas. 115 . . . 37
Heath *v.* Unwin, (1854—1855) 5 H. L. C. 505 . . . 59, 130
Hecla Foundry Co. *v.* Walker, (1889) 6 R. P. C. 554 . . . 245
Hinks *v.* Safety Lighting Co., (1876) L. R. 4 Ch. D. 607 . 37, 58
Hothersall *v.* Moore, (1891) 9 R. P. C. 27 263
Hudson's Application for a Trade Mark, (1907) 24 R. P. C. 583 . 316
Hulton & Bleakley's Petition, (1898) 15 R. P. C. 749 . . 177

PAGE
Incandescent Gaslight Co. *v.* Brogden, (1899) 16 R. P. C. 179 . 187
Ingram *v.* Edwards, (1904) 21 R. P. C. 468 264

Jan *v.* Grossman, (1895) 12 R. P. C. 587 269
Jewitt *v.* Eckhardt, (1878) L. R. 8 Ch. D. 404 255

Klaber's Patent, (1904) 23 R. P. C. 461 122

Lea *v.* Price, (1904) 22 R. P. C. 122 263
Le May *v.* Welch, (1884) L. R. 28 Ch. D. 24 249
Leonard & Ellis's Trade Mark, (1882) L. R. 26 Ch. D. 288 . . 304
Levinstein's Petition, (1898) 15 R. P. C. 782 177
Lewis *v.* Marling, (1829) 1 W. P. C. 490 48
Linoleum Co. *v.* Nairn, (1878) L. R. 7 Ch. D. 834 . . . 303
Lister *v.* Norton, (1886) 3 R. P. C. 199 52
Louise *v.* Gainsborough, (1903) 20 R. P. C. 61 305
Lucas *v.* Miller, (1885) 2 R. P. C. 155 42
Lupton & Place's Patent, (1897) 14 R. P. C. 261 124

Magnolia Metal Co.'s Trade Mark, (1897) 14 R. P. C. 621 . . 302
Marshall & Naylor's Patent, (1899) 17 R. P. C. 558 . . . 76
McLay *v.* Lawes & Co., (1905) 22 R. P. C. 199 37
Millington *v.* Fox, (1834) 3 M. & Cr. 338 280
Moody *v.* Tree, (1892) 9 R. P. C. 233 245
Moss *v.* Malings, (1886) 3 R. P. C. 373 15
Muntz *v.* Foster, (1843—1844) 2 W. P. C. 93 40

Newall *v.* Elliott, (1858) 27 L. J. C. P. 337 22
Newton *v.* Vaucher, (1851) 21 L. J. Ex. 305 36
North Eastern Marine Engineering Co. *v.* Leeds Forge Co., (1906) 23 R. P. C. 529 186

Owen's Patent, (1899) 17 R. P. C. 69 60

Parker *v.* Satchwell, (1901) 18 R. P. C. 299 20
Parson's Petition, (1898) 15 R. P. C. 349 . . . . 191, 194
Patent Exploitation, Ld. *v.* Siemens Bros., (1902) 21 R. P. C. 541 . . . . . 33, 58, 70
Payton & Co. *v.* Titus Ward & Co., (1900) 17 R. P. C. 58 . . 313
Pirie *v.* Goodall, (1892) 9 R. P. C. 17 297
Pirrie *v.* York Street Flax Spinning Co., (1894) 11 R. P. C. 429 . 35

PAGE
Plimpton *v.* Malcolmson, (1876) L. R. 3 Ch. D. 531 . . . 27
—— *v.* Spiller, (1877) L. R. 5 H. L. 486 19
Pomril's Application, (1901) 18 R. P. C. 181 314
Potter *v.* Braco de Prata Printing Co., (1891) 8 R. P. C. 218 . 268
Powell *v.* Birmingham Vinegar Brewery Co., (1897) 14 R. P. C. 720. 330
Powell's Trade Mark, (1894) 11 R. P. C. 4 293
Proctor *v.* Bennis, (1887) 4 R. P. C. 333 . . . . 71, 128

Ralston *v.* Smith, (1865) 11 H. L. C. 223 122
Reason Manufacturing Co. *v.* Moy, (1902) 20 R. P. C. 205 . . 69
Reddaway *v.* Banham, (1896) 13 R. P. C. 218 303
Richards *v.* Butcher, (1891) 8 R. P. C. 249 309
Rollason's Design, (1898) 15 R. P. C. 441 250

Saccharin Corporation, Ld. *v.* Anglo-Continental Chemical Works, Ld., (1900) 17 R. P. C. 307 183
—— —— —— *v.* Reitmeyer, (1900) 17 R. P. C. 606 185
Sandow *v.* Szalay, (1903) 23 R. P. C. 6 128
Saunders *v.* Will, (1892) 10 R. P. C. 29 249
Savage Bros., Ld. *v.* Brindle, (1900) 17 R. P. C. 228 . . . 55
Savory *v.* Price, (1823) 1 W. P. C. 83 60
Siddell *v.* Vickers, (1890) 7 R. P. C. 292 31
Sirdar Rubber Co. *v.* Wallington, Weston & Co., (1906) 23 R. P. C. 132 43
Smith's Patent, (1904) 22 R. P. C. 57 75
Société Anonyme des Verreries de l'Etoile's Trade Mark, (1892) 9 R. P. C. 142. 305
Sphincter Grip Trade Mark, (1893) 10 R. P. C. 84 . . . 313
Staples *v.* Warwick, (1906) 23 R. P. C. 609 270
Stoney's Petition, (1888) 5 R. P. C. 518 194
Sykes *v.* Sykes, (1824) 3 B. & Cr. 541 279

Taylor *v.* Annand, (1899) 18 R. P. C. 53 34
Taylor's Patent, (1896) 13 R. P. C. 482 22
Tennant's Case, (1795) 1 W. P. C. 125 n. 24
Thompson *v.* Montgomery, (1891) 8 R. P. C. 361 . . . 308
Thorley's Cattle Food Co. *v.* Massam, (1880) L. R. 14 Ch. D. 763 346
Thwaites & Co. *v.* McEvilly, (1904) 21 R. P. C. 397 . . . 343

PAGE
United Telephone Co. *v.* Harrison, (1882–1883) 51 L. J. Ch. 705 55

Valentine *v.* Valentine, (1900) 17 R. P. C. 673 209

Walker *v.* Falkirk Iron Co., (1887) 4 R. P. C. 390 . . . 251
—— *v.* Scott, (1892) 9 R. P. C. 482 270
Wegmann *v.* Corcoran, (1879) L. R. 13 Ch. D. 65 . . . 59
Welsbach Incandescent Gas Light Co. *v.* New Incandescent Co., (1900) 17 R. P. C. 287 41
Werner *v.* Gamage, (1904) 21 R. P. C. 621 247
Williams *v.* Nye, (1890) 7 R. P. C. 62 38
Wilson's Patent, (1892) 9 R. P. C. 512 106
Wood *v.* Raphael, (1897) 14 R. P. C. 496 38

KEY TO ABBREVIATED REFERENCES TO THE REPORTS.

App. Cas. . .	Law Reports (New Series) Appeal Cases.
B. & Cr. . .	Barnewall & Cresswell's Reports.
Griff. Pat. Cas. .	Griffin's Patent Cases.
H. L. C. . .	House of Lords Cases.
L. J. Ch. . .	Law Journal Reports (New Series) Chancery.
L. J. C. P.	Common Pleas.
L. J. Ex.	Exchequer.
L. J. Q. B.	Queen's Bench.
L. R. Ch. D. .	Law Reports, Chancery Division.
L. R. H. L. . ,, ..	House of Lords.
L. T. (N. S.) .	Law Times Reports (New Series).
M. & Cr. . .	Mylne & Craig's Reports.
R. P. C. . .	Reports of Patent, Design and Trade Mark Cases.
W. P. C. . .	Webster's Reports of Patent Cases.

NOTE.

Owing to a recent change, Patent, Design and Trade Mark Fee Stamps and Forms are now procurable at the New Stamp Office, Room 32, in the Patent Office, 25, Southampton Buildings, Chancery Lane, instead of, as hitherto, at the Stamps Department of the Law Courts.

PATENTS, DESIGNS AND TRADE MARKS.

PART I.

LETTERS PATENT.

INTRODUCTION.

General.—The grant of letters patent for inventions is the survival of one of the most dearly cherished and most grievously abused of the ancient prerogatives of the Crown; the prerogative in virtue of which the sovereign claimed in olden times the power to regulate the trade of the country generally, and to grant monopolies and special commercial privileges in favour of particular persons and places. But, like most of the royal prerogatives, its glory has long since departed. It is now vested in and entirely controlled by a Government Department. Since 1883, the grant of patents has been regulated by the Board of Trade, and the royal prerogative wielded by its officer, the Comptroller-General of Patents, Designs and Trade Marks.

Even the patent itself appears to have suffered a corresponding diminution of its ancient lustre. It is no longer the impressive-looking document of former days, elaborately engrossed on parchment, sometimes with picturesque

embellishments, and with the Great Seal dangling from it by a silken ribbon. It is now merely a plain printed sheet, bearing the red wafer seal of the Patent Office. Nevertheless, though its appearance be mean and commonplace, there is certainly no lack of dignity in its language. The terms of the grant are worthy of study. After reciting the humble prayer of the inventor that a patent may be granted unto him for the sole use and advantage of his invention, it continues in these words :—

"Know ye, therefore, that We, of our especial grace, certain knowledge, and mere motion, do by these presents, for us, our heirs and successors, give and grant unto the said patentee our special licence, full power, sole privilege and authority, that the said patentee by himself, his agents or licensees, and no others, may at all times hereafter during the term of years herein mentioned, make, use, exercise and vend the said invention within our United Kingdom of Great Britain and Ireland, and Isle of Man, in such manner as to him or them may seem meet, and that the said patentee shall have and enjoy the whole profit and advantage from time to time accruing by reason of the said invention during the term of fourteen years from the date hereunder written of these presents."

In spite of the profession of perfect disinterestedness on the part of the Crown conveyed in the opening phrases above quoted, the grant of letters patent may be viewed essentially as a commercial bargain between the sovereign and the subject. The inventor, for his part, undertakes to enrich the common stock of knowledge by publishing his invention and by teaching the community how to do some new and useful thing, or how to achieve some known result in a new and better way; while, in return, the Crown agrees to grant the inventor, by way of reward, the exclusive right to exercise his invention for his own benefit, without fear of competition for the space of fourteen years.

In principle this method of encouraging and rewarding useful invention may be said to be economically sound; for, provided a reasonable period of monopoly is fixed, it is eminently calculated to ensure that the profit reaped by the inventor shall be in direct proportion to the utility of his invention and the energy with which he proceeds to put it into practice. But in reality many factors operate to disturb the equal balance of advantage both on the side of the public and on the side of the patentee. The slowness of the public to appreciate and take up a new idea, the lack of business ability for which the name of "inventor" is proverbial, and, it must be added, ill-judged legislation all tend to minimise the gain of the patentee, if not to deprive him of it altogether.

On the roll of unrewarded merit there are the names of not a few patentees whose inventions, now universally adopted to the inestimable advantage of the public, have never brought them adequate recompense nor even, in some cases, bare recognition. Lord Dudley, who invented and patented the process of making iron by means of pit-coal fuel, spent his whole life and fortune in all but futile efforts to bring his process into use. Henry Cort, who, a hundred years later, extended Dudley's invention to the making of bar iron by pit-coal, and who is now justly regarded as the founder of the iron industry, derived no profit from his patents. Amongst the pioneers of the steam engine, Savery, Newcomen, Watt, Trevithick and Woolf, the only one who obtained any adequate recompense for his labours was Watt, and that only owing to the prolongation of his patent by Parliament. Few men have, through their inventions, made a more substantial contribution to our national prosperity than the three inventors of spinning machinery, Hargreave, Arkwright and Crompton. Yet none of these profited from their patents.

Sometimes it happens, on the other hand, that the balance of advantage is on the side of the patentee, though such a result is scarcely consistent with the legitimate use of a patent monopoly. Latter-day commercial methods have, however, shown that in the hands of unscrupulous proprietors a British patent can be turned to great profit for the patentee without a corresponding benefit to the public. Patents have occasionally been acquired not for the purpose of establishing a new manufacture "within the realm," but for an exactly opposite purpose, viz., as a means of suppressing the manufacture in this country, whilst the invention is being worked abroad and the patented article imported into England and sold at exorbitant prices. A signal instance of this abuse is afforded by the history of the telephone and aniline dye industries, both of which have been checked in England through the unscrupulous tactics of the foreign owners of British patents. Taking advantage of their monopoly simply to prevent manufacture in this country, powerful foreign companies built up their businesses on the Continent and in America on such a gigantic scale that, even after the expiration of the British patents, they continued to monopolise our markets, owing to the impossibility of creating and fostering these industries at home in the face of such formidable competition from well-established industries abroad. This abuse of our patent laws and the means provided for its remedy will be discussed fully in the chapter dealing with compulsory licences.

The term of fourteen years appears to have been originally arrived at by doubling the seven years' term of apprenticeship. It was in fact a compromise between the inventor and the apprentice. Ordinarily an apprentice was precluded from competing in the same trade with his master till the expiry of his seven years' term. In the case of the founder of a new industry an additional period of protection was clearly merited; accordingly a further

period of seven years was allowed, it being thought that to debar apprentices for a longer time from the free practice of their trade would be too great a hardship and discouragement to them. Though fixed in this somewhat arbitrary fashion, the period of fourteen years seems to have met with general approval amongst other civilised nations, all of whose patent systems are, directly or indirectly, modelled on the pattern of our own in this as also in other respects. Longer periods have been adopted in America, where the term is seventeen years, in Canada, where it is eighteen years, and in Belgium and Spain, where it is twenty years; but, with these exceptions, the period of monopoly in other countries is commonly fourteen or fifteen years.

If during the allotted period the inventor has not reaped a fair return for the advantages which the lapse of his patent will place at the disposal of the public, it is always open to him to apply for an extension of the term of his patent. This privilege, however, is jealously guarded and only conceded when the invention is one of conspicuous merit. On the whole, if any inference may be drawn from the small number of successful petitions for prolongation recorded in recent years, it is the general conclusion that at the present time a really meritorious invention is capable, under proper management and ordinarily favourable conditions, of earning a fair measure of success and profit for its inventor within the normal term of his patent.

Historical.—For practical purposes the law of patents begins with the famous Statute of Monopolies, passed in the twenty-first year of James I.'s reign. Numerous records, it is true, are to be found of grants of letters patent prior to this date, but few of these have anything to do with inventions. By far the greater number relate to grants of mere trade monopolies for manufactures wholly devoid of novelty and invention, an expedient to which the

Tudor sovereigns freely resorted as a ready means of replenishing a depleted exchequer. To such an extent had these oppressive grants been multiplied, that, in the latter years of Elizabeth's reign, there were few of the common necessities of everyday life which were not farmed out as private monopolies. To allay the storm of public indignation aroused by this abuse, James I. found it politic on coming to the throne to issue a proclamation denouncing the practice of granting monopolies for existing industries and promising to grant no more. But the promise was soon broken and the evil revived. After repeated remonstrances, the patience of the Commons was at length exhausted, and in 1624 the Statute of Monopolies was passed, finally suppressing this unconstitutional and oppressive practice. Although, as Lord Coke is careful to point out, "this Act maketh patents no better than they should have been if the Act had not been passed," nevertheless the fact remains, that it is upon this enactment that our patent law is founded, and what precedes it is now of purely historic interest.

Turning to the provisions of this Statute, it will be seen that after in general terms declaring monopolies, grants and letters patent for the sole buying, selling or using of anything within this realm to be contrary to the law and utterly void and of none effect, the Act goes on in the sixth section to exclude from this wholesale prohibition legitimate grants of letters patent for *invention*. The important words are as follows:—

"Provided also that any declaration before mentioned shall not extend to any letters patent and grants of privilege for the term of fourteen years or under, hereafter to be made of the sole working or making of any manner of new manufactures within this realm, to the true and first inventor and inventors of such manufactures, which others at the time of making such letters patent and

grants shall not use, so as also they be not contrary to the law, nor mischievous to the State, by raising prices of commodities at home, or hurt of trade, or generally inconvenient; the said fourteen years to be accounted from the date of the first letters patent or grant of such privilege hereafter to be made, but that the same shall be of such force as they should be if this Act had never been made, and of none other."

But the Statute of Monopolies, though it effectually checked the grant of illegal patents, does not appear to have had a stimulating effect upon applicants for the grant of patents for invention, despite the inducement held out to them of an assured monopoly for fourteen years, instead of, as formerly, a monopoly revocable at the caprice of the sovereign. Up to the middle of the eighteenth century the yearly number of patents granted rarely ran to double figures, and as late as the middle of the nineteenth the issue did not exceed 500 per annum. This was mainly due to the extreme costliness and intricacy of the procedure for obtaining a patent. The fees for the three patents required to cover the United Kingdom (for Scotland and Ireland at that time issued separate patents) usually amounted to £500 or more; so that the luxury of a patent was quite beyond the means of the great majority of inventors.

The first radical improvement in this respect was effected by the Patent Law Amendment Act of 1852, which simplified the procedure and considerably reduced the fees. The benefit of this reduction, however, was to some extent counterbalanced by the simultaneous prohibition of the practice, which had hitherto prevailed, of including more than one invention in a patent. On the other hand, the scope of a patent was extended to cover the entire United Kingdom, the Isle of Man and the Channel Islands, thus obviating the expense of procuring additional patents for

Scotland and Ireland. It should be observed, in passing, that the Channel Islands have since been excluded from the purview of a British patent. To the Act of 1852 we also owe our system of requiring the inventor to file with his application a provisional or complete specification describing the nature of the invention and of according him protection as from that date.

In the early days of patent grants there was no hard and fast rule requiring the patentee to specify the exact nature of his invention; sometimes a clause compelling him to do so within a certain time was inserted in the patent grant, on the other hand he was sometimes expressly absolved from the necessity of describing his invention at all. In 1730, however, the lodging of a specification of the invention within a certain time after the grant was made a condition of validity. This change had an important influence upon the subsequent development of our patent system. The lodging of a specification came to be regarded as the consideration for the grant, to the obscuration of the earlier view, represented by the Statute of Monopolies, that the consideration for the grant of a patent is the setting up of a new manufacture in the realm. Once this view was lost sight of, and the theory gained acceptance that a valid patent might be obtained on condition that the inventor lodged a description of a new and useful invention, the barrier was removed to the granting of British patents to foreigners and others not intending to work the invention within the realm.

The period within which the patentee was required to enrol his specification was at first variable, but was later fixed at six months. As soon as the patent was granted, the patentee was protected; the grant did not, however, date back to the time of application. Hence there was a *hiatus* of several weeks between the date of application and grant, during which the inventor ran the risk of anticipa-

tion. It was to eliminate this risk that the institution of the provisional specification with its accompanying provisional protection was designed.

Finally, it is to the Act of 1852 that we owe the centralisation of all the administrative part of patent business in the office of the Comptroller-General (formerly the Commissioner) of Patents.

The Patents, Designs and Trade Marks Act of 1883 was primarily a consolidating measure. The principal change that it made in the substantive law was the provision for the grant of compulsory licences in cases where, through neglect of the patentee to work the patented invention, the needs of the public were not adequately met. It also provided for the further reduction of fees and introduced several changes affecting procedure. The amending Acts of 1885, 1888 and 1901 were concerned solely with minor changes in procedure and practice. A reform of considerable importance was introduced by the Act of 1902, viz., the inauguration at the Patent Office of a system of examination as to the novelty of the invention claimed in patent applications; before this, the attention of the Patent Office examiners had been confined to the correction of purely formal defects in the application.

But all the patent legislation of the last twenty years sinks into insignificance as compared with the revolutionary changes effected by the Patents and Designs Act, 1907.

This Act is both a consolidating and an amending Act. It sweeps away all previous legislation on the subject of patents and designs, and, whilst re-enacting the main part of the Patents Acts, 1883 to 1902, introduces several innovations of a radical nature. One of the most important of these is the greatly increased jurisdiction given to the Comptroller. Previously his duties were mainly administrative. Though called upon to exercise judicial functions in opposition proceedings, his power to refuse a patent on

the ground of anticipation was exceedingly restricted, and, in the absence of public opposition, no such power existed. The new Act, however, not only empowers the Comptroller to refuse applications for patents on his own initiative on the ground of anticipation, but has conferred upon him the entirely new jurisdiction of entertaining applications to revoke patents already granted, a power hitherto wielded by no tribunal inferior to a judge of the High Court. Further, the grounds upon which a patent may be revoked have been extended. It is now a ground of invalidation that a patented invention is worked exclusively or mainly outside the United Kingdom, a provision which seems to be practically identical with the compulsory working clauses that appear in most of the foreign patent codes.

The provisions relating to the grant of compulsory licences have also been remodelled and the jurisdiction of the Privy Council in this matter, as also its jurisdiction to entertain petitions for the prolongation of patents, has been transferred to the High Court. Another important change, which should contribute to protect the public from the annoyance of trumpery actions for infringement, unwittingly committed, is the exemption of the innocent infringer from liability to pay damages in respect of such infringements. To the list of innovations designed for the protection of the public must be added one which very seriously abridges the freedom hitherto enjoyed by the patentee in making terms with those who wish to buy or use his invention. A clause has been introduced into the Act condemning as void or voidable a certain class of restrictive covenants, viz., those pledging the user of the invention to deal solely with the patentee or his nominee in articles other than the patented article. It remains to be seen how the provisions of this clause, framed as they were to meet the needs of a comparatively

small section of the trading community, will work as applied to the whole. Amongst the innovations more especially designed for the benefit of the inventor is the institution of *patents of addition*, enabling him to obtain a cheap form of protection for minor improvements upon an invention already patented by him. The inventor is now also safeguarded, upon certain conditions, against any prejudicial effect upon the validity of his patent arising from the unauthorised publication of the nature of his invention prior to the date of his applying for its protection.

The statutory bond, formerly uniting trade marks with patents and designs, having been severed by the Trade Marks Act of 1905, the first named topic is now, with the exception of the provisions relating to the international protection of trade marks, wholly excluded from the Patents and Designs Act. It should be added that the important changes effected by this Act have necessitated the formulation of a fresh set of Rules the purport of which, though not explicitly referred to, is given in the following pages.

With this brief survey of the development of our patent system, we may now proceed to consider in detail the various aspects of the subject, beginning with the consideration of the elements that constitute a patentable invention.

CHAPTER I.

THE ESSENTIALS OF PATENTABLE INVENTION.

Invention.

A discussion of the attributes of patentable invention would be premature without first arriving at a clear conception of the meaning which, in patent law, has been attached to the word "invention." The Patents and Designs Act of 1907 defines it simply by referring back to the Statute of Monopolies, which states that patents may be granted for the sole working or making of "any manner of new manufactures." Hence it is really "manufacture" that has to be defined. From earliest times the Courts have placed a liberal interpretation on this word, construing it to embrace not only the *mode of manufacture*, whether by process or by machine, but also the *manufactured article* and, in short, practically every form of ingenious device and appliance useful in the manufacturing arts.

The statement that a "manufactured article" can be protected by letters patent is, however, not altogether free from ambiguity, and requires some qualification. If the manufactured article is, for example, an improved form of lock or umbrella or golf ball, no one would hesitate in saying that that could be protected absolutely by patent. But to the inventor who asks, in reference to some new chemical product, say artificial indiarubber, "Can I patent it so as absolutely to preclude others from using it?" it is not possible to give an authoritative answer. Strangely enough, the question whether a product can be claimed

per se, though it has been raised, has never been definitely decided in the Courts. Since, however, it is a matter of the highest practical importance, particularly to inventors concerned with the patenting of new metallurgical and chemical products, it is worth while hazarding a solution of the problem.

The true view appears to be that a new product can be protected in either or both of two ways. It can be claimed for all purposes, as produced by some specific process, or it may be claimed absolutely for certain specific purposes. But a claim to monopolise a new product, apart from its process of manufacture on the one hand, or its useful application on the other, could not, it is submitted, be sustained. To illustrate these propositions, it will be helpful to take a concrete case. Assume that A. is the first to produce gilt iron wire and that he does so by placing a tube of gold upon an iron core and drawing them down together to the required degree of fineness through drawplates. His claim to the new article, gilt iron wire, cannot debar B. from manufacturing a similar material, by passing iron wire through an electrolytic gilding bath and imparting the gilt coating in that manner. But it is also open to A. to claim gilt iron wire, no matter how it is manufactured, for certain specific uses, *e.g.*, for spectacle rims, for gold lace, etc. To support this further claim, however, there must be further ingenuity in the application of the product. In some new products there is no room for ingenuity in the application, the application being self-evident. A claim, for example, by the inventor of saccharin to monopolise this material, howsoever made, for sweetening purposes, could not, if this view is correct, be upheld. On the other hand, a new metallic powder, capable of various novel and ingenious uses, might be protected absolutely for specified purposes quite apart from its method of manufacture.

From these considerations it is obvious that the broadest

protection for a new product of this kind would be obtained by claiming it as far as possible in both the above ways:—(1) as qualified by its process of manufacture, and (2) absolutely for special new and ingenious uses. It is also plain that, in the instances given above, a claim for a new form of lock or umbrella is in reality a claim for these articles as qualified by their particular method of construction.

There are certain things on the border line of invention and, therefore, sometimes confused with it, which the law excludes from the domain of patentable invention. In the first place we must clearly distinguish between *discovery* and invention. Faraday could not have patented electro-magnetic induction, nor Harvey the principle of arterial circulation. A patentee must have done something more than make a discovery. He must, in the words of Lord Lindley, "make some addition not only to knowledge, but to previously known inventions, and must use his knowledge and ingenuity so as to produce either a new and useful thing or result, or a new method of producing an old thing or result."

Again, it is a well-known aphorism in patent law that a man cannot patent a principle. Some recognisable principle underlies every invention, and the inventor may be the first to apply it or he may be applying it for the thousandth time, but in a novel form. Where an inventor is also the discoverer of the principle underlying his invention, he is sometimes apt to claim the principle itself, or, what amounts to the same thing, every method tried and untried of applying it. But this is not permitted. The Courts have laid it down, time after time, that a man cannot patent a principle *per se*, but only when coupled with some practical method of carrying it into effect. No matter how simple and obvious the method of operation may be when once the underlying principle is indicated, it is nevertheless essential that some specific method of applying it should be

described. Generally, if the claims are skilfully drawn, this may be done without materially limiting the scope of the patent. For the rule is, that where an inventor is the first to enunciate the principle, his patent will be treated by the Courts as a pioneer or master patent and its claims will be liberally construed, whilst the claims of subsequent inventors who carry out the same principle by a different mode will be narrowly scrutinised to see whether in effect, although the mode is not exactly the same, the difference is only colourable.

The law on this point is clearly stated by Mr. Justice Wills in the case of *Easterbrook* v. *Great Western Railway*. "Although," said the learned judge, "there cannot be a patent for an idea or principle apart from its physical embodiment in adequate apparatus, yet, if the specification discloses the idea, and shows a method by which it can be carried out and does not limit the claim of the patentee, any apparatus, which by different mechanical means carries out the same idea, is an infringement of the patent, though the method, and even the purpose to which the principle or idea is applied, be different from those embodied in the specification."

Again, it has been held that the discoverer of a new element, such as argon or radium, or a new natural substance, is not entitled to a patent for that alone; though, of course, its ingenious application to some useful purpose could be patented.

Further, a patentable invention must be distinguished from a mere design, which is properly protected not by letters patent but by registration. If, however, the design is of practical utility, as in the case of a cam, the shape of which determines the movement of associated mechanism, that is proper matter for a patent, provided it is claimed in such connection. In *Moss* v. *Malings* the shaping of the handle of a tennis racquet with two opposite grooves to give

the player a firmer grip was held to be good subject matter for a patent. Similarly the particular shape of a steel rail or the form of groove in a gun barrel may be validly patented.

Finally, an invention which contemplates a breach of the law or which is intended for illegal or mischievous purposes is not good subject matter for a patent. Thus an application to patent an improved form of man-trap or infernal machine would probably be refused by the Patent Office.

The Patent Office has also intimated that applications will not be accepted for inventions, the only material product of which consists in a printed sheet, ticket or the like for use in carrying out some scheme of business. An improved system of letter-filing would, therefore, apparently prove unacceptable subject matter.

Having taken this preliminary survey of what lies within the domain of invention in the patentable sense, we are now in a position to consider the two essentials which an invention must possess to fit it for protection by letters patent. These are Novelty and Utility. To avoid confusion as to the use of terms, it should be pointed out here that novelty as applied to invention is capable of being regarded in two ways. Every device which is not identical with what has been done before is, strictly speaking, novel. Novelty in this sense is a matter of fact, and admits of absolute proof. But novelty may also be regarded as a matter of degree. For example, when the defence is raised by an alleged infringer that the plaintiff's invention is not new, what is usually meant is that the *degree* of novelty, that is to say the inventive advance beyond what is old, is not sufficient to support a valid patent. Novelty in this sense, or, as it is sometimes termed, "subject matter," does not admit of absolute proof, but like all questions of degree, it is open to difference of opinion. The distinction between

absolute and comparative novelty must therefore be clearly kept in view.

It will be most convenient to deal with the attributes of a patentable invention under three heads:—(1) *Novelty*; (2) *Degree of Novelty* or *Subject Matter*; (3) *Utility*.

CHAPTER II.

THE ESSENTIALS OF PATENTABLE INVENTION (*continued*).

NOVELTY.

THE first point to be observed with regard to novelty is that the invention must be new *at the date when the patent is applied for*; publication prior to that date is, generally speaking, fatal to the validity of the grant. Formerly this rule was without exception, and an inventor was liable to have his patent vitiated by premature public disclosure in any form, whether authorised or not, and even though involving a breach of confidence on the part of the publisher. The Act of 1907 has, however, introduced an important modification of the old rule with respect to unauthorised publication. Section 41, sub-section (2) provides that an inventor shall not have his patent invalidated solely on the ground of prior publication, if he can prove to the satisfaction of the Court that the publication was made without his knowledge and consent. But he must also show that the matter published was derived from himself and that he applied for and obtained protection for his invention with all reasonable diligence after learning of the publication, assuming that he heard of it before his application was lodged. It seems scarcely necessary to observe that the fact that an inventor is unaware of the prior publication of somebody else's invention, identical with his, will not save his own patent from invalidation; otherwise, as Mr. Justice Grove said, a man might get a patent for exclusive ignorance instead of exclusive knowledge.

As soon as the application has been lodged and what

is termed "provisional protection" obtained, the inventor may proceed to use or describe his invention in public, without fear of prejudicing the validity of his patent. For the grant of a patent is retrospective, and dates back to the time of application.

Nevertheless gratuitous disclosure, even after provisional protection has been obtained, is to be avoided where the invention, as is usually the case, has not attained perfect finality. For later on, it may possibly be thought advisable to abandon the first application altogether and apply afresh for an improved form of the same thing. In that event any publication made on the strength of provisional protection obtained through the abandoned application might seriously interfere with the scope of the later form of specification.

Secondly, the invention must be new *within the realm;* that is, within the United Kingdom and the Isle of Man. Publication or use elsewhere does not rob an invention of its novelty in the eye of the law. Hence it is that a person, who is merely the first to introduce an invention into England, stands on an equal footing with an inventor as regards his eligibility for a patent.

Thirdly, it is important that the *whole* of the invention claimed should be new; lack of novelty in any one claim, no matter how sound and meritorious the other claims may be, is fatal to the entire patent, unless the defect can be cured by amendment. An inventor drafting his own specification cannot be too careful in clearly limiting his claims to the novel features of his invention. Through failure to observe this rule many valuable patents have been lost. In cases, however, where that which is erroneously claimed as new is strictly appurtenant to and forms merely a subsidiary part of the real substance of the invention, the Courts have relaxed the rule in favour of the patentee. Thus, in *Plimpton* v. *Spiller*, where the patentee

had claimed first, "a mode of applying rollers and runners to the footstand of skates, so that they might be cramped or turned so as to cause the skate to run in a curved line by the canting or tilting of the footstand," and secondly, "the mode of securing the runners and making them reversible," it was held that the want of novelty in the second claim did not invalidate the patent, because the second claim must be read as claiming a subsidiary invention, to be used only in connection with the principal invention. Again, in the more recent case of *Parker* v. *Satchwell*, a patent for "an improved device for holding or retaining ladies' hair" was held not to be vitiated by the fact that two of its claims were devoid of novelty, since both were subsidiary claims and clearly appendant to the "improved device."

So much for a general statement of the principles governing the requirement of novelty. It remains to consider next what amount of publicity will suffice to rob an invention of its novelty so as to impair the validity of a subsequent patent grant. This subject will be conveniently dealt with under two heads :—Prior Public User and Prior Publication in Books, Specifications and the like.

Publication by Prior User.

It is fatal to the validity of a patent, if it is proved that the invention has been worked or used in public either by the inventor himself or by someone else prior to the date of patenting. But mere experimental user will not constitute an invalidating anticipation. In patent actions where prior user is alleged, it frequently turns out that the user cited was nothing more than an unsuccessful experiment and not a real use of the invention at all. The fact that an invention has been abandoned or has led to no commercial result is strong presumptive evidence of its

experimental nature, but it may be rebutted by showing that the abandonment was due to other causes. The Haskell Golf Ball case (*Haskell Golf Ball Co.* v. *Hutchinson*) affords an excellent illustration of these points. In this case, amongst a number of witnesses called to prove prior user, the most important was a certain Captain Stewart who stated that nearly thirty years before the date of the plaintiffs' patent he had made golf balls of wound rubber thread with a cover of gutta percha. He had given away some to his friends, and sold some, and had disclosed to at least one person the method of construction. He continued to make these balls from time to time until 1879, but he made none after that date. There was evidence to show that he ceased making this style of ball because it was not popular. It had no "click," and, according to the sentiment of the day, golf without a "click," was not golf at all, but waste of time.

Upon these facts the judge who tried the case at first instance held that what Captain Stewart had done amounted to more than mere incomplete experimental user and that it consequently invalidated the plaintiffs' patent. He also pointed out that there is a considerable difference between an experimental user of an invention by a patentee himself and by some person other than the patentee. For if the effect of the patent is to stop *others* from doing what they did before, even though the manufacture was only tentative, then it is clearly bad, inasmuch as it violates the express language of the Statute of Monopolies. It should be added that this decision was upheld by the Court of Appeal and has been finally affirmed by the House of Lords.

How slight a degree of prior user serves to invalidate a subsequent patent is shown by the decision in *Carpenter* v. *Smith*, where a patent for a lock was upset by evidence that a single lock of the same pattern had existed for several years upon a gate facing the public highway. In

another case (*Taylor's Patent*) a single fire-grate in a private house, but exhibited to the view of all and sundry of the inventor's friends, was held to be sufficient publication to debar the inventor from subsequently obtaining a valid patent. A patent, however, will not be invalidated on the score of prior user by disclosure in confidence to the inventor's friends or to workmen or assistants employed in working the invention provided they are bound over to secrecy. But manufacture by workmen who are under no obligation of secrecy is undoubtedly publication and will invalidate the patent subsequently obtained, unless the patentee can avail himself of the provisions of s. 41, referred to at the beginning of the chapter.

Sometimes the patentee's own experiments have been held to amount to prior user, particularly where it can be shown that he derived profit from them, the inference being that if the invention is capable of being turned to profitable account it can no longer be considered to be in an experimental stage. Thus, where an inventor in the fulfilment of a contract for the erection of a pier had devised a novel form of travelling crane and had publicly used it upon the works for several months before taking any steps to patent it, such user was considered to amount to a dedication of the invention to the public, and a patent was refused (*re Adamson's Patent*).

On the other hand, where an invention is of such a character that, in order to establish its utility, experimental user in public is unavoidable, considerable latitude is allowed by the Courts to enable the inventor to test the soundness of his theories before embodying them in a patent. So, in *Newall* v. *Elliott*, the inventor of a machine for paying out a submarine cable, who had tested the utility of his invention in the execution of a Government contract, succeeded in maintaining his patent in spite of the fact that he had derived profit from the undertaking.

Presumably the experimental use of a flying machine, which must almost necessarily take place in public, would not deprive an inventor of his patent rights; but in such a case it would certainly be a wise precaution to obtain provisional protection first.

How far a new process or machine may be commercially used *in secret* by the inventor without prejudicing the validity of a patent subsequently obtained for it, is a matter upon which there is no definite judicial pronouncement.

The question arose in the old case of *Betts* v. *Menzies*, but its solution was unnecessary for the decision of the case and consequently it remained unsolved. The patentee had, before applying for his patent, manufactured a quantity of the patented article for stock, but none had been sold; hence there was no publication and the manufacture was, in effect, a secret user. It was argued that by this means the patentee was extending the period of his monopoly and that such a practice was contrary to public policy. In dealing with this argument Lord Campbell said: "If it could be shown that the effect was really to extend the time of the monopoly, that would be fatal. But the defendant has entirely failed in showing that; because any person might have used this manufacture lawfully until the patent was sealed and the fourteen years had begun to run."

Whether secret commercial user of a newly-invented process will prejudice a subsequent patent for it depends, of course, largely upon the character of the product. If the article is such that the public can infer from inspection or analysis the process by which it is made, that will certainly constitute publication. But the article may be of such a character, *e.g.*, a high vacuum tube, that it supplies no clue to the method of manufacture. In such a case the process remains a secret and, in the writer's opinion (no matter how much profit the inventor may have made) it is

capable of being subsequently sold to the public in return for a fourteen years' monopoly.

But, however closely guarded it may be, a commercial monopoly depending upon a secret process is at best exceedingly precarious, seeing that the inventor runs the double risk of having his secret betrayed by an employee or guessed by an independent experimenter. In this connection it is worth while to observe that the special provisions of s. 41 (see p. 18), appear to favour the security of secret working, in so far as they protect the proprietor of an invention from the invalidating consequences of unauthorised publication, such as might result from a breach of confidence on the part of one of his employees.

Secret user by the inventor himself must be distinguished from secret user for profit by others. The latter would undoubtedly constitute a vitiating anticipation on the principle, already stated, that a man cannot by taking out a patent prevent others from continuing to do what they did before. Thus, in *Tennant's Case*, a patent for a bleaching process was invalidated on the ground of prior user upon proof that, for several years before the date of the plaintiff's application, a manufacturer had secretly used a bleaching liquor prepared in the manner described in the plaintiff's specification.

But the importation and sale in the United Kingdom of a product manufactured abroad under a secret process will not debar a man, who discovers or learns the secret, from patenting it here and thereby preventing its continued importation under pain of infringement.

Publication by Documents.

The most usual defence in an action for infringement is the plea that the patent sued upon is invalid on the ground that the alleged invention has already been

described and claimed in certain prior specifications or anticipated by description in some scientific book or treatise. By industrious research in the Patent Office Library, it is always possible to bring to light some publication bearing at least a specious resemblance to the patent it is desired to upset; and it is extraordinary to find what prophetic and far-sighted inventors these prior patentees become when their specifications are read in the kindly light of subsequent knowledge and by the willing mind of the patent wrecker. But the Court looks narrowly at all so-called "paper" anticipations to see whether in fact they disclose adequate information for the practical working of the invention, or whether the alleged prior publication is merely a scientific speculation or a general and vague proposition left for others to work out in detail and translate into practical shape. The publication on paper of the possibility of doing something is, it need hardly be said, not nearly such cogent proof of anticipation as the achievement in fact, evidenced by prior user.

The Courts have laid down with some particularity the degree of intelligibility required in specifications or other documents relied on as anticipations. The description need not be so lucid and detailed as to enable any ordinary workman to perform the invention. It will suffice if it is explicit enough to enable a person with a willing mind and highly skilled in the particular art, and guided solely by the information conveyed and such knowledge as he possessed at the time, to carry out what is subsequently claimed as a new invention. But if such a person has to exercise any invention or ingenuity, or to make experiments in order to attain that end, the prior specification will not be held to be an anticipation.

Thus, in the old case of *Betts* v. *Menzies*, the patent sued upon was for the production of a material capable of application to many useful purposes by compressing

together thin sheets of lead and tin. A prior specification describing precisely the same principle was relied upon as an anticipation. In the earlier specification, however, no instructions were given as to the relative thickness of the metallic sheets, the degree of pressure to be applied and similar details upon which information was required for the practical working of the invention. It was held that, since it would require some experiment before a successful result could be obtained from the meagre description given, this specification did not constitute an anticipation.

Descriptions in text-books, as a rule, carry less weight as evidence of anticipation than those contained in technical treatises, such as specifications or trade journals, for the reason that the text-book writer is generally concerned rather with principles than practice.

A drawing or plan of a machine, unaccompanied by explanatory letterpress, will amount to publication, if it is sufficiently explicit to be intelligible to a competent engineer. But a photograph or print illustrating some novel process of photography or engraving would not, unless it clearly revealed the process by which it was produced, by itself constitute an anticipation.

An invention may be anticipated partly by one specification and partly by another, but novelty cannot be successfully impugned by piecing together a number of specifications. "If," said Lord Justice James, "it requires a mosaic of extracts from specifications and treatises spread over a number of years to prove the defendant's contention, that contention stands thereby self-condemned."

Once the identity of the invention, previously described, with that subsequently claimed has been established, a very small amount of publicity is sufficient to rob the later invention of its novelty.

A single copy of a book on the public shelves of the Patent Office Library will constitute publication, provided

the description is in a language generally understood. It need not be proved that anyone has read the book; the fact that it is accessible to the public is sufficient. But where, as in the case of *Plimpton* v. *Malcolmson*, the book containing the anticipation was lodged in a private room at the Patent Office and not entered in the library catalogue, it was held that there was no publication. It is impossible to lay down any hard and fast rule as to what amounts to publication. The question will always be whether, on the whole evidence, there has been such a publication as to make the description a part of the public stock of information.

By premature disclosure in a lecture or communication to a learned society an inventor may unwittingly deprive himself of his rights; but if the only publication alleged is a communication made in confidence, that does not prejudice the subsequent application for a patent.

Prior to 1885, abandoned provisional specifications were open to public inspection and might, therefore, be cited as anticipations of subsequent inventions, and indeed may still be cited as anticipating any patent dated earlier than January 1st, 1905.

Since 1885, however, the rule has been that where an application for a patent has been abandoned or become void, the specifications and drawings accompanying such application shall not at any time be open to public inspection or be published by the Comptroller.

The Patents Act of 1902, which came into force at the beginning of the year 1905, provided that no invention patented after that date should be deemed to be anticipated by reason only of its publication in a specification which is more than fifty years old, or by its publication in a provisional specification of any date not followed by a complete specification. This provision is retained by the Patents and Designs Act of 1907, s. 41 (1).

The patentee who is anxious to assure himself of the novelty of his invention will do well, either personally or through his patent agent, to make a thorough search through the Patent Office records before filing his application. The complete indexes and abridgments of specifications enable this to be done with some certainty, though where the subject matter belongs to one of the more popular fields of invention, *e.g.*, automatic couplings, the great mass of specifications bearing on the subject renders the task of searching exceedingly laborious.

International Arrangements.

Before leaving the subject of anticipation it is necessary to refer to the special rules regulating applications by persons who have already applied for patents in foreign countries. Section 91 of the Patents and Designs Act of 1907 provides that any person who has applied for protection for an invention in any one of the foreign countries with which His Majesty has been pleased to make arrangements for the mutual protection of inventions shall be entitled to a patent for the same invention in this country in priority to anyone applying in the meanwhile, provided that he applies within *twelve* months from the date of his foreign application. The effect of this is to give the foreign applicant conditional "provisional protection" in this country for the space of twelve months, so that publication of the invention in the United Kingdom by description or use during this period will not invalidate a patent subsequently granted.

By a series of Orders in Council the provisions of this section have been made applicable to all States belonging to the International Convention and to certain British colonies besides. For a complete list see p. 239. In alluding to the countries to which this section applies, it

will be convenient to refer to them compendiously as Convention countries. Similarly, applications under s. 91 are referred to as Convention applications.

Exhibitions.

The publication, and even the use, of an unpatented invention at an industrial or international exhibition, certified by the Board of Trade, will not prejudice the right of the inventor to subsequently obtain a valid patent provided the following conditions are complied with, namely :—

(*a*) The exhibitor must, before exhibiting the invention, give the Comptroller the prescribed notice of his intention to do so;

(*b*) The application for a patent must be made before or within 6 months from the date of the opening of the exhibition.

For the purpose of identifying the invention in the event of an application for a patent being subsequently made, the inventor must furnish the Comptroller with a brief description of his invention, accompanied, if necessary, by drawings and such other information as the Comptroller may require.

Compliance with the above conditions will also protect an inventor against prejudice to his patent rights through the unauthorised publication or use of his invention during the period of the exhibition anywhere outside the exhibition precincts.

In the case of exhibitions held outside the United Kingdom, an Order in Council is usually issued relieving the exhibitor from these conditions.

CHAPTER III.

THE ESSENTIALS OF PATENTABLE INVENTION (*continued*).

Subject Matter and Utility.

Nothing is more difficult in a treatise on patent law than to convey an accurate idea of the *degree* of novelty and inventiveness required to make a valid patent. Innumerable judicial pronouncements have been given on this point, but all of them hark back to the same fundamental proposition, that there must be some fresh idea, some distinct advance upon what is old, and that the advance must be such as may reasonably be presumed to have called forth an appreciable degree of inventive faculty or ingenuity to achieve it. What that degree is remains indefinite. There is no absolute criterion, and it is therefore useless to attempt to frame a scientific formula to express its exact quantity. Every case must be considered on its own merits and with reference to its own special circumstances. It may safely be predicted, however, that an invention which embodies some new principle or produces a new result in a new way will certainly afford good subject matter. But inventions of this character are comparatively rare. In the vast majority of cases the invention sought to be patented consists in some small improvement in or adaptation of known devices. In dealing with inventions of this class, it is often impossible, even for skilled practitioners, to say with certainty whether the margin of fresh subject matter is sufficient to sustain a patent, for judges themselves are not infrequently at variance on this

hend. The only way to form a sound judgment upon this important point is, by careful study of the decided cases, to familiarise oneself with the attitude of the legal mind towards this question. Below are given brief abstracts of some of the more typical cases, lying on either side of the hazy dividing line, which separates and distinguishes good from bad subject matter. By contrasting these examples the reader will obtain a more reliable notion of what constitutes sufficiency of invention than any number of abstract propositions could convey. Before proceeding to examine these cases, a few observations are called for upon the general principles which have governed their decision.

It is not necessary that an invention should have been the result of experiment or research. Many valuable inventions have flashed upon the mind in a moment, or have been the result of mere accident. Such was Röntgen's discovery of the power of the peculiar rays, emitted by a Crookes tube, to penetrate opaque bodies; an observation which led to the invention of X-ray photography. On the other hand, it sometimes happens that an inventor, through failure to appreciate and take advantage of what has already been done in his own line of research, arrives after tedious experiment at a point inappreciably in advance of results already attained.

The simplicity of the idea, when regarded in the light of accomplished fact, is no true test of the invention or the degree of ingenuity required in its conception. "If the apparatus be valuable by reason of its simplicity," said Lord Herschell in the case of *Siddell* v. *Vickers*, "there is a danger of being misled by that very simplicity into the belief that no invention was needed to produce it. But experience has shown that not a few inventions, some of which have revolutionised the industries of this country, have been of so simple a character that, when once they were made known, it was difficult to understand how the

iden had been so long in presenting itself, or not to believe that it must have been obvious to everyone."

The fact that a patented article has been a great or sudden commercial success raises a strong presumption that there has been ingenuity exercised in surmounting the obstacles that previously prevented the want, whether generally realised till then or not, from being met. But popularity is not conclusive evidence that real inventiveness has been called into play, any more than commercial failure is proof to the contrary.

It is no disparagement nor is it technically a limitation of an invention to call it an "improvement." All patentable inventions are in reality "improvements"; and in drafting specifications the invention is almost universally described as "relating to improvements" in such and such an art. The word "improvement" has sometimes been employed to denote that class of invention which is admittedly subordinate to and a mere development of some preceding invention, effecting the same result in a better or cheaper way; as, for instance, when an inventor himself takes out patents for improvements on his original device. It is not, however, a term of art, and has too indefinite a scope to be helpful for the purpose of classification. It may be added that the word is used in s. 19 of the Act of 1907 as designating suitable subject matter for a patent of addition (see p. 90).

Similarly, the word "combination" has been somewhat arbitrarily applied. Essentially every invention may be regarded as a combination, from the simplest contrivance to the most intricate piece of mechanism. Even though the patented thing be physically indivisible into its component elements, *e.g.*, an improved form of corrugation for iron plates, the invention is nevertheless a combination, if not of distinct material parts, at least a combination of old and new ideas embodied in material form. But in legal

phraseology the word combination has come to bear a rather restricted and specialised meaning. In this sense, it is commonly applied to inventions consisting of an assemblage of clearly distinguishable parts which, though all may be old, have never before been similarly combined. A "combination claim" is a claim embracing this conjunction of parts as a whole, and is contrasted with a claim for some component part. Used in this sense, the expression, a "combination" invention, though not a scientific definition, affords, however, a convenient description for a fairly well defined class of inventions.

A combination may consist of a dozen elements, eleven of which have been previously combined for the same purpose, but if the twelfth has not been used in that conjunction before, that will form a novel combination and may be good subject matter, provided the variation shows ingenuity and produces a better result. The variation introduced may be either by way of addition, substitution or subtraction. Mere rearrangement of the component parts of an old combination has in some cases been held sufficient to support a patent. Thus, in the case of *Patent Exploitation, Ltd.* v. *Siemens Brothers & Co., Ltd.*, the patent sued upon related to improvements in galvanic batteries, the invention consisting in a combination of the well-known elements of a primary cell, so arranged as to form an unspillable and portable battery, capable of being stored for a long period without loss of efficiency. The case went to the House of Lords and in his judgment Lord Davey, adopting the language of Sir George Jessel in a previous case, said :—"Where a slight alteration in a combination turns that which was practically useless before into that which is very useful and very important, judges have considered that though the invention was small, yet the result was so great as fairly to be the subject of a patent, and as far as a rough test goes, I know of no better."

With these preliminary observations we may proceed to the cases themselves. Those chosen for illustration are all more or less "border-line" cases. They are ranged in various categories merely to facilitate comparison; the headings do not profess to be either strictly scientific or exhaustively complete.

1. *The Application of an Old Principle, Process or Machine in a New, but Analogous, Manner.*

Baxter v. *Marsden.*—The patentee's invention related to stone and ore crushing machines, the object of the invention being the application of top-driving instead of bottom-driving to a double screen machine. Double screen stone crushers had previously been driven from the bottom; single screen machines had, however, been top-driven and evidence was forthcoming that top-driving and bottom-driving were two interchangeable alternatives familiar to engineers. *The patent was held invalid.*

* * * * *

Taylor v. *Annand.*—The patent was for a device for printing late news in newspapers and consisted substantially of a short movable drum mounted on an auxiliary shaft and holding firmly on its surface a fudge box of ordinary movable type, so arranged that the face of the type was curved and concentric with the drum. Small auxiliary cylinders had been previously employed in colour printing and for certain other purposes, but it had never been suggested that they might be used to overcome the difficulty of printing stop press news. The setting of type with a cylindrical surface was old. The mounting of a fudge box on a cylinder was old. Prior to this invention, however, there was no known machine that would do in any practical or efficient way the special work done by the improved machine described in this patent. *The patent was held good.*

2. *The Application of an Old Principle, Process or Machine to a New, but Analogous, Substance.*

Brook v. *Aston*.—In this case the patentee claimed "causing yarns of *wool or hair*, whilst distended and kept separate, to be subjected to the action of rotatory heaters or burnishers, whereby the fibre is closed and strengthened and the surface effectually polished." It was proved that precisely the same method had been previously employed in the finishing of *cotton and linen* yarns. *The patent was held invalid.*

Similarly, a process for preserving smoked or dried meat by treating it with bisulphide of lime being well known, it was held that to preserve *fresh* meat by identically the same process was not patentable subject matter.

* * * *

Pirrie v. *York Street Flax Spinning Co.*—The invention related to improvements in the wet spinning of flax and similar yarns and consisted substantially in adapting to the wet spinning of flax a thin flexible tube of paper, a device which had long been used in the dry spinning of cotton and other yarns. In effecting this adaptation to the wet spinning process, some subsidiary devices, requiring a certain amount of ingenuity, were necessitated to prevent the moist paper tube from collapsing or losing its shape. The invention resulted in some technical advantages and the process was cheaper. *The patent was held good.*

3. *The Application of an Old Substance or Thing to a Novel, but Analogous, Use.*

Case v. *Cressy*.—The invention related to improvements in the construction and arrangement of breakwaters or groynes for the seashore and consisted in a fence formed by inserting braced uprights in holes, pouring in cement and finally screening the intermediate space by horizontal

planks. Rapidity in construction, superior to that attained by existing methods of erecting shore-groynes, was claimed as the feature of the invention. It was admitted that there was no special novelty in this mode of construction, and that a groyne so constructed and erected on land and used for land purposes would not be subject matter for a patent. *The patent was held invalid.*

The attachment of C springs to the front instead of to the rear of a carriage; applying to the heel of a boot an iron plate formerly used on the toe, and the conversion of a fixed rubber heel-pad into a revolving one, by making a hole in the middle and putting a screw through, have all similarly been held to be deficient in subject matter.

* * * * *

Newton v. *Vaucher*.—The plaintiff's invention consisted in the use of soft metal for lining the journal boxes or bearings of machinery, the object being to diminish friction. The use of soft metal for lining certain parts of machinery for the purpose of making them air and water-tight was well known. *The patent was held good.*

In the often-quoted American braided wire case (*American Braided Wire Co.* v. *Thomson*), the invention, which was ultimately upheld in the House of Lords, consisted in applying to ladies' bustles and dress improvers, steel wire braided or plaited in a tubular form. Wire plaited in this fashion was not new, it had been used for garters, satchel handles, perches for bird cages, pillows, and a number of other purposes; but had never before been applied to bustles. The invention claimed was not simply the application of braided wire to bustles, but its application in a specified manner and there was some ingenuity displayed in the manner of clamping the tubular braided wire into the desired shape of the bustle.

4. *The Application of a New, but Analogous, Substance or Form of Substance to an Old Purpose.*

Allo-Carbon Light Co. v. *Kidd.*—The patentee claimed the use of solid naphthaline prepared in the form of sticks, rods, or pellets, for the enrichment of combustible gas. Previously, naphthaline in solution had been used for enriching gas. It was also proved that naphthaline in granular form or in the form of sticks was a thing well known for some time prior to the date of the patent, though the patentee was not aware of this. *The patent was held invalid.*

Similarly, in *McLay* v. *Lawes*, the use of calcium sulphate, precipitated in a state of fine division during the manufacture of tartaric acid, for making lagging for boilers, was held not to be good subject matter in view of the fact that native gypsum, chemically the same substance but differing slightly in its physical condition, had previously been used for the same purpose.

* * * * *

Hayward v. *Hamilton.*—The invention in this case related to "improvements in pavement lights," and consisted substantially in a glass prism, so shaped that it was capable of bending the light obliquely in any desired direction so as to illuminate parts of the underlying room not directly beneath it; while at the same time it presented a flat surface flush with the ground. Glazed pavement lights were old, and prisms had been previously used as deck lights on board ship. In the latter case, however, the prism was not of the same form as the plaintiff's, nor was it used precisely for the same purpose, its function being to throw the light *both* ways. *The patent was held good.*

Similarly, in *Hinks* v. *Safety Lighting Co.*, the substitution of a flat wick for a solid round wick in a lamp was considered sufficient subject matter to support a patent, because in spite of the apparent smallness of the invention

it had the advantage of largely increasing the illuminating power of the lamp.

5. *A Combination.*

Wood v. *Raphael.*—The patentee's invention related to pince-nez, and claimed the combination of (1) a bridge rigid with the rim; (2) pivoted placquets; and (3) spring arms attached to the rim of the glasses. Evidence showed that eye-glasses combining features (1) and (3), were perfectly well known at the date of the patent, and that pivoted placquets had been applied to eye-glasses with spring as distinct from fixed bridges. No special ingenuity was required to adapt pivoted placquets to eye-glasses with fixed bridges. *The patent was held invalid.*

In *Williams* v. *Nye* the inventor had devised an improved mechanism for making sausages, by joining together two previously known machines, a mincing machine and a stuffing machine. The combination of these two machines was effected by prolonging the screw which forced the meat forward into the mixing apparatus so that it forced the meat, after being minced, still further on into the sausage skin. It was held that there was not such substantial exercise of inventive faculty as to make this good subject matter for a patent.

* * * * *

Anti-Vibration Incandescent Lighting Co. v. *Crossley.*—The patent was for improvements in and relating to the suspension of incandescent gas lamps. The object of the invention was to avoid vibration and was effected by fitting the gas burner with a flexible connecting tube and suspending it by one or more elastic cords or springs. The claim was confined to this combination of well-known devices. There was evidence that numerous expedients had been tried to mitigate vibration, and that the patented contrivance

was more effectual for the purpose than any other in use. *The patent was held good.*

The variation of a combination by substitution introduces the question of "equivalents." It may be stated as a general rule that there is no patentable invention in taking a known combination and substituting for one of its parts something which is a well-known mechanical or chemical alternative. A modification, however, which subsequently comes to be recognised as an equivalent device, but which was not recognised as such at the time, would not fall within this rule.

In dealing with the question of equivalents it is necessary to differentiate clearly between their bearing upon cases of anticipation and cases of infringement. Though there may be no subject matter in varying a combination by the replacement of a spring by a screw, yet it does not follow that a device so modified would constitute an infringement of the other. That depends upon the ambit of the claims alleged to be infringed. If the scope of the plaintiff's patent is wide—for example, if it is a pioneer or master patent—then to achieve the same result by means of a well-known equivalent will be an infringement. But if its scope is narrow owing to the fact that the ground has already been well covered by invention, and there are numerous other devices of a very similar nature, the variation of the combination by the introduction of an equivalent, producing an appreciably better result, would probably be no infringement. But, even so, where the equivalent adopted is an obvious one, *e.g.*, the substitution of a hinge for a slide or a screw for a nail, that would not constitute such a difference as to obviate infringement. Dealing with this point in *Bunge* v. *Higginbottom* (an instructive case upon the doctrine of equivalents), Lord Justice Vaughan Williams observed:—"No one would say that if there was a patent for a machine for making bricks,

in which part of the process consisted in moving cutting wires against clay, the moving of clay against cutting wires was such a difference in the combination as to negative an infringement."

The following are some cases in which the substituted device has been held to be a well-known equivalent: the use of steel hoops instead of whalebone in a petticoat; the substitution of a hinge for a slide in a lamp; the substitution of a pivot for a hinge in a nail-making machine; the substitution of a gauze strainer for a metal strainer in a beer barrel tap.

Generally speaking, the application of a well-known thing to a well-known use is not good subject matter for a patent. But there are one or two instances in which this rule has been departed from. An interesting illustration of this is the famous case of *Muntz* v. *Foster*, where the patent was for "an improved manufacture of metal plates, for sheathing the bottoms of ships, or other such vessels." Muntz's invention was based upon the discovery that an alloy, consisting of certain proportions of copper and zinc, was less liable than ordinary copper sheathing to oxidation and was consequently more durable. The wearing away through oxidation was, however, just enough to keep the bottom of the vessel clean. There was evidence to show that plates of a similar composition of copper and zinc had previously been specified as good for sheathing, but not in view of the particular quality discovered by the plaintiff. *The patent was held good.* In summing up, Chief Justice Tindal said:—"I look upon it that there is as much merit in discovering the hidden and concealed virtue of a compound metal, as there would be in discovering an unknown quality which a natural earth and stone possessed."

It is hard to dispute the soundness of the reasoning underlying this decision, but if pushed to its logical conclusion, it might well bring about a strange state of things.

For example, suppose in the above case that the ship-builders had used this particular alloy of copper and zinc and were continually using it from time to time, without fully appreciating its advantages; Muntz could apparently, upon taking out his patent, have stopped them from doing what they had previously been accustomed to do. On the other hand, it is not easy to see how this result is reconcilable with the language of the Statute of Monopolies, which says that a patent is only to be granted for a manufacture "which others at the time of making such letters patent shall not use."

Utility.

Finally an invention must possess utility. It must do what it professes to do, and that must be a useful thing. Otherwise the patentee has got his patent on false pretences, or, to adopt the legal phraseology, the Crown has been deceived. A very slight amount of utility is, however, sufficient to satisfy legal requirements. Inferiority in quality does not argue want of utility, if the product can be produced more cheaply. But if the only professed merit of the process is that it is cheaper, and it turns out in fact to be more costly, the patent would be bad for want of utility. On the other hand no objection could be taken to a patent for making thimbles out of platinum, if it were the fact that thimbles so made were especially useful for the purpose specified. Again, utility does not signify merely industrial usefulness. Ingenious toys are useful, and an improvement in a spinning top may be as good subject matter for a patent as an improvement in a spinning jenny.

An invention may still be reckoned a useful improvement, even though in some salient quality it is inferior to previously attained results. In *Welsbach Incandescent Gas Light Co., Ltd.* v. *New Incandescent (Sunlight Patent) Gas Lighting Co.*, the plaintiffs' mantle, made of almost pure thoria, was

admittedly inferior in illuminating power to mantles hitherto made; it had, however, distinct advantages in point of rigidity and durability. But even apart from these latter qualities, the plaintiffs' invention was useful in two ways; it offered the public the opportunity of making with thoria an appliance which, up to that date, it had been suggested could only be made with zirconia and the oxides of certain other rare metals. It afforded a useful choice of another substance capable of being used in making incandescent gas mantles. In the sequel, the utility of this invention was still further vindicated, since, aided by a subsequent discovery that a small percentage of ceria will increase the luminosity, it led to the possibility of making a mantle, which was not only durable and stable, but possessed also a high illuminating power. This case also illustrates the rule that comparison with other known methods is not a test of utility.

The utility of an invention must be judged by reference to the state or knowledge at that time. But an invention which, though of no apparent or immediate utility when first patented, subsequently formed the basis of an improvement of a highly beneficial nature, could scarcely be held invalid for want of utility. It is no argument of inutility that an invention has been superseded by improvements and thereby become obsolete; for most inventions are liable to such displacement and are merely "stepping stones to higher things." Nor is the fact that it has never been tried or put into practice any proof of inutility of an invention.

Where a person has infringed an invention, he will have a hard task in convincing the Court that it is not useful. For, as Mr. Justice Kay said, in *Lucas* v. *Miller*, "Better evidence of the utility of an invention cannot possibly be had than the fact that the defendant has attempted to infringe it." Consequently, the cases in which a patent

has been held bad for lack of utility are comparatively rare.

One of the classic cases on the subject of utility is *Easterbrook* v. *Great Western Railway*. There the invention claimed consisted of improvements in machinery and apparatus for actuating and controlling railway points and signals, the professed object being to prevent the possibility of conflict between the points and signals. It was proved, however, at the trial that the patentee's apparatus could be so worked as to give conflicting signals or signals conflicting with the points. Consequently it was held that the Crown had been deceived and the patent was invalid, as the invention was not only not useful, but positively dangerous. Similarly, in the more recent case of the *Sirdar Rubber Co.* v. *Wallington*, one of the several grounds of invalidity proved against the plaintiffs' patent, which was for an improved method of fitting rubber tyres to the rims of wheels, was that if the directions given in the specification were carried out, the result would be impracticable and useless.

Even if only one of several claims is deficient in utility, that will be fatal to the whole. But this rule is sometimes relaxed, as in the case of partial failure of novelty, where the feature wrongly claimed is not an essential part of the invention, and is useless only in the sense that it is unnecessary and superfluous. Thus, in *Lewis* v. *Marling*, the patent was for an improved machine for shearing woollen cloth, and the patentee claimed, amongst other things, a brush for raising the wool on the surface of the cloth to be shorn. It was proved that this brush was entirely useless and no machines were ever constructed with it attached. Since, however, the brush was not described as an essential feature of the invention, want of utility in this respect did not vitiate the patent.

CHAPTER IV.

THE SPECIFICATION.

Assuming the applicant to be the true and first inventor and that his invention possesses the requisite degree of novelty and utility, there is still a further requirement that he must fulfil in order to obtain a valid patent. It is an inevitable condition of the grant that he shall inform the public as to the nature of his invention and in what manner it is to be performed. In other words he must frame and publish a specification of his invention. The specification must convey information sufficiently full and explicit to enable the public (as soon as the monopoly expires) to work the invention without further assistance from the inventor. This is virtually the price the patentee pays for his privilege; it is the very essence of the bargain, and, therefore, it is all important that the specification should be complete in its information and free from ambiguity; otherwise it may be said that the Crown has been deceived and the patent may be revoked. But the specification also bears another aspect. It is a public prohibition. It fences round the ground which, for the time being, is the inventor's private domain, whereon the public may not enter without leave, under pain of an action for trespass or, as it is technically termed, *infringement*. Thus the specification has a twofold function; first, to describe the characteristic features and operation of the invention, and secondly, to define its limits.

In drafting a specification, these two aspects must be steadfastly kept in view. Too frequently an inventor, over-confident of the entire novelty of his ideas, seeks to enclose

in the ambit of his claims ground to which others have already established their right. Inventors are a proverbially sanguine race and their confident assurance of the unimpeachable novelty of their inventions should always be received with caution and tested by independent investigation. A glance at the admirably classified abridgments of specifications in the Patent Office Library produces a wonderfully sobering effect, and is always a wise precaution, before filing an application for a patent. A good plan of procedure is first to draft a rough description of the invention and then to visit the Patent Office Library. Examination of prior specifications will not only reveal the extent to which the ground has already been covered, and so enable the inventor to confine the scope of his claims to what is new, but it will also show him wherein lies the real strength of his own invention, so that he may give to what is essential due point and emphasis. It may even possibly suggest further improvements and useful modifications not hitherto thought of.

The specification must be explicit. Inventors are sometimes apt to frame their specifications in such vague and indefinite language that their object seems to be rather the mystification than the enlightenment of the public. Doubtless the intention is to secure a broad patent, enabling them possibly to reap where they have not sown. But such ambiguity constitutes the weakness and not the strength of a patent. Similarly a specification sometimes claims in general terms several ways of working the invention, and then describes in detail one which turns out to be an inferior method and of little practical use for commercial purposes. A patentee, who attempts in this way to get more than he gives, defeats his own object. For it is a fundamental axiom in patent law that the patentee is bound to specify the best method known to him of performing his invention. This is not only his duty but his best policy;

for otherwise he runs the risk of a rival finding out the improved method of working and patenting it in his stead.

A specification must not embrace more than one invention. Devices essentially distinct are not deemed to constitute one invention merely because they are applicable to or form parts of a single process or machine. For example, an improved form of bicycle tyre and an improved form of bicycle saddle could not be included in one specification. The test seems to be that if one invention is complete without the other, it must be separately patented. But alternative devices for effecting the same object will be treated as one invention. This rule is, however, purely directory, and after a patent has been sealed, no objection can be taken to it in any legal proceeding on the ground that it comprises more than one invention. If the application is faulty in this respect, the applicant will probably be required to amend it so as to confine it to one invention; in which case the subject matter excluded from the original application may be embodied in one or more subsidiary applications which will bear even date with the original application or some date intermediate between that and the date of the subsidiary application, according as the Comptroller may direct.

Since elementary errors of this kind delay acceptance, and may, if they are of a serious nature, cause the Comptroller to post-date the application to the time when they are amended, it is desirable that they should be avoided.

The mistake is sometimes made of regarding the specification as a mere technical description of the invention. If that were so, no one would be better qualified to frame it than the inventor himself. A specification is, however, essentially a legal document, amenable to the same rules of construction that apply to other legal documents. Professional advice is therefore desirable, especially where the subject matter is of a complex nature. But where the

invention is simple and admits of being simply described, there is no reason why a man of average intelligence, setting out with the honest intention of describing his invention and acquainted with what has already been done in that particular field of invention, should not with the help of a few simple rules succeed in framing a perfectly sound specification.

Some of these rules have already been touched upon; a more detailed discussion of the form and construction of the specification is given in the following pages, where the subject is dealt with under five heads:—(1) Title; (2) Provisional Specification: (3) Complete Specification; (4) Claims; (5) Drawings.

Title.

In the days when a patent was granted on the faith of the description of the invention conveyed in the title alone, the Courts narrowly scrutinised the title to see whether its promise was fulfilled and justified in the subsequent specification. A discrepancy between the title and specification was fatal to the validity of the patent. The institution of the provisional specification followed by a more careful surveillance on the part of the Patent Office examiner has rendered the chance of a patent being upset nowadays through a defect in the title extremely remote. Indeed, since the Act of 1883, there has been no instance of a patent being invalidated on this ground. As, however, the same degree of vigilance enjoined upon the Patent Office examiner in discovering and correcting discrepancies between the provisional and complete specifications, has not in the past proved by any means a guarantee against the patent being subsequently invalidated on the ground of disconformity, it cannot be assumed that the danger of a defective title is wholly removed.

For the guidance of those inventors who essay the

drafting of their own specifications the following rules should be observed.

The title should not be so broad as to suggest that the invention has a wider scope than it has in fact. Thus, where a man accompanied his application with the title "a method or methods of more completely lighting cities, towns and villages," and it transpired, when his specification was subsequently enrolled, that his invention consisted simply in a new street lamp, it was held that the title was too wide, and his patent was revoked. It is scarcely likely, however, that such a title would be visited at the present time with more serious consequences than a discreet pruning by the Patent Office examiner. But where the title contains a positive misstatement, the consequences may be more serious. For example, where the title was "a machine for an expeditious and correct mode of giving a fine edge to knives, razors, scissors and other cutting instruments," and it was found that the machine would not sharpen scissors, the patent was held bad. Similarly, where the title was "certain improvements in the flageolet, whereby the fingering will be rendered more easy and notes produced that were never before produced," the addition of only one note to the gamut was held insufficient fulfilment of the promise of the title.

On the other hand, a too narrow title has proved fatal to a patent. In *Croll* v. *Edge*, the title was "improvements in the manufacture of gas for the purpose of illumination and in apparatus used when transmitting and measuring gas." In his specification the patentee had extended the scope of the title by modifying the latter part of it as follows:—"and in apparatus used *therein and* when transmitting and measuring gas" in order to make the specification cover an improved method of making gas retorts. This extension was held inadmissible.

On the whole, the applicant will do well to frame his title

broadly, provided the wording is not so pretentious as to be misleading. Vagueness or generality is not in itself an objection, if the scope of the invention is made sufficiently clear in the accompanying specification. Generic terms should be used in preference to specific terms. For example "improvements in hooks and eyes for fastening gaiters" would be better phrased "an improved fastening device for gaiters and similar articles of apparel." Where no generic term can be found comprehensive enough for the purpose, it is useful to add the expression "and the like." It is not permissible, however, to use the word "etc." by way of enlarging the scope of the title.

Fancy titles and trade names, such as "The Hercules Braces" or "The Flamingo Fountain Pen," are not admissible, nor is it allowable to include in the title the inventor's name or the word "Patent."

Provisional Specification.

The provisional specification is simply an expansion of the title. Its function is to describe the nature of the invention, with sufficient precision to make it clear, when the complete specification is subsequently filed, that the subject matter therein claimed is identical with that for which the patent was originally sought. Minute particularity is not required. It is sufficient to state the essential and characteristic features of the invention. The general object in view should be set out, but it is not necessary to specify any particular method of working. Should certain methods of operation be indicated, the applicant is not confined to these, nor bound to include them in his complete specification.

Great care should be taken to ensure that the provisional specification is wide enough to allow for developments. It is better to err by making it too broad than too narrow, for it is always possible either tacitly to drop in the complete

specification anything subsequently found to be impracticable or to expressly disclaim it, provided that by so doing the character of the invention is not altered.

An inventor will find it a good rule in drafting his provisional specification to formulate clearly in his mind the claims which he intends to put forward, so that he may be sure of making the ambit of the provisional specification wide enough to cover them.

As soon as an applicant has had his provisional specification accepted he obtains what is termed "provisional protection": that is to say, no publication or use of the invention by himself or by others between the date of the application and the sealing of the patent will prejudice the validity of the grant.

Provisional protection is popularly regarded as though it were an advantage exclusively incidental to application by provisional specification. That is a misapprehension. It is immaterial whether the specification accompanying the application be provisional or complete, the applicant enjoys provisional protection equally in either case. The advantages which are associated in the popular mind with provisional protection are, in reality, advantages flowing from the almost invariable practice of lodging, in the first instance, a provisional specification. This practice is only departed from in exceptional cases, as, for example, where the applicant is a foreign patentee applying under the rules of the International Convention, or where there is some reason for obtaining the grant with as little delay as possible. Having made this clear, the inaccuracy may be condoned if in future the term "provisional protection" is, for brevity's sake, used to signify the effect of an application accompanied by a provisional specification.

Chief amongst the advantages incidental to an application by provisional specification are, firstly, the latitude afforded to the inventor for developing his idea without forfeiting

his right of priority or jeopardising his patent by public user, and, secondly, the possibility of deferring the printed publication of the specification : for the provisional is only published in conjunction with the complete specification, and if the application is abandoned altogether, the provisional specification is never published.

Few inventions are ripe for practical use as soon as they are ripe for patenting ; yet it is undesirable to delay the application, while details are being worked out and put into practical shape, for fear the invention be forestalled. The provisional specification solves this difficulty. Under cover of the provisional protection so obtained, a process can be put to the test of working on an industrial scale or a new product placed on the market and adapted to meet commercial requirements, and the necessary modifications and improvements suggested by practical experience can be embodied in the complete specification. *Six* months from the date of application, with a further extension of *one* month upon payment of a fine, is the limit of time allowed for the lodging of the complete specification. Unless it is lodged within that time, the application is deemed to be abandoned. Possibly the modifications required to adapt the invention to practical use may be of such a radical nature and so far depart from the inventor's original idea, that it may be thought advisable to abandon the first application and file a second for the invention in its improved form. Provisional protection affords leisure for debating this question, and in the event of it being decided to abandon the application, the applicant may do so without further expense and without disclosure of the abortive specification.

Provisional protection is a great boon to the poor inventor, who applies for his patent in the hope of finding some capitalist to assist him in the exploitation of his invention and in the payment of subsequent patent fees. For the sum of £1 he is afforded the space of 6 months within

which he can solicit financial aid, unreservedly divulging the secret of his invention without prejudice to his patent.

The advantage gained by the deferred publication of the specification is not, of course, felt where the sale or use of the invention necessarily involves disclosure of the nature or working of the invention. But where, as is often the case, it is desired to keep an invention secret as long as possible, the suspension of the obligation to publish is of the greatest value. Apparently the utmost period for which the publication of the specification can be postponed is rather more than 15 months from the date of application.

In the ordinary course of events a complete specification is accepted two or three months after it is lodged, which, as has been pointed out, may be six or seven months after the application. It is printed for publication 15 days after acceptance. The acceptance of the complete specification can, however, be protracted by application in proper form to 12 months from the date of application or upon payment of fines to 15 months. The applicant is now relieved by the Act of 1907 from the necessity of assigning any reason in support of his request for delay.

There is some ground for saying that the time of publication might possibly be postponed still further, without prejudicing the subsequent patent, by the simple manœuvre of abandoning the first application, and (before this abandonment is signified by overpassing the time specified for filing the complete specification) filing a second provisional specification in identical terms with the first. It has been held that the provisional protection obtained on the first application enures for the benefit of the subsequent application made during the currency of that provisional protection. The case upon which this view is based (*Lister* v. *Norton*) is an old one, and must be looked upon as of doubtful authority. So far as it goes, however, it clearly supports the view above indicated.

The inventor who applies by lodging a provisional specification suffers the disability that he cannot sue in respect of any infringement committed prior to the publication of his complete specification. From this time, however, infringement becomes legally actionable: though, even so, no action can be commenced until the patent has been sealed. Except for his disability to institute proceedings for infringement, an applicant acquires, on the acceptance of his complete specification, all the other privileges and rights of a fully fledged patentee.

The Complete Specification.

The office of the complete specification is to put the public in possession of the invention in its entirety. The provisional specification (assuming one to have been lodged in the first instance) has already given a general outline of the nature of the invention; the complete specification must fill in the details and furnish full instructions as to the working. In the language of the Statute, the complete specification must "particularly describe and ascertain the nature of the invention and in what manner it is to be performed."

In drafting his complete specification, the applicant cannot do better than take a copy of the provisional to work upon, particularising, amplifying, modifying and amending it to the extent required to bring it up to date and make it perfectly clear and explicit. Vague and general expressions used in the provisional, but proving in the light of practical experience to be unnecessarily wide or requiring closer definition, should be suitably qualified. Alternative processes and equivalent devices and materials, which have been found to give equally good or superior results, should also be described, particularly in the case of "combination" inventions, since, unless they are

specifically included, they may leave an opening for a rival patent.

Analogous objects to which the invention is applicable may also be specified, provided they fall within the general purview of the provisional specification.

The rule is that the complete specification should embrace only such improvements and developments as directly flow from and are strictly supplemental to the invention foreshadowed in the provisional specification. The nature and essence of the invention must be preserved unchanged. Formerly any deviation from this rule involved the patentee in the charge of "disconformity," which, if proved, was fatal to his patent. The Act of 1907 has introduced a salutary amendment on this point, by declaring that in future mere disconformity shall not be treated as a ground of invalidation. Moreover, to eliminate, as far as possible, the defect of disconformity, the Act further authorises the Comptroller to deal with specifications which err in this respect in one of three ways. He may

(*a*) refuse to accept the complete specification until it has been amended to his satisfaction; or

(*b*) (with the consent of the applicant) cancel the provisional specification and treat the application as having been made on the date at which the complete specification was left: or (if the complete specification comprises an invention not included in the provisional), he may

(*c*) allow the original application to proceed in respect of subject matter common to both provisional and complete specification and treat the claim for the surplus matter as an application made on the date when the complete specification was left.

Although, in view of the above provisions, disconformity is no longer a fatal defect, it is, nevertheless, desirable that

it should be avoided, and that the specifications should be correctly framed in the first instance, rather than doctored into doubtful validity in the Patent Office. Consequently it may still be useful for guidance in drafting specifications to recall some of the cases in which the line of legitimate development or variation has been held to have been overstept.

In *United Telephone Co.* v. *Harrison & Co.*, a patent of Edison was attacked on the ground of disconformity for the following reason. The provisional specification described various telephonic apparatus operating electrically. In his complete specification, however, Edison included a claim for a method of recording the undulations of a diaphragm and for subsequently reproducing them. This was a perfectly distinct idea, the idea of the phonograph, which is purely mechanical, in which electricity plays no part and concerning which no hint was given in the provisional specification. The patent was held bad for disconformity.

In *Savage Bros.* v. *Brindle*, the patent related to improvements in "roundabouts." The patentee described and claimed in his complete specification certain mechanism consisting of rods and guides sliding radially on a platform so as to permit of the model horses moving either *independently* or collectively in a radial direction under the action of centrifugal force. In his provisional specification he had excluded *independent* radial movement. There was held to be fatal disconformity.

In *Castner Kellner Alkali Co.* v. *Commercial Development Corporation*, a similar contradiction between the provisional and complete specification led to the invalidation of a valuable patent for "an improved electrolytic apparatus for producing caustic soda." The provisional specification laid stress upon the mercury cathode being "stationary" and described apparatus for keeping the mercury at rest. The

complete specification included a claim for apparatus in which the mercury was kept moving.

The inventor is at liberty to dispense in the complete specification with details not of the essence of the invention; but where the thing omitted is represented in the provisional specification as an integral part of the invention, its omission in the complete specification has been held in the past to constitute a fatal disconformity. Thus in an old case, *Bailey* v. *Roberton*, the patentee described a process for preserving meat or fish by coating it with a preparation of bisulphite of lime and gelatine. In the complete specification the claim was for using bisulphite of lime alone for this purpose. It was held that gelatine being an integral part of the invention as set out in the provisional specification, a claim for the use of bisulphite of lime alone was a claim for an invention wider than and essentially different from that originally foreshadowed.

Where an invention consists in obtaining a new result by novel means, and is properly described in the provisional specification, it is perfectly legitimate to lay emphasis in the complete specification on the importance of certain old features, not specially described in the provisional specification.

In determining what may be safely added, by way of development, in the complete specification, a good test is afforded by considering whether the proposed addition would, in itself, constitute good subject matter for a separate patent; if it would, then it is safer to patent it separately.

In that event care must be taken to draft the claims of the first patent so as clearly to exclude the subject matter of the second. If this precaution is not taken, the danger of a conflict between the two patents will seriously affect the chance of subsequently disposing of either. No one would buy patent No. 2, if doubt existed as to his right to work under it without a licence from the owners of patent

No. 1, and the value of the latter would be depreciated owing to the ambiguity of its scope.

If the inventor, shortly after filing his provisional specification, succeeds in working out important developments of his invention, it may be worth his while at once to lodge another provisional specification covering these improvements instead of waiting till he is ready to file his complete specification. For by so doing he will obviate the risk which otherwise exists of some rival inventor patenting these improvements and subsequently opposing the original inventor's application on the fourth ground of opposition, mentioned on p. 95. The Act of 1907 has introduced a special provision, in s. 16, enabling an applicant to protect the development of his invention in the above manner. It provides, in effect, that where the same applicant has put in two or more provisional specifications for inventions which are cognate or modifications one of the other, these may, with the sanction of the Comptroller, be united in a single complete specification and be covered by a single patent. A patent granted in these circumstances will bear the date of the earliest of the applications, but in considering the validity of the patent in any proceedings in which it is called in question, the Court or the Comptroller, as the case may be, will pay regard to the respective dates of the provisional specifications.

The general statement that a complete specification must be clear and explicit involves the compliance with certain more or less definite requirements which may fitly be expressed in the form of rules.

1. *The specification must be intelligible to workmen of good average understanding and skill in the particular art concerned.*

The specification of an electro-chemical process may be incomprehensible to a competent mechanic, or a description

of an improved power loom may convey little meaning to a skilled carpenter; but that is no condemnation of it. Each art has its own technology and vocabulary, and the patentee is entitled to assume that the reader is familiar with the terms current in that art to which his invention belongs. The language should be sufficiently plain, however, to enable a man equipped with such knowledge to grasp the nature of the invention without the necessity of making experiments to discover what the invention is or how it works. But experiments for this purpose must not be confused with the preliminary experimental trial and practice that are usually essential to gaining proficiency in new and difficult operations.

The instructions given must be explicit, but well-known and obvious details need not be described. The common sense of the inventor must determine how far it is necessary to particularise.

Two illustrations will be instructive on this point. In *Hinks* v. *Safety Lighting Co.* the patentee, in describing an improved form of gas burner, specified that for the admission of the air "a circular hole is made in the cone or deflector through which the circular flame passes." Nothing was said as to the position or size of the hole, and there was no indication in the drawings to show at what point the air was to be admitted. The efficiency of the burner depended upon the regulated admission of air. It was proved that there was no common knowledge which would enable a workman to say, without experiment, where the air-hole should be. The specification was held bad for insufficiency. On the other hand, in *Patent Exploitation, Ltd.* v. *Siemens*, the omission to specify that there should be a vent-hole at the top of a galvanic battery for the escape of the gases given off, was held not to be a fatal objection, since the necessity for providing such a hole was well known.

2. *All ambiguous expressions must be defined.*

If to attain success it is necessary to use some particular form of the material specified or to apply it in a particular way, this should be clearly stated. Thus, in *Wegmann* v. *Corcoran*, in describing a new process for grinding meal by means of rollers, the patentee specified that the rollers should be covered with china. It was proved that several common kinds of china would not produce the desired result, and the patent was held bad on the ground of ambiguity.

So, for example, if nickel is specified, without further direction, and it turns out that to answer the purpose the metal must be prepared in some special way, not obvious and as to which no hint is given, that will be a bad specification.

3. *The specification must be framed in good faith.*

The inventor must disclose to the public the best method of performing his invention with which he is acquainted at the time of filing his complete specification. If he knows a better method than the one specified, his patent will be vitiated by omitting a description of that way. In the language of Lord Coleridge in *Heath* v. *Unwin*, "If the inventor, knowing of two equivalent agents for effecting the end, could, by the disclosure of one, preclude the public from the other, he might for his own profit force upon the public an expensive and difficult process, keeping back the simple and cheap one, which would be directly contrary to the good faith required from every patentee in his communication with the public."

4. *The specification must not contain false statements or misleading suggestions.*

It has already been shown that a misstatement as to the utility or novelty of an essential part of the invention is

fatal to validity, and similarly any other error going to the essence of the invention is equally fatal.

The patentee is not required to propound any theory accounting for the phenomena of his invention, and unless it is necessary for the better understanding of its practical working, theory is better left out of the specification. Provided the invention is sound and useful, however, the fact that the patentee gives an unsound theory will not, according to a recent decision, be fatal to the validity of his patent. But where the theory propounded in the specification is positively misleading or used to mask the piracy of another's invention, or to bolster up the pretence of novel effects alleged to be produced by some trifling or specious modification of a well-known process, that would undoubtedly be a sufficient reason for holding the patent invalid.

An instance of a misleading specification is afforded by the old case of *Savory* v. *Price*. The patent was for making *Seidlitz* powder. Elaborate recipes were given for preparing the 3 ingredients of which the powder was compounded. These ingredients in reality were nothing more than Rochelle salt, carbonate of soda, and tartaric acid. The specification gave the impression that a laborious process was required for the production of these ingredients, whereas, in fact, they might be bought ready-made at any chemist's shop. The specification was held to be bad.

A more recent illustration is to be found in the case of *Oxen's Patent*. This patent was for "an improved manufacture of artificial stone, marble and the like." In his specification the patentee, after describing a well-known process for making artificial stone, which consisted in mixing dry sand and unslaked lime in a mould box which was tightly closed and placed in a cylinder, the cylinder being afterwards filled with water into which steam was introduced to give heat and pressure, proceeded to point out two alleged defects in this process. First, he said,

large quantities of air and gas were forced into the mould box and produced cracks in the stone; secondly, that owing to insufficient temperature the stone was soft and friable and required to be kept some time before it was fit to use. These alleged defects he proposed to remedy by using distilled water and by introducing superheated steam through heating coils, thereby avoiding the direct admission of steam or air into the water and at the same time obtaining a higher temperature. Evidence showed that the use of water deprived of air was unnecessary and that the high temperature specified produced no practical advantage. The patent was accordingly held bad.

5. The patentee must specify wherein his invention lies.

This, it will be said, is properly the function of the claims. That is true, but since the claims frequently do little more than refer back to the invention "as hereinbefore described," it is essential that there should be no ambiguity upon this point in the specification itself.

No new process or machine can be described without at the same time describing a great many things that are old; the patentee must, therefore, take care that he clearly differentiates between what is old and new. He is not, of course, expected to disclaim things that are well-known and obviously old. If, for example, he had occasion to introduce a hinge into his machinery, it would be absurd for him to point out that the hinge is not new. Nevertheless, if he should, in fact, claim a manifestly old thing, the absurdity of his doing so will not save him from the consequence.

Where an invention consists of a new combination of old, or partly old, elements, especial care must be taken to restrict the claim to the combination, or to such subordinate parts as are new. A general claim to the invention as described, is liable to be construed as a claim to the component parts as well as to the whole.

Thus, in *Haes* v. *Harding*, the specification described an improved watering-pot of a canister shape with a carrying handle and a tipping handle, and claimed in the compass of a single claim:—(1) the canister shape; (2) the make, shape and position of the tipping handle; (3) the introduction of the particular handle. The patentee added, "This new invention forms a watering-pot that is much easier to carry and tip" and then proceeded to expatiate in detail upon further advantages. It was held that this was a claim for a combination *plus* a claim for these three things as separate elements and, these elements being individually old, the patent was invalid. Similarly, where a new result is obtained by a certain series of well-known processes, the patentee should make it plain that it is the sequence and not the individual steps for which novelty is claimed.

If, on the other hand, the invention depends upon some modification in one of the steps in a well-known sequence of operations, or in some part of a well-known mechanical device, the inventor cannot claim the entire combination as new, but must restrict himself solely to the particular improvement.

It is not uncommon for a patentee, who has invented some slight improvement upon an existing process or machine, so to frame his specification as to lead the public to suppose that his is a pioneer or master patent and to confuse the improvement with the more important invention upon which it is grafted. If an application framed upon these lines is opposed by the true master patentee, the Comptroller will usually require a specific disclaimer inserted in the subsequent specification referring by number and date to the prior patent, or else a general disclaimer of the subject matter covered by the prior patent. Disclaimers will be discussed more in detail in the chapter dealing with Opposition; here it is sufficient to say that it is far preferable to draft the specification in the first instance in such a

way that there is no need for the Patent Office subsequently to amend it by means of disclaimers and references.

A convenient manner of defining the scope of the invention is to refer at the beginning of the specification to the existing state of the art or to the particular process to which the improvement relates. When, however, particular reference is made to some prior patent, the subsequent patentee should not go out of his way to point out defects in the previous process, but content himself with stating that his invention is an improvement thereon.

Claims.

The complete specification must conclude with a distinct statement of the invention claimed, to which the public may turn to ascertain how nearly they may approach the patentee's preserve without exposing themselves to an action for infringement. Claims are not concerned with a detailed description of the invention nor with its operation and advantages; their sole purpose is to indicate in the plainest possible manner the scope and limits of the patentee's monopoly. They are intended to convey more precise information on this point than can be gathered from the preceding description. Their function is not to claim anything that is not claimed in the specification, but to *disclaim* something. They should form an independent and succinct summary of the invention, and do more than merely refer the reader back to the body of the specification. A claim, for example, for "A galvanic battery constructed substantially as hereinbefore described" would appear hardly to comply with the statutory requirement that the claim shall be a "distinct statement." As, however, this provision is purely directory, such a claim as the above would involve no worse consequences than possible amendment at the hands of the Comptroller. Though literally distinct from the

specification, the claims are not to be construed independently of the foregoing letterpress; they are an integral part of it and must be read in close context with the description, each being mutually supplemental to the other in supplying deficiencies and clearing up ambiguities.

In *Edison & Swan* v. *Woodhouse* the patentee claimed the use of hydro-carbon gas, carbon gas and carbonic gas for certain purposes. Objection was taken that these general terms included gases, such as carbonic acid, which were quite unsuitable. Upon this Lord Lindley said: "Every claim in every patent must be read and construed with reference to the specification and not as if the claim was an isolated sentence having no connection with or reference to what precedes it. To see what is meant by carbon gas we must turn to the specification, and when we do, we cannot conceive that anyone reading the specification fairly, with a view to understanding it, would ever dream for a moment that carbonic oxide or carbonic acid would answer the purpose and could be meant by carbon gas." A valid claim can never cover more than is described in the specification. It is not, therefore, in reality a limitation of the claim to qualify it with the expression "as hereinbefore described." Indeed, so far from limiting the scope of the invention, the addition of these words might even have the effect of extending it, for without them a claim may easily embrace something less than the invention specified. These words are, therefore, only useful as a safeguard against the patentee claiming something which is not described in the specification and which consequently, if included in the claim, might invalidate the patent.

In an invention consisting of a combination of well-known elements it is usually impracticable, in the small compass of the claim, to indicate the novel arrangement of parts which characterises the invention without referring back to the specification. Where possible, however, the

claim should speak for itself and give a separate and distinct statement of the invention. It must be focussed upon the precise point of novelty which constitutes the invention. Because a man has introduced some variation or improvement into a known apparatus, that does not entitle him to claim the whole apparatus. This point is well brought out by Lord Hatherley in the case of *Harrison* v. *Anderston Foundry Co.* "It is not competent," said his Lordship, "for a man to take a well-known existing machine and, having made some small improvement, to place that before the public and say 'I have made a better machine. There is the sewing machine invented by so-and-so. I have improved upon that. That is mine. It is a much better machine than his.' That will not do. You must state clearly and distinctly what it is in which you say you have made an improvement."

An applicant is not restricted to any number of claims; but unnecessary multiplicity of claims or prolixity of language should be avoided. Thus in *Bancroft's Application*, where the specification concluded with 23 claims framed on the American principle of attempting to deal with every possible contingency, exception was taken to it by the Patent Office on the ground that such multiplicity of claims, involving as it did a good deal of repetition, offended against the rule that claims must be "clear and succinct." On appeal the Comptroller's decision was upheld by the judgment of both Law Officers and the number of claims was accordingly reduced to five.

A defect in a single claim, whether it be in point of novelty or utility, is sufficient to invalidate the entire patent, unless, as has already been pointed out, the claim is a subsidiary one and does not enlarge the scope of the main claim upon which it depends, or unless it is capable of being cured, in the manner explained in another chapter, by amendment.

Drawings.

Drawings should accompany the specification, where they are needed to assist or illustrate the letterpress description. They are looked upon as forming part of the specification. Consequently, when a claim is made for the invention "substantially as described," these words refer to the description given in the drawings no less than that in the letterpress. An arrangement shown only in the figures, and necessary to the utility of a machine, has been held to be incorporated in the claim by such a phrase as the above. Where several devices are described in the specification and it is only found necessary to illustrate one particular device, the drawing will not be taken as in any way restricting the claims. The drawings must be line drawings, executed in black ink on smooth white paper of medium thickness without tone or colour, and adapted for reproduction by the process of photolithography. They may be drawn to scale or in perspective. The drawings must be furnished in duplicate, one marked "Original" and the other "True copy." Applicants intending to make their own drawings are recommended first to study carefully the rules issued by the Patent Office regulating the form and preparation of drawings. These requirements are extremely precise and failure to comply with them will involve the applicant in delay and trouble.

Specimens.

Following the practice of the German Patent Office, the framers of the Act of 1907 have introduced a provision enabling the Comptroller, when he thinks it desirable, to require the deposit of typical samples and specimens of the invention. This provision applies only to applications relating to chemical inventions, and is designed to check the filing of purely speculative claims for products, the

manufacture of which, though deducible on theoretical grounds, has never been actually tried. Where specimens are required, they must be furnished before the acceptance of the complete specification. The fact that samples or specimens have been furnished is notified to the public by a statement to that effect printed on the complete specification.

CHAPTER V.

THE CONSTRUCTION OF THE SPECIFICATION.

The same rules which govern the construction of other legal documents are equally applicable to the interpretation of a patent specification. The language will be given its ordinary and natural meaning, technical and scientific terms being interpreted, by the help of expert evidence, according to their common usage amongst those versed in the art or manufacture under consideration.

In reading the specification, the Court will place itself in the position of a person acquainted with the technology of the subject as it was understood at the time when the specification was framed. As science advances, scientific terms are constantly undergoing modification. The tendency is to closer definition. Special terms become generic as fresh species are discovered. Language, therefore, which at the date of the invention was accurate and explicit, sometimes appears in the light of later knowledge to be vague and insufficient. This is well illustrated by the case of the *Badische Anilin und Soda Fabrik* v. *Lorinstein*. There an action was brought for the infringement of a patent for certain methods of preparing colouring matter from naphthylamine. The defendant contended that there were two well-known forms of naphthylamine, designated respectively "alpha" and "beta" naphthylamine, of which the latter was unsuitable for the process, and that, as the specification did not say which of these was to be employed, it was consequently bad for insufficient description. It was proved, however, that the "alpha" variety was the only

commercial form of naphthylamine recognised at the date of the patent, and that the "beta" form only existed at that time as a costly laboratory product known to a few expert chemists. The Court held that, having regard to the state of knowledge at that time, the specification was sufficiently explicit.

If the patentee finds it necessary to coin new words or to employ ordinary or technical terms in an unusual and special sense, the Court will construe them in the sense intended, provided the specification makes their meaning perfectly clear. Where the language of the specification is ambiguous and admits of two interpretations, both equally sensible, the Court will be disposed to adopt that version which is most favourable to the validity of the patent. Thus, in *Reason Manufacturing Co.* v. *Moy*, the claim was for "the construction and arrangement of electrical fuse and cut-out boxes or covers which automatically prevent access being obtained to more than one at a time." Had this been construed as a broad claim for all arrangements effecting that result in an automatic manner, the patent could not have been sustained; but the Court was disposed to take it with the whole specification as a claim for the particular construction and arrangement described. On the same principle, where a patentee describes his invention as being an improvement on what he has already patented, the Court will not readily construe the specification as claiming over again anything which formed the subject of the former patent.

This judicial attitude towards an ambiguous specification has given rise to the idea that the Court will always place a benevolent construction upon a specification. But such an idea is based upon a misapprehension of the law. It is a common rule of construction applicable to all documents alike, that where the language is ambiguous an interpretation which gives effect and validity to the document should

be adopted in preference to one which would make it futile or void. But if the meaning is free from doubt, the doctrine of benevolent construction has no place, and the attitude of the Court towards the inventor is strictly impartial.

In delivering judgment in the galvanic cell case, *Patent Exploitation, Ltd.* v. *Siemens*, Lord Davey said:—

> "My Lords, I disclaim putting either a benevolent or malevolent interpretation on the specification, or being astute either to uphold or invalidate the patent. I am of opinion that a specification, like any other document, should be construed by the Court according to the fair meaning of the language used, after being informed by the evidence of the nature of the subject matter, the state of knowledge at the date of the patent and the meaning of any scientific or technical words that are found in it."

Following another well-recognised canon of construction, the Court will endeavour to give an effective meaning to every part of the specification. Thus, where two claims appear upon one view to claim identically the same thing, but upon another view one may be regarded as the broader claim, the Court will be disposed to adopt the latter construction, even though such reading of the claim involves the patentee in claiming what is old. Mere redundancy of claims, however, is not a vital fault, nor will palpable errors or mistakes unlikely to mislead the public be allowed to affect the validity of the patent.

In the case of *Beard* v. *Egerton* it was sought to upset a valuable patent on the ground of an error in the specification. The patent was for a new photographic process. The specification, after describing the process for coating the plate with a sensitive film of iodine, directed that, just before the moment of using the plate in the camera, it was to be treated with nitric acid and rubbed lightly with pounce. Such treatment at this stage would obviously have ruined

the plate by removing the film. The Court held that it was clearly the intention of the inventor that the polishing process should precede the sensitising process, and construed the specification accordingly. Similarly, obvious errors in the drawing, such as would not mislead any competent workman, do not militate against the validity of the patent.

On the other hand, where the patentee has deliberately claimed something that is not new, the Court will not put a forced construction on the specification, as not intending to claim what is old, simply because it was foolish or suicidal of the patentee to claim it.

The rules of construction adopted by the Courts in dealing with combination patents are of a somewhat special nature. Allusion has already been made to the rule that where a patentee desires to claim only a novel arrangement of old elements, he must specifically confine his claim to the combination, otherwise the Court may construe his claim as covering also the component parts. But there is also another important point of construction affecting combination patents to be noticed. It concerns the attitude of the Courts in reference to two distinct types of combination invention, known respectively as the "*Proctor* v. *Bennis*" type and the "*Curtis* v. *Platt*" type.

The case of *Proctor* v. *Bennis* is a typical illustration of a combination invention in which there is not only novelty in the machine, but novelty also in the effect and result produced. The invention in this case was a combination of tappets, shafts and springs in connection with an intermittently and radially acting flap or door, the whole forming a new kind of mechanical stoker. Throwing coal on to a furnace by the intermittent radial action of a flap or door was new, and nothing of the kind had been done before. The defendants had taken the underlying principle of this invention, merely varying it by the substitution of mechanical equivalents for some of the main features

of the plaintiff's apparatus. The Court hold that, as the plaintiff was the first to enunciate the principle of an intermittent radial stoker, he was entitled to have his claims broadly construed so as to prevent others from evading his patent by the use of obvious mechanical equivalents.

In *Curtis* v. *Platt* the patent was for improvements in spinning mules. A spinning mule was a well-known machine for producing well-known results. The patentee's invention consisted in a novel arrangement of parts, and it was held that he must be tied down strictly to the precise arrangement which he claimed. For where the essence of an invention is itself nothing more than the substitution of mechanical equivalents in a well-known machine, the patentee cannot prevent another from using the same machine in which the parts are differently combined, or modified by the substitution of a different set of mechanical equivalents. His claim would not, however, be construed so narrowly as to disable him from stopping a mere colourable imitation of his apparatus.

The rule of construction embodied in these two cases is well stated by Lord Hatherley in these words:—

> "Where a thing is wholly novel and one which has never been achieved before, the machine itself which is invented necessarily contains a great amount of novelty in all its parts, and one looks very narrowly and jealously upon any other machines for effecting the same object to see whether or not they are merely colourable contrivances for evading what has been done before. When the object itself is one which is not new, but the means only are new, one is not inclined to say that a person who invents a particular means of doing something that has been known to all the world long before has the right to extend very largely the interpretation of those means which he has adopted for carrying it into effect."

CHAPTER VI.

WHO MAY APPLY FOR A PATENT.

Any person, whether he be a British subject or not, may make an application for a patent, *provided he is the true and first inventor or applies jointly with the true and first inventor.*

The expression "true and first inventor" includes, as has been already pointed out, any person importing from abroad an invention which at the time of introduction is new within the realm. Hence it is common to see a specification headed "communicated from abroad," the applicant in such a case being usually a patent agent. The importer need not, however, be the agent of the foreign inventor. The manner in which he obtains the secret of the invention is quite immaterial. It may be by fair or unfair means. That is not enquired into by the Patent Office. But the foreign inventor has this protection against any person stealing his invention and patenting it in England, that under s. 91 of the Act of 1907, he can, by applying within 12 months of the date of his first foreign patent, get an antedated British patent and so defeat any application that may have been lodged during that period in fraud of his rights.

No exception is taken to the personal status of the applicant. An infant, an alien and a married woman are all equally eligible as patentees. The Patent Office is also indifferent to the mental condition of the applicant. If, however, he is a certified lunatic, the application must be made through his guardian or committee.

A corporate body stands on a different footing, since, being merely a legal entity and having no mind, it is incapable of invention. A company, therefore, must be associated in the application with the real inventor, whether he be a member of the company or not. To this rule there are two exceptions; (1) A corporation may be the sole applicant where it is the importer of the invention, for example, where it applies in respect of an invention communicated from abroad: (2) A foreign corporation which has obtained letters patent in a country belonging to the International Convention may apply for a British patent in its corporate name under s. 91 above mentioned. Applications by a corporation must be made under the company's seal.

As the result of a recent decision it appears that where a company owning letters patent is wound up, the patents merge in the Crown and *ipso facto* cease to exist.

A firm, as such, cannot apply for a patent, but a joint application may be made by all the individual members of the firm or by some member on their behalf, subject to the rule requiring the true and first inventor to be a party to the application (except in the case of an invention imported or communicated from abroad). Should an inventor die before applying for his patent, his legal representative can make an application on his behalf. The time limit within which such an application was formerly required to be made has now been abolished.

Frequently applications are made in the joint names of the inventor and some other person acting in the capacity of capitalist, who by becoming co-patentee retains some control over subsequent dealings with the patent. It should, however, be pointed out that, apart from any express agreement to the contrary, co-patentees have each the right to work the patent on their own account without the consent of the other and without accounting for profits. A capitalist,

therefore, who enters into an arrangement with an inventor, even though he be joined as co-patentee, will do well to have a carefully drawn agreement defining their respective rights as to the sharing of profits, the granting of licences and the disposal of the patent in the event of mutual disagreement.

The true and first inventor is not the man who first conceives the idea, but he who first publishes his invention. Thus, to cite an old case, a certain Dr. Hall discovered a new method of making object glasses for refracting telescopes, but kept his discovery a secret and never put it into practical use, so that when he died, the world was none the wiser for his invention. Some time afterwards, the optician Dollond invented the same thing and patented it. It was held that Dollond was the true and first inventor (*Dollond's Case*).

Difficult questions sometimes arise where an inventor employs an assistant to work out his ideas and put them into practical shape. It frequently happens that a workman, engaged to elaborate the details of an invention, makes some improvement or introduces some novel feature which in itself would be good subject matter for a patent. In such a case the question may be asked : Is the inventor who originated the fundamental idea and sketched out the lines of research or the assistant who devised an ingenious method of realising the desired end, properly entitled to patent the perfected invention ? The true answer to the question must depend upon the precise facts in each case, but the principle seems to be this. If the improvements suggested by the workman are strictly accessory to the main principle, tending to carry it out in a better manner, such improvements are the property of the inventor of the original principle and may be embodied in his patent. Thus in a recent case (*Smith's Patent*) an inventor, Y, having conceived an idea for an improved method of ginning cotton,

engaged and paid a mechanical engineer, S, to prepare working drawings and to elaborate the details. The engineer subsequently took out a patent for the machine. Y presented a petition for revocation and the patent was revoked, the judge holding that Y was the moving spirit and the real initiator of the idea, worked out through the instrumentality of S.

On the other hand, in *Marshall and Naylor's Patent*, it was the employee who was held to be the true and first inventor. The facts were briefly these. A workman in the employ of a company was asked by one of the directors to invent a tap which would, by the introduction of steam into cold water, give hot, warm or cold water as required. The employee worked upon the idea, made drawings and models and perfected in all its details a tap which answered the desired purpose. By way of remuneration the company paid him £10 for overtime work on the models and subsequently without the workman's knowledge a patent for the tap was taken out in the joint names of the director and another. On hearing of this, the workman petitioned to revoke the patent, and an order revoking it was accordingly made.

It is plain, therefore, that the mere relationship of master and servant does not disqualify a servant from taking out a patent in his own name for an invention made by him during his term of service, notwithstanding that the invention may be germane to his employers' business and have been carried out in the time and with the money and materials of his employers. But the question is a very different one, whether an employee who has taken out patents in such circumstances could, upon parting company with his employers, legally insist upon retaining and enforcing against them the patents he has taken out for inventions made whilst in their employ and at their expense. In view of recent decisions it seems that he could not, and that in such a case the Court would probably direct that the

patentee should hold the patents solely as trustee on behalf of his late employers.

In order, however, to guard against difficulties of this kind, business men and companies, engaging chemists or mechanics to work out improvements in their factories, will be well-advised to enter into an express agreement with them, clearly reserving to themselves all the products of their employee's invention. This is usually done by obtaining from the inventor an undertaking to assign, when desired, all patents for inventions or improvements which he may make whilst in their employment, or even after leaving their employment, in so far as they are germane to their business.

A less drastic form of agreement would be that the employer should have the option of being joined as co-patentee of any inventions that the inventor might make during his term of service.

Having now ascertained who may properly apply for letters patent, the next step is to consider the means necessary to be taken for obtaining the grant.

CHAPTER VII.

HOW TO OBTAIN A PATENT.

For the various steps that have to be taken in the course of patenting, special printed forms are prescribed. These forms, each of which is distinguished by a particular number, according to the nature of the application, may be obtained on personal application at the Inland Revenue Office, Royal Courts of Justice, Room No. 6, Strand, London; or, at a few days' notice and upon prepayment of the value of the stamp, at any Money Order Office in the United Kingdom. For convenient reference a complete list of these forms, with their distinctive numbers and appropriate fee, is given in Appendix A, page 236.

Assuming that the applicant desires to apply in the usual way by filing in the first instance a provisional specification, he will obtain Form No. 1 (which must be impressed with a £1 stamp) and two copies of Form No. 2, unstamped. These forms must be filled up in accordance with the directions contained in the marginal notes. Form No. 1 must be signed by the applicant or applicants personally; in most of the other communications the signature of the authorised agent, if a patent agent is employed, is sufficient. Upon the back of this form the applicant must state to whom he desires communications from the Patent Office relative to the application to be addressed.

The formal part of Form No. 2 must be filled up so as to exactly agree in all particulars with Form No. 1. The provisional specification is begun at the foot of the form and

continued on sheets of foolscap of similar size, and with a margin of at least 1½ inches. It must be written with ink in large legible characters and must be dated and signed at the end. The several sheets should be fastened together at the top left-hand corner, and addressed to the Comptroller, Patent Office, 25, Southampton Buildings, Chancery Lane, London, W.C. They may be left at the Patent Office by hand or posted. The certificate of receipt issued when the application is lodged does not confer provisional protection; this follows upon acceptance, but dates as from the day of application.

An application in respect of an invention communicated from abroad is required to be made upon Form No. 1a, and applications claiming priority under international or colonial arrangements upon Form No. 1b. Special forms are also prescribed for applications for patents of addition and for secret patents (*qu. v.*).

As soon as an application is lodged, the accompanying specification and drawings are at once submitted to one of the Patent Office examiners, who reports to the Comptroller whether the nature of the invention is fairly described and whether the application, specification and drawings have been prepared in the prescribed manner; whether the title sufficiently indicates the subject matter of the invention, and whether the specification comprises one invention only. If defective in any of these particulars, the papers are returned for correction and the application will not be proceeded with until the required amendment is made. If serious amendment is required, the Comptroller may direct that the application bear date as from the time when the requirement is complied with. The applicant is duly notified of the acceptance of the provisional specification.

The complete specification is begun on Form No. 3 and continued, like the provisional, on supplementary sheets. It must be furnished in duplicate, one copy bearing a £3

stamp. In the ordinary course the complete specification must be lodged within 6 months from the date of application. One month's extension of time can be obtained by applying on Form No. 6, impressed with a £2 stamp.

The complete specification having been duly lodged, the application again comes before the examiner for scrutiny as to its compliance with formal requirements. His duty is to see that the nature of the invention is fairly described, and that the title sufficiently indicates the subject matter of the invention, and that there is no disconformity between the provisional and complete specifications. If faulty in any of these respects, the Comptroller may refuse the application altogether, or he may require the defects to be amended before proceeding with the application. He may also, if he thinks fit, post-date the application to the time when the required amendment is made.

The decision of the Comptroller is subject to appeal to the Law Officer, who, after hearing the applicant and the Comptroller, will finally determine the question at issue.

Up to this point the attention of the Patent Office has been confined to seeing that the application and specification are in due form, and prior to 1905 the duties of the examiners went no further. The Patents Act, 1902, however, introduced an important innovation which came into force on the 1st of January, 1905, requiring a limited investigation to be made as to the alleged novelty of the invention claimed.

The rules regulating this practice have been substantially re-enacted in s. 7 of the Patents and Designs Act, 1907, and provision is made in s. 8 for considerably extending the scope of the investigation. As the latter section does not come into operation at once, but at some future date to be fixed by the Board of Trade, it will be convenient to deal with the procedure prescribed under

these two sections separately. The practice under s. 7 is shortly as follows:—

As soon as it has been ascertained that the complete specification deposited is in due form, a search is at once made to discover whether the invention claimed has been wholly or in part claimed or described in any specification (other than a provisional specification not followed by a complete specification) published within the 50 years preceding the application in question. If on investigation it appears that the invention has been wholly or in part claimed or described in a preceding specification, the examiner informs the applicant who, if the objection is well founded, will be wise to amend his specification so as to avoid trenching on the ground covered by the prior specification. The time within which an applicant may leave his amended specification is 2 months from the date of the letter informing him of the anticipation.

In due course the examiner reports to the Comptroller the result of his investigations. If the Comptroller is satisfied that the objection has been removed or that it is unfounded, he accepts the specification. If, however, he is not so satisfied, the applicant is given an opportunity of appearing before him and arguing his case. If the applicant does not desire a hearing, or if after a hearing he does not succeed in removing the Comptroller's objection by amending the specification to his satisfaction, the Comptroller has two courses open to him. He may direct that a reference to the anticipating specification or specifications be inserted by way of notice to the public, or if he is satisfied that the invention claimed by the applicant has been claimed *wholly and specifically* in a prior specification, he may refuse to grant a patent at all.

Where the Comptroller determines that a reference must be inserted, it is inserted after the claims in the following form:—"Reference has been directed in pursuance of

s. 7, sub-s. 4, of the Patents and Designs Act, 1907, to specification No. ——, of ——."

If the examiner finds that a specification has been *wholly* anticipated, without further investigation he makes what is called a "provisional" report to the Comptroller. When the official reference is inserted as the result of a provisional report, a statement to that effect is added to the reference.

The reports made by examiners as the result of their investigation as to novelty are not published or open to inspection, unless the Court certifies that their production or inspection is desirable in the interests of justice.

The power which the Comptroller now wields, of refusing, at this stage, the grant of a patent, is newly conferred by the Act of 1907. Previously, the utmost that the Comptroller could do by way of condemning a patent was to brand it with the official reference. At the same time, it is to be observed, his power of refusal is narrowly restricted, its exercise being confined to cases in which there is entire and specific identity in the claims of the two specifications. Instances, therefore, in which the Comptroller can refuse the grant outright must necessarily be extremely rare. On the other hand, the mere existence of this ultimate power of refusal renders it probable that the penultimate expedient of requiring the insertion of the official reference will be rather more freely used.

Whenever, as the result of the Comptroller's decision, an official reference is inserted in the specification it is a very serious matter for the patentee. For it plainly signifies to the public that, in the opinion of the Comptroller, the patent is invalid, and there is very small chance of commercial success for a patent upon which the Patent Office has set this mark of disapproval. In fact an applicant, whose specification has been thus branded, will scarcely find it worth his while to persevere in his application. Should

he do so, he will probably have to face opposition from the proprietor of the patent to which attention is called by the reference, coupled with the practical certainty of defeat. For the opponent will be asking the Comptroller's decision on a matter which is already *res judicata*, the Comptroller having already committed himself to the opinion that the applicant claims something which is claimed or described in the opponent's specification.

The decision of the Comptroller under this section is subject to appeal to the Law Officer, whose judgment is final in the matter.

Though not infallible, this investigation by the Patent Office into the novelty of the applicant's invention appears, on the whole, to be beneficial, inasmuch as it frequently results in the conversion of a bad specification into a good one by suitable amendment of the claims and more precise definition of the scope of the invention. The statistics for the year 1906 show that more than 50 per cent. of the complete specifications accepted by the Comptroller were amended as the result of official investigation, and it may be safely assumed that in the great majority of cases the amendment was for the better.

It should be remembered, however, that searches carried out by the Patent Office examiners, though thorough as far as they go, are not exhaustive. The investigation is confined to prior specifications, and leaves unexplored the vast continent of general scientific literature. The inventor must not, therefore, take the acceptance of his application by the Patent Office as being in any way a guarantee of the validity of his patent on the score of novelty.

The object of the new procedure prescribed under s. 8 is to extend the investigation under the preceding section to specifications published *after* the date of the application in respect of which the investigation is made, but deposited pursuant to a *prior* application. It is

expressly provided that, for the purposes of this section, one application shall be deemed to be prior to another, if the patent when granted will be of prior date. This is clearly intended to bring Convention applications within the scope of the section. This being so, it follows that in a large number of cases the search cannot be finally completed until a considerable time after the patent, the fate of which hangs upon the investigation, has been granted. Thus, to take an illustration, if A applies for a patent on November 1st, the investigation as to the novelty of this invention cannot, at the earliest, be concluded till October 31st in the following year, for a Convention applicant might file an application upon that date and obtain a patent antedating A's patent.

If, as the result of this extended investigation under this section, an anticipating specification comes to light, the applicant, who perhaps by this time will have had his patent sealed, will be informed of it, and will have 2 months within which to decide what amendment (if any) he is prepared to make. The procedure consequent upon his refusal to make any required amendment is substantially the same as under the preceding section. It should be observed, however, that although the Comptroller has the same power of amendment under this section as under the preceding one, he has no power as the result of an extended investigation to revoke his acceptance of a specification or cancel a patent already granted.

Assuming that the specification has satisfactorily run the gauntlet of examination on the score of novelty, it is then ripe for acceptance.

Normally the complete specification must be accepted within 12 months from the date of application, but this period may be extended for a further 3 months by special application upon Form No. 7, stamped with the appropriate fee. If not accepted within this period the application

becomes void, save where extra delay is occasioned by an appeal from the Comptroller's refusal to accept.

As soon as a specification is accepted the applicant receives a formal notice of the fact from the Comptroller and the acceptance is duly advertised in the official journal of the Patent Office. When this stage is reached, the specification and drawings are open to public inspection and, pending publication in print, may be seen at the Patent Office upon payment of a small fee. Specifications are printed about 15 days after the advertisement of the acceptance of the complete specification. From the date when acceptance is advertised, the public have a space of 2 months within which they may oppose the grant of a patent upon the application. The whole subject of Opposition, which is of great importance, is fully dealt with in the following chapter. Here it is sufficient to remark that the grounds of opposition are strictly limited and that no one is entitled to be heard in opposition unless his interest is clearly affected by the proposed grant.

In the absence of opposition the applicant will proceed to take the final step, that is, to get his patent sealed. Except in cases of appeal or opposition or death of the applicant, a patent must be sealed within 15 months, or, if extension of time has been allowed for leaving or accepting a complete specification, within 19 months from the date of application.

In the exceptional case of an applicant dying before the expiration of the period for sealing, an extension of 12 months from the date of his death will be allowed to the legal representative.

To procure the sealing of his patent an applicant must make a special application. This is done by leaving at the Patent Office Form No. 10 stamped with £1. Care should be taken to ensure that this form, duly stamped, reaches the Patent Office at such a date as to permit of the sealing

of the patent within the prescribed time, otherwise it will be necessary to apply for an extension of time, which means the payment of an additional fee. The applicant is advised to pay the sealing fee after the date of the acceptance of his complete specification, and before the expiration of the period allowed for opposition. If this is done, the patent will as a rule be sealed about 10 weeks after the date of acceptance. Omission to pay the sealing fee deprives the applicant of his patent, and the invention becomes public property, the specification having been published.

As soon as an applicant has had his specification accepted, his monopoly begins; as soon as his specification is published, the manufacture and sale of articles made in accordance with it are counted as infringements, though his right to sue for damages in respect of such infringement is deferred until his patent is sealed.

In due course the document representing the formal patent grant is forwarded to the patentee. But, as has been pointed out, the patentee cannot feel perfect security that the Patent Office has said its last word on the subject until the period for the "extended investigation" has expired.

The patent is antedated to the date of application, and, in the case of a Convention application, to the date of the first application abroad.

The fees paid up to this point (£5 in all), to obtain the grant of a patent, are sufficient to sustain it till the end of the 4th year. If the patentee intends to keep his patent in force beyond this period, he must pay further fees. These increase on a gradually advancing scale as the term of the patent advances. Before the expiration of the 4th year and in respect of the 5th year the fee is £5; for the 6th year £6; for the 7th year £7 and so on until the 14th year, when it is £14. The sum total of Patent Office fees required to obtain a patent and keep it in force for the full term of 14 years amounts to £100.

These fees may be paid annually as they fall due, or wholly or partly in advance. The continuance of the patent is conditional upon their punctual payment. The patentee is warned by a note on the patent itself that, as the payment of these renewal fees is regulated by Act of Parliament, a fee cannot be received a *single day* after it is due. If by accident or inadvertence the payment has been omitted, application may be made to the Comptroller, on Form No. 14, and an extension of time, not exceeding three months, may be obtained. For this extension the fees payable are £1 for one month, £3 for two months and £5 for three months. Patentees are notified by the Comptroller a month in advance of the date when the renewal fee is due. Upon payment of the fee, the Comptroller issues a certificate that the prescribed payment has been made.

Formerly a patent which had lapsed through neglect to pay the renewal fees could only be revived by special Act of Parliament. Section 20 of the Act of 1907 now empowers the Comptroller to restore patents that have lapsed from this cause. To obtain this indulgence, application must be made on Form No. 15, showing that the omission was unintentional and that no undue delay has occurred since it was discovered. The statements contained in the application must be verified by statutory declaration. The application will be advertised so that anyone desiring to oppose it may do so, on giving notice to that effect within the prescribed time. In due course the Comptroller will hear the case and make an order restoring the patent or dismissing the application. His decision is subject to an appeal to the Court.

In every order of the Comptroller restoring a patent a provision is inserted for the protection of persons who may have availed themselves of the subject matter of the patent after it was announced as void in the Journal.

Applications under the International Convention.

In order to take advantage of s. 91 of the Patents and Designs Act, 1907, a foreign patentee or applicant must apply in England within 12 months of the date of his first foreign application. The application must be made on Form No. 1b, signed by the foreign patentee and accompanied by a *complete* specification, corresponding substantially with, though not necessarily a *verbatim* translation of, the foreign specification. The applicant must also supply a copy of the specification and drawings as filed in the Patent Office of the foreign country, duly certified by the chief patent official in that country, or otherwise verified to the Comptroller's satisfaction. If the specification is in a foreign language, a certified translation must also be included with the papers. If the complete specification left with the application is not accepted within 12 months from the date of the first foreign application, it is laid open to public inspection at the expiration of that period. In other respects Convention applications (as applications under s. 91 are commonly called) are subject to the same rules of procedure as ordinary applications. The patent, when issued, bears the date of the first foreign application.

An applicant entitled to claim the privileges of the Convention may do so notwithstanding he has filed an application in the first instance without doing so, provided he signifies his altered intention before the expiration of 12 months from the date of his first foreign application.

It will be convenient here, though the subject belongs properly to the following chapter, to allude briefly to the position of the Convention applicant in regard to opposition proceedings. Prior to the Act of 1907, perplexing questions had arisen as to the right of a Convention applicant to oppose a rival application lodged in between the dates of

his foreign and English application, and also as to the right of the intervening applicant to oppose the Convention applicant.

These difficulties have been swept away by the new Act. Section 11, which sets out the various grounds of opposition, is so worded as to give the Convention applicant, beyond any doubt, a *locus standi* for opposing an intervening application covering the same invention.

If the time for opposition is past, the Convention applicant may, within 2 years from the date of the rival patent, apply to the Comptroller under s. 26 to revoke it (see p. 186).

Further, it should be observed that the new regulations for an extended investigation as to novelty have an important bearing with regard to applications under s. 91.

Even after the grant of a patent to an ordinary applicant, the Comptroller may require a specific reference or perhaps even the objectionable official reference to be inserted in his specification in view of a Convention patent applied for since, but destined ultimately to antedate, the patent already granted.

The advantageous position which, in the present state of the law, the foreign inventor, applying for a British patent under s. 91, occupies *vis à vis* the British applicant cannot be regarded as entirely satisfactory. In the past, the English law has always ranked the importer of a foreign invention on an equal footing with the actual inventor. Now, however, it is manifest that the privileges granted to foreign patentees under this section seriously abridge the rights which the importer has hitherto enjoyed. No one applying for a patent, as importer of an invention recently patented abroad, can feel secure of obtaining an indefeasible grant until after the expiration of 12 months from the date when the invention was first patented abroad.

In these circumstances it is worth while considering

whether, in certain cases, it is not the English inventor's best policy to lodge his first application in some foreign Convention country, say Belgium (where the initial fees are not high), and thereby obtain a *quasi* provisional protection in the United Kingdom for 12 months, instead of for the normal period of 6 months.

Patents of Addition.

It is seldom that an invention of any importance can be adequately protected by a single patent. Improvements upon the original conception are evolved from time to time and require to be separately patented. Hitherto every additional patent meant an additional drain, just as heavy as the first, upon the patentee's purse; for even though improvements entirely supersede the invention as originally patented, it is nevertheless, as a rule, essential for the preservation of the monopoly to keep all the patents alive.

To lighten this burden of expense, which weighed more particularly on the poor inventor, the Act of 1907 has adopted the principle, long familiar in foreign patent systems, of granting "patents of addition."

The whole *raison d'être* of a patent of this kind is that it shall be cheaper than the ordinary patent. The initial cost of obtaining a patent of addition will be normal, but the patentee is relieved from the payment of renewal fees. On the other hand, a patent of addition is only granted for the residue of the term of the original patent and will only remain in force so long as the latter remains in force.

A patent of addition may be obtained by application on Form No. 1c, in respect of any "improvement in or modification of" the original invention, whether it has actually been patented or only a patent applied for. Where the improvement is evolved at an early stage, *i.e.*, before a complete specification has been filed in respect of the

original invention, the inventor has the option of getting his two provisional specifications combined in a single complete specification, under s. 16 (see p. 57), or of applying for a patent of addition.

After the Comptroller has allowed a patent of addition to be granted, no question may be subsequently raised as to the propriety of its being so treated.

Register of Patents.

As soon as a patent has been granted, the name and address of the patentee and the title of his invention are entered in the Register of Patents. This is an official record, kept at the Patent Office, of all incidents and transactions affecting the validity and proprietorship of letters patent. Memoranda of amendments and payment of renewal fees, and other facts of which the Patent Office has direct cognisance, are entered as a matter of course; assignments, licences, extensions and revocations are only recorded upon notice and evidence being furnished to the Comptroller in the prescribed form.

The value of registration is that it affords good evidence of title. Before acquiring a patent or any right under a patent, a purchaser should satisfy himself by an inspection of the Register that the patentee's title is good and unencumbered. No interest or claim which does not appear upon the Register can be set up in derogation of a right that has been duly registered.

Registration is not compulsory. An assignee may register his assignment or not as he chooses; but if he does not do so, he runs the risk of having his title defeated by someone else who innocently takes a subsequent assignment from the same patentee, and does register it.

To obtain registration of an assignment, the deed and any other document affecting the proprietorship of the

patent must be forwarded to the Patent Office together with a request on Form No. 27, stamped with a 10*s.* stamp, giving particulars of the assignment. Copies of the original documents must also be furnished. These should be written on foolscap and impressed with a 1*s.* stamp.

In the case of a licence, the notification is required to be made on Form No. 28, accompanied by the licence and an attested copy. If the licensee does not wish the terms of the licence publicly disclosed, he may put these into a separate document and import them into the licence merely by reference.

The Comptroller will not accept for registration any simple notice or declaration of trust, but this rule does not exclude the registration of documents directly affecting the proprietorship of a patent, for instance, an equitable assignment or licence, not under seal, but evidenced by a written agreement. A note of a mortgage may be registered, although the mortgagor remains on the Register as the legal patentee.

Agreements entered into respecting a patent, which has been applied for but not yet granted, are capable of registration, but it is extremely doubtful whether an agreement made prior to the application for a patent would be accepted for registration, as until an application has been lodged there are no sure means of identifying the invention mentioned in the agreement with that afterwards patented.

The Register is open to public inspection during the usual business hours of the Patent Office, and certified copies of any entry may be had on payment of the prescribed fee.

Under s. 72 of the Act of 1907, anyone aggrieved by omissions or erroneous entries in the Register may apply to the Court to have such errors corrected. If the mistake is merely a clerical error it can be put right by making written request to the Comptroller on Form No. 30.

Any person interested in a particular patent may, on payment of a small fee, leave at the Patent Office a request to be informed when any attempt is made to register an assignment or other document affecting the patent in question. In the event of application being made to register any dealings with the patent, the person interested will be duly notified and the registration suspended for a few days so as to afford him an opportunity of taking steps to prevent the registration if he desires to do so.

CHAPTER VIII.

OPPOSITION.

Until the complete specification has been accepted by the Comptroller, the public have no means of ascertaining the scope of the applicant's claims. The only clue to the nature of the invention is that afforded by the title, published upon receipt of the application, in the Illustrated Official Journal of Patents. If the title is such as to raise apprehension in the mind of any member of the public that the patent sought to be obtained is likely to prove injurious to his own patent rights, he should at once forward to the Comptroller a request, accompanied by a blank form, No. 31 (5*s*. stamp), for notification as soon as the complete specification is accepted. Otherwise, since the time of acceptance is always uncertain, he may through inadvertence miss the official advertisement of acceptance and so let slip his chance of opposing the grant.

The grounds upon which the grant of a patent may be opposed are strictly limited by Statute, and fall under the following four heads :—

(1) That the applicant has obtained the invention from the opponent or from a person of whom he is the legal representative.

(2) That the invention has been claimed in any complete specification for a British patent, which is or will be of prior date to the patent, the grant of which is opposed (except specifications 50 or more years old).

(3) That the nature of the invention or the manner in

which it is to be performed is not sufficiently or fairly described and ascertained in the complete specification.

(4) That the complete specification describes or claims an invention other than that described in the provisional specification, and that such other invention forms the subject of an application made by the opponent in the interval between the leaving of the provisional specification and the leaving of the complete specification.

No opposition on other grounds than these is entertained.

An intending opponent has two months from the date when acceptance is advertised within which to give notice of opposition. Before doing so he will, of course, inspect the applicant's specification to ascertain whether he has good ground for opposition. This he may do at once upon payment of a fee of 1*s*. Fifteen days later the specification is printed and may be seen, free of charge, in the Patent Office Library or purchased for the sum of 8*d*. at the Sales Branch of the Patent Office.

In notifying the Comptroller of his intention to oppose, the opponent must fill up Form No. 8, stating the grounds of opposition and, having stamped it with a 10*s*. stamp, lodge it at the Patent Office together with an unstamped copy. Notice of opposition must be signed by the opponent in person; his agent's signature is not sufficient. Where the person giving notice of opposition does not desire the patent should be refused, but merely that the specification be amended, he should include with the notice of opposition a statement to that effect, indicating the general nature of the amendment desired. Where the opponent relies on the first ground of opposition, he must in all cases file evidence in support of his contention within 14 days after the expiration of the two months allowed for giving notice of opposition, otherwise the opposition will be deemed to

have been abandoned. This evidence takes the form of a written declaration upon oath, which is substantially the same thing as an affidavit. The opponent may support his own testimony by that of any other witness who has personal knowledge of the facts. Any person making a declaration may be required by the Comptroller to attend at the hearing to supplement his declaration by oral evidence on oath. The filing of declarations is only obligatory in cases of opposition on the first ground.

Where the ground of opposition is that the invention has been claimed in a specification of prior date, the number and date of the prior patent or application must be specified in the notice. References to any other specifications on which the opponent intends to rely should also be included in the notice, unless it is the intention to file a declaration, in which case they will be cited in the declaration. If the ground of opposition is that the nature of the invention is not fairly described, the notice of opposition should be accompanied by a written statement indicating in what respects the specification is defective. Where special pleas are raised, as, for example, where the opponent claims to have his patent construed as a master patent, declarations are necessary; they are also useful where the specifications are long and the subject matter intricate, as they serve to define the precise point at issue. If the opponent wishes to file a declaration he must do so within 14 days after the expiration of the period allowed for giving notice of opposition, and at the same time deliver a copy to the applicant, who may within 14 days thereafter file a declaration in answer; to which the opponent can reply by a further declaration within another 14 days. No further evidence may be filed except by leave or request of the Comptroller.

Should the opponent file no declaration, the applicant may take the initiative and file a declaration justifying his application and showing by reference to other specifications

that the opponent's claims must be construed narrowly and that, so construed, they do not constitute an anticipation. The applicant's declaration must be left within 3 months from the date of the advertisement of his complete specification, and may be followed in the manner above described by declarations in answer and reply.

On completion of the evidence the Comptroller will appoint a time for hearing the case. Both parties must notify the Comptroller whether or not they desire to be present or represented at the hearing. The failure of an opponent to appear at the hearing or the withdrawal of his opposition does not exonerate the applicant from satisfying the Comptroller that there is no substance in the alleged ground of opposition; and it is possible that upon the evidence of the declarations alone the applicant's patent might be refused, even if the opponent were not present to argue his case. Oppositions, therefore, cannot be safely ignored.

If either party intends to refer at the hearing to any publication other than a specification mentioned in the notice of opposition or the statutory declarations, he must give both the Comptroller and his adversary at least 5 days' notice of his intention.

In the event of neither party appearing, the Comptroller will decide the case upon the evidence, and in due course notify the parties of his decision.

Opposition cases are heard in the Comptroller's Court at the Patent Office by the Comptroller or by the Chief Examiner, sitting in his stead. Some member of the examining staff, through whose hands the application in question has passed, is also usually present in case his assistance is required. The parties may argue their case in person, or they may be represented by their patent agent or by counsel. The usual practice is for the applicant to begin and, after the opponent has put his

case, he has the right to reply. Where, however, the ground of opposition is fraud on the part of the applicant, the Comptroller may require to hear the opponent first. Each party pays a hearing fee of £1.

Formerly the powers of the Comptroller with regard to the taking of evidence were exceedingly limited; the great extension of his judicial functions, however, by the Act of 1907 has necessitated a corresponding enlargement of his powers in this respect. He may now take oral evidence upon oath, allow the declarant to be cross-examined on his declaration and require the attendance of witnesses by writ of subpœna. He has also power to award such costs as he may think reasonable and in certain cases to require security for costs to be given.

An appeal lies from the Comptroller's decision to the Law Officer. Notice of appeal must be given within 14 days, stating the gist of the decision appealed from and saying whether the appeal is from the whole or only from part of the decision. No further evidence is allowed, except by special permission of the Law Officer.

The Law Officer has power to award costs, and the usual practice, where costs are given, is to fix them at a certain amount.

Having thus briefly outlined the course of procedure in opposition cases, it remains to consider more in detail the several grounds upon which the grant of a patent may be opposed.

The *first* ground, namely, that the applicant has obtained the invention from the opponent or from some person of whom he is the legal representative, raises the issue of "true and first inventor." Oppositions of this kind fall roughly into two classes:—(1) those in which the opponent's denial of the applicant's right to claim the invention amounts virtually to an allegation of fraud, and (2) those in which the opponent claims that he is entitled

to a share in the patent, in recognition of his right as co-inventor with the applicant.

An allegation of fraud is a serious matter and should not be put forward without good reason; and the refusal of a grant upon this ground will only be secured upon cogent proof of the applicant's fraud being furnished. The piracy complained of must have been committed in this country; no allegation of fraud committed abroad will be entertained. In a case of opposition to the grant of a patent to the importer of a foreign invention, on the ground that the invention had been fraudulently obtained, the Attorney-General said:—"I think the Comptroller has no jurisdiction to enquire into the circumstances under which the invention was obtained by the importer. Of course there may be cases in which the relations between the parties may be such that the person who has first imported the invention may be guilty of some breach of contract or breach of duty towards the person from whom he has obtained the invention abroad, and the importer may be liable to proceedings in respect of the breach of any such contract or duty, but in my opinion these are matters which the Comptroller and the Law Officer cannot inquire into, but must form the subject of independent proceedings in this country or abroad, as the case may be."

The simplest course for a foreign inventor to take in such a case, assuming it is not too late, would be to apply under s. 91 for a British patent to be antedated to the date of his foreign patent. This would give him a *locus standi* for opposing on the second ground. If, however, the patent he desires to oppose has already been granted, it is still open to him to apply under s. 26 to revoke it (see p. 186).

The commonest instances of opposition on the first ground are afforded by disputes between employer and employee, or between the inventor who conceived the idea

and the assistant engaged to put it into practical shape. The principle underlying the decision of these cases has already been discussed, and here need only be recalled briefly. The "true and first inventor" is the original projector of the practical idea, and no matter whether he be master or workman, he alone is entitled to the grant; nor is the principle affected by the fact that, in the case of a workman originating the idea, the invention was carried out with his employer's tools and material and in his employer's time.

If upon the evidence it appears that both the applicant and opponent had some share in the invention, the usual practice is to direct a patent to be sealed in their joint names. Where the opponent had already applied for a patent in respect of the same subject matter, the equivalent result was effected by causing each patentee to assign to the other a joint interest in his patent.

An opponent relying on this ground of opposition, if he wishes to patent the invention himself, should lose no time in applying. Section 15 of the Act provides that "a patent granted to the true and first inventor shall not be invalidated by an application in fraud of him, or by provisional protection obtained thereon, or by any use or publication of the invention subsequent to that fraudulent application during the period of provisional protection." But upon final refusal to seal a patent to the applicant, the period of the provisional protection will cease, and any subsequent exercise of the invention would prejudice an application of later date. In order, therefore, to get a valid patent granted to himself, the opponent should make his application before the date of the hearing.

In the event of the decease of the intending opponent, this ground of opposition is available to his "legal representative," that is, his executor or administrator. Attempts

to attach an extended meaning to these words have been made without success.

By far the most usual ground of opposition is the *second*, namely, to put it shortly, that the applicant's invention has been anticipated wholly or in part.

Prior to 1907, opposition on this ground could only be based upon a completed patent or an accepted complete specification. Now, however, it is sufficient to allege that the applicant claims an invention claimed in any previously filed complete specification or even in one subsequently filed, provided the patent to be granted in respect of it will antedate the applicant's patent. Apparently it is not necessary that the specification, relied on as an anticipation, should have been actually *accepted* by the Comptroller.

This alteration in the law is, as has been pointed out, chiefly beneficial to the Convention applicant and will no doubt contribute, with the new practice of extended investigation, to remove what has always been a blemish in the English patent system, namely, the possibility of the co-existence of patents for identical subject matter.

For simplicity's sake, in what follows, the complete specification relied on as an anticipation will be alluded to as though it had already been consummated in a completed patent of prior date.

It is not every member of the public that can oppose upon this ground. The opponent must possess what is termed a *locus standi*. He must have some definite and direct interest in the prior patent which he alleges to be an anticipation of the applicant's invention. He need not necessarily be the owner or licensee of the patent relied on; nor is the right to oppose affected by the fact that the patent has expired. A *locus standi* was successfully established by a manufacturer in respect of an expired patent in which he had been interested and under which he had worked. It has also been held that a person who has been

prevented from working an invention owing to the existence of a patent may oppose an application for a second patent covering the same subject matter. The professional interest of a patent agent in a patent is not, however, of such a character as to entitle him to oppose. Having established his *locus standi* in respect of some particular patent, the opponent is at liberty to refer to other specifications for the purpose of strengthening his case, provided due notice is given. No specification published more than 50 years prior to the application against which the opposition is directed will be deemed an anticipation.

The issue to be tried upon this ground of opposition is a simple one, involving solely the question whether, putting the specifications side by side, it appears that the applicant is claiming over again what has already been claimed in an earlier specification. A device which is described, but not claimed, will not constitute an anticipation for the purpose of opposition. In considering this question, it is very necessary to ascertain the precise scope of the prior patent upon which the opponent relies as an anticipation. If its claims are wide and vague, the applicant may, in his declaration, refer to kindred specifications and adduce evidence as to the state of the art, with a view to placing a narrowing construction upon the specification cited in opposition; and this is usually done, where the opponent claims that his patent is entitled to be construed broadly as a master patent. But the applicant is not permitted to impugn the validity of any of the patents cited as anticipations. If, in the Comptroller's opinion, there is no substantial difference between the invention claimed by the applicant and that claimed in the earlier specification, effect being given to the doctrine of mechanical equivalents to the extent of refusing to recognise mere colourable differences, the patent will be refused. If, on the other hand, there are distinguishing features, the Comptroller

will determine whether, after eliminating from the applicant's claims all that is merely a repetition of prior claims, there still remains a residue of patentable invention.

The Comptroller's duty is two-fold; to safeguard the public and to protect the patentee, whose interest is particularly affected by the application. He must see that the applicant does not acquire patent rights which will mislead the public. A patent, containing claims which are a mere repetition of the claims of an earlier patent, is manifestly an imposture. A specification of what is in reality a minor improvement, but so worded as to convey the impression that the patentee lays claim to the wider invention upon which his device is merely a graft, is similarly misleading. Moreover it is detrimental to the value of the patent upon which it claims to have improved, in so far as it tends to usurp its position in the public eye. Where an applicant claims what is old, and the scope of his claims cannot conveniently be brought within due bounds either by excision or by the addition of restrictive words, the Comptroller will direct the insertion of a disclaiming clause. Amendment by disclaimer has been characterised as unscientific; it has, however, the merit of being a clear and compendious form of amendment.

Disclaimers are of two kinds, *general* and *specific*. A general disclaimer is a statement, such as is frequently inserted quite voluntarily in a specification, to the effect that the patentee is aware that certain things have already been done and that he lays no claim to these things. When inserted at the instance of an opponent, the disclaimer is usually drawn to exclude, by general descriptive language, the invention covered by the opponent's patent.

An applicant whose specification errs on the side of claiming too much will do well, as a rule, to assent to the insertion of an innocuous disclaimer; for, though the amendment narrows the ambit of his patent, it often results

in the conversion of a bad patent into a good one; whereas by obstinately resisting a reasonable amendment, an applicant runs the risk of having a disclaimer inserted in a more objectionable form than might otherwise be the case.

A specific disclaimer, or, as it is sometimes called, a specific reference, is a clause referring by number and date to the opponent's patent. It is usually in the following form, "I am aware of Letters Patent No. —— of the year —— granted to —— and I make no claim to anything described or claimed therein."

The Comptroller and Law Officer have always shown themselves very reluctant to insert specific disclaimers, and have only resorted to them in extreme cases, where milder forms of amendment were insufficient for the protection of the public. It is not improbable, however, that the more frequent and familiar use of the specific reference fostered by the new procedure (introduced by the Patents Act of 1902), will tend to relax the stringency which has hitherto regulated the insertion of this form of reference in opposition cases.

The fact that the opponent's patent is a master patent has usually been considered a good reason for directing a specific reference; the object being to warn the public that the applicant's invention is subordinate to and cannot be used without a licence under the earlier patent. But special disclaimers will not be sanctioned merely for the purpose of advertising an antecedent patent, and an opponent is not entitled to have his patent referred to by name, if a general form of disclaimer is sufficient warning to the public.

Finally, in regard to this ground of opposition it may be laid down as a general rule of practice that the seal will not be withheld from the applicant's patent unless a clear case is made out and it is proved to the satisfaction of the

Comptroller or the Law Officer, as the case may be, that the applicant's claims are practically identical with those of the prior patent. If, by amendment or disclaimer, this objection can be removed, although it involves the whittling down of the applicant's claims to a very small compass, yet, so long as there is left a recognisable fragment of the invention originally claimed, the applicant will be allowed the benefit of the doubt without prejudice to the question whether the distinguishing feature is sufficient to constitute patentable subject matter. For the Law Officer's refusal to grant a patent is final. The injury, therefore, if his decision is wrong, is irremediable; whereas, by allowing the patent to be sealed, he does not debar the opponent from taking the opinion of a higher judicial tribunal by subsequently applying to the Court to revoke the patent.

The *third* ground of opposition, viz., insufficiency of specification, is new. In the majority of cases it will be relied upon merely as an alternative to the preceding ground; the applicant will be put in the dilemma, that he is either claiming what is old, or else his specification and claims are too vague and require amendment and clearer definition. Presumably an opponent would be required to possess the same *locus standi* in this as in the previous case.

The *fourth* ground of opposition is that the complete specification describes and claims an invention other than that described in the provisional specification, and that such other invention forms the subject of an application made by the opponent in the interval between the leaving of the provisional specification and the leaving of the complete specification,

This provision is intended to guard against a species of patent plagiarism which is liable to occur when there are many working concurrently in one particular field of invention. An applicant, who files only a provisional

specification in the first instance, is permitted to embody in his final specification legitimate developments of the invention originally foreshadowed; but if these improvements happen to be identical with the subject matter disclosed in another specification published in the interim upon an application of later date, there is a strong presumption raised that the first applicant has filched these improvements from the specification of the latter applicant.

No objection of disconformity will be entertained by the Patent Office after a specification has been accepted. Hence, but for this remedy, the applicant might successfully appropriate the fruit of another's ingenuity.

An illustration of an opposition upon this ground is afforded by the case of *Wilson's Patent*. A provisional specification filed by W described various forms of bicycle tyre. The complete specification described and claimed, in connection with the tyres, several methods of fastening which were not alluded to in the provisional specification. B opposed the grant to W on the ground that these fastening devices were not described in W's provisional specification and that they formed the subject of an application made by him in the interval between the filing of W's provisional and complete specification. The opposition went before the Attorney-General on appeal, and he ordered the excision of a part of W's specification, an amendment of the claims and the insertion of a disclaiming clause to the effect that the methods of fastening mentioned in his specification formed no part of the invention claimed.

An opposition instituted collusively, with the object of delaying the grant of the patent beyond the date when it would ordinarily have to be sealed, will, if the design is detected, result in the grant being refused altogether.

CHAPTER IX.

PATENT RIGHTS.

THEIR LEGAL VALUE.

HAVING traced out in detail the various steps by which an invention may be patented, it is now time to ascertain precisely what are the rights which the grant of letters patent confers.

Regarded from the point of view of the original grantor, viz., the Crown, the right conferred by a patent is not a permissive but a prohibitive right. It does not *give* the patentee the right to use the invention; that is a right which he would have in common with everyone else if there were no patent at all. The real privilege that the patentee enjoys, in virtue of his patent, is the power of preventing others from using his invention without his consent. Even the inventor himself may fall under the ban of the patentee. For, although an inventor must necessarily be a party to the application for a patent (except in the case of an imported invention), as soon as the patent has been granted, his connection with it is no longer necessary. He may at any time divest himself of his patent rights, and upon so doing may himself be restrained from exercising his invention as effectually as any other member of the public.

The monopoly conferred by a patent is co-extensive with the United Kingdom (including the Isle of Man but not the Channel Islands), and any person, no matter what his nationality may be, who manufactures, sells, offers for

sale or uses the invention within this territory without the patentee's consent, renders himself liable to an action for infringement. There is, however, a single exception to this general statement which should be mentioned. Section 48 of the Patents and Designs Act of 1907 provides that a patent shall not prevent the use of an invention for the purposes of navigation of a foreign vessel within the territorial waters of the United Kingdom, or the use of an invention in such a vessel for any other purpose, provided it is not used in connection with the manufacture or preparation of anything intended to be sold in or exported from the United Kingdom. This provision is conditional upon reciprocal treatment being accorded to British vessels by the foreign State.

The normal term of a patent is 14 years, with a possible extension in exceptional cases for a further 7 or even 14 years. A patent may lapse through default in the payment of renewal fees, or it may be revoked on the ground of invalidity or abuse of its privileges by the patentee, or it may be surrendered or revert to the Crown; but if not extinguished in one of these ways, it will continue to the end of the prescribed term, no matter through whose hands it passes, or to what extent its privileges may be distributed or sub-divided.

A patentee does not forfeit his rights through neglect to enforce them, except in so far as, by virtue of the Statute of Limitations, he is debarred from suing in respect of infringements committed more than 6 years prior to the commencement of the action.

It is scarcely necessary to add that the loss or destruction of the letters patent does not affect the existence of the patent rights. The patentee may at any time apply to the Comptroller to have a duplicate sealed.

Though difficult to assign to any definite category of property, a patent is capable of being dealt with to a great

extent like an ordinary chattel. It may be sold or mortgaged or disposed of by will. It may be seized by the sheriff in levying execution, or distrained for arrears of rent. In the event of the patentee dying intestate or becoming bankrupt, the patent will vest in his administrator or trustee in bankruptcy, as the case may be.

Since the patentee is the only person possessing the right to sue in the event of infringement, it is important that there should be no doubt as to who may be properly so designated. According to the legal definition, the patentee is "the person for the time being entitled to the benefit of the patent." He may be the assignee, mortgagee, executor, administrator or trustee in bankruptcy of the person to whom the patent was originally granted. The enforcement of the rights of a patentee and the acts which constitute a breach thereof belong properly to the topic of infringement and will be considered later.

As soon as an applicant has had his complete specification accepted, he is entitled to mark his goods with the word "patent." This he may continue to do even after the expiration of the term, provided it is done in such a manner (as, for example, by adding the date of the patent), that the public will not be misled into thinking that the goods are manufactured under an existing patent.

In consequence of the new clause in the Act of 1907 exempting the innocent infringer from liability to pay damages and providing that the mere appearance of the word "patent" or "patented" upon the patented article shall not, unless accompanied by number and date, be deemed notice that the article is patented, patentees will do well in future to mark the patented article, where possible, in such a manner as to prevent the defence of innocent infringement being set up.

Any person improperly using the word "patent" or

"patented" is liable, upon summary conviction, to a fine not exceeding £5 for each offence.

There is no limit to the number of persons in whom rights in a single patent may simultaneously exist. Where a patent is vested in two (or more) persons, each may use the invention to the fullest extent without the consent of the other and without accounting for profits. But no licence may be granted without the consent of all the joint patentees. Formerly the interest of a joint patentee, if not severed in his life-time, vested on his death completely in the surviving patentee by virtue of the Common Law rule of survivorship applicable to all cases of joint ownership. Such a state of things was manifestly unfair, and the Act of 1907 has accordingly modified the law in its application to such a case. Section 37 provides that, whereas the patent shall, as before, devolve upon the surviving patentee, the *beneficial interest* of the deceased patentee shall devolve upon his personal representatives; in other words, the surviving patentee will be treated as trustee of the profits arising from the patent to the full extent of the deceased's interest in it.

Where a patent is jointly owned, it is usual and very expedient to have some agreement clearly defining the respective interests of the joint patentees and their mutual rights and liabilities. Thus, in the common case of an alliance between an inventor and a capitalist, an agreement should be drawn up, preferably before the patent is issued, dealing with the following points:—(1) The respective parts to be played by inventor and capitalist: (2) Repayment of moneys advanced, together with interest; (3) Share of profits; (4) Possible improvements; (5) Payment of patent fees; (6) Taking out of foreign and colonial patents; (7) Power of terminating the agreement; (8) Right of parties to exercise the invention after termination of the agreement.

It is usual for the capitalist to undertake to finance the invention up to a given amount or for a certain period, the inventor agreeing on his part to devote time to the practical development and working of the invention. To avoid the possibility of a deadlock, one or other of the two parties should be given the controlling voice in deciding questions of policy, such as the granting of licences, the acquisition of patents for improvements and the suing of infringers.

The repayment of money advanced and interest is usually made a first charge upon the net profits derived from the invention. Owing to the widely differing views held as to the meaning of the words "net profits," great care should be taken to remove all ambiguity upon this head. Subject to this charge, the profits may then be shared or otherwise disposed of, as the parties may think fit.

Provision must be made with regard to improvements upon the original invention. This is usually done by stipulating that the inventor shall, at the request of the capitalist, apply for patents for improvements in their joint names, and that all such subsidiary patents shall be subject to the terms and conditions of the main agreement.

Before proceeding to discuss the means by which interests in patents may be negotiated, a few pages may, perhaps with advantage, be devoted to the consideration of the commercial value of patents.

The Commercial Value of Patent Rights.

It will not be taking an unduly sordid view of the aims of the average inventor, if it be assumed that he applies for a patent in order to make money out of it, either by working it himself or by disposing of it by sale or licence. This being so, it is worth while to consider, in the interest equally of the inventor and the capitalist who

seeks to make money by investing in patents, what are the conditions which favour the attainment of this object. Fortunes have been made and fortunes have been lost through trafficking in patents, and unhappily the latter has been the more frequent experience. The need is all the greater, therefore, for formulating with as much precision as possible some rules for guidance in discriminating between patents which have, and those which have not, the potentiality of commercial success.

In the first place, it is necessary to dispel a delusion. Letters patent are sometimes looked upon as a species of property that is intrinsically valuable; they are offered and not infrequently accepted as security for loans, and figure as a valuable asset in companies' balance sheets, though the inventions they cover may be wholly untried or undeveloped beyond an experimental stage. The fact that large sums of money have been spent in obtaining the grant, and that all the machinery of the Patent Office, combined with the skill of the best patent agents, has been invoked to ensure validity, is vaguely supposed to make a patent a thing of inherent value. This is an entire fallacy. A patent is merely evidence of the inventor's title to certain property which may be worth much, little, or nothing at all. A considerable majority of the patents granted every year must be relegated to the last category—as worth nothing at all; as being, from a commercial point of view, no better than title deeds to "castles in Spain." The statistics disclosed in the Comptroller-General's Annual Report show that, on an average, only slightly over 50 per cent. of the patents applied for are sealed and continue in force to the end of the 4th year. Slightly over 30 per cent. are kept on foot to the end of the 5th year and then, by a rapid declension, the numbers fall as the life of the patent advances, until at the close of the 14 years only a fraction over 4 per cent. are surviving. The abandonment

of 50 per cent. of the patents applied for, before even the payment of a single renewal fee, affords a fairly strong inference that the abandoned patents were found to be of little or no commercial value. Furthermore, it is notorious that numbers of patents are kept alive at a loss for many years in the hope of ultimate success, before the owner can resign himself to the conclusion that there is no profit to be got out of them.

Yet it must not be supposed that because this large proportion of patented inventions is abandoned as commercially valueless, there is any implication that they are devoid of merit; the fact being that many of the most ingenious and meritorious inventions cannot, for one reason or another, be worked at a profit, while other inventions possessing little claim to either novelty or ingenuity may, through favouring conditions, prove sources of great wealth.

The pecuniary value of a patent depends, in fact, not so much upon the intrinsic merit of the invention, though that should certainly be present, as upon a multitude of external conditions affecting the chances, at a given moment, of turning a particular contrivance to profitable account.

Among the factors that most decisively affect the commercial value of a patent is the timeliness of the invention. If the invention is one which meets a recognised and keenly-felt want, then, assuming it to be workable and the patent technically valid, it is tolerably safe to predict that there is money in it, and that the attainment of commercial success depends only on the exercise of ordinary business ability.

Moreover, when the want is really pressing and there is already a large demand, or the potentiality of such is evident, then even a small but genuine improvement may become the basis of a highly remunerative patent. Such may be the result even though the improvement extends no further than, perhaps, providing means of slight economy

in some established manufacture or technical process, or the attainment of a superior product, or the acceleration of the rate of production. It is a noteworthy fact that most of the instances of fortunes being made out of patents have been cases where the improvement was of quite a minor, not to say trivial, character.

On the other hand, where there is no pre-existing demand, success is much more problematical. If the invention results in a product that is entirely novel, as was the case, for example, with the phonograph, there may be doubt as to whether it will hit the public taste. The unpreparedness of the public and their slowness to appreciate the value of new things is one of the heaviest handicaps upon the true pioneer invention, and often destroys its value entirely for a considerable part of the patent's term. In such a case the commercial success of the invention depends largely upon the skill of those interested in the patent in exploiting it and in educating the public up to the pitch of appreciation requisite to create the necessary demand. Often a new fashion has to be set or a new habit acquired before an invention can be turned to profitable account.

Having obtained satisfactory assurance as to the existence or at least the prospect of a sufficient demand, the next point to consider is the ability of the invention to meet it. And here a word of caution may be interjected with regard to immature inventions. Inventors are prone, and not unnaturally, to patent their ideas as soon as they have taken sufficiently tangible shape to admit of their embodiment in a specification. But, even though the idea be a good one, the first form which it takes in the inventor's mind is seldom the form which is ultimately found to succeed in practice, and a considerable amount of experimentation is usually required before the practical form is evolved. It is these theoretical patents, mere inventions on paper, of which the investor in patents must beware;

they are a drug in the market and mainly accountable for the large proportion of patents that are abandoned at an early stage. Even laboratory demonstration and small scale working are apt to be misleading as to commercial practicability; for unforeseen difficulties not infrequently arise simply in attempting to carry out on a large scale what has already been done with perfect success in a small way.

With this preliminary caution we may proceed to notice some of the chief points which affect the question of commercial workability. Assuming that the invention under consideration is a new process or method of manufacture, a most material enquiry will be as to its economy. Will the working cost be low enough to enable it to compete successfully with existing methods of manufacture; or, if that is not the case, will the product be so superior as to warrant a higher selling price? If the invention requires the carrying out of a difficult operation, dependent for its success on very exact conditions, will the "margin of safety" be wide enough to make the process practical under the ordinary working conditions of a factory?

Where the patentee looks to the granting of licences as a source of revenue, it is necessary to consider whether prolonged and costly experimental demonstration will be needed to convince the manufacturer of the merits of the invention; and whether the installation of the new process will entail the drawback of a wholesale "scrapping" of existing plant and machinery, and the erection of new plant and machinery on an extensive scale.

In addition to the foregoing there are still other, perhaps less obvious, conditions that affect the commercial success of a patent. The backwardness or want of enterprise in contributive and auxiliary industries, upon which the inventor is dependent for his raw materials, is sometimes a serious obstacle to immediate success. Thus, to take an illustration from the history of electric lighting, it was not

any lack of the elements of commerciality in the early form of the electric lamp, but the imperfect and inadequate methods for producing and distributing the current to illuminate it, and the general backwardness and unpreparedness of the various industries upon which the electric lighting engineer is dependent, for his copper cables, his insulating materials, his measuring instruments and the like, that so greatly retarded the immediate commercial success of this form of illumination.

Again, restrictive legislation or the necessity for obtaining the compliance of Government officials or a local authority may sometimes seriously hamper the introduction of a meritorious invention. For example, a patent for a new telegraphic instrument of undoubted utility could not be said to be commercially valuable in England, unless the Post Office were willing to sanction its use; for although fourteen years may be ample time within which to capture the general public, it has been known to be all too brief a period within which to overcome the inertia of a Government Department.

Limited applicability and consequent small demand are also matters to be taken into consideration where the invention is of such a character as to appeal to a very small section of the public, or when the chances for using it are infrequent; as, for instance, they would be if the use of the invention were dependent upon the undertaking of large works, such as the construction of railways, canals or docks.

Again, the ease with which a patent can be evaded and the difficulty of tracing and checking infringements are factors which have to be taken into account in estimating the profit-earning capacity of a patent. The experience of the owners of the Welsbach patents for incandescent gas mantles affords an instructive lesson upon this point. Once the secret of making these articles was known, their manufacture became an easy operation which almost anyone

could perform with the aid of a few simple appliances. The high prices at which these mantles were sold, compared with the small cost of manufacture, naturally offered strong inducement to infringers, and infringement became rife. The market was flooded with a quantity of pirated mantles and the resources of the patentees were sorely taxed for some time by having to fight a host of petty infringers, not worth powder and shot, but capable, nevertheless, of doing great damage to the patentees' trade.

Another important matter to be taken into consideration is the likelihood of the invention being superseded by improvements. This, of course, is a very problematical question, and one upon which theorising can be of little assistance. It seldom happens that a successful invention controls the market for the full term of the patent. Continuity of monopoly depends largely upon the skill with which the specification and claims are framed, but still more upon the business ability of the proprietors of the master patent and their astuteness in acquiring control of all improvements which threaten to supersede it or otherwise weaken or undermine their monopoly.

Sufficient has perhaps been said to emphasise the point that in dealing with patents as a commercial investment the greatest circumspection must be used, and that, generally speaking, patent exploitation is a highly speculative undertaking. Nevertheless, to the shrewd manufacturer who invests in patents as a means of securing a monopoly in inventions and improvements germane to his own business, they frequently prove to be an asset of the greatest value. And though to the capitalist, who sees in patent exploitation the means of speedy enrichment, the experience is not seldom one of disillusionment, yet there are plenty of patents to be found which, when properly financed and backed by good business ability, are capable of yielding a handsome return on the capital invested.

CHAPTER X.

AMENDMENT.

Allusion has already been made to the amendment which a specification may undergo at the hands of the Comptroller at the various stages of a patent application, either because it fails to comply with the statutory requirements as to form, or because it clashes with what has already been claimed in some prior specification. Such amendments are, as a rule, of an involuntary nature, forced upon the applicant as a condition of the grant of his patent. The present chapter is concerned more particularly with the procedure regulating the amendment of specifications at the instance of the applicant or patentee himself, and with a fuller consideration of the general principles upon which amendment is allowed.

Prior to 1884, the only mode by which a patentee was able to alter the text of his specification, once his patent had been sealed, was by disclaimer. This form of amendment, which meant simply the erasure or excision of certain parts of the specification and claims, was of course useless for clearing up ambiguity or for limiting a claim which required, not merely excision, but the addition of qualifying words. The defects of the existing machinery for amendment were remedied by s. 18 of the Patents, Designs and Trade Marks Act of 1883, the provisions of which are, with slight alteration, embodied in ss. 21 and 22 of the Patents and Designs Act of 1907.

The effect of these sections may be briefly summarised as follows. An applicant or a patentee may at any time

amend his specification, claims or drawings, by way of disclaimer, correction or explanation; provided that the amendment does not make the specification, as amended, claim an invention substantially larger than or substantially different from the invention claimed by the specification as it stood before amendment. It should be observed that this power to amend only applies to the complete specification; no amendment of a provisional specification, beyond the correction of clerical errors, is allowed.

A request for leave to amend must be made on Form No. 17, signed by the applicant or the registered proprietor of the patent, and accompanied by a certified copy of the specification showing clearly in red ink the proposed amendments. The stamp fee for an application to amend, made before the patent is sealed, is £1 10s.; after sealing, the fee is £3. The charge for certifying the printed copy is 1s. The corrections should be clear, and additional matter which cannot be written upon the printed copy should be written upon a separate sheet and attached to the print.

The applicant must state his reasons for desiring the amendment. Reasons commonly given are, that the applicant is advised that his specification does not define the nature of his invention with sufficient clearness, or that his claims are too broad, and he wishes to restrict them.

The nature of the proposed amendment and the reasons assigned for it are in due course advertised in the Illustrated Official Journal and in any other manner that the Comptroller may direct, in order that the public may have the opportunity, should they so desire, of opposing the amendment. Proposed amendments, whether allowed or not, are advertised all the same. Hence, if an inventor, ignorant of the rules governing amendment, seeks to amend his specification by embodying in it some new material, and the amendment is refused on the ground that it enlarges

the scope of the patent, he may find that this publication has debarred him from subsequently patenting this subsidiary matter by a separate application, which he might have done successfully in the first instance.

Notice of opposition to the amendment must be given within one month from the date of advertisement. It must be on Form No. 18 (stamp 10s.), signed by the opponent and stating the grounds on which he opposes. He may bring evidence in support of his opposition by filing a declaration within 14 days after the expiration of the period allowed for notifying his opposition. The subsequent proceedings follow the same lines as those already indicated in the case of oppositions to grant. The parties, if they wish to be heard, come before the Comptroller, who determines whether and subject to what condition, if any, the amendment shall be allowed.

Anyone wishing to be informed as soon as an application for amendment of a specification is entered, should forward a blank Form No. 31 (5s. stamp) with a request for such information.

The above-described procedure applies only so long as there is no litigation afoot affecting the patent sought to be amended. Where there is an action for infringement, or a proceeding for revocation pending, the patentee's right to amend is considerably curtailed. In the first place he must obtain the permission of the Court and secondly, having obtained permission, he is only allowed to amend his specification by way of disclaimer and not, as he might have done in the absence of legal proceedings, by way of correction and explanation. Such explanation, however, in the body of the specification as is required for the purpose of defining the disclaimer will be allowed. If the proposed amendment goes beyond what the Court considers to be a fair disclaimer, or if the proposed amendment appears to be futile and of no avail to save the patent, leave to amend

will be refused. The Court has absolute discretion to grant or withhold permission and to impose such terms as to costs and otherwise as it thinks fit. In an action for infringement where the plaintiff desires to amend his specification, the terms usually imposed are that he shall pay all the costs of the action up to the application and waive all claim to relief in respect of any infringement committed prior to the amendment. Due notice of an application to the Court for leave to amend must be given to the Comptroller to enable him to appear, if he so desire, and oppose the application.

Where a patentee has applied to the Patent Office to amend his specification, there being at the time no action for infringement or proceeding for revocation pending, the application can proceed without the leave of the Court, notwithstanding that an action is subsequently begun, before the amendment is completed. An action ceases to be "pending" as soon as judgment has been given; the fact that an appeal has been lodged does not make it necessary for the patentee to go to the Court for leave to amend.

Seeing how doubtful and difficult a matter it is to amend a specification after litigation has begun, it is well for a patentee, before launching his writ for infringement, to pause and consider whether amendment is required as a safeguard against the attack that will almost inevitably be made upon the validity of his patent.

Generally speaking, carefully drawn specifications should need no amendment, for the function of amendment is to correct mistakes and to clear up ambiguities which, if the specification were well drawn, would not occur. The commonest mistake into which applicants fall is that of claiming more than they are entitled to, a tendency against which the Patent Office examination and the chance of public opposition provide a partial corrective. So far, however, from striving to avoid these defects, some patentees

are prone to draw their claims as widely and vaguely as they can, consistently with the requirements of the Patent Office examiners, their aim being rather to obtain broad and pretentious claims than a really sound patent. This is shortsighted policy, for it must be remembered that amendment is not allowed as a matter of course. In giving judgment in a recent case (*Klaber's Patent*), Lord Justice Romer strongly deprecated the practice of patentees unduly widening the scope of their claims, thereby preventing the public from properly gathering what the true invention is, and perhaps intimidating them into yielding to unjust claims.

No amendment is allowed which would make the specification, as amended, claim an invention substantially larger than or substantially different from the invention claimed in the unamended specification. This is an invariable rule, applicable no less to amendments made before the sealing of the patent than afterwards. The Law Officer's decision as to the conformity of an amendment with the above rule is final, and an amendment cannot subsequently be impeached on the ground that it enlarges or varies the scope of the invention claimed. Of the three forms of amendments ordinarily available, namely, disclaimer, correction and explanation, the most important is undoubtedly amendment by disclaimer. Speaking of this form of amendment in *Ralston* v. *Smith*, Lord Westbury says:—"The object of the Act authorising disclaimers was plainly this: that when you have in your specification a sufficient and good description of a useful invention, but that description is imperilled or hazarded by something being annexed to it which is capable of being severed, leaving the original description in its integrity good and sufficient without the necessity of addition, then you may, by the operation of a disclaimer, lop off the vicious matter and leave the original invention as described in the specification untainted and unimpaired by that vicious excess."

A specification which claims the use of A, B and C, as separately suitable for a certain purpose, may be amended by a disclaimer eliminating A and B. But a disclaimer which renounces A, B and C individually, but claims them in combination, would not be permitted, since that would be an invention substantially different from the invention originally claimed. It is a question to be decided upon the facts of each case, how far a patentee can throw overboard the substance of his claims without entirely destroying the substratum or altering the character of his invention.

Dellwik's Patent is an example of the extreme limit to which a disclaimer may go. There the patentee claimed the use of chromium, niobium, wolfram, cobalt, copper, platinum and other elements for making "incandescents" for gas burners. A petition for revocation having been brought by the Incandescent Gas Lighting Company, the proprietors of the patent applied with leave of the Court to amend their specification by disclaiming all the above named elements with the exception of chromium. In allowing the amendment the Law Officer said: "It is perfectly true in this case that the patentee desires to throw a very large part of his cargo overboard, but I confess that I think, for all that, it is a case of disclaimer. It may be a case of disclaiming six-sevenths or nine-tenths or ninety-nine hundredths of what was contained in the original patent, but for all that he is not introducing anything new; he is merely retaining one of the elements which formed the subject of the alleged invention contained in the original patent."

This case affords a good illustration of a patent in which the claims are clearly severable and therefore admit of amendment by disclaimer. The same indulgence will not, however, be extended to a patentee who claims in broad terms a combination or general arrangement of mechanical parts, and subsequently, under the stress of opposition,

seeks to amend his claim by a disclaimer, restricting it to some trifling feature of the combination originally claimed. Thus in *Lupton and Place's* application the claim as it originally stood was for "the construction and formation of hinged joints for the dobbies of looms, such joints having grooves and projections and horns or hooks as illustrated in the drawings and for the purposes described." Upon opposition it appeared that the only feature for which the applicants could claim novelty was the use of a V-shaped groove instead of a rectangular groove. An amendment put forward with the object of confining the claim to this feature was not allowed, and the seal was refused, the Law Officer observing that if all that the applicants wanted was a patent for such an improvement as making the groove V-shaped instead of square, they ought to have said so in the first instance.

Amendment by *correction* and *explanation* follows the same rule as amendment by disclaimer; it must not widen or vary the scope of the claims. Where, in the case of a specification which claimed "a process for preparing colouring matters," an application was made to substitute the words "a manufacture of" for the words "a process for," in order to bring the British and foreign specifications into conformity, the amendment was refused on the ground that it enlarged the claim. A patentee is not permitted to make such copious alterations and additions as to amount practically to the rewriting of his specification, nor may he introduce, under the pretext of amendment, the fruit of subsequently acquired knowledge.

If the letter-press is ambiguous for want of drawings, these may be added by way of amendment.

As soon as an amendment has been allowed, it becomes an integral part of the specification, and the specification must thenceforward be read and construed as though it had originally been filed in the amended form, without reference

to the part struck out. Recourse may, however, be had to the superseded parts to explain any ambiguity arising out of the amendment.

In an action brought for infringement of an amended patent, the plaintiff cannot obtain damages in respect of any infringement committed prior to the amendment, unless he gets from the judge a certificate stating that the specification as originally drawn was framed "in good faith and with reasonable skill and knowledge."

Under s. 70 of the Patents and Designs Act, 1907, the Comptroller has power to correct any clerical errors in connection with the application for a patent or in the specification and to make alterations in the name or address of the registered proprietor.

Advantage may be taken of this procedure to modify the application form by the addition or removal of the name of a co-applicant. To obtain corrections of this kind application must be made on Form No. 30, bearing a 5*s*. stamp, if the patent is not yet sealed, and a £1 stamp after sealing.

CHAPTER XI.

INFRINGEMENT.

THERE is one form of flattery which even the vanity of an inventor does not relish, and that is the flattery of imitation. It is, however, the inevitable reward of a successful invention and the most signal mark of admiration that the public are wont to pay to inventive achievement. One might almost say "Happy the inventor whose patent is infringed," for that is the surest sign that he has devised something of utility and worth.

This may be thought a somewhat cynical reflection upon commercial morality of the present day, but, if proof were needed, the reports of patent cases show that it is not unjustified. There appears to be a curious moral obliquity in the general feeling and attitude of the public towards the infringement of a patent; a lapse of common honesty akin to that which excuses poaching and induces otherwise law-abiding and scrupulous folk to cheat the Customs House officials. As soon as an invention of real value is placed upon the market, it is at once marked down as fair game by a host of greedy infringers. If the patent is a strong one, attempts will be made to evade it; if it is weak, it will be openly defied. Indeed, the greatest safeguard against infringement often lies, not in the patent, but in the character of the invention. Inventions which are most easily performed are naturally most readily pirated. Herein lay the weakness of the Welsbach monopoly and the cause of the promiscuous infringement to which those patents were exposed. The requirement of costly plant to work an

invention, or of complicated mechanism or delicate manipulation, often affords far greater security against infringement than the patent itself.

But the present chapter is concerned more particularly with the legal aspect of the question, namely the extent to which a patentee is legally entitled to protection against infringement.

Infringement may be broadly defined as a trespass or unauthorised encroachment upon the protected area of the invention. To get a more accurate idea of what constitutes an act of infringement one must refer back to the terms of the patent itself. There, after conferring on the patentee the sole right to make, use, exercise and vend the invention, the grant goes on to enjoin that the public shall not "either directly or indirectly make use of or put in practice the said invention, or any part of the same, nor in anywise imitate the same nor make or cause to be made any addition thereto or subtraction therefrom, whereby to pretend themselves the inventors thereof, without the consent, licence or agreement of the said patentee in writing under his hand and seal."

It is clear from the above that there are in reality two points to be determined before pronouncing any act to be an infringement; first, whether the thing alleged to be a piracy is, as a scientific fact, the same or substantially the same as the patented invention; second, whether the act complained of falls within the general category of infringing acts. These will be dealt with in order; and first, as to the identity of the alleged infringement with the patented invention.

As regards infringement which consists in the direct and undisguised adoption of the patented invention, little need be said. If it is anything more than pilfering behind the patentee's back, it generally implies a challenge to the patentee to come forward and put the validity of his

patent to the test of litigation by instituting proceedings for infringement.

The infringer is, however, usually less candid in his methods. He takes the substance of the invention and introduces specious modifications and variations which, he claims, differentiate it from what is patented. The question then becomes simply one of construction: does the patent, upon a fair reading of the specification and claims, cover what is being done by the alleged infringer?

The extent to which a patent may be construed to cover colourable copies of the precise invention specified has been the subject of discussion in a previous chapter, dealing with the construction of specifications. A brief recapitulation here of the principles already discussed must suffice.

Where the object to which an invention is directed is entirely novel, and the inventor describes certain ways of effecting that object without restricting himself to the exact methods specified, a person who compasses the same result, by means analogous to those described, is guilty of infringement. The substitution, addition or omission of one or more parts of a mechanical or chemical combination, or the variation of the steps in a process, will still be an infringement notwithstanding that the change produces a more efficient and economical result. It may be the improvement is so marked that, taken by itself, it might well form the foundation of a separate patent. But that will not make it any the less an infringement, when used in conjunction with and for the purpose of the invention covered by the master patent.

This was the principle laid down in *Proctor* v. *Bennis* already alluded to (p. 71). Another good illustration of the same principle is afforded by the case of *Sandow, Ltd.* v. *Szalay*. There the patent related to "improvements in dumb-bells for physical culture exercises." The striking

feature of novelty was that the dumb-bell was split longitudinally into two halves separated by a spring, or something in the nature of a spring, capable of being compressed by the grip of the hand and of resuming its original position after the grasp of the hand is relaxed. In his provisional specification, the patentee expressly mentioned air springs as a possible form of spring; this was therefore clearly contemplated as an equivalent device, but the complete specification omitted any mention of air springs: the second claim, however, mentioned resilient means of expansion generally. The defendant's dumb-bell had inflated india-rubber balls between the halves of the dumb-bell at each end. It was held at first instance by Mr. Justice Byrne, that the specification claimed a combination consisting not in the invention of mere details, but embodying a new principle or idea, and that the defendant had infringed by taking the essence and substance of the invention, varying it only by the substitution of a mechanical equivalent for the type of spring specified in the the complete specification.

This decision was reversed by the Court of Appeal, which held that in view of certain evidence as to the state of knowledge at the date of the patent, the plaintiff was not entitled to have his specification construed broadly, and consequently the defendant had not infringed. The decision of the Lords Justices was also influenced by the omission to include air springs in the complete specification, which was taken as an indication that this idea had been intentionally abandoned. The case went to the House of Lords, where the judgment of Mr. Justice Byrne was restored, their Lordships holding that the result achieved was novel and that the patent had been infringed.

In cases of this kind where the object or result is strikingly novel, the doctrine of mechanical and chemical equivalents is liberally applied in favour of the master

patentee. In this connection, however, it should be remarked that to constitute an infringement the equivalent must have been known and generally recognised as such at the date of the patent. This was the decision in *Heath* v. *Unwin*. There the patentee claimed "the use of carburet of manganese in any process whereby iron is converted into cast steel." The patentee used carburet of manganese separately prepared by heating together oxide of manganese and carbonaceous material. The defendant did not use any single substance answering the description of carburet of manganese, but he put some oxide of manganese and coal tar separately into the crucible with the iron. It was not known at the time that the effect of this would be the formation of carburet of manganese in the crucible before actual union with the iron; and that coal tar and oxide of manganese were in fact a chemical equivalent for the carburet of manganese claimed by Heath. The House of Lords held that there was no evidence of infringement.

On the other hand where the object is not new, but the merit of the invention resides in the discovery of new means for producing some known result, the patentee cannot claim the same latitude in the interpretation of his specification, and an imitator may come very close to the claims of the patent without rendering himself liable for infringement. This was the effect of the decision in *Curtis and Platt*, the facts of which are shortly set out on p. 72.

The same principle is well illustrated by the more recent case of *Bailey* v. *Airey & Co.* The patent in this case related to improved apparatus for use in the production of acetylene gas. Now, at the date of the patent the generation of acetylene by the hydration of carbide of calcium was well known: the purification of the gas by passing it through water was well known too. It was also common knowledge that certain advantages were secured in using for the purpose of hydration the water which had been used for

washing the gas. All these things being thoroughly understood, the patentee devised a particular arrangement of parts by which these various operations were satisfactorily performed. The defendant attained precisely the same results by an arrangement in which the parts regulating the passage of the water through the apparatus for the purpose of hydration and purification were differently disposed. It was held that the object and purpose of the invention being old, the patentee must be tied down to his particular arrangement, and as this had not been taken by the defendant, there was no infringement.

A patentee who contends for a broad interpretation of his specification often finds himself on the horns of a dilemma. In flinging his net wide enough to catch the infringer, he runs the risk of being himself tripped up on the ground of anticipation. In other words he is forced to choose between a narrow construction, which would exclude what the defendant does, and a broad construction leading probably to the invalidation of his patent as claiming what is old.

When a patentee describes a combination which, besides being new in itself, comprises subordinate features which are also novel, the question frequently arises whether the claim should be construed to cover solely the combination as a whole, or whether it extends to the subordinate novelties. If the claim is clearly confined to the combination as a whole, then the patent is not infringed by the taking of a subordinate part, notwithstanding that that feature may be novel and essential even to the degree of being separately patentable. But this general statement requires some qualification. To take an abstract case. Suppose a combination to consist of three integers, A, B and C, and that A and B are new, but not specifically claimed, the patentee confining his claim to the entire combination. Whether the taking of A and B will amount to infringement will depend simply upon the relative importance

of C in the combination. If the omission or varintion of C does not materially affect the general success of the combination, and if A, B and X would answer substantially as well, then the taking of A and B would undoubtedly constitute an infringement. This is merely another way of saying that it is an infringement to take the substance and essence of the patented invention, even though the claim is framed to claim these essentials only in conjunction with certain accidentals.

On the other hand, where the patentee has made a clear and valid claim to a subordinate part, however unimportant it may be relatively to the whole combination, that part cannot be taken and used in a similar combination without infringing the patent as a whole.

Leaving now the question of the identity of the alleged infringement with the patented invention, it remains to consider what form of dealing with the patented article constitutes an act of infringement. According to the terms of the grant the patentee has the sole right of making, using, exercising and vending the invention within the United Kingdom. Mere possession therefore of a pirated article does not constitute an infringement; but the acquisition or possession of articles for trade purposes with the intention of using them in trade would be an invasion of the patentee's right. The advertisement or exhibition of pirated goods with a view to sale is an infringement.

The true criterion seems to be that the act must be directly injurious to the patentee. He could not restrain a person from constructing a machine according to his specification, purely for experimental purposes, to ascertain whether it would work in the manner specified or whether it could be improved upon. But very slight commercial use of an experimental machine is sufficient to constitute infringement. The use of pirated articles for making experiments for the instruction of pupils has been held to

be an infringement where the effect was to defraud the patentee of his rightful royalty.

The manufacture or sale of an article which is adapted to be used for infringing purposes, but at the same time is suitable for other uses, is not an infringement, and it is immaterial what the intention of the maker or seller may be. For example, the sale of the cover for a cycle tyre, adapted and intended to be used in a combination which infringed the Dunlop patents was held not to be actionable. But there is judicial authority for saying that if the component parts of substantially the entire patented article are manufactured and sold in such a manner as to be adapted for putting together to form the whole, the fact that they are sold piecemeal will not save such a sale from being an infringement.

Possibly the infringement may be committed as a transitional step or phase in the process of manufacture of an article which in its final shape is quite free from the charge of infringement. This was the effect of the decision in *Saccharin Corporation* v. *Anglo-Continental Chemical Works*. The patentee's process was for the manufacture of ortho-toluene-sulpho-chloride, which requires to go through certain chemical changes before it is converted into saccharin. The article imported was saccharin, and this was held to be an infringement on the ground that, by the sale of saccharin, in the course of the production of which the patented process had been used, the patentee was deprived of some part of the whole profit and advantage of his patent, and the importer was indirectly making use of the invention.

A patented article may be repaired without licence from the patentee, provided the repair is not so radical as to amount practically to a re-making of the article. This point arose in connection with the Dunlop patents, the infringement complained of consisting in the repair of four old

Dunlop tyres. In one case the old wires only were retained, in the others the old canvas and wires were kept, but the tyres were provided with new canvas linings. It was held that this amounted to a reconstruction of the tyres, and was therefore an invasion of the patentee's rights.

Infringement by the *use* (as distinct from the manufacture or sale) of a patented invention raises some points requiring consideration. Owing to the variety of forms which an invention may assume, such as a process, a product, a machine or a particular application, "the use of an invention" or "the right to use an invention" are somewhat ambiguous expressions. In common parlance, a person who manufactures according to a patent or who sells the patented product may be said to use the invention. But when the licence conferred by a patentee is expressly limited to the right to *use*, as distinct from manufacture and sale, any departure from the bare user of the invention by the person licensed will constitute an infringement.

The sale or transfer of the patented article when unauthorised by the patentee, will confer no right of user upon the person acquiring possession of it. Thus, where a patented machine—a mutoscope—was taken from the licensee under a distress warrant and sold, it was held that the purchaser, though rightful owner of the machine, could not use it without infringing the patent (*British Mutoscope Co.* v. *Homer*).

It has already been pointed out that where a patented article is sold subject to express limitations as to its use. and these conditions are brought to the notice of the public, any act which is inconsistent with these limitations will constitute an infringement. As to the extent to which a patentee may go in imposing restrictive conditions upon the use of a patented invention see p. 179.

The purchaser of a patented article should also bear in mind that there are geographical limits to his right of user.

Importation is deemed to be a use of the invention within the meaning of the patent, and the fact that the patented article has been lawfully purchased from the foreign patentee does not make its introduction into the United Kingdom any the less an infringement, unless the foreign and British patents are in the hands of one and the same owner, in which case the sale of the article in one country implies a licence to use it in the other. It is only the actual importer who is liable for infringement; the foreign manufacturer is beyond the clutches of the patentee, if what he does falls short of actual importation. In *Saccharin Corporation* v. *Reitmeyer*, an action for infringement failed against a foreign manufacturer who delivered the goods, intended for importation into England, at the foreign port, notwithstanding that the contract of sale was made in England and the defendant was aware of the intended destination of the goods.

Mere transport of the pirated article within the United Kingdom constitutes a use of the invention within the meaning of the patent. Thus in *Betts* v. *Neilson* the House of Lords held that plaintiff's patent was infringed by the simple conveyance through England, for purposes of exportation, of beer bottles sealed with the plaintiff's patent metal capsules.

An article which has been manufactured, sold or imported in defiance of a patent exposes not only the original infringer, but every other person into whose hands it may come, to a separate action for infringement. The taint of its illegal origin is not cured by sale or transfer, and ignorance that it is a pirated article does not make it any the less technically an infringement, though it may now, in virtue of a new provision in the Act of 1907, exonerate the innocent offender from the liability to pay damages (see p. 151).

On the other hand it may be stated as a general proposi-

tion, that the authorised sale of a patented article carries with it a general licence to resell, and also to use it for all the purposes covered by the patent. It is questionable, however, whether the sale of a patented article, applicable to two distinct purposes, covered by distinct patents, would entitle the purchaser of the article to use it for either purpose indifferently.

CHAPTER XII.

ACTION FOR INFRINGEMENT.

A PATENTEE who finds his patent is being infringed should consider well before he embarks upon legal proceedings, for few forms of litigation are more costly than a patent action, and none are more uncertain in their issue. Moreover, until he has definitely resolved to bring an action, he should abstain altogether from attempting to stop infringement by dint of threats. In other matters of dispute a certain amount of intimidation may be practised with impunity, and a strongly worded solicitor's letter often produces a wholesome moral effect, even where no action is seriously contemplated. But where patents are concerned, bluff is a dangerous game. The threat of legal proceedings, unless followed with reasonable promptness by the institution of a *bonâ fide* action for infringement, is apt to recoil upon the threatener's own head in the shape of a counter-action for damages and an injunction. This special form of action, known as an action "to restrain threats" will be discussed presently. Here the patentee is merely cautioned, in passing, to refrain from breathing forth threatenings against an alleged infringer, unless he is prepared to carry his threats into execution.

If, however, he seriously contemplates bringing an action, his first step should be to obtain good evidence of the infringement. This he may do by purchasing, either directly or indirectly, the infringing article, or by securing the evidence of some person who is able to describe, from having seen it in actual use, the process or machine which

is alleged to be a piracy of the patented invention. But a patentee must be careful that, in procuring evidence of infringement, he does not go so far as to instigate the infringement; for where the infringing article is made by the order and in accordance with the directions of the patentee or his agent, the manufacturer will not be liable as an infringer. In some instances it is impossible to get direct evidence of infringement. For example, the owner of a patented process for the synthesis of indigo finds the market flooded with artificial indigo which he strongly suspects to have been made in accordance with his patented process: but as the manufacture of the competing article is carried on by a secret process, and inspection and analysis of the product afford no clue to the method employed, no conclusive evidence of infringement is procurable. In these circumstances all the patentee can do is to set up a good *primâ facie* case. The fact that the defendant is manufacturing artificial indigo on a commercial scale, and that the plaintiff's is the only known commercial process of manufacture will afford a sufficiently strong presumption of infringement to throw the burden of proof upon the defendant, requiring him to show that his method of manufacture is different from the patented process.

For the purpose of proving infringement, an accumulation of evidence is unnecessary. Clear proof of one or two sales of the pirated article is sufficient, at the outset, to establish the fact that the patent is being infringed. Later on, when the plaintiff obtains inspection of the defendant's books, he will be able to ascertain and prove the full extent to which infringement has been carried, and, if successful in the action, to recover damages in respect of all infringements knowingly committed. Armed with satisfactory evidence of infringement, his next step should be to place the matter in the hands of his solicitor, and preferably a solicitor who is, or is associated with, a patent agent and is conversant

with the peculiarities of patent litigation. A critical examination of the case by a practitioner of sound experience is a very necessary corrective to the sanguine enthusiasm of the inventor, when it comes to weighing the chances of success in a patent action.

To view the position fairly, a patentee should endeavour to place himself mentally in the position of the infringer and proceed carefully to study his specification with the object of detecting beforehand any weak points that are discoverable in it; for he may be certain that if such flaws exist, they will not escape the acumen of his adversaries. An exhaustive search for anticipations should be made at the Patent Office Library, and if anything is found dangerously trenching upon the claims, and likely to impair the validity of the patent, the specification should be suitably amended before the writ is issued; for once the action has been begun, amendment can only be obtained with the sanction of the Court, and then only in the limited form of disclaimer. At the same time a patentee must not overlook the fact that he may fail to recover damages for any infringement committed prior to amendment, unless he satisfies the Court that the original specification was framed in good faith and with reasonable skill and knowledge, and that the specification as amended still covers what is complained of as an infringement.

An action for infringement having been definitely determined upon, the patentee should at once consider the advisability of retaining the services of one or more men of distinction in the particular field of science or industry to which the invention relates, to give expert evidence on his behalf. When the case involves the discussion of scientific matters of an abstruse or technical nature, evidence of this kind is imperatively required to present the case adequately to the Court: and, as specialists of the highest scientific standing are not numerous, their services

are eagerly canvassed, and the failure of the plaintiff to retain this evidence on his side, will almost inevitably result in its being arrayed against him. The general subject of evidence will be discussed later on; here it is mentioned only to emphasise the importance of considering at an early stage the expediency of securing the assistance of witnesses of this calibre.

Having escorted the patentee so far, the writer may safely commit him to the guidance of professional advisers in the subsequent conduct of legal proceedings. It is outside the scope of the present treatise to thread the intricacies of a patent action. The following outline is merely intended to furnish the uninitiated with some clue as to the normal stages through which a patent action passes, and to mark the chief features which distinguish it from other forms of litigation.

The Tribunal.

Actions for infringement of patent are tried in England by a judge of the High Court of Justice or by the Vice-Chancellor of the Palatine Court of the County of Lancaster; in Scotland, by any Lord Ordinary of the Court of Session, and in Ireland, by a judge of the High Court.

The County Courts have no jurisdiction to entertain any action wherein the validity of a patent comes in question. For a patent is a franchise and s. 56 of the County Courts Act, 1888, excludes from the cognisance of the County Courts any legal proceeding in which the title to a franchise is put in issue.

Formerly, the practice was to try patent actions with judge and jury on the Common Law side; but now, in accordance with statutory provision, they are tried without a jury, unless the Court otherwise directs; and though the King's Bench Division still retains its competence to deal

with patent cases, the usual practice is to enter them in the Chancery Division, where the machinery is better suited to this type of action than on the Common Law side.

The judge may try the case alone, or he may, on his own initiative, call in the aid of an assessor. If either of the parties request it, he is bound to sit with an assessor.

The Parties.

A patentee, suing for infringement, should join as co-plaintiffs all those who have any legal share in the patent. If unwilling to become plaintiffs, they may be joined as defendants. The equitable owners of a patent are not entitled to sue without joining, as a party to the action, the person who is the legal owner of the patent at the date of the writ. A licensee cannot institute proceedings for infringement except in conjunction with the patentee, but there is authority for saying that an exclusive licensee is entitled to use the name of the patentee for this purpose.

All persons infringing the patent, whether by manufacture, use or sale, may be made defendants to the action. A master is liable for infringements committed by his servants or workmen notwithstanding that the acts complained of were done in disobedience to his orders, provided that they were not done outside the general scope of their employment.

Interlocutory Injunction.

If the infringement is of a serious nature and likely to continue, and the plaintiff is desirous of putting an immediate stop to it, he can, after issuing the writ, apply at once to the Court for an interim or interlocutory injunction, restraining the defendant from committing further infringement until the trial. But no injunction can be obtained

until a writ has been issued and the action thereby set on foot. In cases of extreme urgency an injunction will be granted in the absence of the other side, but such an order will only be made to bridge over the few days that must necessarily elapse before the defendants can, upon due notice, be got to appear and oppose it, if they so desire.

To obtain an interlocutory injunction, the applicant must make out a good *primâ facie* case that the patent is valid, that it is being infringed, and that there is threatened continuance of infringement. The fact that a patent has been worked for several years uninterruptedly, or that its validity has been upheld in a previous case, is usually accepted as good presumptive evidence of validity. In cases of doubt the Court will take into account the balance of convenience. The inability of the defendant to pay damages, in the event of the plaintiff succeeding in the action, might influence the Court to grant an injunction; on the other hand, where interference with the defendant's business would involve him in serious loss or hardship, without proportionately protecting the plaintiff, an interlocutory injunction would probably be refused. Undue delay on the part of the plaintiff in bringing his action, after knowledge that his patent was being infringed, is also a reason for refusing to grant an injunction at this stage.

When granting an interlocutory injunction, the practice of the Court is always to require the plaintiff to enter into an undertaking with the defendant to recoup him for any loss he may suffer in consequence of the injunction, if the plaintiff is unsuccessful in his action and the prohibition, therefore, turns out to have been wrongly imposed.

If, to avoid an injunction, the defendant offers to keep an account of all the alleged infringing articles manufactured and sold, this alternative is usually accepted by the Court.

Pleadings.

The form of the pleadings in patent actions is prescribed by Statute. The statement of claim must be accompanied by "particulars of breaches"; that is, a statement of one or more *specific* acts of infringement committed by the defendant. The defendant, if he disputes the validity of the patent sued upon, must deliver with his defence "particulars of objections": that is to say, a statement of the various grounds upon which validity is impugned. The usual grounds are:—

(1) *Want of novelty*, by reason of (*a*) prior publication, or (*b*) prior user.
(2) *Want of subject matter.*
(3) *Want of utility.*
(4) *That the invention is insufficiently described.*
(5) *That the patentee is not the true or first inventor.*

The latter defence, if it is anything more than a formal plea, usually involves the imputation of fraud.

(6) *Any ground upon which the patent can be revoked* (*e.g.*, that the invention is worked exclusively or mainly outside the United Kingdom).
(7) *That the patentee has entered into an agreement* (affecting the patent) *containing a restrictive covenant that is null and void under s.* 38 *of the Act of* 1907.

Where prior publication is pleaded, full particulars of the specification or treatise relied on should be set out, and where the whole is not relied on, the particular passages should be specified. The defendant will be precluded at the trial from citing, except by special leave of the Court, any publication not referred to in the particulars of objections.

Counterclaim for Revocation.

By a special provision in the Act of 1907, a defendant may now couple with his defence to the infringement action

a counterclaim for the revocation of the patent. It must be remembered, however, that unless he has a *locus standi* for presenting a petition to the Court (see p. 184), he should fortify himself by procuring the Attorney-General's *fiat*.

Inspection and Discovery.

Personal inspection of the defendant's method of manufacture is sometimes essential to enable the patentee to prove infringement. Where the plaintiff finds difficulty in establishing this part of his case, he may apply for an order to inspect the alleged infringing plant or machinery. The application may be made at any stage of the proceedings, and though inspection cannot be demanded as a matter of right, the Court will usually make the order, if it is satisfied that there is good presumptive evidence of infringement and that there is really a case to be tried. For the object of inspection is confined strictly to procuring evidence for the trial, and the Court is careful to guard against abuse of this procedure; consequently any application savouring of an inquisitive prying into the trade secrets of a rival manufacturer will be refused. Nevertheless, the fact that inspection must necessarily involve the disclosure of trade secrets will not deter the judge from making an order, where he deems inspection desirable in the interests of justice. In some instances this objection has been overcome by arranging for an independent expert to make an inspection and report to the Court upon the facts.

A defendant is equally entitled to an order for inspection of the plaintiff's premises, where needful for the proof of his case. Interrogatories may be administered in patent proceedings, as in other actions, with the object of eliciting admissions from the other side which will simplify the issues and relieve the parties from the expense of calling unnecessary evidence at the trial. The ordinary rules

prevail also as regards disclosure of documents relevant to the matters in issue. For example, all books of account relating to the manufacture, purchase or sale of alleged infringing articles must be produced, and where infringement is admitted or proved, the Court has even ordered the defendant to disclose the names and addresses of customers, such information being necessary to enable the plaintiff to investigate the amount of profits.

It should be observed that the rule excepting from inspection all communications between solicitor and client does not apply to communications between an inventor and his patent agent.

Evidence.

The notoriously heavy expense of patent litigation is chiefly due to the panoply of evidence with which it is thought necessary to load every patent action. It is no exaggeration to say that half the cost of a patent trial is ordinarily expended in fees to expert witnesses and in experimentation for the purpose of evidence. No doubt this is in a great measure inevitable; but it cannot be denied that the evil has been considerably aggravated by a judicial system which devolves upon judges, selected without any regard to their scientific attainments, the task of adjudicating upon matters of a highly technical nature. Commercial cases, shipping cases, matrimonial cases and bankruptcy proceedings have each their respective and distinct tribunals presided over by judges specially qualified for such work. Patent actions, on the other hand, though no less important and involving knowledge no less technical and specialised, have hitherto been dealt with by judges appointed without reference to any such special qualification.

Hence a considerable amount of time is inevitably expended in explaining the fundamental facts and principles belonging to the particular branch of science or

technology upon which the case rests and with which a judge chosen on the strength of his scientific qualifications would naturally be familiar. Further, there is always the danger that these explanations emanating as they do from witnesses called to support contrary views of the case, may be misapprehended; in other words, that axioms may be mistaken for argument and *vice versâ*.

So long as this system continues, patent actions must continue to be an unduly prolix and costly kind of litigation. It seems, however, that a welcome change in this respect is at hand. Amongst the innovations contemplated by the recent Act, is the allocation of all patent actions to a single judge of the High Court, to be chosen by the Lord Chancellor. This reform, as soon as it is carried into effect, should do much to reduce the length, and consequently the expense, of patent actions.*

Although, owing to the above cause, the tendency has been to overburden patent actions with evidence, yet it is impossible to overrate the importance of the *rôle* which evidence plays in the success or failure of a patent action, and the need for the discriminating choice of those witnesses from whom the necessary evidence is to be obtained.

Besides the ordinary type of witness called to prove the purchase of an infringing article or the fact of a prior user, there is, first and foremost, that familiar and indispensable appendage of all patent actions, the expert witness. Generally speaking, expert witnesses are of two distinct types. There is the trade expert who speaks from practical experience of the industry or manufacture to which the invention relates, who is familiar with its technical terms and whose intimate knowledge of the subject has been acquired quite independently of the exigencies of a law-

* Since the above paragraph was printed, this reform has been carried into effect: the first of the Judges specially appointed for the hearing of patent actions being Mr. Justice Parker.

suit. Then there is the philosophical expert, who may either be a specialist in some particular branch of science or like the famous philosopher of whom it was said: "Science is his hobby, omniscience his foible"—a specialist in all its branches. It is this last named versatile, almost protean, type of scientist who figures most conspicuously in the modern patent action. However simple and homely the subject matter of an invention may be, it is not beyond his ingenuity to discover profound and subtle scientific principles to characterise its operation and give it distinction. He is equally at home in expounding the principle of an alternating current electricity meter or in explaining in scientific terms the compensation of stresses and strains effected by a novel method of lacing leather gaiters. The function of an expert witness is to give evidence on questions of fact; as to novelty, utility, the meaning of scientific terms and technical phrases and the like. His opinion as to whether there has been infringement is inadmissible, as such a question involves placing a construction upon the language of the specification which is a matter for the judge alone. It is, however, permissible to ask a witness what meaning the specification conveys to his mind. For, as Lord Bowen once observed, "the state of a man's mind is as much a matter of fact as the state of his digestion."

A not inconsiderable item of cost, which has usually to be taken into account under the head of evidence, is the cost of making experiments, both before the case comes on and during its progress, for the purpose of proving or refuting the various contentious points that arise in the course of the argument. Although such experiments are often very useful, it should be remembered that the Court is wont, as a general rule, to look with distrust upon experiments performed with a view to manufacturing evidence for the trial, and too much reliance, therefore,

should not be placed on evidence of this kind. Occasionally experiments are carried out at the instance of the judge. When, for example, doubts are raised as to the ability of the invention to perform what is claimed for it, the patentee may be required to work the invention in open Court, or if this is impracticable the judge may direct a test to be performed in the presence of an independent expert who afterwards makes his report. Models and diagrams are sometimes of great service in elucidating the subject matter of the invention. In order to make them available as evidence, models must be put to the witness during his examination, whereupon they become exhibits to his evidence, and are marked for future reference with his initials and, if there are several exhibits put to the same witness, with a number after the letters, thus "J. S.2" These exhibits must be carefully preserved intact even after the trial, in case they may be wanted again for the purpose of an appeal.

The Trial.

The hearing of patent cases, according to the usual mode of trial at the present time, namely by a judge of the Chancery Division without a jury, is an undoubted improvement upon the previous practice which required the submission of questions of fact to the jury, the judge dealing only with questions of law. For in the ordinary patent action the issues of law and fact are so closely interwoven that their severance and independent determination is a matter of extreme difficulty. Moreover, as in such cases the evidence is largely argumentative and relative to matters of opinion, and as the questions of fact are mainly questions of science, they are, to say the least of it, as likely to be well dealt with by a judge as by a jury.

In cases of technical difficulty the judge is at liberty to call in the aid of a scientific expert, as assessor, to guide

his judgment on the technical parts of the case. When this course is taken, the usual practice is for the assessor to embody his opinion in a written report upon which the judge bases his decision, and which, in the event of an appeal, is open to perusal by the Court of Appeal. As an alternative to trying the case with the help of an assessor, the judge may send the issues of fact to be tried before an official or special referee.

Where the defendant alleges that his process is no infringement of the plaintiff's patent, but a secret process, and that to divulge it in open Court would be highly prejudicial to his business, the judge may order the case to be heard *in camera*.

The Remedies.

A plaintiff who has succeeded in proving infringement and in upholding the validity of his patent has a two-fold remedy. He is entitled to pecuniary compensation for loss sustained in consequence of the defendant's wrongful acts, and further, if need be, to the protection of the Court against any future encroachment upon his patent. By way of compensation, he may have, at his option, either damages or an inquiry as to profits made by the infringer through the unauthorised use of the invention. These remedies are alternative, but a plaintiff who has obtained judgment and damages against one co-defendant is not precluded from taking an inquiry as to profits against another. Owing to the extreme difficulty and expense involved in conducting an inquiry as to profits, this form of remedy is discouraged by the Courts, and is only resorted to in exceptionally simple cases.

By far the most usual practice is to take an order for damages. These the judge may assess off-hand, where the loss is easily calculable or merely nominal damages are asked for; otherwise an inquiry is directed. This inquiry

is referred to one of the masters in the Chancery Division, who, after examining into the facts, assesses the damages at a sum which, in his opinion, represents the loss naturally and directly flowing from the defendant's infringement. The true measure of damage appears to be the extent to which the infringement has interfered with the sale of the patented article or the profits of the patentee; and where the evidence fails to prove any such interference or direct pecuniary loss, no damages will be awarded. In estimating the loss due to infringement, it cannot be inferred that the plaintiff would have sold all the pirated articles sold by the defendant. But the effect of the infringer's competing sales in lowering the plaintiff's prices would be a matter properly to be taken into account.

Where the infringement relates only to part of the entire article as sold, the patentee's claim for damages is restricted to his loss of profit on that part alone. Thus in a recent case, *Clement Talbot, Ltd.* v. *Wilson*, the defendants purchased a French motor-car fitted with some patented accessories of the plaintiffs, motor-car manufacturers in London, without their licence. On enquiry as to damages, it was held that the measure of damages was the loss of profit on the sale of the patented accessories only, and not the loss of profit on the sale of the whole motor-car.

The Statute of Limitations precludes the plaintiff from recovering damages for infringements committed more than 6 years before the date of the action. Also it should be remembered that where a specification has been amended, no damages can be recovered for infringements anterior to the date of amendment, unless the Court certifies that the specification, as originally drawn, was framed in good faith and with reasonable skill and knowledge.

By electing to take an account of profits, a plaintiff virtually condones the infringement and treats the infringer as his agent. Sometimes an intermediate course is adopted,

the plaintiff agreeing to take, in lieu of damages or an account of profits, an inquiry as to what would be a proper sum for the defendant to pay by way of royalty upon all the infringements committed. This is, in effect, granting an *ex post facto* licence to the infringer, and proves in many cases of the manufacture or sale of pirated articles a convenient form of compensation.

An important change in the law affecting a patentee's right to recover damages for infringement has been introduced by the Act of 1907. It is now a good defence to a claim for damages for the infringement of any patent *granted after the* 31*st of December*, 1907, that the defendant was unaware of the existence of the patent, when he committed the infringement. The Act states further that the marking of an article with the word "patent" or "patented" shall not be deemed to constitute notice of the existence of the patent, unless accompanied by the year and number of the patent.

This has long been the law in regard to the infringement of registered designs, and the decisions in design cases as to the kind of notice and knowledge required to deprive the defendant of this plea will doubtless be taken by the Courts as a guide in applying the same principle to patents.

The second remedy to which a successful plaintiff is usually entitled is a perpetual injunction restraining the defendant, his agents and workmen from infringing the patent during the residue of its term. The granting of an injunction is purely a matter for the discretion of the Court; and where damages are sufficient to meet the needs of the case, or the likelihood of the infringement being repeated is remote, no injunction will be granted. An injunction is essentially a precautionary measure, and is only warranted by the danger of future infringement. Past infringement is usually accepted by the Court as sufficient evidence of the infringing propensity of the defendant to justify the

granting of an injunction, unless the infringement committed is manifestly an isolated act and not likely to be repeated. Even though no actual infringement has been committed, an injunction will be granted where an infringement is clearly threatened. If the defendant consents to judgment, the practice is to substitute for an injunction an undertaking by the defendant to refrain from infringing. This is done to obviate the danger of misrepresentation that the injunction has been "granted" by the Court after investigating the merits of the patent.

An injunction is dissolved by the determination of the period of the patent. But when, in anticipation of this event, a manufacturer had made large quantities of pirated goods with the intention of flooding the market as soon as the patent expired, he was restrained even after the lapse of the patent from disposing of the goods so manufactured.

Disobedience to an injunction renders the offender liable to committal to prison for contempt of Court, and, in the case of a corporation, to an order for sequestration against the company and attachment of the directors.

In addition to an injunction and damages the order of the Court usually includes a direction for the delivery up to the plaintiff or destruction of all infringing articles. Where the infringement consists in a subordinate part of the whole, the order is confined to the infringing part. It should be noted that the property in articles delivered up to the plaintiff under order of the Court remains in the defendant; the latter cannot, however, take advantage of this fact by setting off their value against the damages, which he is condemned to pay in the action. Should the defendant succeed on appeal, he is entitled to the return of the articles delivered up.

If, on the other hand, the defendant is successful in the action, he will be entitled to judgment on one or both of the following grounds, as the case may be, viz., (1) that

what he has done is outside the scope of the plaintiff's patent, or (2) that the plaintiff's patent is invalid.

Assuming that the defendant succeeds upon the latter issue and that he has coupled with his defence a counter-claim for revocation, he will be entitled to an order revoking the plaintiff's patent. The Court may, however, suspend the order for a few days to give the plaintiff time to amend his specification, if it thinks the invalidity of the patent capable of being cured by amendment.

Costs.

The general costs of a patent action are dealt with in the usual way, the unsuccessful party being compelled to pay the costs of the successful party: but the judge has discretion to deviate from this rule by depriving a successful, though undeserving, litigant of his costs, or by apportioning them between the parties as he thinks fit. The following special points of practice should, however, be observed. A successful plaintiff in a patent action cannot get the costs of his particulars of breaches, nor can a successful defendant get the costs of his particulars of objections unless at the conclusion of the trial he applies and obtains the judge's certificate that such particulars were reasonable and proper.

If the plaintiff has complained of acts of infringement which he has failed to substantiate, the costs entailed by raising these issues will fall upon him and the judge will restrict his certificate to those particulars which have been actually proved. Similarly where the defendant has cited in his particulars of objections specifications which were not referred to in the argument or has alleged a prior user as to which no evidence was offered at the trial, he will get no costs in respect of these particulars.

When the trial results in the validity of the patent being

upheld, the plaintiff is entitled to a certificate from the judge stating that the validity of the patent came in question. The advantage of obtaining this certificate is that the patentee can, in the event of his succeeding in any subsequent action for the infringement of the same patent, obtain from the defendant costs as between solicitor and client. A certificate that the validity of the patent came in question may be granted even though the issue of validity is not tried out at the trial, either by reason of the defendant's failing to appear or consenting to judgment; but no certificate will be given in respect of a patent, the claims of which have been held to be wholly or partly invalid.

Appeals.

From the final judgment of a Court of First Instance an appeal lies to the Court of Appeal within 3 months. A decision upon an interlocutory point may be appealed from within 14 days. Fresh evidence may only be introduced in the Court of Appeal by special leave, and such leave is not easily obtained. If the case is carried up to the House of Lords, the appeal must be lodged within a year after the judgment appealed from; and, unless the appellant proceeds *in formâ pauperis*, he must within a week of the presentation of the appeal, enter into a recognisance to the amount of £500, and further pay a deposit of £200 or furnish sureties for that amount, as a guarantee of his ability to pay the respondent's costs, should the appeal fail.

CHAPTER XIII.

ACTION TO RESTRAIN THREATS.

The need for providing the public with a weapon of defence against the unjustifiable pretensions of patentees was recognised at a very early date. Section 4 of the Statute of Monopolies declares that any person hindered, grieved, disturbed or disquieted by the pretext of any monopoly or grant of letters patent may have his remedy by action at Common Law upon that Statute and recover treble damages and double costs. Although this section still remains unrepealed, no advantage seems to have been taken of it, and even the alluring prospect of treble damages has proved insufficient to tempt litigants to deviate from the beaten track and adopt this somewhat archaic form of action.

Prior to the Patents, Designs and Trade Marks Act of 1883, the course ordinarily resorted to was a suit at Common Law, analogous to the action for slander of title, the remedy asked for being an injunction, restraining the defendant from uttering threats, and damages. To succeed in this action the plaintiff must show not only that the insinuations made by the defendant are untrue, but that they were uttered in bad faith with the object of injuring the plaintiff. Owing to the extreme difficulty of proving that the threats complained of were actuated by malicious intent, this remedy, though still subsisting, affords very inadequate protection to the public. Threats uttered by the owner of a patent in the honest belief that his rights are being infringed, when in point of fact they are not, and the

patent is worthless, are no less harassing to a manufacturer or tradesman than threats inspired by malice. The right policy of law is obviously that the threatener should be obliged to justify his pretensions by the test of an action, with as little delay as possible. To adopt Lord Bowen's metaphor, the sword of Damocles should either not be suspended at all or it should fall at once.

This was, in substance, the purpose of the statutory remedy introduced by s. 32 of the Act of 1883, which is now re-enacted in s. 36 of the Patents and Designs Act, 1907. The section is as follows:—"Where any person claiming to be the patentee of an invention, by circulars, advertisements, or otherwise, threatens any other person with any legal proceedings or liability in respect of any alleged manufacture, use, sale or purchase of the invention, any person or persons aggrieved thereby may bring an action against him, and may obtain an injunction against the continuance of such threats, and may recover such damage (if any) as may have been sustained thereby, if the alleged manufacture, use, sale or purchase to which the threats related was not in fact an infringement of any legal rights of the person making such threats." Up to this point it is clear that the statutory remedy is merely a simplification of the Common Law action for threats, relieving the plaintiff from the necessity of proving bad faith on the part of the defendant and only requiring him to show that there has been no infringement of the patent, and that the threat is, therefore, unjustified. An important qualification, however, follows in the proviso to the section, which states that the section shall only apply, "if the person making such threats with due diligence commences and prosecutes an action for infringement of his patent." Thus, by promptly carrying his threats into execution, the patentee may entirely avert any liability under this section; and, notwithstanding that the threats may prove to have

been utterly baseless and the patent invalid, the commencement and diligent prosecution of an action for infringement will afford him a complete defence.

As regards the manner of threatening, the language of the Statute is extremely wide, and may be taken to include practically every kind of document which conveys either directly or impliedly a threat of legal proceedings. Threats contained in a solicitor's letter or in correspondence marked "without prejudice," and even verbal threats have been held to be actionable. An intimation in answer to an enquiry respecting a recent invention, that the writer considered it to be an infringement of his patent and intended to stop its sale, was considered to be an actionable threat. Again, a single threat has been deemed sufficient cause for granting an injunction; for until a threat is withdrawn, its effect is looked upon as continuing.

To afford ground, however, for an action under this section, the threats must be directed to some particular person or persons or must refer to some specific act of infringement committed or intended to be committed. A general warning to the public that a certain patent has been infringed, and that the owners of the patent intend to take drastic measures to put a stop to infringements, would not come within the category of actionable threats. Everybody has still the right to issue a general caution to pirates not to pirate, and to infringers not to infringe, and to warn the public that the patent to which the patentee is entitled and under which he claims is one which he intends to enforce. But if the threat conveyed in a general circular or advertisement is clearly aimed at some particular person, its apparent generality will not absolve the threatener from liability under this section. Moreover an apparent caution is sometimes a covert threat. Thus, in the recent case of *Craig* v. *Bowding*, the defendant wrote to one of the plaintiff's customers to the following

effect: "The article being sold and advertised by you is regarded as an infringement. We therefore request you to cease advertising and selling the article in question." This was held to be a threat within the meaning of the Act.

Similarly whenever, to quote Lord Justice Lindley, the warning may be paraphrased: "Friend, I have got a patent and I intend to protect it; do not infringe it:" that amounts to an actionable threat.

In considering whether an action is commenced with due diligence, the Court looks to the lapse of time ensuing upon the issue of the threat; the date of the alleged infringement, evoking the threat, does not affect the question. Provided that a *bonâ fide* action for infringement is instituted and diligently prosecuted, its discontinuance before trial will not prevent its being a good answer to an action for threats. How many stages beyond the issue of the writ it would be necessary to carry an infringement action to substantiate its *bonâ fide* character, must depend upon the circumstances of the case. Nor does it matter if the action is carried to trial and fails. The Statute does not say that the action must be prosecuted successfully. Unsuccessful prosecution will do, provided it is with due diligence.

But when the patent upon which the threat is based is notoriously invalid, so that any action that may be instituted for infringement is obviously bound to fail, that is a mere sham action and does not satisfy the requirement of the Statute.

The trial of an action for threats necessarily involves the simultaneous trial of the ordinary issues of an infringement action; consequently, where the patentee justifies his threats by launching an action for infringement, the usual practice is to stay the action for threats until the trial of the other action. If infringement is

proved, the action for threats vanishes; if, on the other hand, it is held that there has been no infringement, the plaintiff in the threats action will be entitled to damages, unless the patentee satisfies the Court that he commenced and prosecuted his action for infringement with due diligence.

CHAPTER XIV.

NEGOTIATION OF PATENTS BY SALE AND LICENCE.

In considering the disposal of his patent rights, a patentee has, broadly speaking, two courses open to him. The first is to sell his patent outright, the second is to grant licences to one or more persons to use the invention. His desire is naturally, if a purchaser can be found, to dispose of his patent outright for cash; but that, unhappily for the sanguine inventor, is an ambition seldom gratified except in the case of inventions which may be bought for a comparatively small outlay. He has usually to be content with a bargain involving payment in a gradual and often precarious form.

It would be idle to attempt to formulate in the abstract the course which an inventor should pursue in setting about the disposal of his patent. That must be determined by the circumstances of each case. But one piece of advice of universal applicability may be given to inventors, and that is to see that, before beginning the campaign, their inventions are in a practical and commercial shape. Where possible, evidence of actual working should be forthcoming and estimates of cost prepared, showing what economies may be reasonably expected to be realised or what profits made, when the invention is worked on a commercial scale. Models are often very helpful in explaining the principle of mechanical inventions, if the actual machine is not immediately producible, as they

convey far more to the ordinary lay mind than any number of mechanical drawings.

Where the invention consists in a process of manufacture, *e.g.*, a chemical process, and those whom it is desired to interest in it wish to see it in operation, the demonstration should be as complete as is practicable. Many good inventions have failed to attain commercial success simply through careless or inadequate exhibition of their merits. The inventor is apt to assume, in favour of his invention, many things which a cautious purchaser will refuse to take for granted. No precaution, therefore, should be neglected for ensuring the presentation of the invention in its most finished and attractive form.

Assuming that, as the result of due attention to these points, the inventor finds himself in favourable touch with a prospective purchaser or user of the invention, we may proceed to consider from a legal standpoint the various ways of disposing of his patent right, by assignment or licence, which lie open to the patentee. Concurrently with presenting the legal aspect of these matters, the opportunity will be taken to point out the practical results which flow from either method of dealing, and some of the contingencies which a business man should keep in view in determining which course to adopt.

It should be remembered that an inventor has no exclusive property in his invention until he has patented it. He may prevent others from fraudulently patenting his inventive ideas, but he has no remedy for the theft of them until they have been incorporated in letters patent. An inventor need not, however, wait to open negotiations until his patent has been granted. As soon as he has obtained provisional protection, he may safely proceed at once to negotiate for the sale of his rights. An agreement made at this stage is, of course, conditional upon a patent being obtained, and usually contains an undertaking

on the part of the applicant to use his best endeavours to procure the grant of a valid patent and, having obtained it, to assign it to the purchasers.

In obedience to the general rule that rights conferred by a document under seal can only be transferred under seal, the assignment of a patent must be effected by deed. But an informal agreement (contained, for example, in letters of offer and acceptance) to sell a patent in return for a sum of money or other fixed consideration will, if necessary, be enforced by the Courts, and the recalcitrant party compelled to execute a proper assignment.

A complete assignment transfers all the property and rights conferred by a patent to the assignee, who thenceforward stands in the position of the original patentee. The assignment may be to an individual or a corporation, or to any number of persons, each of whom as joint-owners of the patent will be entitled to exercise the full rights of a patentee; with the exception, introduced by s. 37 of the Act of 1907, that a joint-patentee cannot grant a licence without the concurrence of his co-owners.

If he chooses, the patentee may assign only a part of his patent rights. In bargaining, however, for the sale of a fractional share of a patent, it should be borne in mind that a man who purchases a tenth share in a patent can use the invention as freely as the owner of the other nine-tenths. Or again, a patentee may dispose of his rights for a particular district of the United Kingdom. He may, for example, make an absolute assignment of his patent rights for Scotland, so that, apart from express restriction, the assignee would have a perfectly independent right to work the invention, to grant licences and to sue for infringement anywhere north of the Tweed. It is obvious, however, that in all cases of partial assignment, resulting in co-ownership of a single patent, some restriction upon independent action and provision for co-operation is

essential, particularly in reference to such matters as payment of renewal fees, amendment and litigation, in regard to which the inaction or independent action of one of the co-patentees might imperil the existence or validity of the patent.

In selling a patent outright, the patentee should endeavour to get, if not the whole, at least a considerable part of the purchase money paid as soon as the assignment is completed. The balance may be paid by instalments of fixed amount, or calculated upon the quantity of patented goods manufactured. In the latter case, as there is no implied undertaking that the assignee will manufacture at all under the patent, it may be desirable to stipulate that the yearly royalty should not in any event be less than a certain minimum amount. A purchaser should consider the advisability of inserting in the deed of assignment provisions to the following effect :—

1. That the vendor will instruct the purchaser in the working of the invention and afford him such information and assistance as may be necessary to enable him to carry out the invention to the best advantage.
2. That the vendor (if he is the inventor) will keep the purchaser informed of all improvements he may make during the term of the patent and, at the purchaser's request, assign to him the benefit of such improvements.
3. That the vendor will refrain from engaging in or fostering any work antagonistic or prejudicial to the success of the invention sold.

As there is no implied warranty upon the part of the vendor that the patent is valid, if the assignee wishes to make this a term of the contract, it should be expressly provided for.

Where licences have already been granted by the vendor, they must be set out and the assignment made subject to

them. The concurrence of the assignee is not, however, necessary in executing a deed of licence, the terms of which have already been agreed to by the patentee prior to assigning his patent.

A patent may be assigned by way of mortgage, but the mortgagor in possession still remains the legal patentee, and can sue for infringement without joining the mortgagee as co-plaintiff.

The vendor who receives payment in full upon the assignment of his patent rights is not concerned with the subsequent fate of the patent: it is immaterial to him whether it is infringed or whether renewal fees are paid. But when the arrangement is that the purchase price shall be paid by instalments of royalties depending upon the subsistence of the patent, the vendor who has made an absolute assignment is at a disadvantage, inasmuch as the patent is no longer under his control. Indeed, in such a case it becomes a matter for serious consideration whether it is not the better course to grant a licence instead of making an assignment. For, in order to safeguard himself, the vendor would have to encumber the assignment with so many conditions as to the payment of renewal fees, amendment and the bringing or defending of actions, as to virtually reduce the assignee to the position of a licensee: whereas by granting a licence, the patentee retains direct control over the patent and transfers to the licensee just so large or small a share of its privileges as he wishes to part with. On the other hand, the scope of a licence may be so wide as to place the licensee practically in the position of sole proprietor of the patent.

The various forms of licence may be conveniently considered under three heads; General, Exclusive and Restricted.

General Licence.—A general licence, in its fullest form, confers on the licensee the right to "make, use, exercise

and vend" the invention anywhere within the United Kingdom. It places no restriction upon the patentee's power of granting other licences on similar or different terms, and gives the licensee no control whatever over the patent itself. Its effect is simply to exempt the licensed user of the invention, on certain conditions, from the consequences of what would otherwise be infringement.

In granting a general licence, a patentee should bear in mind that the terms granted to the first licensee will in all probability have a direct effect upon those subsequently obtainable from other licensees. For subsequent licensees will usually insist upon getting a licence on terms no less favourable than those of the licence already granted, knowing well that in order to get his invention introduced into practical use, a patentee is apt to agree to take a smaller royalty than he would otherwise be disposed to accept, were his invention of proved utility. Before, therefore, acceding to a first licence on terms highly preferential to the licensee, a patentee should carefully consider the likelihood of such a licence prejudicing his chance of getting better terms from subsequent licensees.

It is open to question how far a licensee, who is empowered "to manufacture and sell" the patented article, is entitled to sell *without* manufacturing. For example, a manufacturer licensed to manufacture and sell, provided he paid a certain royalty on all patented articles made by him, might find it more convenient to purchase the goods ready-made in Germany and merely to sell in England, thus evading the payment of royalty. The possibility of an evasion of this kind should be considered and provided for accordingly.

Exclusive Licence.—An exclusive licence is, from a competitive point of view, as valuable as a complete assignment of the patent. It gives the licensee full power to use the invention, coupled with the assurance that no further

licences will be granted in derogation of his monopoly. Even the patentee may be restrained by an exclusive licensee from using the invention, unless his right to do so is expressly reserved. But, in assenting to any such reservation, the licensee should be careful to see that the right to use the invention is a personal right only, and does not extend to the patentee's assigns. Otherwise the patentee, though debarred from granting additional licences, might by subdividing his patent amongst several persons seriously diminish the value of the exclusive licence. Indeed, such a result might come about automatically by the devolution of the patent upon the death of the patentee, his rights becoming vested in several joint owners, each equally at liberty to work the invention on his own account.

Since, in granting an exclusive licence upon terms of royalty based on manufacture, the patentee stakes everything upon the licensee's possessing the industry and ability required to work the invention to the best advantage, it is always a wise precaution in such cases to stipulate for a minimum annual payment, as a safeguard against mismanagement and lack of enterprise on the part of the manufacturer.

The unqualified sale of a patented article by a person licensed to sell it conveys a free licence to use not only to the purchaser, but to all subsequent possessors. But the purchaser of a patented article from a licensed manufacturer abroad obtains no right to introduce it into the United Kingdom.

Restricted Licence.—A licence may be restricted in many ways. The right to use the invention may be confined to a particular locality, or the terms of the licence may sanction the use of the invention only in its application to one of several purposes covered by the patent. Conditions as to price are frequently attached to licences, prohibiting the licensee from selling under a certain figure.

A licensee using the invention otherwise than in accordance with the terms of the licence is liable to an action for infringement, like any other member of the public who uses the invention without authority. Thus, where licensees were sanctioned under a patent to manufacture a certain kind of lamp for lighting purposes, and they used the lamp also for heating purposes in the form of a stove, this was held to be an infringement.

Conditions may be imposed affecting not only the manufacture and use by the licensee himself, but also by subsequent users into whose hands the patented article may come. *Incandescent Gas Light Co.* v. *Brogden* affords a good illustration of such a limited licence. It appears from that case that it was made a condition of the sale of Welsbach mantles, that they should only be used in conjunction with a particular kind of burner. The defendant bought some mantles from a general dealer, and, though he was aware of the conditions attaching to their use, used them on burners other than those prescribed. This was held to be an infringement of the patent rights in the article. Had he used the mantles on unauthorised burners in ignorance of these conditions, the case would have been different; for, unless the conditions of a restricted licence are brought to the knowledge of the public, they cannot be restrained from using the article as though its use were unconditional.

The recent case of *Badische Anilin and Soda Fabrik* v. *Isler* also bears on the same point. Dye-stuff was sold in packages to which was attached a label headed "Important Notice" and stating that the purchaser of the dye was not licensed to resell it, except in the unopened original package, in unchanged condition and with the label intact, and no persons other than the purchasers of such packages were licensed to use the dye therein contained. This was held to be a sufficient notice and binding on the

purchaser, notwithstanding he did not buy direct from the patentees.

It should be observed that a restrictive condition, such as that imposed in the *Welsbach* case, would probably now be held void under s. 38 as being in restraint of trade and contrary to public policy. For this aspect of restrictive covenants the reader is referred to p. 179, where the subject is fully discussed.

The drafting of licences is not safe in unprofessional hands. The numerous contingencies, which the circumstances of each case involve, require the knowledge and experience of highly trained professional men to foresee and adequately provide for. Here it is impossible to do more than indicate some of the more vital points to be borne in mind.

The grant of a licence should be made under seal; but an agreement not under seal, which has been acted upon and treated as a completed licence, will be binding as between the parties.

A licensee has no power to bring an action in his own name against an infringer. He must join the licensor as co-plaintiff. This appears to be the rule even in the case of an exclusive licensee, though the point has never been directly decided.

It is a well-recognised principle that the licensee may not call in question the validity of the patent under which he holds a licence. The fact, therefore, that the patent is infringed, and treated as worthless by other members of the public, does not entitle the licensee to treat it as invalid and to refuse to pay royalty. The cases even go so far as to show that a licensee may be liable to pay royalty after the patent has been declared invalid by judgment of the Court. To avoid such a paradoxical position, the licensee should see that there is a clear provision inserted for the termination of his obligation to pay royalty, upon the patent

being adjudged invalid by the High Court, unless the decision is reversed upon appeal.

With regard to covenants, it should be observed that a licence is not assignable unless expressly stated to be so. This may be done simply by making the grant to the licensee, his executors or assigns. The covenant to pay royalty should be coupled with an undertaking on the part of the licensee to produce his accounts for inspection and for verification of the amount of royalty payable.

The possibility of the specification needing amendment and the incidence of the payment of renewal fees should also be clearly provided for.

As a check upon the licensee and to facilitate the detection of infringement, it is sometimes useful to insist upon the licensee marking all articles made under the patent with a distinguishing mark.

A licence may be granted for the term of the patent or for any less period, and may be made revocable upon notice in writing or upon breach of any of the covenants.

It is usual to make non-payment of royalty a cause of forfeiture. In the licensee's interest, on the other hand, the payment of royalty should be made conditional upon the subsistence of the patent. In a case where the licensee had agreed to pay royalty in the form of fixed yearly sums, the fact that the patent had lapsed through neglect by either party to pay the renewal fees was held not to absolve the licensee from the obligation to continue the payment of royalty until the expiration of term specified in the agreement.

Assignment to the Secretary of State for War or the Admiralty.

Section 30 of the Patents and Designs Act, 1907, lays down special rules in regard to the assignment to the War Office

or Admiralty of inventions relating to improvements in "instruments or munitions of war," the object of such regulations being to keep the nature of the invention secret.

Inventors of torpedoes, military balloons, quick-firing guns and the like, who naturally look to the Government as the likeliest purchaser of their inventions, should communicate their project to the Secretary of State for War or the Admiralty as the case may be, *before publication of the specification.* Indeed, this step may be safely taken even before obtaining provisional protection, since it is specially provided that neither the communication of the invention to the Secretary of State, nor anything that may be done to investigate its merits, shall prejudice the validity of a patent subsequently granted.

Where such an assignment is effected before obtaining provisional protection, application for a patent is made upon Form No. 1B, accompanied by a certificate from the Secretary of State for War or the Admiralty, as the case may be. The specification and drawings are delivered to the Comptroller in a sealed packet, and so kept during the term of the patent; and upon its expiring, the packet is re-delivered to the War Office or the Admiralty.

The application for a secret patent is not advertised; nor is the patent entered in the ordinary Register, but in a Confidential Register of secret patents. No fees are payable in respect of secret patents, and no proceedings of opposition to or for revocation of such patents will be entertained by the Comptroller or the Court.

CHAPTER XV.

LIMITATIONS ON PATENT RIGHT.

Compulsory Licences.

(1) *Retrospective.*—One of the most remarkable features in the history of our Patent Law is the entire freedom which, until comparatively recent times, has been allowed to the patentee in the exercise of his monopoly. The use he made of his patent privilege, once it had been validly granted, seems to have been a matter of indifference, at least as far as the intervention of the Courts was concerned. This is all the more surprising, as it would appear that, had they chosen to exercise the right, the Courts possessed, from the very first, ample jurisdiction to check the abuse of patent monopolies by the simple expedient of revoking the grant when patentees used their privileges to the public detriment instead of to the public advantage. For the whole *raison d'être* of a valid grant of letters patent is that the patentee is going to benefit the community by his invention and by the establishment of new industries in the country. The Statute of Monopolies expressly states that the grant is made for the working or making of new manufactures in the realm, and stipulates amongst other conditions that it shall not be "mischievous to the State by raising prices of commodities at home or hurt of trade or generally inconvenient." Hence, if the patentee used his patent not to foster but to impede the growth of new industries in the country, it might well be argued that therein lay a

sufficient ground for revocation. Perhaps, had the point been raised while the feeling against monopolies still ran high, the Courts might have taken this view.

It was not, however, until some two centuries later that the question arose, and during that interval the views of the judges as to the grounds upon which a petition for revocation could succeed had become stereotyped, and their interpretation of the Statute of Monopolies had lost its elasticity. Failure to work an invention in this country had come to be regarded as fatal to the grant, only if the cause of failure lay in the inherent uselessness of the invention. And similarly the proviso of the Statute of Monopolies, directed against patents proving mischievous or harmful to trade, was construed by the Courts as only justifying revocation in so far as these results were directly referable to the inutility of the subject matter of the patent.

But it was not only with the judges of the High Court that the power lay to protect the public against the abuse of patent rights. The Privy Council also, it seems, possessed jurisdiction for this purpose. The patent grant itself provided (the clause has recently been omitted) that if at any time during the term of the patent it was made to appear to six or more of the Privy Council that the grant was prejudicial or inconvenient to the general community, the patent should be void. No procedure was, however, prescribed for obtaining the annulment of a patent by this means, and consequently no use was made of this expedient for keeping patent monopolies within bounds. Yet instances were not wanting of patentees who made use of their privileges very much to the prejudice and inconvenience of the general public. A flagrant example of this was the practice of foreign inventors to take out British patents solely for the purpose of reserving our markets for goods manufactured abroad, and without the least intention of working the invention in England. Shielded from

competition, the owners of the patents were free to offer their foreign-made goods over here at prices which, if not prohibitive, at least placed the British public at a disadvantage as compared with the buyer of similar goods on the continent.

The hardship of this state of things was keenly felt. As, however, the Courts professed themselves powerless to check the abuse, and no one of sufficient enterprise was found to evoke the latent jurisdiction of the Privy Council, it was plainly a matter for fresh legislation.

Two forms of remedy presented themselves for consideration :—namely, to compel the patentee to work the invention himself, or to constrain him to license others who desired to use it. In most foreign countries, America being a notable exception, compulsory working was the rule, and the patentee was required to put the invention into practice within the specified number of years on pain of forfeiture. But, although undoubtedly effective as a cure for this kind of abuse, the system of compulsory working has its disadvantages. It bears hardly upon the inventor who, in spite of his efforts to get his invention taken up and worked in the country, fails to comply with the statutory requirements, either through lack of enterprise on the part of the commercial community, or through want of sufficient means to establish the industry himself. Hence, for the poor inventor, compulsory working too often spells compulsory confiscation.

For these amongst other reasons, public opinion in England was on the whole averse to the system of compulsory working in vogue on the continent. It was thought that the solution of the difficulty lay in the exaction of compulsory licenses from the patentee, who refused voluntarily to work his invention in the United Kingdom. Accordingly, in the Patents, Designs and Trade Marks Act of 1883, a clause was introduced empowering the

Board of Trade, on the petition of any person interested, to compel a defaulting patentee, under certain circumstances, to grant licences on such terms as it thought fit.

A patentee was to be considered in default, if

(*a*) The patent was not being worked in the United Kingdom.

(*b*) The reasonable requirements of the public with respect to the invention were not supplied, or

(*c*) Any person was prevented from working to the best advantage an invention of which he was possessed.

Little relief, however, resulted from this provision. The onus of proof cast upon the petitioner was very heavy and considerable doubt existed as to the nature and extent of the evidence required. Further the procedure prescribed was both clumsy and expensive, involving, as it did, firstly, a preliminary hearing of the Board of Trade, secondly, a full hearing of the evidence by a referee to whom the petition was referred if a *primâ facie* case had been made out, and thirdly a final consideration of the case by the Board of Trade in the light of the referee's report.

It is scarcely surprising, therefore, that few people availed themselves of a procedure which offered at once so uncertain a prospect of success and such an unbounded vista of law costs. In the course of the nineteen years during which these provisions continued in force only four petitions were presented, and of these only two were successful. These cases, so far as they are relevant to the existing state of the law, will be referred to later on.

The Patents Act of 1902 repealed the section of the Act of 1883 relating to compulsory licences and introduced a fresh set of provisions dealing with the matter. The referee was abolished. Petitions were, as before, to be presented in the first instance to the Board of Trade. If a good *primâ facie* case was made out, the petition was to be referred to the Judicial Committee of the Privy Council, who, if they were

of the opinion that the reasonable requirements of the public with regard to the invention had not been satisfied, were empowered to grant licences, or (if this did not meet the needs of the case) to revoke the patent altogether. The Act further defined what was meant by failure to meet "the reasonable requirements of the public."

So far from removing the principal defect of the previous procedure, namely its great expense, the Act of 1902 went from bad to worse, for proceedings before the Judicial Committee of the Privy Council are notorious for their high scale of costs. The Act was foredoomed to failure, and it duly fulfilled its fate, no one being found courageous enough to present a petition under its provisions, which were accordingly repealed by the Patents and Designs Act, 1907.

It cannot be said that the new Act has by any means removed the difficulties that beset a petitioner for a compulsory licence. True, it has introduced a beneficial change by substituting the High Court for the Privy Council, as the tribunal before which the petition is ultimately tried; in other respects, however, it has left the procedure much the same as before.

(2) *Present Law.*—The law of compulsory licences, as it now stands, in s. 24 of the Act of 1907, may be shortly summarised as follows:—

Any person interested may present a petition to the Board of Trade, alleging that the reasonable requirements of the public with respect to a patented invention have not been satisfied, and praying for the grant of a compulsory licence or, in the alternative, the revocation of the patent. "Any person interested" denotes a person whose *commercial* interests are prejudiced by the patentee's default.

If the good offices of the Board of Trade fail to bring about a settlement between the parties, and the petitioner appears to have a fair cause of complaint, the petition will

be referred to the Court for adjudication. The Court may make an order for compulsory licence or revocation, according to the requirements of the case.

In order to comply with the terms of the International Convention, it is stipulated that no order of revocation shall be made before the expiration of 3 years from the date of the patent or if the patentee gives satisfactory reasons for his default.

Besides the patentee, all persons claiming an interest in the patent, as exclusive licensees or otherwise, should be made parties to the proceedings.

The reasonable requirements of the public are deemed not to have been satisfied if, by reason of the default of the patentee to work his invention to an adequate extent, any existing trade or industry or the establishment of any new trade or industry in the United Kingdom is unfairly prejudiced, or the demand for the patented article is not reasonably met. A patentee is considered not to be working his invention in the required manner, if he refuses—

(1) to manufacture the patented article to an adequate extent and supply it on reasonable terms;

(2) to supply on reasonable terms any parts of the patented article which are necessary for its efficient working;

(3) to carry on the patented process to an adequate extent;

(4) to grant licences on reasonable terms;

or if (5) he has attached such conditions, either before or after the passing of the Act, to the purchase, hire or use of the patented invention as to unfairly prejudice any trade or industry in the United Kingdom.

The petitioner has still a heavy task before him. To prove that the needs of the public, that is, the consuming public, are not adequately met, seems to open up an almost boundless enquiry. To prove that the patentee's default is

prejudicial to some particular section of the manufacturing public, though less indefinite, presents a sufficiently arduous task to deter any but the most pertinacious and public-spirited.

The first successful petition for a compulsory licence—*Lerinstein's Petition*—succeeded on the somewhat special ground that the petitioner was prevented by the default of the respondents from using to the best advantage a certain patented process of which he was possessed for the manufacture of dyestuffs, but to work which involved the use of ingredients patented by the respondents. There was an express provision in the Act of 1883 for a case of this kind (see p. 174). In the Act of 1907 there is no such express provision, and the question therefore arises, whether such a grievance as this would come within the more general wording of the new legislation ; in other words, whether the individual hardship suffered by a single representative of a trade or industry will afford ground for a petition. The natural construction of the words suggests that it would not. The expression "any trade or industry" appears to be used in the collective sense. Hence, it seems, the refusal of a patentee to grant a licence to an individual trader D, after granting licences to A, B and C in the same trade, would not justify a petition on the part of D, unless he could show that, notwithstanding the licences already granted, the needs of the public were not adequately met.

The mere fact that the patentee has already granted licences and even exclusive licences does not, of course, preclude the Court from ordering the grant of additional licences. Thus in *Hulton and Bleakley's Petition*, where the proprietors of the *Manchester Evening Chronicle* petitioned for licence to use certain type setting mechanism for printing late news, the Board of Trade made an order for compulsory licence notwithstanding that the patentees had already granted an exclusive licence to a rival newspaper. In this

case the royalty paid for the exclusive licence was trifling. How the Court will deal with a case in which a large sum of money has been paid for an exclusive licence, remains to be seen.

In *Gormully and Jeffrey's Petition*, the evidence showed that an exclusive licence had been granted by the respondents for a premium of £70,000. The difficulty of having to deal with this situation was, however, averted by the collapse of the petition, on the respondents offering to supply the patented article on reasonable terms. Were the Court to make an order for the grant of an additional licence, where a heavy premium had already been paid for an exclusive licence, the terms imposed would probably be so arranged as to compensate the original licensee, as far as the circumstances warranted, for the loss of his exclusive rights. In the case last mentioned, the referee expressed the opinion that where a compulsory licence was ordered, the patentee would as a rule be entitled to a royalty corresponding to a full manufacturer's profit. The petitioner would therefore have to be content with reaping incidental and collateral advantages accruing from the use of the invention.

An order of the Court directing the grant of a compulsory licence will operate as if it were an ordinary deed of licence made between the parties, and any breach in its observance may be remedied in the usual way. It may also, if necessary, be summarily enforced by applying to the Court for a writ of mandamus.

In addition to the provisions for compulsory licensing, the Act of 1907 has also adopted, in a modified form, the principle of compulsory working. The fact that a patented invention is worked exclusively or mainly outside the United Kingdom is now a ground of forfeiture, quite irrespective of the consideration whether the public demand for the patented article is met or not. Section 27, which

deals with this subject, is discussed under the head of Revocation (Chap. XVI.). But it is relevant here to remark that as the evidence which would justify the grant of a compulsory licence would, in the majority of cases, equally justify the revocation of the patent under s. 27, it is not easy to see what inducement there is to tempt the manufacturer to petition for a compulsory licence, when he can obtain the same facilities for manufacturing *royalty free* by applying to the Comptroller to revoke the patent.

Since, however, revocation under s. 27 cannot take place until the patent is 4 years old, in the case of a *recent* patent a compulsory licence might be the only available remedy.

Annulment of Contracts containing Restrictive Conditions.

The provisions embodied in s. 38 of the Act of 1907 have no statutory antecedents; they are entirely novel, and indicate a somewhat ominous change in the attitude of the Legislature towards the patentee. Hitherto he has been on the whole legislated for as a public benefactor; this section regards him rather in the light of a potential spoliator of the public; and unfortunately latter-day commercial methods have shown that the change of view is not altogether without warrant.

The section is aimed at the abuse of the power, which a patent sometimes gives a patentee, of getting into his grasp the control of an entire industry in all its branches.

Thus, to take a concrete instance, suppose an American inventor devises a machine for manufacturing boots, which is so great an improvement upon all existing machines, that it becomes at once a *sine quâ non* to the boot manufacturer. The invention is taken up by the boot trade in America and patented in England. The British manufacturer is

consequently obliged either to make terms for the use of the invention, or to submit to being undersold by his competitors. The owners of the patent, being in a paramount position, can make what terms they choose. They accordingly stipulate that as a condition of using the machine the British licensee shall buy from them or their nominees not only the patented machine and its accessories, but also all the leather, thread, and other raw material which he uses in his manufacture. Licences on these terms are perforce accepted by all the principal boot manufacturers in the United Kingdom, with the result that the destinies of the British boot-trade are henceforth entirely in the hands of its American rivals.

The case imagined is not unlike the condition of things which recently occurred in the English boot-trade, and this section in the Act is largely due to agitation from that quarter.

The gist of the provisions contained in s. 38 is given below in as succinct and clear a form as their somewhat intricate and involved nature will permit. Until they have received the consideration of the Court, it is premature to attempt to analyse or discuss them in detail.

Sub-section (1) relates to contracts for the sale or lease of, or licence to use, any article or process protected by patent, and provides that in such agreements restrictive covenants of a certain kind shall be treated as null and void. For brevity's sake the purchaser, lessee, and licensee may be referred to compendiously as the "customer."

Two types of covenant are condemned under this sub-section, viz., covenants the effect of which is:—

(*a*) To prohibit or restrict the customer from using any article, whether patented or not, or any patented process, supplied or owned by any person other than the patentee or his nominees.

(*b*) To compel the customer to acquire from the patentee

or his nominees anything except what is protected by the patent.

The sub-section, however, is not intended to affect any stipulation in a contract prohibiting a person from *selling* any goods other than those of a particular manufacturer or dealer. Nor will it affect any condition that a patentee may insert in his contract, reserving to himself the sole right to repair the patented article or to supply new parts when required.

This sub-section is not retrospective, and therefore only applies to contracts made *after* the passing of the Act (Aug. 28th, 1907). Moreover it contains a saving clause to the effect that such restrictive conditions shall not be treated as null and void, provided :—

(*a*) The patentee proves that the customer had the option of making the bargain on reasonable terms without such conditions, and

(*b*) The contract contains a provision enabling the customer to cancel the restrictive conditions by giving 3 months' notice in writing, and paying the patentee suitable compensation.

The amount of the compensation is to be fixed by an arbitrator appointed by the Board of Trade.

The insertion of any condition which is made null and void by this sub-section may be pleaded as a defence to an action for infringement of the patent to which the contract relates, provided the contract is still in force when the action is brought.

Sub-section (2) provides that any contract relating to a licence to use a patented invention may, at any time after the expiration of the patent or all the patents concerned, be terminated by either party upon 3 months' notice in writing *plus* the payment of suitable compensation.

This sub-section applies to *all* contracts whether made before or after the passing of the Act.

Sub-section (3) relates to contracts of licence made *prior* to the passing of the Act, and provides that any condition, which (if made subsequent to the Act) would have been null and void under sub-s. (1), may be determined by either party giving 3 months' notice in writing and payment of compensation.

CHAPTER XVI.

REVOCATION OF PATENTS.

A PATENT is open to attack either on account of its own intrinsic defects or owing to the default of its proprietor; in other words, either because the monopoly was improperly granted in the first instance or because, though rightly granted, it has been improperly used. It will be convenient to consider these grounds of revocation separately.

A. DEFECTIVE GRANT.

The presumption upon which a grant of letters patent proceeds is that the applicant is the true and first inventor, that his invention is both new and useful, and that he has given a fair and sufficient description of it in his specification. If any one of these conditions is lacking, the patent is granted, as the saying goes, "upon a false suggestion" to the Crown; that is, in plain language, it has been obtained by false pretences. Disconformity was also, formerly, a ground of invalidation, but s. 42 of the Act of 1907 provides that mere discrepancy between the provisional and complete specification shall not in the future invalidate a patent, assuming that the extra matter causing the discrepancy is novel and original. True and first inventorship, novelty and utility have all been thoroughly discussed, and nothing, therefore, need be added with reference to the merits of these several grounds of attack. That part of the law of revocation is simple enough. The procedure for putting the law in motion is,

however, not so simple; and unfortunately the Act of 1907 has by no means tended to simplify it.

Under the present law, an application to revoke a patent on the ground of defective grant may be made either to the Court or to the Comptroller. Here again it is necessary to divide the subject and deal first with the proceedings before the Court.

1. *Revocation upon petition to the Court.*—An application to the Court for the revocation of a patent takes the form of petition; the patentee and all other persons interested in the patent being made respondents to it. To avoid the bringing of petitions upon idle pretexts and by irresponsible people, the Statute has restricted the right of petitioning for revocation to the following persons:—

(A) Any person alleging—

(1) that the patent was obtained in fraud of his rights, or of the rights of any person under or through whom he claims;

(2) that he, or any person under or through whom he claims, was the true inventor of any invention included in the claim of the patentee;

(3) that he, or any person under or through whom he claims an interest in any trade, business or manufacture, had publicly manufactured, used or sold within this realm, before the date of the patent, anything claimed by the patentee as his invention.

(B) The Attorney-General or any person authorised by him.

Where the plea is that the patent was obtained fraudulently, the petitioner must prove his case up to the hilt; for an allegation of fraud is a serious matter, and if put forward lightly and without sufficient proof will result in the petitioner having to pay all costs occasioned by that issue. Where, however, the petitioner succeeds in proving that he has been defrauded of his rights, the Court will revoke the

patent, and order a fresh patent to be sealed to the petitioner bearing the same date as that revoked.

The jurisdiction of the Court to transfer the patent to the successful petitioner is confined to cases where fraud is established. If the patent has been sealed in the wrong name through some mistake not involving moral culpability, the Court will probably effect the same result by ordering the wrongful patentee to hold the patent in trust for the petitioner.

The authorisation, technically termed the "fiat," of the Attorney-General is not granted as a matter of course; the applicant must present a memorial showing that there is a good *primâ facie* case and containing certificates from a barrister and a solicitor as to the propriety of the petition and the ability of the petitioner to defray the cost. The Attorney-General will not grant his *fiat* if there are proceedings pending in which the issues proposed to be raised in the petition could be tried.

A petitioner, once he has established his *locus standi* on any particular ground, can rely at the hearing on all grounds of attack to which the patent is exposed, provided they are duly set out in the particulars of objections delivered with the petition. A petition is tried by a judge of the Chancery Division, and usually with witnesses; but, where the respondent does not appear, the Court may order the patent to be revoked simply upon affidavit evidence. The general character of the evidence is similar to that required for the determination of the issue of validity in an infringement action. The respondent has the right to begin and, if the petitioner tenders evidence, the right to reply.

Where there is an action for infringement pending in respect of the same patent, the Court will, as a rule, order the hearing of the petition and the action to come on simultaneously.

It appears from a recent decision (*North Eastern Marine*

Engineering Co. v. *Leeds Forge Co.*) that a patent may be revoked notwithstanding it has expired. Such a proceeding might be necessitated in the case of a person menaced, though not actually threatened, with an action for infringement in respect of the use of an article alleged to have been made in infringement of a patent since lapsed.

After a petition for revocation has been launched, a patentee can only amend his specification by leave of the Court, and then only by disclaimer. If the defects cannot be cured by amendment and the patent appears hopelessly bad, the patentee may avert the expense of the petition being brought to trial by surrendering his patent. This he can now do under sub-s. (3) of s. 26 of the Act, by giving notice to the Comptroller on Form No. 23.

Apparently through some oversight, the right of appeal which formerly existed in cases of petition to the Court has been taken away by s. 92. This will probably be shortly corrected by an amending Act.

2. *Revocation on application to the Comptroller.*—Section 26 provides that any person who would have been entitled to oppose the grant of a patent (or is the successor in interest of a person so entitled) may, within 2 years from the date of the patent, apply to the Comptroller to revoke the patent on any one or more of the grounds on which it might have been opposed For the various grounds of opposition see p. 94. This procedure is an innovation of the Act of 1907. Its intention is to give a second chance to those persons, who might have successfully contested the grant of the patent, but who have inadvertently allowed the opportunity to pass.

An application for revocation under this section must be made on Form No. 22, bearing a £2 stamp and accompanied by an unstamped duplicate. Where the ground of application is that the patentee obtained the invention from the person applying for revocation, evidence by way

of statutory declaration must be filed with the application; in other cases the filing of evidence is optional. The rules regulating the filing of further evidence and the hearing of the case before the Comptroller are the same as those prescribed for the conduct of opposition proceedings.

The Act stipulates that the Comptroller shall not revoke the patent unless the circumstances are such as would have justified his refusing the seal in opposition proceedings. It further states that no application for revocation may be made to the Comptroller while proceedings for infringement or revocation are pending elsewhere, except by leave of the Court.

An order of the Comptroller revoking a patent is subject to appeal to a judge of the Chancery Division, and thence to the Court of Appeal and the House of Lords. If, however, the Comptroller's decision is in favour of the patentee, there is no right of appeal (at least until the law is amended) beyond the judge of the Chancery Division.

B. Default of the Patentee.

Section 27 embodies the continental principle of compulsory working in a modified form, the intention being that there shall be no forfeiture unless there has been a clear default on the part of the patentee.

After August 28th, 1908 (the operation of the section is deferred for a year from the passing of the Act), the fact that an invention, which has been patented in England for *four* or more years, is worked exclusively or mainly outside the United Kingdom will be ground for revocation, and anyone may apply to the Comptroller to have it revoked on that ground. Upon such an application being made, the Comptroller will institute an enquiry. If as the result of his enquiry he is satisfied that the complaint is justified, it will then lie with the patentee to prove that

the invention *is* worked to an adequate extent in the United Kingdom or give satisfactory reasons for his default. In the absence of such proof or explanation, the Comptroller may make an order revoking the patent forthwith, or contingently upon the patentee's failure to amend his default within a certain specified time. If the Comptroller takes the latter course, and the invention is still not being worked to an adequate extent at the end of the specified period, the Comptroller may, on satisfactory reasons being given, extend the period of grace for another 12 months, but no further.

The Comptroller's decision under this section is subject to appeal to a judge of the Chancery Division, with whom the final determination of the matter rests.

For details of the procedure in instituting revocation proceedings under ss. 26 and 27 see the Patents Rules, 1908.

CHAPTER XVII.

PROLONGATION.

In fixing the term of 14 years as the duration of a patent, the assumption of the legislature has been that this period of monopoly is long enough to enable a patentee, under normal conditions, to obtain a remuneration from the public proportionate to the merit of his invention. Experience seems, on the whole, to have proved the reasonableness of this assumption, and the adoption of a similar period of protection (generally 15 years) by most other countries possessing patent laws is also good testimony to the same effect.

Accidental causes, however, occasionally operate to falsify the justness of this calculation, and the meritorious inventor finds himself at the close of the period of protection still battling against public indifference, a loser instead of a gainer by the bargain; or, if not a loser, at least success comes so late that the harvest is reaped in the main by others, leaving the inventor no adequate recompense for his service to the public. A hardship of this nature is met by the legislative provision empowering the Crown in certain cases to extend the term of the patent for a further period not exceeding seven, or, in exceptional cases, fourteen years.

Until the passing of the recent Act, a patentee, desiring to obtain this indulgence, presented his petition to the Crown through the medium of the Privy Council, and all proceedings relative to the prolongation of patents were conducted before the Judicial Committee of that body.

The Patents and Designs Act, 1907, has transferred this jurisdiction from the Privy Council to the High Court. Subject to new rules adapting the practice to the changed tribunal, the procedure and principles governing the presentation of petitions for prolongation remain substantially unaltered.

A patentee who wishes to get his patent extended must lodge his petition at least 6 months before his patent expires. Prior to lodging his petition, he must give public notice of his intention of so doing by advertising in the prescribed manner, stating the object of the petition and the time when he intends to have it heard, so as to afford opportunity for public opposition. Intending opponents must give notice of the grounds of their objections in the form prescribed by the rules.

Previously, when petitions were presented to the Privy Council, the Crown was represented at the hearing by the Attorney-General, who, if he did not actively oppose the petition, performed a useful function by subjecting the petition to closer criticism and investigation than it might otherwise encounter in the absence of public opposition. The position of the Attorney-General is now taken by the Comptroller, who will watch the proceedings in the interest of the general public.

To secure a favourable decision, the patentee must satisfy the Court on two heads; first, that the invention is one of conspicuous merit, and secondly, that he has received inadequate remuneration for it. The extension of the term of a patent must be looked upon as a very exceptional privilege, and the exceedingly small number of cases in which the petitioner has been successful indicates the jealousy which which this indulgence is guarded. Since the beginning of the year 1884 up to the present time, fifty-four petitions for extension have been presented and of these only six have been granted. These figures