

THE
PATENTEE'S MANUAL

LONDON : PRINTED BY
SPOTTISWOODE AND CO., NEW-STREET SQUARE
AND PARLIAMENT STREET

c†

THE
PATENTEE'S MANUAL

BEING A TREATISE ON THE

LAW AND PRACTICE OF LETTERS PATENT

ESPECIALLY INTENDED FOR THE USE OF

PATENTEES AND INVENTORS

WITH AN

*Appendix of Statutes, Rules, and Foreign and Colonial Patent Laws
International Convention and Protocol*

BY

JAMES JOHNSON

OF THE MIDDLE TEMPLE, BARRISTER-AT-LAW

AND

J. HENRY JOHNSON

SOLICITOR, ASSOC. INST. C.E.

PAST PRESIDENT OF THE INSTITUTE OF PATENT AGENTS

FIFTH EDITION

Thoroughly Revised, incorporating the Patent Act of 1883

LONDON

LONGMANS, GREEN, & CO., PATERNOSTER ROW

STEVENS & SONS, 119 CHANCERY LANE

1884

S
UK
945
JOH

TX
J67P

BY THE SAME AUTHORS.

Price 1s.

THE NEW PATENT LAW: being the Sections relating to Patents of the Patents, Designs, and Trade Marks Act, 1888, with the Patents and Law Officers' Rules, and Introduction, Notes, and Index. *Second Edition*, revised. 8vo.

LONDON:

LONGMANS & CO. AND STEVENS & SONS.

MAR 13 1943

PREFACE
TO
THE FIFTH EDITION.

SINCE the publication of the last edition of this work, an important change in the Law of Patents has been effected by the passing through the Legislature of the Patents Act of 1883. Dissatisfaction with the old law had frequently been expressed by inventors, and several previous attempts to improve it had been made both by the Government and by private members of the House of Commons, but the Bills for various reasons failed to receive legislative sanction.

By the new Act the provisions of many earlier statutes have been consolidated and amended; several features hitherto unknown in our system have been introduced; the procedure has been simplified; the fees payable to Government on applications for Patents have been reduced, and greater facilities for the payment of the subsequent fees have been afforded. By these changes it was hoped that the inventive talent of the nation would be stimulated into more vigorous action, and if the number of applications (13,012) during the first nine months of 1884 compared with the number (4,656) during the first nine months of the preceding year affords an adequate means of judging, that hope will not be disappointed.

The new Act abolishes the Commissioners of Patents, who are replaced by the Board of Trade as the governing body of the Patent Office. The Comptroller is the chief officer of the Board, and upon him devolves the charge of managing the business and superintending the work of the office. The Board was authorised to make rules, having the same effect as if forming part of the Act, for regulating the conduct of Patent business; and it has accordingly promulgated a long series of rules for that purpose accompanied by forms.

The chief alterations in the procedure are:—1. Non-inventors may join with inventors in applying for a Patent. 2. The applications and specifications are referred to official examiners, who report whether the documents are in proper form; if they are not in proper form, the Comptroller requires them to be amended before acceptance, subject to appeal to a Law Officer. 3. Oppositions to the grant of Patents are decided by the Comptroller, subject to appeal to a Law Officer. 4. The steps necessary to be taken for obtaining a Patent are fewer. 5. Applications and other documents may be sent to the Patent Office through the post. 6. Patents are sealed by the Comptroller with the seal of the Patent Office. 7. The Government fees are reduced from 25*l.* for a three years' Patent to 4*l.* for a four years' Patent, and the payment of the remaining fees of 50*l.* and 100*l.* is postponed to the end of the fourth and the seventh years respectively, or they are payable in small annual sums. 8. Applications for leave to amend specifications are decided in the first instance by the Comptroller and on appeal by a Law Officer. 9. A new mode of obtaining

the repeal of invalid Patents is substituted for the old proceeding of *scire facias*.

Whilst the procedure has undergone great alterations, the substantive law has been but little touched. The old decisions of the Courts regarding the subject matter of patentable inventions; the incidents of utility and novelty which every patentable invention must possess; the contents of specifications and the infringement of Patents, still remain applicable to Patents issued under the new Act. The duration of a Patent is the same as before the Act, and its extent is practically the same, being only smaller by the omission of the Channel Islands. The principal changes to be noticed are:—1. The Board of Trade is empowered to order patentees to grant licenses if they make default in granting them on reasonable terms. 2. The right of the Crown to use patented inventions without making compensation has been abolished. 3. A Patent may be assigned for any place in or part of the United Kingdom. 4. A British Patent will no longer come to an end at the expiration of any earlier foreign Patent for the same invention.

In preparing the Fifth Edition of this work for the press, the provisions relating to Patents in the new Act have been incorporated with the text, and the recent decisions of the Courts have been noticed in their proper places. Considerable additions have been introduced, and the matter of several chapters has undergone re-arrangement with the view of establishing a closer logical connection between the various parts. The whole has been subjected to careful revision, and no pains have been spared to render the treatise one that

patentees and inventors may consult with confidence as a trustworthy exposition of that branch of law with which their interests are most closely concerned. It may be added, that although the treatise was originally written especially for their use, the authors venture to think that in its enlarged form it may deserve the notice of the legal profession, since the large experience of one of them in obtaining Patents, and in the conduct of litigation arising out of Patents for upwards of thirty years has been turned to account in the production of the volume.

Besides summaries of the Patent Laws of Foreign States, all of which have been revised by professional correspondents, there will be found in the Appendix some account of those of our own Colonies, and reprints of the only two Acts of Parliament which have now any direct bearing on the subject of this work; as well as of the rules and forms issued by the Board of Trade under the authority of the new Act, of the rules framed by the Law Officers in regard to proceedings before them, and of the rules of the Privy Council with respect to applications for the extensions of Patents.

The Appendix also contains a reprint of the International Convention and Protocol relating to arrangements for the mutual protection of industrial property including patents. To this convention Great Britain has recently given her adhesion, and a chapter has therefore been devoted to the subject in the body of the treatise.

The copious Index will be found of material assistance by those readers who are in search of any particular topic.

CONTENTS.

	PAGE
EXPLANATION OF ABBREVIATIONS	xvii
CASES CITED	xix
CHAPTER I.	
PRELIMINARY	1
CHAPTER II.	
THE SUBJECT MATTER OR NATURE OF A PATENTABLE INVENTION	6
BARE PRINCIPLES NOT PATENTABLE	7
PROCESSES	13
CLASSIFICATION OF PATENTABLE INVENTIONS	18
New contrivances applied to new objects or purposes	19
A new contrivance employed to effect a well- known object	19
A combination of known parts, producing a new result or producing an old result in a more economical manner or more perfect form	20
New mode of applying an old thing	21
Chemical processes, usually but not always in combination with mechanical contrivances	25
AMOUNT OF INVENTION REQUIRED TO SUPPORT A PATENT	25
SECOND PATENTS	34

CHAPTER III.

	PAGE
THE INCIDENTS OF UTILITY AND NOVELTY WHICH MUST BY LAW ACCOMPANY PATENTABLE INVENTIONS	35
UTILITY	36
NOVELTY	41
Patents for 'Applications'	42
True and First Inventor	51
Publication in printed books	61
Publication in the specification under a prior patent	64
Public user	70
Prior user by Inventor	83
Experiments	89
Public Exhibitions	94

CHAPTER IV.

WHO MAY BE A PATENTEE	95
--	-----------

CHAPTER V.

THE TITLE	99
----------------------------	-----------

CHAPTER VI.

THE PROVISIONAL SPECIFICATION	105
--	------------

CHAPTER VII.

THE COMPLETE SPECIFICATION	111
PROCEDURE	112
DRAWINGS	117
RELATION OF COMPLETE TO PROVISIONAL SPECIFICATION	118
RULES TO BE OBSERVED IN THE PREPARATION OF SPECIFICATIONS	120
Good faith	120

CONTENTS.

xi

	PAGE
Definition of the invention	121
Description must not be vague and general	123
Must mention everything essential	123
Must precisely describe all materials and ingredients	126
Must communicate the latest information	130
Must describe the best method of operating	131
Need not set forth every application	133
Must be intelligible to workmen of ordinary skill	134
How combinations should be treated	139
A Specification must not claim too much	145
Must not make large speculative claims	149
Ambiguity to be eschewed	151
Must not describe two methods when only one is effective	152
Must not contain misdirections or misrepresentations	153
Simple mistakes will not avoid Patent	155
Claims must now be made	156
INTERPRETATION OF SPECIFICATION	161

CHAPTER VIII.

OPPOSITIONS TO THE GRANT OF PATENTS	169
Costs	179

CHAPTER IX.

THE PATENT: ITS DATE, DURATION, AND EXTENT	180
---	------------

CHAPTER X.

AMENDMENTS OF SPECIFICATIONS	188
Costs	198

CHAPTER XI.

	PAGE
EXTENSION OR PROLONGATION OF LET- TERS PATENT	199
PROCEDURE	201
THE HEARING	203
COSTS	215
DECISIONS OF THE PRIVY COUNCIL	216

CHAPTER XII.

ASSIGNMENTS AND LICENCES	224
LICENCES	227

CHAPTER XIII.

THE REGISTRATION OF PATENTS	235
---------------------------------------	-----

CHAPTER XIV.

INFRINGEMENTS	240
THE SUBSTANTIVE LAW OF INFRINGEMENTS	240
Combinations	250
Chemical Processes and Products	260
Infringement by dealing in articles made by infringing a Patent	268
Agents	271
Infringement by user	271
The Crown	273
Foreign vessels	274
Cases of non-infringement	274
Intention of infringer not material	277
THE PRACTICE	279
Scotland	296
Ireland	297
The Isle of Man	297
Costs	298

CONTENTS.

xiii

CHAPTER XV.

	PAGE
REVOCATIONS	300

CHAPTER XVI.

OFFENCES AND THEIR PENALTIES	303
--	-----

CHAPTER XVII.

INTERNATIONAL AND COLONIAL AR- RANGEMENTS	306
--	-----

CHAPTER XVIII.

THE PATENT OFFICE	310
THE COMPTROLLER-GENERAL	310
GENERAL RULES	312
THE SEAL OF THE PATENT OFFICE	313
OFFICIAL DOCUMENTARY EVIDENCE	313
REGISTERS	314
PUBLICATIONS AND INDEXES	315
PUBLIC LIBRARY	316
PATENT MUSEUM	316
ADDITIONS TO RULES	316

APPENDIX.

PART I.—STATUTES, RULES, AND FORMS.

STATUTES—21 James I. ch. 3	321
46 & 47 Victoria, ch. 57	325
PATENT RULES, 1883	360
LAW OFFICERS' RULES, 1883	374
SCHEDULE OF FEES	376
SCHEDULE OF FORMS	379-394
PRIVY COUNCIL RULES	395

	PAGE
PART II. — PATENT LAWS OF FOREIGN COUNTRIES	401
America, United States of	402
Argentino Republic	406
Austria	407
Belgium	409
Brazil	410
Chili	411
Colombia	412
Denmark	413
France	414
Germany	417
Guatemala	421
Holland	422
Italy	422
Japan	426
Luxemburg	426
Mexico	426
Nicaragua	428
Norway	429
Paraguay	429
Portugal	430
Russia and Finland	431-436
San Salvador	436
Spain	436
Sweden	439
Switzerland	440
Turkey	440
Venezuela	442
PATENT LAWS OF BRITISH COLONIES	443
Australian Colonies	443
New South Wales	443
New Zealand	444
Queensland	444
South Australia	445
Tasmania	445
Victoria	445
Western Australia	446

CONTENTS.

XV

PAGE

British Guiana	447
British Honduras	447
Canada	448
Capo of Good Hope	450
Ceylon	451
Hong-Kong	452
India	452
Jamaica	455
Leeward Islands	456
Mauritius	457
Natal	458
Newfoundland	459
St. Helena	459
Straits Settlements	459
Trinidad	460

PART III.—INTERNATIONAL CONVENTION	462
------------------------------------	-----

INDEX	467
-----------------	-----

EXPLANATION OF ABBREVIATIONS.

Ad. & Ell.	Adolphus & Ellis' Reports
B. & A.	Barnewall & Adolphus' Reports
B. & Ald.	Barnewall & Alderson's Reports
B. & C.	Barnewall & Crosswell's Reports
Bon.	Beavan's Reports
B. & S., or Best & Sm.	Best & Smith's Reports
Bing. N. C.	Bingham's New Cases
Bos. & Pul.	Bosanquet & Pullar's Reports
C. B.	Common Bench Reports
C. B. N. S.	Common Bench Reports, New Series
C. & K.	Carrington & Kirwan's Reports
C. & P.	Carrington & Payne's Reports
C. L.	Common Law Reports
Carp. Rep.	Carpmael's Reports of Patent Cases
Coop. C. C.	Cooper's Chancery Cases
Cr. M. & R.	Crompton, Meeson, & Roscoe's Reports
Dav. P. C.	Davis' Patent Cases
De G. F. & J.	De Gex, Fisher & Jones' Reports
De G. & J.	De Gex & Jones' Reports
De G. M. & G., or De G. } Mac. & Gord.	De Gex, Macnaghten & Gordon's Reports
De G. J. & S.	De Gex, Jones & Smith's Reports
Dr. & Sm.	Drewry & Smale's Reports
E. & B., or El. & Bl.	Ellis & Blackburn's Reports
Ell. Bl. & Ell.	Ellis, Blackburn & Ellis' Reports
Ell. & Ell.	Ellis & Ellis' Reports
Eq. Rep.	Equity Reports
Exch. Rep.	Exchequer Reports
Giff.	Giffard's Reports
H. Bl.	H. Blackstone's Reports
H. & M.	Hemming & Miller's Reports
H. L. C.	House of Lords Cases
Holroyd	Holroyd on Patents
Holt N. P. C.	Holt's Nisi Prius Cases
Hurlst. & Norm. Ex. Rep., } or H. & N.	Hurlstone & Norman's Exchequer Reports
Johns.	Johnson's Reports
Jur. N. S.	Jurist, New Series
K. & J.	Kay & Johnson's Reports
L. J. N. S. Ch.	Law Journal Reports, New Series, Chancery
L. J. N. S. Q. B.	Ditto, ditto, Queen's Bench
L. J. N. S. C. P.	Ditto, ditto, Common Pleas
L. J. N. S. Ex.	Ditto, ditto, Exchequer

xviii EXPLANATION OF ABBREVIATIONS.

L. R. App. Ca.	The Law Reports, Appeal Cases
L. R. Q. B. D.	Do. Queen's Bench Division
L. R. Ex.	Do. Exchequer Division
L. R. Ch. D.	Do. Chancery Division
Law Rep. Ch. Ap.	Do. Chancery Appeals
Law Rep. Eq.	Do. Equity Cases
Law Rep. C. P.	Do. Common Pleas
L. T.	Law Times Reports
L. T. N. S.	Do. New Series
Macr. P. C.	Maclary's Patent Cases
Mac. & Gord.	Macnaghten & Gordon's Reports
M. & G.	Manning & Grainger's Reports
M. & W.	Meeson & Welsby's Reports
Mer.	Morivale's Reports
Moore P. C.	{ Moore's Reports of Cases in the Privy Council
Moore P. C. C. N. S.	Ditto, New Series
Myl. & Cr.	Mylne & Craig's Reports
N. R.	The New Reports
Newton's Lond. Jour.	Newton's London Journal
Pract. Mech. Jour.	Practical Mechanic's Journal
R. P. C.	Reports Patent Cases (Patent Office)
Russ.	Russell's Reports
Ry. & Moo.	Ryan & Moody's Reports
Scott. C. B. R.	Scott's Common Bench Reports
Stark. R.	Starkie's Reports
T. R.	Term Reports
V. & B.	Vesey & Beames' Reports
W. P. C.	Webster's Reports of Patent Cases
W. R.	The Weekly Reporter
Y. & C.	Young & Collier's Reports

CASES CITED.

The Defendant's Name is printed in Italics.

- | | |
|---|--|
| <p>Abol's Application, 178
 Adair's Patent, 201, 205, 208, 212
 Adair v. <i>Young</i>, 244, 272, 288
 Adam's Patent, 185
 Adams v. <i>North British Railway Co.</i>, 288
 Adamson's Patent, <i>re</i>, 87
 Adie—Clark, 118, 144, 157, 168, 233, 252, 256
 Adie v. <i>Clark</i>, 281, 282, 283
 <i>Albuquerque</i>—Nunn, 298
 Allan's Patent, <i>re</i>, 40, 207
 Allen v. <i>Rawson</i>, 59, 164
 Allison—Collard, 282
 Anderson—Stead, 78, 277
 <i>Anderston Foundry Co.</i>, <i>The</i>—Harrison, 144, 157, 161, 162, 255, 258
 <i>Anglo-American Telegraph Co.</i>—Piggott, 283
 Annandale—Brown, 88
 Arkwright—Rex, 87, 61, 124, 185, 302
 Arnold v. <i>Bradbury</i>, 117, 159, 161
 Ashburn—Calvert, 49
 Aston—Brook, 42, 46, 50
 Aston—Saunders, 148
 Aube's Patent, 212
 Aulagnier's Application, 171
 Axmann v. <i>Lund</i>, 233, 295</p> <p>Bacon v. <i>Jones</i>, 283
 Badische Anilin und Soda Fabrik v. <i>Levinstein</i>, 129, 134, 246, 268, 290, 291
 Bailey, <i>ex parte</i>, 176
 Bailey's Patent, 206
 Bailey v. <i>Robertson</i>, 25, 32, 49, 107, 120, 126, 127, 130
 Bainbridge v. <i>Wigley</i>, 102
 Bakewell's Patent, <i>re</i>, 40, 207
 Ball v. <i>Lelm</i>, 299</p> | <p>Ball's Patent, 202, 207, 210
 Barber v. <i>Graco</i>, 245, 247
 Barker v. <i>Shaw</i>, 61
 Barnett v. <i>Barrett's Screw Stopper Bottling Co., Limited</i>, 296
 Bateman and Moore's Patent, 198
 <i>Bateman</i>—Walton, 92, 133
 Bates and Redgate, <i>ex parte</i>, 100, 175, 176, 180
 Batley v. <i>Kynock</i>, 285, 289, 299
 Beard v. <i>Egerton</i>, 96, 103, 134, 135, 138, 152, 161
 Beard v. <i>Turner</i>, 284
 Bell's Patent, 208
 <i>Benecke</i>—Bridson, 282
 Bentley v. <i>Flaming</i>, 88, 88, 91
 <i>Bonyon</i>—Campion, 102
 Berdan's Patent, <i>re</i>, 197
 Berger—Jones, 65, 286
 Bergmann v. <i>Macmillan</i>, 226
 Bett's Patent, 204, 206, 207, 209
 Betts v. <i>De Vitro</i>, 66, 167, 271, 278, 294, 299
 Betts v. <i>Mencies</i>, 66, 68, 84, 166, 248, 281, 282
 Betts v. <i>Neilson</i>, 271, 272, 287
 <i>Betts</i>—Neilson, 156, 291
 Betts v. <i>Willmott</i>, 269, 279
 <i>Beverley</i>—Crossley, 85, 129, 130, 138, 245, 288
 Bewley v. <i>Hancock</i>, 25, 187
 <i>Bibby</i>—Penn, 48, 107, 119, 130, 286, 287, 292, 299
 Bickford v. <i>Skewes</i>, 129, 134, 154
 Binney v. <i>Feltmann</i>, 20
 Birch v. <i>Mather</i>, 286
 Blake's Patent, 212
 Blamond's Patent, <i>re</i>, 185
 <i>Bleaden</i>—Galloway, 89, 154
 <i>Bloomer</i>—Honiball, 78
 Bloxam v. <i>Elsce</i>, 35, 59, 117, 155, 226</p> |
|---|--|

- Bodmer's Patent, 213, 215
Bollard—Hull, 286
Boot—Hall, 270
Booth v. Kennard, 21, 123, 148, 104
Bostock—Foxwell, 107, 142, 143
Bottle Envelope Co. v. Seymour, 45, 254
Boulton v. Bull, 11, 14, 15, 16, 22, 27, 52
Boulton—Hornblower, 7
Bourster—Elmslie, 268
 Bovill's Patent, 214
Bovill v. Crato, 282, 287
Bovill v. Goodier, 284
Bovill v. Hadley, 290
Bovill v. Keyworth, 252
Bovill—Knowles, 281
Bovill v. Moore, 87, 139, 288
Bovill v. Pimm, 163, 250
Bowman v. Tylor, 229
Bradbury—Arnold, 117, 159, 161
Bramah v. Hardcastle, 84
Brand—Gibson, 14, 53, 121, 134, 269, 271
 Brandon's Patent, 200
Bratby—Codd, 190
Bray—Sugg, 296
Brereton v. Richardson, 281
Brett—Electric Telegraph Co., 13, 15, 247
Bridson v. Benecke, 282
Bridson v. MoAlpine, 283
British Dynamite Co. v. Krebs, 149, 167
Brook v. Aston, 42, 46, 50
Brooks—Noton, 231
Brotherhood—Halsey, 296
Brown v. Annandale, 88
Brown—Hastings, 118, 151
 Brown's Invention, 55
Brown v. Moore, 288
Brunton v. Hawkes, 30, 35, 37, 40
Bull—Boulton, 11, 14, 15, 16, 22, 27, 52
Buller—Smith, 299
Burgess v. Hateley, 298
Burgess v. Hills, 298
Burnett v. Tate, 260, 268, 296
Bush v. Fox, 15, 45, 164, 248

Caldwell v. Van Vliessengen, 272, 274
Calvert v. Ashburn, 49

Campbell—Speckhart, 239, 270, 272, 297
Campion v. Benyon, 102
Cannington v. Nuttall, 20, 49, 69, 196
 Cardwell's Patent, 201, 209
Carpenter v. Smith, 74, 96
 Carpenter's Patent, 214
 Carr's Patent, 206
Chambers v. Oriohley, 232
Chanter v. Dowhurst, 233
Chanter v. Johnson, 233
Chappoll v. Purday, 96
 Chatwood's Patent, 202
Chavasse v. Stevens, 231
Cherwin v. Walker, 97, 303
 Childs' Patent, 228
Chollet v. Hoffman, 237
Christy—Ellwood, 238, 292
 Clark's Patent, *re*, 204, 206
Clark v. Adie, 118, 144, 157, 168, 233, 252, 256
Clark—Adie, 231, 232, 233
Clark v. Ferguson, 281
Clarke—Ormson, 43, 51
Clayton—Goucher, 232, 260
Clayton—Murray, 20, 58, 245, 255, 292
Clunes—Saxby, 250, 255
Cochrane v. Smethurst, 102
Codd v. Bratby, 190
Collard v. Allison, 282
Conder—Hall, 225
 Conniff's Application, 174
Cook v. Pearce, 101, 103
Cooper—Palmer, 286
Cooper v. Whittingham, 298
Corcoran—Wegmann, 122, 127, 133, 163, 299
Cornish v. Keene, 15, 23, 62, 73, 75, 90, 91
Cowley—Russell, 21, 27, 37, 138, 159
 Crabtree's Patent, 192
 Craig and Macfarlane's Applications, 174
 Crane's Patent, 40
Crane v. Price, 14, 20, 26, 37, 69
Crate—Bovill, 282, 287
Crawley—Rushton, 44
Oriohley—Chambers, 232
Croll v. Edge, 120
Crompton v. Ibbotson, 133, 136
Cropper v. Smith, 160, 181
Crossley v. Beverley, 35, 129, 130, 138, 245, 288

- Crossley v. Derby Gas Light Co.*, 284, 292
Crossley v. Dixon, 232
Crossley v. Potter, 87, 120, 180, 147, 151, 155
Crossley v. Stewart, 280
Crossley v. Towner, 286, 289
Curtis v. Platt, 247, 250, 285
Cutler—Rex, 146
Cutler—Regina, 45, 50, 152, 302

Dale—Wallington, 16, 130, 198
Danco's Patent, 172
Dangerfield v. Jones, 8, 25, 36, 161, 233
Davenport v. Goldberg, 284
Davenport v. Jepson, 282, 283
Davenport v. Phillips, 284
Davenport v. Richards, 270
Davenport v. Rylands, 268, 278, 292, 299
Davis—Lewis, 27
Daw v. Eloy, 118, 159, 161, 287
De la Rue v. Dickinson, 204
De la Rue—Sturtz, 103, 129, 132, 134
Derby Gas Light Co.—Crossley, 284, 292
Dering, ex parte, 176
Derosne v. Fairie, 23, 87, 130, 133
Derosne's Patent, 22, 212, 219
De Vitro—Betts, 66, 167, 271, 278, 294, 299
Dewhurst—Chanter, 233
Dewick—Fisher, 103, 286
Dickinson—De la Rue, 294
Dickinson—Sellers, 161, 253, 254
Dismore, re, 197
Dixon v. London Small Arms Co. Limited, 273
Dixon—Crossley, 232
Dixon's Patent, re, 116
Dollond's Patent, 52
Dudgeon v. Thomson, 162, 196, 197, 241, 250, 256, 281, 282, 294
Duke of Buccleuch—Wakefield, 283
Dunnicliff v. Mallett, 225

Eades v. Starbuck Waggon Co., 121
Easterbrook—Saxby, 292
Eastern Counties Railway Co.—Greaves, 286
Easton—Tetley, 32, 133, 134, 140, 149, 155, 164

Kestwood—Lister, 275
Kidg—Croll, 120
Kidgoberry v. Stearns, 95
Kidson Telephone Co. v. India Rubber Co., 287
Kington—Beard, 96, 103, 134, 135, 138, 152, 161
Electric Lighting Co.—Liardot, 281
Electric Telegraph Co. v. Brett, 13, 15, 247
Electric Telegraph Co. v. Nott, 282, 286
Eloy—Daw, 118, 159, 161, 287
Elgie v. Webster, 228
Elkan—Upmann, 279, 280
Elliot v. Turner, 130, 167
Elliott—Newall, 16, 20, 93, 102, 107, 120, 252, 275, 277
Ellwood v. Christy, 238, 292
Elmslie v. Boursier, 268
Elsco—Bloxam, 85, 89, 117, 155, 226
Elsco—Rex, 146
Evans—Hills, 54, 67, 165
Everington—Mackintosh, 129

Fairie—Derosne, 23, 87, 130, 133
Fardell—Poupard, 118
Feather v. The Queen, 185, 273
Feltmann—Binney, 20
Felton v. Greaves, 102
Fenn—White, 255
Ferguson—Clark, 281
Fernis—Young, 25, 50, 54, 287
Fisher v. Dewick, 103, 286
Fleming—Bentley, 83, 88, 91
Flower v. Lloyd, 259, 286, 294
Ford v. Foster, 284
Forrester—Upmann, 298
Forsyth v. Riviere, 15, 22, 52
Foster—Ford, 284
Foster—Muntz, 25, 80, 127, 129, 164, 266, 270, 282
Fothergill—Neilson, 233
Fox—Bush, 15, 45, 164, 248
Fox—Holland, 286
Foxwell v. Bostock, 107, 142, 143
Foxwell v. Webster, 287
Foxwell—Thomas, 147, 161, 164, 248
Franks—Pidding, 229
Frearson v. Loe, 28, 148, 275, 288, 294
Fuller—Morgan, 286

Galloway's Patent, 206, 208

- Galloway v. *Meadon*, 80, 154
 Gamble v. *Kurtz*, 244
 Gann--Wilson, 287
 Gardner--Nordenfoldt, 187
 Garo's Patent, *re*, 116, 185
Gas Light and Coke Co.--Patterson, 83, 88, 98
 Geary v. *Norton*, 280
 Gibson v. *Brand*, 14, 53, 121, 134, 260, 271
 Gillett v. *Wilby*, 250
Hisborne--Lang, 92
Gloucester Waggon Co. v *Huxby*, 20, 32, 56, 200
Goldberg--Davenport, 284
Quiller--Bovill, 284
Goodwin--Higgs, 25, 275
 Goucher v. *Olayton*, 232, 280
 Goucher's Patent, 215
Grace--Barber, 245, 247
Grand Junction Railway Co.--Newton, 252, 254, 260
Gray--McCormick, 275
Great Eastern Railway Co.--Sheehan, 226
Great Northern Railway Co.--Harwood, 43, 47
 Greaves v. *Eastern Counties Railway Co.*, 286
Greaves--Felton, 102
 Green's Patent, 238
Green--Mathers, 110, 187, 233
Grimshaw--Huddart, 65, 154, 270
 Grover and Baker Sewing Machine Co. v. *Millard*, 232
 Grover and Baker Sewing Machine Co. v. *Wilson*, 286

 Hadden's Patent, 177
Hadley--Bovill, 299
Hague--Hullett, 55
Hague--Losh, 44, 71, 282
Halbard--Newton, 161
 Hall v. *Boot*, 270
 Hall v. *Conder*, 225
 Hall's (Dr.) Patent, 52
 Hall v. *Jarvis*, 27
 Halsey v. *Brotherhood*, 296
Hamilton--Hayward, 20, 29, 245, 295
 Hancock v. *Bewley*, 25, 187
 Hancock v. *Moulton*, 260
 Hancock v. *Somervell*, 77, 78
Hardcastle--Bramah, 84
Hardcastle--Haworth, 39, 148, 160

Hardy's Patent, 205, 214
Harv--Taylor, 231
Harford--Nelson, 8, 11, 38, 104, 124, 133, 134, 135, 136, 154, 163, 167
 Harmer v. *Playne*, 121
 Harrison v. *The Anderson Foundry Co.*, 144, 157, 161, 162, 255, 258
Harrison--Newby, 233
 Harrison v. *Taylor*, 284
Harrison--United Telephone Co., 64, 107, 120, 259
Hart--Mullins, 82
 Hartley's Patent, 15, 17
 Harwood v. *Great Northern Railway Co.*, 43, 47
Haslam--Nickols, 103
 Hassall v. *Wright*, 237
Hasson--Singer, 190
 Hastings v. *Brown*, 118, 151
Hateley--Burgess, 298
Hawkes--Brunton, 30, 35, 37, 40
 Haworth v. *Hardcastle*, 39, 148, 160
Haworth--Townsend, 256, 277
 Hayne v. *Maltby*, 220
 Hayward v. *Hamilton*, 20, 29, 245, 295
Heald--Steiner, 25, 165, 166
 Healey's Application, 174
 Hearson's Patent, 198
 Heath's Patent, 208, 220
 Heath v. *Smith*, 81, 83
 Heath v. *Unwin*, 133, 263, 264, 278, 286
 Henderson v. *Mostyn*, 231
Hennett--Saxby, 176, 248
 Henry, *ex parte*, 115, 146
 Herbert's Patent, 207, 214
 Herzog's Application, 171
 Hesse v. *Stevenson*, 226
 Heugh v. *Magill*, 232
 Heurteloup's Patent, 63
Heywood--Roberts, 35
Hicks--Lovell, 231
Higgins--Seed, 140, 161, 163, 195, 295
 Higgs v. *Goodwin*, 25, 275
Higham--London Hosiery Co., 286
 Hill v. *Thompson*, 19, 35, 37, 52, 75, 145, 281
 Hill v. *Tombs*, 35, 48
 Hills' Patent, 204, 206, 208, 209, 212, 216, 219

Hills—Burgess, 298
Hills v. Evans, 54, 67, 165
Hills v. Laming, 229
Hills v. Liverpool Gas Light Co., 276
Hills v. London Gas Light Co., 25, 50, 70, 93, 127, 164
Hinks—Rollins, 295
Hinks v. Safety Lighting Co., 28, 125, 158, 161, 162
Hirschfeld—Leather Cloth Co., 292
Hitchcock—Wright, 110, 161, 268, 278
Hoffman—Chollot, 237
Hoffman v. Postill, 290
Holden—Oxley, 84, 100, 120, 270
Holland v. Fox, 286
Holliday—Simpson, 25, 120, 138, 153, 154, 192
Holmes v. L. and N. W. R. Co., 142, 191
Holste v. Robertson, 284
Honiball v. Bloomer, 78
Honiball's Patent, 209, 216
Hornblower v. Boulton, 7
Horsley and Knighton's Patent, *re*, 225, 238
Horton v. Mabon, 48
Houghton's Patent, 207
Househill Co. v. Neilson, 10, 62, 83, 135, 246, 286
Howarth—Sykes, 271, 277, 285
Huddart v. Grimshaw, 65, 154, 270
Hughes' Patent, 207, 215
Hull v. Ballard, 286
Hullett v. Hague, 55
Hulse—Macnamara, 65, 136, 286
Hunt—Thomas, 228
Hutchison's Patent, 201
Hyam—London Hosiery Co., 286
Hyde v. Trent, 45

Ibbotson—Crompton, 133, 136
India Rubber Co.—Edison Telephone Co., 287
Isaacs—Rolls, 88, 289

Jack—Penn, 293
Jack—Spencer, 20
Jackson v. Wulstonhulmes, Rye & Co., Limited, 296
James—Thompson, 34, 44

Jarvis—Hall, 27
Japson—Davenport, 282, 283
Johnson's and Atkinson's Patents, 202, 214
Johnson—Ohanter, 233
Johnson—Lindlot, 123, 124
Johnson's Patent, *re*, 116, 197, 201, 208, 216
Jones—Bacon, 283
Jones v. Berger, 65, 286
Jones—Dangerfield, 8, 25, 36, 161, 233
Jones—Nobel's Explosives Co., 271, 272
Jones v. Pearson, 90, 275
Jones' Patent, *re*, 192, 207, 218
Jordan v. Moore, 48, 161
Jordan's Patent, 47
Jupe v. Pratt, 8, 245

Kay v. Marshall, 24, 30, 35, 140, 158
Kay's Patent, 206, 209, 217
Keating—Stevens, 14, 127, 129, 150, 260
Keene—Cornish, 15, 23, 62, 73, 75, 90, 91
Kenard—Booth, 21, 123, 148, 164
Kenny's Button-holing Co. v. Somerville, 227
Keyworth—Bovill, 252
Kneller's Patent, 55
Knowles v. Bovill, 231
Kollmann's Patent, 207
Krebs—British Dynamite Co., 149, 167
Krupp—Vavasseur, 273, 277
Kurtz—Gamble, 244
Kynock—Batley, 285, 289, 299

Lamb v. The Nottingham Manufacturers' Co., 285
Lamenaude's Patent
Laming—Hills, 229
Lancashire and Yorkshire Railway Co.—Westinghouse, 160
Lang v. Gisborne, 62
Laroche—Talbot, 262, 286
Lavater—Walton, 226, 232, 268
La Société Anonyme des Manufactures de Glaces v. Tilghman's Patent Sand Blast Co. 268, 269, 296
Lawes v. Purser, 229

- Leather*—Lister, 20, 34, 69, 140, 158, 248, 252, 253, 255, 258, 286
Leather Cloth Co. v. Hirschfeld, 292
Ledsam—Russell, 181, 213
Lee's Patent, 213
Lehn—Ball, 209
Lever—Rouss, 233, 234
Levinstein—Badische Anilin und Soda Fabrik, 129, 134, 246, 268, 290, 291
Lorustein—Ronard, 41, 122, 231, 233, 261, 282, 287, 289, 290
Louis v. Davis, 27
Louis v. Marling, 38, 52, 71
Lizard v. Electric Lighting Co. 231
Lizard v. Johnson, 123, 124
Liddell's Patent, 173
Linsford—Otto, 13, 40, 41, 67, 138, 139, 162, 163, 246, 276
Linoleum Manufacturing Co., v. Nairn, 304
Lister v. Eastwood, 275
Lister v. Leather, 20, 34, 69, 140, 158, 248, 252, 253, 255, 258, 286
Liverpool Gas Light Co.—Hills, 276
Lloyd—Flower, 259, 286, 294
Lloyd—Patent Type Founding Co., 289
Loe—Frearson, 28, 148, 273, 288, 294
London Gas Light Co.—Hills, 25, 50, 70, 93, 127, 164
London Hosiery Co., v. Higham, 286
London and N. W. R. Co.—Holmes, 142, 191
London and N. W. R. Co.—Smith, 226, 252, 254
London Small Arms Co., Limited—Dixon, 273
London and S. W. R. Co.—Smith, 252
Lord Dudley's Invention, 40
Losh v. Hague, 44, 71, 282
Lott's Invention, 177
Lovell v. Hicks, 231.
Lowe's Patent, 173, 174, 202
Lucas' Patent, 193
Lund—Axmann, 233, 295
Maben—Horton, 43
MacAlpine—Bridson, 283
Macalpine v. Mangnall, 161
Macfarlane v. Irlee, 118, 120
Macfarlane's Invention, 178
Macfarlane—Tomplton, 161
MacKelown v. Dennis, 43, 120, 125
Macintosh's Patent, 216
Macintosh v. Everington, 129
Macmillan—Bergmann, 226
Macnamara v. Hulce, 65, 136, 286
McCormick v. Gray, 275
McDougal's Patent, 207
Magill—Hough, 282
McInnes' Patent, 209
Malcolmson—Pllimpton, 64, 122, 135, 153, 282, 283, 294
Mallet—Dunnelliff, 225
Mallet's Patent, 214
Maltby—Hayne, 229
Manceaux, ex parte, 175, 180
Mangnall—Macalpine, 161
Manton v. Manton, 36, 37
Manton v. Parker, 35, 36, 37
Markwick's Patent, 205
Marling—Lewis, 38, 52, 71
Marsden v. Saville Street Foundry and Engineering Co., 97
Marsh—Milligan, 96
Marshall—Kay, 24, 30, 35, 140, 158
Mather—Birch, 286
Mathers v. Green, 110, 187, 233
Medlock's Patent, re, 192
Menzies—Betts, 66, 68, 84, 166, 248, 281, 282
Metcalf—Kex, 101
Middleton—Morton, 118
Millard—The Grover and Baker Sewing Machine Co., 232
Milligan v. Marsh, 96
Milner's Patent, 216
Minter v. Mower, 55, 146
Minter v. Wells, 13, 37, 58
Minter v. Williams, 270, 272
Minter's Patent, 12
Mitchell's Patent, re, 201
Moncrieff's Patent, 215
Moore—Bovill, 37, 139, 288
Moore—Brown, 288
Moore—Jordan, 48, 161
Morey's Patent, 233
Morgan's Patent, 218, 236, 239
Morgan v. Fuller, 286
Morgan v. Seward, 35, 37, 38, 40, 84, 122, 124, 132, 135, 241, 288

- Morton v. *Middleton*, 118
 Morton's Patent, 214
Moslyn—Henderson, 231
Moulton—Hancock, 260
Mower—Minter, 55, 146
 Mullus v. *Hart*, 82
 Muntz's Patent, 206, 210
 Muntz v. *Mator*, 25, 80, 127, 129,
 104, 266, 270, 282
Murdoch—Warner, 279
 Murray v. *Clayton*, 20, 58, 245,
 255, 292
- Nairn*—Linoleum Manufacturing
 Co., 304
 Napier's Patent, 201, 208, 218, 215
Nash—Williams, 184
Neale—Smith, 225
 Needham v. *Owley*, 285, 294, 299
Neilson—Betts, 271, 272, 287
 Neilson v. *Hotts*, 156, 291
 Neilson v. *Bothergill*, 233
 Neilson v. *Harsford*, 8, 11, 38, 104,
 124, 133, 134, 135, 136, 154, 163,
 167.
Neilson—Househill Co., 10, 62, 83,
 135, 246, 286
 Neilson's Patent, 136
Neilson—Rox, 301
Neustadt—Von Heyden, 8, 53, 64,
 68, 268
 Newall v. *Elliott*, 16, 20, 93, 102,
 107, 120, 252, 275, 277
 Newall v. *Wilson*, 282
 Nowby v. *Harrison*, 233
 Newton v. *Grand Junction Rail-*
way Co., 252, 254, 260
 Newton v. *Halbard*, 161
 Newton v. *Vaucher*, 70
 Newton's Patent, 204, 206, 212,
 216
 Nickels' Patent, 185
 Nickels v. *Haslam*, 103
 Nobel's Explosives Co. v. *Jones*,
 271, 272
 Nordenfeldt v. *Gardner*, 187
 Normand's Patent, 201, 212
 Normandy's Patent, 215
North British Railway Co.—
 Adams, 233
Norton—Geary, 280
 Norton's Patent, 201, 207
 Noton v. *Brooks*, 231
Nottingham Manufacturers' Co.—
 Lamb, 285
- Nott*—Electric Telegraph Co., 282,
 286
 Nunn v. *Albuquerque*, 298
Nuttall—Cannington, 20, 49, 69,
 196
- Ormsen v. *Clarke*, 43, 51
 Otto v. *Ansford*, 13, 40, 41, 67, 138,
 139, 162, 163, 246, 276
 Oxford and Cambridge Univer-
 sities v. *Richardson*, 272
 Oxley v. *Holden*, 84, 109, 120, 270
Owley—Needham, 285, 294, 299
- Palmer v. *Cooper*, 286
 Palmer v. *Wagstaff*, 37, 38, 153,
 161, 270, 286
Parker—Manton, 35, 36, 37
 Parkes v. *Stevens*, 32, 143, 254, 258
Parr—Potter, 140
 Patent Bottle Envelope Co. v.
Seymer, 45, 254
 Patent Type Founding Co. v. *Lloyd*,
 289
 Patent Type Founding Co. v.
Richard, 129, 268
 Patent Type Founding Co. v.
Walter, 288
 Patterson v. *The Gas Light and*
Coke Co., 83, 88, 98
Pearce—Cook, 101, 103
Pearce—Jones, 90, 275
 Penn v. *Bibby*, 48, 107, 119, 130,
 286, 287, 292, 299
 Penn v. *Jack*, 293
 Perkins' Patent, 205, 206, 219
 Pettit Smith's Patent, 208, 214
Philip—Ridgway, 228
Phillips—Davenport, 284
 Pidding v. *Franks*, 229
 Piggott v. *Anglo-American Tele-*
graph Co., 289
Pimm—Bovill, 163, 250
 Pitman's Patent, 201
Platt—Curtis, 247, 250, 285
Playne—Harmer, 121
 Plimpton v. *Malcolmson*, 64, 122,
 135, 153, 282, 283, 294
 Plimpton v. *Spiller*, 63, 64, 157,
 161, 162, 283, 286
 Poole's Patent, 206, 212
 Porter's Patent, *vs* Honiball, 78
Postill—Hoffman, 290
Potter—Crossley, 37, 120, 13
 147, 151, 155

- Pottor v. *Parr*, 140
Potter—Walton, 107, 242, 258
Poupard v. *Burdell*, 118
Pratt—Jupo, 8, 245
Price—Orano, 14, 20, 26, 37, 60
Price—Macfarlane, 118, 120
Price—Savory, 132, 154
 Printing and Numerical Registering Co. v. *Sampson*, 227
 Pullan's Patent, 118
Purday—Ohappoll, 96
Purser—Lawes, 220
- Queen Tho v. *Frather*, 185, 273
- Ralston v. *Smith*, 16, 33, 148, 194, 195
Rawson—Allon, 59, 164
 Redmund, *re*, 107
 Recco's Patent, 201, 202
Regina v. *Cutler*, 45, 50, 152, 302
Regina v. *Steiner*, 62
Ronard v. *Lovinstein*, 41, 122, 231, 233, 281, 282, 287, 289, 290
Rennie—Maokelcan, 43, 120, 125
Reuss v. *Lorer*, 233, 234
Rex v. *Arkwright*, 37, 61, 124, 135, 302
Rex v. *Cutler*, 146
Rex v. *Elsø*, 146
Rex v. *Metoalf*, 101
Rex v. *Neilson*, 301
Rex v. *Wheeler*, 13, 14, 102, 136
Richard—Patent Typo Founding Co. 129, 268
Richards—Davenport, 270
Richardson—Brereton, 281
Richardson—Oxford and Cambridge Universities, 272
Ridgway v. *Philip*, 228
Riviers—Forsyth, 15, 22, 52
Roberton—Bailey, 25, 32, 49, 107, 120, 126, 127, 130
Roberts v. *Heywood*, 35
 Robert's Patent, 208, 217
Robertson—Holste, 284
Rodgers—Stocker, 299
Roebuck v. *Stirling*, 88
Rollins v. *Hinks*, 295
Rolls v. *Isaacs*, 88, 289
Rosenthal—Young, 34
 Ruberry's Patent, 197
Rushton v. *Crawley*, 44
 Russell's Patent, 173, 174, 208
Russell v. *Cowley*, 21, 27, 37, 138, 159
- Russell* v. *Ledsam*, 181, 213
 Ruthven's Patent, 221
 Ryder's Patent, 221
Rylands—Davenport, 268, 278, 292, 299
- Safety Lighting Co.*—Hinks, 28, 125, 158, 161, 162
Sampson—Printing and Numerical Registering Co., 227
Saunders v. *Aston*, 148
Saville Street Foundry and Engineering Co.—Maradon, 97
Savory v. *Price*, 132, 154
Saxby v. *Clunes*, 250, 255
Saxby v. *Eastorbrook*, 292
Saxby v. *Gloucester Waggon Co.* 29, 32, 56, 290
Saxby v. *Hennett*, 176, 248
Saxby's Patent, *re*, 204, 206, 212, 219
 Schlumberger's Patent, 202, 213
Scott—Smith, 231
 Scott and Young, *ex parte*, 176
Seward—Morgan, 35, 37, 38, 40, 84, 122, 124, 132, 135, 241, 288
Seed v. *Higgins*, 140, 161, 163, 195, 295
Sellers v. *Dickinson*, 161, 253, 254
Seymer—Bottle Envelope Co., 45, 254
 Sharp's Patent, *re*, 197
Shaw—Barker, 61
Sheehan v. *Great Eastern Railway Co.*, 226
Sheffield, *ex parte*, 171, 178, 179
Silber—Sugg, 287
 Sillar's Patent, 222
 Simister's Patent, *re*, 40
Simpson v. *Holliday*, 25, 129, 138, 153, 154, 192
Simpson and Isaac's Patent, 173
 Simson's Patent, *re*, 178
Singer v. *Stassen*, 190
Singer Manufacturing Company v. *Wilson*, 289
Skewes—Bickford, 129, 134, 154
Smethurst—Cochrane, 102
 Smith's Patent, 191
Smith v. *Buller*, 299
Smith—Carpenter, 74, 96
Smith—Cropper, 160, 181
Smith—Heath, 81, 83
Smith v. *London and N.W.R. Co.*, 226, 252, 254

- Smith v. *London and S. W. R. Co.*, 262
 Smith v. *Neale*, 226
 Smith—*Ralston*, 10, 83, 148, 194, 196
 Smith v. *Scott*, 231
 Soumes' Patent, 211
 Société Anonyme des Manufactures de Glaces v. *Tilghman's Patent Sand Blast Co.*, 268, 269, 296
 Société Générale d'Électricité—*Werdorman*, 226
Somervell—*Hancock*, 77, 78
Somerville—*Konny's Buttonholing Co.*, 227
 Southworth's Patent, 207
 Spockhart v. *Campbell*, 239, 270, 272, 297
 Spence's Patent, 173
 Spencer v. *Jack*, 20
 Spiller—*Plimpton*, 63, 64, 157, 161, 162, 283, 286
 Stafford's Patent, 208
Starbuck Waggon Co.—*Eades*, 121
Stassén—*Singer*, 100
 Stead v. *Anderson*, 78, 277
 Stead v. *Williams*, 63, 77, 92
 Steiner v. *Heald*, 25, 165, 166
Steiner—*Regina*, 62
Stevens—*Chavasse*, 231
Stevens—*Edgeberry*, 95
 Stevens v. *Keating*, 14, 127, 129, 151, 260
Stevens—*Parkes*, 32, 143, 254, 258
Stevenson—*Hesse*, 226
Stewart—*Crossley*, 289
Stirling—*Roebuok*, 88
 Stocker v. *Rodgers*, 299
 Stoner v. *Todd*, 68, 107, 109, 119
Stott—*Tangye*, 92, 294
 Sturtz v. *De la Rue*, 103, 129, 132, 134
 Sugg v. *Bray*, 296
 Sugg v. *Silber*, 287
 Sykes v. *Howarth*, 271, 277, 285
- Talbot v. *Laroche*, 262, 286
 Tangye v. *Stott*, 92, 294
 Tate—*Burnett*, 260, 268, 296
 Taylor—*Bowman*, 229
 Taylor v. *Hare*, 231
 Taylor—*Harrison*, 284
 Templeton v. *Macfarlane*, 161
 Tennant's Case, 61, 70
 Tetley v. *Easton*, 32, 133, 134, 140, 149, 155, 164
- Thomas v. *Foxwell*, 147, 161, 164, 248
 Thomas v. *Hunt*, 228
 Thomas v. *Woloh*, 110, 158, 159, 161, 196
 Thompson—*Hill*, 19, 35, 37, 52, 75, 145, 281
 Thompson v. *James*, 34, 44
 Thomson—*Dudgeon*, 162, 196, 197, 241, 250, 250, 281, 282, 294
 Thorn v. *Worthing Skating Rink Co.*, 241, 258
Tilghman's Patent Sand Glass Co.—*Soc. Anon. des Manufactures de Glaces*, 268, 269, 296
 Todd—*Stoner*, 68, 107, 109, 119
 Tolson's Patent, 173
 Tombs—*Hill*, 35, 48
 Tomoy—*Crossley*, 286, 289
 Toms—*White*, 34
 Townsend v. *Haworth*, 256, 277
 Tranter's Patent, *re*, 191
 Trent—*Hyde*, 45
 Trotman's Patent, 206
 Trotman v. *Wood*, 231, 232, 244
 Turnor—*Beard*, 284
 Turnor—*Elliot*, 130, 167
 Turner v. *Winter*, 85, 132, 164
- United Telephone Co. v. *Harrison*, 64, 107, 120, 259
 Universities of Oxford and Cambridge v. *Richardson*, 272
 Unwin—*Heath*, 133, 263, 264, 278, 286
 Upmann v. *Forrester*, 298
 Upmann v. *Elkan*, 279, 280
- Van Vliessingen*—*Oaldwell*, 272, 274
Vauohor—*Newton*, 70
 Vavasseur v. *Krupp*, 273, 277
 Vincent's Patent, *re*, 177, 178
 Von Heyden v. *Neustadt*, 3, 53, 64, 68, 268
- Wagstaff*—*Palmer*, 37, 38, 153, 161, 270, 286
 Wakefield v. *Duke of Buccleuch*, 283
 Walker—*Cheavin*, 97, 303
 Wallington v. *Dale*, 16, 130, 196
 Walter—*Patent Type Founding Co.*, 288
 Walton v. *Bateman*, 92, 133
 Walton v. *Lavater*, 226, 232, 268

- Walton v. *Potter*, 167, 242, 258
 Warner v. *Murdoch*, 279
 Watt's Patent, 11, 16, 22
Webster—*Elgie*, 228
Webster—*Foxwell*, 287
Wegmann v. Corcoran, 122, 127,
 133, 163, 299
Welch—*Thomas*, 119, 158, 159,
 161, 196
Wells—*Minter*, 13, 37, 58
*Wordornan v. Sociétés G n rale
 d'Electricit *, 226
*Westinghouse v. Lancashire and
 Yorkshire Ry. Co.*, 160
Wheler—*Rex*, 13, 14, 102, 136
White v. Kenn, 255
White v. Toms, 84
Whitehouse's Patent, 214, 221
Whittingham—*Cooper*, 298
Wield's Patent, 204, 206, 216
Wigley—*Bainbridge*, 102
Wilby—*Gillett*, 250
Williams—*Minter*, 270, 272
Williams v. Nash, 184
Williams—*Stead*, 63, 77, 92
Willmott—*Botts*, 269, 279
Wilson v. Gann, 287
Wilson—*Grover and Baker Sewing
 Machine Co.*, 286
Wilson—*Newall*, 282
Wilson—*Singer Manufacturing
 Co.*, 289
Winter—*Turner*, 36, 132, 154
Wirth's Patent, re, 96
Wood—*Trotman*, 231, 232, 244
Wood v. Zimmer, 84, 86, 131
Woodcroft's Patent, 208, 209, 218
Worthing Skating Rink Co.—
Thorn, 241, 258
Wright—*Hassall*, 237
Wright v. Hitchcock, 119, 161, 268,
 278
Wright's Patent, 208, 217
Wulstenhulmes, Rye & Co., Limited
 —*Jackson*, 296

Young—*Adair*, 241, 272, 288
Young v. Fernie, 25, 50, 54, 287
Young v. Rosenthal, 34

Zimmer—*Wood*, 84, 86, 131

THE LAW
OF
PATENTS FOR INVENTIONS.

CHAPTER I.

PRELIMINARY.

THAT the Crown has the power, in certain cases, of granting to inventors the privilege of a monopoly in working their inventions for a certain number of years, is probably known to every reader before he opens this volume. During that period the entire community is precluded from making use of the invention, except by the permission of the inventor or the person who has duly succeeded to his rights; the law declaring that the privileged person shall derive the exclusive benefit, whatever that may be, of the invention for the specified time.

This privilege was formerly secured to the inventor by letters patent passed under the Great Seal. It is now secured to him by a patent obtained at the Patent Office; and the person to whom the privilege is granted is termed in common parlance the patentee.

For the purposes of the present treatise, there is no need that we should enter upon any historical disquisition as to the common-law right of the Crown in matters

of patent privileges. It will be sufficient to state that the right of the Crown to grant privileges by letters patent to subjects obtaining its favour, was exercised in very early times, and it was only disputed when exclusive rights to sell various commodities, such as salt, iron, and coal, had been granted to certain persons, to the great grievance of their fellow-subjects, and to the oppression of trade. The Statute of Monopolies, passed in the twenty-first year of James I., was levelled at the abuses which an undue exercise of prerogative had produced, and being, says Sir Edward Coke, forcibly and vehemently penned for their suppression, cut off all claim on the part of the Crown to the right of granting monopolies and exclusive privileges, whereby the subjects of the realm could be aggrieved and inconvenienced.¹

That statute (*see the Appendix*) declared that all

¹ 'The King had undoubtedly, by the ancient laws of the realm, large powers for the regulation of trade: but the ablest judges would have found it difficult to say what was the precise extent of those powers. . . . In addition to his undoubted right to grant special commercial privileges to particular places, he long claimed a right to grant special commercial privileges to particular societies and to particular individuals; and our ancestors, as usual, did not think it worth their while to dispute this claim till it produced serious inconvenience. At length, in the reign of Queen Elizabeth, the power of creating monopolies began to be grossly abused; and as soon as it began to be grossly abused, it began to be questioned. The Queen wisely declined a conflict with a House of Commons backed by the whole nation. She frankly acknowledged that there was reason for complaint: she cancelled the patents which had excited the public clamours; and her people, delighted by this concession and by the gracious manner in which it had been made, did not require from her an express renunciation of the disputed prerogative. The discontents which her wisdom had appeased were revived by the dishonest and pusillanimous policy of her successor, called King-craft. He readily granted oppressive patents of monopoly. When he needed the help of his Parliament, he as readily annulled them; and as soon as the Parliament had ceased to sit, his Great Seal was put to instruments more odious than those he had recently cancelled. At length that excellent House of Commons which met in 1623, determined to apply a strong remedy to the evil. The King was forced to give his assent to a law which declared monopolies established by royal authority to be null and void.' (Macaulay's 'History of England,' iv. 127.)

monopolies, grants, and letters patent, for the sole buying, selling, making, working, or using of anything within the realm, were contrary to the laws, and void. But it excepted from the operation of this enactment all letters patent and grants of privilege of the sole working or making of any manner of new manufactures to the true and first inventor of such manufacture, which others at the time of making such letters patent and grants should not use, so they be not contrary to law, nor mischievous to the state, by raising prices of commodities at home, or hurt of trade, or generally inconvenient. It was afterwards declared that these excepted grants of privilege should have the same validity that they had previous to the passing of the statute, but no other. 'It is to be observed' (said *Lord Justice James* in the case of *Von Heyden v. Neustadt*, 50. L. J. N. S. 126), 'that the statute of James gives no right to the inventor. The statute is a statute for the abolishing and forbidding monopolies, and the sixth section under which the Crown acts in these matters is a mere proviso excepting from the operation of that Act certain patents or grants of privileges, which are to be "of such force as they should be if that Act had never been made and of none other." And it is from the ancient power and prerogative of the Crown so saved and preserved that every patentee derives his monopoly. What the Crown could lawfully do, and has lawfully done, after that statute, is shown by the uniform tenor of the letters patent which have been since issued, issued by the advice and authority of every law officer and every holder of the Great Seal for upwards of two centuries and a half. The power of the Crown to grant letters patent of such tenor has never been brought in question.'

When the validity of a monopoly comes into question,

the first point to consider is, whether it is rendered void by the statute; and secondly, if it should not be thereby avoided, whether it is a privilege permitted by the common law.

In this treatise, however, we restrict ourselves to a consideration of Patents for inventions. It is not every kind of discovery that can be protected by a patent. The statute of James I. and the decisions of our courts of law, require a patentable invention to be referable to some *manner of manufacture*, in addition to the possession of the qualities of *utility* and *novelty*.

Nor is it every one who may succeed in obtaining a grant of a patent for an invention that is able to sustain it in a court of law. Patents are only valid when they have been obtained by the true and first inventor, the language of the statute of James.

Again, a patent privilege cannot be granted *in perpetuum*; it must not endure for more than a limited number of years.

We shall take these things in order, and shall proceed to inquire in the following chapters—

1. What is the subject-matter or nature of a patentable invention, and what are the incidents that must by law accompany it.

2. To whom patent privileges may legally be granted.

3. What is the possible duration of such privileges, and the territory over which they may extend.

These matters being disposed of, there will still remain for consideration the very important topic of a *Specification* — the document which the law requires every patentee to draw up and make public before he obtains his patent. Chapters on some collateral subjects, such as *Oppositions* to the grant of a patent, *Amendments*, *Assignments* and *Licences*,

the *Prolongation and Revocation of Patents*, and the *Infringement of patent rights*, will then close this treatise.

In the Appendix will be found reprints of the statute of James and the Patent Act of 1883, with the Rules and Forms, and an outline of the Patent Laws of Foreign Countries and British Colonies.

CHAPTER II.

THE SUBJECT-MATTER OR NATURE OF A PATENTABLE INVENTION.—A BARE PRINCIPLE NOT PATENTABLE.—PROCESSES.—CLASSES OF INVENTIONS.—AMOUNT OF INVENTION.—SECOND PATENTS.

IN proceeding to consider the subject-matter or nature of the inventions which may be legally protected by patents, it is proper to premise that no general definition can be given which shall exactly mark out what can and what cannot be included in a valid patent. Where the invention is not one of a well-known class, it will be much better for the inventor to consult some one conversant with such matters,—some one whose practical experience comes in aid of general principles, and who is bound by his profession and standing in society to the utmost secrecy,—than to rely altogether upon what is stated in books, or upon a narrow range of precedent. It is the more important that the inventor's attention should be drawn to this point previous to his incurring expense, since a patent is taken out entirely at the risk of the inventor, the Crown in no degree guaranteeing the validity of its grant, which, if contested, must be judged by the abstract rules of law applicable to the case.

As we have already remarked, it is not every kind of discovery which can be protected by a patent. No invention is patentable which does not fall within the language of the Act of King James and is not referable to some manner of manufacture. It is true, as we shall

see further on, that the words have received a very wide interpretation; still they have never been held to include such inventions and discoveries as that of an abstract principle without reference to any of its practical applications; or that of a game of skill or chance irrespective of the appliances for playing it; or that of a method of calculation unconnected with apparatus for working it; or that of a newly discovered vegetable suitable for food; or that of a newly discovered natural substance applicable to a useful purpose, such as guano or mineral phosphate of lime. Patents which relate to inventions such as these can only be maintained when they are taken out for the manufacture of the apparatus required for the given purpose, or for methods of preparing the natural substance for some useful end.

Before giving examples of the chief classes into which those inventions which have received the sanction of judicial decision are divisible, it may be well first to clear the ground a little by making some remarks on the cases relating to Principles and Processes.

It has been repeatedly laid down by the Courts that

BARE PRINCIPLES ARE NOT PATENTABLE.

A principle may be of the utmost value in the eyes of philosophers; its discovery may lead to highly important consequences, and form the germ of a striking advance in civilisation; yet unless its discoverer can show at least one application of it to a useful purpose,—unless he can point out the means of gaining therefrom some immediate material advantage, he is not permitted to exclude his fellow-subjects from turning it to any account they like. ‘I rather think it would be difficult’ (said Lord Kenyon, in *Hornblower v. Boulton*, 8 T. R. 95; Dav. Pat. Ca. 221) ‘to form a specification of a philosophical principle; it would be something like an idea without a substratum.’

Neither are principles in a more restricted sense patentable, unless they are embodied in a concrete form and their application to some purpose of utility indicated. 'You cannot' (said *Alderson, B.*, in *Jupe v. Pratt*, 1 W. P. C. 145) 'take out a patent for a principle. You may take out a patent for a principle coupled with the mode of carrying the principle into effect, provided you have not only discovered the principle, but invented some mode of carrying it into effect. But then you must start with having invented some mode of carrying the principle into effect.' Again, *Sir W. P. Wood, V. C.*, said in *Dangerfield v. Jones* (13 L. T. N. S. 142), 'If, having a particular purpose in view, you take the general principles of mechanics and apply one or other of them to a manufacture to which it has never been before applied, that is a sufficient ground for taking out a patent, provided that the Court sees that which has been invented is new, desirable, and for the public benefit.'

In the much-debated case of *Neilson v. Harford* (1 W. P. C. 295) a great deal was said as to the point now before us. Neilson took out his patent in 1828 for the improved application of air to produce heat in furnaces, and in his specification declared that his invention consisted in passing a blast of air from the blowing-apparatus into an air-vessel kept heated to a red-heat, or nearly so, and from that vessel, by means of a pipe, into the furnace; that the size of the vessel must depend on the blast, and on the heat necessary to be produced, but that the form of the vessel was immaterial to the effect, and might be adapted to the local circumstances or situation. The defendants, who were alleged to have infringed this patent, contended that it was void, as being for a principle. The Court of Exchequer, after full consideration, thought that the plaintiff did not merely claim a principle, but a

machine embodying a principle. The case must be considered as if the principle being well known, the plaintiff had first invented a mode of applying it by a mechanical apparatus to furnaces; and the invention then consisted in this—the interposition of a receptacle for heated air between the blowing-apparatus and the furnace. In the course of the argument, on motions subsequent to the trial, various observations were made by the learned judges on the bench, to which we shall draw the reader's attention. *Alderson, B.*, said, 'The blowing-apparatus was perfectly well known; the heating of air was perfectly well known; the tuyere was perfectly well known as applicable to blast furnaces; then what he really discovered is, that it would be better to apply air heated up to red-heat, or nearly, instead of cold air. That is the principle—that is the real discovery; but in order to take out a patent, you must have an embodiment of the principle; and his embodiment of the principle is the heating of air in a separate vessel intermediately between the blowing-apparatus and the point where it enters the furnace.' Then he says, 'I do not mean to claim any shape in which it is done; it may be done in a vessel of any shape, provided only you have such a vessel of such a shape, and fire so applied as that, in the intermediate space between the blowing-apparatus and the furnace, the air arrives at the red-heat.' And again, in reply to the argument of the plaintiff's counsel that he claimed every vessel and every shape of closed vessel in which air could be heated between the blowing-apparatus and the furnace: 'Then I think that is a principle, if you claim every shape. If you claim a specific shape, and go to the jury and say that which the other people have adopted is a colourable imitation, then I can understand it. If you claim every shape, you claim a principle. There is no difference between a principle

to be carried into effect in any way you will, and claiming the principle itself. You must detail some specific mode of doing it.'

The words of *Lord Justice Clerk Hope*, in the case of the *Houshill Company v. Neilson* (1 W. P. C. 683), may also be cited in reference to the same point. 'A patent cannot be taken out solely for an abstract philosophical principle—for instance, for any law of nature or any property of matter, apart from any mode of turning it to account in the practical operations of manufacture, or the business, and arts, and utilities of life. The mere discovery of such a principle is not an invention, in the patent-law sense of the term. Stating such a principle in a patent may be a promulgation of the principle, but it is no application of the principle to any practical purpose. And without that application of the principle to a practical object and end, and without the application of it to human industry or to the purposes of human enjoyment, a person cannot in the abstract appropriate a principle to himself. But a patent will be good, though the subject of the patent consists in the discovery of a great general and most comprehensive principle in science or law of nature, if that principle is by the specification applied to any special purpose, so as thereby to effectuate a practical result and benefit not previously attained. . . . It is no longer an abstract principle. It comes to be a principle turned to account to a practical object, and applied to a special result. It becomes then not an abstract principle, which means a principle considered apart from any special purpose or practical observation, but the discovery and statement of a principle for a special purpose, that is, a practical invention, a mode of carrying a principle into effect. . . . The instant that the principle, although discovered for the first time, is stated in actual application to, and as the agent of, producing

a certain specified effect, it is no longer an abstract principle; it is then clothed with the language of practical application, and receives the impress of tangible direction to the actual business of life.' 'Undoubtedly (said *Eyre, C. J.*, in *Boulton v. Bull*, 2 H. Bl. 463, 1 Carp. 149) there can be no patent for a mere principle; but for a principle so far embodied and connected with corporeal substances as to be in a condition to act and to produce effects in any art, trade, mystery, or manual occupation, I think there may be a patent. . . . It is not (referring to the case before him) that the patentee has conceived an *abstract* notion that the consumption of steam in fire-engines may be lessened, but he has discovered a practical manner of doing it, and for that practical manner of doing it he has taken his patent. Surely this is a very different thing from taking a patent for a principle; it is not for a principle, but for a process. Again, the substance of the invention is a discovery that the condensing the steam out of the cylinder, and protecting the cylinder from the external air, and keeping it hot to the degree of steam-heat, will lessen the consumption of steam. This is no abstract principle; it is in its very statement clothed with practical application.'

Again, in the case of *Neilson v. Harford* (1 W. P. C. 342) *Alderson, B.*, said, 'I take it that the distinction between a patent for a principle and a patent which can be supported is, that you must have an embodiment of the principle in some practical mode, described in the specification, of carrying the principle into actual effect; and then you take out your patent, not for the principle, but for the mode of carrying the principle into effect. In Watt's patent, which comes the nearest to the present of any you can suggest, the real invention of Watt was, that he discovered that by condensing steam in a separate vessel, a great saving of

fuel would be effected by keeping the steam cylinder as hot as possible, and applying the cooling process to the separate vessel, and keeping it as cool as possible; whereas before, the steam was condensed in the same vessel; but then Mr. Watt carried that practically into effect by describing a mode which would effect the object. The difficulty which presses on my mind here is, that this party has taken out a patent, in substance like Watt's, for a principle, that is, the application of hot air to furnaces; but he has not practically described any mode of carrying it into effect. If he had, perhaps he might have covered all other modes as being a variation.'

Minter's patent was for an improvement in the construction of chairs, which consisted in the application of a self-adjusting leverage to the back and seat of a chair, whereby the weight on the seat acted as a counterbalance to the weight against the back. The patentee having obtained a verdict at the trial of an action for the infringement of the patent, it was contended, on a motion for a nonsuit, that the patentee had claimed a *principle*, and not any particular means of carrying the principle into effect. Now, to a principle *per se* he was not entitled; and as to the particular means adopted, the defendant had not borrowed it. The plaintiff, it was further argued, had attempted to appropriate by his specification one of the first principles in mechanics, viz. the lever. 'But,' said *Lyndhurst, C. B.*, 'it is not a leverage only, but it is a self-adjusting leverage; and it is not a self-adjusting leverage only, but it is a self-adjusting leverage producing a particular effect, by means of which the weight on the seat counterbalances the pressure on the back of a chair.' And *Parke, B.*, said, 'For the application of a self-adjusting leverage to a chair, cannot he patent that? He claims the combination of the two, no matter in what shape or way

you combine them; but if you combine the self-adjusting leverage, which he thus applies to the subject of a chair, that is an infringement of the patent.' *Lord Lyndhurst* went on to say that the application of a self-adjusting leverage producing the effect constituted the machine, and the patentee claimed that machine, and the right to make it, by the application of a self-adjusting leverage producing a particular effect (*Minter v. Wells*, 1 W. P. C. 134).

In the case of the *Electric Telegraph Company v. Brett* (10 C. B. R. 838) it was argued that the giving of duplicate signals at intermediate stations was not the proper subject of a patent,—being an idea or principle only, and not a new manufacture. But it was held by the Court, that as the patentees had not only communicated the idea or principle, but showed how it might be carried into effect, viz. by appropriate apparatus at each station, the patent was valid.

See also the remarks upon this subject of *Jessel, M. R.*, in the case of *Otto v. Linford* (46 L. T. N. S. 35).

PROCESSES.

It will have been observed, that what the statute of King James excepts from the operation of the invalidating first clause is the privilege of the *sole working or making of any manner of new manufactures*. Now it seems to have been at one time doubted whether a mere method or process was embraced by these words of the statute. *Perhaps*, said *Lord Tenterden, C. J.*, in the case of *Rex v. Wheeler* (2 B. & A. 350), the statute 'may extend to a new process to be carried on by known implements, or elements acting upon known substances, and ultimately producing some other known substance, but producing it in a cheaper or more expeditious manner, or of a better and more useful kind.'

The current of decision since Lord Tenterden's time has converted what he put in a doubtful way into a certainty; for the books are full of cases which prove beyond a doubt that a process is patentable. The patent contested in *Gibson v. Brand* (1 W. P. C. 631) was for a new or improved process or manufacture of silk. *Tindal, C. J.*, said that there was strong reason to suppose that a patent for a process, in the strict or proper sense of the term, might be good in law. Such certainly was the opinion of *Chief Justice Eyre* in *Boulton v. Bull* (which opinion we shall quote at length immediately), and such also appears to have been the opinion (carefully guarding against any abuse of the doctrine) of *Lord Tenterden* in *Rex v. Wheeler*.

It has been said that the doubt as to whether a process is patentable has been needlessly raised, and that it is a misuse of terms to speak of a patentable process at all. The subject-matter of the patent, it is urged, is in reality a *manufacture according to a new process*, and this is therefore a new manufacture. For example, in *Crane v. Price* (1 W. P. C. 377), the subject of the patent was, according to this view, the manufacture of iron by means of a new process, viz. the combination of a hot-air blast and anthracite in the furnace. In *Gibson v. Brand* it was the manufacture of silk by a new process.

We are told by *Pollock, C. B.* (*Stevens v. Keating* 2 W. P. C. 182), that 'the real invention may be, not so much the thing when produced, as the mode in which it is produced; and its novelty may consist, not so much in its existence as a new substance, as in its being an old substance, but produced by a different process. In one sense, an old substance produced by a new process is a new manufacture; of that there cannot be a doubt; and therefore, although the language of the Act has been said to apply only to manufactures

and not to processes, when you come to examine, either literally, or even strictly, it appears to me the expression "manufacture" is free from objection, because, though an old thing, if made in a new way, the very making of it in a new way makes it a new manufacture. 'Therefore, although I think this is a patent for the process rather than the product, I think it may be a patent for the product.'

Allowing this explanation its full force, it will not extend to many cases wherein it has been decided that bare processes are patentable, or to cases where patents for mere applications have been supported. For example, in *Forsyth v. Riviere* (1 Carp. Rep. 401), the application of a known detonating powder to the discharge of known kinds of fire-arms was held to be a patentable invention. But how could this be a manufacture? Again, in the case of *Hartley's Patent* (1 W. P. C. 54), it was held that the application of metal plates, made in the ordinary way, to ships and buildings, with the view of protecting them against fire, by preventing the access of air, was a patentable invention. Again, in the case of the *Electric Telegraph Company v. Brett* (10 C. B. R. 838), a method of giving duplicate signals at intermediate stations was held to be properly the subject of a patent. In none of these cases was any new substance produced, nor any new machinery employed. 'Most certainly the exposition of the statute, as far as usage will expound it, has gone very much beyond the letter' (*Eyre, C. J.*, in *Boulton v. Bull*, 1 Carp. R. 146); and *Lord Chief Justice Tindal's* remarks in *Cornish v. Keene* (1 W. P. C. 508) show the latitude of interpretation which is given to the word 'manufactures' in the Act of Parliament. 'It has a very wide and extended meaning. You may call it almost *invention*.' Again, *Coleridge, J.*, said, in *Bush v. Fox* (Macr. P. C. 176), manufac-

ture includes both process and result. And in *Ralston v. Smith* (11 H. L. C. 223), *Lord Westbury* said, ‘By the large interpretation given to the word “manufacture,” it not only comprehends productions, but it also comprehends the means of producing them. Therefore, in addition to the thing produced it will comprehend a new machine, or a new combination of machinery; it will comprehend a new process or an improvement of an old process.’

In *Newall v. Elliott* (13 W. R. 11) the patent was for ‘improvements in apparatus employed in laying down submarine telegraph wires;’ and the specification, after describing the apparatus, concluded with the following claim:—‘First, coiling the wire or cable round a cone; secondly, the supports placed cylindrically outside the coil round the cone; thirdly, the use of the rings in combination with the cone as described.’ It was objected that the invention thus claimed was merely a mode of coiling and paying out cables, and was not a new manufacture, and could not therefore be the subject-matter of a patent. The Court, however, over-ruled the objection, and held the patent valid.

Previous to the patent granted to Wallington, gelatine had been made by submitting large pieces of hide to the action of caustic alkali, and by employing blood to clarify the product. Wallington’s process consisted in cutting the hides into thin slices, and the use of blood was unnecessary. This was held to be a patentable invention. (*Wallington v. Dale*, 7 Exch. Rep. 888.)

The observations of *Chief Justice Eyre*, on delivering judgment in the famous case of *Boulton v. Bull* (1 Carp. R. 146–149), are so important that we shall lay them, with little abridgment, before the reader. The patent concerned in this case was that of James Watt for improvements in steam engines, at that time

called fire-engines. ‘It was admitted in the argument at the bar that the word “manufacture” in the statute was of extensive signification; that it applied not only to things made, but to the *practice of making*, to principles carried into practice in a new manner, to new results of principles carried into practice.

‘The effect produced by Hartley’s invention for securing buildings from fire is no substance or composition of things; it is a mere negative quality—the absence of fire. This effect is produced by a new method of disposing iron plates in buildings. In the nature of things, the patent could not be for the effect produced. I think it could not be for the making the plates of iron, which, when disposed in a particular manner, produce the effect; for those are things in common use. But the invention consisting in the method of disposing those plates of iron, so as to produce their effect, and that effect being a useful and meritorious one, the patent seems to have been very properly granted to him for his method of securing buildings from fire. . . . In the list of patents with which I have been furnished, there are several for new methods of manufacturing articles in common use, where the sole merit and the whole effect produced are the saving of time and expense, and thereby lowering the price of the article, and introducing it into more general use. Now, I think these methods may be said to be new manufactures, in one of the common acceptations of the word; as we speak of the manufacture of glass, or of any other thing of that kind. The advantages to the public from improvements of this kind are, beyond all calculation, important to a commercial country, and the ingenuity of artists who turn their thoughts towards such improvements is in itself deserving of encouragement; and in my apprehension it is strictly agreeable to the spirit and meaning of the

statute 21 James I., that it should be encouraged. . . . Probably three-fourths of all patents granted since the statute passed are for methods of operating and manufacturing, producing no new substances, and employing no new machinery. . . . If we wanted an illustration of the possible merit of a new method of operating with old machinery, we might look at the case now before the Court. If we consider into what general use fire-engines are come—that our mines cannot be worked without them—that they are essentially necessary to the carrying on many of our principal manufactures—that these engines are worked at an enormous expense in coals, which, in some parts of the kingdom, can with difficulty be procured at all in large quantities—it is most manifest that any method found out for lessening the consumption of steam in these engines, which, by necessary consequence, lessens the consumption of coals expended in working them, will be of great benefit to the public as well as to the individual who thinks fit to adopt it. And shall it now be said, after we have been in the habit of seeing patents granted in the immense number in which they have been granted, for methods of using old machinery to produce substances that were old, but in a more beneficial manner, and also for producing negative qualities by which benefits result to the public, by a narrow construction of the word “manufacture” in this statute, that there can be no patent for methods producing this new and salutary effect, connected, and intimately connected, with the trade and manufactures of the country?’

CLASSIFICATION OF PATENTABLE INVENTIONS.

The inventions for which valid patents have been granted may be roughly divided into the following classes:—

1. *New contrivances applied to new objects or purposes.*

2. *New contrivances applied to old objects or purposes.*

3. *New combinations of old parts, the subject-matter consisting either of material objects or of mechanical processes.*

4. *New methods of applying an old thing.*

5. *Chemical processes, usually but not always in combination with mechanical contrivances.*

The reader may like to have some illustrations of these classes of inventions, and we shall proceed to offer the following:—

1. *New contrivances applied to new objects or purposes.* Several modern inventions of great commercial or social importance would fall under this head. Amongst them are conspicuous—Apparatus to be worked by electricity for transmitting messages from place to place on land; wire cables for transmitting messages by the aid of electricity across the ocean; telephonic apparatus for transmitting words from the mouth of a speaker to the ear of a listener at a distance.

2. *A new contrivance employed to effect a well-known object*—to make, for instance, an article previously made in a different way—is also patentable, provided that the new contrivance is attended with some degree of utility; for example, that it accomplishes the result more cheaply than the old contrivance. ‘There may be a valid patent’ (said *Lord Eldon* in *Hill v. Thompson*, 1 W. P. C. 237) ‘for a new combination of materials previously in use for the same purpose, or for a new method of applying such materials.’

Again, where an invention effects a known purpose with new materials, it will be held a patentable process. Thus, *Binney* obtained a patent for the manufacture of packing for the joints of steam-engines. *Feltmann* afterwards obtained a patent for the same object, but

he employed different materials for the packing stuff. The later patent was held to be good for a new process. (*Binney v. Beltmann*, W. N. 1875, p. 88.)

3. *A combination of known parts*, producing a new result, or producing an old result in a more economical manner or more perfect form, whereby articles cheaper or better than had ever before been produced are rendered accessible to the public, will be held a meritorious and patentable invention. This is, perhaps, the largest class of patented inventions. It was held in *Crane v. Price* (1 W. P. C. 408) that the combination of the hot-air blast with stone coal in the smelting of iron (the hot-air blast and stone coal having been separately in use before, but the combination being previously unknown) was an invention intended by the statute, and such as might well become the subject of a patent. It was said by *Tindal, C. J.*, that there were numerous instances of patents where the invention consisted in no more than in the use of things already known, and acting with them in a manner already known, and producing effects already known, but producing those effects so as to be more economically or beneficially enjoyed by the public.

That the novel combination of old parts having a useful result may form the subject of a valid patent has been again and again decided. (*Lister v. Leather*, 8 E. and B. 1004; *Newall v. Elliott*, 10 Jur. n. s. 954; *S. C.* 13 W. R. 11; *Murray v. Clayton*, L. R. 7 C. 570; *Cannington v. Nuttall*, L. R. 5 H. L. 205; *Hayward v. Hamilton*, Court of App. 1881.) ‘If there be’ (said *Lord Westbury* in *Spencer v. Jack*, 3 De G. J. & S. 346) ‘a combination of several things previously well known, which combination is attended with such results of utility and advantage to the public that the combination itself is rightly denominated a substantial

improvement, it is impossible to deny that that is the subject of a patent.' See further as to combinations in the chapter on the Complete Specification.

A new combination of old parts may even consist of a mode of manufacturing that differs from an old process in nothing, except in the omission of a step, provided that some degree of invention has been manifested in arriving at the new combination or process. Thus in the case of *Russell v. Cowley* (1 W. P. C. 459) a patent had been obtained for an invention for manufacturing iron tubes, by welding them without the use of a mandrel, or internal support; and its validity being contested, it was held good. The process, from first to last, consisted in turning up the edges of a flattened metal plate until they nearly met; in heating the plate, so prepared; and in drawing it when at a welding heat through dies having a conical hole. In passing from the broader to the narrower end of the hole, the edges were compressed against each other, and were welded together; the tube was thus formed without having recourse to the old process, which required a mandrel, whereon the overlapping edges of the metal plate were welded by means of hammers. It being contended that welding by pressure was not a new invention, *Lord Lyndhurst* read the specification as claiming only the manufacture of tubes without a mandrel. By the new process, tubes could be made of greater length, of greater uniformity, and considerably cheaper, than before.

It was held in *Booth v. Kennard* (1 H. & N. 527), that to obtain gas by the direct distillation of oleaginous seeds was a patentable invention, although gas had been previously obtained by the distillation of oil expressed from oleaginous seeds.

4. *A new mode of applying a known thing may be the subject of a patent, provided that some ingenuity, some novelty, is exhibited in the mode of making that*

application, and that the application is attended by some useful result. In Watt's patent for a new method of lessening the consumption of steam and fuel in steam-engines, the enclosing of the cylinder in a case of wood, or any other material that transmits heat slowly, was claimed, and allowed to be a patentable invention. (*Boulton v. Bull*, 2 H. Bl. 463, 1 Carp. 117.) In Forsyth's patent for a method of discharging fire-arms, the patentee claimed the use and application of certain known fulminating compounds for this purpose. It was contended that, since the properties of detonating powder were well known for other purposes, the using of such materials to discharge fire-arms was not a new manufacture for which a patent could be supported. But *Abbott, C. J.*, stated that if the invention (*i.e.* this particular application of detonating powder) were new, it was such a one as might be secured by patent. The jury having found the invention to be a new one, the patentee had a verdict. (*Forsyth v. Riviere*, 1 Carp. 404.)

Charcoal had been used in refining sugar previously to Derosne's patent; but the old method was to mix charcoal powder with the syrup, and the new was to pass the syrup through beds of charcoal constructed in a particular manner. By the old process a considerable quantity of charcoal was taken up by the syrup, and this was an injury to the sugar. In Derosne's process this objection did not arise; and, moreover, it was applicable not only to the refinement of coarse sugar, but to the original manufacture of sugar out of cane-juice. In an action brought for infringing the patent, the originality of the invention was held not to be impeached by showing that there had been an earlier use of charcoal in the refinement of sugar. No evidence was given that any other person, before the date of the plaintiff's patent, ever applied in use the

particular mode of filtering syrup which the patent was intended to introduce: and in the absence of such evidence, *Lord Abinger* directed the jury to find for the plaintiff. (*Derosne v. Fairie*, 1 W. P. C. 154.)

In the case of *Cornish v. Keene* (1 W. P. C. 517) a patent for improvements in the manufacture of elastic fabrics was contested. The patentee's mode of effecting his object was by introducing into the fabric threads of india-rubber, coated with filamentous material and applied as warp or weft, or as both, according to the direction of the elasticity required—the india-rubber threads having been stretched to their utmost tension and rendered non-elastic before being introduced into the fabric, and then being rendered elastic by the application of heat. It was contended that this was not a new manufacture; that it was neither a new manufacture, nor an improvement of an old manufacture, but was merely the application of a known material, in a known manner, to a purpose known before. 'That it is a manufacture' (said *Tindal, C. J.*, delivering the judgment of the Court) 'can admit of no doubt; it is a vendible article, produced by the hand and art of man. Whether it is new or not, or whether it is an improvement of an old manufacture, was one of the questions for the jury, upon the evidence before them; but that it came within the description of a manufacture, and so far is an invention which may be protected by a patent, we feel no doubt whatever. The materials, indeed, are old, and have been used before; but the combination is alleged to be, and if the jury are right in their finding, is new; and the result or production is equally so. The use of elastic threads or strands of india-rubber, previously covered by filaments wound round them, was known before; the use of yarns of cotton, or other non-elastic material, was also known before; but the placing them alternately side by side

together as a warp, and combining them by means of a weft when in extreme tension, and deprived of their elasticity, appears to be new; and the result, viz. a cloth in which the non-elastic threads form a limit up to which the elastic threads may be stretched, but beyond which they cannot, and therefore cannot easily be broken, appears a production altogether new. It is a manufacture at once ingenious and simple.'

In the case of *Kay v. Marshall*, Lord Cottenham said, in the House of Lords, 'that if Kay had discovered any means of using the machine (*i.e.* the ordinary spinning machine) which the world had not known before, the benefit of that he had a right to secure to himself by means of a patent; but if this mode of using the spinning machine was known before, then he could not deprive them of having the benefit of that which they enjoyed before.' (2 W. P. C. 82.)

A patent was granted for an improved mode of, and apparatus for, bending wood for the handles of walking-sticks, &c., and the specification described the apparatus as being a vice for holding a stick, previously softened in moist sand, placed close to a hollow mandrel, on which the bending was effected by sending a jet of lighted gas into it, and then securing the stick on the mandrel by a strip of steel. The heat stiffened the fibres of the wood, and the curvature was rendered permanent. In a suit to restrain the defendants from infringing the patent, its validity was called in question, on the ground that the invention was not new; but *Sir W. P. Wood, V. C.*, granted the injunction, saying, 'When it is stated that because wood is bent by coach-makers and others in a variety of ways by the application of heat, you cannot have a patent for the application of heat to the bending of walking-sticks, that is the same sort of reasoning that was pressed on the Court with reference to an invention for an improve-

ment on navigation. It was said that the operation of a propelling power by presenting a screw propeller to the action of water was nothing new---that it was like the action of a windmill with reference to the wind. 'That reasoning, however, did not succeed.' *Dangerfield v. Jones* (13 L. T. N. S. 142.)

It must be carefully kept in mind that, unless there is some display of ingenuity, a patent for the application of an old contrivance to a new object will not be valid. But as to this part of the subject the reader is referred to the next section of this chapter, and to the section on patents for applications in Chapter III.

5. *Chemical processes, usually but not always in combination with mechanical contrivances*, whereby something useful is produced or effected. Under this head the following examples may be given: the distillation of bituminous minerals for the production of illuminating and lubricating oils (*Young v. Fernie*, 4 Giff. 597); the purification of coal gas by means of oxides, chlorides, &c. (*Hills v. London Gas Light Company*, 5 H. & N. 312); the precipitation of the solid animal and vegetable matter contained in sewage water with a view to its employment as manure (*Higgs v. Goodwin*, E. B. & E. 529); the preparation of dyeing materials (*Steiner v. Heald*, 6 Exch. 607; *Simpson v. Holliday*, 5 N. R. 340, L. R. 1 H. L. 315); the mixture of two or more substances in certain definite proportions forming a compound substance useful for its preservative, sanitary, or other useful properties (*Bewley v. Hancock*, 6 De G. M. & G. 402; *Muntz v. Foster*, 2 W. P. C. 103; *Bailey v. Robertson*, L. R. 3 App. Ca. 1055).

AMOUNT OF INVENTION REQUIRED TO SUPPORT A PATENT.

In contesting the validity of a patent, it is often objected that there had been no exercise of ingenuity

on the part of the alleged inventor in arriving at his invention, and that mere accident or good luck is not entitled to a patent privilege. Where, however, the utility of the invention is great, and the novelty undoubted, these facts will come in aid of an apparent want of ingenuity on the part of the inventor.

It is impossible, however, to lay down any general rule as to the amount of ingenuity which is essential to support a patent. In nice cases there can be no certainty previous to a judicial decision on the point whether any given patent is or is not impeachable on the ground of want of ingenuity; which phrase cannot be regarded, perhaps, as different from want of novelty. All that can be done is to study the decisions already made, and to be guided by those cases which approach nearest to the one about which doubt may be felt. Some of the decisions, indeed, seem to conflict with others; and it will require a good deal of acute discrimination on the part of those who are called on to advise inventors, to distinguish the line which separates what is patentable from what is not patentable.

‘In point of law’ (said *C. J. Tindal*, in *Crane v. Price*, 1 W. P. C. 411), ‘the labour of thought or experiment, and the expenditure of money, are not the essential grounds of consideration on which the question whether the invention is or is not the subject-matter of a patent ought to depend; for if the invention be new and useful to the public, it is not material whether it be the result of long experiment and profound search, or of some sudden and lucky thought, or mere accidental discovery.’ In either of the two last cases, the practical realisation of a good idea will be considered a sufficiently meritorious consideration for the exclusive privilege granted to the inventor, although the actual amount of thought expended in making the invention was trifling. The case of water-tabbies, so often men-

tioned in courts of law, is a case in point. The invention (according to *Mr. Justice Buller* in *Boulton v. Bull*, 2 H. Bl. 463, 1 Carp. 117) first owed its rise to the accident of a man spitting on a floor-cloth, which changed its colour, whence he reasoned, had his patent, and made, it is said, a considerable fortune by it.

The making of iron gas-tubes without the use of a mandril, viz. by welding them without striking them on a solid surface, 'seems to be a very simple invention' (said *Lynnhurst, C. B.*, in *Russell v. Cowley*); 'but it has been productive of great advantages inasmuch as it has enabled the manufacturer to construct pipes of lengths much beyond what could be done previously to this discovery' (1 W. P. C. 467). Hence the utility of the invention was apparent from the important consequences that flowed from it, and the patent was supported.

Lace made from cotton had the defect of being covered with a kind of down, which injured its appearance and diminished its value. A similar defect was removed from muslin by passing it over rollers of heated iron, and from mitts and stockings by the action of flame, fed by oil or alcohol. It occurred to Mr. Hall that the flame of gas might be employed in the manufacture of cotton lace; and after some failures he succeeded in inventing a method for removing the unsightly fibres by the flame of gas. A patent obtained for this invention was held good. (*Hall v. Jarvis*, 1 W. P. C. 100.)

The case of *Lewis v. Davis* (1 W. P. C. 488) is often cited to show that a small degree of invention suffices to sustain a patent, provided it be attended with useful results. The object of the patent was the shearing of cloth from *list to list* by means of rotatory cutters. Now a rotatory cutter to shear from *end to end* was known, and cutting from list to list by means of shears was also known. 'However' (said *Tenter-*

den, C. J., to the jury, on the trial of an action for the infringement of the patent, in which the question of novelty was raised), ‘if before the plaintiffs’ patent the cutting from list to list, and the doing that by means of rotatory cutters, *were not combined*, I am of opinion that this is such an invention by the plaintiffs as will entitle them to maintain the present action.’

In the case of *Hinks v. Safety Lighting Company* (L. R. 4 Ch. D. 607), *Jessel, M. R.*, held that the substitution of a flat wick for a solid round wick in a lamp was a sufficient ground for a patent; because, notwithstanding the apparent smallness of the invention, it had the effect of largely increasing the illuminating power of the lamp; in other words, it was a very useful invention. In giving judgment in the plaintiff’s favour the learned judge made the following remark:—‘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.’ See also *Frearson v. Loe* (L. R. 9 Ch. D. 48).

The specification under *E. L. Hayward’s* patent for improvements in pavement lights, described a combination of three things, viz. a frame, a flange, and a piece of glass moulded below into a particular form of prism; the object being, when the apparatus was inserted in a floor or pavement, to throw light coming from above into a room or space beneath, in a lateral direction. Now these three things taken separately were old. However, the Court of Appeal held, confirming the decision of the divisional court, that although a glass prism of another form had been employed in the decks of ships for the purpose of admitting light in a manner resembling, to a certain

extent, the plan adopted by Hayward, this was a novel combination of old parts with a useful result; and farther, that the combination displayed a sufficient amount of invention to support the patent. The Lords Justices were of opinion that Hayward was an inventor, since he had found out something new, and had made a useful article that had not been made before. 'If it is not an invention' (said *L. J. Bramwell*), 'it is very strange that it has never been done before. . . . It is not the less an invention because it required but small inventive powers to enable the patentee to do it.' *Hayward v. Hamilton* (Court of App. 1881.).

The question whether that which is an improvement of an existing machine was the result of a sufficient amount of invention, often raises one of the most difficult points of patent law. 'There are many cases in which the moment you see the specification or improvement you can say without any evidence at all, "This is a most remarkable, elaborate, and difficult thing to do; it must have required great invention, and there can be no dispute about it," and no dispute is ever raised. On the other hand, there are some things so clear, so simple, and so obvious, that a person having any decent amount of mechanical knowledge says at once it is so easy that it requires no invention at all; it is a mere mechanical equivalent, or that sort of thing, that any ordinary workman can do without any difficulty. Then there are a great number of cases between, where the improvement is no doubt small, but it may require a considerable amount of invention to effect it.' (Per *Jessel, M. R.*, in *Saxby v. The Gloucester Waggon Company*, Court of App., June 23, 1882; and House of Lords, June 25, 1883.)

The preceding cases may be compared with a series, which we will now cite, where the inventions were adjudged insufficient to support patents.

Brunton took out a patent for (amongst other things) an alleged improvement in anchors. The two flukes were made in one, and had such a thickness of metal in the middle that they might there be pierced with a hole for the insertion of the shank. Previously the two flukes had been joined by welding them to the shank. It came out, on a trial in Court, that the real improvement was in the avoidance of welding, and that this was done by means perfectly well known in other cases. There was no proof that the anchors made by the new process were better than those previously made; and since the invention seemed to be nothing more than the adoption of a known operation practised in analogous cases, it was held not patentable. (*Brunton v. Hawkes*, 4 B. & Ald. 540.) 'Now' (said *Abbott, C. J.*, in his judgment), 'a patent for a machine, each part of which was in use before, but in which the combination of different parts is new and a new result is produced, is good, because there is novelty in the combination. But here the case is perfectly different: formerly three pieces were united together; the plaintiff (*Brunton*) only unites two; and if the union of these two had been effected in a mode unknown before, as applied in any degree to similar purposes, I should have thought it a good ground for a patent; but unfortunately the mode was well known and long practised. I think that a man cannot be entitled to a patent for uniting two things instead of three, where that union is effected in a mode well known and long practised for a similar purpose.' (*Brunton v. Hawkes*, 1 Carp. Rep. 410.)

In the case of *Kay v. Marshall* (2 W. P. C. 34-84), it appeared that *Kay* had procured a patent for new and improved machinery for preparing and spinning flax, and the invention was declared in the specification to consist of new machinery for macerating flax previous

to drawing and spinning it; and also for improved machinery for spinning the same after having been so prepared. If the patent had been confined to the new machinery for macerating, it was allowed that it would have been perfectly good; but, as to the second part of the invention, it appeared that the improved machinery was nothing more than the placing of certain portions of a machine well known and in common use within two inches and a half of each other, instead of at a greater distance. It was shown that the distances between the parts in question had not been fixed in previous machines, but had been varied according to circumstances; and, further, that the reach used in *cotton* spinning had actually been less than two inches and a half. It was held by the Court of Common Pleas that the adoption of a particular distance, viz. two inches and a half, under these circumstances, did not constitute such an invention as would support a patent. ‘Suppose,’ said *Tindal, C. J.*, on delivering judgment — ‘suppose a patent to have been first obtained for some entirely new method, either chemical or mechanical, of reducing the fibres of flax to a short staple, we think that a second patent could not be taken out for an improved mode of machinery in spinning flax which consisted of nothing more than the spinning of short staple of flax by a spinning machine of a reach of a given length, not less than that already in use for the spinning of cotton, the effect of which would be to prevent the first patentee from working his invention with the old machine at the proper reach.’ Or, as *Lord Cottenham* put it in the House of Lords, if the plaintiff (Kay) has a right to tell the rest of the world that they shall not use the common spinning machine with rollers at two and a half inches distance, then the existence of the patent deprives all the rest of the world of the right of using the ordinary spinning machine in

the form in which they had a right to use it before the patent was granted.

In *Parker v. Stevens* (L. R. 8 Eq. 358), *James, V. C.*, was of opinion that the substitution of a slide for a hinge in the door of a lamp could not be the foundation of a valid patent. And in the same case (affirmed L. R. 5 Ch. D. 36) it was held that the application of a sliding door to a *spherical* lamp was not patentable, as it was proved that sliding doors had been previously fitted to *cylindrical* lamps.

When it was shown that there existed a previous patent for preserving meat already salted, dried or smoked, by dipping it into a solution of bisulphide of lime, it was held that an invention the object of which was to preserve *fresh* meat by dipping it into a like solution, was not patentable (*Bailey v. Robertson*, L. R. 3 App. Ca. 1079).

In the case of *Saxby v. The Gloucester Waggon Company*, which was carried to the House of Lords, it was decided by that tribunal (June 25, 1883), as it had been by all the courts below, that a combination of an old locking apparatus with an old actuating apparatus for working railway signals and points, did not display a sufficient amount of invention to support a patent, it having been proved that the combination was effected by obvious means and in a way that did not call for more than ordinary mechanical skill.

The discovery that a particular advantage may be obtained by using a known machine in a known manner is not a patentable invention (*Tetley v. Euston*, 2 C. B. N. S. 706).

In the process of calendering woven fabrics the use of a roller and a bowl, and the means of regulating the relative speed of their motions, were well known. In the process of *calendering*, the roller was smooth, and the speeds of the roller and bowl were different. In

embossing, the roller had a pattern upon it, and the speeds of the roller and bowl were equal. A patent was taken out for a combination of a patterned roller with a bowl moving at unequal speeds. The invention was held not to be one which could be the subject of a valid patent, as it amounted to nothing more than how to use an existing machine more beneficially than had been previously known. Although the patentee might have discovered that by making the *patterned* roller and the bowl move at different speeds instead of at the same speed, and by moving the fabric transversely when fed up, the machine could be worked more advantageously than formerly, he had no right to prohibit the owner from using his property as he thought fit. (*Ralston v. Smith*, 9 C. B. N. S. 117; affirmed by the *House of Lords*, 11 H. L. C. 223.)

In the case of *Patterson v. The Gas Light and Coke Company* (L. R. 2 Ch. D. 812, L. R. 3 App. Cas. 239) a patentee claimed the employment of sulphides of calcium in separate purifiers as a means of purifying coal gas from sulphur existing in other forms than that of sulphuretted hydrogen. Now, as it was well known to chemists, and had been long taught in books, that sulphides of calcium would absorb sulphur compounds—moreover, as it was plain that if sulphide of calcium was to be used, a separate holder must be employed, and as no special apparatus was suggested, it was held that there was no invention that would support a patent. The same patentee also claimed a method or system of employing lime purifiers in succession, whereby the contents of all the purifiers, or any required number of them, could be converted into sulphides of calcium, and also, if required, be maintained in that condition. Now, lime purifiers in succession had been in general use for a long time, and the patentee had not devised either a new process or any

new apparatus. What he really thought he had discovered was that, if the carbonic acid, which is the first thing taken up by the lime, was allowed to enter the last purifiers, it would have a deleterious effect on the purifying process. It ought, therefore, to be removed at the beginning of the operation. But this, though it might be a very useful piece of advice, and an instruction of great value, was held by the Court of Appeal not to constitute of itself the subject-matter of a patent.

Other cases in which the inventions were held to be insufficient to support patents were *Thompson v. James* (32 Beav. 570), and *White v. Toms* (32 L. J. Ch. 204).

Upon the question of what is subject matter of patentable invention, reference may usefully be made to the judgment of *Grove, J.* in *Young v. Rosenthal*, (1 R. P. C. 30.)

SECOND PATENTS.

In *Lister v. Leather* (8 E. & B. 1004) it was held that a second patent for an improvement on an invention which is the subject of a previous patent afterwards assigned to the second patentee is not void as being contrary to public policy. And the same rule holds good in regard to a second patent obtained by the same inventor. The argument that the second patent prolongs the monopoly granted by the first until the expiration of the second is answered by the fact that the former invention without the improvement is free as soon as the earlier patent comes to an end.

CHAPTER III.

THE INCIDENTS OF UTILITY AND NOVELTY WHICH MUST
BY LAW ACCOMPANY PATENTABLE INVENTIONS.

The two chief incidents which are required by law to attend every invention that claims the protection of a patent, are utility and novelty.

If a material part of the alleged invention should turn out to be either not useful or not novel, the patent is altogether void, the legal maxim *utile per inutile* being here disregarded. (See *Crossley v. Beverley* W. P. C. 106; *Hill v. Thompson*, 1 W. P. C. 249; *Manton v. Parker*, 1 W. P. C. 192 n.; Dav. P. C. 327; *Bloxam v. Elsee*, 6 B. & C. 169; 1 Carp. 444; *Roberts v. Heywood*, 27 L. T. N. S. 454; *Hill v. Tombs*, April 1881, 'Engineer,' 51, p. 274.) And in like manner, where several distinct heads of invention are included in one patent, one useless or old invention will invalidate the whole patent (*Turner v. Winter*, 1 W. P. C. 77; 1 T. R. 602; *Bloxam v. Elsee*, 6 B. & C. 178; *Morgan v. Seward*, 1 W. P. C. 196; *Kay v. Marshall*, 2 W. P. C. 71). The Crown having been misled as to the extent of the invention, the grant of a patent in respect of it is void. It was on this principle that the Court, in deciding *Morgan v. Seward*, looked at the cases of *Hill v. Thompson* (1 W. P. C. 237), and *Brunton v. Hawkes* (4 B. & A. 541); in which a patent for several inventions was held to be altogether void because one was not new. The want of *novelty* is a fatal defect by the express wording of the statute, so far as

relates to that which is old ; and the whole patent is rendered void by the construction that the consideration for the grant is the novelty of all the parts claimed to be new, which consideration failing, or, as it is sometimes expressed, the Crown being deceived, the patent is void.

As it is of the utmost importance to ascertain what construction the courts have put upon the terms new and useful when applied to patented inventions, and how they have administered the law in dealing with the cases that have come before them, it will be necessary to go into the matter at some length. And first as to the question of

UTILITY.

If an invention contains no degree of usefulness whatever, over and above inventions already known, then the patent is void. (*Manton v. Parker*, Dav. P. C. 327 ; W. P. C. 192 n. ; *Manton v. Manton*, Dav. P. C. 348.)

‘A mere trifling matter’ (said *Sir W. P. Wood, V. C.*, in *Dangerfield v. Jones*, 13 L. T. N. S. 142) ‘or a thing of no value will not do, inasmuch as the whole theory of the patent law is based upon the assumption that it is something of real value. You must show that you have invented something useful, a new and useful improvement in manufacture.’

A patent for a useless invention is thought by some to be void at common law ; by others, by force of the Statute of Monopolies, which renders void grants of privileges which tend to the hurt of trade, or are generally inconvenient. For if a monopoly were allowed in a useless invention, other persons would be prevented from improving it, or turning it to any account whatever, so that combinations of utility might be impeded. It would stand in the way of real inventors, and hence be mischievous to the public generally.

(See the observations of *Parke, B.*, in *Morgan v. Seward*, 1 W. P. C. 196.) On the trial of *Palmer v. Wagstaff* (Newton's Lond. Journ. vol. xliii. p. 151), *Chief Baron Pollock* said that in legal language it is a fraud on the law of patents for any person to take out a patent with a view to the obstruction of improvements. The evidence showed that the plaintiff's patent, which it was alleged the defendant had infringed, had never been worked; no attempt had been made to bring the candles of the patented construction before the public; and the patent was only then brought into play for the purpose of stopping the defendant from a course of improvement.

'A patent for an invention which is merely to obstruct every subsequent improvement, which is to step in and prevent the exercise of the ingenuity of mankind and the introduction of other inventions adapted to the particular subject to which the invention may be applicable, cannot, in my judgment, be supported.' (Per *Pollock, C. B.*, in *Crossley v. Potter*; Macr. P. C. 240.)

It is to be observed that the recital in the Letters Patent of the Crown's willingness 'to encourage all inventions which may be for the *public good*,' clearly points to the quality of utility as one of the considerations for the grant, which failing, the patent will be invalid.

When an action is tried before a jury, it is for them, not the Court, to decide the question of utility when the point has been raised by appropriate pleadings;¹

¹ That the patentee must go into proof of the utility of his invention in case that issue is raised is shown by what fell from the judges in the cases of *Ree v. Arkwright*, Dav. P. C. 138; *Manton v. Parker*, Dav. P. C. 327; *Manton v. Manton*, Dav. P. C. 333; *Borill v. Moore*, Dav. P. C. 399; *Brunton v. Hawkes*, 4 B. & Ald. 511; *Russell v. Cowley*, 1 W. P. C. 467; *Hill v. Thompson*, 1 W. P. C. 237; *Minter v. Wells*, 1 W. P. C. 129; *Crane v. Price*, 1 W. P. C. 411; *Derosne v. Fairie*, 5 Tyr. 393; 2 Cr. M. & R. 476.

and the question will go before them in the general shape of utility or no utility. They have not to consider to what extent the invention is useful, but only whether it is of any use at all. *Mr. Baron Parke*, in *Neilson v. Harford* (1 W. P. C. 314), speaking of a patent for the use of hot-blasts in furnaces, laid it down that if the apparatus were an improvement, so as to be productive, practically, of some beneficial result, no matter how great, provided it is sufficient to make it worth while (the expense being taken into consideration) to adapt such an apparatus to the ordinary machinery in all cases of forges, cupolas, and furnaces, where the blast is used, then that there would be utility sufficient to support the patent. The *quantum* of improvement (should an improvement be in dispute) is not a material point; it is enough that they can find *any* improvement. (*Alderson, B.*, in *Morgan v. Seward*, 1 W. P. C. 172, 186.) In other words, in order to quash a patent on this ground, a jury must expressly find that the invention is of no use.

But it must be kept in mind that it is the *invention* which is required to possess utility, not merely the thing produced. As *Pollock, C. B.*, remarked, on trying the case of *Palmer v. Wagstaff* (above cited), it is not sufficient for the maintaining of a patent to prove that the article produced under it is useful; it must be the invention that effects the utility. Thus a patented manufacture should be either better in quality, or cheaper in cost, than that which it is intended to supplant.

It has been held, however, that the uselessness of part of an invention will not vitiate the patent, unless that part is described as something essential. The case of *Lewis v. Marling* (1 W. P. C. 490) arose out of a patent for an improved machine for shearing woollen cloths, in which the patentee claimed, amongst other

things, the use of a brush for raising the wool on the surface of the cloth to be shorn, but not as an essential part of the machine. Before any machine was made for sale this part of the invention was discovered to be useless, and no machines were ever sold with the brush attached. It was contended that this uselessness of part vitiated the whole, but *Lord Tenterden* said, 'If the patentee mentions that as an essential ingredient in the patent article which is not so, nor even useful, and whereby he misleads the public, his patent may be void; but it would be very hard to say that this patent should be void, because the plaintiffs claim to be the inventors of a certain part of the machine not described as essential, and which turns out not to be useful.' *Bayley, J.*, thought that if the patentee had known the brush to be unnecessary, the patent would be bad, on the ground that this was a deception; but if he believed it to be proper, and only by a subsequent discovery found out that it was not necessary, it would form no ground of objection.

In the case of *Haworth v. Hardcastle* (1 W. P. C. 480) the jury found specially that the invention was useful upon the whole, but that the machine was not useful in some cases. The judges of the Court of C. P. thought that this finding of the jury did not negative the utility of the machine in the generality of cases, but rather led to the inference that in the generality of cases it was useful, and the patent was therefore held to be valid.

Brunton took out a patent for an improvement in chain cables, which consisted in making the links with straight sides and circular ends, in place of twisted links, and in substituting a cast-iron stay with broad ends embracing the sides of each link for a wrought-iron stay formerly fixed across the middle of the opening of the link to prevent it collapsing. The combina-

tion of a link with a stay of those particular forms was considered so far new, although the form of the link had been previously known, that the inventor would have had the benefit of his patent, upon his showing that the combination operated beneficially, if the patent had been obtained for this combination alone (*Brunton v. Hawkes*, 1 Carp. R. 412).

If an improvement of the trade (using these words in their commercial sense) has taken place in consequence of an invention, this affords a good test of its utility. The invention patented by Lord Dudley consisted in substituting pit-coal for charcoal in the manufacture of iron. Neilson patented a process of smelting iron by blowing the furnace with hot in place of cold air. Crane smelted iron by means of anthracite instead of ordinary fuel, and combined the hot-blast with this. All these processes were productive of great improvements in the manufacture of iron, and the patents were all supported by the Courts.

It has been said from the Bench, that the fact of a published invention not meeting with public acceptance, is some presumption against its utility. It is something for a jury to take into consideration, when the question of utility is raised before them, that a machine has not been called for by the public (*Morgan v. Seward*, 1 W. P. C. 186). See also *Re Simister's Patent* (1 W. P. C. 721 ; 4 Moo. P. C. C. 164); *Re Bakewell's Patent* (15 Moo. P. C. C. 386); *Re Allan's Patent* (L. R. 1 P. C. 507).

It has also been said that if the invention is not worked by the inventor that fact is *primâ facie* evidence of want of utility. But 'that' (said *Jessel, M. R.*, in delivering judgment in the case of *Otto v. Linford*, 46 L. T. N. S. 35) 'is subject to this observation, that you may make and vend an improvement upon it, and if you have found out immediately

after you have patented your invention that it can be improved, it does not by any means show that the first invention was useless.' Then referring to the case of *Renard v. Levinstein* (10 L. T. N. S. 177), which arose out of a patent for a dye, he said, 'There they never sold an ounce of dye made according to the patent because immediately afterwards the inventor had discovered an improvement, and they had always sold the improved dye, and they were obliged to call a witness to show that they had made a few ounces of dye and tried it, and that it would dye. The answer was that under those circumstances the mere fact of not selling the original dye was nothing at all. So in this case (*Otto v. Linford*) we have rather a stronger illustration, because the inventor has patented these modifications, and it turns out that what he has used, made and sold, have been almost entirely number threes. No. 1 itself does not appear ever to have been sold. But then they say that No. 1 will work, and they call witnesses to prove it, and there is no denial from the other side. Therefore there is evidence of utility. It is very small indeed as regards No. 1, but it is quite sufficient for the support of a patent; and as to this question of utility, as we know, very little will do.'

We now turn to the question of

NOVELTY.

The statute of James declares excepted from the invalidating clause 'all letters patent and grants of privilege of the sole working or making of any manner of *new manufactures to the true and first inventor of such manufactures, which others at the time of making such letters patent and grants should not use.*' Moreover, the patent contains clauses rendering the grant voidable in case the invention is not a new invention as to the public use and exercise thereof, or in case

the patentee is not the true and first inventor of the invention.

On the point of novelty three questions may arise for consideration: first, is the invention itself a new one; second, if new, was the patentee the true and first inventor thereof? and then, was there any user of the invention in public or by the public before the date of the patent?

With regard to the first point, we may remark that the alleged invention may turn out to be of such an insignificant character that the courts are unable to find any novelty in it sufficiently great to entitle it to a patent, and they will refuse to uphold the grant if it should be contested. In this connection we may here consider what are commonly termed

PATENTS FOR 'APPLICATIONS.'

These are patents by which it is sought to protect inventions having reference to the application of an existing article to a purpose for which other similar articles have been previously used; or to the application of a well-known process to produce a well-known article; or to the application of a well-known process to effect a result in a well-known article after the same process had been publicly applied to an analogous article. When there is nothing new in the machinery or methods employed, patents for such applications are not favoured by the law, which looks upon the inventions as wanting in the attribute of novelty. The rule is well established that the mere application of an old mechanical contrivance to an analogous purpose is not an invention for which a patent can be granted. 'In all the cases in which a patent has been supported' (said *Lord Campbell* in *Brook v. Aston*, 8 E. & B. 478) 'there has been some discovery, some invention. It has not been merely the application of the old

machinery in the old manner to an analogous substance. That cannot be the subject of a patent.'

In *Harwood v. Great Northern Railway Company* (2 B. & S. 208), *Cockburn, C. J.*, said 'Although the authorities establish the proposition that the same means, apparatus, or mechanical contrivance, cannot be applied to the same purpose, or to purposes so nearly cognate and similar as that the application of it in the one case naturally leads to the application of it when required in some other, still the question in every case is one of degree, whether the amount of affinity or similarity which exists between the two purposes is such as that they are substantially the same; and that determines whether the invention is sufficiently meritorious to be deserving of a patent.'

The following cases will illustrate the law as thus laid down by these learned judges:—

The casting of tubular boilers in one piece, similar boilers having been previously made in several pieces which were afterwards fastened together by means of cement, was held not to be an invention for which a valid patent could be obtained, although the result was useful and beneficial to the public. It was only the application of a well-known article, viz. iron, by a well-known process, viz. casting, to the production of a well-known article, tubular boilers. (*Ormson v. Clark*, 13 C. B. n. s. 337; *S. C.* in error, 14 C. B. n. s. 475.)

Again, the application of *double-angle* iron (a well-known article of commerce already applied to a variety of purposes) to the construction of hydraulic joints of telescopic gas-holders, instead of making them of two pieces of *single-angle* iron attached to a plate, was held not to be patentable. (*Horton v. Mabon*, 12 C. B. n. s. 437; *S. C.* in error, 16 C. B. n. s. 141.)

From what was said in *Mackelcan v. Rennie* (13 C. B. n. s. 61), it would appear that the Court con-

sidered that the application in the construction of a known apparatus of a material not before used for that purpose, for example, iron instead of timber in the construction of floating docks, was not an invention for which a valid patent would be obtained.

‘The use of a new material to produce a known article is not the subject of a patent,’ said *Malins, V. C.*, in *Rushton v. Crawley* (L. R. 10 Eq. 522), a case where a man had taken out a patent for the use of a kind of wool called Russian tops in the manufacture of artificial hair. (See also *Thompson v. James*, 32 Beav. 570.)

In the case of *Losh v. Hague* (1 W. P. C. 202) the question was reduced to this—Is a man who finds a particular construction of wheel already in use for carriages on ordinary roads entitled to a patent for applying it to railway carriages, such application not having been previously made? *Lord Abinger* remarked that you cannot have a patent for applying a well-known thing, capable of being applied to fifty thousand different purposes, to an operation which is exactly analogous to what was done before. His lordship put this case:—‘Suppose a man invents a pair of scissors to cut cloth with; if the scissors were never invented before, he could take out a patent for it. If another man found he could cut silk with them, why should he take out a patent for that?’ Again—‘It would be a very extraordinary thing to say, that after all mankind have been accustomed to eat soup with a spoon, that a man could take out a patent because he says you might eat peas with a spoon.’

In an action for the alleged infringement of a patent for improvements in separating the fibres of cocoa-nut husks, it was shown that the principal part of the invention consisted in passing the split husks between crushing rollers, and that, for some time previous to

the date of the patent, similar rollers had been employed in treating hemp. *Lord Campbell*, who presided at the trial, told the jury that the use of the crushing rollers having been thus anticipated, no claim for their application to the crushing of cocoa-nut husks would hold good. (*Hyde v. Trent*, Newton's Lond. Jour. vol. 45, p. 135.)

So, in the case of *Regina v. Cutler* (Macrory's Pat. Ca. 124-138), it was held by two judges on different occasions, that the mere application of a known article to a new use, the mode of application having been previously employed in applying analogous articles to the same purpose, cannot be made the subject of a patent. In this case the patent was for improvements in the construction of the tubular flues of steam boilers. The specification claimed the application of iron tubes coated with copper or brass to this purpose. This kind of tube was not new; nor was there any novelty in the way the patentee applied the tubes in the construction of flues, uncovered tubes having been previously used in a similar way.

In *The Patent Bottle Envelope Co. v. Seymer* (5 C. B. N. S. 164) it was held that the use of a model or mandril in the form of a bottle in making envelopes for bottles out of rushes or straw, could not be the subject of a patent, this being merely the application of a well-known tool to work previously untried materials or to produce new forms.

On the trial of *Bush v. Fox* (Macr. P. C. 163), it appeared that the invention, for an infringement of which the action was brought, consisted in the use of a caisson or hollow cylinder for building under water. It was proved at the trial that a similar caisson for building on land had been described in the specification of a patent granted several years previously. This, therefore, was only a new application of a machine pre-

viously applied to another purpose. ‘I think’ (said *Pollock, C. B.*, to the jury) ‘that a man cannot, if he has applied an old invention, or part of an old invention to a new purpose, obtain a patent for such an invention. Both the plaintiff and the other witness say that the invention consists in the application, and not in the novelty of the thing itself—in other words, that the only novelty is in the application of the apparatus. I think that a patent cannot be taken out for such an application. If a man were to take out a patent for a telescope to be used to make observations on land, I do not think any one could say, “I will take out another patent for that telescope to be used for making observations on the sea.”’ When the legal points raised at the trial were argued in the Exchequer Chamber, *Maule, J.*, said, ‘Assuming that the machine itself is old, the learned judge held that a mere new application is not a new manufacture, and therefore not the subject of a patent; and my present opinion is that, on the evidence, he was right in so directing the jury’ (Macr. P. C. 175). The case having been taken to the House of Lords (Macr. P. C. 179), it was there held that the judge’s direction was right.

In *Brook v. Aston* (8 E. & B. 478), the plaintiffs had obtained a verdict in an action for an infringement of their patent granted in 1856, for improvements in finishing yarns of wool and hair; but the defendant obtained leave to move to enter the verdict in his favour if the Court should be of opinion that the patent was invalid. It appeared that the plaintiff had obtained a patent in 1853, for a process precisely similar except that it was applicable to the finishing of cotton and linen yarns. After argument, the Court held that as the alleged invention under the later patent was only the application of an old machine in an analogous manner to another but similar object, there had been

no improvement or discovery for which a patent could be obtained. This decision was affirmed by the Court of Exchequer Chamber (5 Jur. n. s. 1025).

In the case of *Harwood v. The Great Northern Railway Company* (2 B. & S. 194; 11 H. L. C. 654) a patent for the application of 'fishes' to iron rails for railways, for the purpose of securing them, was held invalid, because a similar contrivance had been applied to fasten pieces of timber together in the construction of bridges, and had also been used in various articles of machinery. As *Mr. Justice Willes* said, the invention for which the patent had been obtained was 'the mere application of an old contrivance in the old way to an analogous subject without novelty or invention in the mode of applying such old contrivance to the new purpose.'

Jordan's specification claimed the construction of ships with an iron frame combined with an external covering of timber planking for the sides, bilges, and bottoms. At the trial of an action for an infringement of the patent, it appeared that a combination of wood and iron in the construction of ships was well known previous to the patent, and that frames partly of iron and partly of wood had been coated with iron. The jury having returned a verdict in favour of the plaintiff, the patentee, a rule was obtained for leave to enter a verdict for the defendant on the ground that the invention was not patentable. The Court decided that as iron and wood had both been long used in the construction of vessels, the application of wooden planking to the iron frame of a vessel, without any peculiarity in the nature of that planking, could not be the subject-matter of a patent. The alleged invention was as to one part nothing more than the substitution of one well-known and analogous material for another—that is, wood for iron—to effect the same

purpose on an iron vessel; and as to another part, it was the application of the same old invention, viz. planking with timber, which had been formerly done on a wooden frame, for an analogous purpose on an iron frame. (*Jordan v. Moore*, L. R. 1 C. P. 624.)

The use of a guide in a frilling machine for the purpose of keeping down the work, was held by *Jessel, M. R.*, in *Hill v. Tombs* ('*Engineer*,' April 15, 1881, p. 274), not to be a patentable invention, because 'that was the use of known means for an analogous purpose,' guides of similar character having been employed in many other machines.

Compare the preceding cases with *Penn v. Bibby* (L. R. 2 Ch. 127). Mr. John Penn obtained a patent for an improvement in bearings and bushes for the shafts of screw propellers, which consisted in grooving the inner surfaces of the bearings of the shaft, and placing in the grooves strips of wood, which projected beyond the inner surface of the metal bearings, so as to support the rubbing action of the shaft whilst water was allowed to circulate freely in the intermediate channels. The metal bearings previously employed had been found unable to withstand for any length of time the friction of the screw shaft, and it almost seemed as if the screw propeller would have to be abandoned; but Mr. Penn's simple contrivance got over the difficulty, and the invention came into general use. It was contended that the alleged invention was merely a new application of an old and well-known thing, viz. wood, and the wooden bearings of grindstones and waterwheels were adduced as showing that the invention was not novel. 'In every case of this description' (said *Lord Chelmsford*), 'one main consideration seems to be whether the new application lies so much out of the track of the former use as not naturally to suggest itself to a person turning his mind

to the subject, but to require some application of thought and study. Now, strictly applying this test to the present case, it appears to me impossible to say that the patentee's invention is merely the application of an old thing to a new purpose. The only examples of old use . . . are of a totally different character, and for a totally different object. It is difficult to believe that bearings of this description could ever have suggested the application of wood to the bearings of screw propellers in the way described in the patent.'

A patent was obtained for improvements in the manufacture of glass. The invention consisted of a mode of forming the sides of the chambers, where the materials were fused, in such a manner that a current of cool air might circulate and so prevent over-heating. Although the principle was previously known, yet, as the contrivance when applied to the manufacture of glass rendered the process of melting less costly and less dangerous, the patent was held good. (*Cunnington v. Nuttall*, L. R. 5 H. L. 205.)

The same distinction, which, it has been seen, is made between mechanical applications brought about by an obvious exercise of the inventive faculty and those where it is scarcely appreciable, holds good with regard to the applications of the chemical properties of matter. Thus, in *Calvert v. Ashburn* (Pract. Mech. Journal, vol. vii. 2nd ser. 97), it was held that the application of caustic alkalies for the purpose of dissolving the gluten contained in flour employed in the manufacture of *size* could not be the subject of a patent, inasmuch as caustic alkalies had been previously used for the purpose of dissolving gluten in the manufacture of *starch*. See also the observations of Lord Hatherley and Lord Blackburn in *Bailey v. Robertson* (L. R. 3 App. Cas. 1055, 1073, 1079).

This case, in which the amount of invention was

adjudged too small to support the patent, should be compared with that of *Young v. Bernie* (1 Giff. 597, 612), a suit for an injunction to restrain the infringement of a patent for obtaining paraffine oil by the distillation of bituminous *coals*, wherein it was proved that previously to the plaintiff's invention paraffine oil had been extracted from bituminous *shale* by distillation. It was argued for the defendants, on the authority of *Regina v. Cutler*, *Brook v. Aston*, and such cases, that bituminous shale being a substance analogous to bituminous coal, the invention of the plaintiff was not in law the subject of a patent. But *Stuart, V. C.*, said that there seemed to be no analogy between the cases cited and the present one. And in giving judgment in favour of the validity of the patent, his Honour observed, 'Inventions in mechanics are as widely different from inventions in economical chemistry as the laws and operations of mechanical forces differ from the laws of chemical affinities, and the results of analysis and experiment in the comparatively infant science of chemistry, with its boundless field of undiscovered laws and undiscovered substances. This observation, as applied to reported cases, will strike the mind of every lawyer who has even a slight elementary knowledge of both sciences.' (See also the case of *Muntz v. Foster, ante.*)

In *Hills v. London Gas Light Company* (5 H. & N. 369), an action upon a patent for the purification of coal gas by the use of hydrated oxides of iron, it was argued that as the property which these oxides possess of combining with sulphuretted hydrogen, the deleterious part of unpurified coal gas, was a perfectly well-known property, the mere application of the oxides to remove sulphuretted hydrogen from gas could not be the subject of a patent. The Court of Exchequer held that if a man were simply to say that he claimed the

use of hydrated oxides of iron for the purification of gas, without saying how they were to be applied, the objection might possibly be well founded; but as the patentee had shown how the oxides were to be used, the objection failed. (Comp. *Ormonson v. Clarke*, 13 C. B. N. S. 337; in error, 14 C. B. N. S. 475.)

Two distinct issues are usually raised upon the pleadings in regard to the question of novelty: 1st, whether the patentee is the 'true and first' inventor of the patented invention; and 2nd, whether the subject-matter of the patent is a new invention as to the public use and exercise thereof.

TRUE AND FIRST INVENTOR.¹

Before examining the decisions which bear upon the questions of prior publication and public user, it may be well to advert to those which have reference to the person who asserted himself to be the true and first inventor when application was made for the patent. A discovery may be both useful and quite new to the world at large; yet if it can be shown that the person, upon whose solemn declaration that he was the true and first inventor the patent was granted, does not really answer to that designation, the patent is not saved from the clause in the statute of James, which declares that all monopolies are invalid. Let us therefore inquire what construction the courts have put upon the words 'true and first inventor.'

¹ It must be kept in mind that the word 'patentee' in this section signifies, in the case of a patent granted to several persons jointly under the Act of 1883, only the person who claimed to be the inventor of the subject-matter of the patent, and does not include other non-inventors who may have joined him in obtaining the grant.

Moreover, it will be seen in the next chapter that the importer of an invention from abroad is held by the courts of law to fall within the meaning of the words 'true and first inventor.'

One of the earliest cases on this subject is that of Dollond, the optician, who brought an action for an infringement of his patent for a new method of making the object-glasses of refracting telescopes. It was alleged, on the part of the defendant, that Dollond was not the true and first inventor of the method, inasmuch as Dr. Hall had made the discovery before him. But it was holden that as Dr. Hall had confined it to his closet, and had not communicated it to the public, Dollond was to be considered the first and true inventor as required by the statute. This decision has been frequently mentioned in subsequent cases, and always with approval.

The case was not reported, and our knowledge of it is derived from the mention made of it in the case of *Boulton v. Bull* (2 H. Bl. 469). Dollond's case was decided in 1766, and it was followed by numerous cases, the result of which may be thus stated:—If two persons make the same invention about the same time independently of each other, he who first obtains a patent has an exclusive right to the invention (*Forsyth v. Riviere*, Chit. Prerog. Cr. 182); and he will be held the first inventor, although, in point of fact, the date of his invention was subsequent to that of the other person, provided that there was not such a use of the invention previously to the patent as amounted to what is technically called 'public use.'

In *Lewis v. Marling* (1 W. P. C. 496), *Bayley, J.*, said, 'If I make a discovery, and am enabled to produce an effect from my own experiments, judgment, and skill, it is no objection that some one else has made a similar discovery in his mind, unless it has become public.' And *Parke, J.*, said, 'There is no case in which a patentee has been deprived of the benefit of his invention because another had also invented it, unless he had also brought it into use.' Again, in the case of *Hill v*

Thompson (1 W. P. C. 244), *Dallas, J.*, said, 'It is not enough to have discovered what was unknown to others before, if the discovery be confined to the knowledge of the party having made it; but it must have been communicated more or less, or it must have been more or less made use of, so as to constitute discovery as applied to subjects of this sort.'

'A man may publish to the world,' said *Tindal, C. J.*, in *Gibson v. Brand* (1 W. P. C. 628), 'that which is perfectly new in all its uses, and has not before been enjoyed, and yet he may not be first and true inventor; he may have borrowed it from some other person; he may have taken it from a book; he may have learnt it from a specification; and then the Legislature never intended that a person who had taken all his knowledge from another, from the labours and assiduity or ingenuity of another, should be the man who was to receive the benefit of another's skill.'

But, in order to break down the patent of the person who was *de facto* the first to produce a useful article by the patented process, by means of which that article can be offered to the public at an economical rate, the fact of anticipation, if that is relied on, must be very clearly made out. *Von Heyden v. Neustadt* (50 L. J. N. S. Ch. 126.)

Many substances have been produced by chemists in their laboratories in small quantities, which, if they could be produced in large quantities at a moderate cost, so as to be merchantable commodities, would be extensively used by the public. An inventor who succeeds in doing this will not be considered to have been forestalled because the substance has been already produced on a small scale as a chemical curiosity. He will be held to have been the true and first inventor, and his patent will be supported because he has discovered a method of making for sale an article useful

to the public, and has thereby created a new manufacture. 'What the law looks to,' said *Stuart, V. C.*, in the case of *Young v. Pernie* (4 Giff. 611), 'is the inventor¹ and discoverer who finds out and introduces a manufacture which supplies the market for useful and economical purposes with an article which was previously little more than the ornament of a museum. The plaintiff is an inventor of this class, and his patent is entitled to the protection of the law. I find that he has ascertained by a course of laborious experiment a particular class of materials among many, and a particular process among many, which has enabled him to create and introduce to the public a useful manufacture, which amply supplies the market with that which, until the use of the materials and processes and temperature indicated by him, had never been supplied for commercial purposes. At the date of his patent something remained to be ascertained which was necessary for the useful application of the chemical discovery of paraffine and paraffine oil. This brings it within the principle stated by *Westbury, L. C.*, in the case of *Hills v. Evans* (4 De G. F. and J. 288). The manufacture with the materials and process indicated by him, according to the sense in which I understand the word "manufacture" to be used in the statute, was a new manufacture not in use at the date of his patent.'

It is sometimes argued that a patentee is not to be deemed the true and first inventor, if a patent for a similar object had been previously obtained by another inventor; but this objection will not prevail when it can be shown that the means by which the object is attempted to be accomplished are substantially different in the two cases.

¹ The inventor in this case was referred to by Professor Huxley, P.R.S., in his Anniversary Address to the Royal Society 1883, as 'Mr. James Young, a chemist whose skilful application of theory to practice yielded him a colossal fortune.'

Kueller obtained a patent for an apparatus for the evaporation of liquids and solutions at a low temperature. The apparatus consisted of pipes or tubes, along which air was forced nearly to the bottom of the vessel containing the liquid to be evaporated, which air, passing through small holes in the submerged tubes, traversed the liquid and carried off the aqueous particles. The invalidity of this patent was attempted to be proved by showing that an invention having a similar object in view had been previously patented. But when it appeared that this invention consisted in propelling a quantity of heated air into the lower part of the vessel containing the liquid, and causing such air to pass through the liquid in streams, by means of a perforated coil of pipe or colander, the jury found that, although the substance of both inventions consisted in forcing air in finely divided streams through a fluid, for the purpose of facilitating evaporation, yet the modes by which this was effected in the two cases were sufficiently distinct to acquit the latter invention of being a piracy of the former; and that the latter patent was not invalidated by reason of want of novelty in the invention. The Court was of the same opinion, upon the application for a rule to set this verdict aside. (*Hulliett v. Hague*, 1 Carp. Rep. 501; 2 B. and A. 370.)

In *Minter v. Mower* (1 W. P. C. 140) it appeared that the plaintiff had taken out a patent for an improvement in reclining chairs, which consisted in the application of a self-adjusting leverage to the back and seat of a chair, whereby the weight on the seat acted as a counterbalance to the pressure against the back. Mower, the defendant, made chairs in imitation of Minter's chair, and contended, in an action for an infringement of the patent, that the plaintiff was not the first and true inventor, alleging that one Brown had, pre-

viously to the patent, made chairs embodying a similar principle. It appeared, however, that although Brown's chair contained a similar principle to that patented, it was encumbered with machinery which rendered it a very different thing from the plaintiff's. *Lord Denman* said that, supposing Brown's chair to have been a chair with a self-adjusting leverage (*i.e.* a chair similar to the plaintiff's), if the encumbering additional part had been away, 'then the question is, whether the principle of self-adjustment was at all discoverable or thought of at that time. Because, it seems to me, if that principle might have been deduced from the machinery of the chair that was made, but it was so encumbered and connected with other machinery that nobody did make that discovery, or ever found out that they could have a chair with a self-adjusting leverage, by reason of that or any other defect in the chair actually made; it seems to me that does not prevent this from being a new invention, when the plaintiff says, I have discovered, throwing aside everything but this self-adjusting leverage itself, something that will produce an effect, which I think a very beneficial one.'

One of the most recent cases relating to the question of prior publication was that of *Saxby v. The Gloucester Waggon Co.* (Court of App., June 23, 1882: *S. C.*, House of Lords, June 25, 1883). Saxby obtained a patent in 1874 for improvements in signalling apparatus on railways. The invention comprised a combination of two old contrivances having the same object in view. To show prior publication the following facts were proved. The particular improvement in question had been previously suggested to the mind of a Mr. Edwards, who was in the employment of the London and North-Western Railway Company, and who, by merely placing the two old contrivances side by side, had made

working drawings, which it was admitted showed a combination substantially the same as Saxby's subsequently patented modification. Two sets of tracings were made from the drawings in Edwards' office, where four or five draughtsmen were kept, and they were afterwards sent to the offices of the L. & N. W. R. Company at Crewe, where there were seventeen or eighteen draughtsmen. The general public visited these offices, and there was evidence that the drawings or tracings had there been seen by an engineer who was not in any way connected with the railway company. No secrecy or concealment was imposed or observed in regard to the drawings and tracings with reference either to the draughtsmen in these two offices or to members of the general public who might happen to visit them. Further, the particular combination had been explained by Edwards to a person in Saxby's employment, and rough sketches of the drawing were left with him. The drawings and tracings were laid before the chief engineer of the railway company, and they were submitted to their locomotive committee. Besides all this a working apparatus was made from the drawings by a person in the employment of the company, and this was placed in the pattern-shop, where it was subjected to trial. All this occurred before the end of the year 1873. It was held by a Divisional Court, by the Court of Appeal, and by the House of Lords, that these facts amounted to evidence of a publication of the invention; that such a disclosure of it had been made as placed it within reach of the public, and therefore that Saxby's patent was invalid.

The fact that there had previously been made a useless machine which turned out a failure will not invalidate the right of a patentee who has made a successful machine with the same object, although there may be a certain degree of similarity between some of the

details of the two machines (*Murray v. Clayton*, 7 L. R. Ch. 570).

It may happen that a given invention results from the combined operation of two or more minds, in which case it is necessary that all the inventors should apply for the patent.

Patents have sometimes been disputed on the ground that the patentee owed a material part of the invention to another person ;¹ and if this can be made out on satisfactory evidence, it is fatal. It must, however, be taken to be undoubted law, that the suggestions of workmen employed by the inventor to carry out his ideas will have no such effect. An inventor is entitled to something more than the mere manual labour of the persons he employs. If the substantial part and leading idea, the principle of an invention, belong to one person, he may properly call in the assistance of another to work it out and improve it ; and after obtaining the benefit of that assistance, he may legally procure a patent for the invention. The observations of *Alderson, J.*, to the jury on trying *Minter v. Wells* (1 W. P. C. 132) will throw light upon this point. ‘Minter [the patentee] and Sutton [a workman employed by Minter] were together about the time the invention took place : which of the two suggested the invention, and which carried it into effect, is a question for you to decide. If Sutton suggested the principle to Minter, then he would be the inventor. If, on the other hand, Minter suggested the principle to Sutton, and Sutton was assisting him, then Minter would be the first and true inventor, and Sutton would be a machine, so to speak, which Minter uses for the purpose of enabling him to carry his original conception into effect. You will judge which is the more probable of the two. Minter makes out his *primâ*

¹ See the note on p. 51.

facie case ; he is the person who takes out the patent. If Sutton has received a compensation, nothing would have been more simple and easy than that he should have taken out the patent, and still Minter might have had the same benefit to-day ; and there is no apparent reason why Sutton should not have taken out the patent which Minter has taken out, unless they were both desirous to ruin the invention ; for suppose two persons are engaged on an invention of this description, they know perfectly well between themselves who is the real inventor of it, and who is the workman to carry into effect the conception ; but they would destroy the value of it to both if they did not take it out in the name of the right person.'

In *Bloxam v. Elsee* (1 Carp. Rep. 434) an action brought for an infringement of a patent for making paper in large sheets, it was objected that many of the improvements set out in the specification were invented, not by the patentees, but by Mr. Donkin, and without them the invention was useless. Mr. Donkin was called, and proved that he was employed by the patentees to bring the machine to perfection, was paid by them for so doing, and was acting as their servant. It was contended, in reply, that these were the patentees' inventions, and that Mr. Donkin was employed by them to carry their ideas into effect. This view of the case seems to have been that of the judge presiding at the trial, and that of the judges before whom the motion for a nonsuit was argued ; for although the patent was declared invalid, it was on other grounds, nothing being said on this point.

In *Allen v. Rawson* (1 C. B. 551), a case where the validity of a patent for improvements in the manufacture of felted fabrics was contested on the ground that parts of the invention owed their origin to two workmen, it was held that more convenient modes of

carrying out the main principle of an invention and subordinate improvements suggested by persons in the employment of the patentee may be safely adopted by him and embodied in his specification. 'I take the law to be' (said *Mr. Justice Erle*, before whom the action for an infringement was tried), 'that if a person has discovered an improved principle, and employs engineers, agents or other persons to assist him in carrying out that principle, and they in the course of experiments arising from that employment make valuable discoveries accessory to the main principle, and tending to carry that out in a better manner, such improvements are the property of the inventor of the original improved principle, and may be embodied in his patent; and if so embodied the patent is not avoided by evidence that the agent or servant made the suggestions of the subordinate improvement of the primary and improved principle.' When a new trial was moved for, on the ground that the judge had misdirected the jury, it was refused. On that occasion *Tindal, C. J.*, said, 'It would be difficult to define how far the suggestions of a workman employed in the construction of a machine are to be considered as distinct inventions by him, so as to avoid a patent incorporating them taken out by his employer. Each case must depend upon its own merits. But when we see that the principle and object of an invention are complete without it, I think it is too much that a suggestion of a workman employed in the course of the experiments, of something calculated more easily to carry into effect the conceptions of the inventor, should render the patent void.'

This is a very different case, however, from that where the patentee has no closer connection with the invention than that of being simply the employer of the inventor. Thus, in *Arkwright's* case, it appeared that *Arkwright*, the patentee, had been told of a par-

ticular roller, part of the machinery by Kay, and that, perceiving the value of the invention, he took Kay into his service for two years, during which time he employed him to make models, and subsequently claimed the invention as his own, making it the foundation of a patent. Arkwright adopted in the same way a crank invented by Hargrave. In the face of this evidence, Arkwright's claim to be the first and true inventor fell to the ground. (*Ree v. Arkwright*, Dav. P. C. 61; 1 W. P. C. 64.) Again, in the case of *Barker v. Shaw* (1 W. P. C. 126 n.), an action for the infringement of a patent for an improvement in making hats, a witness proved that he had made the improvement whilst employed in the patentee's workshop, whereupon the plaintiff was nonsuited.

In these cases it was clear that the patentee was not the first and true inventor, since the source of the invention could be traced elsewhere. Whenever this can be done (with the exceptions previously mentioned ¹) the patent is invalid. It is so, as we have seen, although the real inventor should be in the service of the patentee; and, *à fortiori*, will it be so where there is still less connection between them. In Tennant's case it was proved that, before the grant of the patent, conversations had taken place between Tennant (the patentee) and a chemist, who had suggested to Tennant the basis of the patented improvement. This piece of evidence, in addition to slight evidence of user, induced the Court to nonsuit the plaintiff. (Dav. P. C. 429.)

PUBLICATION IN PRINTED BOOKS.

It has been repeatedly held that an inventor's claim to novelty is destroyed by showing the previous publication of the invention in some printed book in use in Great Britain. *Mr. Justice Buller*, in *Ree v. Ark-*

¹ See the note on page 51.

wright (1 W. P. C. 72), said, 'It is admitted that this is not a new discovery; for Emerson's book was produced, which was printed a third time in the year 1773, and that is precisely the same as this.' 'Although' (said Tindal, C. J., in *Cornish v. Keene*, 1 W. P. C. 507) 'it is proved that the invention is a new discovery, so far as the world is concerned, yet if anybody has been able to show that although that was new—that the party who got the patent was not the man whose ingenuity first discovered it, that he had borrowed it from A or B, or taken it from a book printed in England, and which was open to all the world—then it would become an important question whether he was the first and original inventor of it.' In the course of the argument of the case of *The Househill Company v. Neilson* (1 W. P. C. 673), an appeal from the Court of Session in Scotland to the House of Lords, *Lyndhurst, L. C.*, asked, 'If the machine is published in a book, distinctly and closely described, corresponding with the description in the specification of the patent, though it has never been actually worked, is not that an answer to the patent? It is continually the practice on trials for patents to read out of printed books, without reference to anything that has been done.' And *Lord Brougham* added, 'It negatives being the true and first inventor. It must not be a foreign book, but published in England' (1 W. P. C. 718).

The law, however, has since been interpreted somewhat differently from what is laid down in this last sentence. If the foreign book containing a description of an invention has been circulated in England (*Reg. v. Steiner*, *Newton's Lond. Jour.* vol. xl. p. 71), or even if only four copies of the foreign book are sent over to a bookseller in this country and by him exposed for sale, only one being actually sold to a public library (*Lang v. Gisborne*, 31 Beav. 133), a patent

subsequently obtained by an independent inventor is invalid.

It seems from *Hourteloup's Patent* (1 W. P. C. 553) to have been thought that the deposit of a foreign work in the British Museum, which work contained the specification of a French patent for an invention, in great part the same as that for which a patent had subsequently been obtained in England, was sufficient to vitiate the latter patent on the ground of want of novelty.

However, where the book relied upon as evidence of a disclosure before the date of his patent of the patentee's invention, a skate, was an American book containing a copy of a drawing of the skate attached to the patentee's American patent, and which book had been received by a librarian of the Patent Office Library in London about thirty-seven days before the date of the English patent without being entered either in the list of donations or in the catalogue of the library, and nothing more was known of it until another librarian found it many months afterwards on a shelf in a corridor leading to the public room, which corridor was open to the public, all this was held by *Jessel, M. R.*, and afterwards by the Court of Appeal, not to prove a publication sufficient to invalidate the patent. (*Plimpton v. Spiller*, L. R. 6 Ch. D. 412.)

It may be inferred from some of the preceding cases that when the validity of a patent is contested on the ground of the invention having been previously communicated to the world by a book, it is not necessary to show that the patentee derived his knowledge of the invention from such book. And it was expressly decided in *Stead v. Williams* (2 W. P. C. 142), that if the invention has been already made public by any description contained in a work, whether written or printed, which has been publicly circulated, in such case the

patentee is not the true and first inventor within the meaning of the statute, whether he has himself borrowed his invention from such publication or not; because the public cannot be precluded from the right of using such information as they were already possessed of at the time the patent was granted.

The application of this rule must depend upon the particular circumstances of each case. The existence of a single copy of the work in a depository where it had long been kept in a state of obscurity, would afford a very different inference from the production of an encyclopædia or other work in general circulation. The question will be, whether, upon the whole evidence, there has been such a publication as to make the description a part of the public stock of information. (See also *Plimpton v. Malcolmson*, L. R. 3 Ch. D. 531; *Plimpton v. Spiller*, L. R. 6 Ch. D. 412; *Von Heyden v. Neustadt*, 50 L. J. N. S. Ch. 126; *United Telephone Co. v. Harrison*, L. R. 21 Ch. D. 721.)

PUBLICATION IN THE SPECIFICATION UNDER A PRIOR PATENT.

The law as regards the publication of the invention in the specification under a prior patent, is precisely the same as that with reference to a publication in a printed book. The invention has been deprived of its requisite attribute of novelty if it has been described in a previous specification, whether the patent has or has not expired.¹ If, prior to his obtaining a patent, any part of that which is of the substance of the invention has been communicated to the public in the shape of a

¹ The operation of this Rule is now narrowed by Art. 4 of the International Convention, and by Sect. 103 of the Patent Act, 1883. Any person who has duly registered an application for a patent in any of the States of the Union enjoys a right of priority to a British patent for a period of seven months from the date of his foreign application, although the invention may have been meanwhile published or used in this country.

specification of any other patent, he cannot claim the benefit of his patent. (*Lord Ellenborough, in Huddart v. Grimshaw, 1 W. P. C. 86.*) In *Jones v. Berger* (1 W. P. C. 550) it had been alleged that the principle of the invention was not new, having been the subject of former patents, and contained in published books; whereupon *Maule, J.*, remarked, 'I think it is an objection to a patent, and not evidence simply of an objection, that there has been a previous patent and specification enrolled containing the invention.'

In the case of *Maonamara v. Hulso* (2 W. P. C. 128), an action for the infringement of a patent for a method of paving streets with blocks in the form of two solid rhombs placed one in front of the other, in opposite directions, so that each side of a block was bevelled both inwards and outwards; it was proved that the defendant used blocks, each consisting of a single solid rhomb, and then fastened two together by pins, so that two of the defendant's blocks thus fastened exactly resembled one of the plaintiff's blocks. This was the infringement complained of. The defendant, at the trial, put in the specification of an expired patent, obtained by one M'Arthy, for a pavement in which each block had two bevels inwards and two outwards on the same side. If M'Arthy's block were cut into two, it would make two blocks similar to the plaintiff's; if cut into four, it would make four blocks similar to the defendant's. Both judge and jury thought that, under the circumstances, the plaintiff's invention was destitute of novelty. The plaintiff asserted that the defendant had infringed his patent by cutting his block into two. The defendant showed that the plaintiff, in forming his block, had only cut M'Arthy's block into two. The plaintiff, in support of his own patent, was bound to contend that M'Arthy's invention and his

own were distinct; but then if he established that, it followed that his own and the defendant's were likewise distinct, in which case there was no infringement.

But if the prior inventor has not shown how the invention is to be practically carried out, and an independent inventor does this and fully explains the mode in which the result is obtainable, his patent will be held good. It will be considered that he has been the first to carry the invention to a useful result, although his patent was granted after another one by which a similar object was sought to be effected. In the case of *Betts v. Menzies* (10 H. L. C. 117) it was held that a general description in a prior specification or in a published book, even if suggesting information or involving some speculative theory pertinent to the invention in question, is not to be considered as anticipating, and therefore avoiding for want of novelty, a subsequent patent involving a practical invention productive of beneficial results, unless it is ascertained that the antecedent publication involves the same amount of practical and useful information. Betts's patent was for the production of a material capable of application to many useful purposes by combining thin sheets of lead and tin by means of pressure. It appeared that as far back as 1804 one Dobbs had patented a process for making a new material by combining lead and tin by pressure, but he did not with any precision define the relative thicknesses of the sheets of metal nor the degree of pressure to be applied, whereas Mr. Betts entered minutely into those points. Moreover, it was not shown that the earlier process had ever been carried into practice. Under these circumstances the House of Lords held that Betts's invention had not been anticipated. See also the observations of *Wood, V. C.*, in the subsequent case of *Betts v. De Vitre* (11 L. T. N. S.

445), in which the validity of the same patent was in question.

The antecedent description of an invention which will have the effect of depriving a subsequently patented invention of the attribute of novelty, must (according to *Westbury, L. O.*, in *Hills v. Evans*, 4 De G. F. & J. 288) 'be such that a person of ordinary knowledge of the subject would at once perceive, understand, and be able practically to apply the discovery, without the necessity of making further experiments and gaining further information, before the invention can be made useful. If something remains to be ascertained which is necessary for the useful application of the discovery, that affords sufficient room for another valid patent. . . . The information as to the alleged invention given by the prior publication must, for the purposes of practical utility, be equal to that given by the subsequent patent. The invention must be shown to have been before made known. Whatever, therefore, is essential to the invention must be read out of the prior publication. If specific details are necessary for the practical working and real utility of the alleged invention, they must be found substantially in the prior publication. Apparent generality, or a proposition not true to its full extent, will not prejudice a subsequent statement which is limited and accurate, and gives a specific rule of practical application. . . . Upon principle, therefore, I conclude that the prior knowledge of an invention to avoid a patent must be a knowledge equal to that required to be given by a patent, viz. such a knowledge as will enable the public to perceive the very discovery, and to carry the invention into practical use.'

According to *Brett, L. J.*, in *Otto v. Linford* (Court

of Appeal, 46 L. T. N. S. 35), the question to be considered is whether the prior specification, fairly read by a person conversant with such matters, would give a reasonably clear description of the later invention—that is, supposing it to relate to a machine, whether it would give a reasonably clear description of a machine that would effect what the machine of the later inventor effects. (See also *Von Heyden v. Neustadt*, 50 L. J. N. S. 126.)

‘Even if there is identity of language in two specifications’ (said *Lord Westbury*, in *Betts v. Menzies*, 10 H. L. C. 152), ‘and (remembering that those specifications describe external objects) even if the language is *verbatim* the same, yet if there are terms of art found in the one specification, and also terms of art found in the other specification, it is impossible to predicate of the two with certainty that they describe the same identical external object, unless you ascertain that the terms of art used in the one have precisely the same signification, and denote the same external objects at the date of the one specification as they do at the date of the other.’

Where a provisional specification contained an incomplete description of a piece of mechanism which was omitted from the complete specification, and another patent was afterwards obtained for similar mechanism, the passage in the preceding patent was held not to be a prior publication of the subsequent invention so as to vitiate the second patent, because the description was not sufficient to enable a workman to make the object. (*Stoner v. Todd*, L. R. 4 Ch. D. 58.)

By the thirty-fifth section of the Patent Act of 1883 it is enacted 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.

A patent is not rendered invalid by the fact that the invention includes the subject-matter of a patent previously obtained, and not yet expired, if the later patentee takes care to distinguish his invention from that described in the prior patent, and claims only what belongs to him (*Orane v. Price*, 1 W. P. C. 413; *Lister v. Leather*, 8 E. & B. 1004). Of course, the second patentee must obtain the first patentee's licence before working his own patent, or he will lay himself open to an action for an infringement as long as the earlier patent remains in force (*Cannington v. Nuttall* L. R. 5 H. L. 20); and, of course, there must be some amount of new invention in addition to the previous invention, otherwise there is nothing to afford a foundation for a patent.

The existence of a patent for a certain application of a given thing (which thing is not new) will not vitiate a subsequent patent for another application of the same thing, provided that the two applications are perfectly distinct, and that the second application is not in any way comprised in the specification under the first patent. One Vaucher took out a patent for an improvement in packing hydraulic and other machines by means of a lining of soft metal, whereby certain parts of the machines were rendered air-tight and water-tight. It was subsequently discovered by one Newton, that the same material, soft metal, could be usefully employed in diminishing the friction of machinery in rapid motion, and in preventing the generation of heat, by applying it to the surfaces in contact. It was held, in an action for an infringement of Vaucher's patent, that the two applications of soft metal were essentially different, and Newton's invention was not

wanting in novelty. (*Newton v. Vaucher*, 6 Exch. Rep. 859.)

Under a patent for the purification of gas, Mr. Croll claimed the use of oxides of iron, which expression was held to mean both hydrated and anhydrous oxides of iron. Hills afterwards obtained a patent for the use of anhydrous oxide of iron for the same purpose; but it was said, in an action which he brought for the infringement of his patent, that he had been anticipated by Croll. On his part it was argued that as it was a fact that some oxides would answer the object in view, and some would not, it became a subject for investigation and experiment to ascertain what oxides it would be proper to employ, and that when he had made the discovery he was entitled to a patent in respect of it. The Court of Exchequer held that this discovery might properly be the subject of a patent. (*Hills v. London Gas Light Company*, 5 H. and N. 312.)

Having discussed the effect on a patent of prior publication of the invention in printed books or specifications, it is now time to ascertain the meaning of the technical phrase

PUBLIC USER.

One of the first cases which the books contain was decided in 1798. Tennant brought an action for an infringement of a patent which he had obtained for a method of using calcareous earths instead of alkaline substances in bleaching. It was proved, on the one hand, that bleachers were generally ignorant of the patented bleaching liquor until after the date of the patent. On the other hand, it was proved that a certain bleacher had used the same method of preparing bleaching liquor for five or six years previously to the date of the patent; and that the method had been kept secret from all except his two partners, and two servants

employed in preparing the liquor. On this evidence the plaintiff was nonsuited, the previous user being held to render the patent invalid (Dav. P. C. 420 ; 1 W. P. C. 125).

The evidence given in *Lewis v. Marling*, to impugn the patentee's claim of novelty, was that several years previously a similar machine was in use at New York, and that a specification had been sent over in 1811 to a person residing at Leeds, who employed two engineers to manufacture a machine from it, which, however, was never finished. The specification was shown to several persons, but the machine was never brought into use. In 1816 a model of a machine for shearing from list to list, by means of a rotatory cutter, was brought over from America, and shown to two or three persons in the manufactory of the importer ; but no machine was ever made from it, nor was it publicly known to exist. Moreover, one Coxon, many years previously, had made a machine to shear from list to list, and this was tried by a person called as a witness ; but he did not think it answered, and soon discontinued the use of it. *Lord Tenterden* told the jury that if it could be shown that the patentee had seen the model or specification, that might rebut the claim of invention ; but there was no evidence of that kind ; and he left it to them to say whether the invention had been in public use and operation before the granting of the patent. They found that it had not ; and on the motion for a new trial, the judges thought there was no reason to find fault with the verdict.

Losh's patent was for improvements in the wheels of railway carriages, and these improvements consisted in constructing the pieces composing the entire wheel of malleable iron, and then welding them together. It was contended by the defendant in the case of *Losh v. Hague* (1 W. P. C. 202) that the invention was not

now, inasmuch as one Paton had, previously to the date of Losh's patent, and under a patent of his own, specified a mode of constructing wheels of wrought iron, which differed little, if at all, from those patented by Losh; moreover, that although the first wheel made under Paton's patent was riveted, all Paton's other wheels, thirty pairs in number, were made with the circumference of the inner rim entirely of wrought iron, and then welded into one piece. 'The question you have to try,' said *Lord Abinger* to the jury, 'on the originality of Losh's invention, is not whether Paton's patent contains that perfect periphery that is required in this case, but whether wheels have been publicly made on this principle.' (The jury by their verdict found that wheels had been previously made on the same principle as Losh's wheels.) 'If,' continued his lordship, 'the wheels had been made and sold to any one individual, the public's not wanting them because there were no railways, their not being adapted to any particular use, which at that time was open to the public to apply them to, makes no difference. You have it in evidence that thirty pairs were made with a complete continuous circumference all round. If they were so made and sold, or used at all, though not for any purpose that then made them popular or desirable, still they were made with that particular advantage which is claimed by Losh's patent, namely, a periphery made of one continuous piece of wrought iron, as well as the spokes. But that is not all the evidence; there are two parties from Manchester. One Horsefall says that he remembers, nearly twenty-eight years ago, that there were three trucks, having each three wheels, and those wheels were made of wrought iron spokes in a wrought iron circumference, and there is one exhibited before you which was actually in use at that time; the other, Roberts, confirms that, and has stated

that they existed for many years, and that they have been used.'

In charging the jury assembled to try the action of *Cornish v. Keene* (1 W. P. C. 508), *Tindal, C. J.*, said that 'if the invention was at the time the letters patent were granted in any degree of general use; if it was known at all to the world publicly, and practised openly, so that any other person might have the means of acquiring the knowledge of it as well as the person who obtained the patent, then the letters patent are void. Now it will be a question for you to say whether, upon the evidence which you have heard, you are satisfied that the invention was or was not in public use and operation at the time the letters patent were granted. It is obvious that there are certain limits to that question; the bringing it within that precise description which I have just given, must depend upon the particular facts which are brought before a jury. A man may make experiments in his own closet for the purpose of improving any art or manufacture in public use; if he makes these experiments, and never communicates them to the world, and lays them by as forgotten things, another person who has made the same experiments, or has gone a little further, or is satisfied with the experiments, may take out a patent and protect himself in the sole making of the article for fourteen years; and it will be no answer to him to say that another person before him made the same experiments, and therefore that he was not the first discoverer of it, because there may be many discoverers starting at the same time, many rivals that may be running on the same road at the same time, and the first that comes to the Crown and takes out a patent, it not being generally known to the public, is the man who has the right to clothe himself with the authority of the patent and enjoy its benefits. That would be an extreme case on

one side ; but if the evidence, when properly considered, classes itself under the description of experiment only, and unsuccessful experiment, that would be no answer to the validity of the patent. On the other hand, the use of an article may be so general as to be almost universal. In a case like that you can hardly suppose that any one would incur the expense and trouble of taking out a patent. That would be a case where all mankind would say, " You have no right to step in and take that which is in almost universal use, for that is, in fact, to create a monopoly to yourself in this article without either giving the benefit to the world of the new discovery, or the personal right to the value of the patent, to which you would be entitled from your ingenuity and from your application." Therefore it must be between these two limits that cases will range themselves in evidence ; and it must be for a jury to say whether, supposing those points to be out of the question in any particular case, the evidence which has been brought before them convinces them that the subject of the patent was in public use and operation at that time, at the time when the patent itself was granted by the Crown. If it was in public use and operation, then the patent is a void patent, and amounts to a monopoly ; if it was not, the patent stands good.'

The case of *Carpenter v. Smith* (1 W. P. C. 530) arose out of an alleged infringement of a patent for an improved lock. ' I think,' said *Lord Abinger* to the jury, ' that what is meant by " public use and exercise " is this : a man is entitled to a patent for a new invention, and if his invention is new and useful, he shall not be prejudiced by any other man having invented that before, and not made any use of it ; because the mere speculations of ingenious men, which may be fruitful of a great variety of inventions, if they are not

brought into actual use, ought not to stand in the way of other men equally ingenious, who may afterwards make the same inventions and apply them. A great many patents have been taken out, for example, upon suggestions made in a celebrated work by the Marquis of Worcester, and many patents have been derived from hints and speculations by that ingenious author. But yet, as he never acted upon them, as he never brought out any machines whatsoever, those patents are good. So that the meaning of these words, "public use," is this: that a man shall not, by his own private invention, which he keeps locked up in his own breast, or in his own desk, and never communicates it, take away the right which another man has to a patent for the same invention. Now "public use" means this: that the use of it shall not be secret, but public. If a man invents a thing for his own use, whether he sells it or not,—if he invents a lock, and puts it on his own gate, and has used it for a dozen years, that is a public use of it. If it were otherwise, see what the consequence would be. If Mr. Davies has a lock which he directed to be made and put on his gate sixteen years ago at least; if that was not a public use which prevented a man from taking out a patent, any man might go and take a model of that lock, and get a patent for it. How can he be the inventor of it? Because, to obtain a patent, a man must be the inventor; and if it has been once in public use, that is, used in a public manner, not used by the public, yet if it has been used by half a dozen individuals, or one,¹ in a public manner, any man having

¹ 'If a person' (asked *Dallas, J., Hill v. Thompson*, 1 W. P. C. 240) 'had done precisely all that is specified to be done in this specification, and had not communicated it to any one, could he be prohibited by the patent from doing that which he had done before, though known to no one but himself; or could it be considered as new, if practised by only one person, but not communicated to the world?' And *Tindal, C. J., in Cornish v. Keene* (1 W. P. C. 511),

access to it, how can he be said to be the inventor, if by merely gaining access to that he takes out a patent? A man cannot be said to be the inventor of that which has been exposed to public view, and which he might have had access to if he had thought fit.' The same judge subsequently said, in the same case, 'If you are of opinion (not that they were generally adopted by the public and used by the public, for that, in my opinion, is a perfect fallacy) that the use of them is public, and the exercise of the invention was public, and not kept secret so that the public might have no benefit from it, then I think that part of the issue you ought to find for the defendant.' The learned judge summed up the evidence as to a public user in this way:—Twenty-six years ago Freer produced to Tilsley a model of a lock, and desired him to make six dozen like it, and afterwards a dozen and a half. Tilsley employed Walker to execute the order, and gave him the model. The locks were made, and Freer paid for them. 'Here you have an article manufactured by an English manufacturer, and sold; and in my opinion, if it was sold even for the assumed purpose of being sent to America, I cannot but think that that would be a destruction of the novelty of the plaintiff's invention. When a model is sent to a workman, who sells seven and a half dozen, and sells them for a certain price, I must say I think the invention was used and publicly exercised. There is no secrecy in the manufacture of them; it is not shut up in the closet of the workman who makes them, but the man who makes them gives directions to another workman; he sells them for his own profit.'

observed that 'if the defendants had shown that they practised it (*i.e.* the patented invention), and produced the same result in their factory before the time the patent was obtained, they cannot be prevented by the subsequent patent from going on with that which they have done.'

These observations of *Lord Abinger* were made at the trial of an action which terminated in favour of the defendant. On the motion for a new trial, on the ground of misdirection, the judges of the Court of Exchequer expressed themselves satisfied with his lordship's view of the law and refused a rule, *Alderson, B.*, saying that 'public use means a use in public, so as to come to the knowledge of others than the inventor, as contradistinguished from the use of it by himself in his chamber.'

At the trial of *Hancock v. Somervell* (Newton's L. J. vol. xxxix. p. 158), *Mr. Justice Williams* told the jury, that in order to rebut the patentee's claim of novelty, it was not necessary that the alleged invention should have been used by the public; it was sufficient if it were shown to have been in use in public, in contradistinction to secret use.

The point as to public use was again raised in an action for infringing a patent for paving streets with wooden blocks. It was shown that, some time before the date of the patent, the carriage way of the porch of Sir W. Worsley's dwelling-house in Yorkshire had been laid with blocks of wood, on a system apparently similar to the plaintiff's. *Cresswell, J.*, told the jury, that if they thought the plaintiff's method of constructing the wooden pavement was the same as that adopted at Sir W. Worsley's, the invention must be deemed to have been made public. It had been publicly used, and made known to all persons who went to the house, so far as ocular inspection could acquaint them with it. Whether it had been used by one or used by five, the learned judge thought made no difference. (*Stead v. Williams*, 2 W. P. C. 136.)

In another action for infringing the same patent brought against another defendant, it was proved that the pavement at Sir W. Worsley's was on a different

principle from the plaintiff's. *Purke, B.*, told the jury that if the mode of forming and laying the blocks at Sir W. Worsley's had been precisely similar to the plaintiff's, that would have been a sufficient user to destroy the plaintiff's patent, though put in practice in a spot to which the public had not free access. (*Stead v. Anderson*, 2 W. P. C. 149.)

A patent for an improved anchor was granted in 1838 to one Porter. On the trial of an action, brought by Porter's assignee, for an infringement, it was shown that in 1826 an anchor-smith had invented an anchor similar to Porter's, and had sold a few of that make to various shipowners for use in their ships. This was held such a public user as sufficed to invalidate the patent. (*Honiball v. Bloomer*, 2 W. P. C. 199.)

Hancock v. Somervell (reported in Newton's L. J., vol. xxxix. p. 158) is a case in which peculiar circumstances tending to show public user were adduced in evidence for the purpose of rebutting the claim to novelty, and it raised the interesting question whether publication in this country of an *article* made abroad, there having been no disclosure of the secret of making it, is equivalent to a publication of the *invention*, so as to render void a patent afterwards obtained in this country by another inventor for a similar invention. Hancock's patent was for improvements in the preparation of caoutchouc, and the invention consisted in combining sulphur with the caoutchouc, which rendered it elastic at all temperatures. The defendants imported from America shoes made of caoutchouc, which, when analysed, were found to contain sulphur along with oxide of lead and other ingredients. In an action for an infringement of the patent it was proved that previously to the date of the plaintiff's patent specimens of caoutchouc prepared by sulphur were sent to England by Goodyear, of New York, and were shown to Hancock,

but the secret of the manufacture was not communicated to him. Negotiations were commenced for the sale of the invention to Hancock, but never completed. It was stated in evidence that Goodyear's agent left specimens with Hancock, supposing that it would not be possible for him to discover the process by which it was prepared. However, Hancock made experiments, and discovered that sulphur endowed caoutchouc with the property of elasticity at all temperatures, and he then took out his patent. *Mr. Justice Williams* left it to the jury to say whether, supposing the shoes to have been manufactured in England, they could have been made without infringing the plaintiff's patent; and then he proceeded to make these remarks upon the novelty issues:—'The defendants do not deny that Hancock is to be considered the inventor, notwithstanding Goodyear had previously made the discovery, provided the invention had not been published or in use in this country before the date of the patent. The defence consists of this: not only had Goodyear discovered the invention first, but also that the invention had been substantially published, and was in use—not in secret use, but in public use before the date of the patent; that the material being in public use, the ready means of the invention were also necessarily before the public; because it is said the article presented in itself such means of knowledge to the public as to enable any one of ordinary competence to reproduce the article. If you should be of opinion that the material was in use before the date of the patent, then the question resolves itself into this: what is your opinion as to whether the publication of the material was substantially a publication of the invention? If you should find that the material was in public use, but that, notwithstanding, the invention remained still a matter to be discovered, in my opinion the plaintiff's case would not be affected

by the circumstance of the material being in public use. If, on the other hand, you should think not only that the material was in public use (and I should here say that I do not think it is necessary the use should be actual sale—if it were in public use it need not be sold; it would be sufficient, for instance, if it were in use, handing about the country for the purpose of attracting customers); if you should think, also, that the material being so in use, it was so palpable how you could make it, when you got the material, that substantially the disclosure of the material was a disclosure of the means of making it; if you do not think that, then I think the plaintiff's case is unaffected by the circumstance of the material being before the public in the way I have been describing.' The jury found a verdict for the plaintiff, and thus the foreign inventor lost the benefit of a very valuable invention by not taking the precaution to obtain a patent in this country before opening negotiations for the sale of the manufactured article.

On the trial of *Muntz v. Foster* (2 W. P. C. 103-108), *Tindal, C. J.*, said to the jury, 'I look upon the invention to consist in this, that Muntz has by an experiment ascertained that a certain mixture of the alloy of zinc with copper will have the effect of producing a better sheathing (for the bottom of ships) by reason and by means of its oxidating just in sufficient quantities—that is, not too much, so as to wear away and impair the sheathing and render the vessel unsafe, but enough, at the same time, to keep by its wearing the bottom of the vessel clean from those impurities which before attached to it. And if it was shown, as possibly it might be, that sheets had been made of metal before, in the same proportion which he had pointed out, and if this hidden virtue or quality had not been discovered or ascertained, and consequently the application never made, I cannot think the patent will fail on that

ground. . . . In my judgment it will not go far enough [to show that sheets of this particular alloy had been previously made], unless they can show there has been some application of them before to this very useful purpose. . . . I do not think that the circumstance of showing that the combination of these two materials in a metal plate will of itself destroy this patent, when no attention at the time was paid to the purpose for which this patent was taken out, and it was made merely in the ordinary course of melters of metals for the various and ordinary purposes of life. I do not think that the circumstances of showing, that in the long time that has passed before us in the different, and I may say infinitely varying, combinations that must have been made for the various purposes for which brass and other metal was manufactured for ordinary and common purposes of life—to call a workman to show that on some occasion or occasions he had combined them in those proportions for another and different purpose; it does not appear to me that such destroys the patent.'

The question of public user arose in the case of *Heath v. Smith* (2 W. P. C. 268). An action for the infringement of a patent under which the invention claimed was an improved method of making cast steel, by fusing carburet of manganese along with common iron or steel. It was proved at the trial that five manufacturers of steel had used substantially the process patented by the plaintiff before the date of his patent, not by way of experiment, but in the way of their trade, and to the extent of hundreds of tons. Two of the manufacturers had kept the process a secret. The other three had openly practised it; but it had not become generally known, and the trade was not made acquainted with it until the plaintiff took out his patent. It was held, after argument, by the Court of

Queen's Bench, that there had been a public use of the process, and that the patent was, therefore, invalid. One of the judges pointed out this consequence of an opposite decision, that a man who made a discovery would be obliged to take out a patent for it in order to free himself from liability to action in the event of another man making the same discovery and procuring a patent. The process adopted by the five manufacturers was to place iron, manganese, and carbon in a crucible. The application of heat, according to the scientific witnesses, made first a carburet of manganese, and then made that substance unite with the iron. Now the Court of Exchequer Chamber had previously held that this process was an infringement of the patent, the specification of which claimed 'the use of carburet of manganese in any process for the conversion of iron into cast steel;' for although the plaintiff only mentioned carburet as a well-known substance which he put into the crucible, his patent was held to cover every mode of operating whereby carburet of manganese, however formed, was made to act upon iron. The result by the two processes was identical. The process used by Smith, the defendant in this action, was similar to that of the five manufacturers. If it was the same as the plaintiff's, he had a good defence; for the process was not new, and the plaintiff's patent was invalid: if it was not the same as the plaintiff's, then there was no infringement.

Where the defendants at the trial of an action for the infringement of a patent for a method of manufacturing penholders, proved that they had made penholders according to the method which the plaintiff afterwards patented, and that such penholders had been placed in their warehouse for sale, though no sale was proved, *Jervis, C. J.*, the presiding judge, held that the plaintiff's invention was destitute of novelty. (*Mullins v. Hart*, 3 Car. & K. 297.)

It may here be stated that when previous public user of the invention is relied upon as ground of the invalidity of a patent, it is not necessary to show that such user continued up to the time of the patent being granted. Even if discontinued, the patent will be invalidated. (*The Househill Co. v. Neilson*, 1 W. P. C. 709, in the *House of Lords*.) Their lordships, however, in delivering judgment in this case, expressly left it an open question whether a patent for an invention would or would not stand, if a similar invention had formerly been in use but had ceased to be used long before the date of the patent, and the thing had been completely lost sight of until discovered again and patented.

The point whether prior *secret* user is sufficient to vitiate a patent has never been judicially decided; but we have a dictum of Mr. Justice Erle, uttered in the above case of *Heath v. Smith*: 'If one party only,' said that learned judge, 'had used the process, and had brought out the article for profit, and kept the method entirely secret, I am not prepared to say that then the patent would have been valid.'

PRIOR USER BY INVENTOR.

We now come to a series of cases which declare the law with regard to a user of the patented invention before the date of the patent—not by other persons than the patentee, but by the patentee himself. If such a user by the patentee be tantamount to a publication of the invention, then the patent is just as invalid as if the invention had been publicly exercised by others. What, then, is the kind of user which will have this fatal effect upon the patent privilege?

An inventor does not lose his right to a patent by keeping his invention to himself after its completion, provided there is no profitable user of it (*Bentley v.*

Flomig, 1 C. & K. 587). But it may be remarked that, although not destructive of his right, delay is here especially dangerous, and the fact might, under certain circumstances, be used as a strong argument against a patentee.

In *Bramah v. Hardcastle* (Holroyd, 81), which was an action for infringing a patent for a water-closet, it appeared that the patentee had made two or three of these machines before he obtained his patent; but it was admitted that this fact would not of itself invalidate the patent.

If, however, the article has been manufactured for sale, and offered for sale, although not sold, this will be such a user of the invention as will render a subsequently obtained patent bad. (*Oxley v. Holden*, 8 C. B. N. S. 666.)

But where delay occurs in the issue of a patent without the patentee's fault, the manufacture by the patentee of articles before the date of the patent for the purpose of being sold after the date, will not render the patent invalid. (*Betts v. Menzies*, 4 Jur. N. S. 477.)

In *Wood v. Zimmer* (Holt, N. P. C. 57) it appeared in evidence that a great quantity of verdigris made according to the patented process had been sold by the inventor in the course of four months before the patent was obtained, and *Gibbs, C. J.*, held that 'the public sale of that which is afterwards made the subject of a patent, though sold by the inventor only, makes the patent void.'

In *Morgan v. Seward* (1 W. P. C. 194), an action which arose out of Galloway's patent for an improved method of constructing paddle-wheels, it was given in evidence that before the date of the patent, Curtis, an English engineer, made for Morgan, the managing director of the Venice and Trieste Company, two pairs of wheels, upon the principle mentioned in the specifi-

cation. Galloway, the patentee, gave instructions to Curtis under an injunction of secrecy, because he was about to take out a patent. The wheels were completed and put together at Curtis's factory, but not shown or exposed to the view of those who might happen to come there. After remaining a short time, the wheels were taken to pieces, packed up in cases, and sent to Venice in April 1829. Curtis deposed that they were sold to the company, without saying by whom, and Morgan paid Curtis for them. Galloway obtained a patent on July 22, 1829, and it was assigned by him to Morgan. Upon these facts it was contended that the invention, at the date of the letters patent, was not new, in the legal sense of that word. *Parke, B.*, delivered the judgment of the Court of Exchequer, before whom the point was argued, in these words:—"The word "manufacture" in the statute must be construed in one of two ways: it may mean the machine when completed, or the mode of constructing the machine. If it mean the former, undoubtedly there has been no use of the machine, as a machine, in England, either by the patentee himself or any other person; nor, indeed, any use of the machine in a foreign country before the date of the patent. If the term "manufacture" be construed to mean "the mode of constructing the machine," there has been no use or exercise of it in England, in any sense which can be called "public." The wheels were constructed under the direction of the inventor, by an engineer and his servants, with an injunction of secrecy, on the express ground that the inventor was about to take out a patent, and that injunction was observed; and this makes the case, so far, the same as if they had been constructed by the inventor's own hands, in his own private workshop, and no third person had seen them whilst in progress. The operation, indeed, was disclosed to the plaintiff

Morgan; but there is sufficient evidence that Morgan at that time was connected with the inventor, and designing to take a share in the patent. A disclosure of the nature of the invention to such a person under such circumstances must surely be considered private and confidential. The only remaining circumstance is, that Morgan paid for the machines, with the privity of Galloway, on behalf of the steam company; but there was no proof that he paid more than the price of the machines, as for ordinary work of that description; and the jury would also be well warranted in finding that he did so with the intention that the machine should be used abroad only by this company, which, as it carried on its transactions in a foreign country, may be considered as a foreign company; and the question is, whether this solitary transaction, without any gain being proved to be derived thereby to the patentee or to the plaintiff, be a use or exercise in England of the mode of construction in any sense which can be deemed a use by others, or a public use, within the meaning of the statute and the patent. We think not. It must be admitted that if the patentee himself had, before his patent, constructed machines for sale, as an article of commerce, for gain to himself, and been in the practice of selling them publicly—that is, to any one of the public who would buy—the invention would not be new at the date of the patent. This was laid down in the case of *Wood v. Zimmer*, and appears to be founded on reason; for if the inventor could sell his invention, keeping the secret to himself, and when it was likely to be discovered by another, take out a patent, he might have practically a monopoly for a much longer period than fourteen years. Nor are we prepared to say that if such a sale was of articles that were only fit for a foreign market, or to be used abroad, it would make any difference; not that a single instance of such a sale,

as an article of commerce, to any one who chose to buy, might not be deemed the commencement of such a practice, and the public use of the invention, so as to defeat the patent. But we do not think that the patent is defeated on the ground of the want of novelty, and the previous public use or exercise of it, by a single instance of a transaction such as this, between the parties connected as Galloway and the plaintiff are, which is not like the case of a sale to any individual of the public who might wish to buy; in which it does not appear that the patentee has sold the article, or is to derive any profit from the construction of his machine, nor that Morgan himself is; and in which the pecuniary payment may be referred merely to an ordinary compensation for the labour and skill of the engineer actually employed in constructing the machine; and the transaction might, upon the evidence, be no more in effect than that Galloway's own servants had made the wheels; that Morgan had paid them for the labour, and afterwards sent the wheels to be used by his own co-partners abroad. To hold this to be what is usually called a publication of the invention in England, would be to defeat a patent by much slighter circumstances than have yet been permitted to have that effect.'

Adamson invented certain machinery whilst engaged in the execution of a contract for the erection of a pier. This machinery he used on the works for four months before he applied for a patent. It was held that there had been public user, inasmuch as he had derived a profit from the employment of the invention after its utility had been ascertained, and during all that time the public had free access to it, so that he was not entitled to a patent. (*Re Adamson's Patent*, 6 De G. M. & G. 420.)

It is clear from the preceding cases that an inventor, who intends to patent his invention, should be extremely

cautions how he deals with it before he applies for a patent. We may add that, although there may have been neither public user of the invention nor publication of it in a printed book or in a specification, yet if the facts justify the inference that a portion of the public had acquired a knowledge of the secret, a patent subsequently granted will be invalid. Thus one of three referees appointed under an Act of Parliament to inspect the works of gas companies in London, having made a discovery as to a process for purifying gas, whilst engaged in the performance of his duties as referee, took out a patent for it after the three referees had drawn up a report, in which the principle of the process was indicated, though before the report was submitted to the Board of Trade. It was held by the House of Lords (*Patterson v. The Gas Light and Coke Company*, L. R. 3 App. Ca. 239) that the contents of the report had become public property, and that the patent was invalid.

An inventor may, it seems, safely deposit a machine of his invention, for a reasonable time, in a room open to the public, for the purpose of having its properties tested. (*Bentley v. Fleming*, 1 C. & K. 587.)

Previously to the passing of the Patent Law Amendment Act, 1852, when separate patents for the three kingdoms of England, Scotland, and Ireland were issued to inventors, it was decided by the House of Lords, in the case of *Brown v. Annandale* (1 W. P. C. 433), affirming the decision of *Roebuck v. Stirling* (1 W. P. C. 45), that the public use of an invention in England, prior to the date of letters patent in Scotland, rendered such letters patent void, although the invention was new as regards Scotland.

It was decided, however, by *V. C. Bacon* in the case of *Rolls v. Isaacs* (L. R. 19 Ch. D. 268) that the prior user of an invention in a colony does not affect the

validity of a patent subsequently obtained for the same invention in the United Kingdom.

EXPERIMENTS.

It is well-settled law, that when the disclosure of the secret took place only during the course of experiments made with the view of testing or improving the invention (such disclosure being unavoidable and not more than was necessary for the purpose), this will not take away the inventor's right to a patent. Nor will the previous experiments of other persons have that effect, if such experiments did not result in the realisation of the discovery. Few patents, indeed, could be sustained if previous experiments, approaching the patented invention, were held to vitiate them. In almost every case experiments of some kind or other have been made in the same track, and many beneficial inventions have been but a step beyond what has before been reached by experiments which seemed fruitless, and were abandoned.

In *Galloway v. Bleadon* (1 W. P. C. 525), *Tindal, C. J.*, said, 'A mere experiment, or a mere course of experiments, for the purpose of producing a result which is not brought to its completion, but begins and ends in uncertain experiments, that is not such an invention as should prevent another person, who is more successful, or pursues with greater industry the chain in the line which has been laid out for him by the preceding inventor, from availing himself of it and having the benefit of it.' His lordship, with reference to the case before him, afterwards remarked, 'That there had been many experiments made upon the same line, and almost tending, if not entirely, to the same result, is clear from the testimony you have heard; and that these were experiments known to various persons. But if they rested on experiment only, and

had not attained the object for which the patent was taken out, mere experiment, afterwards supposed by the parties to be fruitless, and abandoned because they had not brought it to a complete result, that will not prevent a more successful competitor who may avail himself, so far as his predecessors have gone, of their discoveries, and add the last link of improvement in bringing it to perfection.' See also the observations of the same learned judge in *Cornish v. Keene* (1 W. P. C. 508).

In *Jones v. Pearce* (1 W. P. C. 124), an action brought for an infringement of a patent for an improved construction of carriage-wheels, it was contended, on behalf of the defendants, that the invention was not new, wheels similar in principle to those for which the patent had been obtained having been invented several years previously by a Mr. Strutt, made under his orders, and used in a cart employed on the public roads for upwards of a year.. These wheels were afterwards laid by, the spokes having occasionally got bent. *Patteson, J.*, told the jury that if Strutt's wheel was, in substance, the same wheel as the patentee's, and if it had been 'used openly in public, so that everybody might see it, and had continued to use the same thing up to the time of taking out the patent,'¹ undoubtedly, then, that would be a ground to say that the plaintiff's invention is not new. But if, on the other hand, you are of opinion that Mr. Strutt's was an experiment, and that he found it did not answer, and ceased to use it altogether, and abandoned it as useless, and nobody else followed it up, and that the plaintiff's invention, which came afterwards, was his own invention, and remedied the defects of Mr. Strutt's

¹ This part of the learned judge's charge cannot be considered law since the decision of the House of Lords in *The Househill Co. v. Neilson* (*ante*, p. 83). And see the remarks of *Sir W. P. Wood, V. C.*, on *Jones v. Pearce*, in *Tangye v. Stott* (14 W. R. 128).

wheel, then there is no reason for saying that the plaintiff's patent is not good.'

Before applying for a Patent the inventor of a machine entrusted it to a person for the purpose of trying experiments, and it was held that he had not thereby made it public. (*Bentley v. Fleming*, 1 Car. & K. 578.)

The question whether the evidence amounts to proof of public use, or whether it only proves that abandoned experiments had been made, is frequently of considerable delicacy; since, as it has been remarked from the Bench, a slight alteration in the effect of the evidence will establish either the one proposition or the other, and the only proper mode of deciding it is by leaving it to the jury. (*Cornish v. Keene*, 1 W. P. C. 519.)

On the trial of an action for infringing a patent for improvements in cards for carding fibrous substances, which improvements consisted in using caoutchouc as a substitute for leather as an elastic bed in which the teeth were fixed, it was given in evidence, in support of a plea denying the novelty of the invention, that a certain material, called Hancock's patent leather, had been made and sold previously to the patent; and it was suggested, rather than proved, that this material was substantially the same thing as the elastic bed in which the carding teeth were fixed. It appeared that the patent leather had been supplied to certain manufacturing firms, during the space of about a year and a half, several years before the date of the patent, and that it had been used in the construction of cards, but had not been employed for that purpose since that time. 'Supposing,' said *Cresswell, J.*, to the jury 'that the article (Hancock's patent leather) did embody the principle of the plaintiff, so as to present to persons using it the properties, qualities, and advan-

tags in principle of that article which the plaintiff makes, the question for you will be, whether that user is not to be considered rather in the nature of an experiment, than of any public use of the article, so as to deprive the plaintiff of the fruit of his discovery in respect of this manufacture.' (*Walton v. Bateman*, 1 W. P. C. 619.)

At the trial of *Stead v. Williams* (2 W. P. C. 135), *Cresswell, J.*, said to the jury, 'I take it that there is a great difference between the knowledge of an invention as a thing that would answer and was in use, and the knowledge of it as a mere experiment that had been found to be a failure, and thrown aside. If a person has had a scheme in his head and has carried it out, but after a trial has thrown it aside, and the thing is forgotten and gone by, then another person re-introducing it may, within the meaning of the Act, be the inventor and the first user of it, so as to justify a patent.'

In the case of *Tangye v. Stott* (W. N. 1866, p. 68), it appeared that the plaintiff was the assignee of a patent obtained for improvements in pulley blocks, and that previous to the patent there had been described in a book a pulley similar in principle to that patented, from which a description one Moore had made a pulley. This he had tried a few times and then laid aside. The defendant had also made a pulley from the description in the book. It was held, however, that although the principle had been made known, the facts above mentioned were of the nature of experiments, and that as the patentee was the first to carry the invention fully into effect his patent was good.

Where a series of experiments performed in the presence of others is not only successful, but is actually of pecuniary benefit to the inventor, it will not necessarily be held that he has given the invention to the

world. That the coincidence of actual immediate profit with the carrying on of experiments is not of itself sufficient to render a subsequently obtained patent void, was decided in the case of *Newall v. Elliott* (4 C. B. N. S. 269), where it appeared that the inventor of a machine for paying out telegraph wire had not procured a patent until after he had laid down a cable in deep sea by means of the machine. Experiments on dry land had been indecisive; an opportunity for making decisive experiments was presented in the course of executing a Government contract for laying down a cable at sea. Such experiments were made, and the Court held that they did not amount to a gift of the invention to the world.

In *Hills v. London Gas Light Co.* (5 H. & N. 312) it appeared that one Croll had purified many thousand feet of gas by a mode for which Hills subsequently obtained a patent, and this gas was sold. The jury, on the trial of an action brought by Hills for the infringement of his patent, found that this was by way of experiment, and the Court refused to disturb the verdict. In delivering judgment on the defendants' rule for a new trial, the Court said, 'The word "experiment," in the cases referred to, has been used, not as the sole test upon a matter of this sort, but as indicating a class of practice, and for the purpose of showing that if there has been a user of an invention not of a substantial character, but in the character of an experiment, then, although the thing has been done before, it does not preclude a person from taking out a patent for it; so that although what Croll did may not have been strictly in the nature of an experiment, still the jury have so found it, and we cannot grant a new trial.'

Public Exhibitions.

If an inventor desires to exhibit at an industrial or international exhibition, an invention which he has not yet patented, but for which he intends to obtain a patent, he should proceed under the 39th section of the new Act, and Rule 17 of the Patents Rules, 1883. That section enacts that (1) the exhibition of an invention at an industrial or international exhibition certified as such by the Board of Trade, or (2) the publication of any description of the invention during the period of the holding of the exhibition, or (3) the use of the invention for the purpose of the exhibition in the place where the exhibition is held, or (4) the use of the invention during the period of the holding of the exhibition by any person elsewhere, without the privity or consent of the inventor, shall not prejudice the right of the inventor, or his legal personal representative, to apply for and obtain provisional protection and a patent in respect of the invention or the validity of any patent granted on the application. But the exhibitor must, before exhibiting the invention, give the Comptroller the notice prescribed by Rule 17 of his intention so to do; and the application for a patent must be made before or within six months from the date of the opening of the exhibition. The inventor must also furnish to the Comptroller a brief description of the invention with drawings, if necessary, and such other information as the Comptroller may require.

CHAPTER IV.

WHO MAY BE A PATENTEE.

By the fourth section of the Patent Act of 1883, any person, whether a British subject or not, is empowered to make application for a patent. Two or more persons may make a joint application and a patent may be granted to them jointly. By the fifth section of that Act, an application must contain a declaration to the effect that the applicant is in possession of an invention, whereof he, or in the case of a joint application, one or more of the applicants, claims or claim to be the true and first inventor or inventors.

No application will be entertained at the Patent Office, unless the person or persons claiming to be the true and first inventor or inventors are applicants, but other persons who are non-inventors may join in the application, and in that case the patent will be issued to all the applicants, who will be joint patentees. There is, however, no form enabling an inventor and an incorporated company to apply jointly for a patent.

For a long series of years the strict letter of the statute of James has been so far relaxed as to allow persons simply importing an invention from a foreign country into this realm to obtain a patent in respect of it, provided that such an invention is new and useful, the administrators of the law always reading the word 'inventor,' in the statute, as embracing an importer. The first decision on this point was in the case of *Edgeberry v. Stevens*, to be found in the

second volume of 'Salkold's Reports,' p. 477, 'If the invention be new in England a patent may be granted, though the thing was practised beyond sea before; for the statute speaks of new manufactures within this realm; so that if it be new here, it is within the statute; for the Act intended to encourage new devices useful to the kingdom, and whether learned by travel or by study, it is the same thing.'

In *Carpenter v. Smith* (1 W. P. O. 535), Lord Abinger said, 'A man has a right to a patent, not only for his own original patent, but he has a right to a patent, if he is the first person who brings into England an invention which is used abroad and not known in England.'

Previous to the passing of the new Act it had been decided (*Chappell v. Purday*, 14 M. & W. 318) that an alien might be the grantee of a patent; and *in re Wirth's Patent* (L. R. 12 Ch. D. 303), that a patent might be granted to an alien resident abroad for an invention communicated to him by another alien also resident abroad, but the office rules now require the applicant to be resident (see p. 318.) In *Beard v. Egerton* (3 C. B. Rep. 97) it was held that the grant might be taken either in the alien's name or in the name of a British subject in trust for him. It has long been a common practice, which the new Act has not abrogated, to grant patents to British subjects resident in Great Britain in respect of inventions communicated from abroad. If the grantee is the agent of the foreign inventor, the letters patent are subsequently assigned to the latter or his nominee. But in these cases it is necessary for the applicant to state in his application that the subject matter was communicated to him from abroad. (*Milligan v. Marsh* 2 Jur. N. S. 1083.) See the form of application A 1 in the first schedule of the Patents Rules 1883.

By the International Convention and section 103 of the Patents Act, a foreign patentee has an absolute right of priority for his invention for a period of seven months from the date of his foreign application, notwithstanding any intermediate publication or use of the invention in this country meanwhile.

A British subject has never been permitted to obtain a patent for an invention derived from another British subject residing in the United Kingdom, and it seems doubtful whether a valid patent could be obtained in respect of an invention communicated by an alien permanently domiciled here.

No objection can be taken to a patent on the ground that one of the grantees is an infant. (*Cheavin v. Walker*, L. R. 5 Ch. D. 858.)

In consequence of the decision of the Court in *Marsden v. Saville Street Foundry Co.* (L. R. 3 Ex. D. 203), where it was held that the administrator of an inventor, who died before applying for a patent, was not entitled to a patent for the invention, although it was fully described in the papers of the deceased inventor, a clause (sect. 34) was introduced into the Patent Act of 1883, by which it was provided that if a person possessed of an invention dies without making application for a patent for the invention, application may be made by, and a patent for the invention granted to, his legal representative; but every such application must be made within six months of the decease of such person, and must contain a declaration by the legal representative that he believes such person to be or to have been the true and first inventor of the invention.

By the twelfth section of the same Act (sub-section 3 *b*) it is enacted that if the applicant for a patent dies before the expiration of fifteen months from the date of application (and before the patent shall have been sealed), the patent may be granted to his legal

representative, and sealed at any time within twelve months after the applicant's death.

In the event of an applicant dying before leaving a complete specification there is no express authority given by the Act to his legal representative to leave that instrument at the Patent Office, or for the Comptroller to accept it if left. It may perhaps be held that such authority is impliedly given by the section just referred to.

Persons occupying an official position may under certain circumstances be incapable of obtaining a patent for inventions connected with the subject-matter of their official business. Thus, Patterson, one of the three gas referees appointed by the Board of Trade under the City of London Gas Act of 1868, procured a patent for an improved mode of purifying coal gas on March 9, 1872. It was stated that he had obtained a knowledge of the patented process in the course of his labours as referee, and it appeared that the alleged invention had been described by the three referees, including Patterson, in an official report, which though dated January 31, 1872, and printed about that time, was kept back from the authorities to whom it ought to have been presented as soon as printed, until March 26. A suit for an infringement of the patent having been decided in Patterson's favour, the case went before the Court of Appeal (*Patterson v. Gas Light and Coke Company*, L. R. 2 Ch. D. 812), and then to the House of Lords (L. R. 3 App. Cas. 239), where it was held that the knowledge obtained in the discharge of his duty by one referee, and by him communicated to his colleagues, became at once public property, and could not be treated by them as confidential, nor could one of their number take out a patent for it.

CHAPTER V.

THE TITLE.

THE proceedings on the application for a patent¹ commence with the preparation of a declaration, to the effect that the applicant is in possession of an invention whereof he, or in the case of a joint application one or more of the applicants, claims or claim to be the true and first inventor or inventors. The form of the declaration, which must bear the stamp of 1*l.*, is set forth in the second schedule to the Patents Rules, 1883. It must be made before a justice of the peace, or a person authorised to administer oaths in any court in the United Kingdom. When left at the Patent Office it must be accompanied by either a provisional or complete specification, and that specification must in either case commence with the title (Patents Act 1883, sect. 5). The application and specification are then referred by the comptroller to an examiner, part of whose duty is to ascertain and report whether the title sufficiently indicates the subject-matter of the invention (sect. 6); and if he reports that the title does not sufficiently indicate the subject-matter of the invention, the comptroller may require it to be amended (sect. 7).

¹ Stamped forms of application have been placed on sale at the chief post-offices of the United Kingdom. Applications, as well as any other document, notice, &c., required to be left at the Patent Office, may be sent in a prepaid letter through the post. See section 97 of the new Act, and Rule 19 of the Patents Rules, 1883.

The procedure on applications is regulated by Rules 8, 9, 10, 21, 27, 28, and 29.

The title is the short statement by which the inventor sets forth in very general terms the object of the invention; and this being repeated in the body of the declaration, and finally transferred into the patent, is styled the 'Title of the Patent.' Thus he may apply for a patent in respect of 'Improvements in locomotive steam engines,' or for 'A new or improved sewing machine,' or for 'Improved methods of purifying illuminating gas.' The words here placed between marks of quotation would be the titles of the respective patents.

At a time when a provisional specification was not required to be lodged with the petition, and when consequently the title could not be officially compared with a description of the invention, it not unfrequently happened that the title was incorrect, and patents were sometimes lost from want of care in this particular. For if the title was too comprehensive—that is, if it extended to matters not included in the invention, the patent was bad. If, on the other hand, it was too narrow, besides excluding by its very terms something which the inventor might have secured, the patent would likewise be held bad in case the specification went beyond the title.

But now, since the title is accompanied by an outline or full description of the invention, in the shape of a provisional or complete specification, and the papers are submitted to an official examination, any false step that the inventor may make in regard to the title will probably be detected, and can be rectified. This, however, will involve delay and trouble, and the inventor will do well to take some pains to frame an unobjectionable title at first.

It is advisable to disclose the invention in as general terms as may be allowed, lest other persons who were about to specify should obtain a clue to it,

and frame their specification so as to deprive the real inventor of the priority and the reward which are his right. Instances of the nature referred to have not been, it is true, of common occurrence; but they have occurred, and it is desirable that an inventor should be cautious as to the language he uses.

In framing the title the inventor must carefully avoid the use of language which will lay it open to the charges of being 'too large, uncertain, inapplicable, inexplicable, inconsistent, vague, ambiguous, and at variance with the specification'—charges which it appears from a reported case were once heaped upon an unfortunate title relating to the simple matter of paving with wood.

With the view of showing the inventor who is engaged in preparing his application for a patent what are the principal errors to be avoided in framing the title, the following cases have been selected from those decided by the courts.

If the title bears evidence upon its face of an intention to deceive the public as to the subject-matter of the invention, this is a point which may be urged before a jury with fatal effect, for their opinion may be taken as to the existence of such an intention. (*Cook v. Pearce* 8 Q. B. 1044.)

The title of the invention spoke of a *tapering* brush; the specification disclosed the invention of a brush in which the bristles were of an unequal length, but there was no tapering to a point. The patent was held bad. (*Rex v. Metcalf*, 2 Stark. R. 249.)

The title was 'Certain improvements in the flageolet, whereby the fingering will be rendered more easy, and notes produced that were never before produced.' It appeared that only one new note was produced by the improved instrument, and this was held to

be a fatal objection. (*Bainbridge v. Wigley*, Parl. Rep. 197.)

The title was 'A new and improved method of drying and preparing malt;' but the invention specified was a process of producing a colouring matter for beer, by submitting malt, prepared in the ordinary manner, to a high temperature. This patent was likewise held bad. (*Rex v. Wheeler*, 2 B. & Ald. 345.)

A patent was obtained for an improved method of lighting cities, towns, and villages; but it appeared that the invention consisted in the improvement of an old street lamp. The title was held too general in its terms, and the patent could not be supported. (*Cochrane v. Smethurst*, 1 Stark. 205.)

Another patent held bad, by reason of having too general a title, was that contested in the case of *Campion v. Benyon* (1 Carp. Rep. 418). The patent was for 'A new and improved method of making double canvas and sailcloth with hemp and flax, or either of them, without any starch whatever;' but it appeared that double sailcloth had been made without starch before the patent, and the invention proved really to be a new method of preparing hemp and flax, with a view to its being woven into canvas and sailcloth.

The title of Felton's patent described the invention as a machine for giving an edge to knives, razors, scissors, and other cutting instruments; but the invention appeared, from the specification, not to be applicable to scissors, and the patent was adjudged to be void. (*Felton v. Greaves*, 3 C & P. 611.)

In *Newall v. Elliott* (10 Jur. n. s. 955; S. C. 13, W. R. 11), *Pollock, C. B.*, stated that, when Attorney-General, he had refused an application for a patent for 'An improvement in locomotion,' such a title being too general.

On the other hand, the titles in the following cases

were held sufficiently certain: 'Improvements in the manufacture of plated articles,' when there was only a single improvement (*Nickels v. Haslam*, 8 Scott, N. R. 97). 'A new or improved method of obtaining the reproduction of all the images received in the focus of the camera obscura,' leaving it a matter of doubt whether the method was altogether a new one, or only an improvement (*Beard v. Egerton*, 3 C. B. 97). A process for more distinctly showing the finer lines of an engraving by means of a glazed surface on the paper designed to receive the impression, was held sufficiently described by the words 'Certain improvements in copper and other plate printing' (*Sturtz v. De la Rue*, 5 Russ. 322). Title, 'Improvements in Carriages:' the specification described improvements in adapting German shutters to carriages. But as such shutters can only be applied to covered carriages, and the title spoke generally of carriages, it was contended that it was too large. After argument, it was held a sufficiently accurate title; *Tindal, C. J.*, observing that it would endanger the validity of very many patents which have hitherto been free from exception, if the mere fact that their titles were given in such terms as to be capable of comprising other inventions besides that contained in the specification were sufficient to avoid them, in the absence of any proof of intention to commit a fraud on the Crown, or to deceive or mislead the public. (*Cook v. Pearce*, 8 Q. B. 1044.)

A patent was obtained for 'Improvements in machinery for the manufacture of bobbin net lace.' It was objected that the invention really was only for making a spot during a particular part of the process, and was useless where that addition was not wanted. The court, however, overruled the objection. (*Fisher v. Dewick*, 1 W. P. C. 264.)

The title and specification must be read together; and if the former should be ambiguous, the latter may explain it. Thus the title of Neilson's patent was an invention 'for the improved application of air to produce heat in furnaces where bellows or other blowing apparatus are required.' The invention disclosed by the specification was the introduction into the furnace of air heated between the blowing apparatus and the furnace; and it was held that this answered sufficiently well to the title. (*Neilson v. Harford*, 1 W. P. C. 312, 373.)

CHAPTER VI.

THE PROVISIONAL SPECIFICATION.

THE fifth section of the Patent Act of 1883 directs that the application¹ for a patent must be accompanied by either a provisional or complete specification. The latter instrument is the subject of the next chapter; it is to the former that we now draw the reader's attention. According to the third subsection of the same section, a provisional specification must describe the nature of the invention, and be accompanied by drawings if required; whilst by the fifth subsection it is directed that it must commence with the title. It ought not to comprise more than one invention (sect. 33), and the Comptroller may refuse to accept it if it does comprise more. The applicant, however, is authorised by Rule 23 of the Patents Rules, 1883, to amend the application so as to make it apply to one invention only; and he can then make application, if he thinks proper, for separate patents for the other inventions. In that case every such application will be dated as of the date of the first application, as if originally made on that date. Then by the sixth section the Comptroller is directed to refer every application to an examiner who is to ascertain and report to him whether the nature of the invention has been fairly described, and the applica-

¹ The form of the application is given as already stated in the second schedule to the Patents Rules, 1883, Form A. In case of an application on a communication from abroad Form A 1 must be used. See Rule 27. As to the procedure the reader is referred to the note on p. 97.

tion, specification and drawings (if any) have been prepared in the prescribed manner. If the examiner reports (sect. 7) that the nature of the invention is not fairly described, or that the application, specification, or drawings has not or have not been prepared in the prescribed manner, the Comptroller may require that the application, specification, or drawings be amended before he proceeds with the application. Where the Comptroller requires an amendment, the applicant may appeal from his decision to the law officer, who will, if required, hear the applicant and the Comptroller, and may make an order determining whether and subject to what conditions, if any, the application shall be accepted. When an application has been accepted, the Comptroller will give notice thereof to the applicant, and by Rule 25 of the Patents Rules, 1883, he will advertise such acceptance in the official journal of the Patent Office. The provisional specification will not, however, be open to the inspection of the public.

When the legal representative of a deceased inventor intends to apply for a patent, under the authority of the 34th section of the Patent Act of 1883, the application must be made within six months of the decease, and it must contain a declaration by the legal representative that he believes the person whom he represents to have been the true and first inventor of the invention. An official copy of or extract from the will or letters of administration must accompany the application in proof of the applicant's title. (Rule 24.)

A general description of the invention, fairly showing its real nature, is sufficient for the provisional specification. Minute details as to the manner of carrying out the invention need not be given.

It will be seen hereafter that it is not allowable to

vary the invention in any material respect, or to introduce matter into the complete specification which is not to be found in outline in the provisional; and the chief object of the provisional specification is to afford means for securing the identity of the invention as described at the time of application and when finally specified.

The provisional specification is not intended to ascertain the *entirety* but the *identity* of the invention, said *Pollock, O. B.*, in *Newall v. Elliott*, 1 H. & C. 797. And see also *Foxwell v. Bostock*, 4 De G. J. & S. 298. But these cases ought to be considered with reference to the later cases of *Penn v. Bibby* (L. R. 2 Ch. D. 127), *Bailey v. Robertson* (L. R. 3 App. Cas. 1055), *United Telephone Company v. Harrison* (L. R. 21 Ch. D. 746), which show that if the claims of the complete specification are not comprehended within the terms of the provisional specification, the patent will be invalid.

A provisional specification (said *Jessel, M. R.*, in *Stoner v. Todd*, L. R. 4 Ch. D. 58) is not intended to contain a complete description of the thing so as to enable any workman of ordinary skill to make it, but only to disclose the invention—fairly, no doubt, but in its rough state, until the inventor can perfect its details.

‘The office of the provisional specification’ (said *Lord Chelmsford*, in *Penn v. Bibby*, L. R. 2 Ch. 127) ‘is to describe the nature of the invention, not with minute particularity, but with sufficient precision and accuracy to inform the law officer what is to be the subject-matter of the patent. It is not at all necessary that the provisional specification should describe the mode or modes in which the invention is to be worked or carried out.’

When an inventor is engaged in preparing his provisional specification, he ought, therefore, to keep in mind that every part of the invention, excepting details,

intended to be claimed by the complete specification must be foreshadowed in the preliminary instrument.

By the fifth and sixth subsections of the seventh section of the new Act it is provided that if after an application has been made, but before a patent has been sealed, another application is made, accompanied by a specification bearing the same or a similar title, it shall be the duty of the examiner to report to the Comptroller whether the second specification appears to him to comprise the same invention as that first specified; and if he reports in the affirmative, the Comptroller will give notice to the applicants that he has so reported. Where the examiner reports in the affirmative, the Comptroller may determine, subject to an appeal to the law officer, whether the invention comprised in both applications is the same, and if so, he is empowered to refuse to seal a patent on the application of the second applicant.

By this provision an important change in the procedure was effected, as there had been previously no means of ascertaining whether an application conflicted with a prior unspecified patent or not. Under Rule 12 of the Patents Rules 1883 the second applicant must within a limited time notify to the Comptroller whether or not he intends to be heard upon the matter; and he may be required (Rule 13) to submit a statement in writing, or to attend before the Comptroller to make oral explanations. Under Rule 16 both the prior and second applicants may attend the hearing before the Comptroller, but neither will be at liberty to inspect the specification of the other. The report of the examiner will, in case of appeal from the Comptroller's decision, but not otherwise, be accessible to the second applicant (sect. 9, subsect. 5).

It sometimes happens that, after a provisional specification has been lodged, an inventor thinks it desirable

to abandon it, and lodge another in a different form. Under the old law it was at one time doubted whether a patent obtained upon the latter provisional specification was valid, but in the case of *Oxley v. Holden* (8 C. B. N. S. 666) it was held that a provisional specification did not become public by the mere fact of abandonment. It did not become public until published by the Patent Office. There appears to be nothing in the Act of 1883 to prevent an applicant from abandoning his first application, and lodging a new one before filing complete specification, and within nine months from the day of the first application.

In *Stoner v. Todd* (L. R. 4 Ch. D. 58) it was held that a patent was not invalidated by the fact that it was obtained for an invention which had been incompletely described in a prior provisional specification.

By the fourteenth section of the Patent Act of 1883, where an application for a patent in respect of an invention has been accepted, the invention may during the period between the date of the application and the date of sealing such patent be used and published without prejudice to the patent to be granted for the same; and such protection from the consequences of use and publication is termed provisional protection.

This protection, however, gives the applicant no rights against the public. He is only protected against the consequences of his own publication in case of his employing workmen, making experiments, or exercising the invention (*Ex parte Bates & Redgate*, L. R. 4 Ch. 577); that is to say, he will not thereby prejudice the patent afterwards granted to him. He must not forget, however, that as he cannot take any legal proceedings for infringements committed before the publication of the complete specification (sect. 13), his proceedings even under protection should be conducted with due caution.

Seeing that it was held by *Lord Cranworth, C.*, in *Mathers v. Green* (L. R. 1 Ch. App. 29), that each of two joint patentees may use the invention without being liable to account to the other (joint patentees not being partners), it is desirable that joint applicants should consider their relative positions and come to an arrangement in good time as to the future working of the invention.

CHAPTER VII.

THE COMPLETE SPECIFICATION.

WHETHER there ever existed an implied compact between a patentee and the public with regard to a disclosure of the invention, as many lawyers formerly supposed and some doubted, is a question which it is unnecessary to discuss in these pages. It is sufficient for all practical purposes to say that the Patent Act of 1852 imposed upon every patentee the duty of particularly describing and ascertaining the nature of the invention, and in what manner it was to be performed; and that the Patent Act of 1883 has laid upon every applicant a like obligation in identical language (sect. 5, subs. 4). The instrument by which the applicant undertakes to satisfy the requirements of the law is known as the Complete Specification. It is by this instrument that the public are made acquainted with the inventor's secret, and he is bound to describe it clearly and fully, with the view of enabling others, when the proper time comes, to work the invention if they desire to do so. In the meantime the public are entitled to know what it is they are prohibited from using, that they may not unawares incur liability.

The reader will perceive before he arrives at the end of this chapter that the security of a patentee's privileges largely depends upon the shape given to this instrument. It is therefore necessary that he should exercise the greatest care and circumspection in its preparation.

As Sir George Jessol, then Master of the Rolls, once remarked in court, 'it is very difficult to draw a complete specification.' It may be conceived that, after the document has passed the ordeal of official examination, no further question can arise as to its sufficiency. An inventor, however, should not place too great reliance upon this, but should adopt every means in his power to make not only the complete but the provisional specification perfectly correct, and in accordance with both the letter and the spirit of the law, that they may, if at any time disputed, be held good upon their own merits.

After an account of the procedure has been given the greater part of this chapter will be devoted to a statement of the rules by which the inventor should be guided in preparing this important instrument. These rules will make him acquainted with the chief requirements of the law, and put him on his guard as to the faults which he is most likely to commit. Our remarks will be supported throughout by references to the reported cases.

PROCEDURE.

We have seen in the last chapter that, by the fifth section of the Patent Act of 1883, an application for a patent must be accompanied by either a provisional or a complete specification. Under the Act of 1852 the applicant had a similar liberty as regards the form of his specification. But it has never been a common practice to lodge a complete specification in the first instance, omitting the provisional specification altogether, because an inventor in the great majority of cases needs further time for making experiments and testing the invention with a view to its improvement and the working out of details, all which may be safely done under the protection of a provisional specification.

If he lodges the complete instrument at the time of application, he deprives himself of the opportunity of improving the invention, and of adding, perhaps greatly, to its value. Moreover, inventors who wish to obtain patents in other countries should bear in mind that the previous publication of an invention by a complete specification in this country may be a bar to a valid patent unless the case is one that falls within the operation of the fourth Article of the International Convention as to Patents.

The complete specification, whether left on application or subsequently, must, in the words of the Act, 'particularly describe and ascertain the nature of the invention, and in what manner it is to be performed, and must be accompanied by drawings if required.'¹ It must commence with the title, and must end with a distinct statement of the invention claimed. The form of the instrument is given in the second schedule of the Patents Rules 1883.² If left with the application (sect. 6), the papers are referred by the Comptroller to an examiner, whose duty it is to ascertain and report to the Comptroller whether the nature of the invention has been fairly described, and whether the application, specification, and drawings (if any) have been prepared in the prescribed manner, and the title sufficiently indicates the subject-matter of the invention. If the examiner reports in the negative, the Comptroller may require the application, specification, or drawings, to be amended before he proceeds with the application,

¹ The drawings accompanying the specification must comply with the regulations prescribed by Rules 28, 29, and 30 of the Patents Rules 1883. Rule 31 imposes on the applicant the duty of furnishing a drawing illustrating the novel features of the invention and an explanatory statement for insertion in the Journal issued by the Patent Office, but it is now understood that the explanatory statement will not be insisted upon.

² A fee of 4*l.* is payable on filing a complete specification with the application : if filed afterwards the fee is 3*l.*

subject to appeal to the law officer, who, after hearing the applicant and the Comptroller, may make an order determining whether and subject to what condition, if any, the application shall be accepted. When an application has been accepted, the Comptroller will give notice thereof to the applicant.

If the applicant (sect. 8) does not leave a complete specification with his application, he may leave it at any subsequent time within nine months from the date of application,¹ and unless it is left within that time the application will be deemed to be abandoned. The nine months will expire on that day of the ninth month which corresponds to the day of the application. Where a complete specification is left after a provisional specification the comptroller will refer both to an examiner, for the purpose of ascertaining whether the complete specification has been prepared in the prescribed manner, and whether the invention particularly described in the complete specification is substantially the same as that described in the provisional. If the examiner reports that these conditions have not been complied with, the Comptroller may refuse to accept the complete specification unless and until the same shall have been amended to his satisfaction; but such refusal is subject to appeal to the law officer, who, if required, will hear the applicant and the Comptroller, and may make an order determining whether and subject to what conditions the complete specification shall be accepted (subsect. 3).

It has been previously stated that the applicant is allowed nine months from the date of his application

¹ Whenever the last day for leaving a document at the Patent Office shall happen to fall on Christmas day, Good Friday, or on a Saturday or Sunday or on a day, observed as a holiday at the Bank of England, or on any day observed as a public fast or thanksgiving, the document may be left on the day next following any of these days (sect. 98)

for lodging his complete specification, but as a patentee cannot recover damages in respect of infringements committed before the publication of that instrument (sect. 13 of the new Act) it is desirable in most cases to file it with as little delay as possible.

Unless a complete specification is accepted within twelve months from the date of application, then (save in the case of an appeal having been lodged against the refusal to accept) the application will become void at the expiration of that time (subsect. 4).

In the event of the applicant's death before leaving a complete specification, no power is expressly given by the Act to his legal representatives to leave a specification at the Patent Office, or to the Comptroller to accept it if left. But perhaps it may be held that such powers are impliedly given by sub-section (3 *b*) of the twelfth section of the new Act.

On the acceptance of the complete specification the Comptroller will give notice thereof to the applicant and will advertise the acceptance in the official journal, and the application and specification or specifications, with the drawings, if any, will then be open to public inspection (sect. 10, and Rules 25 and 26).

After the acceptance of a complete specification and until the date of sealing a patent in respect thereof, or the expiration of the time for sealing, the applicant shall have the like privileges and rights as if a patent for the invention had been sealed on the date of the acceptance of the complete specification: Provided that an applicant shall not be entitled to institute any proceeding for infringement unless and until a patent for the invention has been granted to him (sect. 15).

It was decided in *Ex parte Henry* (L. R. S. Ch. 167) that a second applicant who had filed a complete specification along with his petition under the ninth section of the Patent Act of 1852, and had thereby

become entitled for six months to 'the like powers rights, and privileges, as might have been conferred on him by letters patent duly sealed, as of the date of the application,' did not acquire the rights of a patentee so as to prevent a person who had previously applied for a patent for a similar invention from obtaining a patent.

It is directed by section 9, subsection 5, that the reports of examiners shall not in any case be published or be open to public inspection, and shall not be liable to production or inspection in any legal proceeding, other than an appeal to the law officer under this Act, unless the court or officer having power to order discovery in such legal proceeding shall certify that such production or inspection is desirable in the interests of justice, and ought to be allowed.

In case of clerical errors in a specification they could only be amended formerly by order of the Master of the Rolls. (*Johnson's Patent*, L. R. 5 Ch. D. 503, and the cases there cited.) This jurisdiction still subsists (*Re Gare's Patent*, April 5, 1884). In *Dixon's Patent* (January 15, 1881) the M.R. required from the applicant an undertaking not to take proceedings for infringements committed before the date of the amending order. But now, by Sect. 18 of the Act of 1883, such errors may be amended, after the patent has been granted, by the Comptroller on such terms as he may think fit. Before the issue of the patent, clerical errors in or in connection with the application may be corrected by him under the 91st section of the new Act.

Any person has the right of opposing the grant of a patent on certain prescribed grounds, and the reader is referred for information on this subject to Chapter VIII.

DRAWINGS.

The Patent Act of 1883 (sect. 5, subsect. 4) directs that a complete specification must be accompanied by drawings if required.¹ Those who are called upon to interpret the instrument will look both at the words and the drawings, with the view of making them explain each other, and of arriving at the patentee's meaning (*Abbott, C.J., in Bloxam v. Elsec*, 1 C. & P. 564). Many inventions can be explained perfectly well without any drawings; but wherever machines are the subject of or connected with the invention, drawings should always accompany the specification, for in such a case the relation of the parts will be clear at once through a visual representation, when a verbal description might be utterly unintelligible. Care must be taken that the patentee does not bind himself to the particular form given in the drawing, when he does not so intend. It may be that only a particular form is required to be secured, because no other form will effect the proposed result. In such a case, if the form is not copied, the invention is not made use of. But in most cases it is more than one form which is sought to be protected by patent, and the form given in the drawing is only to be taken as an illustration. This fact ought to be distinctly shown in the specification.

In *Arnold v. Bradbury* (L. R. 6 Ch. 706) it was contended by the defendants in a suit for restraining the infringement of a patent for an improved ruffle, and the machinery for making the same, that the

¹ Rules 28-30 of the Patents Rules, 1883, contain regulations as to the sizes and methods of preparing the drawings accompanying the provisional or complete specifications. Rule 31 directs the applicant to furnish an additional drawing illustrative of the features of novelty constituting the invention, for insertion in the Illustrated Journal of the Patent Office.

patentee had not described the mode in which the ruffle was made; but *Lord Hatherley, C.*, held that as the machine was very simple, and as the drawing showed how it was worked, that was sufficient. (See also *Hastings v. Brown*, 1 E. & B. 454; *Morton v. Middleton*, 1 Cr. S. 3rd Ser. 722; *Davv v. Eley*, L. R. 3 Eq. 500 n., 14 W. R. 126; *Poupard v. Fardell*, 18 W. R. 127.)

It seems that a patentee will not be allowed, in an action brought by him for an infringement, to refer to a drawing as descriptive of a material part of the invention not described in the letterpress of the specification (*Clark v. Adie*, L. R. 10 Ch. 667; affirmed on appeal, L. R. 2 App. Cas. 315; *Macfarlane v. Price*, 1 Stark, 199, 1 W. P. C. 74 n.).

In the matter of *Pullan's Patent* (May 1878), leave was given by the Lord Chancellor upon an *ex parte* application to correct a filed specification by the addition of drawings alleged to have been omitted through inadvertence. The drawings so added were not described in the specification. Some months after the addition was effected an application was made to the Lord Chancellor by a person who had been threatened with an action for infringing the patent to re-hear the original application. The Lord Chancellor decided to hear the matter afresh, and upon reading the affidavits filed on both sides, and finding that his order had been made on imperfect information, ordered the added drawings to be struck out of the specification, with costs.

RELATION OF THE COMPLETE TO THE PROVISIONAL SPECIFICATION.

We have seen that the provisional specification need not contain all the details by which the invention is proposed to be carried into effect: it is sufficient if a broad outline of the invention is there sketched, so that

its whole nature is ascertainable. On the other hand, it is permissible for a patentee to let drop some of the features of the provisional specification when he comes to prepare his complete specification, provided there is no fraud; that the essential features of the invention are preserved; and that the complete specification does not claim something different from the provisional specification. (*Thomas v. Welch*, L. R. 1 C. P. 192; *Penn v. Bibby*, L. R. 2 Ch. 134; *Stoner v. Todd*, L. R. 4 Ch. 58; *Wright v. Hitchcock*, L. R. 5 Ex. 46.)

Although portions of the provisional specification may within the limits above mentioned be omitted from the complete specification without endangering the validity of the patent; and although the invention set forth in the earlier document may be expanded and developed when the complete instrument comes to be prepared, in accordance with the fuller knowledge which the inventor may then possess, yet he must carefully keep within the lines originally laid down, and must sedulously avoid introducing into the complete specification anything which can be construed as a larger or different invention. A material addition to the invention for which he originally sought protection will not be permitted. Thus, where the provisional specification set forth an invention for preserving animal substances in a fresh state for some time, which consisted in the application of a definite mixture of an aqueous solution of gelatine with an aqueous solution of bisulphite of lime, and the complete specification in addition to the use of that mixture claimed the use for the same purpose of an aqueous solution of the bisulphite of lime alone, this was held to be a distinct matter not covered by the provisional specification. It was an invention 'larger than and different from that disclosed in the provisional specification,' and the patent was therefore invalid (*Bailey v.*

Roberton, L. R. 3 App. Cas. 1055, affirming the decision of the Court of Session in Scotland). And see *United Telephone Company v. Harrison*, L. R. 21 Ch. D. 721, where it was held that if part of an invention is insufficiently described in the provisional specification, the patent will be rendered void by the description and claim of that part in the complete specification.

If any part of the invention, as described in the complete specification, does not fall within the title, the patent will be invalid. (*Croll v. Edge*, 9 Scott, C. B. R. 479; *Crossley v. Potter*, Macr. P. C. 240.) However, where the title of a patent was for 'Certain Improvements in the Doors and Sashes of Carriages,' and the patentee, in his specification, said, 'I have shown my invention as applied to railway carriage-doors and windows, although they are equally applicable to the doors and windows of any other description of carriage or in any position where doors and windows are subject to jar and vibration,' this was held not to extend his claim beyond the title (*Oxley v. Holden*, 8 C. B. N. s. 707). See also *Newall v. Elliott* (10 Jur. N. s. 954).

A patentee will not be allowed to read the provisional specification with the view of aiding or supplying a defect in the complete specification (*Mackelcan v. Rennie*, 13 C. B. N. s. 52).

RULES TO BE OBSERVED IN THE PREPARATION OF SPECIFICATIONS.

Good Faith.

The first thing that a patentee about to specify should bear in mind is, that he is bound to act with *good faith*. There must be no studied ambiguity or equivocal language; no attempt to keep anything secret; he must make a full disclosure of his invention; and his whole specification must be fair, open, explicit, and honest. If he acts in any other manner, it will

bear hardly with him when his specification comes to be examined in a court of justice.

Definition of the Invention.

The next point to be attended to is the accurate definition of the invention, so that the reader may clearly understand of what it consists. In the case of *Macfarlane v. Price* (1 Stark, 199; 1 W. P. C. 74) Lord Ellenborough said that the patentee in his specification 'should say, My improvement consists in this; describing it by words if he can, if not by reference to figures. But here the improvement is neither described in words nor by figures. . . . A person ought to be warned by the specification against the use of the particular invention, but it would exceed the wit of man to discover from what he is warned in a case like this.' 'Every party' (said *Cresswell, J.*, in *Gibson v. Brand*, 1 W. P. C. 640) 'is bound to tell the public clearly by his specification what he claims, and what they may do or not do without risk of an action for infringing his patent.'

A patentee sometimes obtains a second patent for improvements upon an invention which formed the subject-matter of a previous patent, and the second specification usually refers to the first. Care should be taken in preparing the second specification to make it distinguish clearly the later improvements (*Eades v. Starbuck Waggon Co.* W. N. 1881, p. 160) from the earlier invention; for notwithstanding the case of *Harmer v. Playne* (11 East, 101), there is reason to suppose that unless it can be seen on reading the second instrument, after the expiration of the earlier patent, of what the later invention consists, as something distinguishable from an old part, the second patent would be pronounced invalid.

It seems that when the invention is partly original

and partly communicated from abroad, the latter part should be defined in the specification. (*Renard v. Levinstein*, 10 L. T. N. S. 177.)

In the case of a patent for an invention communicated from abroad, it is no answer to an objection that the specification did not sufficiently describe the invention, to say that the patentee has stated all that was communicated to him. (*Wegmann v. Corcoran*, L. R. 13 Ch. D. 65.) On the other hand, where an invention communicated from abroad is sufficiently described in the specification, it is not a valid objection to the patent obtained by an agent in this country, that the foreign inventor is possessed of information which has not been set forth in the specification. (*Plimpton v. Malcolmson*, L. R. 3 Ch. D. 351.)

Besides furnishing a lucid and precise definition of the invention, the patentee must set forth how it is to be carried into effect so that the promised result may be duly accomplished. The specification must show plainly how the aim and object of the invention can be achieved, and with that view all necessary details, directions, and explanations must be correctly given; all the parts, apparatus, materials, and ingredients must be accurately described; proportions, quantities, times, temperature, and the like, so far as they are respectively material, must be stated, precisely if it can be done, approximately if that only is possible; whilst the needful processes and operations must be fully communicated and clearly unfolded. These things should be taken in proper order and expressed in perspicuous language.

‘It is most important’ (said *Mr. Baron Alderson*, in *Morgan v. Seward*, 1 W. P. C. 170) ‘that patentees should be taught that they are bound to set out fully and fairly what their invention is. . . . The specification ought to contain a full description of the way in

which it is to be done. . . . The patentee ought to state in his specification the precise way of doing it. If it cannot be completely done by following the specification, then a person will not infringe the patent by doing it.'

Description must not be vague and general.

When a patentee attempts to secure a right of an extensive nature, the description of the process must not be vague and general. Thus in *Booth v. Kennard* (2 H. & N. 84), an action brought for the infringement of a patent for improvements in the manufacture of gas, the specification was held bad, because it claimed generally the exclusive privilege of making oil directly from oleaginous seeds; and, instead of describing particularly how this was to be done, only stated that the mode of using the materials might be 'the same as in the apparatus used in the ordinary mode of making gas from coal.' The Court deemed such a description too vague and general when coupled with a sweeping claim like that above mentioned.

Must mention everything essential.

The specification ought to mention everything which is essential to the carrying into effect of the invention, such as any material, process, appliance, or ingredient. In a patent for trusses, the patentee omitted to state that the steel of which they were made was to be tempered with tallow, and *Lord Mansfield* held it void. (*Liardet v. Johnson*, 1 W. P. C. 53.) When a patent was granted to Dr. James for fever powders, he stated in his specification the materials of which they were composed, but omitted to describe the quantity of the ingredients. This being the case, said *Lord Mansfield*, he never durst bring an action for infringement, and it was certainly wise in him not to do

so, as no patent could stand on such a specification. (1 W. P. C. 54 n.) The specification of Neilson's patent omitted all mention of water-tuyeres; if the apparatus (said *Parke, B.*) would not be beneficial without them, then it is of no use to the public as it is described in the specification, and the specification would be bad. (*Neilson v. Harford*, 1 W. P. C. 317.) When a patentee prepared the specification of his invention of spinning machinery, he said nothing as to the difference in the velocity of certain rollers. Having brought an action for an infringement, and gone into evidence to show what his invention was, *Buller, J.*, remarked, 'The man comes to give an account of the invention, and says, I had calculated, and the difference of the velocity was to be as five to one. Now he has not said a word of that in his specification. In that, he has kept back the knowledge he had as to the size of the rollers and their velocity, and it is left to people to find it out as chance may direct.' The patent was accordingly held bad. (*Rex v. Arkwright*, 1 W. P. C. 70.) Again, under a patent for improvements in steam-engines and paddle-wheels, a difference which had to be made in the length of certain rods was not given in the specification, and it was attempted to explain this by saying that the difference in the length, being small, would not be very material. 'But the whole question' (said *Alderson, B.*) 'is small, therefore it ought to have been specified; and if it could not be ascertained fully, it should have been so stated. . . . The small adjustment of these different lengths may have been made for the purpose of making the machine work more smoothly; if so, it is just as much necessary that it should be stated in the specification as that the tallow [referring to the case of *Liardet v. Johnson*] should be mentioned.' (*Morgan v. Seward*, 1 W. P. C. 182.) The drawing attached to the

specification under a patent for improvements in lamps did not show, and the specification itself did not state, where the air was to be admitted in the second burner, and without admitting air the wick would not burn. *Jessel, M.R.*, held that the specification was insufficient; and to the argument that a workman would correct the drawing by putting in the opening, the judge replied that where the invention is of a trifling nature, and the whole merit very small, if a patentee undertakes to teach people how to do things better, he must fully describe his plan, and not leave anything for the invention of others. (*Hinks v. Safety Lighting Company*, L. R. 4 Ch. D. 607.)

A patent was obtained for improvements in floating docks. In an action for an infringement it was proved that the construction of floating docks was not new, but the plaintiff alleged that his invention consisted in the application of iron so as to form airtight and watertight chambers. Now there was no mention of iron in the specification, and it was held both by the judge on the trial and by the Court of Common Pleas that if this were so, the plaintiff had not complied with the conditions of the letters patent, which required him duly to describe the nature of the invention and in what manner it was to be carried out. (*Mackelcan v. Rennie*, 13 C. B. N. S. 52.)

The specification under a patent for an invention for preserving animal substances in a fresh state for a long time, stated that it consisted in the application of certain solutions, numbered 1, 2, 3, and 4, to the matters intended to be preserved. The mode of applying the solutions numbered 2, 3, and 4 was set forth, but nothing was said as to the mode of applying solution No. 1. It was held both by the Court of Session in Scotland, and by the House of Lords on appeal, that the patent was bad on account of the want of a suffi-

cient description of the manner in which the invention was to be performed. (*Bailey v. Robertson*, L. R. 3 App. Cas. 1055.)

Must precisely describe all materials and ingredients.

A specification, in describing materials and ingredients required for carrying the invention into effect, must not employ general terms which cover what is unsuitable as well as what is suitable. The public has a right to look for definiteness and precision in this respect, and ought not to be put off with vagueness and ambiguity. Experiments would be required to discover which one of the various objects included by the general term is suitable, and that task the law declares ought not to be imposed upon the public. For instance, a specification stated that *fossil salt* should be employed. Now there are various kinds of fossil salt, but it was shown that the only suitable kind for the object in view was *sal gem*, and it was, therefore, held that the specification had given an inadequate explanation of the matter.

The specification under a patent for certain methods of making cements, described a method of making cement from gypsum, in the course of which an alkali, neutralised by an acid, was directed to be used; sulphuric acid and potash being stated to be the best acid and alkali for the purpose. Another method for making cement from limestone and chalk was then described, and consisted also in the use of an alkali, neutralised by an acid. An action was brought for an infringement of this patent. The infringement complained of was the use of borax in making cement, borax being composed of an acid (boracic acid) and an alkali (soda). Now if the patentee confined himself to sulphuric acid and potash, then the defendant was not liable,

seeing that he had used neither; if he claimed the use of all acids and alkalies, his claim was bad, because it was proved that there were some acids and alkalies which would not answer the purpose; and if he claimed only those acids and alkalies which were proper and suitable, he was bound to state what they were, otherwise experiments would be necessary to discover what were suitable and what were not. (*Stevens v. Keating*, 2 W. P. C. 194.) See also *Muntz v. Foster* (2 W. P. C. 109.)

Hills, in the specification under his patent for the purification of gas, claimed the use of 'hydrated or precipitated oxides of iron.' Now, if this meant all hydrated oxides of iron, the claim would have been too large, inasmuch as some of them would not effect the purpose, and the defendant, in an action for an infringement of the patent, argued that this was the meaning. The Court of Exchequer, however, although admitting that the language was not accurate, held, in their desire to uphold the specification, that the patentee meant to refer to such hydrated oxides as were precipitated (*Hills v. London Gas Light Co.* 5 H. & N. 312).

Under a patent for improvements on preserving animal substances, the specification stated that the invention consisted of 'the use of the alkaline and earthy sulphites.' But as it was shown that some of the earthy sulphites are poisonous, and that some of the alkaline sulphites possess properties which render them unsuitable for the purpose in view, it was held that the claim to the use of 'the alkaline and earthy sulphites' was too wide and vague, and that the specification ought to have defined more precisely the materials to be used. (*Bailey v. Robertson*, L. R. 3 App. Cas. 1078.)

In *Wegmann v. Corcoran*, L. R. 13 Ch. D. 63, it appeared that the plaintiff had obtained a patent

for an improved machine or apparatus for treating or preparing meal. The specification stated that the squeezing rolls of the improved machine were to have 'a surface consisting of a material containing so much silica as not to colour the meal or flour,' and the patentee preferred to make them of 'iron coated with china,' and finely turned with diamond tools. It was shown that there are two kinds of china—Oriental or Chinese china, which contains 73 per cent. of silica, and is very hard; whilst the china usually made in this country contains only about 40 per cent. of silica, and is much softer. Now the first kind of china would answer the purpose, but the second would not. It was therefore held by the Court of Appeal, confirming the decision of the court below, that although the invention was useful in milling operations, the specification was ambiguous and inadequate, as it did not state what kind of china was to be employed. Experiments would have been required to discover a suitable material for the apparatus.

A specification will be construed with reference to the state of knowledge at the time it was prepared. Thus, the specification under a patent for a chemical invention will be held to refer to what was known at the time, and not to anything which was discovered subsequently. The language will not be deemed too wide because it is extensive enough to embrace unsuitable ingredients of later discovery. As a patentee would not be allowed to secure the exclusive use of materials unknown at the date of the patent, although the words of the specification are sufficiently ample to cover them, it would be manifestly unjust to hold that his language, having become applicable by the advance of knowledge to more than he contemplated, should render the patent void, if it was properly limited and accurate at the time it was employed. An inven-

tion may be superseded by the progress of discovery, but the specification will not be thereby rendered invalid. (*Badische Anilin und Soda Fabrik v. Levinstein*, L. R. 24 Ch. D. p. 156. And see *Crossley v. Beverley*, 3 C. & P. 515.)

It is not obligatory on a patentee, when referring to materials and ingredients to be used in carrying his invention into effect, to enter into minute details as to such materials and ingredients, if they are known in the shops, and can be readily purchased under the names which he gives them (*Mackintosh v. Everington*, 2 Carp. Rep. 191).

The names of articles mentioned in a specification must be taken to be used in their ordinary commercial sense. Thus, a direction in a specification to use dry arsenic acid in the manufacture of dyes was held to refer to the ordinary arsenic acid of commerce (which is dry to the touch, although it contains water in combination), not to anhydrous arsenic acid, which could not be commonly bought in the trade, and which would not answer the purpose. (*Simpson v. Holliday*, 20 Newt. Lon. J. 118; 5 N. R. 340; L. R. 1 H. L. C. 315). And see *Sturtz v. De la Rue*, 1 W. P. C. 83 n.; *Stevens v. Keating*, 2 W. P. C. 183, 187; *Muntz v. Foster*, 2 W. P. C. 104.

A person who takes out a patent for an invention consisting of the use of known materials in new proportions, though bound to state the most suitable proportions within his knowledge, is not bound to limit his claim to the precise proportions recommended by him in his specification. (*The Patent Type Founding Company v. Richard*, Johns. 381.)

Whether or not a specification describes with sufficient accuracy the material out of which an article is to be made, is a question for the jury, where the case is tried before one. (*Bickford v. Skewes*, 1 W.

P. C. 214; *Derosne v. Pairie*, 1 W. P. C. 154; *Elliot v. Turner*, 2 C. B. 446; *Wallington v. Dale*, 7 Ex. 888.)

Must communicate the latest information.

It frequently occurs that in the interval between the application and the lodging of the complete specification, the inventor discovers that the original invention is capable of material improvement. The intervening period is allowed him for the very purpose of improving the details of his invention; and if he fails to communicate to the public the best information he possesses at the time of lodging the complete specification, the patent will be held void. In *Crossley v. Beverley* (1 W. P. C. 117) it was objected that the patentee had added something to the invention as finally specified, but, said *Bayley, J.*, 'I think that if between taking out the patent and filing the specification, the inventor makes a discovery which will enable it better to effectuate the thing for which the patent was obtained, not only is he at liberty to introduce them into his patent, but it is his bounden duty so to do, and it is not sufficient for him to communicate to the public the knowledge he has obtained before the specification.' It must, however, be understood that the additions must strictly relate to the invention as it stood at the date of the application. The introduction of new heads into the specification or an extension of the subject-matter of the original invention will not be permitted. *Crossley v. Potter* (Macr. P. C. 240.) *Bailey v. Robertson* (L. R. 3 App. Ca. 1055). 'The complete specification, said *Lord Chelmsford* in *Penn v. Bibby* (L. R. 2 Ch. D. 58) is in a sense supplemental to the provisional specification, not going beyond nor varying from it as to the nature of the invention, but conveying additional information which may have been

acquired during the currency of the provisional specification as to the manner in which the invention is to be performed.'

Must describe the best method of operating.

A patentee is bound to describe the most advantageous method within his knowledge for carrying his invention into effect; and he ought to put the public in possession of his secret in as ample and beneficial a way as he himself uses it. In *Wood v. Zimmer* (Holt, N. P. 57) a patent for a method of making verdigris was contested. It seemed that verdigris was made by the process set forth in the specification; but that the patentee was in the habit of secretly putting aquafortis into the boiler. The copper, forming one of the ingredients, was thereby more rapidly dissolved; but the verdigris produced was neither better nor cheaper than that made according to the specification. *Gibbs, C. J.*, considered however, that this was a prejudicial concealment, and held the patent to be invalid.

Letters patent were obtained for a mode of making a medicine, composed of three salts, commonly sold in the shops under certain well-known names. The specification, instead of describing these salts by their names, described the processes by which they were produced, and then pointed out the proportions in which the salts were to be combined in order to form the medicine the subject of the patent. The methods of producing the separate salts were not essential to the combination, and formed no part of the invention. It was held at *Nisi Prius* that the specification was bad, *Abbott, C. J.*, saying that it is the duty of any one to whom a patent is granted to point out in his specification the plainest and most easy way of producing that for which he claims a monopoly; and to make the

public acquainted with the mode which he himself adopts. If a person would be led to suppose a laborious process necessary to the production of any one of the ingredients, when in fact he might go to a chemist's shop and buy the same thing as a separate simple part of the compound, the public are misled. (*Savory v. Price*, 1 Ry. and Moo. 1; 1 W. P. C. 83.)

There are many other cases which show that if the patentee knows of any circumstance which conduces to the advantage of his manufacture or process, he is bound to mention it in his specification. Nothing of importance can be withheld or concealed without danger to the patent. In *Turner v. Winter* (1 W. P. C. 81). *Buller, J.*, said, that if the patentee make the article for which the patent is granted of cheaper materials than those which he has enumerated, although the latter may answer the purpose equally well, the patent is void, because he does not put the public in possession of his invention, or enable them to derive the same benefit as he himself does.

If a patentee is acquainted with any particular mode by which his invention may be most conveniently carried into effect, he ought to state it in his specification. Per *Alderson, B.*, in *Morgan v. Seward* (1 W. P. C. 170.)

In *Sturtz v. De la Rue* (1 Carp. Rep. 463, 5 Russ. 322, 1 W. P. C. 83), it appeared that the patentee had mentioned in his specification a certain substance, under the name of the *finest and purest chemical white lead*, which was to be used in giving paper a glaze, preparatory to its receiving an impression from an engraved plate. He himself imported from Germany, for this purpose, a preparation called *Kremnitz white*; but he said nothing about this in his specification. It was shown that there was no article known in the chemists' shops in London which answered to the patentee's

name, and that the purest white lead which could be purchased there did not answer the purpose. It was held, on these facts, that the patentee had not made that full disclosure which he ought to have made; and his patent was adjudged void. 'A man has no right' (said *Pollock, C. B.*, in his address to the jury on the trial of *Tetley v. Easton*, *Maer. P. C.* 76) 'to patent a principle, and then to give the public the humblest instrument that can be made from his principle, and reserve to himself all the better part of it.' (See also *Derosne v. Fairie*, *1 W. P. C.* 158.) In *Walton v. Bateman* (*1 W. P. C.* 622), *Cresswell, J.*, laid down this rule:--If a man knows a better mode than that which he states to the public, his patent will be vitiated. And in *Heath v. Unwin* (*2 W. P. C.* 243), *Coleridge, J.*, said, 'If the inventor of an alleged discovery, 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.'

In *Neilson v. Harford* (*1 W. P. C.* 321) the judge told the jury that if the patentee believed that certain internal partitions in the hot-blast apparatus were useful, the patent would be void, since he had omitted to say anything about them in the specification.

As to the words 'I prefer' in a specification, see *Crompton v. Ibbotson* (*1 W. P. C.* 83); *Weymann v. Corcoran* (*L. R.* 13 *Ch. D.* 81).

Need not set forth every application.

On the other hand, an inventor who obtains a patent for the useful application of a principle is not to be called on to set forth every mode of applying it. It is

sufficient if he shows some of its useful applications, those applications being the best illustrations of the invention known to him. See what fell from *Lord Abinger* in *Neilson v. Harford* (1 W. P. C. 356), and see *Badische Anilin und Soda Fabrik v. Levinstein* (L. R. 24 Ch. D. 176). But it must be borne in mind that a patentee cannot, by making a general claim, cover improvements and applications of which he was ignorant at the date of his specification (*Tetley v. Easton*, Macr. P. C. 77).

Must be intelligible to workmen of ordinary skill.

The explanation given by the specification must be intelligible to a person of *ordinary* skill and ability, acquainted with the particular subject; and the directions such that, by pursuing them, he would produce without difficulty the result which the patentee describes. (*Tindal, C. J.*, in *Gibson v. Brand*, 1 W. P. C. 631; *Beard v. Egerton*, 8 C. B. 165.) *Lyndhurst, L. C.*, said, in *Sturtz v. De la Rue* (1 W. P. C. 83 n.), that the specification must describe the invention in such a way that a person of ordinary skill in the trade should be able to carry on the process. And *Lord Denman*, in *Bickford v. Skewes* (1 W. P. C. 218), said that the specification is addressed, not to persons entirely ignorant of the subject-matter, but to artists of competent skill in the branch of manufactures to which it relates. The persons whom the specification ought to be designed for are persons of *ordinary* skill and ability; not those of special and unusual practice, knowledge, and capacity—not persons at the head of their profession.

A good specification must be intelligible to the ordinary workman using that amount of skill and intelligence which is fairly to be expected from him—not a careless man, but a careful man; though not possess-

ing that great scientific knowledge or power of invention which would enable him by himself, unaided, to supplement a defective or correct an erroneous description. Per *Jessel, M. R.*, in *Plimpton v. Malcolmson* (L. R. 3 Ch. D. 568). See also *Neilson v. Harford* (1 W. P. C. 371); *Househill Co. v. Neilson* (1 W. P. C. 692).

Where the specification under a patent for a chemical operation was concerned, *Mr. Justice Maule* said, 'A competent workman must be taken to know the known properties of iodine, silver, and nitric acid, or else the specification should have included a statement of the properties of each of these substances' (*Beard v. Egerton*, 8 C. B. 165).

But when placed in the hands of a person of ordinary skill and intelligence, the specification must be sufficient to show him how the invention is to be carried into effect without further assistance, and without needing corrections or fresh invention on his part. There must be no necessity to try experiments in order to accomplish the end promised by the patentee. In *Rex v. Arkwright* (1 W. P. C. 66), *Buller, B.*, said that the specification must be such that mechanical men of common understanding (the validity of a patent for a machine being in dispute) must be able to make the machine by following its directions, without any new additions or inventions of their own. In the luminous address of *Mr. Baron Alderson* to the jury on the trial of the case of *Morgan v. Seward* (1 W. P. C. 170) he said that a specification ought to be framed so as not to call on a person to have recourse to more than those ordinary means of knowledge—not invention—which a workman of competent skill in his art and trade may be presumed to have. You may call upon him to exercise all the actual existing knowledge common to the trade; but you cannot call upon him to exercise anything more. You have no right to call upon him to

tax his ingenuity or invention. . . . The specification must not merely suggest something that will set the mind of an ingenious man at work, but it must actually and plainly set forth what the invention is, and how it is to be carried into effect, so as to save a party the trouble of making experiments and trials. And *Parke, B.*, in *Neilson v. Harford* (1 W. P. C. 371), said that, to be valid, a specification should be such as, if fairly followed out by a competent workman, without addition or invention, would produce the machine for which the patent is taken out. It had been previously laid down, in *Rex v. Wheeler* (2 B. & Ald. 349), that a specification which casts upon the public the expense and labour of experiments and trial is undoubtedly bad. It would, however, seem that if any degree of benefit can be produced by complying with the directions of the specification, and without having recourse to experiments, that would be sufficient to save the patent; it is not necessary that the maximum degree of benefit should be produced (*Neilson's Patent*, 1 W. P. C. 318). In an action for infringing a patent for an improved mode of paving streets with blocks, so shaped that each side of a block was bevelled both inwards and outwards, it was objected by the defendant that the specification gave no direction as to the angle at which the bevels were to be made. The judge who tried the case (*Lord Abinger*) told the jury that if any angle would be of some use, the specification was good; but if some particular angle was essential, then, as the specification left that to be discovered by experiment, it was deficient and bad (*Macnamara v. Hulse*, 2 W. P. C. 129). But *Mr. Justice Bayley* said (in the case of *Crompton v. Ibbotson*, 1 Carp. Rep. 462) that a patentee, knowing that given materials will not answer the purpose, is bound so to word his specification as to prevent others from trying experiments on that which

he knows will not answer. In this case a patent for an improved method of dyeing and finishing paper came into question; the specification described the paper as being conducted to a heated cylinder by means of cloth, 'which cloth may be made of any suitable material, but I prefer it to be made of linen warp and woollen weft.' Now the patentee had ascertained from repeated trials that no other substance would answer the purpose. It was held that the public had not the full benefit of the inventor's discovery, and persons misled by the specification might be induced to make experiments which the patentee knew would fail (1 W. P. C. 83). This, however, must be considered an extreme case.

In connection with this subject the following observations of *Lord Westbury, C.*, are worthy of attention:—'When it is stated that an error in a specification which any workman of ordinary skill and experience would perceive and correct will not vitiate a patent, it must be understood of errors which appear on the face of the specification, or the drawings it refers to, or which would be at once discovered and corrected in following out the instructions given for any process or manufacture; and the reason is because such errors cannot possibly mislead. But the proposition is not a correct statement of the law if applied to errors which are discoverable only by experiment and further inquiry. Neither is the proposition true of an erroneous statement in a specification amounting to a false suggestion, even though the error would be at once observed by a workman possessed of ordinary knowledge of the subject. For example, if a specification describes several processes or several combinations of machinery, and affirms that such will produce a certain result which is the object of the patent, and some one of the processes or combinations is wholly ineffectual and useless, the patent will be bad although

the mistake committed by the patentee may be such as would at once be observed by an ordinary workman. (*Simpson v. Holliday*, 13 W. R. 577.)

It would seem from *Crossley v. Beverley* (3 C. & P. 515), that in construing a specification, the state of the particular manufacture at the date of the patent must be kept in view. In this case, in describing a gas apparatus, no directions were given as to a condenser; but since a workman capable of constructing a gas apparatus knew that he would have to put it in, the specification was held sufficient. The patent in *Russell v. Cowley* (1 W. P. C. 459) was for a method of manufacturing iron tubes without the use of a mandrel. The specification gave no directions as to leaving out the mandrel; but it was held that an intelligent workman would sufficiently understand, from the purport of the specification, that a mandrel was not to be used. So, in *Beard v. Egerton* (8 C. B. R. 165), it was held that a competent operator would perceive, on perusing the whole specification, that it would not be necessary to interpose an operation at a certain stage in the process of daguerreotyping.

Again, in *Otto v. Linford* (46 L. T. N. S. 35) the specification under a patent for gas motor engines did not state the proportion of atmospheric air to be let into the chamber where the inflammable gas was fired with the view of producing a gradual in place of an explosive ignition. Nevertheless it was held that as exact proportions were not required to be mentioned, and as there was enough information in the specification to enable a maker of machinery to construct a working engine without exercising his inventive powers, the specification was sufficient.

It sometimes occurs that the drawing attached to the specification is erroneous in some particular, so that if an attempt were made to construct the machine by

the drawing it could not be done, or if made it would not work. If, however, the text has correctly described the construction, or if the error is of a kind which an ordinary workman would easily perceive and rectify, requiring not experiments, but merely regulation, then the error in the figure will be disregarded, and will not be held to vitiate the patent. (*Otto v. Linford*, 46 L. T. N. S. 35.)

How combinations should be treated.

The patentee ought to state whether his invention consists of the useful application of a principle, or whether it lies in a particular form or arrangement or combination of parts. It has been already stated (Chap. II.) that a number of old and well-known things, such as implements, machines, or parts of machines, may be combined so as to form a new and useful instrument or machine; and a patent obtained for such combination will be valid, care being taken that the specification does not claim the old parts as well as the novel combination. 'If,' said *Gibbs, C. J.*, to the jury, on trying the case of *Bovill v. Moore*, 'a patentee has only invented an improvement, then his specification by which he claims the whole will be bad. If, on the other hand, he has invented an engine which consists of a perfectly new combination of parts, although all the parts were used before, yet he will be entitled to support his patent for a new machine. . . . If a combination of a certain number of these parts existed up to a given point before the date of his patent, and if the patentee's invention sprung from that point, and added other combinations to it, then his specification, stating the whole machine as his invention, is bad.' (Dav. P. C. 404.)

If all the parts of an invention, taken separately, are old, the patent being obtained only for a novel

combination of them, the patentee, in preparing his specification for such an invention, must take care to limit his claim to the new combination. (*Lister v. Leather*, 3 Jur. n. s. 811; *S. C.* in error, 8 E. & B. 1004; *Seed v. Higgins*, 8 H. L. C. 550; *Potter v. Parr*, 2 B. & S. 259.) The case of *Kay v. Marshall* (2 W. P. C. 71) deserves attention with reference to this rule. The inventions claimed in the specification were two: first, certain new machinery for macerating flax; and secondly, improved machinery for spinning flax. The first invention would very well have supported the patent separately considered. It was that part of the specification which described the second invention that broke down. The so-called improved machinery, considered in itself, and apart from its application, was shown to be wanting in novelty, and hence the patent fell to the ground. Had Kay, instead of claiming the invention of improved machinery, claimed only the invention of a combination of a known process of wetting flax, with the use of known machinery for spinning the same, certain parts of such machinery being at a given distance from each other, the patent would, doubtless, have been held good. The combination was new, although the process and the machinery were old. The invention was one of great value, and if the specification had been rightly framed, the patentee might have had the benefit of it, without suffering the anxiety and expense of litigation in the common law courts, the Court of Chancery, and the House of Lords.

The case of *Tetley v. Easton* (Macr. P. C. 48) went three times before a jury, and on two of the occasions the plaintiff failed by inattention to this rule. His patent was for improvements in machinery for raising and impelling water. The specification described a great number of mechanical contrivances for effecting

the object in view, and concluded by claiming, as the patentee's invention, the several contrivances, 'both when all used in combination, and when used severally.' It was shown, on the trial of the first action for an infringement, that several of these contrivances were old; and with regard to one in particular, which the defendants were charged with infringing, that a person named Hales had previously procured a patent for something substantially the same. The jury thereupon found a verdict for the defendants upon issues which raised the question of the novelty of the plaintiff's invention. Subsequently to this trial the plaintiff entered a disclaimer as to several parts of his specification, and brought another action against the same defendants. The jury again returned a verdict for the defendants. A rule to set aside the verdict, and for a new trial, having been obtained, the legal questions came on for argument before the full court. It appeared that the amended specification described a centrifugal pump, composed of a hollow wheel, revolving within a case furnished with pipes for conveying the water. This wheel was not stated to be old, nor was it disclaimed. The specification claimed generally the machinery for raising and impelling water. It also claimed the application of the inventions before mentioned, 'both when all used in combination, and when used severally.' It was held that the hollow revolving wheel was thereby claimed, and as this was an old invention, the specification was bad. By a second disclaimer the patentee's claims were reduced to the single one of 'the means of increasing the action of the machine by causing the liquid to enter the wheel at both sides;' and he then brought a third action for the infringement of his patent. Unfortunately it was shown that previous inventions had embraced a contrivance for the admission of the water on

both sides of the wheel; and *Mr. Justice Willes* directed the jury to find for the defendant, for the reason that although the wheel had been previously combined with apparatus which made the combination useless, yet that the contrivance in question had been made public property, and could not of itself be made the subject of a patent. The court, on the argument of a rule for a new trial on the ground of misdirection, said that the use of a wheel known before, in a manner known before, could not be deemed an invention capable of sustaining a patent, and held that the judge was right. (2 C. B. N. S. 706.)

The specification under a patent for an improved turning-table for railway purposes, after describing the machinery, claimed as new 'the improved turning-table as hereinbefore described.' Now it appeared, on the trial of an action for an infringement, that no part of the machinery was new except certain suspending rods. It was held that the specification claimed the parts as well as the combination forming the turning-table, and that it was defective by reason of its not distinguishing what was old from what was new. 'Every patentee,' said *Jervis, C. J.*, 'must, in his specification, describe the nature of his invention in such a way as that those who read it with common, ordinary understanding, and fairly read it, may see and understand what is new and what is old.' (*Holmes v. London and N. W. Railway Co.*, Macr. P. C. 26.)

In the case of *Foxwell v. Bostock* (4 De G. J. and S. 298) *Lord Westbury, C.*, laid down the rule to be that in a patent for an improved arrangement or new combination of machinery, the specification must describe the improvement and define the novelty, otherwise and in a more specific form than by the general description of the entire machine. 'On both principle and authority it is most necessary that the specification

should ascertain the improvement, when the patent is for an improved—that is, for a new combination. At the date of this patent many combinations of machinery, or, in other words, many machines for sewing or stitching by a needle and shuttle, were known and used. If in that state of things a patent is taken out for an improved arrangement or combination, the patentee is bound to show in what the improvement consists, and how it is to be effected. But this obligation is not discharged by a description of the entire machine which embodies the improvement, but which description does not distinguish the improvement; and thereby renders it undiscoverable, except upon a minute comparison and collation of all existing combinations with the new combination that is claimed. A specification so framed has the effect of concealing rather than of disclosing the invention.’ The plaintiff’s counsel stated that the improvement consisted of an arrangement of three cams on one shaft, by the direct action of which the three principal movements in a needle and shuttle machine were effected. The plaintiff’s evidence went to show that this arrangement formed the novelty and utility of the machine. ‘But this clear and simple statement is not to be found anywhere in the specification. It is true that the cams and shafts are described indiscriminately with the rest of the machine in the specification, but there is nothing to indicate that it is this addition which constitutes the improved arrangement or the new combination.’ The specification was therefore held to be defective and the patent invalid. (See also the observations of *James, L. J.*, in *Parkes v. Stevens*, L. R. 8 Eq. 366.)

The case of *Foxwell v. Bostock*, however, is not to be understood as deciding that where a combination is alone claimed it is necessary to distinguish the new parts from the old, for in such a case the only invention

protected by the patent is the combination; and if that is properly set forth, it is enough, without separating new parts from old. Under the circumstances supposed, it can be of no moment, so far as the point before us is concerned, whether the parts are all old or partly old and partly new, and therefore a description of the parts and of the manner of arranging them into a working whole, followed by a claim restricted to the combination, will be a sufficient description of the invention. (*Harrison v. Anderston Foundry Co.*, L. R. 1 App. Cas. 577-583; *Clark v. Adie*, L. R. 2 App. Cas. 328.)

The preceding cases will show to patentees whose inventions consist of a combination of parts, the necessity, whilst laying claim to the novel combination, of abstaining from claiming directly or inferentially any of the old parts. On the other hand, if a patentee conceives that he has a right to one or more of the parts as being in themselves novel and useful inventions, he ought to set them forth and claim them. 'If a man really wants to patent not only the whole, but something less than the whole of what he calls "a new arrangement, construction, and combination of parts" he must clearly show that he claims that something less.' (*Per James, L. J.*, in *Clark v. Adie*, L. R. 10 Ch. 667; affirmed by the House of Lords, L. R. 2 App. Cas. 315.)

Having studied the rules previously propounded as those by which he ought to be chiefly guided in preparing his specification, the patentee may now be cautioned on the subject of certain faults, which, if committed, would have a disastrous effect upon its validity, and against which, therefore, he cannot be too vigilantly upon his guard.

A specification must not claim too much.

In the first place, the patentee should beware of claiming more than he is strictly entitled to, since a failure in part is a failure altogether, and that to which he has a just right will fall along with that which does not belong to him. To use *Lord Eldon's* illustration — if there be a patent both for a machine and for an improvement in the use of it, and it cannot be supported for the machine, although it might for the improvement merely, it is good for nothing on account of its attempting to cover too much. (*Hill v. Thompson*, 1 W. P. C. 247.)

Therefore, if an inventor lays claim to a principle in addition to a new method of carrying it into effect, and it should turn out that the principle was known and had been previously applied to a similar purpose, in such case the patent cannot stand.

In the specification under the patent which formed the ground of dispute in *Hill v. Thompson* (1 W. P. C. 239), the patentee claimed not only the use of a particular quantity of lime in smelting iron, but the discovery of the usefulness of lime in that process generally. It appeared, however, that lime had been previously used for the purpose, and the patent was accordingly held bad, although, if the patentee had restricted his claim to the particular proportions of lime and metal, it might have been sustained. Again, the specification under *Minter's* patent, for an improvement in the construction of chairs, was faulty for a similar reason; its claim was too extensive. The improvement consisted in applying a self-adjusting leverage to the back and seat of a chair, whereby the weight on the seat acted as a counterbalance to the pressure against the back. It was proved that one *Brown* had previously invented a chair on the same principle, but

his application of it was encumbered with additional machinery. If Minter had restricted his claim to the particular mode in which he effected the thing, his patent would have been valid; but since the specification went generally to the application of a self-adjusting leverage to the given purpose, it claimed more than he was entitled to; and if the patent had been held good, Brown could not have continued to make his chair without infringing it. (*Minter v. Mower*, 1 W. P. C. 138.)

Under a patent for improvements in stoves the specification claimed the construction of stoves made in such a manner that the fuel should be introduced from beneath. Now it was shown at the trial of an action of *scire facias* that grates had been previously constructed on this principle; and although the particular method of effecting the object was new, yet *Lord Ellenborough* held that as the patentee had claimed the principle, which was not new, the patent was bad. Here it is clear that if the inventor had limited his claim to his own mode of carrying the principle into effect his patent would have been upheld. (*Rex v. Cutler*, 1 Stark. 354, 1 W. P. C. 76.)

The case of *Rex v. Else* (1 W. P. C. 76) affords another instance of the same error. The specification claimed in effect the exclusive right of combining silk and cotton thread, and then of making lace of the combined material. It was proved that silk and cotton thread had previously been combined in some mode or other; and although the material so constructed was unfit for making lace on account of its coarseness, yet as the patentee did not confine himself to any particular mode of combining the two, his claim was held to extend to every mode, and was therefore bad.

Fisher and Gibbons obtained a patent in 1844 for an invention of a machine in which a shuttle was com-

bined with a needle for producing stitches to ornament fabrics. In 1846 Thomas procured a patent for improvements in machinery for sewing and stitching various fabrics. His specification was construed as claiming generally the use of needles in combination with shuttles for producing stitches; and although he showed one particular form of a needle and shuttle machine which was a different combination from that described by Fisher and Gibbons, it was held that, having regard to the language employed, his claim could not be confined to that particular combination. His patent was, therefore, invalid in consequence of the patentee claiming too much. (*Thomas v. Foxwell*, 5 Jur. N. S. 37; 6 Jur. N. S. 271.)

Under a patent for improvements in weaving figured fabrics, the specification described, and the drawings illustrated, mechanism for weaving coach lace, but the patentee said that he did not confine himself to narrow goods only, as his improvements were applicable to the production of carpets. It was shown that the specified mechanism could not be adapted to the weaving of carpets by merely enlarging it, but required certain additions to be made to it before it could be employed for that purpose. *Pollock, C. B.*, told the jury, at the trial of an action for an infringement, that if carpets could not be made by the means stated in the specification, the patent was not good; and the jury returned a verdict in favour of the defendant. (*Crossley v. Potter*, Macr. P. C. 240.)

Ralston's patent was for embossing and finishing woven fabrics, and for the machinery employed therein. His specification described the invention as consisting of the use of a metal or wood roller, *engraved with any required design*, in combination with a bowl, that is a smooth paper roller, the two being driven at different rates of speed. By moving the fabric transversely

when fed up to the machine, a great variety of watered patterns might be given. The object of the invention was stated to be the production of *an indefinite variety of patterns*, as well as a bright finish or lustre. This patent failed to stand the ordeal of an examination in the courts of law, on account of the patentee having claimed too much. It was proved that the use of a *patterned* roller, in combination with a bowl moving at the *same speed*, was not new in the operation of *embossing* fabrics, and that the use of a *plain* roller and bowl moving at *different rates* of speed was well known in the operation of *finishing or calendering* fabrics. It was therefore held that the patentee's combination, as stated in the specification, was not a patentable invention. Had he restricted his claim to the use of a patterned roller with *circular* grooves (which alone produced the watered effect) in combination with a bowl, the two moving at different rates of speed, for a specific purpose, viz. the double operation of finishing the fabric and producing a watered effect by one process, there is ground for supposing that he might have retained his patent. (*Ralston v. Smith*, 9 C. B. n. s. 117; 11 C. B. n. s. 471; 11 H. L. Cas. 223.) We may refer to the cases of *Booth v. Kennard*, (2 H. & N. 84) *Saunders v. Aston* (13 B. & Ad. 886; 1 W. P. C. 75 n.), and *Haworth v. Hardcastle* (1 W. P. C. 484), as further illustrations of this point.

We must not forget, however, the remarks made by *Jessel, M. R.*, in the case of *Frearson v. Loe* (L. R. 9 Ch. D. 58): 'It does not follow that because an inventor thinks he has invented more than he has in fact, and describes the advantages of his invention, and some of these advantages arise from an old portion of the invention, it may not still be a good patent, provided that the invention as claimed is so limited as to fail to cover the actual thing in use, while it covers

some of the advantages mentioned; in such a case it may still, no doubt, be a good patent.'

It was also decided by the House of Lords in *The British Dynamite Company v. Krebs* (Goodevo's cases, p. 88) that an appendant claim to something old did not vitiate a patent. In this case the patentee had claimed the manufacture of the dynamite which was found to be new and also claimed the means of firing by special ignition as described. Some of these means of firing being old and well-known as applied to other explosives, the House of Lords construed this claim as being only appendant to dynamite and upheld the patent. It is not, however, advisable for inventors to make claims of this kind, which if held to extend the patent would invalidate it, and if held not to extend it are simply useless.

Must not make large speculative claims.

A patentee will not be allowed to make wide hypothetical or speculative claims based on mere conjecture or surmise, nor will his patent be permitted to cover matters of which he was ignorant at the date of his patent. In the specification under a patent for improvements in machinery for raising water, the patentee said, 'If any gases or elastic media other than atmospheric air are used, with which to charge the case [part of the machinery], I claim the sole right to do so.' *Pollock, C. B.*, who tried an action brought for infringing this patent (*Tetley v. Easton*, Macr. P. C. 48), remarked upon this passage, that he had no hesitation in saying that, in point of law, the patentee had no right to make such a claim, and he went on to state that the law would not permit a patentee to claim more than he has invented. 'It will permit him to claim that which he has invented by means of successful experiments or otherwise, and which he has given to the public, but not that which is the mere subject of his

speculation or imagination, or of his endeavouring to grasp more than he is entitled to. I think we are bound to give, as far as possible, the fullest effect to an invention; but, on the other hand, I think we are also bound to oppose the endeavours to make a patent grasp at and embrace a number of matters that were never in the head of the inventor.'

In another part of the specification, the patentee described a wheel with straight arms, and then he said, 'I propose to construct the wheel of every variety of configuration, so long as it is constructed with a channel in the interior.' The defendant had made use of a wheel with *bent* arms, and the patentee treated this as an infringement, although he admitted that at the time he obtained his patent he had never thought of bent arms, and also that curved arms almost trebled the effect of the machine. The judge told the jury that the patentee's claim to every shape of arm would not stand. To hold that it was good would be to reward a man who had rashly and ignorantly taken out a patent on a subject he had not appreciated. The same learned judge, when presiding at the trial of *Stevens v. Keating* (2 W. P. C. 184)—an action for infringing a patent for processes for combining materials to form cements,—said, with reference to that part of the specification which was held to claim the use, not only of a particular acid, but of all acids which might succeed, that no patentee could be allowed to make such a claim, and to say, Whereas other substances will succeed, I claim them all.

A perusal of these cases will show that it is safer for a patentee to restrict his claim to the use of those processes, or those materials, which he has found by actual trial to answer the purpose, than to extend it to matters of which he has no accurate knowledge; since, in doing this, he may either claim something which will not

answer the object in view, something which is not new, or something which he does not sufficiently describe. The law will aid him, without any general claim in his specification, in repressing infringements which are an illegal imitation of his process behind a colourable variation, or by means of mechanical or chemical equivalents.

‘The safest course for patentees to adopt’ (said *Pollock, C. B.*, to the jury on the trial of *Crossley v. Potter*, *Maer. P. C.* 256) ‘in framing their specifications is, instead of including everything, to confine themselves specifically to one good thing, and a jury will always take care that if that be a real invention, no man under colour of improvement shall be allowed to interfere with that which is the offspring of their genius.’

Ambiguity to be eschewed.

The fatal effect of ambiguous language in a specification is illustrated by the case of *Hastings v. Brown* (17 Jur. 648; *S.C.*, 1 E. & B. 454). A patent was obtained for arrangements for raising ships’ anchors, and the specification claimed as the invention ‘a cable-holder to hold without slipping a chain cable of any size,’ but it could not be gathered from it whether the inventor claimed a cable-holder to hold chain cables of any *one* size, or to hold chain cables of different sizes. Now, a cable-holder to hold a chain cable of any one size was already known at the date of the patent. ‘The patentee,’ said *Lord Campbell*, when the case was argued before the Court of Queen’s Bench, on a motion to enter a nonsuit, ‘ought to state distinctly in his specification what is his invention, and to describe the limits within which he is to enjoy a monopoly. That is not done in this case with respect to the nature of the cable-holder. What is

claimed [in the pleadings] is a right to construct a capstan which will raise chain cables of different dimensions. Does the plaintiff disclose in his specification that he claims that invention? If it is only claimed with regard to one cable, then there is no infringement of the patent. The vice of the specification is, that it is quite equivocal what the claim is. There is nothing in the title which at all assists us; and when we look to the description in the specification, which speaks of "a chain cable of any size," I think that the proper construction to be put upon the words is that they mean "one chain cable." At all events, they are capable of that meaning; and if the specification is equivocal, it is bad.' And *Mr. Justice Coleridge* added, 'If the specification on a fair interpretation be equivocal, it is insufficient.' The rule for a nonsuit was accordingly made absolute.

Must not describe two methods when only one is effective.

If two methods of doing a thing are described in the specification, and by one of these it cannot be done, the specification is bad. (*Regina v. Cutler*, Macr. P. C. 137; *Beard v. Egerton*, 8 C. B. 165.)

Medlock's specification of his invention for making red and purple dyes from aniline commenced the description of the process thus:—'I mix aniline with dry arsenic acid and allow the mixture to stand for some time, *or* I accelerate the operation by heating it to or near its boiling-point until it assumes a rich purple colour, and then I mix it with boiling water and allow it to cool: when cold it is filtered and decanted.' When the case went before the House of Lords, it was held, in affirmation of the view taken by the Lord Chancellor, that on the construction of the whole specification two processes, a hot and a cold process,

were described, and as it was proved that only the hot process was effective, the specification was declared to be bad and the patent consequently invalid. It was urged that every person well informed on the subject could see that the cold process was ineffective, but 'this,' it was said, 'would be to correct the specification by the superior intelligence of the reader.' (*Simpson v. Holliday*, 13 W. R. 577, affirmed L. R. 1 H. L. 315.)

Must not contain misdirections or misrepresentations.

If the specification contains language calculated to mislead as to an important part of the patented process, as where it contains positive misdirections as to the mode of operating, the patent will likewise be void. 'You must not mislead people' (said *Jessel*, M. R., in *Plimpton v. Malcolmson*, 3 L. R. Ch. D. 531, 576) 'by telling them to do something wrong, and leaving them to find out the mistake. . . . You must not give people mechanical problems and call them specifications.'

On the trial of *Palmer v. Wagstaff* (Newton's Lond. Journ. vol. xliii. p. 131), an action brought by a candle manufacturer for an infringement of a patent for improvements in the manufacture of candles, it was alleged that the specification contained a positive misdirection as to the position in which the wicks were to be placed in the process of manufacture. The object proposed was the production of a candle requiring no snuffing, by using two or more plaited wicks, arranged in such a manner that they would separate and bend outwards as the candle was burned. Now, it was shown that if the directions of the specification were followed, the candle would require lighting at the bottom instead of the top. If lighted at the top, the wicks converged instead of diverging, and pro-

duced a long snuff. The judge (*Pollock, C. B.*) told the jury that this was a serious mistake; and though the verdict was given against the plaintiff upon other points than those connected with the validity of the specification, there is reason to suppose that this instrument could not have been supported. See also *Savory v. Price* (1 Ry. and Moo. 1; 1 W. P. C. 83); *Bickford v. Skeaves* (1 W. P. C. 218).

It may be inferred, from the case of *Huddart v. Grimshaw* (1 W. P. C. 85), that the assertion in the specification of something being important, when in point of fact it is not, will vitiate the patent, because there is evidence of an attempt to deceive. In *Turner v. Winter* (1 W. P. C. 80), *Ashurst, J.*, said that if there is any unnecessary ambiguity affectedly introduced into the specification, or anything which tends to mislead the public, the patent is void. And it was laid down in *Galloway v. Bleaden* (1 W. P. C. 524), that if there is a want of clearness in the specification, so that the public cannot afterwards avail themselves of the invention, much more if there is any studied ambiguity in it, so as to conceal the invention from the public, no doubt the patent would be completely void. Again, if anything is said to be immaterial which is in reality material, this will be a fatal defect. Thus, in *Neilson v. Harford* (1 W. P. C. 313), *Parke, B.*, said, 'The patentee states that the size and form of the vessel in which the air is heated, previous to its being driven into the furnace, are immaterial. Now, my strong opinion is that the clause is an incorrect statement, and that, being untrue, vitiates the specification, and prevents the patent from being a good patent.' See also *Simpson v. Holliday* (13 W. R. 577, affirmed L. R. 1 H. L. 315).

Misrepresentations as to the object or capabilities of the invention, or as to other important matters, will

deprive the inventor of the benefit of his patent. For instance, a patent was obtained for a machine for making paper in single sheets from one to twelve feet wide. It was proved that the machine would make paper only of one definite width, and that if paper of some other width was required, another machine must be employed. It was held by the Court of K. B. that the capability of the machine had been misrepresented in an important respect, and that the patent was void (*Bloxam v. Elsee*, 6 B. & C. 169). And see *Crossley v. Potter* (Maer. P. C. 249).

Simple mistakes.

Simple mistakes, being merely words used in an inaccurate sense, which words are often used, and are explained by the context, or by the drawings annexed, will not avoid the patent. Thus, in *Bloxam v. Elsee* (1 C. & P. 558; 1 Carp. Rep. 439), the specification made use of the expressions *vis de pression*, *vis de répulsion*, and *vis de réaction*, for different screws; but the context and the drawings showed what was meant, and the objection taken on this ground was not sustained. In another specification the word 'discolour' was used, with the meaning 'discharge the colour.' This, though a mistake in translating the French word 'décolorer,' was held not important enough to vitiate the instrument. A court of law will not insist upon accuracy in minute and unimportant matters; it will not insist upon strict logical correctness; it will overlook such evident errors as the mention of 'imponderable substances.' (*Pollock, C. B.*, in *Tetley v. Euston*, at Nisi Prius, Newton's Lond. Journ. vol. xlii. p. 58.) All it requires is that the patentee shall make his meaning clear, and that his language shall be intelligible to the persons to whom it is addressed.

It was said in the House of Lords that after a patent has stood inquiry and the test of time, the courts do not encourage verbal objections to the form of the specification. (*Neilson v. Betts*, L. R. 5 H. L. 1.)

Claims.

Before the passing of the Patent Act of 1883 it had become usual for patentees to insert at the close of their specifications certain clauses which were known as 'claims.' The insertion of claiming clauses was not then prescribed by the law, but they offered the patentee an opportunity of summing up his invention, and of setting forth in a brief form what he considered to be its pith and essence.

By the fifth subsection of the fifth section of the Act it is directed that a complete specification shall end with a distinct statement of the invention claimed, and therefore a patentee is henceforth bound, after describing the entire machine, apparatus, or process, to define his invention in such a manner that the public may learn what it is that he claims as his exclusive right.

It has hitherto been a common practice in framing the claiming clauses to set forth the invention in very short terms, and to refer to the description contained in the body of the specification, using the phrase 'as herein-before described.' In such cases it became necessary to examine the previous description, in order to see what the invention really was. But as the new Act requires the patentee to make 'a distinct statement of the invention claimed,' it may be expected that he will now be obliged to give a more precise definition of the invention in the claim itself than it has hitherto been usual to do.

In preparing this part of his specification the patentee should be careful neither on the one hand to

include matters that are beyond the boundary of the invention, nor on the other to restrict his rights within too narrow limits.

‘The real object of what is called a claim’ (said *James, L. J.*, in *Plimpton v. Spiller*, L. R. 6 Ch. D. 412, 426) ‘is not to claim anything which is not mentioned by the specification, but to disclaim something. A man who has invented something gives in detail the whole of the machine in his specification. In doing that he is of necessity very frequently obliged to give details of things which are perfectly well known and in common use; he describes new combinations of old things to produce a new result, or something of that kind. Therefore, having described his invention and the mode of carrying that invention into effect, by way of security he says, “But take notice I do not claim the whole of that machine; I do not claim the whole of that *modus operandi*, but that which is new, and that which I claim is that which I am now about to state.” That really is the legitimate object of a claim, and you must always construe a claim with reference to the whole context of a specification.’

Where a specification clearly and distinctly claims a combination alone, a patentee is not bound to disclaim expressly everything he has described, because in such a case it will be held that everything which is not claimed is impliedly disclaimed (*Harrison v. Anderston Foundry Company*, L. R. 1 App. Cas. 574); and, therefore, where a patentee claims in his specification only an entire combination, he will be considered not to have claimed any of the minor combinations. A combination of three parts is a different thing from a combination of two of them; and if a patentee desires to secure the minor combination he must distinctly claim it (*Clark v. Adie*, L. R. 10 Ch. 667; affirmed on appeal, L. R. 2 App. Cas. 315).

‘It has long been the practice’ (said *Jessel, M. R.*, in *Hinks v. Safety Lighting Co.*, 4 Ch. D. 607) ‘to insert in specifications the distinct claim of what is said to be comprised in the patent; meaning that nothing else is comprised, that everything else is thrown open to the public; or, to put it into other words, if a man has described in his specification a dozen new inventions of the most useful character, but has chosen to confine his claim to one, he has given to the public the other eleven.’

In drawing the claims in a specification which refers to a machine or apparatus consisting of many old and new parts, it is desirable to introduce a general claim to the entire machine as a combination, and then separate claims to the new minor combinations and to the new parts. An observance of this rule will be attended with useful results, in case there should arise any necessity for disclaiming part of the invention.

Under the old law all the claiming clauses might be struck out of the specification by disclaimer, if there remained sufficient in the specification to show distinctly what the invention was. (*Thomas v. Welch*, L. R. 1 C. P. 192.)

In *Kay v. Marshall* (2 W. P. C. 39), *Cottenham, L. C.*, said, ‘The claim is not intended to aid the description, but to ascertain the extent of what is claimed as new. It is not to be looked to as the means of making a machine according to the patentee’s improvements. If, therefore, the specification containing the description be sufficiently precise, it cannot be of any consequence that expressions are used in the claim which would be too general if they proposed to be part of the description.’ See also *Lister v. Leather* (3 Jur. N. S. 811; *S. C.* in error, 8 E. & B. 1004).

On the other hand, where the description in a specification was in the first instance too general, but the inventor afterwards in describing his invention referred to certain figures in drawings annexed to the specification, and the claim was for the invention *described with reference to those figures*, the specification was held sufficient (*Daw v. Eley*, 14 W. R. 126, and on another hearing, L. R. 3 Eq. 497). See also *Russell v. Cowley* (1 W. P. C. 465); *Thomas v. Welch* (L. R. 1 C. P. 192).

In the case of *Arnold v. Bradbury* (L. R. 6 Ch. 706) it appeared that the specification under a patent for an improved ruffle and sewing machine stated that the invention related to an improved frill or gathered fabric, and to the machinery for making the same; that the apparatus used in producing the article consisted of a peculiar mechanism for gathering and feeding one of the fabrics operated on, which mechanism was used in combination with a sewing machine, the latter being modified to receive it. The gathers in a fabric were fed into the machine by mechanism without being scratched by a pointed instrument as when formed by hand. A description of the mechanism was given. Drawings figured the mechanism, and one of them showed a portion of a sewing machine to illustrate its operation. The claims were for—(1) The *production by machinery* of gathered work when it was simultaneously attached to a plain fabric by stitches; (2) *the production by machinery* of gathered work when it was simply gathered and secured on itself by stitches; and (3) the combination of mechanism for gathering with the mechanism of a sewing machine for the two purposes above mentioned. It was contended by the defendants, who admitted the infringement, that the patent was void, because the first two claims were too wide and general, inasmuch

as they claimed the production of gathered work by any kind of machinery. *Lord Hatherley, L. C.*, however, said that a claim must be very large and vague indeed to justify any court in saying that it is impossible to sustain a patent based upon it. He read the first claim as one for the production by machinery of that which had not been done by machinery before, viz. an improved frill. The inventor had stated in what the improvement consisted, and he described the machinery by which it was produced; and then he said, I claim the producing of this by machinery, of which machinery I have given full details. In other words the judge read the specification as not claiming more than the production of gathered work by the machinery therein described. As to the second claim, his lordship said that he could not tell that the frill produced without being scratched was not more durable and elegant than one formed by hand and scratched. If the inventor had produced a machine which dispensed with an injurious process, the judge said he could not in the absence of evidence take upon himself to say that it would not be the subject-matter of a patent, and he decided that there was no ground for holding that the claims were too large *per se*.¹

As to the construction of a claim which can be read in two senses, one of which would make the patentee appear to claim something which was well known and in common use, see *Cropper v. Smith*, Court of Appeal, W. P. C. p. 81, and *Westinghouse v. Lancashire and Yorkshire Railway Company*, *ibid.* p. 98. And see what fell from *Tindal, C. J.*, in *Haworth v. Hardcastle*, 1 W. P. C. 484. If one construction would

¹ Lord Hatherley remarked in this case that it was a singular fact that no case had been cited from the law books of any claim being held to be too large on account of the greatness of the claim independently of external evidence.

imply that the claim is practically a repetition of what has gone before and entirely superfluous, yet so long as it does not seek to enlarge the monopoly beyond what the patentee is entitled to, it will not make the patent invalid. (*Plimpton v. Spiller*, L. R. 6 Ch. D. 412.)¹

INTERPRETATION OF SPECIFICATIONS.

When a patent case is tried before a jury it is the duty of the judge, where a specification comes into question, to explain to the jury what that instrument directs to be done, and it is for the jury to say whether, upon the evidence, the promised result will be accomplished by pursuing those directions. (*Per Cresswell, J.*, in *Beard v. Egerton*, 8 C. B. 165; 19 L. J. C. P. 36.)

Formerly there was a disposition in the Courts to take part against patentees, under the impression that monopolies were not to be encouraged, attaching the old odious sense of the term to the phrase indicating a patent privilege for an invention. Then came a change, and some of the judges thought that a specification ought to be read with indulgence; that a liberal construction should be put upon it, and that the words should receive a benign or a benevolent interpretation. But of late years the Courts have laid down that specifications are to be construed like other written documents, that is, with a disposition to read them fairly, and with an endeavour to ascertain their real meaning, not straining the language nor giving effect to petty objections. In the case of *Newton v. Halbard* (Hil.

¹ The following decisions have reference to the interpretation of 'claims':—*Palmer v. Wagstaff* (9 Exch. 494); *Macalpine v. Mangnall* (3 C. B. 496); *Tomplton v. Macfarlane* (1 H. L. C. 595); *Sellers v. Dickinson* (5 Exch. 312); *Seed v. Higgins* (8 H. L. C. 550); *Thomas v. Fawcett* (6 Jur. N. S. 271); *Dangersfield v. Jones* (13 L. T. N. S. 142); *Thomas v. Welch* (L. R. 1 C. P. 192); *Jordan v. Moore* (L. R. 1 C. P. 624); *Daw v. Eley* (L. R. 3 Eq. 497); *Hinks v. Safety Lighting Co.* (L. R. 4 Ch. D. 607); *Wright v. Hitchcock* (L. R. 5 Ex. 73); *Arnold v. Bradbury* (L. R. 6 Ch. 706); *Harrison v. Anderston Foundry Co.* (L. R. 1 App. Cas. 574); *Westinghouse v. Lancashire and Yorkshire Railway Co.* (1 R. P. C. 98); *Cropper v. Smith* (1 R. P. C. 81).

Term, 1872) Mr. Justice Grove said, 'A specification should not be construed in a technical or captious spirit, but with a fair intention to give it effect if it be reasonably intelligible.' In the case of *Harrison v. The Anderston Foundry Co.* (L. R. 1 App. Cas. 574) Lord Chelmsford said, 'In the construction of a specification it appears to me that it ought not to be subjected to what has been called a benign interpretation, or to a strict one. The language should be construed according to its ordinary meaning, the understanding of technical words being, of course, confined to those who are conversant with the subject-matter of the invention.' 'I am anxious' (said Jessel, M. R., in *Hinks v. Safety Lighting Company*, L. R. 4 Ch. D. 607), 'as I believe every judge is who knows anything of patent law, to support honest *bonâ fide* inventors who have actually invented something novel and useful, and to prevent their patents from being overturned on mere technical objections or on mere cavillings with the language of the specification, so as to deprive the inventor of the benefit of his invention. This is sometimes called a "benevolent" mode of construction. Perhaps that is not the best term to use, but it may be described as construing a specification fairly, with a judicial anxiety to support a really useful invention, if it can be supported on a reasonable construction of the patent.' See also the remarks of the same learned judge, and of Brett, L. J., in *Plimpton v. Spiller* (L. R. 6 Ch. D. 412). Also the observations of Jessel, M. R., in *Otto v. Linford* (Court of App., 46 L. T. N. S. 35). In *Dudgeon v. Thomson* (L. R. 3 App. Cas. 53) Lord Blackburn said, 'I apprehend the duty of the court is fairly and truly to construe the specification, neither favouring the one side nor the other; neither putting an unfair gloss or construction upon the specification for the purpose of saving a patent, nor in order to extend it.'

The same learned judge, in *Ulark v. Adie* (L. R. 2 App. Cas. 423), said, 'In construing the specification we must construe it like all written documents, taking the words and seeing what is the meaning of those words when applied to the subject-matter; and in the case of a specification which is addressed, not to the world at large, but to a particular class, namely, skilled mechanics possessing a certain amount of knowledge, it is material for the tribunal to put itself in the position of such a class, . . . and by the admission of evidence or otherwise put itself in a position to understand and then to say what the words of the specification mean when applied to such a subject-matter.' In delivering the judgment of the Court of Appeal in the same case (L. R. 3 Ch. D. 142), *James, L. J.*, said, 'It cannot be effectually contended that there is any principle to be applied to the construction of specifications which differs from that applicable to the construction of every written instrument whatever. Of course, in ascertaining the meaning of words used, you endeavour to put yourself as much as possible in the position of the person using them.'

'A specification' (said *Fry, J.*, in *Wegmann v. Corcoran*, L. R. 13 Ch. D. 77) 'ought to be read as a whole, and with the view of ascertaining whether it fairly and honestly and with sufficient exactitude describes the invention.'

The construction of a specification belongs to the court alone, but if the case is tried before a jury then the attendant circumstances and the true meaning of the technical phrases, if there be any, are questions which must be ascertained by the jury (*Neilson v. Harford*, 1 W. P. C. 370; *Bovill v. Pimm*, 11 Ex. 718; *Otto v. Linford*, Court of App. 46 L. T. N. S. 35). 'Where novelty or infringement' (said *Lord Campbell*, in *Seed v. Higgins*, 8 H. L. C. 561) 'depends

merely on the construction of the specification, it is a pure question of law for the judge; but where the consideration arises how far one machine imitates or resembles another in that which is the alleged invention, it generally becomes a mixed question of law and fact which must be left to the jury.' It is also for the court to decide the question as to the identity of inventions described in two nearly contemporaneous specifications, when such questions can be determined by a simple comparison of the specifications. (*Per Coltman, J.*, in *Allen v. Rawson*, 1 C. B. 571; *per Pollock, C. B.*, in *Tetley v. Easton*, at *Nisi Prius*, *Macr. P. C.* 68; and *per Erle, J.*, in *Bush v. Fox*, *Macr. P. C.* 168; *Booth v. Kennard*, 2 Hurlst. & Norm. 84; *Thomas v. Foxwell*, 6 Jur. n. s. 271; *Hills v. London Gas Light Company*, 5 Hurlst. & Norm. 312. See, however, the observations of *Tindal, C. J.*, in *Muntz v. Foster*, 2 W. P. C. 105.) But if anything more than simple comparison is required to determine the identity or dissimilarity of two inventions, the question must be submitted to the decision of the jury.

'We by no means lay down as a general rule' (said *Lord Campbell, C. J.*, in *Thomas v. Foxwell*, 5 Jur. n. s. 37) 'that upon a question of novelty of invention such as this, raised by the comparison of two specifications, it must necessarily be a question of law for the court. The specifications may contain expressions of art and commerce upon which experts must be examined, and there may be conflicting evidence, raising a question of evidence to be determined by the jury. But it is quite clear that there may be cases in which the court would be bound to decide the question of novelty exclusively, for the two specifications might be, *in ipsissimis verbis*, the same; and if they be in such plain and common language that the judge is sure he understands their meaning, he is bound to

construe them as he does other written documents.' 'If there be two specifications to be compared' (said *Lord Westbury, C.*, in *Hills v. Evans*, 4 De G. F. & J. 288-298), 'in order to arrive at a conclusion of fact, the right of drawing the inference of fact from the comparison belongs to the jury, and is a question of fact, and not a question of law.'

Steiner obtained letters patent for a new manufacture of a certain colouring matter called garancine, extracted from madder-root, and extensively used in dyeing. This colouring matter was formerly extracted by simply boiling in water, and the refuse matter, termed 'spent madder,' was thrown aside as useless. Steiner's process, under his first patent, obtained in 1832, was the employment of diluted sulphuric acid of a given strength, and he proposed to apply it to the extraction of the colouring matter from both fresh and spent madder. So weak a solution of sulphuric acid had, however, little effect upon the spent madder; and in 1843 Steiner took out another patent. A much stronger solution of sulphuric acid was now used, and heat was employed. The process was specially applicable to the extraction of garancine from spent madder, and he thus obtained a large portion of the garancine which had previously remained attached to the woody fibre. *Pollock, C. B.*, at the trial of an action brought for an infringement of the latter patent (*Steiner v. Heald*, 2 Car. & Kir. 1033), thought that the process was substantially the same as that described in the specification under the first patent. 'It appears to me that this is precisely the same as if you applied a process to grapes already imperfectly squeezed, by which you squeeze a little more juice out of them than was formerly done.' Believing the invention to be destitute of novelty, he directed the jury that, in point of law, the alleged invention

(viz. the one under the second patent) was not any manner of manufacture for which letters patent could be lawfully granted. The jury gave their verdict in favour of the defendant, but the verdict was set aside, and a new trial granted on the ground of misdirection. The judge, it will have been observed, treated the conclusion to be drawn from the evidence as a matter of law; whereas he ought to have left it to the jury to say whether fresh and spent madder had different properties, chemical or otherwise, or whether they were the same thing, with the difference only that part of the colouring matter had been already extracted. If the properties of the two substances were different, the invention was a new manufacture; but if the two things were the same, except that one was more charged with colouring matter than the other, in that case the invention claimed would simply have been the application of a process already known, producing a known result. The object to which the process was applied not being different from that to which it had been formerly applied, in which case there would have been no new invention, it was for the jury to say, upon the evidence, whether the invention was a new manufacture or not. (*Steiner v. Heald*, 6 Exch. Rep. 607.)

The most important case decided of late years with reference to the interpretation of specifications is that of *Betts v. Menzies*, in the House of Lords (10 H. L. C. 117), in which it was held that even where there is an identity of language in two specifications, if such identity consist merely in technical terms, it must be considered impossible for the judge to predicate what exact meaning the first patentee attributed to such terms, if any long interval of time, such as the interval from 1804 to 1848, elapsed between the two specifications. Under these circumstances the judge ought not to take upon himself to decide as to the

identity of the inventions, guided only by the similarity of language. He cannot assume that the inventions are substantially the same because the expressions employed are similar. The identity or dissimilarity is a fact which cannot be decided without hearing evidence on the point; and if the case is tried before a jury it is a fact for their decision. And in a subsequent case on the same patent, *Sir W. P. Wood, V. O.*, appears to have considered that it is no ground of proof of the effect of a long anterior patent that scientific persons of the present day, with all the superior knowledge obtained by the advance of science, depose that they could produce the same results by the process disclosed by the earlier patent, as that described in the subsequent one. (*Betts v. De Vitre*, 11 L. T. N. S. 445.)

It may here be remarked, that where there is doubt as to the meaning of particular expressions, competent persons may be called for the purpose of explaining the matter; but evidence is not admissible to explain or alter the plain and precise words of a specification, or to correct mistakes in it. (*Neilson v. Harford*, 1 W. P. C. 313.) In *Elliot v. Turner* (2 C. B. 446) it was held that the words of a specification are to be construed according to their ordinary and proper meaning, unless there be something in the context (which may be explained by evidence) to show that a different construction ought to prevail. Of course it is allowable to call persons of skill in the department of practical art to which the invention belongs, for the purpose of saying whether or not they understand the specification, and whether or not they could execute its directions, so as to produce a useful result. (See *C. J. Tindal's* remarks in *Walton v. Potter*, 1 W. P. C. 595.)

In the case of *British Dynamite Company v. Krebs*, (Goodeve's cases, p. 88) the House of Lords reversed the decision of the Lords Justices of Appeal on the ground

that the description of the mode of manufacture as set out in the specification had been conclusively proved to be sufficient for all practical purposes. The four law lords were unanimously of opinion that since it was shown in evidence that the patented article had been made by following the instructions of the specification, the judges of the Court of Appeal ought not to have disregarded this, nor to have relied upon their own opinions that they, persons practically unacquainted with the subject, would not have been able to manufacture the article without more instructions than the specification contained.

CHAPTER VIII.

OPPOSITIONS TO THE GRANT OF PATENTS.

AN inventor's application for a patent may be opposed under the eleventh section of the Patent Act of 1883, which enacts that any person may at any time within two months from the date of the advertisement of the acceptance of a complete specification, give notice at the Patent Office of opposition to the grant of the patent. The opponent is restricted to three grounds; viz., that the applicant had obtained the invention from him, or from a person of whom he is the legal representative, or (2) that the invention had been patented in this country on an application of prior date, or (3) that an examiner had reported to the Comptroller that the specification appeared to him to comprise the same invention as was comprised in a specification bearing the same or a similar title, and accompanying a previous application. Where such notice is given the comptroller will give notice of the opposition to the applicant, and will, on the expiration of those two months, after hearing the applicant and the person so giving notice, if desirous of being heard, decide on the case, but subject to appeal to the law officer. As to the procedure in cases of opposition before the Comptroller, see rules 32-41 of the Patents Rules, 1883. The notice of opposition must state the grounds of opposition. When a ground of opposition is that the invention has been previously patented, the

title, number, and date of the alleged prior specification must be duly specified. The opponent's evidence in support of his case and the applicant's evidence in reply must be in the form of statutory declarations. At the hearing before the Comptroller no matter can be gone into which has not been stated in the notice of opposition. In case of appeal to the law officer he will hear the applicant and the person giving notice if entitled, in the opinion of the law officer, to be heard in opposition to the grant, and will determine whether the grant ought or ought not to be made. The law officer may, if he thinks fit, obtain the assistance of an expert. The rules of the law officers in regard to proceedings before them in cases of appeal will be found in the appendix. The evidence used before the law officer will be the same as that used at the hearing before the Comptroller, and no further evidence can be given save as to matters which occurred or came to the knowledge of either party after the date of the decision appealed against, except with the leave of the law officer obtained on special application. The law officer may at the request of either party order the attendance at the hearing for the purpose of being cross-examined of any person who has made a declaration.

By the thirty-eighth section of the Act the law officers are empowered to examine witnesses on oath and to administer oaths for that purpose.

It would seem, from the language of the eleventh section, that, in the first instance before the Comptroller, any member of the public may oppose the grant on the second and third grounds mentioned in the first subsection, but that, in case of appeal, the law officer has power to determine whether the person opposing is entitled to be heard (subsect. 3).

When patents were sealed with the Great Seal a

petition could be presented to the Lord Chancellor against the sealing of a patent, a second opportunity for opposing the grant being thus afforded. But as patents under the new Act are sealed by the Comptroller with the seal of the Patent Office, the jurisdiction of the Lord Chancellor is impliedly taken away, and oppositions are, therefore, reduced to a single stage.

The law officers in the case of cross oppositions, one being before each of them, have sometimes sat together to hear them. This was done by *Holker, A. G.*, and *Giffard, S. G.*, in the cases of *Aulagnier's* application, No. 2578, 1876, and *Herzog's* application, No. 3285, 1876, heard December 6, 1876.

The onus of proof lies on the opponent (*Ex parte Sheffield*, L. R. 8 Ch. 237). At the hearing the parties may appear in person, or be represented by counsel, solicitors, or patent agents. On account of the numerous other engagements of the law officers, it has frequently occurred that much delay has taken place in finally disposing of the case. Moreover, their decisions have not hitherto been officially reported, and it has not been unusual to find different law officers holding different views on the same points. They are naturally averse from stopping patents, because applicants have no power of appealing from their decision. Three of the grounds, which before the new Act might have been urged against a grant can no longer be brought forward; viz., that the subject matter of the invention is not patentable; the fact of previous public user not under a prior patent; and the fact of the opponent having been in possession of the identical invention (unless he can show that it was obtained from him, or from a person whose legal representative he is). The cases on these points reported or cited in Chapter VIII. of the last edition of this work need not therefore be now referred to. The infringement of an existing

patent was formerly not considered a ground for refusing an application, for the reason that it was possible that the later invention covered a valuable improvement; but this argument cannot now be urged. If the later invention is an improvement on an invention under an existing patent, the application must be distinctly made for the improvement separate from the already patented invention; and it may be assumed that before the later inventor works the improvement, he will obtain the licence of the earlier patentee.

In cases of opposition on the ground that the examiner has reported that the specification appears to comprise the same invention as that comprised in an earlier specification with the same or a similar title (sect. 11, subsect. 1) the parties will have a right to inspect the examiner's report; but neither of the parties can see the other's specification until a complete specification has been advertised and become open to the public under sect. 10 and rule 26 of the Patents Rules, 1883. Nor, in the event of an appeal to the law officer, can the parties look to him for assistance in ascertaining the details of the respective inventions beyond such as may be approved by the report of the examiner.

For example, there was a case of opposition before *Baggallay, A. G.*, in June 1875, where the applicant had referred to a model which had been made an exhibit to one of his declarations. The Lord-Lord-Lord-General held that as the model was used to elucidate the contents of the provisional specification, which the opponent had no right to see, neither was he entitled to see the exhibit.

Under the old system, if the law officer was at all doubtful as to the effect of the evidence before him, he would allow the patent to proceed, that the question might be tried in a court of law. In the case of *Dance's Patent* (P. M. J. vol. vi. 2nd series, 298),

Atherton, A. G. (1861) finally gave his judgment as follows:—‘I allow this patent to proceed, thinking that the question of fact, whether Dance or Stevens invented, and the mixed question of fact and law, whether the invention had been made public before Dance applied for protection, admit of too much doubt to justify a law officer in stopping the patent.’

And so in other cases where much doubt hung about the matter, for example where the evidence was conflicting, and the law officer was unable to decide which side was speaking the truth, he would allow the application to proceed, as was done by *Giffard, S. G.*, May 6, 1876, in the matter of *Liddell's Patent*, No. 3872, 1875.

And in *Re Russell's Patent* (2 De G. and J. 130), where the novelty of the invention was contested, *Lord Cranworth, C.*, thought that in such a case it was better to run the risk of putting the party opposing to the costs of ulterior proceedings than to withhold the Seal, for the obvious reason that the former course, if wrong, would only create a remediable injury, whilst the latter course, if wrong, would cause an irremediable injury. (See also *Re Tolson's Patent*, 6 De G. M. and G. 422; *Re Lowe's Patent*, 25 L. J. Ch. 454; *Re Simpson and Isaac's Patent*, 21 L. T. o. s. 81. *Re Spence's Patent*, 3 De G. and J. 523.)

When two contending applicants for a patent claimed to be independent contemporaneous discoverers, the law officer usually refused to allow the grant to issue to either separately, but offered it to the two jointly. And so in a case of opposition before *Lord Cranworth, C.*, where a master and his foreman had both invented certain improvements, for which the master alone applied for a patent, but was opposed by the foreman on the ground of prior invention by the latter, the patent was ordered to be vested in trustees

for the benefit of both. (*Re Russell's Patent*, 2 De G. and J. 130.)

Where an employer opposed the application of a person who was or had been in his service, on the ground that the invention sought to be patented probably resulted from investigations or experiments directed and paid for by the employer, the law officer, being satisfied of the *bona fides* of the opposition, granted his warrant on condition that the applicant should submit his provisional specification to the inspection of the opponent, and should strike out such portions of it as contained matters of the kind referred to by the opponent. This was done by *Coleridge, S. G.*, in the case of *Healey's* application, No. 85, 1872, and also in the case of *Conniff's* application, No. 3895, 1872.

In a case where there were rival applications for a patent for the same invention, and there was a conflict of evidence as to priority of discovery, the patent was awarded by the Lord Chancellor to him who was first in a position to seal it. (*In re Lowe's Patent*, 25 L. J. N. S. 454.) But now priority of sealing will confer no advantage, inasmuch as every patent must be dated on the day of the application. By sect. 13 of the new Act a patent must now, as above stated, be dated and sealed as on the day of the application.

In cases of rival applications where the law officer was satisfied that one of the applicants was entitled to one part of the invention, whilst the other could more fairly claim another part, he issued his warrants to both, limiting the provisional specifications accordingly. This was done by *Coleridge, S. G.*, in the matter of *Craig and Macfarlane's* applications (P. M. J. vol. iv. 3rd series, 366). Macfarlane had applied for Letters Patent for 'Improvements in rollers for paper-making machines,' and obtained the usual provisional protec-

tion. He claimed to have invented both a 'couch-roll' and an 'underpress roller' for a paper-making machine. The application was opposed by Craig, on the ground that he was the first inventor of an underpress roller, covered with vulcanite and vulcanised india-rubber which formed part of Macfarlane's provisional specification, and for which Craig had also applied and obtained the usual protection. Craig contended that Macfarlane, who had obtained the material for the covering of the rollers from a rubber company, was at that time in Craig's employment, and that he had only applied for his patent after the rollers had been experimented with by Craig at one of his mills, and had been found successful. Craig submitted that the experiments adduced by Macfarlane had only reference to the couch-roll of the machine, and that Macfarlane had not proved that he had ever experimented on the underpress roller. *Coleridge, S. G.*, decided to grant his warrant for the sealing of Macfarlane's patent for the couch-roll alone, and to grant his warrant for the sealing of Craig's patent for the underpress roller.

In the case of *Ex parte Bates and Redgate* (L. R. 3 Ch. 577) where the second applicant had procured the Great Seal without having been opposed, before the first applicant petitioned for the Seal, *Lord Hatherley, C.*, only permitted the first applicant to include in his patent so much of the invention as was not covered by the patent already sealed, and moreover, he ordered the first applicant's patent to bear date after the second applicant's.

And so, where the law officer had reported that part of an invention for which a patent was sought was the subject of an existing patent, the Lord Chancellor ordered that part to be excluded from the new patent. (*Ex parte Manceaux*, L. R. 6 Ch. 273.)

The principle of these cases was that the Crown

would not grant a second patent in derogation of a former grant, and would not assume, without *scire facias*, that the first patent was void. See *Ex parte Bailey* (L. R. 8 Ch. 61) and *Ex parte Henry* (L. R. 8 Ch. 167, 169).

The rule did not, however, apply where *mala fides* was present. Thus, where a servant having filed a provisional specification, his master afterwards filed a provisional specification for the same invention, and then a complete specification, and obtained a patent. There was grave suspicion that the master had surreptitiously obtained a knowledge of the servant's invention, and the servant's patent, notwithstanding the existence of the master's patent, was ordered to be sealed and dated as of the day of his application (*Ex parte Scott and Young*, L. R. 6 Ch. 274). The consequence of this would be that by virtue of section 24 of the Patent Law Amendment Act, 1852, acts done under the patent first sealed would be an infringement of the patent with an earlier date. (See *Saxby v. Hennett*, L. R. 8 Ex. 210.)

In *Ex parte Dering* (13 Ch. D. 393), where two applicants had applied on the same day for the same invention, Lord Cairns, C., refused to follow the decision in *Ex parte Bates and Redgate* as to the post-dating of the patent, on the ground that the legislature intended patentees to have the full term of protection given by the provisional specification, and ordered the applicant's patent to be sealed, and dated as of the day of application, although the sealing was opposed by the second applicant, who had already had the Great Seal affixed.

When the opposition was founded on a prior patent granted to the opponent, and the applicant alleged that the invention for which that patent was granted had been communicated by him in confidence to the patentee

who had fraudulently obtained a patent for it, the Lord Chancellor directed the applicant's patent to be sealed, so as to give him an opportunity of trying the question in a court of law. *Re Vincent's Patent* (L. R. 2 Ch. D. 341). And see sect. 35 of the Patent Act 1883.

Where fraud could be made out, or where it was shown that the applicant had derived the principle of the invention from a rival applicant, the Seal would be refused to the former.

In April, 1853, Hadden made application for a patent for a method of making gun-cartridges. His plan obviated the necessity of biting off the end of the cartridge when the gun was being loaded, and its main feature consisted in making it weaker at one end, so that when rammed down it burst open and the powder ran into the breech of the gun. After lodging the provisional specification, Hadden had some conversation with Lott, to whom he described the general features of the invention. Shortly afterwards Lott applied for a patent for an invention having a similar object, and his specification described a collapsing chamber in the cartridge to hold the charge of powder, which chamber would be burst open by the action of the ramrod. This method of carrying out the general idea was different from the one adopted by Hadden. The Solicitor-General, having issued his warrant for the sealing of Lott's patent, the case was carried before the Lord Chancellor, who held that the two inventions were substantially the same, the material part in each being that one end of the cartridge was made weaker than the other with a view to its bursting under the action of the ramrod. Holding that Lott had obtained this idea from Hadden, the Chancellor refused to seal Lott's patent.

Herschell, S. G., in the case of Macfarlane's Patent (March 1883), opposed by the Animal Charcoal Company Limited, declined to issue the warrant under the following circumstances. Macfarlane was manager of the company and Jones was a consulting engineer, and Ingham a chemist also employed by the company. It was alleged that Macfarlane was not the inventor of his alleged invention, but that it consisted partly of suggestions made by Jones and partly of suggestions made by Ingham, all of which had been experimented upon in the company's works under Macfarlane's management. Although Macfarlane showed at the hearing that he had obtained an American patent for his alleged invention in his own name during the pending of the opposition, the law officer, believing that the suggestions had been originally made by Jones and Ingham, declined to grant the patent.

In the case of Abel's application, No. 1908, 1876, opposed by De Muller, August 2, 1876, *Giffard, S. G.*, held that he could not take any official notice of alleged fraudulent proceedings on the part of the foreign communicator of Abel's invention as against the opponent, which took place abroad. He could not look behind the applicant Abel, who, as the first importer or introducer of the invention into Her Majesty's realm, was in law the inventor.

Under the old system, an appeal from the law officer's decision would not be allowed unless a case of surprise or fraud could be made, or unless some material fact which, if brought before the law officer would have led him to decide differently, had come subsequently to the knowledge of the party appealing. (*Re Vincent's Patent*, L. R. 2 Ch. 341; *Re Simpson's Patent*, 21 L. T. o.s. 81; *Ex parte Sheffield*, L. R. 8 Ch. 237.) Nor would the opponent be allowed to raise on those facts before the Lord Chancellor a new argu-

ment which he omitted to raise before the law officer. (*Ex parte Sheffield*, L. R. 8 Ch. 237.)

COSTS.

The Comptroller appears to have no authority to award costs; but the law officers have power, under the 38th sect. of the Act of 1883, to order costs to be paid by either party, and any such order may be made a rule of court. The law officers, however, have no settled rules as to costs, and appear disposed to limit the allowance of costs as much as possible. It is to be hoped that in any future legislation power will be given to the Comptroller to deal with costs of oppositions. There seems to be no ground why applicants should have to bear their own costs of frivolous and unsuccessful oppositions.

CHAPTER IX.

THE PATENT: ITS DATE, DURATION, AND EXTENT.

By the twelfth section of the Patent Act of 1883 it is enacted that if there is no opposition to the grant of a patent, or in case of opposition if the determination is in favour of the grant, the Comptroller shall cause a patent to be sealed with the seal of the Patent Office, and a patent so sealed shall have the same effect as if it were sealed with the Great Seal of the United Kingdom. It is further directed that a patent shall be sealed as soon as may be, and not after the expiration of fifteen months from the date of application, except (1) where the sealing has been delayed by an appeal to the law officer, or by opposition to the grant, in which case the patent may be sealed at such time as the law officer may direct; and (2) if the applicant should die before the expiration of the fifteen months, in which case the patent may be granted to his legal representative, and sealed at any time within twelve months of the applicant's death.

By the thirteenth section of the same Act it is directed that every patent shall be dated and sealed as of the day of the application. The same section provides that in case of more than one application for a patent for the same invention, the sealing of a patent on one of those applications shall not prevent the sealing of a patent on an earlier application. This proviso was intended to apply to such cases as *Ex parte Bates & Redgate* (L. R. 3 Ch. 577) and *Ex parte Manceaux*

(L. R. 6 Ch. D. 274), both before Lord Hatherley. In the former of these cases he decided that a second applicant who had sealed his patent was entitled to hold it against all the world, including the first applicant for the same invention, who was later in applying for the seal. And the judge ordered the first applicant's patent to be dated after the patent of the second applicant.

In the event of the death of an applicant for a patent before the sealing of the patent, it may be granted, under section 12 subsection (3 *b*) of the new Act, to his legal representative, and sealed at any time within twelve months after the death of the applicant. In such a case application must be made to the Comptroller, who will require to be furnished with an official copy of or extract from the will or letters of administration, in proof of the applicant's title as legal representative.

By the eighty-sixth section of the Patent Act of 1883 the Comptroller may refuse to grant a patent for an invention, the use of which would, in his opinion, be contrary to law or morality.

The sixteenth section of the Act of 1883 directs that every patent when sealed shall have effect throughout the United Kingdom and the Isle of Man, leaving out the Channel Islands, which have hitherto been included.

The duration of every patent is by the seventeenth section of the Act of 1883 directed to be limited therein to fourteen years from its date. According to the case of *Russell v. Ledsam* (14 M. & W. 574) the time runs from the day of the date of the patent, including that day: for instance, a patent for fourteen years, dated February 26, 1825, was held to expire at twelve o'clock on the night of February 25, 1839. As to the mode of obtaining an extension of the term, and the princi-

ples which guide the Privy Council in deciding upon the application, the reader is referred to Chapter XI.

By the thirty-third section of the new Act every patent may be in the form set forth in the first schedule, but this form the Board of Trade has power, under the 101st section subsection 2, to alter or amend. Further, by the thirty-third section a patent is to be granted for one invention only, but no objection to a patent can be taken in an action or other proceeding on the ground that it comprises more than one invention.

On reference to the form of patent printed in the Appendix to this volume it will be seen that the Crown grants unto A. B. especial licence, full power, sole privilege and authority, that he, the said patentee by himself, his agents or licensees, from time to time, and at all times thereafter during the term of years thereafter expressed (*viz.* fourteen years), may make, use, exercise, and vend his invention within the United Kingdom of Great Britain and Ireland, and Isle of Man, in such manner as to him or them shall in his or their discretion seem meet; and that the said patentee shall have and enjoy the whole profit, benefit, commodity, and advantage from time to time accruing, by reason of the said invention, during the term of fourteen years from the date. Then all the Queen's subjects whatsoever are strictly commanded not to infringe the patent. It is, however, provided that, if it shall be made to appear to the Crown or the Privy Council that the grant is contrary to law, or prejudicial or inconvenient to the subjects of the realm in general, or that the invention is not a new invention as to the public use and exercise thereof within the United Kingdom, &c., or that the said patentee is not the first and true inventor thereof within the realm, the patent shall be void.

There are also other provisoes, the two most im-

portant of which make the grant void—first, if the said patentee shall not pay all fees by law required to be paid in respect of the patent or in respect of any matter relating thereto at the time or times and in manner for the time being by law provided ; and second, if the said patentee shall not supply or cause to be supplied for the service of the Crown all such articles of the said invention as may be required by the officers or commissioners administering any department of the service in such manner, at such times, and at and upon such reasonable prices and terms as shall be settled in manner for the time being by law provided.

By the operation of the seventeenth section of the Patent Act of 1883 every patent will cease if the patentee fails to make the prescribed payments within the prescribed times. The twenty-fourth section refers to the second schedule as setting forth the fees which are payable by patentees, and the first schedule of the Patents Rules 1883 again sets forth the fees. We there find that 50*l.* must be paid before the end of four years from the date of the patent on a certificate of renewal ; and a further sum of 100*l.* on a second certificate of renewal before the end of seven years, or, in the case of patents granted under the new Act, before the end of eight years from the date of the patent. But a patentee has the option of paying, instead of these sums of 50*l.* and 100*l.*, the annual sum of 10*l.*, before the ends of the fourth, fifth, sixth, and seventh years, the annual sum of 15*l.* before the ends of the eighth and ninth years, and the annual sum of 20*l.* before the ends of the tenth, eleventh, twelfth, and thirteenth years respectively. As to the procedure in regard to certificates of payment or renewal see rules 42–45 of the Patents Rules 1883.

It is, however, provided by the seventeenth section of the new Act that if in any case, by accident, mistake,

or inadvertence, a patentee fails to make any prescribed payment within the prescribed time, he may apply to the Comptroller for an enlargement of the time for making that payment; and thereupon the Comptroller shall, if satisfied that the failure has arisen from any of the above-mentioned causes, on receipt of the prescribed fee for enlargement, not exceeding ten pounds, enlarge the time accordingly, but not for more than three months. (As to the procedure see rule 46 of the Patents Rules 1883.) It is further provided that if any proceeding shall be taken in respect of an infringement of the patent committed after a failure to make any payment within the prescribed time, and before the enlargement thereof, the Court before which the proceeding is proposed to be taken may, if it shall think fit, refuse to award or give any damages in respect of such infringement.

In the case of *Williams v. Nash* (28 Bea. 93) it was held that a payment on the third anniversary of the date was a sufficient compliance with the statute which prescribed the payment of a stamp duty of 50*l.* before the expiration of the third year. The patent was dated on February 26, 1855, and the third year's stamp duty was paid on February 26, 1858.

Under the ninety-eighth section of the new Act whenever the last day for paying a fee at the Patent Office shall happen to fall on Christmas day, Good Friday, or on a Saturday or Sunday or on a day observed as a holiday at the Bank of England, or on any day observed as a public fast or thanksgiving, the fee may be paid on the day next following any of these days.

Where through inadvertence the stamp duty has not been paid within the extended time, and the patent has consequently become void, nothing short of a special Act of Parliament can restore its validity.

In case clerical errors should have been made in letters patent, the Master of the Rolls had and still has power to correct them (*Re Nickels' Patent*, 4 Bea. 563; *Re Gare's Patent*, April 5, 1884); but the application must be made within a reasonable time (*Re Blamond's Patent*, 3 L. T. N. S. 800). In the case of *Adam's Patent* (1 W. R. 259), a doubt having been expressed as to the jurisdiction of the Master of the Rolls, the order was made by the Lord Chancellor. But now, the powers of amendment given to the Comptroller by sect. 18 of the Patents Act, 1883, seem extensive enough to cover clerical errors in patents.

In the event of a patent being lost or destroyed, or if its non-production should be accounted for to the satisfaction of the Comptroller, he is empowered by the thirty-seventh section of the new Act to cause a duplicate thereof to be sealed.

In the case of *Feather v. The Queen* (6 B. & S. 257) it was decided that the Crown has a right to the free use of any patented invention (see the case more fully stated at the end of the chapter on Infringements); and this decision applies to all patents granted before the commencement of the Act of 1883, or on applications then pending; but as to patents granted afterwards, they will have the same effect against the Crown as against a subject (sect. 27). The officers or authorities administering any department of the service of the Crown, their agents, contractors, or others, are to be entitled to use any invention for the service of the Crown on terms to be agreed upon with the approval of the Treasury; or if an agreement cannot be effected, then on such terms as the Treasury, after hearing all parties interested, shall settle.

By the forty-fourth section of the Patent Act of 1883 the Secretary of State for War is empowered to acquire by purchase or gift the benefit of any inven-

tions of improvements in munitions of war, and of any patent obtained for the same, and to prevent the disclosure of such inventions.

The effect of the forty-fifth section is that patents issued or applied for before the commencement of the Act will not have the benefit of the provision binding the Crown, nor will they come under the liability imposed by the clauses relating to compulsory licences. But in all other respects, including the amount and time of payment of fees and the proceedings for amendments, prolongations, and revocations, the new Act will extend to patents granted before the commencement of the Act, or on applications then pending, except that if the patent is three years old the 100% duty cannot be paid by instalments.

By the thirty-fifth section of the new Act a patent granted to the true and first inventor is not to 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.

The 113th section of the Patent Act of 1883 repeals all the statutes described in the third schedule of the Act, but goes on to enact that the repeal shall not affect the *past operation* of any of those statutes. Now, the twenty-fifth section of the Patent Act of 1852 declares that any British patent which bears date after a foreign patent for the same invention (being a foreign invention) shall be void at the expiration of such foreign patent. Consequently, any British patent granted before the commencement of the new Act, and standing in this relation to a foreign patent, will be void by the operation of these two clauses, in case the foreign patent shall have expired before the commencement of the new Act. That is to say, since the earlier Act has

already rendered the British patent void, that 'past operation' of the Act will not be affected by its repeal by the Act of 1883. But if the twenty-fifth section of the earlier Act at the time of its repeal has not had any invalidating operation on a patent, then the British patent will not be touched, and the clause in question will have no effect. As regards patents which have been obtained on applications pending at the commencement of the new Act, it is presumed that the third subsection of the forty-fifth section of that Act will effectually protect them from the operation of the twenty-fifth section of the Act of 1852.

It has been held by Baron Huddleston in the case of *Nordenfeldt v. Gardner* (R. P. C. vol. i. p. 10) that an order to invalidate a British patent on the ground of the invention being a foreign invention for which a Belgian patent had been obtained prior to the date of the British patent and had lapsed, the foreign patent must have been not merely applied for, but actually obtained before the British patent, and this, although the foreign patent when granted actually bore a date earlier than that of the British patent.

When a patent is granted to two or more persons, each may use the invention without being liable to account to the other (*Mathers v. Green*, 1 Law Rep. Ch. Ap. 29, before *Lord Cranworth, C.*). See, however, the earlier case of *Hancock v. Bewley* (Johns. 601), as to the rights of parties where letters patent are vested in trustees for two or more persons as tenants in common.

In case of the death of the patentee intestate before the expiration of the patent, his interest under it passes to his personal representatives, and not to his heir.

CHAPTER X.

AMENDMENTS OF SPECIFICATIONS.

It has been shown in Chapter III., that where a material part of an alleged invention is not new or not useful, the patent is altogether invalid; and that if a patentee claims by his specification more than he is entitled to, the patent is likewise void (see Chapter VII.). The fatal effect of an inconsistency between the title and the specification (Chapter V.), or between the provisional and the complete specification, has also been pointed out (Chapter VII.). To remedy a law which in many cases bore unjustly upon patentees, the Act of 5 and 6 Wm. IV. c. 83, empowered a patentee to take steps for altering his specification by disclaimer. That Act, however, as well as other Acts relating to disclaimers, were repealed by the Patent Act of 1883, which substituted the following provisions for those of previous statutes. By the eighteenth section it is enacted that—

(1) An applicant or a patentee may from time to time, by request in writing left at the Patent Office, seek leave to amend his specification, including drawings forming part thereof, by way of disclaimer, correction, or explanation, stating the nature of such amendment, and his reasons for the same.

(2) The request and the nature of such proposed amendment shall be advertised in the prescribed manner, and at any time within one month from its

first advertisement any person may give notice at the Patent Office of opposition to the amendment.

(3) Where such notice is given the Comptroller shall give notice of the opposition to the person making the request, and shall hear and decide the case subject to an appeal to the law officer.

(4) The law officer shall, if required, hear the person making the request and the person so giving notice, and being in the opinion of the law officer entitled to be heard in opposition to the request, and shall determine whether and subject to what conditions, if any, the amendment ought to be allowed.

(5) Where no notice of opposition is given, or the person so giving notice does not appear, the Comptroller shall determine whether and subject to what conditions, if any, the amendment ought to be allowed.

(6) When leave to amend is refused by the Comptroller, the person making the request may appeal from his decision to the law officer.

(7) The law officer shall, if required, hear the person making the request and the Comptroller, and may make an order determining whether and subject to what conditions, if any, the amendment ought to be allowed.

(8) No amendment shall be allowed that would 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.

(9) Leave to amend shall be conclusive as to the right of the party to make the amendment allowed, except in case of fraud; and the amendment shall in all courts and for all purposes be deemed to form part of the specification.

(10) The foregoing provisions of this section do not apply when and so long as any action for infringement

or other legal proceeding in relation to a patent is pending.

The procedure on applications for amendments is regulated by Rules 48-56 of the Patents Rules 1883 and by the Law Officers Rules which will be found in the Appendix. The law officers have now power to examine witnesses on oath (sect. 38).

By the nineteenth section it is enacted that in an action for infringement of a patent, and in a proceeding for revocation of a patent, the Court or a judge may at any time order that the patentee shall, subject to such terms as to costs and otherwise as the Court or a judge may impose, be at liberty to apply at the Patent Office for leave to amend his specification by way of disclaimer, and may direct that in the meantime the trial or hearing of the action shall be postponed. The Court of Appeal in *Singer v. Stassén* (1 R. P. C. 122), held that liberty to apply for disclaimer during action should be given upon the terms that the costs of the amendment should be the defendants', and that the specification, as amended, should not be receivable in evidence in the action; and in *Codd v. Bratby* (1 R. P. C. 209), *Mr. Justice Chitty* held that leave to amend should be given upon the terms that the specification when amended should not be given in evidence at the trial, and that no evidence of infringement should be given prior to the date of filing the amended specification.

The twenty-first section directs that every amendment of a specification shall be advertised. This will be done by the Comptroller under Rule 56.

There is no appeal from the order of the law officer when he grants or refuses leave to amend on the appeal to him from the decision of the Comptroller.

It had become a common but not invariable practice under the old law for the law officers, on applica-

tions for leave to amend specifications under the Act of 5 & 6 Wm. IV., to impose as a condition that no action for an infringement should be brought either against certain persons or against any of the public, before the date of the disclaimer.

The judges of the Court of Queen's Bench having decided, in the case of *Holmes v. London and North-Western Railway Company*, that a patent for an improved turn-table for railway purposes was invalid, because the specification was construed as claiming not only the combination but also the several parts, some of which were old, the assignee of the patent applied to the Solicitor-General for leave to enter a disclaimer of the separate parts of the turn-table, so as to confine the claim to the combination of parts forming the whole apparatus. The Solicitor-General (1853), after hearing counsel in opposition, as well as for the applicant, granted the leave sought for, upon the terms of the applicant undertaking not to bring or prosecute any action or suit against certain parties, in respect of any turn-tables made or used by them before the date of the disclaimer. (Macr. P. C. 31.) See also in the matter of *Smith's Patent* (Macr. P. C. 232).

In *Re Tranter's Patent* of 1865, which was a patent for fire-arms and cartridges, an application was made in August 1873, by the assignees of the patent for leave to disclaim certain portions of the matters claimed in the specification, and the application was opposed by manufacturers of fire-arms and cartridges chiefly on the ground that they had embarked large capital in the manufacture of cartridges, and that they ought to be protected in their manufacture against any proceedings on the part of proprietors of a patent which had been allowed to remain in its imperfect state for such a long time, inasmuch as the effect of the disclaimer would be to enable the applicants to take such proceedings.

Coleridge, A. G., granted the leave sought for on the condition that the applicants 'should undertake that no legal proceedings be taken against the opponents in respect of the manufacture, use, or sale of cartridges, or for any alleged infringement of the patent in question when amended by disclaimer.' And this decision was followed by *Giffard, S. G.*, in the case of *Re Jones's Patent*, on the application of Mr. Batley, the assignee, for similar leave.

On an application for leave to disclaim parts of the specification under *Crabtree's Patent* No. 2775 of 1878, *James, A. G.*, Feb. 12, 1881, allowed the application upon terms that no action should be brought against any person in respect of any machine which had prior to the hearing been made or sold by any of the opponents. He directed that lists of such machines should be supplied and verified if required by statutory declaration.

The principle of these cases received considerable extension in *Re Medlock's Patent* (Newton's L. J. N. S. vol. xxii. p. 69). That was an application for leave to enter a disclaimer of part of a specification under a patent for preparing a red or purple dye by treating aniline with dry arsenic acid. The patent had been the subject of considerable litigation, which had resulted in its being declared invalid on the ground that, of the two alternative processes described in the specification, confessedly only one would answer (see *Simpson v. Holliday*, 13 W. R. 577, cited *ante*). The application was opposed by several chemical manufacturers, some of whom had been made defendants in the various suits instituted by the owners of the patent. *Collier, S. G.*, would only consent to grant the leave sought for on the terms that the applicants should bring no action against the opposers 'for any infringement of the patent by the use or continued use, *during the continuance of*

the patent, of any processes for manufacturing red and purple dyes in use by them at the present time. The applicants refused to accept this condition, and the Solicitor-General consequently disallowed the disclaimer.

The law officer, however, did not always insist upon the patentee giving an undertaking of this nature. It was sometimes thought right that he should be at liberty to seek compensation for the past infringement of the patent (*Re Lucas's Patent*, Macr. P. C. 234).

We have seen that under the eighth sub-section of the eighteenth section of the new Act 'no amendment shall be allowed that would 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 the amendment.' The first section of the earlier Act (5 and 6 Wm. IV. c. 83), now repealed, under which disclaimers were first authorised, disallowed such 'as shall extend the exclusive right granted by the letters patent.'

In the matter of *Bateman and Moore's Patent* (Macr. P. C. 116), an application was made (1854) to *Bethell, S. G.*, for leave to alter the specification, so as to make it disclaim the separate parts of the invention, and claim only the combination. The Solicitor-General said, that he should require to see from the specification itself that it had not been intended to claim the separate parts, but their combination only. Finding some indication of an intention to claim the apparatus as a whole, he gave the patentees permission to reject certain words in the claiming part of the specification which were inconsistent with such a construction.

Several cases came before the courts in which the construction of the prohibitive words of the earlier Act was debated. 'The object of the Act authorising disclaimers' (said *Lord Westbury* in the case of *Ralston*

v. Smith, 11 H. L. (L. 223) ‘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 uninjured by that vicious excess.’

The language of the old Act was always construed as limiting the amending power to the operation of cutting out peccant matter, but power to correct and explain is expressly given by the new Act.

It will be part of the duty of the Comptroller and the law officers, when hearing applications for leave to amend, to see that the proposed amendment does not extend the scope of the patent, or alter the claims in such a way that the invention would become something substantially larger or substantially different from what it was originally.

Where a specification claims both a combination and some of the parts, a disclaimer may sever and reject the claim either to the combination or to any of the parts. But a specification cannot be altered so as to be made to claim a combination or parts if they were not previously claimed. Nor will a disclaimer be good which attempts to make a specification cover an invention different from that originally specified. For example, where a patent has been obtained for a combination of three parts, and it is found that one of them is useless, a patentee is not entitled to disclaim that one with a view of covering a combination of two parts, inasmuch as that would be an invention different from the one for which he had taken out his patent.

The operation of a disclaimer was considered in the case of *Soed v. Higgins* (8 E. & B. 755). The patentee described in his specification, and illustrated by drawings, some machinery for preparing cotton, and after saying that the apparatus so described represented one practicable mode of carrying out the invention, he proceeded to state that he did not intend to confine himself to this particular method, but claimed as his invention the application of the law or principle of centrifugal force for a certain purpose. He afterwards disclaimed his claim to the application of the law or principle, and limited his claim to the application of centrifugal force acting in a certain manner as described in the specification. This was held to be a limitation of his claim to the particular apparatus described, whereby the principle was applied in a certain way, and afforded no ground for contending that the disclaimer described a different invention from that described in the specification. This view was also taken on appeal by the Court of Exchequer Chamber (8 E. & B. 771) and by the House of Lords (8 H. L. C. 550).

The prohibitive words in the first section of the Act of William IV. were held to apply to all cases where the disclaimer attempted to give the patentee a right which he could not have enjoyed under the specification as originally framed. Thus in the case of *Rulston v. Smith* (11 C. B. n. s. 471) it was decided by the Court of Exchequer Chamber, and afterwards by the House of Lords (11 H. L. C. 223), that a disclaimer is bad which is in effect an attempt to turn a specification for an impracticable generality into a grant for a specific process, comprised within the generality in one sense, but not to be discovered there without going through the same course of experiment which led to the discovery of the specific process in the

disclaimer. The specification in this case was expressed in general terms, embracing a great number of modes of engraving upon rollers any desired design for the purpose of embossing woven fabrics. It was afterwards found that only rollers with circular grooves would answer, and the patentee thereupon, by disclaimer, limited his invention to such rollers. 'Now' (said *Lord Chelmsford*), 'as these were not specifically described in the original specification, but were merely involved in the general terms which were used, the patentee had not complied with the conditions of the letters patent in particularly describing and ascertaining the nature of his invention. When, therefore, by his disclaimer he confines his claim to circular grooved rollers as his sole invention, though in one sense he may be said to narrow a right, yet he really extends it, because he thereby describes his alleged invention sufficiently to enable him now to assert a right under the patent which he never could have successfully maintained upon the original specification alone.

Other decisions as to disclaimers under the old law were *Cunnington v. Nuttall* (L. R. 5 H. L. 205) and *Dudgeon v. Thomson* (L. R. 3 A. C. 34).

It seems, from the case of *Thomas v. Welch* (L. R. 1 C. P. 192), that all the claims might under the old law be struck out by disclaimer, provided that there was enough left in the specification to show distinctly what was the invention sought to be protected.

Under that part of the Act of 5 and 6 William IV. c. 83, which enacts that 'no objection shall be made, in any proceeding whatsoever, on the ground that the party making such disclaimer or memorandum of alteration had not such authority in that behalf,' it was held that the disclaimer of a patentee who had assigned all his interest in the patent could not be objected to (*Wallington v. Dale*, 7 Exch. 888). The language of the

now Act, as we have seen above, is that 'leave to amend shall be conclusive as to the right of the party to make the amendment allowed except in case of fraud.'

The Master of the Rolls may without bill filed order a disclaimer to be removed from the file, when filed without the consent of the patentee (*Re Berdan's Patent*, L. R. 20 Eq. 346).

The M. R. refused to cancel a memorandum of alteration made under 5 and 6 William IV. c. 83, when application was made to him for that purpose, on the ground that it extended the patentee's privilege and infringed the petitioner's patent rights, for he held he had no jurisdiction (*Re Sharp's Patent*, 3 Beav. 245).

The twentieth section of the Act of 1883 directs that where an amendment by way of disclaimer, correction, or explanation has been allowed under that Act no damages shall be given in any action in respect of the use of the invention before the amendment, unless the patentee establish to the satisfaction of the Court that his original claim was framed in good faith, and with reasonable skill and knowledge.

To amend clerical errors in a specification application must be made to the Master of the Rolls or the Comptroller as before stated.

The following cases decided by the Lord Chancellor or Master of the Rolls relate to the amendment of clerical errors under the old law: *Re Sharp's Patent* (3 Beav. 245); *Re Redmund* (5 Russ. 44); *Re Ruberry's Patent* (1 W. P. C. 649); *Re Dismore* (18 Beav. 538); *Re Johnson's Patent* (L. R. 5 Ch. D. 503).

If a patentee should enter a disclaimer after he has obtained an injunction against an infringer, he is no longer entitled to enforce the injunction, but must proceed *de novo* against the infringer (*Dudgeon v. Thomson*, L. R. 3 App. Ca. 34).

An order having been obtained to amend a specification during the progress of an action, subject only to the payment of the costs by the plaintiff, application was made to the Comptroller, and the Comptroller gave leave to amend as proposed without imposing any conditions. On appeal to the law officer, *Herschell, S. G.*, he held that the leave should be made subject to the condition that no action should be brought or proceeding taken in respect of any infringement prior to the 1st January 1884, but without prejudice to any question in the pending action. The law officer stated during the argument that the Attorney General and he were of opinion that the Comptroller, as well as the law officer, had power to impose conditions on giving liberty to amend a specification by way of disclaimer (*Re Hearson's Patent*, R. P. C. 214).

COSTS.

The law officer is empowered by the thirty-eighth section of the Patent Act of 1883 to order costs to be paid by either party, and any such order may be made a rule of Court. But the Act does not authorise the Comptroller to award costs.

CHAPTER XI.

EXTENSION OR PROLONGATION OF LETTERS PATENT.

NOTWITHSTANDING the merit and utility of his invention, a patentee frequently finds himself nearly at the expiration of the term for which his patent was granted, without having reaped the reward which he was fairly entitled to expect. This may have happened from various causes. To perfect the invention, to work it out, and to bring it before the public, may have been attended with great expenses, which were never repaid. It sometimes occurs that the public are slow to acknowledge the merit of an invention of real value, and the patentee's privilege is on the point of expiring before they can be brought to extend their patronage to it. It may be that the patentee's monopoly has been infringed, and that much time has been lost and large costs have been incurred in enforcing or defending his just rights. Or it may be that the patentee did not himself possess sufficient means, and was never fortunate enough to meet with a capitalist to advance what was necessary to work the invention. From some one of these causes, or from several of them combined, it occurs frequently that a patentee fails to derive any benefit, even if he escapes loss, from an invention of sterling merit and utility.

In order to afford the unsuccessful but meritorious patentee an opportunity of remedying this hardship at a less cost than a special Act of Parliament, the statute of 5 and 6 William IV. c. 83, empowered him to petition

the Queen in Council for a prolongation of the term of his patent; and now by the twenty-fifth section of the Patent Act of 1883 it has been enacted that a patentee may, after advertising in manner directed by any rules made under this section his intention to do so, present a petition to her Majesty in Council, praying that his patent may be extended for a further term; but such petition must be presented at least six months before the time limited for the expiration of the patent.¹ Any person may enter a caveat, addressed to the Registrar of the Council at the Council Office, against the extension. If her Majesty shall be pleased to refer any such petition to the Judicial Committee of the Privy Council, the committee shall consider the same, and the petitioner and any person who has entered a caveat shall be entitled to be heard on the petition. The Judicial Committee are to have regard to the nature and merits of the invention in relation to the public, to the profits made by the patentee as such, and to all the circumstances of the case. If they report that the patentee has been inadequately remunerated, her Majesty in Council may extend the term of the patent for seven, or in exceptional cases fourteen, years; or may order the grant of a new patent for the term therein mentioned, and containing any restrictions, conditions, and provisions that the Judicial Committee may think fit.

An assignee may apply for an extension, but he does not stand altogether in the same favourable position as the patentee. It is chiefly with the view of rewarding a meritorious inventor that the extension of a patent is granted. If, however, the assignee be a person who has assisted the inventor with funds to

¹ In the case of Brandon's patent (1 R. P. C. 154), it was held that owners of patents existing before 1st January 1884 could apply for prolongations at any time before the expiration of such patents

enable him to perfect the invention and bring it into use, this circumstance is a favourable feature in a petitioning assignee's case (*Norton's Patent*, 1 Moore, P. C. C. n. s. 339, in which case the petitioners, who were a public company, were refused a prolongation which they applied for after the death of the inventor). See also the cases of *Cardwell's Patent* (10 Moo. P. C. C. 488); *Napier's Patent* (13 Moore, P. C. C. 543); *Pitman's Patent* (8 Moo. P. C. C. n. s. 297); *Hutchison's Patent* (14 Moo. P. C. C. 364); *Normand's Patent* (L. R. 3 P. C. C. 193); *Reece's Patent*, 'Engineer,' March 1881.

PROCEDURE.

The proceedings commence by the insertion of advertisements in the public prints, giving notice of the patentee's intention to apply for a prolongation of his patent, and a petition setting forth the facts must then be presented to her Majesty in Council, six months before the time limited for the expiration of the patent.

All facts material to the petitioner's title must be stated in the petition (*Johnson's Patent*, L. R. 4 P. C. C. 83). In one case, when such facts were omitted, the hearing was postponed, and the petition directed to be amended (*Hutchison's Patent*, 14 Moore, P. C. C. 364). In another case, where important facts were not set forth, the application was refused (*Pitman's Patent*, 8 Moore, P. C. C. n. s. 293). Where the patentee had assigned his patent before applying for an extension, and had omitted to state this fact in his petition, it was dismissed, leaving the inventor or his assignee if he thought proper to apply again (*Mitchell's Patent*, February 1882).

If foreign patents have been obtained, the fact should be mentioned (*Pitman's Patent*, L. R. 4 P. C. C. 86; *Adair's Patent*, 6 App. Cas. 176). Important

facts having been inadvertently omitted from the petition, leave was applied for and granted to file supplementary particulars before the hearing (*In Re Reece's Patent*, 'Engineer,' February 1881).

Any person may enter a caveat addressed to the Registrar at the Council Office against the extension. Having done so, he is entitled to have notice from the petitioner of the hearing, and may be heard in opposition, where the case is entered upon, before the Judicial Committee (*Lowe's Patent*, 8 Moore, P. C. C. 1). As to the right of an alien living abroad to be heard in opposition to an extension, see *Schlumberger's Patent* (9 Moore P. C. C. 1).

By the sixth of the Privy Council Rules persons who have entered caveats must within a fortnight after service on them of copies of the petition lodge at the Council Office notice of the grounds of their objection. In *Ball's Patent* (4 App. Ca. 171) it was held to be unnecessary to state the particulars if the grounds are given.

By the ninth rule the petitioner must lodge at the Privy Council Office at least one week before the day fixed for the hearing, six printed copies of his specification, and also four copies of his accounts. If the accounts are not filed in due time the Committee may refuse to go into the question (*Johnson's and Atkinson's Patents*, L. R. 5 P. C. 87; *Chatwood's Patent*, L. R. 5 P. C. 88, note).

Under the eighth section of the 7 and 8 Vict. c. 69, the Judicial Committee may appoint one of the clerks of the Privy Council to take any formal proofs required to be taken in dealing with the matter before them, and may proceed on the clerk's report as if the proofs had been taken by the Committee itself; and this section was not repealed by the Patent Act of 1883. By the sixth sub-section of the twenty-fifth section of that Act

it was enacted that her Majesty in Council might make, from time to time, rules of procedure and practice for regulating proceedings on such petitions, and subject thereto such proceedings should be regulated according to the existing procedure and practice in patent matters of the Judicial Committee. The rules now in force will be found reprinted in the Appendix to this volume.

THE HEARING.

The Judicial Committee of the Privy Council is empowered by the twenty-eighth section (subsection 2) of the new Act to call in the aid of an assessor, specially qualified in any proceeding before them relating to patents.

Not more than two barristers will be heard on each side; that is to say, two in support of the applicant's case, and two in opposition. Where, however, more parties than one oppose, and they have separate and independent grounds of opposition, each will be allowed two counsel. The Attorney General usually appears to watch the case on behalf of the Crown.

The petitioner must be prepared at the hearing with evidence to show that there is an invention; that the invention possesses utility and is a benefit to the public; that all reasonable means had been taken to make the invention productive; and if his case is that he has never been reimbursed his expenses, he must give reasonable evidence of the amount of his loss. If, however, there is a balance of profit, but to an extent incommensurate with his fair expectations, he will be required to show what the real profit has been. 'It is the duty of a patentee to take upon himself the onus of satisfying the Committee in a manner which admits of no controversy of what has been the amount of remuneration which in every point

of view the invention has brought to him, in order that their lordships may be able to come to a conclusion whether that remuneration may fairly be considered a sufficient reward for his invention or not. It is not for the Committee to send back the accounts for further particulars, nor to dissect the accounts for the purpose of surmising what may be their real outcome if they were differently cast; it is for the applicant to bring his accounts before the committee in a shape which will leave no doubt as to what the remuneration has been that he has received.' (*Per Lord Cairns in Re Saxby's Patent*, L. R. 3 P. C. 292; S. C. 7 Moore, P. C. C. N. S. 85. See also *Re Clark's Patent*, L. R. 3 P. C. C. 421; S. C. 7 Moore, P. C. C. N. S. 255; *Wield's Patent*, L. R. 4 P. C. C. 89.) The accounts must, therefore, be clear, unreserved, and properly proved (*Hills' Patent*, 1 Moore, P. C. C. N. S. 258). It is desirable that a patentee should from the first keep his accounts under the patent distinct from those of any other business in which he may be engaged, so that in the event of his applying for an extension, he may be able to give satisfactory evidence of everything paid and received on account of the patent. (*Betts' Patent*, 1 Moo. P. C. N. S. 49).

The profits of every branch of the manufacture connected with the patented invention must be set forth. On the hearing of the petition for a prolongation of *Newton's Patent*, March 1881, it appeared that the petitioners (Nobel's Explosives Company), who were assignees, had not only manufactured dynamite, the object of the patent, but had also made nitro-glycerine (one of the ingredients of dynamite) and the nitric acid with which that nitro-glycerine was prepared. In making out their accounts in support of their case they treated the matter as if they had bought nitro-glycerine in the market, keeping out of view the profits they

had made by the manufacture of nitric acid and nitro-glycerine; their contention being that the latter profits ought not to be taken into consideration in estimating the dynamite profits. It was, however, held that the profits from every branch of their manufacture must be brought into the account; and as the profits derived from the subsidiary manufacture had been very large, the petition was dismissed with costs.

It is to be observed, however, that the Act of 1883, sect. 25, subsect. 4, directs the Judicial Committee in considering their decision to have regard to 'the profits made by the patentee as such.' These words may possibly be considered as an instruction to the Committee not to take into account the profits made by an independent business carried on by the patentee, notwithstanding that the produce of that business is used as a feeder of the patented manufacture. It may be argued that since the subsidiary business requires its own capital, management, and labour, incurs its own trade risks, and is open to public competition, its conductor ought to enjoy the profits thereof without being called on to bring them into the account of the profits made under the patent. That business might have been carried on by any other person without infringing the patent, it may therefore be contended that its profits were not 'made by the patentee as such.'

The profit, year by year, ought to be shown (*Perkins' Patent*, 2 W. P. C. 6), including the profits made by sales abroad (*Hardy's Patent*, 6 Moo. P. C. 441). The profits made under foreign patents, if any, must be shown (*Adair's Patent*, 6 App. Cas. 176). If books of account are not forthcoming, the petitioner will be required to explain their absence (*Markwick's Patent*, 13 Moore, P. C. C. 310). If a patentee so deals with his rights that he is unable to show what amount of profit has been made by working the patent, or what

has been received under licences, he will be considered to have disentitled himself to an extension (*Trotman's Patent*, L. R. 1 P. C. 118; *Saxby's Patent*, L. R. 3 P. C. 294). In taking an account of the profits and loss the patentee is entitled to charge for personal expenses and loss of time in endeavouring to bring the invention into use (*Trotman's Patent*, L. R. 1 P. C. 135; *Newton's Patent*, 14 Moore, P. C. C. 156; *Perkins' Patent*, 1 W. P. C. 6; *Carr's Patent*, L. R. 4 P. C. 541; *S. C.* 9 Moore, P. C. C. n. s. 379; *Pool's Patent*, L. R. 1 P. C. 514). And the cost of making experiments has been allowed (*Kay's Patent*, 1 W. P. C. 572). In some cases the profits made by the patentee as manufacturer have been allowed to be deducted (*Betts' Patent* 1 Moo. P. C. n. s. 49; *Galloway's Patent*, 1 W. P. C. 729); in other cases such profits were not allowed to be deducted (*Muntz's Patent*, 2 W. P. C. 121; *Saxby's Patent*, L. R. 3 P. C. 292). Law expenses incurred by the patentee in maintaining his rights are in general allowed in deduction of profits, but this will not be done when the patentee has compromised suits and given up costs to which he had an apparent title (*Hills' Patent*, 1 Moore, P. C. C. n. s. 258). In the matter of *Bailey's Patent* (R. P. C. vol. i. p. 1), where the administrator of a patentee petitioned for prolongation on the ground of the insufficiency of the remuneration obtained, and claimed at the bar to be allowed some deductions from the profits not mentioned in the petition or accounts, it was held that no such deduction could be made, and evidence on the point was inadmissible. Where the statement of the accounts is unsatisfactory the Committee will either direct that question to be taken before considering the merits of the invention, or adjudicate without reference to them (*Clark's Patent*, L. R. 3 P. C. 421; *S. C.* 7 Moore, P. C. C. n. s. 255; *Wield's Patent*, L. R. 4 P. C. 89; *S. C.* 8 Moore,

P. C. C. N. S. 300). But where the accounts are satisfactory on their face the usual course is to go into the question of merits first (*Houghton's Patent*, L. R. 3 P. C. 462).

The merit and utility of the invention ought to be shown by the testimony of persons of experience and weight (*McDougal's Patent*, L. R. 2 P. C. 1; *Betts' Patent*, 1 Moo. P. C. 49).

The petitioner must show that the parties interested had made efforts to bring the invention into public use.

Delay for a prolonged period on the part of an inventor in attempting to bring his invention into use is a good reason for refusing to grant an extension unless some reasonable excuse can be shown (*Norton's Patent*, 1 Moore, P. C. C. N. S. 339).

If the invention has not been brought into use, in spite of the earnest endeavours of the persons interested in the patent, that circumstance will be taken as a strong presumption that it is wanting in practical utility, and if not satisfactorily explained, the application will be refused (*Southworth's Patent*, 1 W. P. C. 487; *Kollman's Patent*, 1 W. P. C. 565; *Jones' Patent*, 1 W. P. C. 579; *Bakewell's Patent*, 15 Moo. P. C. 385; *Allan's Patent*, L. R. 1 P. C. 507; *Herbert's Patent*, L. R. 1 P. C. 389).

But the presumption of non-utility in the invention may be rebutted by evidence showing its merit and utility. (*Hughes' Patent*, L. R. 4. App. Ca. 174).

It is open to those who oppose the patentee's application, to go into evidence for the purpose of showing that the invention is wanting in novelty or utility, or that it is imperfect; and they may likewise point out defects in the specification. It is sufficient, prior to tendering evidence of instances of anticipation, to state the grounds of objection to an extension without stating the particulars (*Ball's Patent*, 4 App. Cas. 171).

The fact of improvements having been made by other persons in the patentee's invention after the date of his patent, does not afford ground of opposition to an application for an extension if the invention has a merit of its own, and if the patentee has not reaped a benefit in proportion to that merit (*Galloway's Patent*, 1 W. P. C. 727; *Napier's Patent*, 6 App. Cas. 174).

Nor is it a valid ground of objection that the manner of working the invention had been varied since the filing of the specification (*Heath's Patent*, 2 W. P. C. 257).

If a patentee has allowed his foreign patents to lapse, that is not a ground for refusing the prayer of the petition (*Adair's Patent*, 6 App. Cas. 176; and see *Johnson's Patent*, L. R. 4 P. C. 79; *Hills' Patent*, 1 Moore, P. C. n. s. 258).

But if the invention as originally specified proved a failure (*Bell's Patent*, 2 W. P. C. 160), or when it was only made completely successful by adopting improvements introduced by other persons from abroad (*Woodcroft's Patent*, 1 W. P. C. 740), the patentee was thought disentitled to an extension.

On the other hand, if the introduction of the invention has been strongly opposed by persons engaged in the trade (*Stafford's Patent*, 1 W. P. C. 563; *Robert's Patent*, 1 W. P. C. 573), or if the patentee has never been able to raise the necessary funds (*Wright's Patent*, 1 W. P. C. 575), or if he has been engaged in heavy litigation arising out of the patent (*Heath's Patent*, 2 W. P. C. 257; *Russell's Patent*, 2 Moo. 496 P.C.; *Pettit Smith's Patent*, 7 Moo. P. C. 133), these have been considered good grounds for granting an extension.

If litigation, involving the question of the validity of the patent, should be going on at the time of the application for a prolongation, the Committee will not go into the question, but will assume the patent to be

valid (*Bell's Patent*, 1 Moore, P. C. C. n. s. 49); unless the invalidity is beyond all reasonable doubt, in which case they will not grant an extension (*Woodcroft's Patent*, 2 W. P. C. 30; *Hills' Patent*, 1 Moore, P. C. C. n. s. 258; *McInnes' Patent*, L. R. 2 P. C. 54; *S. C.* 5 Moore, P. C. C. n. s. 72). If a competent tribunal should, after the grant of a new patent, decide that the original patent was invalid, the new patent will share its fate, and will be invalid likewise (*Kay's Patent*, 1 W. P. C. 571). On the hearing of the application to extend the term of *Howiball's Patent* (3 Eq. Rep. 230; *S. C.* 2 W. P. C. 208) it was said that the grant of an extended term is to be considered as a new grant by new letters patent, subject to the same conditions, open to the same objections, and in ordinary cases entitled to the same advantages, as the original grant. So that, in point of fact, the extension decides nothing, one way or other, as to the validity of the patent. And therefore, where it is only a matter of doubt as to the validity of the patent—as, for example, where the evidence is conflicting—the extension will be granted, if there appear good grounds *aliunde* for that course. When it appeared that a patentee had agreed by deed with a public company to grant an exclusive licence, and also covenanted with them to obtain at the expiration of the term a prolongation of the patent for the same purpose, the application for a prolongation was refused by the Privy Council, on the ground that the agreement was contrary to public policy and repugnant to the spirit of the statute 5 and 6 William IV. c. 83 (*Cardwell's Patent*, 10 Moore, P. C. C. 488).

The jurisdiction conferred upon the Judicial Committee by the Legislature, being an extraordinary one, is to be exercised, as remarked in the Council Chamber, only on the most special grounds alleged and proved in

reference to each case, and at the discretion of the Committee; for the extension of a patent is a matter of favour, not of right. In considering their decision the Committee is, according to the twenty-fifth section of the Act of 1883, to 'have regard to the nature and merits of the invention in relation to the public, to the profits made by the patentee as such, and to all the circumstances of the case.' In coming to a decision they seek to meet the justice of the case with respect to the adequacy or inadequacy of the patentee's remuneration, regard being had to the patentee's opportunities and his general management of the matter. If he has met with loss, as the total result of his transactions under the patent, and there has been no neglect or gross mismanagement on his part, there is good *prima facie* ground for an extension; but if a certain amount of profit has been derived from working the patent, a decision is less easily formed. The question to be considered, it has been said, is not simply what the patentee has received, but what the patent has gained or what it ought to have gained with proper management.

Assuming that the patentee's conduct in regard to this part of the case is not open to remark, it is obvious that the merit of the invention is now an element to be considered, since 100*l.* may very well reward an invention of small utility, whilst 10,000*l.* may be an inadequate payment for a discovery of great public benefit, the working of which has been attended with heavy losses and extraordinary anxieties. The amount of inventive power will be taken into consideration, as well as the more or less time and trouble expended by the inventor in making experiments, either previously to his discovery, or in testing it, or in carrying it out. Inventors have different degrees of meritoriousness. It is not, however, to be assumed, that because the step in improvement taken by an inventor is small, his

merit is likewise small, and his invention unimportant. A very small addition or alteration may have altogether escaped notice until seized and turned to account by an acute mind, and its adoption may lead to most important consequences in the manufacture with which it is connected. The reward of such an invention ought not to be made proportionate to its apparent insignificance. Common justice dictates that the benefit an inventor has conferred on the public ought to be regarded; and the advisers of the Crown, acting under this idea, will give him the opportunity of reaping a recompense in some degree commensurate with the value of the result. In delivering judgment on an application to the Privy Council for an extension of *Soames' Patent* (1 W. P. C. 729), *Lord Brougham* used these words: 'The whole history of science, from the greatest discoveries down to the most unimportant—from the discovery of the system of gravitation itself, and the fractional calculus itself, down to the most trifling step that has ever been made—is one continued illustration of the slow progress by which the human mind makes its advance in discovery. It is hardly perceptible, so little has been made by any one step in advance of the former state of things, because generally you find that just before there was something very nearly the same discovered or invented.' His lordship proceeded to say, that in the case of a new principle or a novel invention—for instance, a new process—the smallness of the step did not furnish any argument against its importance. But when a new application only is under consideration, such an application as might easily suggest itself to any person—a new application of a well-known simple process, which had been employed with respect to other substances—then, when a patentee comes to apply for an extension of his patent, the smallness of the step involved in the patented

invention will be taken into consideration in determining the length of the extension. In this case the invention consisted in an application of mechanical pressure to separate the solid and fluid constituents of cocoa-nut oil. The invention having been of moderate benefit to the public, the moderate extension of three years was granted to the patentee. See also the remarks of Lord Kingsdown on *Hills' Patent* (1 Moore, P. C. C. n. s. 258), and of Lord Cairns in *Saxby's Patent* (L. R. 3 P. C. 294), as well as the case of *Derosne's Patent*, 4 Moo. P. C. 418.

In the case of a patent obtained for an invention imported from abroad, which invention had been previously patented in a foreign country, the British patent became void under the twenty-fifth section of the 15 and 16 Vict. c. 83 at the expiration of the foreign patent; and when application for a prolongation of such a patent was made, it was refused (*Aube's Patent*, 9 Moo. P. C. 43; *Poole's Patent*, L. R. 1 P. C. 514; *Aldair's Patent*, L. R. 6 A. C. 176; *Hills' Patent*, 1 Moo. P. C. n. s. 258). And this rule was even extended to cases of patents for imported inventions, when the foreign patent was dated shortly after the British patent (*Newton's Patent*, 14 Moore, P. C. C. 156; *Normand's Patent*, L. R. 3 P. C. 193; *S. C.* 6 Moore, P. C. C. n. s. 477; *Blake's Patent*, L. R. 4 P. C. 535; *S. C.* 9 Moore, P. C. C. n. s. 373).

This Act having been repealed, no objection can now be founded on the authority of these decisions with reference to patents issued under the new Act; nor, apparently, with reference to patents previously issued, which had not been avoided by the statute of Victoria. But if any patent granted before the commencement of the new Act had been rendered void by the operation of the statute before that date, then it would seem that the cited decisions would still be ap-

plicable in case an extension of the patent were petitioned for.

Before the Patent Act of 1883 was passed, it had been decided that the Crown, at any time before the Great Seal was affixed, could countermand the warrant for sealing, upon a proper case being made out. Thus where patentees had applied for a prolongation of their patent, and had obtained a recommendation from the Judicial Committee of the Privy Council, upon which an order was drawn up for a prolongation, a petition was afterwards presented to the Crown, seeking to revoke this order; and this being referred to the Judicial Committee, it was held that this Committee has authority, under 3 and 4 William IV. c. 4, s. 4, to entertain such a petition, and to recall the warrant for sealing the letters patent (*Schlumberger's Patent*, 9 Moore, P. C. C. 1).

The new patent bears date the day after the expiration of the original term. If any one should use the invention in the interval between the expiration of the original term and the grant of the new patent, he is not liable for an infringement. Moreover, those who may have invested capital in working it during that interval may attend before the Committee, and oppose the application, or prefer a claim to have their acts protected and their expenditure made good (*Russell v. Leulsam*, 14 M. and W. 574).

Where a patent seems deserving of prolongation only in respect of one head of invention out of several, the prolongation will be granted solely with reference to that head (*Bodmer's Patent*, 8 Moore, P. C. C. 282; *Lee's Patent*, 10 Moore, P. C. C. 226; *Napier's Patent*, 6 App. Cas. 174).

In the case of two cognate patents which had different terms to run, it was ordered that the extensions granted should be such that they should both

expire on the same day (*Johnson's and Atkinson's Patents*, L. R. 5 P. C. 87).

Where the invention is one of great merit, and the patentee has assigned his interest in it to another person for a sum which, looking at the profits likely to be derived from working the invention, appears an inadequate consideration, the Privy Council will see that the patentee receives further reward. With this view, a condition is sometimes introduced into the new patent, making it void in case a fixed annual sum, or a certain share in the profits, be not paid to the patentee by the assignee (*Whitehouse's Patent*, 1 W. P. C. 473; *Hardy's Patent*, 6 Moore P. C. C. 441; *Morton's Patent*, 1881).

So also where a patentee had mortgaged his patent, and he and his mortgagees asked for a prolongation, it was granted to the patentee alone (*Bovill's Patent*, 1 Moore, P. C. C. n. s. 348). Again, where the petition had been presented by the patentee and the assignee of a moiety of the patent, and the patentee had died before the hearing, a prolongation was granted on the condition that the assignee should hold one moiety of the new term on trust for the personal representatives of the deceased patentee (*Herbert's Patent*, L. R. 1 P. C. 399). Other special conditions are sometimes inserted in the new letters patent; for example, that the patented article should be sold to the public at a certain price (*Hardy's Patent*, 6 Moore P. C. C. 441); that licences should be granted on certain terms (*Mallet's Patent*, L. R. 1 P. C. 308; *S. C.* 4 Moore, P. C. C. n. s. 175); or that the Admiralty should have the privilege of using the invention (in this case an improved propeller for steam and other vessels) without licences from the patentee (*Pettit Smith's Patent*, 7 Moore, P. C. C. 133). But in the cases of *Lancaster's Patent* (2 Moore, P. C. C. n. s. 189) and *Carpenter's Patent*

(*ibid.* 191) the Judicial Committee refused to insert this latter condition. However, in some later cases the condition was imposed that the Government and all contractors employed by them should be at liberty to use the invention, and this condition seems to be now usual in cases of inventions that are likely to be required by the Government (*Hughes' Patent*, 4 App. Cas. 174; *Napier's Patent*, 6 App. Cas. 174; *Moncrieff's Patent*, July 1883). For instances of other special conditions introduced into the new patent, see *Bodmer's Patent* (8 Moore, P. C. C. 282); *Normandy's Patent* (9 Moore, P. C. C. 452).

When a prolongation of a patent term has once been granted, the jurisdiction of the Judicial Committee is exhausted, and they have no power to entertain an application for a further extension (*Goucher's Patent*, 2 Moore, P. C. C. n. s. 532).

When an order has been made by her Majesty in Council for the extension of a patent, or for the grant of a new patent, an office copy of such order must be forthwith left at the Patent Office that it may be entered in the register. See Rule 71 of the Patents Rules 1883.

COSTS.

The seventh sub-section of the twenty-fifth section of the Patent Act of 1883 directs that the costs of all parties of and incident to proceedings for the extension of a patent shall be in the discretion of the Judicial Committee, and the orders of the Committee respecting costs shall be enforceable as if they were orders of a division of the High Court of Justice.

Where the ground of opposition to a patentee's application is frivolous, costs have been awarded to him. On the other hand, if a successful opposer has conducted his case in a proper manner, he may obtain his costs

(*Honiball's Patent*, 9 Moore, P. C. C. 394; *Johnson's Patent*, L. R. 4 P. C. 75; *Hills' Patent*, 1 Moore, P. C. C. n. s. 271; *Wield's Patent*, L. R. 4 P. C. 89; *S. C.* 8 Moore, P. C. C. n. s. 300; *Newton's Patent*, March 1881). Costs of opposition have been given against a petitioner who abandoned his application (*Mackintosh's Patent*, 1 W. P. C. 739; *Milner's Patent*, 9 Moore, P. C. C. 39).

It is not unusual for the Privy Council to award opposers a lump sum for costs, to be (when more than one) divided between them. In the case of *Newton's Patent*, March 1881, the opposers were so awarded 1,000*l.* In the case of *Johnson's Patent* (L. R. 4 P. C. C. 83), the opposers were ordered to receive 500*l.*, and in *Ball's Patent* (4 App. Ca. 171) an order was made for payment of 400*l.* to the opposers in lieu of costs.

By the Privy Council Rules in patent cases, the taxing officer is empowered to allow or disallow at his discretion all payments made to persons of science or skill examined as witnesses to matters of opinion chiefly.

DECISIONS OF THE PRIVY COUNCIL.

We shall bring this chapter to a close by mentioning a few cases which will illustrate what has been said with reference to the considerations guiding the Judicial Committee in arriving at a conclusion in regard to the term of extension under different circumstances.

On an application for an extension of a patent granted to James Kay, for improved machinery for preparing and spinning flax, it was shown that the patentee had expended 500*l.* in experiments, 500*l.* in obtaining his patent, 2,200*l.* in law expenses, and that he had made about 6,800*l.* profit. The invention was one of great utility, was used by nearly all the flax-spinners in the kingdom; but looking at the sum

already cleared by the patentee, it was thought that a prolongation for three years would satisfy the justice of the case (*Kay's Patent*, 1 W. P. C. 568).

Richard Roberts obtained a patent for improvements in spinning-jennies, the value of which was so great that, during the last three or four years of the original term, 5,000*l.* a year had been made by the patentee. In consequence, however, of piracies, of combinations amongst workpeople, but chiefly of a fire, supposed to have been the act of an incendiary, which destroyed the patentee's premises, and entailed a loss of 10,000*l.* beyond the insurance, the profits did not reach the amount of loss by several thousand pounds. The Committee of the Privy Council, guided by the ingenuity of the invention, and the peculiar character of the resistance to its introduction, were of opinion that seven years' prolongation was merited (*Robert's Patent*, 1 W. P. C. 573).

L. W. Wright applied for an extension of his patent for improvements in bleaching apparatus, and gave evidence before the Committee of his pecuniary embarrassments, and the disputes which had arisen out of his partnership with various persons; which embarrassments and disputes had prevented the introduction of the invention to the trade. He showed that the invention had been successfully practised by several bleachers, but that he had hitherto derived no benefit whatever from it. The Committee reported that it would be proper to prolong the term for seven years (*Wright's Patent*, 1 W. P. C. 575).

A patent for a new method of preparing iron plates for tinning was granted in 1839 to Thomas Morgan, who, being unable to work the invention, had sold his patent right for 200*l.* to persons who applied, in conjunction with the patentee, for an extension of the term. The assignees had made a profit of about 1,000*l.*

a year for three years, and the patentee, in addition to the sum received from them, was making about 2*l.* a week out of the patent. The invention appearing to possess only a moderate degree of merit, the Committee thought that the benefit received by the patentee and his assignees was a sufficient reward, and they refused the application (*Morgan's Patent*, 1 W. P. C. 737).

A patent for printing yarns of any fibrous materials was granted in 1828 to Bennet Woodcroft, who, on the expiration of the original term, applied for an extension. The patented process gave to cloth made of yarn, printed by it, a peculiarly clouded appearance, and the invention gave rise to the manufacture of clouded silks and fabrics. During the first four years of the patent 7,000*l.* were realised under it. Certain duty, however, was taken off other goods, and from this cause and others a large capital invested in working the patent ceased to be profitable, and the patent right became of small value. At a subsequent time the invention, under an improved form, was stated to have become of considerable value, and it was thought proper to apply for an extension of the patent. But the Committee, having regard to the amount of profit already realised, and to the fact that the invention, in its improved and valuable form, was introduced from abroad by other persons than the patentee, refused the application.

In 1840, Orlando Jones obtained a patent for improvements in the manufacture of starch. His method consisted in applying a weak solution of caustic alkali to rice. It was shown, at the hearing of an application for an extension of the patent, that the principle of the invention had been discovered by another person prior to the date of Jones' patent, although Jones was not aware of the fact. The invention being thus shown

to have no novelty, the application was refused, and costs to the amount of 100*l.* were decreed against the petitioner.

On the application for an extension of Derosne's patent, for improvements in refining sugar, it appeared that the patentee's net profit had been about 3,300*l.* But the benefit to the public was so great, being appreciable in every pound of sugar consumed, that an extension of six years was granted (*Derosne's Patent*, 2 W. P. C. 1).

G. F. Muntz applied for an extension of his patent for improvements in the manufacture of sheathing for ship bottoms, and showed that he had made 55,000*l.* by the manufacture during the existence of the patent. The applicant contended that this sum did not represent his profit as an inventor and patentee, but his profit as a manufacturer. But the Committee of the Privy Council said it was impossible to sever these two heads of profit. It was by means of the patent that he had made the profit. It had given him a monopoly preference; because as patentee he was enabled to sell and trade in a manner which, but for his invention and his patent, he could not have done. The application for a prolongation of the patent was refused (*Muntz's Patent*, 2 W. P. C. 113). See also *Hills' Patent* (1 Moore, P. C. C. n. s. 258); *Saxby's Patent* (L. R. 3 P. C. 292; *S. C.* 7 Moore, P. C. C. n. s. 82).

A patent was obtained in 1831, by A. M. Perkins, for improvements in an apparatus for heating air in buildings, heating fluids, &c.; and in 1845 he applied for an extension, on the ground that he had been inadequately rewarded. The ingenuity of the invention, and its application to a great number of purposes, having been shown, the accounts were investigated; when it appeared that there had been a profit of 15,176*l.* upon gross receipts to the amount of 64,920*l.*

The patentee claimed further to reduce the sum representing his profits, by deducting 500*l.*, the cost of experiment, 2,700*l.* interest at five per cent. on the average amount of capital employed, and 5,400*l.* for an allowance of 400*l.* a year to the patentee for his personal superintendence of the business. These sums reduced the profits to 6,576*l.* net. An extension of five years was granted, the invention being ingenious and useful (2 W. P. C. 7).

An application for the extension of a patent for improvements in the manufacture of steel was opposed on the ground that, whereas the patented process consisted in the addition of carburet of manganese to the crucible, it had been subsequently discovered that a better process of making steel was to place carbonaceous matter and manganese separately in the crucible, and this process obtained generally in practice. The Privy Council thought that the merit of the original invention was not thereby materially detracted from, and they granted an extension for seven years. In granting so long a time the litigation going on in the courts of law was taken into account, as it was thought probable that some time would elapse before the litigation would terminate, and the patentee's representatives have the benefit of the extension granted (*Heath's Patent*, 2 W. P. C. 257).

Whitehouse, an ingenious mechanic, procured a patent for improvements in the manufacture of iron tubes, which he assigned to his master, Russell, who laid out 14,000*l.* in works to carry out the manufacture. The tubes were in great demand, being applicable to a variety of new purposes; but, as the manufacture was simple, many expedients were resorted to to evade the patent, and Mr. Russell was involved in much litigation; in consequence of which, combined with the loss incurred by surreptitious manufacture and sale, his

profits were very considerably reduced. On these grounds he applied for a prolongation of the patent, and produced evidence to show the value and importance of the invention, the losses he had suffered from infringements, and the great reduction that would take place in the value of the premises and machinery (much of which was fitted only for the particular manufacture) if the patent were thrown open. He further showed that his life had been endangered by the anxiety of certain law proceedings. One witness stated that, if the manufacture were thrown open, it would hardly be worth following: the process was so beautifully simple, that it would almost be within the reach of any person of capital. The net profits amounted to about 13,000*l.*; but this was shown to be not much greater than the ordinary profits on stock without the protection of a patent. Taking all this into consideration, the Committee thought the patent ought to be extended for six years, the original patentee receiving 500*l.* a year out of the profits for that time (*Whitehouse's Patent*, 1 W. P. C. 473).

A patent for forging and shaping small articles in metal was obtained by Mr. Ryder in 1841: when he applied for an extension, he pleaded that though the profits had been 7,000*l.*, they had only been made during the last four years. This, however, was held to be no ground for the application in the face of the large sum realised, and the petition was dismissed (*Ryder's Patent*, 'Pract. Mech. Journ.' vol. vii. p. 238).

It will have been remarked that the maximum period of extension in these cases was seven years. To induce the Judicial Committee to recommend an extension for a longer time, a case of the strongest kind must be made out.

In *Ruthven's Patent* ('Pract. Mech. Journ.' 2nd series, vol. viii. p. 159), which was a patent for improve-

ments in the propulsion of vessels, the invention was proved to be of very great merit, and to have failed in being brought into general use through circumstances altogether independent of the will and without the fault of the inventor, who had not merely derived no profit, but had suffered considerable loss from his patent. It was shown, moreover, that the Admiralty had then lately instituted experiments with a view to the adoption of the invention, and that several friends of the inventor were willing to provide large capital for working the invention, should a prolongation be obtained. Evidence was also given that from the nature of the invention it would necessarily be a long time before its merit could be properly brought before the public. Under these circumstances the Judicial Committee (stating that they considered the case exceptional) granted a prolongation for the unusual period of ten years.

In the case of *Sillar's Patent* (Goodeve's Cases, p. 581) it appeared that the patent had been sold by the patentees to a Joint Stock Company, who had paid them a sum which seemed to be commensurate with the value of the invention. The Company had afterwards floated their shares in the market, and had thereby made considerable profit. They then applied for an extension of the patent, but it was refused, although they had been considerable losers by working the invention.

Major Childs obtained a patent in 1869 for improvements in the manufacture of bread and biscuits. By this invention a nutritious aërated bread could be made by machinery with regularity and certainty. Down to 1873 the inventor had failed in his endeavours to get the invention fairly worked, but in that year he became chairman of the Aërated Bread Company, and let them have the use of his patent. It was not until

1883 that a large central manufactory was started in London for the making of bread by his process. He received a salary of 600*l.* as chairman and managing director of the company, which was paying 8 per cent. on the shares, of which he held 12,000. The counsel appearing for the Crown estimated that the inventor had made a profit under the patent of between 20,000*l.* and 30,000*l.*, including the rise in the value of the shares held by him. The Judicial Committee were satisfied that the invention possessed considerable merit, and although the inventor had made for the last five years a profit which was increasing, they came to the conclusion that he had not been sufficiently remunerated, and a prolongation for five years was granted. *Childs' Patent.* The 'Times,' Dec. 1883.

The recent case of Bailey's patent (1 R. P. C. 1), shows that the old views of the Judicial Committee as to manufacturers' profits, as distinguished from the profit which may be considered more directly to belong to the patent, will still be insisted upon. This case also shows that if the patentee wishes to claim an allowance for personal trouble it must appear in the accounts.

Newton's patent (1 R. P. C. 177) shows that the practice of the Privy Council, as to the necessity for including profits derived from foreign patents in the accounts, has not been altered by the recent Act.

CHAPTER XII.

ASSIGNMENTS AND LICENCES.

POWER both to assign and to license is by implication given to the patentee by the patent. A patentee is empowered by the thirty-sixth section of the new Patent Act, 1883, to assign his patent for any place in or part of the United Kingdom or Isle of Man as effectually as if the patent were originally granted to extend to that place or part only.

Rules 65 to 69 prescribe a somewhat complicated system of registry for assignments and licences. In all cases there must be a request in writing to the Comptroller to register, and the original document to be registered, together with an examined copy, must be left with the Comptroller. The practice of registration under the Act of 1852 was quite as effective and much more simple.

To be a valid instrument, an assignment ought to be a deed under hand and seal. It is usual to introduce into assignments covenants on the part of the patentee that he is the true and first inventor, and that the patent is valid. And it may be well to insert a covenant binding the assignor not to seek leave to amend the specification or drawings without the written consent of the assignee.

Under the twenty-fifth section of the Patent Act of 1852, a patent obtained in the United Kingdom for an invention previously patented in a foreign country, came

to an end at the expiration of the foreign patent. But as this provision has not been inserted in the Patent Act of 1883, it is not now of importance for an assignee to see that the foreign patent is kept on foot, although when the assignment deals with a British patent obtained under the Act of 1852 it is still incumbent upon him to see that the foreign patent had not expired prior to January 1, 1883.

It is no answer to an action to enforce a contract for the purchase of a patent for a stipulated sum (*Hall v. Conder*, 2 C. B. N. S. 22), to plead that the patent is wholly worthless and of no utility, and that the subject-matter of the patent was not the novel invention of the plaintiff, there being no proof of fraud, and no express warranty. Such a contract was held merely to have the effect of placing the purchaser in the same situation as the seller was with reference to the patent, and the purchaser is bound to take it with all its faults. This being so, it is desirable to consider whether or not an express warranty of the patent should not be introduced into contracts of this nature. See also *Smith v. Neale* (2 C. B. N. S. 67).

The purchaser, in addition, ought invariably to have a search made by a competent person at the Patent Office and elsewhere as to the novelty of the invention prior to his entering into a contract for the purchase.

One of two joint patentees cannot assign more than his share of the patent (*In Re Horsley and Knighton's Patent*, L. R. 8 Eq. 475).

The assignee of part of a patent separate from other parts may bring his action for an infringement of such part without joining as plaintiffs those persons who have distinct interests in the other parts, but have no interest in the damages sought to be recovered (*Dunnicliff v. Mullet*, 7 C. B. N. S. 209). This decision was mentioned with approval by the Court when delivering

judgment in the case of *Walton v. Lavater* (8 C. B. N. S. 184), where it was unsuccessfully contended that the assignee of an undivided share of a patent had not a sufficient legal interest to sue for its infringement.

One co-owner of a patent may sue alone for the recovery of profits due for the use of the patent without making his co-owners parties (*Sheehan v. Great Eastern Railway Company*, L. R. 16 Ch. D. 59).

Where a patentee has assigned a share of the profits of the patent, the assignee is entitled to call on a licensee of the patentee for an account, but the assignee suing must make the assignor and the assignees of other shares of the profits parties to the suit, and must offer to pay any moneys due from the assignor to the accounting licensee (*Bergmann v. Macmillan*, L. R. 17 Ch. D. 427).

The assignee with notice, of the original assignee takes subject to the first assignee's covenants (*Werderman v. Société Générale d'Electricité*, L. R. 19 Ch. D. 247).

Where a patent is assigned to two persons and one dies, the survivor may sue for an infringement committed during the lifetime of the other (*Smith v. London and North-Western Railway Company*, 2 E. & B. 69). In the event of a patentee's bankruptcy, the patent becomes vested in the trustee who may sue for infringements committed before the bankruptcy (*Hesse v. Stevenson*, 3 Bos. & P. 577; *Bloxam v. Elsee*, 9 Dowl. & R. 215; S.C. 6 B. & C. 169).

Where a partnership at will was formed for the purpose of working an invention for which a patent had been previously obtained and registered in the name of one of the partners alone, it was held that the patent became an asset of the partnership, and each partner acquired a right to work the invention. Also that this right was not taken away by the registered owner

assigning the patent to a third party who had notice of the existence of the partnership (*Kenny's Button-holing Company v. Somerville*, 37 L. J. Rep. n. s. 878).

It is not contrary to public policy for a patentee, on the assignment of his patent, to contract to assign to the purchaser all future patents which the vendor may obtain having relation to the invention already patented or being of similar nature (*Printing and Numerical Registering Company v. Sampson*, L. R. 10 Eq. 462).

A body corporate may take an assignment of a patent, and be registered as the proprietor thereof in its corporate name. Rule 70 of the Patents Rules 1883.

It is desirable to register both assignments and licenses as soon as may be after their execution. An assignee cannot maintain an action for an infringement if his assignment is not registered. See the Chapter on Registration, and Rules 65–69 of the Patents Rules 1883.

LICENCES.

The twenty-second section of the Patent Act of 1883 introduced an entirely new regulation as to licences by empowering the Board of Trade to order a patentee to grant licences to persons petitioning the Board.

‘If on the petition of any person interested it is proved to the Board of Trade that, by reason of the default of a patentee to grant licences on reasonable terms, (a) the patent is not being worked in the United Kingdom; or (b) the reasonable requirements of the public with respect to the invention cannot be supplied; or (c) any person is prevented from working or using to the best advantage an invention of which he is possessed, the Board may order the patentee to grant licences on such terms as to amount of royalties, security for payment, or otherwise, as the Board, having regard to the nature of the invention and the circum-

stances of the case, may deem just, and any such order may be enforced by mandamus,' which will require an application to the High Court of Justice.

As to the procedure on petitions for compulsory licences see Rules 57-63 of the Patents Rules 1883.

The orders of the Board in relation to this difficult and delicate matter seem to be absolute and final, no appeal from their decision being given by the Act; nor is any power to award costs given to the Board. Patents granted before the commencement of the Act, or on applications then pending, are excepted from the operation of this provision (sect. 45).

Licences have various intents. In their most general form they are tantamount to an assignment of the patentee's whole rights. But usually they are for a term shorter than that mentioned in the patent, and sometimes they do not extend to the whole of the invention. A licence may be restricted, likewise, to a particular district. Usually a power to render the licence void is reserved to the patentee in case the licensee commits a breach of the covenants. What is called an *exclusive licence* is one by which the patentee binds himself not to empower any other person to exercise the patent privilege, either at all or within a given district.

A licence to A. to manufacture a patent article is an authority to his vendees to vend it without the consent of the patentee (*Thomas v. Hunt*, 17 C. B. N. S. 183).

The consideration for the grant of a licence is usually an immediate money payment or a periodical payment, which may be either of a certain amount, or dependent upon the extent to which the licensee uses the invention. In the last case care should be taken not to create a partnership when no partnership is contemplated. See *Ridgway v. Philip* (1 Cr. M. & R. 415); *Elgie v. Webster* (5 M. & W. 518).

In preparing licences the following points should be attended to :—The patentee ought to enter into the usual qualified covenants that the patent is valid, and that he has a right to grant the licence. The licensee should covenant to pay any sums, the payment of which is postponed to a future time. Where the payments are to vary with the extent to which the licensee shall use the invention, there ought to be covenants, on the part of the licensee, to render properly verified accounts, and to allow periodical inspections of books, machinery, stock, &c. If it be intended that the licensee should not be permitted to question the validity of the patent or the sufficiency of the specification, recitals should be introduced affirming these points, or express covenants debarring the licensee from raising the question. But recitals can only affirm the facts as they stood at the time of the execution of the deed; covenants may be made to apply to all future time. Recitals, however, will have the effect of stopping the parties from disputing the facts recited. (*Bowman v. Taylor*, 2 Ad. & El. 278; *Hills v. Laming*, 9 Exch. 256.) In the absence of such recitals or covenants, a licensee, when sued for money reserved by the licence, may, where the contract is executory, or where there is the taint of fraud, set up, as a defence, that the patent is void (*Hayne v. Maltby*, 3 T. R. 438; and see *Pidding v. Franks*, 1 Mac. and Gord. 56). (On the other hand, refer to the case of *Lawes v. Purser*, 6 Ell. and Bl. 930.) This was an action brought by a patentee upon an agreement whereby the defendant contracted to pay a certain sum per ton of an article manufactured and sold by him, by permission of the plaintiff to him given at his request, the sole manufacture and sale of such article being the subject of the plaintiff's letters patent. The invention having been used by the defendant, he refused to pay the stipulated sum, pleading that the letters patent

were void, and that he had a right to make and sell the article without licence. It was held that the defendant was not entitled to set up such a defence, the contract having been executed, and no fraud being alleged. But one of the judges thought that if the defendant had given notice that he disputed the validity of the patent, and would in future use the invention in his own right, such notice would change the position of the parties: for after it the patentee might sue the defendant for an infringement of his patent for any subsequent user; and perhaps, in an action on the agreement for the price of such subsequent user, the invalidity of the patent might be a defence.

It is prudent to insert a clause giving the patentee power to render the licence void, in case of non-payment of royalties or other sums reserved, or on non-performance of any of the covenants. Power is sometimes reserved to place the royalties in the hands of a stakeholder during litigation affecting the patent.

It seems that a licence is not assignable to a third person in the absence of an express or implied power to assign, such as where the licence is granted to the licensee, his executors, administrators, or assigns.

‘There is no decision as to the power of one grantee to grant a valid licence without the consent of his co-grantees. It appears, however, to be doubtful whether, except for the authority conferred by the granting and prohibitory clauses of the patent, any licence could be granted at all; and it will probably be found, therefore, that the question will in all cases turn on the words of the patent itself.’¹

In the case of an exclusive licence it is desirable that the licensee should covenant to pay a certain minimum sum at stated periods in the shape of royalty;

¹ W. N. Lawson: Patents Designs and Trade Marks Practice, p. 2.