Theorems and a theory concerning the locomotion.
AN ESSAY ON THE LAW OF PATENTS FOR NEW INVENTIONS.

TO WHICH ARE PREFIXED,

TWO CHAPTERS, ON THE GENERAL HISTORY OF MONOPOLIES, AND ON THEIR INTRODUCTION AND PROGRESS IN ENGLAND TO THE TIME OF THE INTER-REGNUM.

WITH AN APPENDIX,

CONTAINING COPIES OF THE CAVEAT, PETITION, OATH, AND OTHER FORMULE, WITH AN ARRANGED CATALOGUE OF ALL THE PATENTS GRANTED FROM JANUARY 1, 1800, TO THE PRESENT TIME.

THE SECOND EDITION.

BY JOHN DYER COLLIER.

"El Rey va hasta do puede, no hasta do vuelo." Prov.

LONDON,
PRINTED FOR THE AUTHOR, BY A. WILSON, WILD COURT; AND SOLD BY LONGMAN AND REES, PATERNOSTER ROW.

1803.
TO
THE RIGHT HON.
JOHN LORD ELDON,
BARON ELDON,
IN THE BISHOPRIC OF DURHAM;
LORD HIGH CHANCELLOR
OF
GREAT BRITAIN:

THE
FOLLOWING ESSAY
ON THE
LAW OF PATENTS
FOR NEW INVENTIONS,
GRANTED UNDER THE GREAT SEAL,
of which his lordship is the keeper,
is respectfully inscribed.
THE obscurity of English law may be attributed to two causes: the technical phraseology to which the professors are confined, and the comprehensive nature of the subject. The difficulty from the former of these has of late been diminished by the liberality of modern philosophy, which has instructed mankind in the advantage of exposing the recesses of science to vulgar observation. The embarrassment from the latter has been annually increased from the complicated interests of society in a great commercial country, where property is daily assuming new forms, under which it must not be permitted to elude the vigilance of public institution.
The statutes of the present reign are diffused through fifty ponderous folios; the reports of adjudged cases, with their commentaries, in the short interval of twenty years, compose an equal number of volumes. To remove the obstructions which arise from this oppressive accumulation of legal materials, it has been contrived to insulate the more important branches of juridical study, by preparing, (what from the Justinian code have been denominated,) Digests of the Law.

The formation of these digests has been facilitated by the improvement introduced by Lord Mansfield, when that elegant scholar, and learned jurist, presided in the administration of public justice. Previously to his time the juries gave their verdicts unassisted by any minute explanations from the court. This venerable Judge having often felt the pernicious consequences of such decisions, introduced the custom of enlarging on the legal principles of the case; and thus assisted the jury in the application of the law of the land to the facts in evidence. It has been the well known practice since
since his time, when any obscurity attend the explication of the law, to prepare a special case, which is solemnly argued before the whole court; and the judgments, with the reasons on which they are founded, are carefully reported. These cases are distributed among the numerous reports of the respective Halls of Judicature, without any regard to order whatever, excepting the succession of time in which they are determined. It is attempted in this work to collect these scattered fragments, so as to bring the whole that relates to commercial patents, in an obvious form, under the inspection of the reader.

The scheme of the work may be concisely stated: it has been—

1. To arrange the subjects of enquiry with accuracy.

2. To detail the leading principles applicable to them in the respective divisions where they are proposed.

3. To illustrate and confirm those principles from the highest judicial authorities.
If the professional student would have chosen the method here employed, from the attachment he irresistibly feels to the conduct of our courts; it is probable that the scholastic disputant would have preferred the analytical, historical, and synthetical distribution. He would first perhaps have traced the subject to the elements of intellect; he would have proceeded to the general view of commercial grants among civilized nations, and to their local history in this country; and he would have closed his demonstrations by a series of corollaries, consisting of the maxims resulting from natural reason and sound policy, adopted into English jurisprudence.

It may be objected to a portion of this arrangement, that on some subjects it is difficult to deduce general precepts from the established customs of other countries. It is true that commercial law is the universal law of mankind, wherever human improvement and felicity are regarded; yet it is the fortunate distinction of this nation, that on the subject of the sovereign grants it has taken the lead of every other state of the world,
world; and has been the first to ascertain the precise limits of royal liberality and personal remuneration, which would most successfully promote the public welfare. From this cause (however honourable to his country) the writer has been deprived of that light which others have been enabled to reflect from the maxims of foreign policy, and the wisdom of general institution.

The reader shall not, however, be detained a moment with any apology for the deviation here admitted from this order of the schools. He has no concern, in the present enquiry, with the dexterous fallacies of Doneius, and Le Brun; or with the more rational dialectics of the venerable Pothier. The law of commercial patents is a practical law, and in all cases of ordinary practice we reject as illusive those melting lines, those blending colours, and evanescent quantities in which the sophist is conversant, no less than the sculptor, the painter, and the mathematician. Affairs of real business and moment in the daily occurrences of life are submitted to obvious rules which the simplest minds can comprehend, and to which the
the plainest habits are adapted. If all that is material for the information of the inventor be not disclosed with perspicuity; if the most important articles be not represented under different views, and revived under different relations, so as to exhibit them clearly and palpably, not only to the ingenious artist, but to every man of common sense and common understanding, the author will have been completely disappointed of the object he proposed to attain.

This work is entitled an essay in a very different sense from the employment of the term by the learned writer on the Human Understanding, who has given that name to a regular and elaborate work. It is called an essay, because it is not professedly complete. It is the more expedient to explain the term in this place, on account of its recent misapplication in the Essay on the Law of Bailments; a production still-born and neglected, (yet, known to every liberal scholar of the profession,) where the sublime principles of British law are displayed with the laboured precision of the patient antiquary,
query, with the discriminating subtlety of
the expert logician, and with the classic
eloquence of the accomplished orator.

The opinions of the Judges it was neces-
sary to recite in this work, in the express
terms in which they appear in the Reports:
yet, from the various matters of legal erudi-
tion to which these opinions are referable,
it has been sometimes impracticable to con-
fine the extract exclusively to the subject of
the division in which they are inserted. In one
or two cases of this kind it has been deemed
more satisfactory to the reader to detail the
opinion at length, and to repeat it under a
different section; than to separate these so-
lemn judgments into detached parts, and
thus not only lose sight of the bearings and
connections, but probably of the very foun-
dations on which the opinions are supported.

It will, perhaps, be thought by some, that
the explanatory matter in the notes is too
diffuse, while others will consider it the
most valuable part of the work. Under this
diversity of sentiment the writer has endea-
voured to accommodate his plan to the ma-
ajority
jority of his readers, and to point out the sources from which he derives his information; that those who deem such elucidations interesting, may carry on the researches by the assistance of those references, to the utmost limit of their desire.

The review here given of the exercise of the prerogative, will be consonant to the wishes of the friends of the freedom and prosperity of their country. Some of the most luminous maxims of liberty and public economy are obscured beneath the barbarous latinity of English law: the generous patriot will frequently lose the imbecility of the language in the energy of the sentiment, and will exclaim with virtuous pride, "Nihil potest Rex, quam quod de jure potest."

The publication being principally designed to disclose the established rules of Patent Law, a great deal of learning on the rationale of the subject would have been irrelevant. In that department extensive use might have been made of the legal erudition of those illustrious contemporaries, Selden, Coke and Bacon, which, to the political philosopher
Philosopher and juridical archaiologist, would have afforded abundant amusement, but would have been wholly superfluous to the persons for whom the work is chiefly intended. Perhaps to these, instead of any vindication being expedient for the omission, an apology is necessary, that such enquiries should have been cursorily admitted by the author, from an invincible attachment to the favourite maxim of the bright ornament of his country and of his profession, "Lex plus laudatur quando ratione probatur."

It is well known at the bar, that the great oracle of commercial law declared, if these patent grants were examined with rigid attention, they might all, with very few exceptions, be rendered nugatory. The learned lord who succeeded to his exalted station, saw with displeasure the frauds to which such privileges were exposed, and expressed himself in terms of decided reprobation. The same sentiment was confirmed by the late Mr. Justice Buller, to whom the nation is peculiarly indebted for his clear, precise and rational judgments on the immediate subject of this essay. The noble judge who now pre-
presides, at the conclusion of the last year, asserted in open court, that during his public duties as Attorney General, he became acquainted with "the most shameful abuses" of the royal grant. It is hoped that the expositions contained in these pages will contribute to remove some of the objections to the prevailing exercise of the patent rights, by giving an insight into their foundation, nature, and extent, to those persons who are least acquainted with the forms of legal practice, and with the principles of juridical institution.

Such is the leading design with which this work has been undertaken; how far this intention is in itself proper, and with what success it has been fulfilled, remain for the public to determine. On the view of its imperfect execution, the writer will probably have fully answered his own expectations, if he enable the inventor to establish his patent on the solid basis of public law, and if he sometimes protect from infringement this honourable reward of productive talent.

LIST
LIST OF AUTHORITIES CONSULTED.

(The numbers refer to the pages of this work where the authorities are noticed.)

Ambrosius de Officiis, page 5.
Anderson's History of Commerce, Appendix, 8.
Aristotle's Econom. 4.
Aristotle's Pol. 4.
Ayliff's Introduction to the Calendar of ancient Charters, 198.
Blackstone's Commentaries, 120.
Blackstone's Reports, 71, 75, 90, 100, 128, 181.
Buller's Nisi Prius, 68, 176.
Burn's Ecclesiastical Law, 186.
Calendarium Rotulorum Patentium in Turri Londinensi, 194.
Camden's Britannia, 14.
Carter's Reports, Appendix, 34.
Cases in Equity, 50, 51.
Chancery Cases, 27, Appendix 34.
Chancery Reports tempore Finch, 74.
Cicero de Officiis, 6.
Civil Code, 6, 7.
Coke's Institutes, 1, 26, 27, 28, 29, 33, et infra, 49, 50, 66, 75, 92, 96, 176, 177, 178. Appendix, 17, 18, 19, 21, 25, 29.
Coke's Reports, 21, 28, 29, 50, 52, 53, 55, 57, 71, 120, 122, 177.
  Appendix, 18, 30, 33, 35, 36, 37.
Conclus: de la Paix de Westph. 7.
Diodori Siculi Bibliotheca Historica, 6.
Diogenes Laertius de Vitis Philosophorum, 4.
Doctor and Student, 64.
Dyer's Reports, 53, 122, 177, 178, 179.
Fitzherbert's Natura Brevium, 122.
Fortescue (Sir John) De Laudibus Jurem Anglorum, 26, 122.
Gothofredus Ratio ordinis Pandectarum et Institutionem, 6.
Grotius de Jure Belli ac Pacis, 2.
Hale (Sir Matthew), 176.
Hardres' Reports, Appendix, 34.
Hume's Essays, 5.
Jones (Sir Wm.) Reports, 88.
Lambeccii Origines Hamburgenses, 9.
Levinz's Reports, 65, 177, 178.
Liber Assisarum, 122.
Littleton's Tenures, 43.
Lysias, Orations, 6.

Marcellini
LIST OF AUTHORITIES CONSULTED.

Marcellini (Ammianus) Historiae, 21.
Modern Cases, 27, 178. Appendix, 22.
Moore's Reports, 28.
Noy's Reports, 28.
Plauti Comediae, 5.
Plutarchi Historia Naturalis, 4.
Plowden's Commentaries, 48, 122.
Proclamations 19 Jacobi, 48.
Procopius Casaricensis, 4.
Raymond's (Lord) Reports, 27.
Registrum Brevium, 122.
Roll's Abridgment, 27, 28, 29, 30, 176, 177, 178.
Roll's Reports, 29.
Saikeld's Reports, 65, 75, 100.
Shroeter, (B. de) Reflections sur les Finances des Princes, 7.
Skinner, v7, 65. Appendix, 34, 35.
Smith's Wealth of Nations, 24, 25.
Speed's History of Great Britain, 19.
Strabonis Geographia, 3.
Strange's Reports, 177, 178.
Tacitus, 21.
Tennant's Case, Manuscript, 117.
Term Reports, 46, 75, 83, 94, 101, 182, 189, 183.
Thuanus, Historia sui temporis, 9.
Idem, C. IIL. 194.
Ventris' Reports, 176, 177.
Vernor's Reports, 27, 28. Appendix, 34.
Vesey jun. Reports in Chancery, 179, 183, 185, 186.
Werdenhagen de Rebus Publicis Hanseatricis, 9.
Werthoff, Dissertatio de Commerciis Maritimis, 7.
Willebrand (Jean Pierre) Abregé de la Police, 7.
Wi: (J. de) Politische Gronden, 7.

ABRIDGMENTS IN THE NOTES.

Adm. implies admitted; cont. contra, or on the other hand; dub. dubitatur, or it is doubted; R. resolved; semb. semble or seems; mag. rot. the great roll of the Exchequer, commonly called the Pipe Roll; in thes. et q e or in thesaurio liberavit et quietus est; pat. rotulus paternium; rot. oblatorum, the Oblata Roll.

The principal design of the preceding list of authorities is to explain the references to persons not in professional habits. It has been thought unnecessary to enlarge this catalogue with the rolls of parliament, or statutes adverted to in the work, which, unconnected with the subjects for which they are introduced, would be of no utility. Neither has it been judged material to subjoin a list of the cases introduced, as they may be easily discovered by turning to the pages annexed to the names of the several reporters.
CONTENTS.

CHAP. I. Of the Origin and Progress of Monopoly in the early History of Europe .......................... 1

II. The History of Monopoly in England, from the time of John to the Inter-regnum .......................... 12

III. The Common Law, as it respects Patents and Monopolies .................................................... 26

IV. The Statute Law, as it respects Patents, from the time of John to the 21st year of James I. inclusive ........................................................... 29

V. The Variations in the Form of Letters Patent; the Seals required, and the Manner in which they are passed .................................................. 49

VI. The Form of Letters Patent for New Inventions ................................................................. 54

VII. The Authority by which the Grant is made, and the Ground on which it may or may not be set aside ......................................................... 64

VIII. The Term or Duration of Letters Patent ........................................................................... 70

IX. The Nature and Extent of Letters Patent for New Inventions .............................................. 73

a Sect. 1.
CONTENTS.

Sect. 1. What is a Manufacture, in the contemplation of Law, for which a Patent may be granted? ........................................ 75

2. What constitutes that Use which excludes the Patent Right? Who is the first Inventor? ........................................ 99

3. What is that Patent which is contrary to the Law, or mischievous to the State, and therefore void? ........................................ 118

Chap. X. The Condition on which the Grant is made, or the Specification ........................................ 125

Sect. 1. What is the Description required in the Specification? .................................................................................. 127

2. What is the Form of the Specification? ........................................................................................................... 171

3. What is necessary for the Enrolment of the Specification? ............................................................................... 173

Chap. XI. On the Infringement, Repeal, and Surrender of a Patent ........................................ 176

XII. Some Matters incidentally connected with the Patentee ........................................ 183

XIII. General practical Considerations preliminary to obtaining the Royal Grant, and on the Formulae with which it is connected ........................................ 185

XIV. Observations on the Repositories of Patent Records, with Remarks on the Officers employed in them, their Fees and Duties 192

APPEN-
## CONTENTS

### APPENDIX

<table>
<thead>
<tr>
<th>Note</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Principal Laws respecting the Freedom and Restriction of Trade</td>
<td>1</td>
</tr>
<tr>
<td>B</td>
<td>Fines relating to Trade or Merchandize</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>A List of the principal Monopolies by Royal Grant, from the Reign of Henry VII. to the Reign of Charles I. inclusive</td>
<td>8</td>
</tr>
<tr>
<td>D</td>
<td>Some Extracts from the celebrated Debate on the Subject of Monopolies, in the House of Commons, in the Year 1601</td>
<td>11</td>
</tr>
<tr>
<td>E</td>
<td>The principal Statutes relating to Patents passed prior to the Statute of Monopolies, 21 James I. c. 3</td>
<td>15</td>
</tr>
<tr>
<td>F</td>
<td>Statute of Monopolies, 21 James I. c. 3</td>
<td>21</td>
</tr>
<tr>
<td>G</td>
<td>Extracts from 27 Henry VIII. c. 11</td>
<td>29</td>
</tr>
<tr>
<td>H</td>
<td>On the King's Charter for regulating Trade</td>
<td>33</td>
</tr>
<tr>
<td>I</td>
<td>Law of Patents before the Statute of 21 James I. c. 3</td>
<td>35</td>
</tr>
<tr>
<td>K</td>
<td>Acts for continuing Patent Privileges, with the Reason assigned for their Continuance</td>
<td>39</td>
</tr>
<tr>
<td>L</td>
<td>Specification of Richard Arkwright's Patent for his Invention of certain Machines for preparing Silk, Cotton, Flax, and Wool</td>
<td>41</td>
</tr>
</tbody>
</table>

M. Form
 CONTENTS.

Note M. Form of the Caveat ................. 45
N. Form of the Petition ................... ib.
O. Form of the Oath ....................... 46
P. Form of the Attorney General's Report.. 47
List of Patents obtained between 1st January
1800, and 31st March 1803; alphabeti-
cally arranged according to the subjects
to which they refer ....................... 49
Addenda, consisting of Patents granted since
the date of the preceding List ............ 86
Alphabetical List of the Names of the Patent-
ees, who have received Patents between
the 1st January 1800, and the 31st
March 1803 inclusive; with their Pro-
fessions or Employments, and Places of
Abode ...................................... 88
Table of the principal Matters alphabetically
arranged ................................... 103

ERRATA.

The literal Errors the Reader will readily correct.

Page 2, line 3, for 2 read 3.
  14, line 13, for three, read two.
  131, note, for seems here to, read does not here.
  188, note, for priority, read coincidence.
  199, line 13, for This, read Some.

DIRECTION TO T' E BINDER.

Place the Engraving at the End of the Volume.
AN

ESSAY

ON THE

LAW OF PATENTS, &c.

CHAPTER THE FIRST.

Of the Origin and Progress of Monopoly in the early History of Europe.

The word Monopoly is from the Greek, and signifies exclusive sale.

Sir Edward Coke gives the following definition. "A monopoly is an institution or allowance by the King, by his grant, commission, or otherwise, to any person or persons, bodies politic or corporate, of or for the sole buying, selling, making, working, or using of any thing, whereby any person or persons, bodies politic or corporate, are sought to be restrained of any freedom or liberty that they had before, or hindered in their lawful trade."
Such was the general character of monopoly in this country prior to the statute of the 21st of James, c. 2: but it may now be otherwise considered. "A monopoly is an allowance by the King to any person for the sole making, selling, &c. any thing, so that no person be restrained in what he had before, or in using his lawful trade."

Thus monopoly, in the more enlarged sense, may extend to a trade already in existence, in the more confined, applies merely to a new invention. In the former case it is the exclusion of all others from what the public was already in the possession, and the practice of, until the monopoly was sanctioned. In the latter, it is taking nothing from the public which it before possessed and practised. The first is a violation of public right, and is nothing less than legalised plunder—the last is an equitable reward to ingenuity, and, under proper restrictions, is abundantly conducive to the general good.

Letters patent under the royal authority are the means by which that compensation to private merit has been usually assigned in this country.

The learned Grotius has examined the question, if every species of monopoly be a violation

- Monopoly and engrossing differ only in this; the first is by grant of the king, the last is by act of the subject.

Hawkins, 1. 470. s. 1.
tion of the natural rights of mankind; but on this subject he has not attended with his usual accuracy to the facts by which he would illustrate his principles. He asserts, that the Sovereign may sometimes permit individuals to enjoy the right of exclusive sale of certain articles, the price being limited by the same authority; and he introduces the example of the monopoly of Joseph from sacred, and of the city of Alexandria from profane history. These instances in no respect apply to the position he would support. The former terminated in the surrender of all the rights, natural and acquired, of the Egyptian nation. The latter was no instance of monopoly ceded by the Roman state, for commercial immunities of this sort were very imperfectly understood by that warlike people. It is true, that Alexandria became the general mart of the trade of the East, and of the extensive regions of Ethiopia; yet this concentration of commerce was wholly owing to that favourable situation which had induced the politic Macedonian to select Aegyptus Inferior for the seite of the capital of his vast empire.

* The following passage from the judicious Strabo confirms the remark.

Νυν δὲ καὶ στολοὶ μεγάλοι σελλοῦνται μεγάρι τῆς Ινδίας καὶ τῶν αμφοτέρων Αἰθιοπίων ἐξ ἐντυπωμάτων συμβαίνουσας διὰ τῆς Αἰγύπτου. . . . . . τῶν δὲ βασιλείων βαρεά καὶ τὰ γῆς καὶ γαρ δὴ καὶ μονοπαλιακὺς ἑγεῖ. Μονὴ γαρ ἡ Ἀλεξάνδρεια τῶν τοιοτῶν ὡς εἰπτὸ τοῦ πολέμου καὶ ὑποδοχῶν εἰς καὶ χορηγεῖ τοῖς εὔκτοις. Geograph. Lib. XVII.
OF THE ORIGIN

It is reported of one of the seven sages of Greece, (the founder of the Ionic sect,) that he occasionally forced the lofty science of astronomy to descend to the lower pursuits of commerce; and that foreseeing, by the aid of his theoretic speculations, a prodigious harvest from the olive, he found means to make an advantageous practical speculation, by taking into his own hands all the olive forests of his country.

The inquisitive reader may find some other monopolists with whom the scruples suggested by the maxims of philosophy have not interfered with private emolument, if he will turn to the pages of Aristotle, Pliny, and Procopius*.

Perhaps the correct way to determine the justice of a monopoly, is by referring to the foundation of that virtue, to examine whether the monopolist benefit himself by his superior

* Aristotle's Οἰκονομ. lib. 2. v. the greater part of this
book, and particularly the purchase of the lead of Tyre by Pythagoras.


Procopius, c. 25. Monopoly of Silk.


Aristotle’s Pol. lib. 1. c. 11.

The two last authorities refer to the monopoly of Thales; in the latter it is given in detail, and an additional instance of the commercial ingenuity of the philosophic sage is afforded in the article of iron, which occasioned no small agitation in the Syracusan state.
AND PROGRESS OF MONOPOLY.

perior knowledge, without injury to others. The well known speculation of the company of Roman merchants in the same article which had seduced the morality of Thales, was a violation of this rule, which neither escaped the indignation of the city, or the severity of the dramatic poet.

It will not be expected, that in this hasty review of commercial privilege, we should discuss the question agitated with so much zeal by St. Ambrose, on the distinction between justice and charity in the practice of monopoly. We fear the lectures of the pious fathers on Christian charity would not be listened to on this subject with perfect complacency. Whatever may be the private sentiments of the Monk or of the Stagyrite, no doubt can be admitted that trade may be rendered honourable to the individual by whom it is practised, and beneficial to every order of society. It might be satisfactorily shewn, that commerce is the medium by which the improvement and happiness of mankind are essentially promoted, and that no attractive force less powerful than the mercenary

* If the eloquent Hume be correct, "that public utility is the sole origin of justice, and that reflections on the beneficial consequences of this virtue are the sole foundation of its merit," the justice of a monopoly, which falls under this class, will not be disputed.


‡ Of lib. 3. c. 6.
cenary principle could unite the ends of the earth in one common bond of confidence and humanity.

It would interfere with our leading intention, if we were to presume to undertake the laborious task of examining, with the moralists and civilians of former periods, the equity or injustice of the ancient doctrines of monopoly. Such of our readers as wish to scrutinize into the opinions that have been contested, and the regulations that have been adopted in early times, may relieve their learned curiosity by recourse to those authorities to which we have referred.

* The reader will find a singular examination connected with this subject, under the question proposed by the Roman orator, "Quae artes et qui quotidies sordidi; qui contra liberales? Cic, de Off. lib. 1.

† To prevent conspiracies amongst traders against the public interest, a wise prohibition is on record, "Neque quis illicitis habitis conventionibus conjuret aut paciscatur. Cod. lib. 4, tit. 59." Where also see, "Jubes mus ne quis cajusculque vel piscis vel pectinum forte aut echini monopolium audeat exercere." Much learned just has been raised by Gothesredus and others on the terms pectinum and echini, in this mandate of Zeno: V. Digest. lib. 47. tit. 41. De extraord. crim. leg. VI.

The classic reader is not unacquainted with the beautiful passage from the orator Lysias, against those corn merchants who spread false reports of captures and interrupted supplies to avail themselves of their monopoly of that article, Or., 21. c. 5.

Contra Frument.

Diodorus Siculus notices the monopoly of alum in Lipari, lib. iv. c. 3.

The most profound politicians have expressed their detestation.
AND PROGRESS OF MONOPOLY.

If legislators had attended to the important distinction of the two species of monopoly we have noticed, they would sometimes have remitted the severity of the penal code. Under Zeno it was directed that monopolists should be deprived of all their goods, and that the imperial letters were not to be read in justification. Under Justinian monopolists were interdicted as pernicious to the state.

If particular exceptions ought to have been made, yet these general laws were in the 5th and 6th centuries consistent with the public advantage. The time had not arrived when the ingenious

Monopolies under Zeno.

Under Justinian.

The laws respecting them adapted to the spirit of the times.

John Peter Willebrand, who was member of the supreme tribunal of appeals to the King of Denmark, expresses himself in strong terms against monopolies: "Les monopoleurs ne sont gueres accueillis la ou l'on prefere le bien general a l'interet particulier et ce seroit tres mal connoitre le coeur humain de s'imaginer qu'un monopoleur se comporterait mieux qu'un Loup auquel on conferoit l'administration de la justice entre les troupes." He then adds with some malicious pleasantry, "La police de l'Empire agit vis á vis les monopoleurs a peu pres comme les Papes contre les heretiques le Jendi Saint, mais a mon avis plus utilement. V. Concl. de L'Empire de 1512, 1548, 1577, 1670.

* Zeno imperator statuit, ut exercentes monopolia bonis omnibus spoliarentur. Adiect Zeno, ipsa rescripta imperialia non esse audienda, si cuquam monopolia concedant.

† Monopolia non esse intermittenda, quoniam non ad commodum reipublicae sed ad labem detrimentaque pertinent. Justinian.
OF THE ORIGIN

ingenuity of man was directed to the increase of the necessaries and comforts of life, by rendering science and philosophy extensively subservient to the purposes of commerce. At that period, in every country, monopolies had but one uniform character: they were an agreement between the reigning power and certain individuals to deprive the people of their natural rights, by playing into the hands of each other the supplies of their own avarice.

To the enlightened principles of the civil code succeeded the barbarism of Gothic institution, which swept before it all the records of humanity. Commerce had begun to spread its mild influence, to soften and polish the manners of men, to unite them by reciprocal utilities, and to promote the pacific spirit, by raising up a large body of powerful individuals in society, whose interest it was to become the guardians of public tranquillity. Thus a state of unanimity and beneficence was followed by the discord and turbulence of the feudal system. As the ferocity of war is not suited to the mild nature of man; when the storm raged with increasing violence, he forsook the element to which his powers were unequal, and looked anxiously around for a harbour of repose. Hence, even in these boisterous times, some regulations were adopted favourable to trade; and the first signal of its appearance was on the coast, where exclusive privileges, in the nature of patents and monopolies, were granted in order
order to procure the supply of some of the indulgences indispensable in an improving state of society.

This was the origin of the Hanseatic League, which commenced at the conclusion of the twelfth or the beginning of the thirteenth century near the coasts of the Baltic Sea. Before the termination of the fourteenth, it consisted of sixty-four principal cities, when its alliance was courted, and its enmity dreaded by every potentate of Europe*. Thus did the genius of commerce rise in the midst of the confusion and the alarms of war; and notwithstanding the envy which these cities attracted in their progress to power, they became so important to the princes in whose kingdoms they were situated, not only for the supply of the conveniences and luxuries of life, but for the means of successful hostility against their enemies at home and abroad; that the confederacy rose imperceptibly into a degree of consequence which shook the very powers to which it was indebted for

* Werdenhagen supposes this association to have been formed as early as 1169. Thuanus considers its origin to have been about thirty years later; and Lambeius assigns it to the year 1241.

The derivation of the word *hanse* has also occasioned differences of opinion among the learned. Lambeius attributes it to the ancient High Dutch, or Teutonic, and gives to it the meaning, confederacy or alliance; whereas Werdenhagen derives it from the German, an-der-see, which is translated on the sea, and might be abbreviated to *hanse*.
for early protection. It was in this situation that the several princes in whose dominions the associated cities were established, withdrew the merchants of their own respective territories from the confederacy. They were thus reduced to insignificance, considered as a political alliance, but not before they had convinced Europe of the beneficial effects of the intercourse they had maintained; so that in the separate states they still continued to receive that assistance as municipalities, which they had before enjoyed as a maritime power. They were now no longer dangerous to the repose of Europe, but softened its animosities by promoting a community of interest, and accelerated the progress of civilization, by multiplying the sources of rational and elegant enjoyment.

In consequence of the opulence of these cities, the princes found them an advantageous resource in times of public exigency; they therefore freely granted them charters and exclusive privileges, by the cheap exercise of prerogative, either on the condition of receiving a stipulated sum, or of obtaining an annual tribute; and when in process of time, by these immunities, the wealth, not only of the cities collectively, but of the individual merchants who composed them, was respectable, royalty itself often condescended to draw from the wealth of its own vassal, and in return monopolies were conferred, which amply repaid the individual the contribution exacted.
exacted by the avarice or penury of the prince. In this interchange the benefit of the two contracting parties was commonly immediate and obvious, while the injury to the public was remote and obscure.
CHAPTER THE SECOND.

The History of Monopoly in England, from the time of John to the Inter-regnum.

In the preceding chapter we have endeavoured to explain the nature of monopoly, and the general effect of the exclusive privilege on the natural rights of society. We shall presently see that in England monopolies did not deviate from their ordinary character of artifice; but that, by the wisdom of the nation, this poison of the state has been deprived of all its pernicious ingredients, and has been converted into a nutritious aliment, applicable to the support of commercial prosperity.

The feudal system is so uniform in its history, that the political annals of one country disclose the leading maxims of public economy which were adopted in every other where it was established. The explanation, therefore, we have already given of the origin of royal grants for monopolies, where the Hanseatic league was extended, will elucidate the motives and principles of this exercise of the prerogative in our own country.

Notwithstanding all the calamities of the reign of John, it is to him that we are principally indebted for the franchises of the metropolis,
polis, and of the great towns of the empire*. How far these immunities were perverted in succeeding times, it is not our present business to enquire; it will be sufficient to premise, that in the infant state of commerce, these nurseries were necessary to protect it from the accidents to which its feeble powers were exposed amid the violence of general hostility. Of all the ports of England, London was the only one admitted to the dignity of the Hanseatic league. The Cinque Ports were degraded by a system of Algerine piracy; and holding a predatory war with the commercial navy of every country, from inferiority of station, dereliction of principle, and opposition of interest, were inadmissible to that confederacy.

Yet so formidable were they when they collected their power under the banners of the Sovereign, that in the beginning of the succeeding reign their desperate corsairs destroyed the greater part of the naval armament of France; and however exalted the rank England may have maintained on the seas in later times, these marine plunderers were the principal support of the British navy, when the gallant exploits of the third Edward, and of his heroic son, awakened the fears and attracted the

* "King John was either the first or the chiefest who appointed those noble forms of civil government in London, and most cities and corporate towns of England, endowing them also with their greatest franchises." Speed. p. 506.
the admiration of every European state. In the twenty-fifth year of the reign of that enlightened prince, a statute was passed granting a free trade equally to foreigners and natives; and had this admirable expedient of senatorial wisdom been suffered to remain in its full force, the commerce of this country would have risen into notice at a much earlier period, and our political hemisphere would not again have devolved into utter obscurity.

During the reign of his grandson, and the troublesome times that succeeded, every possible

* Camden tells us, that William the Conqueror appointed a warden of the Cinque Ports, but King John first granted them their privileges, and that upon condition they should provide eighty ships at their own charge for forty days, as often as the king should have occasion in the wars; "he being then straitened for a navy to recover Normandy."

These five ports are, Hastings, Romney, Hythe, Dover, and Sandwich, to which Winchelsea and Rye have been since added. Thorn says, that Hastings provided twenty-one vessels, and in each vessel twenty-one men. To this port belong Seaford, Pevensey, Hedney, Winchelsea, Rye, Hamne, Wakeshould, Creneth, and Forthclipe. Romney provided five ships, and in each twenty-four men: to this belong Bromhol, Lyde, Oswanstone, Dangemares, and Romenhal. Hythe furnished five ships, and in each twenty-one stamen: to this belong Folkston, Feversham and Marke. Lastly, Sandwich furnished the same with Hythe: to this belong Fordwie, Reculver, Serre and Deal.

† We have given a list of the principal laws respecting the liberty of trade in which the sage maxims of commercial jurisprudence commenced by the third Henry, and maintained in a variety of statutes during the reign of Edward of Windsor, will not escape the attention of the reader. V. Appendix A.
ble advantage was taken of the embarrassments to which the occupant of the throne was exposed, and the influence of mercenary individuals was so complete, that while the commercial importance of every other state in Europe was increasing, the British isles were neglected and forgotten*. To follow the history of trade, and of the exclusive privileges to which it gave rise in this dark and uninteresting period, would conduct little either to instruction or entertainment; it will be sufficient to say that the evil had attained such magnitude in the slow progress of three centuries, that in the reign of Elizabeth the patience of the most submissive political assembly in Europe was wholly exhausted.

It had been the wise policy of the British parliament to retain in its own power the treasures of the nation, instead of leaving them exposed to the plunder of needy princes, and avaricious ministers; but, perhaps, it will be found that this principle of caution was carried beyond its due bounds. Certain it is, that either the prodigality of the monarch, or the parsimony of the people, occasioned the funds of the royal coffers to be reduced so low as to be inadequate to the purposes of princely liberality; and, in consequence, the crown was often obliged to descend, by a stretch of the prerogative, to reward its faithful servants in that form which obstructed

* See a list of the fines relating to trade, from the Conquest to the reign of Edw. II. Appendix B.
THE HISTORY OF

obstructed the most valuable interests of society. This was the case in the reign of Elizabeth. No sovereign was ever more indebted to the wisdom of her military councils, or to the valour of her forces, than the daughter of Anna Boleyn; and such were the destructive means she was obliged to employ in return for deliberation in the cabinet, and vigour in the field. By the encouragement of the Huguenots, the artificers of the woollen and linen manufactures were established in her time at Norwich, Colchester, Sandwich, and other convenient marts; and at this period commenced the East India Company, which has since become the most powerful trading society recorded in the annals of history. But, notwithstanding these advantages, to which, at a future period, England was to be indebted for her wealth and her importance, the pernicious grants of monopolies were so extensive during that reign, not only of the articles of luxury and convenience, but even of the necessaries of life, that the concussion of private interest threatened the extinction of public prosperity.

If

* * * It is astonishing to consider the number and importance of those commodities which were thus assigned over to patentees. Currants, salt, iron, powder, cards, calf-skins, fells, pouldavies, ox-shin-bones, train oil, lists of cloth, pot-ashes, anise-seeds, vinegar, coals, steel, aqua viti, brushes, pots, bottles, saltpetre, and accidences, oil, calamine, stone, oil of blubber, glasses, paper, starch, tin, sulphur, new drapery, dried pilchards, transportation of iron ordnance, of beef, of horn,
MONOPOLY IN ENGLAND.

If this favourite princess held the hearts of her subjects at her disposal, her personal vanity had enabled the public servants to address themselves so powerfully to her sex, that their control over her was complete. Although the elevation of her rank, and the dignity of her mind, preclude those sexual compliances which would have been dangerous to the regularity of her government, yet she exhibited some portion of horn, of leather, importation of Spanish wool, of Irish yarn. These are but a part of the commodities which had been appropriated to monopolists. When this list was read in the house, a member cried, Is not bread in the number? Bread, said every one with astonishment: Yes I assure you, replied he, if affairs go on at this rate, we shall have bread reduced to a monopoly before next parliament. These monopolists were so exorbitant in their demands, that in some places they raised the price of salt from sixteen pence a bushel to fourteen or fifteen shillings. Such high profits naturally begat intruders upon their commerce; and in order to secure themselves against encroachments, the patentees were armed with high and arbitrary powers from the council, by which they were enabled to oppress the people at pleasure, and to exact money from such as they thought proper to accuse of interfering with their patent. The patentees of saltpetre, having the power of entering every house, and of committing what havoc they pleased in stables, cellars, or wheresoever they suspected saltpetre might be gathered, commonly extorted money from those who desired to free themselves from this damage or trouble. And while all domestic intercourse was thus restrained, lest any scope should remain for industry, almost every species of foreign commerce was confined to exclusive companies, who bought and sold at any price that they themselves thought proper to offer or exact.” Hume.

See a list of monopolies by royal grant, from Hen. VII. to Charles I. Appendix C.
of the frailty of woman beneath the diadem; and the royal favour, in consequence of these feminine imbecilities, was lavished in the grant of immunities with a degree of prodigality more extravagant than the munificence of the late Imperial Catharine, to the associates of her meretricious indulgence.

In the year 1601, the clamour of the country against monopolies was so loud as to awaken the parliament from its long repose. The ancient servants of the decrepid princess were unable to resist the public violence; and in order to prevent the indecency of a statute, which they contended would be an insult to the prerogative; she, with their advice, suddenly sent a message to the house that she would immediately cancel the most oppressive of those exclusive privileges. On this memorable occasion she acted with that fidelity to the public to which, during the whole of her protracted reign, she uniformly adhered *

James was a prince of a very different character: "such a sceptre was too weighty to be wielded by such a hand." On his accession, in order to gain popularity, he deemed it necessary to

* In the Parliamentary History of England, Eliz. 1601, vol. IV. 452 to 482, the whole proceedings are given, and the arguments of Bacon, Cecil, and others are detailed, more worthy the slavish adoration of an Asiatic court than the manly spirit of a British senate. See the extract in the appendix D.
to join the general voice against monopolies; but it was evident, by his subsequent conduct, that he was not sincere. The result was, that in the 21st year of his reign, not possessing the influence of his predecessor over his subjects, a statute was passed, the history of which shews the astonishing difference which a short interval had produced in the respect attracted by the British crown.

From this period the doctrine of our law of patents may be properly said to commence, for by its salutary operation the pernicious system was wholly destroyed; and if his successor, from the usual impulse of supplying the princely revenue, revived the grievance, the standing law of the country resisted his efforts, his confidence was unequal to meet it, and he was constrained to revoke all the grants which infringed on the sacred institutions of public right. Whatever just ground of complaint the friends of the pious and unfortunate Charles may discover against the versatility of the English people, the country was justified in its indignation towards those cormorants who mercilessly preyed on the vitals of public prosperity.

A short statement of indisputable facts relating to monopolies, will at least palliate the impetuosity of the nation, which was threatened with extinction as a political power.
At the period to which we are referring, the whole customs of England amounted to 127,000l. and so small was the trade of the counties in consequence of these grants, that of this total the sum of 17,000l. only was collected by the provincial officers, the metropolis engrossing nearly six-sevenths of the commerce of the land. Yet even in London the benefits of this trade did not extend through the whole of the population, but was confined to about two hundred opulent citizens, who possessed almost exclusively the trading wealth of Britain. Let us now consider London at the commencement of the nineteenth century crowded with the wealth of the four quarters of the earth, not only supplied with every commodity of substantial utility to man, but glowing with all the gorgeous display of eastern magnificence. Let us visit the imperial Thames, whose broad bosom supports its maritime power; and let us compare this situation of the ancient seat of government with the state of degradation and insignificance in which it appeared during this gross misapplication of the prerogative*.

* The total exports from this country, in the year 1802, amounted to the enormous sum of fifty millions sterling. It will hardly be credited that this astonishing increase of trading intercourse should have been effected in little more than a century and a half. London now greatly exceeds her former importance as a commercial depot. The learned reader is not unacquainted
MONOPOLY IN ENGLAND.

It would be easy to shew, that not only the internal prosperity of this country depended on the cessation of these monopolies, but that its political existence, as an empire, was materially concerned in their abolition. Had this evil been carried to the same extent in the reign of the father of Elizabeth, it is probable that the Spanish Armada would, in her days, have appeared on the coasts of Britain to obtain victory and dominion, not to encounter disappointment and disgrace. Notwithstanding the popular prejudice in favour of the marine at that time, it was fully ascertained in the succeeding reign of the Scottish Prince, that on account of the decline of trade, the navy of England had decayed during a period of nearly half a century when Elizabeth swayed the British sceptre. Such was the evidence before the committee appointed for the enquiry; and we learn from a report of the Trinity House, that in a little more than twelve years posterior to 1588, a diminution of one-third had been effected in British shipping and navigation.

The intelligent legislator never loses sight of these two important objects: 1st, To put the

people acquainted with the famous passage in Ammianus Marcellinus on this capital. Sir Edward Coke indulged a little venial pride when he denounced it, "Cor Reipublice et epitome totius regni." London has endured many vicissitudes in its history as a trading establishment since Tacitus resided in it, when he applied to it the expressions, "Copia negotiatorum et com-

meatu maximé celebre."
people in a situation to provide an ample subsistence for themselves. 2dly, To supply the state with a revenue adequate to the public service. It will be seen by the examination we have made, that in the monopolies these profound maxims of political economy have been wholly abandoned. The people were deprived of that general exercise of industry and talent which is necessary to the existence of commercial prosperity; and the state, which ought, in all times of public exigence, to be supplied from the floating capital of the nation, was plundered of those resources from which the natural defence of the country was to be drawn. Hence both internal wealth and external power were rapidly hastening to destruction. What is true of England in one of the most brilliant periods of our history, was equally true of France, under Lewis Deo-datus, when the great Coibert, urged by the most enlightened principles of state policy, applied his energies to resist the tide of interior destruction,

Had we selected for our subject on this occasion the political rank and exterior glory of the country, instead of its commercial affluence and internal resources, we should have attempted to have done justice to the reign of the heroic Elizabeth; but daily experiencing the benefits of the limitation of the prerogative as it affected the trade of the nation, we have been obliged to take a contrary view of the influence of her reign, and to point out that the only adv
vantage we have derived from the extension of the royal authority in these grants, was that the chain of prerogative was drawn so violently beyond its powers as to be broken asunder, and to become no longer dangerous as an instrument of public calamity.

The task which remains for us to perform is much less unpleasing than the former; it is to shew the freedom of trade as founded on the common law of England, and the salutary effects of the statute of James in the history of British commerce. The luminous maxims of modern policy have connected the dignity of the crown with the felicity of the subject, and there is now much less reason to apprehend that the one will be degraded, or the other obstructed by the confined views of society and government, which for centuries had buried in obscurity the commercial jurisprudence of the third Edward.

Under this division of our inquiry, we shall have no concern with the political history of patents; the interposition of government is at this time only so far extended as is expedient for the general interest by rewarding ingenuity, where necessary for its encouragement; and when that just remuneration is assigned to private merit, the discovery, whatever may be its importance, is laid open to the industry of the nation, and all the future advantages become a public indefeasable claim.

Although
Although we may safely apply this eulogium to the system with respect to patents, with which alone we have to do, it is by no means merited by the commercial policy adopted in this country in many particulars *; and yet the nearest

* The profound author of the enquiry into the nature and causes of the Wealth of Nations, was fully sensible of this defect, and he has expressed his sentiments with that warmth and indignation which was natural to him with his enlarged views of national prosperity, as founded on the perfect freedom of commerce. As we can select no words that could be equally impressive on the minds of our readers, we shall quote his own language:

"To expect, indeed, that the freedom of trade should ever be entirely restored in Great Britain, is as absurd as to expect that an Oceana or Utopia should ever be established in it. Not only the prejudices of the public, but what is much more unconquerable, the private interests of many individuals irresistibly oppose it. Were the officers of the army to oppose with the same zeal and unanimity any reduction in the number of forces with which master manufacturers set themselves against every law that is likely to increase the number of their rivals in the home market: were the former to animate the soldiers in the same manner as the latter inflamed their workmen, to attack with violence and outrage the proposers of any such regulation, to attempt to reduce the army would be as dangerous, as it has now become to attempt to diminish in any respect the monopoly which our manufacturers have obtained against us. This monopoly has so much increased the number of some particular tribes of them, that, like an overgrown standing army, they have become formidable to the government, and upon many occasions intimidate the legislature. The member of parliament who supports every proposal for strengthening this monopoly, is sure to require not only the reputation of understanding trade, but great popularity and influence with an order of men, whose numbers and wealth render them of great importance. If

he
MONOPOLY IN ENGLAND.

nearest interests of this nation, as the commercial rival of the neighbouring states, depend in a great degree upon the correct opinions which are entertained, and the prudent measures which are adopted on this important subject.

he opposes them on the contrary, and still more if he has authority enough to thwart them, neither the most acknowledged probity, nor the highest rank, nor the greatest public services, can protect him from the most infamous abuse and destruction, from personal insults, nor sometimes from real danger arising from the insolent outrage of furious and disappointed monopolists."—Smith's Wealth of Nations, vol. 2, p. 281.
CHAPTER THE THIRD.

The Common Law as it respects Patents and Monopolies.

A MONOPOLY may be restrained two ways:
1. By the Common Law.
2. By the Statute Law.

Before we consider the restrictions by statute, we should shew how far it is restrained by common law.

Sir Edward Coke tells us that monopolies are against the antient and fundamental laws of the realm, and whatever is contrary to these laws is punishable by law. He cites a variety of examples and authorities in support of this opinion *.

Toward the conclusion of the reign of Edward III. John Pechie, of London, was severely punished for procuring a licence under the great seal, for the exclusive sale of sweet wines in that

* See in the preambles of 9 E. 3. cap. 1; 25 E. 3. cap. 2; 27 E. 3. and 28 E. 3. Stat. 5 cap. 2 R. 2. cap. 1. Also any statute of Magna Charta, cap. 3; 31 E. 3. cap. 10; 7 H. 4. cap. 9; and 12 H. 7. cap. 6; 1 and 2 Ph. and Mar. cap. 14; Rot. Parl. 1 R. 2, nu. 20; 4 R. 2; nu. 39; 5 R. 2; nu. 89; Fortescue, cap. 25, 26.
that city *. One of the articles wherewith Wil-
liam de la Poole, Duke of Suffolk, was charged,
was for procuring of divers liberties in derogation
of common law, and hindrance of justice,
which was a penal offence.

All grants of any known trade are void by
common law, as being against the freedom of
trade, discouraging trade, industry, &c. and
putting it into the power of persons to set what
prices they please on their commodities—all
which are inconvenient to the public.

The King's grant to any particular corpora-
tion, of the sole importation of any merchandize,
is void by the common law, whether such mer-
chandize be prohibited by the statute or other-
wise †.

The King's charter, empowering particular
persons to trade to or from any particular place,
is void under the same authority, because it
gives such persons an exclusive right of trading
to the hindrance of others in the enjoyment of
their natural rights. Nothing less than an act
of parliament can exclude a subject from the
perfect liberty of trade ‡.

It

* Rot. Parl. 50 E. 3. ry. 93.
† 2 Roll. Abr. 214; 2 Inst. 61; 3 Inst. 182.
‡ Raym. 489; 2 Chan. Ca. 165; 1 Vern. 127; Sand's
Vet. East-India Company; Skin. 165, 226, 234; 8 Mod. 126.
It has been determined that the King's grant for the sole making and selling of playing cards is void, notwithstanding the pretence that the playing with them is a matter merely of pleasure and recreation, and often much abused, and therefore proper to be restrained; for since the playing with them is, in itself, lawful and innocent, and the making of them an honest and laborious trade, there is no more reason why any subject should be hindered from getting his livelihood by this than any other employment.*

And for the like reasons also it has been resolved, that the grant of the sole engrossing of wills and inventories in a spiritual court, or of the sole making of bills, pleas, and writs, in a court of law, to any particular person, is void †.

* 11 Co. 84; Moor. 671; Noy. 173; 2 Inst. 47.
† 2 Roll. Abr. 212; 1 Jon. 231; 3 Mad. 75; Venm. 139, 130, 273, 307; 10 Mod. 107, 131, 133.
CHAPTER THE FOURTH.

The Statute Law as it respects Patents, from the time of John to the 21st year of James I. inclusive.

It is held that monopolies are contrary to the great charter of our liberties*.

By the statute of 38 Edward III. a merchant was permitted to deal in all manner of merchandize, notwithstanding any charter that might be ceded to restrict this liberty of trade, and therefore every royal grant which tends to a monopoly will be void.

Philip and Mary granted by letters patent to the mayor, bailiffs, and burgesses of Southampton, the exclusive privilege of importing Malmsay wine at that place, with the penalty of treble custom to any one who should infringe the grant. It was resolved by all the judges that this was against the freedom of trade, and therefore void, and that it was against the statutes of the

* Magna Charta, 29, 30; 9 E. 3. cap. 1; 14 E. 3; 25 E. 3. ca. 2; 27 and 28 E. 3. statute of the staple; 2 R. 2. cap. 1. and others. See also the following cases, Trin. 41 Eliz. Coram Rege; Rot. 92; Int. Davenport and Hurdy's in trespass, Trin. 44 Eliz. in lib. 11, fo. 84, 85, &c.; Edward Darcie's case; Hil. 7 Jacobi, in lib. 8, fo. 121, 122, &c.; the case of the city of London.
the kingdom. It was also determined that the assessment of treble customs was against law.

The principal statutes relating to patents in the 16th, and at the beginning of the 17th century, were in the 6th of Henry VIII. the 4th of Edward VI. the 13th and the 43d of Elizabeth *. The first annuls second letters patent (during the King's pleasure,) making no mention of the first letters patent. The second is an act concerning grants and gifts made by patentees out of letters patent. The third ordains that the exemplification or constat of letters patents shall be as good and available as the letters patent themselves. The fourth is for confirmation of grants made to the Queen, &c. and of letters patent made by her to others.

The declaratory statute by which the law is determined, without the probability of any future misapprehension, is that of the 21st of James I. cap. 3, by which all monopolies and all commissions, grants, licences, charters, letters patent, &c. to any person, body politic and corporate, &c. for any sole buying, selling, making, working, using of any thing, &c. shall be void, and any person aggrieved on account of any infringement of the law of the land, as it is here laid down, shall have an action on the statute

* For the statutes here referred to, see the appendix E. 6 H. 8. c. 15; 4 Ed. 6. c. 4; 13 Eliz. c. 6; 43 Eliz. c. 1.
statute in the King's Bench, Common Pleas, or in the Exchequer, and shall recover treble damages and double costs *.

The following exceptions are observable in this statute:

1st. It shall not extend to letters-patent, &c. heretofore made for twenty-one years, or hereafter to be made for fourteen years, for the sole working or making of any new manufacture to the first inventor, &c. if not contrary to law or mischievous to the state, or generally inconvenient.

2d. Or to any grant to a city or corporation, or to any company, &c. of art, occupation, mystery, &c. for the maintenance or ordering of trade; and letters-patent made or to be made about printing, making of gunpowder, ordnance, shot, or of any office not decried by proclamation, shall be of the same effect, and no other, as if this act had not been made.

3d. Or to letters-patent, grant, &c. about allum, or allum mines, or to the fellowship of hostmen at Newcastle about selling, &c. sea coal or pit-coal, &c. or to licences for keeping taverns or selling wines, or the patent to Sir Robert Mansel about making glass, or to Abraham

* For the statute at length, v. appendix F.
Abraham Baker about malt, or to Lord Dudley about cast works.

Further, by this statute all persons are made incapable to have or put in use any monopoly or any commission, grant, or licence, or other matter or thing tending to institute, strengthen, or countenance the same. And any person grieved thereby, or disturbed by reason thereof, shall recover treble damages and double costs.

Having thus stated generally the contents of the statute, we shall next extract the clause comprised in the sixth section, which immediately relates to the subject of this work.

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

As it is of great consequence correctly to understand the terms of this statute, we shall here introduce from Sir Edward Coke his explanation of the expressions in the more material parts of it.

(By his grant, commission, or otherwise.) These words (or otherwise) are of a large extent, and are well warranted by this act, the words whereof extend not only to all proclamations, inhibitions, restraints, and warrants of assistance of the king, but all inhibitions, restraints, and warrants of assistance of all or any of the privy council, or any other: and all other matters or things whatsoever, either of the king, or of all or any of his privy council, to the instituting, erecting, strengthening, furthering, or countenancing of the sole buying, selling, &c. or any of them, are declared to be altogether contrary to the laws of this realm, &c. ut in statuto. This act herein, and in the residue thereof, is forcibly and vehemently penned for the suppression of all monopolies: for monopolies in times past were ever without law, but never without friends.

(Sole.) This word (sole) is to be applied to sole five several things, viz. buying, selling, making, working, and using; four of which are special, and the last, viz. (sole using) is so general, as Sole using.
no monopoly can be raised, but shall be within the reach of this statute, and yet for more surety these words (or of any other monopolies) are added: and by reason of these words (sole using) divers provisions are made by this act; as hereafter shall appear.

(Of any thing.) As the words before were general, so these words (of any thing) are of a large extent. Res enim generalem habet significacionem, quia tam corporea, quam incorporea, cujuscumque sunt generis, naturae, sive speciei, comprehendit: and this word causeth some exceptions hereafter to be made, whereof we shall speak in their proper place.

(Whereby any person or persons, &c.) For this see the statute of Magna Charta, ubi supra: and this clause is impliedly warranted by these words (or of any other monopolies) in the first clause of the Purview.

(Shall be for ever hereafter examined, heard, tried and determined by, and according to the common laws of this realm, and not otherwise.) This act having declared all monopolies, &c. to be void by the common law, hath provided by this clause, that they shall be examined, heard, tried, and determined in the courts of the common law, according to the common law, and not at the council table, star chamber, chancery, exchequer chamber, or any other court of the like nature, but only according to the common
mon laws of this realm, with words negative, and not otherwise*: for such boldness the monopolists took, that often at the council table, star chamber, chancery, and exchequer chamber, petitions, informations, and bills were preferred in the star chamber, &c. pretending a contempt for not obeying the commandments and clauses of the said grants of monopolies, and of the proclamations, &c. concerning the same: for the preventing of which mischief this branch was added.

(That all person and persons, bodies politic and corporate whatsoever, which now are, or hereafter shall be, shall stand, and be disabled, and incapable, &c.) This branch, for further extirpation of all monopolies, disableth all men, &c. to have, that is, to take any monopoly, or to use, exercise, or put in use, any monopoly, &c.

(If any person or persons, after the end of forty days next after the end of this present session of parliament, shall be hindered, grieved, disturbed, or disquieted, &c.) By this branch six things are provided and enacted:

1. Remedy is given to the party grieved at

* By the 16th Car. 1. c. 10. the court of star chamber and the court of requests were dissolved, and it was declared illegal for them to take cognizance of any matter of property belonging to the subjects of this kingdom.
the common law by action or actions to be grounded upon this statute.

2. This remedy may be had in the court of King's Bench, Common Pleas, and Exchequer, or any of them, at the election of the party griev ed.

3. The party griev ed shall recover treble damages and double costs.

4. No essoin, protection, wager of law, aid prayer, privilege, injunction, or order of restraint, to be allowed in any such action. By (aid prayer) is intended as well the writ de domino rege inconsulto, as the usual form of aid prayer, for both are to one end, and (order of restraint) was added, for the Council Table, Star Chamber, Chancery, Exchequer Chamber, and the like.

5. If any person or persons shall, after notice given, &c. cause or procure any such action to be stayed or delayed before judgment, by colour or means of any order, warrant, power, or authority, save only of the court wherein such action shall be brought and depending, the person or persons so offending, shall incur the danger of premunire, &c.

This clause extends to the Privy Council, Star Chamber, Chancery, Exchequer Chamber, and the like; and likewise to those that shall
shall procure any warrant, &c. from the king, &c. and so it was resolved by a committee of both houses before this bill passed; but it extendeth not to the judges of the courts before whom any such action shall be brought; for before judgments, days must be given by orders of court, &c.

6. Or after judgment had upon such action, shall cause or procure execution of or upon any such judgment, to be stayed by colour or means of any such order, warrant, power, or authority, save only by writ of error and attainder, the person or persons so offending shall incur the danger of premunire, &c.

This clause is more general than the former, being the fifth clause, for this extendeth also to the judges of the court where the action is brought or depending, if any stay or delay be used by them after judgment, and so it was resolved as aforesaid.

There be in this act concerning monopolies, or sole buying, &c. many provisoes. The first is, that this act shall not extend to any letters patent, or grants of privilege heretofore made, of the sole working or making of any manner of new manufacture; but that new manufacture must have seven properties: First, It must be for twenty-one years or under. Secondly, It must be granted to the first and true inventor. Thirdly, It must be of such manufactures
asures which any other at the making of such letters patent did not use; for albeit it were newly invented, yet if any other did use it at the making of the letters patent, or grant of privilege, it is declared and enacted to be void by this act. Fourthly, The privilege must not be contrary to law: such a privilege as is consonant to law, must be substantially and essentially newly invented; but if the substance was in esse before, and a new addition thereunto, though that addition make the former more profitable, yet it is not a new manufacture in law; and so it was resolved in the Exchequer Chamber, Pasch. 15 Eliz. in Bircot’s case for a privilege concerning the preparing and melting, &c. of lead ore: for there it was said, that that was to put but a new button to an old coat, and it is much easier to add than to invent*. And there it was also resolved, that if the new manufacture be substantially invented according to law, yet no old manufacture in use before can be prohibited. Fifthly, Nor mischievous to the state, by raising of prices of commodities at home. In every such new manufacture that deserves a privilege, there must be urgens necessitas, and evidens utilitas. Sixthly, Nor to the hurt of trade. This is very material and evident. Seventhly, Nor generally inconvenient. There was a new invention found out heretofore, that bonnets and caps might be thickened in

* Contrary to this position, it is now held that an addition to an old manufacture, if the addition be material and useful, is a proper object of a patent, but in such case the patent must extend to the addition only, and not to the whole.
in a fulling mill, by which means more might be thickened and fulled in one day than by the labours of four score men who got their livings by it. It was ordained that bonnets and caps should be thickened and fulléed by the strength of men, and not in a fulling mill, for it was holden inconvenient to turn so many labouring men to idleness*. If any of these seven qualities fail, the privilege is declared and enacted to be void by this act; and yet this act, if they have all these properties, sets them in no better case than they were before this act.

The second proviso concerneth the privilege of new manufactures hereafter to be granted; and this also must have seven properties: First, it must be for the term of fourteen years or under; the other six properties must be such as are aforesaid; and yet this act maketh them no better than they should have been if this act had never been made, but only except and exempt them out of the purview and penalty of this law.

The cause wherefore the privileges of new manufactures, either before this act granted, or which after this act should be granted, having these seven properties, were not declared to be good

* This construction does not now prevail in our courts. It has been discovered that the preservation and improvement of the trade of this country has, in an eminent degree, depended upon the application of machinery to save human labour, and the principal objects to which patents have been directed, are for this express purpose.
The reason of the reward to the inventor.

good was, for that the reason wherefore such a privilege is good in law, is because the inventor bringeth to and for the common wealth a new manufacture by his invention, cost and charges, and therefore it is reason that he should have a privilege for his reward (and the encouragement of others in the like,) for a convenient time; but it was thought that the times limited by this act were too long for the private, before the common wealth should be partaker thereof, and such as served such privileged persons by the space of seven years, in making or working of the new manufacture, (which is the time limited by law of apprenticeship,) must be apprentices or servants still during the residue of the privilege, by means whereof such numbers of men would not apply themselves thereunto as should be requisite for the common wealth after the privilege ended. And this was the true cause wherefore both for the time passed, and for the time to come, they were left of such force as they were before the making of this act.

3d proviso.

The third proviso is, That this act shall not extend, or be prejudicial to any grant or privilege, power or authority heretofore made, granted, allowed or confirmed by any act of parliament now in force, so long as the same shall so continue in force. This was added, for that the city of London, and other cities and boroughs, &c. have some privileges for buying, selling, &c. by acts of parliament. For example,
ple, the statute of 1 and 2 Philip and Mary gives a privilege to cities, boroughs, towns corporate, and market towns, for the sale by retail of certain wares and merchandizes, and some other acts of parliament in like case, all which do prove that such privileges could not be granted by letters patent, but specially this clause was added in respect of the generality of these words (sole using).

The fourth proviso. Provided also, and it is hereby further intended, declared and enacted, that this act, &c. shall not in any wise extend, or be prejudicial to the city of London, &c.

By this proviso, not only the grants, charters, and letters patent to any city, or town corporate, &c. but also the customs used within the same, are excepted out of this act, which seemeth to be more than need; because the first clause of the purview of this act doth extend but to commissions, grants, licences, charters, and letters patent.

The fifth proviso doth except out of the purview and penalty of this statute, four things, but leaveth them of the like force and effect, and no other as this act had never been made. First, The privilege concerning printing, made or hereafter to be made. Secondly, Commissions, grants, and letters patent, made or hereafter to be made, for or concerning the digging, making, or compounding of salt-putre or gunpowder.
powder*. Thirdly, Or the casting or making of<br>ordnance, or shot for ordnance. Fourthly, Grants<br>and letters patent heretofore made, or hereafter<br>to be made, of any office or offices heretofore<br>erected, made or ordained, and now in being,<br>and put in execution, (other than such offices<br>as have been decried by any of his Majesty's<br>proclamations,) so as to the thing by this branch<br>excepted, four things are required: First, That it be an office. This extendeth only to<br>lawful offices for divers causes: 1. It was nece-
sessary to except lawful offices in respect of<br>these words (sole using). 2. Offices are duties,<br>so called to put the officer in mind of his duty.<br>3. That which is void and against law, is no<br>duty, unless it be not to use them. 4. Such as<br>are erected against law, are monopolies and op-
pressions of the people, and no offices. 5. In<br>acts of parliament lawful offices are intended,<br>as in like cases hath been often adjudged; there-
fore,

* But it is since enacted by 16 Car. 1, cap. 21. "That it
shall be lawful for all persons, as well strangers as natural-born
subjects, to import any quantities of gunpowder whatsoever,
paying such customs and duties for the same as by parliamen-
shall be limited, and that it shall be lawful for all his majesty's
subjects of this his realm of England, to make and sell any quan-
tities of gunpowder at his pleasure, and also to bring into this
kingdom any quantities of salt-petre, brimstone, or any other
materials for the making of gunpowder; and that if any person
shall put in execution any letters patent, proclamations, edifi-
car, order, warrant, restraint, or other inhibition whatsoever,
whereby the importation of gunpowder, salt-petre, brimstone,
or other the materials aforesaid, shall be any ways prohibited
or restrained, he shall incur a penalumire.
fore, unlawful offices are all taken away by this act, and lawful offices remain and continue.

Secondly, that it be an office heretofore erected. By this act the erection of all new offices, which were not erected before this act, are wholly taken away.

Thirdly, That it be now in being, and put in execution. Though the office were erected before this act, yet if it were not in being, and put in execution the 19th day of February, in the 21st year of the reign of King James, (at what time this parliament begun,) it is clearly taken away by this act.

Fourthly, That it be such an office as hath not been decreed (for so is the record of parliament, and not (decreed) as it is in the printed book) by any of his majesty's proclamations; for all such offices as be decreed, that is, either forbidden, or prohibited by any of his majesty's proclamations, or where the party grieved is left to his remedy at the common law, by any proclamation, they be also decreed; for being contrary to the laws of this realm, as it is declared and enacted by this act, they are also decreed with a witness, and can never be granted hereafter.

The fifth proviso concerning the making of allum, or allum mines, neede not, for they belong to the subject on whose groundsoever the dare
dare is: and therefore any privilege thereof cannot be granted but in the king's own ground.

The sixth proviso concerns the hoistmen of Newcastle, &c. This clause was inserted in respect of these words (sole using.)

The rest of the provisos concern particular persons, and do exempt and except certain supposed privileges out of the purview and penalty of this law, but leave them of the like force and effect, as they were before the making of it.

But it is to be observed, that all the provisos after the sixth, extend only to the supposed privileges therein particularly mentioned, already granted, and not to any to be granted hereafter.

Having availed ourselves of the learning of the great ornament of his profession in the reigns of Elizabeth, James, and Charles the 1st, we shall next illustrate the meaning of the principal clause by some modern authorities.

The 6th section of the statute was thus explained by the Ch. J. Eyre, in the case argued Easter term, 1795, Boulton and Watt v. Bull: "We shall there (he says) find a monopoly defined to be 'the privilege of the sole buying, selling, making, working, or using any thing, within this realm;"
realm;" and this is generally condemned as contrary to the fundamental law of the land. But the 5th and 6th sections of that statute save letters patent, and grants of privileges, of the sole working or making of any manner of new manufacture within this realm, to the first and true inventor and inventors of such manufactures; with this qualification, "so that they be not contrary to the law, nor mischievous to the state;" in these three respects, first, "by raising the prices of commodities at home;" secondly, "by being hurtful to trade;" or, thirdly, by being "generally inconvenient." According to the letter of the statute, the saving goes only to the sole working and making: the sole buying, selling and using, remain under the general prohibition, and with apparent good reason for so remaining; for the exclusive privilege of buying, selling and using, could hardly be brought within the qualification of not being contrary to law, and mischievous to the state, in the respects which I have mentioned. I observe also, that according to the letter of the statute, the words "any manner of new manufacture" in the saving, fall very short of the words "any thing," in the first section; but most certainly the exposition of the statute, as far as usage will extend it, has gone very much beyond the letter. In the case in Sal-keld, the words "new devices" are substituted and used as synonymous with the words "new manufactures."
On the construction of the same clause the following opinion was delivered in the case in error of Hornblower and Maberly v. Boulton and Watt.

Grose, J. This is an action for violating that right, supposed to have been given originally for fourteen years by the patent in 1769, and contended to be continued to James Watt, his representatives and assigns for twenty-five years by the statute in 1774. The statute recites the patent, the benefit of which is now determined by flux of time; and therefore the action can only be sustained on the continuance of that benefit to the patentee by the legislature. The statute however expressly provides that every objection in law competent against the patent, shall also be competent against the statute, that is against the benefit to be derived to the patentee under the statute. The question then is, whether the patent be good in law; in other words, whether it be conformable to the statute of 21 Jac. I. c. 3, s. 6, under which the plaintiff or any party can alone claim the privilege of a monopoly. The power thereby reserved to the king is, "that any declaration before mentioned shall not extend to any letters patents and grants of privilege for the term of fourteen years or under, thereafter to be made of the sole working or making of any manner of new manufactures within this realm to the true and first inventors of such manufactures, which others at the time of making such letters patents
tents and grants shall not use; so as also they be not contrary to the law, nor mischievous to the state, by raising prices of commodities at home; or hurt of trade, or generally inconvenient." The questions upon this patent are, whether it be a patent for the sole working or making of any manner of new manufacture; whether the patentee were the first inventor; whether it be contrary to law, mischievous to the state or to trade, or generally inconvenient?"

The general design of this act is to restrict the application of the prerogative in respect to monopolies or exclusive privileges as a protection to the liberty of trade: yet a reserve is made for its salutary exercise, the power not being withdrawn from the crown in respect to letters patent and grants of privilege "for fourteen years or under, for the sole working or making of any manner of new manufacture within this realm, to the true and first inventor and inventors of such manufacture which others at the time of making such letters patents and grants shall not use, so that they be not contrary to the law, nor mischievous to the state."

The subject may be considered under the following four particulars:

I. The authority by which the grant is made, and the ground on which it may or may not be set aside.

II. Division of the subject.
II. The term or duration of the grant.
III. The nature and extent of the thing granted, and
IV. The condition on which the grant is made.

But it will be proper to precede these discussions by considerations on the patent itself, its form and incidents.
CHAPTER THE FIFTH.

The Variations in the Form of Letters Patent; the Seals required, and the Manner in which they are passed.

We shall now notice some changes in the practice of former times, and some peculiarities incident to the royal grant.

The king cannot grant any thing but by matter of record.

In the reign of John, the king in his patents was named in the singular number, but since that period the plural number has been adopted.

The direction of patents to the time of Richard the 2d, was Omnibus Archiepiscopis, Ducibus, Marchionibus, Comitibus, Episcopis, &c. This form is now only employed for patents of dignity. The words used in other cases are, "To all to whom these presents shall come," Omnibus ad quos presents Literæ venerint.

The clause of hiis testibus was used under Henry the 3d, and subsequently until the accession of Richard the 2d, and it is still introduced.
duced in patents for creations of rank, but in other patents from the accession of that prince testa meipso has been inserted instead of the former.

William the Conqueror and his immediate successor, sealed their patents with an impression upon wax. Richard the 1st used armorial insignia on his seal, and, after his return from Jerusalem, changed his arms from two lions combattant to three lions passant.

The law takes notice of three seals of the king; the great seal, the privy seal, and the signet.

If mention be made of the king's seal, generally, it shall be understood of the great seal.

The great seal is in the custody of the chancellor, the privy seal in the custody of the clerk, or lord-keeper of the privy seal, and the signet in the custody of the principal secretary who has four clerks of the signet.

By the common law no grant of the king is available or pleadable, unless under the great seal, but the king may make a warrant for a patent under the privy seal.

If the sign manual be to a grant or warrant, it ought to be countersigned by a principal secretary of state, or the lords of the treasury.
treasury. If it be a direction for another act, as for letters patent to be made, &c. it is sufficient that it be countersigned. If it be of itself the principal act, it is countersigned, and also sealed by the signet or privy seal.

If the king make a grant by letters patent to be passed under the great seal; every gift, grant, or writing, made by the king, or any of his posterity, for that intent, signed by the sign manual, before it pass the seals, shall be brought to the king's principal secretary, or one of the clerks of the signet to be passed at the office of the signet*.

This extends to any gift or grant, &c. to pass the great seal of England, &c. or by other process out of the exchequer; and to all grants which the master of the wards, or surveyor-general of the king's lands, or other officer, by act of parliament, or the king's grant made or to be made, can make.

One of the clerks of the signet, to whom such writing shall be delivered, signed with the king's hand, shall, by warrant of the same bill, in eight days after its receipt, (unless he have knowledge from the king's principal secretary, or otherwise of the king's pleasure, to the contrary,) make in the king's name letters of warrant under the hand of such clerk, and sealed

*See the extracts from st. 27 Hen. 8. c. 11. Appendix G.
ed with the king's signet, to the lord-keeper of the privy seal, for further process to be had therein.

The clerk of the privy seal, by examination of the warrant from the signet 'v the lord privy seal, shall in eight days (unless commanded by the lord privy seal to the contrary,) make other letters of like warrant, subscribed by the said clerk of the privy seal to the lord chancellor or keeper, &c. by writing and sealing with the seals in their respective custodies, letters patent, &c.

Provided, not to prejudice warrants or precepts, which the lord treasurer, by virtue of his office, may direct immediately to the lord chancellor, &c. for making grants or letters patent, &c. belonging to his nomination or disposition; but the same may pass without signet or privy seal as before.

If a patent pass by bill signed without a privy seal, the patent is subscribed per ipsum Regem, and the bill signed remains with the chancellor for his warrant. If it pass by bill signed and privy seal, the bill signed remains with the clerk of the signet, and an extract of it is made by the lord privy seal, for making the privy seal, and the privy seal remains with the chancellor, and the patent is subscribed per brevi de privato sigillo.
LETTERS PATENT, &c.

If the king sign the patent itself in the upper 8 Co. 118. b. part, and the signature go with the great seal, it is subscribed per ipsum Regem manu sua propriā. If it be made by the authority of parliament, it is subscribed per ipsum Regem 8 Co. 19. a. et totum concilium in Parliamento.

If a warrant for a patent be dated 31 Oct. Semb. Dy. 135 b. 37 H. 8. and upon delivery to the chancellor a memorandum is indorsed 1 Dec. deliberat' omitting the year, yet being filed among the memoranda of the 37th year; and the patent being dated 1st Dec. Anno 37 H. 8. it will be sufficient.

In the next chapter we shall give the form of the patent for commercial purposes now uniformly adopted.
CHAPTER THE SIXTH.


GEORGE R.

GEORGE the Third, by the Grace of God, &c. To all to whom these presents shall come greeting. Whereas A. B. of C. in the county of D. engine maker, hath by his petition humbly represented unto us, that he, after much study and expense, hath invented certain improvements in the art of dying, by means of a new apparatus for cooling cloth and other piece goods, (particularly in dying black,) and a new furnace for applying fire for the purpose of heating the boiler or other vessels, and which may also be applied to the heating of other boilers or vessels where heat is required, which the petitioner conceives will be of great public utility; that he is the first and true inventor thereof, and that the same has not been practised or used by any other person or persons to the best of his knowledge and belief. The petitioner therefore most humbly prayed that we would be graciously pleased to grant unto him, his executors, administrators and assigns, our royal letters patent, under the great seal of our united kingdom of Great Britain and Ireland, for the sole use, benefit, and advantage of his said invention,
invention, within that part of our united kingdom of Great Britain and Ireland, called England, our dominion of Wales, and town of Berwick-upon-Tweed, for the term of fourteen years, pursuant to the statute in that case made and provided *; and we being willing to give encouragement to all arts and inventions which may be for the public good, are graciously pleased to condescend to the petitioner's request, Know ye therefore, that we, of our especial grace, certain knowledge and mere motion, have given and granted, and by these presents for us, our heirs and successors, Do give and grant unto the said A. B. his executors, administrators and assigns, our especial licence, full power, sole privilege and authority, that he the said A. B. his executors, administrators and assigns, and every of them by himself and themselves, or by his or their deputy or deputies, servants or agents, or such others as he the said A. B. his executors, administrators and assigns, shall at any time agree with, and no others, from time to time, and at all times hereafter, during the term of years herein expressed, shall and lawfully may make use of, exercise, and vend his said invention within that part of our united kingdom of Great Britain and Ireland, called England, our dominion of Wales,

* If it be the design of the inventor to extend the exclusive privilege farther, he may, on application, have inserted in the patent the additional words, "in all your majesty's colonies and plantations abroad," which will establish his patent right in those countries.
Wales, and town of Berwick-upon-Tweed, in such manner as to him the said A. B., his executors, administrators and assigns, or any of them, shall in his or their discretions seem meet. And that he the said A. B. his executors, administrators, and assigns, shall and lawfully may have and enjoy the whole profit, benefit, commodity and advantage from time to time coming, growing, accruing and arising by reason of the said invention, for and during the term of years herein mentioned, to have, hold, exercise, and enjoy the said licence, powers, privileges, and advantages herein before granted or mentioned to be granted unto the said A. B. his executors, administrators and assigns, for and during, and unto the full end and term of fourteen years from the date of these presents next and immediately ensuing, and fully to be complete and ended according to the statute in such case made and provided. And to the end that he the said A. B. his executors, administrators, and assigns, and every of them, may have and enjoy the full benefit and the sole use and exercise of the said invention, according to our gracious intention herein before declared, We do by these presents, for us and our heirs and successors, require and strictly command all and every person and persons, bodies politic and corporate, and all other our subjects whatsoever, of what estate, quality, degree, name, or condition sooever they be, within that said part of our united kingdom of Great Britain and
and Ireland, called England, our dominion of Wales, and town of Berwick-upon-Tweed aforesaid, that neither they, nor any of them, at any time during the continuance of the said term of fourteen years hereby granted, either directly or indirectly, do make use or put in practice the said invention, or any part of the same so attained unto by the said A. B. as aforesaid, nor in any wise counterfeit, imitate, or resemble the same, nor shall make, or cause to be made, any addition thereunto, or subtraction from the same, whereby to pretend himself or themselves the inventor or inventors, deviser or devisors thereof, without the licence, consent, or agreement of the said A. B. his executors, administrators and assigns, in writing, under his or their hands and seals, first had and obtained in that behalf, upon such pains and penalties as can or may be justly inflicted on such offenders for their contempt of this our royal command, and further to be answerable to the said A. B. his executors, administrators, and assigns, according to law for his and their damages thereby occasioned. And moreover, We do by these presents, for us, our heirs and successors, will and command all and singular the justices of the peace, mayors, sheriffs, bailiffs, constables, head boroughs, and all other officers and ministers whatsoever of us our heirs and successors for the time being, that they or any of them do not, nor shall at any time hereafter during the said term hereby granted, in any wise molest, trouble, or hinder
the said A. B. his executors, administrators, and assigns, or any of them, or his or their deputies, servants or agents, in or about the due and lawful use or exercise of the aforesaid invention, or any thing relating thereto; provided always, and these our letters patent are and shall be upon this condition, that if at any time during the said term hereby granted, it shall be made appear to us, our heirs or successors, or any six or more of our or their privy council, that this our grant is contrary to law, or prejudicial, or inconvenient to our subjects in general, or that the said invention is not a new invention as to the public use and exercise thereof in that said part of our united kingdom of Great Britain and Ireland, called England, our dominion of Wales, and town of Berwick-upon-Tweed aforesaid; or not invented and found out by the said A. B. aforesaid, then upon signification or declaration thereof to be made by us, our heirs and successors, under our or their signet or privy seal, and by the lords of our or their privy council, or any six or more of them under their hands, these our letters patent shall forthwith cease, determine and be utterly void, to all intents and purposes, any thing herein before contained to the contrary thereof, in any wise notwithstanding. Provided also, that these our letters patent, or any thing herein contained, shall not extend, or be construed to extend, to give privilege unto the said A. B. his executors, administrators or assigns, or any of them, to use or imitate any invention or work whatsoever, which
LETTERS PATENT.

which has heretofore been found out or invented by any other of our subjects whatsoever, and publicly used or exercised in that said part of our united kingdom of Great Britain and Ireland, called England, our dominion of Wales, or town of Berwick-upon-Tweed, unto whom like letters patent or privileges have been already granted for the sole use, benefit, and exercise thereof; it being our will and pleasure that the said A. B. his executors, administrators and assigns, and all and every other person or persons to whom like letters patent or privileges have been already granted as aforesaid, shall distinctly use, practise their several inventions by them invented and found out, according to the true intent and meaning of the respective letters patent and of these presents. Provided likewise, nevertheless, and these our letters patent are upon this express condition, that if the said A. B. his executors, administrators and assigns, or any person or persons which shall or may at any time hereafter during the continuance of this grant have or claim any right, title or interest, in law or equity, of, in or to the power, privilege and authority, of the use and benefit of the said invention hereby granted, shall make any transfer or assignment, or any pretended transfer or assignment, of the said liberty and privilege, or any share or shares of the benefit or profit thereof, or shall declare any trust thereof, to or for any number of persons exceeding the number of five, or shall open, or cause to be opened, any book or books for public subscriptions,
subscriptions, to be made by any number of persons exceeding the number of five, in order to the raising any sum or sums of money under the pretence of carrying on the said liberty or privilege hereby granted, or shall by him or themselves, or his or their agents or servants, receive any sum of money whatsoever of any number of persons exceeding in the whole the number of five, for such or the like intents or purposes, or shall presume to act as a corporate body, or shall divide the benefit of these our letters patent, or the liberty and privileges hereby granted, into any number of shares exceeding the number of five, or shall commit, or do, or procure to be committed or done, any act, matter or thing whatsoever, during such time as such person or persons shall have any right or title, either in law or equity, in, or to the said premises, which will be contrary to the true intent and meaning of a certain act of parliament made in the sixth year of the reign of our late royal great grandfather King George I. intituled "An act for the better securing certain powers and privileges intended to be granted by his Majesty by two charters for assurance of ships and merchandizes at sea, and for lending money upon bottomry, and for restraining several extravagant and unwarrantable practices therein mentioned." Or in case the said power, privilege, and authority shall at any time hereafter become vested in or in trust for more than the number of five persons, representatives at any one time, reckoning executors and administrators as and for the single person
person whom they represent, as to such interest as they are or shall be entitled in right of such their testator or intestators; that then and in any of the said cases, these our letters patent, and all liberties and advantages whatsoever hereby granted, shall utterly cease, determine, and become void, any thing herein before contained to the contrary thereof in any wise notwithstanding. Provided also, that if the said A. B. shall not particularly describe and ascertain the nature of his said invention, and in what manner the same is to be performed, by an instrument in writing under his hand and seal, and cause the same to be enrolled in our High Court of Chancery, within one calendar month next and immediately after the date of our said letters patent, that then these our letters patent, and all liberties and advantages whatsoever hereby granted, shall utterly cease, determine, and become void, any thing herein before contained to the contrary thereof in any wise notwithstanding. And lastly, we do by these presents, for us, our heirs and successors, grant unto the said A. B. his executors, administrators and assigns, that these our letters patent, or the enrolment or exemplification thereof, shall be in and by all things good, firm, valid, sufficient and effectual in the law, according to the true intent and meaning thereof, and shall be taken, contrived, and adjudged in the most favourable and beneficial sense for the best advantage of the said A. B. his executors, administrators, and assigns, as well in all our courts of record as elsewhere; and by all and singular the officers and
and ministers whatsoever of us, our heirs and successors, in that part of our united kingdom of Great Britain and Ireland called England, our dominion of Wales, and town of Berwick-upon-Tweed aforesaid, and amongst all and every the subjects of us, our heirs and successors, whatsoever and whereassoever, notwithstanding the not full and certain describing the nature and quality of the said invention, or of the materials thereto conducing and belonging.

In witness, &c.

Examined, Sp. Perceval.

May it please your Most Excellent Majesty:

This contains your Majesty's grant unto A. B. of C. in the county of D. engin e-maker, of the sole use, benefit, and advantage of his invention of certain improvements, in the art of dying, by means of a new apparatus for cooling cloth, and other piece goods, (particularly in dying black,) and a new furnace for applying fire for the purpose of heating the boiler, or other vessels, and which may also be applied to the heating of other boilers, and other vessels where heat is required; to hold to him, his executors, administrators and assigns, within England, Wales, the town of Berwick-upon-Tweed, for the term of fourteen years, according to the statute in such case made and provided. Provided that he does, within one calendar month from the date of the grant hereby intended, cause a particular
icular description of the nature of his said in-
vention, and in what manner the same is to be
performed, by writing under his hand and
seal, to be enrolled in your High Court of
Chancery; otherwise, your Majesty's said grant
to be void, and all such clauses, prohibitions,
and provisos are herein inserted as are usual
and necessary in grants of the like nature: and
this bill is prepared

By warrant
Under your Majesty's royal sign manual.

Countersigned by

THOMAS LORD PELHAM,
SP. PERCEVAL.

May 31, 1803.
CHAPTER THE SEVENTH.

The Authority by which the Grant is made, and the Ground on which it may or may not be set aside.

The grants of the Crown of England are either in the form of charters or of letters. The latter are sometimes (literae patentes) letters patent, at others (literae clausae) close letters; and they are frequently called patent rolls, and close rolls. These grants, we have said, are matter of public record, and numerous offices, we have shewn, are erected, communicating in a regular subordination that they may be narrowly inspected by the King's officers before they are sanctioned by the regal authority, and that they may be passed, transcribed and enrolled.

The King of England is the arbiter of commerce.* We here speak particularly of domestic commerce. Affairs of general commerce relating to subjects of independent states, are regulated by the Law Merchant, or Lex Mercatoria, which the European nations agree to observe. The King, as arbiter of commerce, establishes marts, or places of buying and selling, regulates the weights and measures, and

* Respecting the King's charter as regulating trade, see appendix H.
and gives currency to the coin of the country.*
Under the first branch devolves the right of
granting letters patent, restricting the sale to
such persons as he shall think proper; and in
this statute of the 21st of James I. chap. 3. an
instance is given of the limitation of the royal
prerogative by bounds so certain and notorious,
that the king cannot easily exceed them with-
out the consent of the people.

Prior to the passing of this statute our courts
of law had been considerably embarrassed, as
may be seen in the reports of Sir Edward Coke,
where a great variety of cases are cited in which
the royal grants of monopolies, of the nature
and in the form of letters patent, are determined
to be nugatory. The ground of their invalidity
is either as being opposed to the common or sta-
tute law of the land, or to both of these. The
most remarkable case is that of Edward Darcy
against Thomas Allien, for the sole making
of cards within the realm, and for the sole
importation of foreign cards†. It occurred in
Trinit. 44 Eliz. and the patent was set aside as
had been done at a much earlier period, in the
case of John Pechie, who received from Ed-
ward

* On the extent or limitation of the royal prerogative with
respect to trade, the reader may consult the following autho-
rities: 1 Sal. 32; 3 Lev. 353; R. 3 Lev. 353; R. Skin. 185;
8 Co. 125.
† V. Infra ch. 9, sect. 8, where the particulars of this case
are detailed.
A writ of *Scire facias*, to repeal letters patent, lies in three cases:

1st. When the King doth grant by several letters patent one and the same thing to several persons, the first patentee shall have a *Sci. fa.* to repeal the second.

2dly. When the King doth grant a thing upon a false suggestion, he, prærogativâ regis, may by *Sci. fa.* repeal his own grant.

3dly. When the letters patent express a grant which by the law of the land he cannot grant.

In all these cases the authority may be set aside, and of course a person who proposes to obtain letters patent, should consider whether his patent will fall under any of them.

In the first instance, if a patent be granted to a second person for the same invention, it is granted to the prejudice of the first, and the King,
THE GRANT.

King, of right, is to permit the first, upon petition, to use his name for the repeal of it.

In the second instance, a patent is said to be obtained on false suggestion when the King makes any grant of a monopoly to the injury of trade.

In the third instance, if the grant be against law, it may be either, as we have stated, against the common law, the statute law, or against both of these. Not to notice the case of William Shening, Coke XI. 53, 54, that respecting the cards was determined to be against both the common and statute law. Against the common law, as interfering with the industry of the people, which is a common right for the maintenance of them and their families; and against the statute law, which for the benefit of trade extends freedom to all vendible things, notwithstanding any charter or franchise granted to the contrary. As we shall have occasion to notice in a subsequent part of this essay those instances in which the grant is rendered nugatory by being opposed to the established law, and as the degree of extension of the King's prerogative in cases of patent is now so clearly understood, we shall not detain our readers with minute investigations on the legal niceties of royal grants, but refer such as are inquisitive on the antiquity of grants by prerogative, to the numerous cases in the reports of Sir Edward Coke.
Coke, to whom the student so frequently has occasion to resort, on the most important questions in British jurisprudence*.

Having stated generally what *does vitiate the grant*, we shall content ourselves here with quoting from J. Buller the following general rules laid down by Chief Justice Lee, of the cases wherein mistakes *do not vitiate* the grant.

1st, Every false recital in a thing not material will not vitiate the grant, if the King’s intention is manifest and apparent.

2d, If the King is not deceived in his grant by the false suggestion of the party, but from his own mistake, upon the surmise and information of the party, it shall not vitiate or avoid the grant.

3d, Although the King is mistaken in point of law, or matter of fact, ‘if that is not part of the consideration of the grant, it will not avoid it.

To these he adds the following explanations from the same authority.

Where the King grants *ex certá scientiá et mero motu*, those words occasion the grant to be

* See Appendix I. on the Law of Patents before the 21st James I. c. 3.
be taken in the most liberal and beneficial sense, according to the King's intent and meaning expressed in his grant. Although in some cases the general words of a grant may be qualified by the recital, yet if the King's intent is plainly expressed in the body of the grant, the intent shall prevail.
CHAPTER THE EIGHTH.

The Term or Duration of Letters Patent.

The sixth clause, which we have quoted at length, with the exceptions we have stated, renders all persons incapable to have or put in use any monopoly, or any commission, grant, or licence, or other matter or thing tending to institute, strengthen, or countenance the same.

Among the exceptions, in the sixth section, are letters patent and grants of privileges, for the term of fourteen years, or under, for new inventions there defined, which during this term, and no longer, are since the passing of that statute, authorized by the law of the land:

Motives may arise which shall induce the king to limit his grant of letters patent in such cases for a shorter term, but he cannot now extend them beyond the duration of fourteen years, as any letters patent enlarging the grant for more than that term would by this statute be null and void.

The term of a valid patent for fourteen years is to be accounted from the date of the first letters patent, or grant of privilege.
In the case of Darcy against Allien, it was objected to the plaintiff that the grant was for twenty-one years, so that his executors, administrators, wife or children, or others, inexpert in the art or trade, might enjoy this monopoly, and this was one ground for setting aside the grant. The statute of James, however, since past, is perfectly clear in the limitation to fourteen years, so that no future doubt can arise.

The only principle on which a patent right can be extended beyond the period stated in the declaratory act of James, is by statute law. In the case of Boulton and Watt, it appearing to parliament that the patentees were not sufficiently rewarded for their labour, expence and ingenuity, in the improvement of a steam engine, the legislature, six years after the patent had been granted, thought proper to extend the duration of it from the eight years then to come, to twenty-five years, the patent having been granted in the ninth, and the statute having passed in the fifteenth year of the present king*.

"The statute," (says Mr. Justice Heath) 21 James I. "prohibits all monopolies, reserving to the King, by an express proviso, so much of his ancient prerogative, as shall enable him to grant letters patent and grants of privilege, A

* See appendix K, which contains a list of some acts for continuing certain patents, with the equity or reason assigned for their continuance.
lege, for the term of fourteen years, or under, of the sole working or making of any manner of new manufactures within this realm, to the true and first inventor and inventors of such manufactures."
CHAPTER THE NINTH:


Sect. 1. What is a new Manufacture in the Contemplation of Law, for which a Patent may be granted?

Sect. 2. What constitutes that Use which excludes the Patent Right? Who is the first Inventor?

Sect. 3. What is that Patent which is contrary to the Law, or mischievous to the State, and therefore void?

The grant is for the sole working or making of any manner of new manufacture within this realm, to the true and first inventor and inventors of such manufactures, which others at the time of making the letters patent and grants shall not use, and which are not contrary to the law, or mischievous to the state.

The grant of the King does not differ from that by a subject, excepting in the construction of his grants when made. A grant made by the King, at the suit of the grantee, shall be taken most beneficially for the King, and against

The distinctions between a royal grant and the grant of a subject.
the party; whereas the grant of a subject is construed more strongly against the grantor. Wherefore it is usual to insert in the King's grants, that they are made, not at the suit of the grantee, but "ex speciali gratia, certa scientia et mero motu regis," and then they have a more liberal construction: therefore the established form of letters patent for new inventions recites those words, that the patentee may enjoy the full advantage of the grant.
A MANUFACTURE; &c.

SECT. I.

What is a Manufacture in the Contemplation of Law, for which a Patent may be granted?

THE term manufacture in the statute is confined by the late Lord Chief Justice Kenyon, strictly to its etymology, something made by the hands of man.

A patent may be granted for an improvement on an old manufacture, but in such case the patent must extend to the improvement only, and not to the whole manufacture; the improvement must likewise be material and useful.

A manufacture brought from abroad into the kingdom, which has not been before practised in the kingdom, is a new manufacture in the contemplation of the statute.

No old manufacture in use before can be prohibited by the grants of the sole use of a new invention.

A patent cannot be granted for a method or principle, its object must be some substantial thing produced.

In the case of Boulton and Watt against Bull; Mr. Justice Heath observed, "when a mode

* See the case of Edgberry and Stephens, further noticed in the following section.
mode of doing a thing is referred to something permanent, it is properly termed an engine, when it is something fugitive, a method, and he asked, "Is there any instance of a patent for a mere method?"

The same judge delivering his further opinion on that case, makes the following observations on this part of the subject. The statute of 21 James I. prohibits all monopolies, reserving to the King, by an express proviso, so much of his ancient prerogative as shall enable him to grant letters patent, and grants of privilege, for the term of fourteen years or under, of the sole working or making of any manner of new manufactures within this realm, to the true and first inventor and inventors of such manufactures. What then falls within the scope of the proviso? such manufactures as are reducible to two classes. The first class includes machinery, the second substances, (such as medicines) formed by chemical and other processes, where the vendible substance is the thing produced, and that which operates preserves no permanent form. In the first class the machine, and in the second the substance produced, is the subject of the patent. I approve of the term manufacture in the statute, because it precludes all nice refinements, it gives us to understand the reason of the proviso, that it was introduced for the benefit of trade. That which is the subject of a patent ought to be specified, and it ought to be that which is vendible, otherwise it cannot be
be a manufacture: this is a new species of manufacture, and the novelty of the language is sufficient to excite alarm. It has been urged that other patents have been litigated and established; for instance, Dollond’s, which was for a refracting telescope. I consider that as substantially an improved machine. A patent for an improvement of a refracting telescope, and a patent for an improved refracting telescope, are in substance the same. The same specification would serve for both patents; the new organization of parts is the same in both. I asked in argument for an instance of a patent for a method, and none such could be produced. I was then pressed with patents for chemical processes, many of which are for a method, but that is from an inaccuracy of expression, because the patent in truth is for a vendible substance. To pursue this train of reasoning still further, I shall consider how far the arguments in support of this patent will apply to the invention of original machinery, founded on a new principle. The steam engine furnishes an instance. The Marquis of Worcester discovered in the last century the expansive force of steam, and first applied it to machinery. As the original inventor, he was clearly entitled to a patent. Would the patent have been good applied to all machinery, or to the machines which he had discovered? The patent decides the question. It must be for the vendible matter, and not the principle.
On this part of the same case Mr. Justice Buller went much at length, to shew that a patent could not be granted for a method or principle, but for the thing produced. The very statement of what a principle is, proves it not to be a ground for a patent: it is the first ground and rule for arts and sciences, or in other words, the elements and rudiments of them. A patent must be for some new production from those elements, and not for the elements themselves. The plaintiff's case is considerably distressed in many parts of it, and as it seems to me, the arguments which have been adduced were very much calculated to keep clear of difficulties, which the counsel foresaw might be introduced into the case; as first, that unless the principle can be supported as the ground of the patent, there may be some danger of confirming the defendant's objection to it; secondly, that unless the principle can be supported it may open a fatal objection to the specification, because that does not state in what manner the new machine is to be constructed, how it varies from the old one, or in what way the improvements are to be added; or, thirdly, because the patent embraces the whole principle, and is founded on that alone, but the invention is taken to consist of an improvement or addition only. Another objection may arise both to the patent and specification, viz. that the patent is granted for the whole engine, and not for the addition and improvement only. Perhaps it may be convenient and judicious to keep these objections
objections as much as possible in the background, and out of the view of the court. But it is our duty to sift and dive into the facts and circumstances of the case, and the bearings and consequences of them, as far as our abilities or knowledge of the subject will admit. There is one short observation arising on this part of the case, which seems to me to be unanswerable, and that is, that if the principle alone be the foundation of the patent, it cannot possibly stand, with that knowledge and discovery which the world were in possession of before. The effect, the power, and the operation of steam were known long before the date of this patent; all machines, which are worked by steam, are worked by the same principle. The principle was known before, and therefore if the principle alone be the foundation of the patent, though the addition may be a great improvement, (as it certainly is,) yet the patent must be void, ab initio. But then it was said, that though an idea or a principle alone would not support the patent, yet that an idea reduced into practice, or a practical application of a principle, was a good foundation for a patent, and was the present case. The mere application or mode of using a thing was admitted in the reply not to be a sufficient ground; for on the court putting the question, whether if a man by science were to devise the means of making a double use of a thing known before, he could have a patent for that, it was rightly and candidly admitted he could not. The method and the mode of doing
doing a thing are the same, and I think it impossible to support a patent for a method only, without having carried it into effect, and produced some new substance. But here it is necessary to enquire, what is meant by a principle reduced into practice? It can only mean a practice founded on principle, and that practice is the thing done or made, or in other words, the manufacture which is invented.

This brings us to the true foundation of all patents, which must be the manufacture itself; and so says the statute, 21 James I. c. 3. All monopolies, except those which are allowed by that statute, are declared to be illegal and void. They were so at common law, and the sixth section excepts only those of the sole working or making any manner of new manufacture; and whether the manufacture be with or without principle, produced by accident or by art, is immaterial. Unless this patent can be supported for the manufacture, it cannot be supported at all. I am of opinion, that the patent is granted for the manufacture, and I agree with my brother Adair, that verbal criticisms ought not to avail, but that principle in the patent, and the engine in the act of parliament mean, and are the same thing. Besides, the declaration is founded on a right to the engine, and therefore unless the plaintiffs can make out their right to that extent, they must fail. In most of the instances of the different patents, mentioned by my brother Adair, the patents were
were for the manufacture, and the specification rightly stated the method by which the manufacture was made; but none of them go the length of proving, that a method of doing a thing without the thing being done, or actually reduced into practice, is a good foundation for a patent. When the thing is done or produced, then it becomes the manufacture, which is the proper subject for a patent. Dollond's patent was for object glasses, and the specification properly stated the method of making those glasses. As I mentioned in the course of the argument, the point contested in that case was, whether Dollond or Hall was the first and true inventor within the meaning of the statute, Hall having first made the discovery in his own closet, but never made it public; and on that ground Dollond's patent was confirmed. Mechanical and chemical discoveries all come within the description of manufactures, and it is no objection to either of them, that the articles of which they are composed were known, and were in use before, provided the compound article, which is the object of the invention, is new. But then the patent must be for the specific compound, and not for all the articles or ingredients of which it is made. The first inventor of a fire-engine could never have supported a patent for the method and principle of using iron; nor could Dr. James (supposing his patent had been clear of other objections) have sustained a patent for the method and principle of using antimony. In the first case, the patent
tent must have been for the fire engine, eo no-
mine; and in the second, for the specific com-
 pound powder. Suppose the world were better
informed than it is, how to prepare Dr. James's
fever powder, and an ingenious physician should
find out that it was a specific cure for a con-
sumption, if given in particular quantities:
could he have a patent for the sole use of James's
powder in consumptions, or to be given in par-
ticular quantities? I think it must be conceded
that such a patent would be void; and yet the
use of the patent would be new, and the effect
of it as materially different from what it is now,
as life is from death. So in the case of a late
discovery, which as far as experience has hither-
to gone, is said to have proved efficacious; that
of the medical properties of arsenic in curing
agues, could a patent be supported for the sole
use of arsenic in aguish complaints? The me-
dicine is the manufacture, and the only object
of a patent, and as the medicine is not new, any
patent for it, or for the use of it, would be void.
The case of water tabbies, which has often been
mentioned in Westminster Hall, may afford some
illustration of the subject. The invention first
owed its rise to the accident of a man's spitting
on a floor cloth, which changed its colour, from
whence he reasoned on the effect of intermixing
water with oil or colours, and found out how to
make water tabbies, and had his patent for wa-
ter tabbies only: but if he could have had a pa-
tent for the principle of intermixing water with
oil or colours, no man could have had a patent
for
for any distinct manufacture produced on the same principle. Suppose painted floor-cloths to be produced on the same principle, yet as the floor-cloth and the tabby are distinct substances, calculated for distinct purposes, and were unknown to the world before, a patent for one would be no objection to a patent for another.

In Morris against Branson, sittings at Westminster after Easter 1776, the question was, whether an addition to an old stocking frame was the subject of a patent? Lord Mansfield said, if the general question of law, viz. that there can be no patent for an addition, lie with the defendant, that is, open upon the record, and he may move in arrest of judgment; but that objection would go to repeal almost every patent that ever was granted. There was a verdict for the plaintiff, and 500l. damages, which was acquiesced in.

But in such case the patent must not be more extensive than the invention; therefore if the invention consist of an addition or improvement only, and the patent is for the whole machine or manufacture, it is void.

In the case of Hornblower and Maberly; v. Boulton and Watt, the court gave judgment in favour of the defendants in error.

On behalf of the plaintiffs it was argued in error, 1st, That unless the patent could be established...
for a formed machine it could not be supported under the proviso of the statute 21 Jac. I. c. 3, which is the only foundation of such a patent. 2dly, That upon reading the patent in question it could not be considered as a patent for such a machine.

On this part of the case the court delivered its opinion in the following terms:

Lord Kenyon, Chief Justice. It was rather from a deference to the very respectable opinions given in the Court of Common Pleas on the former occasion, than from any doubt we entertained on the subject that a second argument was awarded here: but the case having been most ably argued, and every argument advanced at the bar that bears upon it, I wish to deliver my opinion now, to prevent any further delay to the parties interested. I confess I am not one of those who greatly favour patents; for though in many instances, and particularly in this, the public are benefited by them, yet on striking the balance upon this subject, I think that great oppression is practised on inferior mechanics by those who are more opulent. The principal objection made to this patent by the plaintiffs in error is, that it is a patent for a philosophical principle only, neither

* With the third and fourth argument, which turned on the insufficiency of the specification, and on the comprehensiveness of the patent itself, we have nothing to do in this place.
neither organized or capable of being organized; and if the objection were well founded in fact, it would be decisive: but I do not think it is so. No technical words are necessary to explain the subject of a patent; as Lord Hardwick said upon another occasion, "There is no magic in words." The questions here are, whether, by looking at the patent, explained as it is by the specification, it does not appear to be a patent for a manufacture, and whether the specification is not sufficient to enable a mechanic to make the thing described? The jury have not indeed answered those questions in the affirmative in terms; but they have impliedly done so by finding a general verdict for the plaintiff below. By comparing the patent and the manufacture together, it evidently appears that the patentee claims a monopoly for an engine or machine, composed of material parts, which are to produce the effect described, and that the mode of producing this is so described as to enable mechanics to produce it. Having said thus much, it appears that the subject, as far as we have to treat of it, is exhausted. I have great respect for the contrary opinions that were given in the Common Pleas, and probably if I had been called upon on a sudden to determine this case, I should have been at a loss how to decide. But having now heard every thing that can be said on the subject, I have no doubt in saying that this is a patent for a manufacture, which I understand to be something made by the hands of man.
Grose J.—The important question is, Whether it be a patent for the making or working of any manner of new manufacture? It is argued by the plaintiffs in error, first, that it is a patent for a mere principle, and not for a new manufacture, and that nothing can be the object of a patent but a new manufacture. 2dly, That if it be a patent for a manufacture, namely, the steam engine, it is not new, and that the patent should have been for the addition only, and not for the whole engine. As to the first of those propositions, that under the statute of James there cannot be a patent for a mere principle, which this is contended to be, it is not necessary for me in my way of considering the case, to form a decided opinion on that point; for if I can shew that this is a patent for a new manufacture, whether a patent for a mere principle be good or not will be immaterial. Upon that point I shall only say, that having very much turned the question in my mind, and weighed and considered, again and again, the words of the statutes, specifying what patents the crown may grant, upon which alone I conceive the question must ultimately depend, I am not prepared to say that a patent for a mere principle was intended to be comprehended within those words. It is indeed difficult to conceive that the legislature, in giving power to the crown to grant patents for the sole working or making of any manner of new manufacture, intended a power to grant patents for any other purpose than
than those expressly mentioned. But, as I said before, this is not material for me to determine, inasmuch as it seems to me, upon the best consideration, that this is not a patent for a mere principle, but for the working and making of a new manufacture within the words and meaning of the statute. I have been led to adopt this opinion by considering the words and description of the invention in the patent, as referring to, and explained by, the specification, and the specification itself as part of the patent. The ground on which I have felt myself at liberty to do so is this. The benefit to the public is from the specification disclosing to the world how others may make and use the same manufacture; without the specification the public have not that information; and by the condition of the letters patent, without the specification the patentee is not entitled to his monopoly. It being provided therefore by the patent that there must be a specification, and there being necessarily one in consequence of that proviso, I consider the patent and specification so connected together as to make a part of each other, and that to learn what the patent is, I may read the specification and consider it as incorporated with the patent. Now the patent recites that Mr. Watt had invented a method of lessening the consumption of steam and fuel in fire engines; it grants to him the sole use and exercise of that invention, upon condition he would disclose the nature of the invention, and in what manner the same was
to be performed by an instrument enrolled. He
does so; and that instrument describes the prin-
ciples of the method, and the method by which
those principles are to be carried into effect.
The method is founded on the principles of
keeping the steam vessel the whole time the
engine is at work as hot as the steam that
enters it; this is to be done by the manufacture
of a case of wood, or some other material that
transmits heat slowly, and by surrounding it
with steam or other heated bodies, and suffer-
ing neither water or any other substance colder
than steam to touch it. Secondly, He points
out a mode of condensing the steam by vessels
to be placed distinctly from the steam vessels at
some times; at others, they are to communicate
with them, which he calls condensers; and
these are new, at least not part of the old en-
gine, and are to be kept as cold as the air in the
neighbourhood of the engines. Thirdly, He
gives directions as to drawing out the air not
condensed by the cold of the condenser.
Fourthly, He states how he means to employ
steam to press out the piston in given cases.
Fifthly, He directs how steam vessels should be
formed where rotatory motions, or motions
round an axis are, required, namely, with
weights and valves; and directs how in such
case the steam vessel shall be supplied with
steam, and how that which has done its office
shall be discharged. And he also states a
method by which the engine may be worked by
the alternate expansion and contraction of the
steam. This method, however, if not effected or accompanied by a manufacture, I should hardly consider as within the statute of James. But it seems to me that in this specification he does describe a new manufacture, by which his principle is realized, that is, by which his steam vessel is kept as hot as the steam during the time the engine is at work, by which means the consumption of steam and fuel is lessened. Thus he specifies the particular parts requisite to produce the effect intended, and states the manner how they are to be applied. He describes the case of wood in which the steam vessel is to be inclosed, the engines that are to be worked wholly or partially by condensation of steam, the vessels that he denominates condensers, and the steam vessels where rotatory motions are required. Can it then be said that the making and combining of these parts is not some manner of new manufacture? I cannot say that it is not. But if that had been doubtful, the verdict ascertains the fact. But then it is objected that the patent should have been for the manufacture; whereas it is for principles which the specification describes. To which I answer, that the patent is not merely for principles, nor does the specification describe principles only. The patent states the principles on which the inventor proceeds, and shews in his specification the manufacture by means of which those principles are to take effect; which effect is to be the lessening of the consumption of steam and fuel by keeping the steam
steam vessel of one uniform heat, with the steam as long as the engine is worked.

In the case of Boulton and Watt v. Bull, respecting a patent for the improvement of a steam engine, Mr. Justice Butler observed as follows:

"The old engine consisted of a cylinder, a boiler, a pipe, which occasionally communicated between them, an injective cistern, and pumps. The two material parts of the new engine, as mentioned in the specification, are the old cylinder, now called the steam vessel, and the vessel now called the condenser, which it is said must be distinct from the steam vessel, though occasionally communicating with it. The old boiler did occasionally communicate with the cylinder. The pumps, grease, and other things are admitted to be trifling circumstances, and not worthy any observation. Upon this state of the case, I cannot say that there is anything substantially new in the manufacture; and indeed it was precisely admitted in the argument, that there were no new particulars in the mechanism; that it was not a machine or instrument which the plaintiffs had invented; that mechanism was not pretended to be invented in any of its parts; that this engine does consist of all the same parts as the old engine; and that the particular mechanism is not necessary to be considered. The fact of there being nothing new in the engine drove the counsel to argue"
argued on very wide grounds, and to touch on the possibility of maintaining a patent for an idea or a principle, though I think it was admitted that a patent could not be sustained for an idea or a principle alone.

Messrs. Boulton and Watt's patent, respecting the steam engine, was stated to be for an addition: a question arose if a patent for an addition were valid; it was admitted that a patent is good for an addition under certain circumstances, and Mr. Justice Buller expressed himself on this part of the case as follows:

"The true question in this case is, whether the plaintiff's patent can be supported for the engine. I have already said, I consider it as granted for the engine, and if that be the right construction of the patent, that alone lays all the arguments about ideas and principles out of the case. The objections to this patent, as a patent for the engine, are two; first, that the fire engine was known before; and, secondly, though the plaintiff's invention consisted only of an improvement of the old machine, he has taken the patent for the whole machine, and not for the improvement alone. As to the first, the fact which the plaintiff's counsel were forced to admit, and did repeatedly admit in the terms which I mentioned, viz. that there was nothing new in the machine, is decisive against the patent. And the second objection is equally fatal. That a patent for an addition or improvement may
may be maintained, is a point which has never been directly decided; and Bircot's case, 3 Inst. 184, is an express authority against it, which case was decided in the Exchequer Chamber. What were the particular facts of that case we are not informed, and there seems to me to be more quaintness than solidity in the reason assigned, which is, that it was to put a new button to an old coat, and it is much easier to add than to invent. If the button were new, I do not feel the weight of the objection that the coat on which the button was to be put was old. But in truth arts and sciences at that period were at so low an ebb, in comparison with that point to which they have been since advanced, and the effect and utility of improvements so little known, that I do not think that case ought to preclude the question. In later times, whenever the point has arisen, the inclination of the court has been in favour of the patent for the improvement, and the parties have acquiesced, where the objection might have been brought directly before the court. In Morris v. Branson, which was tried at the sittings after Easter term 1776, the patent was for making oilet, holes or net work in silk; thread, cotton, or worsted; and the defendant objected that it was not a new invention, it being only an addition to the old stocking frame. Lord Mansfield said, after one of the former trials on this patent, "I have received a very sensible letter from one of the gentlemen who was upon the jury, on the sub-
ject, whether on principles of public policy there can be a patent for an addition only. I paid great attention to it, and mentioned it to all the judges. If the general point of law, viz. that there can be no patent for an addition, be with the defendant, that is open upon the record, and he may move in arrest of judgment. But that objection would go to repeal almost every patent that ever was granted." There was a verdict for the plaintiffs with 500l. damages, and no motion was made in arrest of judgment. Though his lordship did not mention what were the opinions of the judges, or give any direct opinion himself, yet we may safely collect that he thought, on great consideration, the patent was good, and the defendant's counsel, though they had made the objection at the trial, did not afterwards persist in it. Since that time it has been the generally received opinion in Westminster Hall, that a patent for an addition is good; but then it must be for the addition only, and not for the old machine too. In Jessop's case, as quoted by my brother Adair, the patent was held to be void, because it extended to the whole watch, and the invention was of a particular movement only. It was admitted in the reply, that the patent should be applied to the invention itself: but it was contended, that if in consequence the patent gave a right to the whole engine, that would be no objection. To this I answer, that if the patent be confined to the invention, it can give no right to the engine, or to any thing beyond the
The motive why a patent for an improvement only should not extend to the whole machine.

The right to the whole machine cannot be sustained by the invention of an improvement only.

In the case of Hornblower & Mayerly, v. Boulton and Watt, in error, after the case had been twice argued with great ability on this part of it, the following opinions were delivered by the court.

Grose J.—Taking it, however, as patent for an engine, it is objected that the thing was made
made before, and that the patent should have been for the addition only, and not for the whole engine. But I do not consider it as a patent for the old engine, but only for the addition to, or improvement of, the old engine, and so the act of parliament considers it. The old engine consumed too much steam and fuel, and it was considered, that by a case of wood, or of other material that would transmit heat slowly, surrounding it with steam by the use of condensers, and doing that which was not done in the old engine, but is in this, the defects in the old engine might be corrected, and the new one, by its addition, made more useful. Experiments were tried, as appears by the act of parliament, and the purpose for which these additions were made, is ultimately found to be completely attained by the method pointed out in the specification. It possibly occurred to the inventor, that if the patent were to be obtained for the whole engine, it might be open to cavil, and therefore he took out his patent, not for the engine, but for his invention of a method for lessening the consumption of steam and fuel in fire engines. The method is disclosed in the specification, and it is by the addition of what is there disclosed, and by managing it in the way described. The patent, therefore, is only for that additional improvement, as described in the specification, and there is no pretense to say that he claims, or could claim, the sole making of the old engine. But a doubt is entertained, whether there can be a patent for an addition to
an old manufacture: this doubt rests altogether upon Bircot's case, 9 Inst. 184, and if that were to be considered as law at this day, it would set aside many patents for very ingenious inventions, in cases where the additions to manufactures before existing are much more valuable than the original manufactures themselves. I shall content myself with referring to what Lord Chief Justice Eyre said in this cause in the Court of Common Pleas, in answer to this and to the case of Morris v. Branson, cited by my brother Buller upon the same point. If indeed a patent could not be granted for an addition, it would be depriving the public of one of the best benefits of the statute of James. Lord Coke's opinion; therefore, seems to have been formed without due consideration, and modern experience shews that it is not well founded.

Lawrence J.—Two objections have been made by the plaintiffs in error; 1st, That this is not an invention for any formed or organized machine, instrument or manufacture, but of mere principles only: 2d, That the specification is bad. As to the first, the claim of the plaintiff's below is founded on the proviso in the statute of James, which allows the crown to grant patents in favour of new manufactures, and therefore it must rest on the ground of Watt's having invented some new manufacture. If it were necessary to consider, whether or not mere abstract principles are the subject of a patent, I should feel
feel great difficulty in deciding that they are: but that consideration is unnecessary on the present occasion, because, by looking at the patent and the recital in the act of parliament, it appears that Watt applied for, and obtained a patent for an engine or mechanical contrivance, for lessening the consumption of steam in fire-engines. The letters patent recite that he had invented a method of lessening the consumption of steam, and grant to him the sole right of using the said invention for fourteen years. In order to see what the invention was, it is necessary to refer to the specification; that states what the invention is, and that the method consists in certain principles, as they are called, which are described in the specification. Then followed the statute, which, after reciting that the King had granted to Watt the sole benefit of making and vending certain engines, invented by him, for lessening the consumption of steam in fire engines, and that there was enrolled in the Court of Chancery a description of the said engine, vests in him the sole right of making and selling the said engines for twenty-five years. From this, therefore, it is clear, that the legislature understood that the patent was for an engine for some mechanical contrivance, and the form of the patent and the specification does not contradict this. Engine and method mean the same thing, and may be the subject of a patent. "Method," properly speaking, is only placing several things, and ming several operations in the most convenient order but it may sig-
ify a contrivance or device; so may an engine, and therefore I think it may answer the word "method." So "principle" may mean a mere elementary truth, but it may also mean constituent parts: and in effect the specification is this, "the contrivance by which I lessen the consumption of steam, consists in the following principles," (that is, constituent or elementary parts;) "a steam vessel, in which the powers of steam are to operate, to be kept as hot as the steam by a case; a distinct vessel to condense the steam; and pumps to draw off such vapour as is likely to impede the motion of the fire engine," &c. That is the description of the thing when put into different language.
SECT. II.

What constitutes that Use which excludes the Patent Right? Who is the first Inventor?

All grants of any known trade are void by common law, as being against the freedom of trade, discouraging trade, industry, &c. and putting it into the power of persons to set what prices they please on their commodities; all which are inconvenient to the public: and consistently with this principle, the case of Liardet, v. Johnson, was decided before Lord Mansfield.

It is not only necessary for the validity of a patent that the patentee be the first inventor, but he must not have published his own invention before the time of taking out the patent. A patent is an agreement between the King and the Subject, that if the latter will put the public in possession of a useful secret, he shall have the exclusive benefit of that secret for the first fourteen years. It is obvious, that if the public be already in the possession of the discovery, the patentee can make no such return or compensation for the patent he obtains. If a patent (which is a right of exclusive sale) be granted for a thing which is already sold by the public, an emolument is taken out of the hands

Hawkins 1. 470. & 2.

A patent is a conditional agreement between the King and the Subject, in which the individual and the public have a reciprocal advantage.

21 Ja. I. c. 3.
a. 6, renders patents invalid for things before in use.
hands of the public, contrary to the clause of the statute of monopolies, which enacts that no patent shall be valid, which is mischievous to the state.

The use and publication of an invention in foreign countries, however ancient, does not prevent the thing so used and published, being considered a new invention in the contemplation of Patent Law, under the statute.

Until lately, the case of Edgberry and Stephens was the only one upon the patent right, under the saving of the statute of James I. On the case of Boulton and Watt, v. Bull, Lord Chief Justice Eyre made the following remark in confirmation of the opinion of Holt and Pollexfen. "That case (Edgberry and Stephens) establishes that the first introducer of an invention, practised beyond sea, shall be deemed the first inventor; and it is there said, the act is intended to encourage new devices, useful to the kingdom, and whether acquired by travel or study, it is the same thing."

By this construction, which is now universally admitted in our courts, the words in the statute, "the true and first inventor or inventors of such manufactures, which others at the time of making such letters patent and grants shall not use," are applicable only to the invention and use in this country. Whether this construction
Construction be logically correct is not material; but it is of great importance for the improvement of the trade of the realm that all possible encouragement should be given to the introduction of discoveries useful to man from every region of the globe; and if a position contrary to this were held, it would involve the patentee in inextricable difficulties, and place his opponents on an advantageous ground; where it would be impossible for him to face them: he, on his part, would be required to shew the novelty of his invention if that were disputed; and his adversaries might search every corner of the earth to resist the evidence. In the case of Turner and Winter, Mr. Justice Buller remarked, that “wherever the patentee brings an action on his patent, if the novelty or effect of the invention be disputed, he must shew in what his invention consists,” &c.

In order to give the reader as accurate an idea as we are capable, of the observations introduced in the case of the King against Arkwright, both in this place, and in a subsequent chapter, we have inserted not only a copy of the specification, but an accurate engraving of the drawing annexed to it, consisting of ten different branches of the machinery, which was the object of the patent*. We have been induced to do this on account of the great variety of

* See Appendix I. for the specification; and the engraving at the end of the work.
of curious particulars which were given, and the nice shades of distinction which were applied in this case by the learned judge. We have been the more inclined so to do, both from a temporary and permanent motive. The temporary motive is, because it has fallen within our knowledge, that no less than two hundred actions are commenced against some manufacturers of North Britain, for the infringement of a patent, in which the most valuable part of this machinery is employed. The permanent motive is, because we presume that all our readers will be desirous of being in some degree acquainted with that complicate system of mechanism to which we are indebted, not only for the preservation and increase of the cotton manufactures, but of the staple manufacture of this country, and on which they will both of them probably depend for their existence among us*. Perhaps also, it will be found by some of the most ingenious of our readers, that they will more accurately understand the subject we are discussing by the means we have here employed than by the general rules and dry arguments of law, unassisted by this application of evidence to some particular

* A few years since the cotton manufactures were almost wholly confined to obscure towns and villages; at present, by this branch of trade alone, in consequence of the machinery employed to facilitate its operations, a large portion of the population of the kingdom is engaged in productive industry.
particular engine for which a patent has been granted.

The following citation is from the summing up of the judge on that trial by writ of scire facias to repeal a patent granted on the 16th of December 1775, for the invention of certain instruments and machines for the purposes just noticed.

Buller J: "As to the other points, they are two; first, whether it is a new invention; and in the next place, whether it was an invention made by the defendant.

"Now, if in your opinions it is material to go into these points, I think the law in general is very different on them from what I have stated in the specification, because, in the case of an invention, many parts of a machine may have been known before, yet if there be any thing material and new, which is an improvement of the trade, that will be sufficient to support a patent; but whether it must be for the new addition only, or for the whole machine, would be another question. It seems to me, not to be necessary now to state precisely how that would be, because this patent is attached upon the ground that there is nothing new; therefore I will go over the articles one by one, and see what is stated upon the different articles which are here mentioned.

"As
As to No. 1, see how the defendant has stated that in the specification; that is stated to be a beater or breaker of seeds, husks, &c. and a finer of the flax, hemp, and other articles, which are to be prepared for dressing, in which (a) is a wheel with teeth, which, by acting upon a lever, raises the hammer (c), the lever being moveable upon the centre (d).

Now this, it is said, is not stated by the specification to be joined to any thing else, and therefore it must be taken to be a distinct thing. It is admitted, that it 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. Several other witnesses speak to that. Upon the part of the defendant there is no contradiction; and therefore I will pass it over without going over the rest of the evidence, as clear that it is not new.

Then the second thing is an iron frame with teeth (a), working against a lower frame with like teeth (b). It says, this lower frame is firmly connected to a wooden frame, by means of the screws (c, c,) and the upper teeth are made to act against the lower, by means of the joints marked (d).

Let us see how this has been used. Says Benjamin Pearson I never saw it used by the defendant at all, as I recollect; if I ever saw it used, it is no part of the invention; if I have, it
It is more than I know: I worked with him seven years after the patent was granted; I don't know that he ever used it at all.

"The next is Joshua Wrigley—he says, I never saw No. 2 used in the business; he has been in the business four or five years, and worked for several gentlemen, not with the defendant, but this was not used. Indeed this was likewise laid out of the question by the counsel for the defendant, for that, he said, had nothing to do with it.

"If it had nothing to do with the machine, it is very difficult to say, how, with a good motive, it could ever come into the specification or plan.

"The next is No. 3. That is described to be a piece of cloth with wool, flax, hemp, or any such materials spread thereon.

"No. 3, says Wrigley, I have seen work; that is the feeder.—This he produced as the feeder used before the defendant's patent, and performs exactly the same operation as the defendant's; and it is better, because the cotton needs no spreading upon a table, neither does it require taking the cloth off and on, and, according to the defendant's, you must take it off every time the cloth is filled. He says he has been acquainted with most of the cotton works, and the old feeder is most used.

"He
"He says, the specification don't show how No. 3 is to be worked, nor how the cotton is to be taken off, and it shews no roller nor centre.

"The next witness is John Lees: he says he is the inventor of the old feeder, that he made it in 1772, and in August 1772 he worked with it, and that it is now commonly used in his country. He has never seen the defendant's used, but the description of the defendant's is the same as his.

"This also shews, first of all, that it is no new invention.

"Secondly, It is not invented by the defendant; for this invention is spoken of as used before the time of the patent, and

"In the next place, it is proved to you not to be the invention of the defendant, by the person who actually invented it.

"Thomas Hall says, he worked with Lees at the time he made the feeder, in July 1772; that he never saw or heard of it before; that it is better than the defendant's, and much used now.

"Henry Marsland tells you, that he used the feeder in 1771; that in 1772 the defendant came to see his works; that he made no objection to his using the feeder. These are all the witnesses
witnesses that speak to that article, except Im-
mison, who, I see, speaks to it likewise: says he, as to that, there is an objection to it, for the want of a roller, but it is proved by the other witnesses it might be made use of without a roller. The defence to that is, though there is no axis, yet it might be made use of, though it would not move with the same regularity, and the work could not be carried on so well as it should.

"The first witness upon the part of the de-
fendant is Richard Pridden, who has been in the business for preparing wool and cotton for spinning, fourteen years; he says, the feeder used in this machine was the feeder described by the patent—he don't know that it was in use before. Mr. Moore treats it as an addition only; but he admits the roller is proper, and yet it is not stated.

"Mr. Watts says it would do without the roller; but, if it were necessary, a man must be a great idiot if he has not sense enough to dis-
cover it.

"The evidence for the prosecution on this article is not at all contradicted; and it is shewn that it was invented by the man himself, who proved it by John Lees,—that is not contra-
dicted by any one witness whatever for the de-
fendant; upon the contrary, he is confirmed by one of the witnesses, Hall; and Marsland proved
proved he used it long before the time of the patent. The next is No. 4, that is the crank: Mr. Marsland says, that after he had used the crank, the defendant objected to it; therefore, says he, I gave it up.

"But Elizabeth Hargrave tells you, this crank was first used by her husband (and he died about eight years ago) in partnership with James at Nottingham; that he worked by himself, and took great pains about the crank, and completed it so long ago that he began working it thirteen or fourteen years since. She says he carded with it, and took the carding off the cylinder by such a crank as is now produced; that it took it off exactly the same; that he used it in his factory. She says, the defendant was then in business, and lived at Nottingham; that she never saw the crank any where but in her husband's room. She afterwards told you, when that crank was finished, it was carried down to the shop thirteen years ago, and above, and he there worked with it; and when her husband invented it, he employed Whitaker, a smith, to put it in iron.

"Then George Hargrave says, his father used the crank in the public shop where all the men worked; this was in 1773, when he came from Lancashire to Nottingham. After the time that he got there, his father had it in pub-
lic use; that one Bird also used it at the same time in his factory.

"It is proved by these witnesses, first, that it was invented between thirteen and fourteen years ago; and that it was not Mr. Arkwright, but Hargrave, who invented it; and it was publicly used in two factories, where men came to work.

"If that be so, that will put an end to this article, namely, the crank.

"George Whitaker says, he is a smith and frame maker; that he made many cranks; that Hargrave came to him, and he told him he wanted such a machine, and the purpose he wanted it for; and by his directions, and his own judgment, he made a crank like this which is produced, only turning the joints the other way; that it took off the cotton the other way from the cylinder, but exactly the same in other respects; that some call it the taker off, some the comb, then it got its name. He says, he made some for one Hudson, three for Grimshaw, some in 1773, and one for Lister; and he says, he has made near twenty in the whole. He says, they got into very general use before 1775. It was used in the public shop of James in 1773; that it was worked so much, that in January 1774 the witness repaired it; there were several brought to repair in 1774, and they were chiefly in use after
after 1775; that they were never left off as he knew of.

"The next witness is Richard Hudson, who says, he has made many carding engines in 1774, he thinks some before; but is not sure these cranks were used then by him; there were cranks in all the engines, and the same as these; that he employed Whitaker to make the cranks; that he made one for Brotherston, that was in Scotland; another for Smoke in Nottingham; and he made them for Rawson and Co. at Nottingham; and one for Lister, for carding wool.

"Then John Bird says, in 1773, he had a crank of his own, used in his own shop, in his cotton manufactory at Nottingham.

"Thomas Chatterton says, in January 1774, he saw one at Mr. Bird's at Nottingham; that Hudson made it; and he used it in his manufactory in April 1774, at Ashbourn.

"Then Thomas Ragg says, that the cranks were in public use before 1775. He was apprentice to Whitaker the maker; he speaks to the time.

"Then as to this article upon the part of the defendant, Mr. Moore contents himself with saying, the specification is clear enough as to that;
that; his evidence does not apply to this part of the case.

"Wood says, he never saw the crank in use before Arkwright's.

"John Haggett says, he was employed to make one for Mr. Arkwright, that he never knew it used by any person before.

"And Thomas Bell likewise says, he never knew it used before Mr. Arkwright used it.

"Some of the witnesses have proved them to be made in great numbers, and used in different factories publicly, and they have proved it by the persons who made them.

"Upon the part of the defendant the witnesses never having heard of it, may be perfectly true, and yet no contradiction to the evidence for the prosecution.

"As to No. 5, the filleted cylinder, Mrs. Hargrave speaks of it, and says, the original cylinder was covered all over with cards; that her husband used it for ribband filleting; that he used it about fourteen years ago, but he never brought that to any shop or factory; he thought the other better, and carried that to the shop with the crank.

"Then George Hargrave says, it had no fillets,

To support the novelty of an invention, it will not be enough to shew that intelligent witnesses never heard of it before the date of the patent.

The filleted cylinder no new invention.
lets, that he recollects, in 1773; but you observe he did not come till 1773 to Nottingham.

"Then Robert Pilkington says, the first engine he was concerned in was made by Richard Livesay and himself in 1770; that it had a filleted cylinder; that he got one that was striped in the fillets like this; that he had a cylinder that was quite covered, that was meant for tumming, the first operation in carding; that it was one continued carding, instead of so manyrovers or lengths; he does not know that the filleted cylinder will answer any purpose the other does not.

"The next is Thomas Hayes, he says he has made engines; that he has seen the defendants about twelve or thirteen years ago; and he says his cylinder was covered over with cards, the same as the one now produced. In 1767 he speaks of making the rollers, and says, he made the machine that made continual roving, as this does; that he had a cylinder like that which was produced, to take off the cotton from the other; this was twelve years ago; he sold them to manufacturers for use; that he made his machine for spinning and roving; that he made it rove and spin with the same rollers, by doing it twice over in the manner he shewed to you.

"Then upon the part of the defendant, as to this article, Wood mentions at first, and his evidence
dence falls in also with what was said upon the part of the prosecution; that in 1773 it struck him, the cylinder might be entirely carded, and he did it so, and in 1774 he made a full trial of it; he had parallel cardings in 1774; he did not make much difference between the roving and spinning machines.

"He also proves it used long before the defendant's patent; he confirms what was said by the other witnesses: and what the other witnesses have said against it, is nothing at all to this article; for here it is proved to be used in both ways, in the manner the defendant has used it now, and likewise being carded quite through.

"Now if it was in use both ways, that alone is an answer to it; if not, there is another question. Whether the stripe in it makes a material alteration? For if it appears, as some of the witnesses say, to do as well without stripes, and to answer the same purpose, if you suppose the stripes never to have been used before, that is not such an invention as will support the patent; upon that ground it is fully answered.

"Then it comes to No. 6. Hayes says he made use of the rollers in 1767, and in the same manner two years after as these were; one was fluted wood upon an iron axis, the other the same, only covered with leather.
"Hayes says he tried the spinning of cotton by the rollers; he employed one Kay, a clockmaker from Warrington, to make a small model.

"John Kay says, he told the defendant that he made these things in the year 1767.

"Says the witness, the discourse came up about spinning cotton by rollers, and he said, he thought it would answer very well. Says the defendant, it will never answer, many have ruined themselves by it; notwithstanding Kay persisted, he thought he could do it if he had money. The next morning before he was out of bed, the defendant came to him, and asked if he could make a small model. He came again, and the witness got the model from Hayes, and told the defendant that he and another person had tried it. Then afterwards he says, he went with the defendant to Nottingham, and worked with him upon the discovery found out by himself and Hayes.

"Kay is confirmed in it by his wife Sarah Kay.

"The next is Neddy Holt. He says he was employed in 1774 to make these rollers; that the defendant came to him and told him he was an intruder upon his patent, because his roving was the same as his spinning.

This,
"This, I think, is the evidence as to the 6th article.

"Then for the defendant, Pridden says, that that which is described as No. 6, is the same that is used, that is, the rollers; but it is admitted it is not stated in the specification of what size they ought to be; and I think the rest of the evidence upon this article goes merely to the description in the specification, and not as to its being a new invention, so that that evidence stands also uncontradicted.

"As to Hayes and Kay, there is no contradiction at all to the evidence they have given, namely, that they were made before, and used in the different ways I have stated to you, and that the defendant got the secret from them.

"Then the 7th article is what they call the can. Holt says, the only difference between the two, the spinning machine and the present roving machine, is, that the latter has a can; and indeed, that at one time was admitted by the counsel for the defendant.

"If it be so, it brings the case to a short point indeed; for if nothing else is new, the question is, Whether it is material or useful? The witnesses upon the part of the prosecution say, it is of no use at all. In the first place, they had that before which answered the same purpose, though not made exactly in the same form: it
was open at top, it twisted round, and laid the thread precisely in the same form, and had the same effect this had; so if it was new, it is of no use; but they say it is not new, for though it was not precisely the same shape, in substance it was the same thing, that is not contradicted.

"That part also stands without any contradiction upon the part of the defendant; for the defendant's witnesses satisfy themselves with telling you they think it intelligible, and it might do without the roller, though it might not be so effectual as with the roller. It is admitted by several it could do without, that appeared from the experiment made; they shewed you by one of the engines how it did with the roller, and how without, and that it was done without just the same as with it."

We said there were ten articles connected with this patent. We have gone through the whole excepting the three last,

No. 8 and 9, it appears, by the sequel of the direction of the learned judge, were not at all put into use, and the objection to the patent right on No. 10 is at least similar if not precisely the same. "As to No. 10, (says Mr. J. Buller,) nothing is said about it for the defendant. First, Mr. Moore said it was not difficult to conceive it; but there is no witness that says at all of what use it is—so this seems to stand without any evidence at all."
The trial for the alleged infringement of Tennant's patent was had before Lord Ellenborough and a special jury, Dec. 23, 1802. The plaintiff was nonsuited, because he could not maintain the validity of his patent by establishing that the bleaching liquor, which was the object of it, was a new discovery, or that he himself was the sole inventor.

Several witnesses were called in support of the patent, who proved the great utility of the invention, and the general ignorance of the bleachers of it till after the date of Mr. Tennant's patent. On the other side, a bleacher, near Nottingham, deposed that he had used the same means of preparing his bleaching liquor for five or six years anterior to the date of the patent. He also stated, that he had kept his method a secret from all but his two partners, and two servants concerned in preparing it.

A chemist at Glasgow deposed, that, having had frequent conversations with Mr. Tennant, on the means of improving bleaching liquor, he had in one of them suggested to Mr. Tennant that he would probably attain his end by keeping the lime-water constantly agitated. Mr. Tennant afterwards informed the witness that this method had succeeded. These conversations took place in the year 1796; and Mr. Tennant obtained his patent in 1798.
SECT. III.

What is that Patent which is contrary to the Law, or mischievous to the State, and therefore void?

Every monopoly is void by the common and statute law of the land. The word monopoly we have already defined the sole power of sale.

A monopoly may be known by its effects.

1. It raises the price of the commodity.
2. It diminishes its good quality.
3. It tends to impoverish artificers.

We have no modern case in our report-books applicable to the present division of our inquiries, and it is not surprising, because the terms of the statute of the 21st James, and the form of the letters patent founded on those terms, preclude the probability of a grant of exclusive sale contrary to the law, mischievous to the state.

In the first place, every grant must be to the earliest inventor, so that no prior trade can suffer encroachment from this cause. Secondly, The enjoyment of the privilege is limited to fourteen years; therefore, if any mischief accrue, it must be of short duration. Thirdly, If the patent right be attempted to be transferred to more
AND MISCHIEVOUS.

more than five persons, or to a corporate body, which might afford means of extensive oppression in the use of the monopoly, the patent cannot pass into such hands, but is rendered null and void by the very endeavour to defeat the salutary provisions of public law*. Fourthly, The sixth section introduced into the statute of monopolies for still further security, makes an express condition of the grants, that "they be not contrary to the law, nor mischievous to the state."

With all these precautions, it can hardly be supposed that patentees will be frequently involved in the discussion of this question, and we may be excused from entering minutely upon it. It is therefore, perhaps, rather from a desire to render our Essay as complete as our means will afford, than from the prospect of any immediate utility, that we do not cursorily pass over this part of our inquiry.

It should be recollected, that the statute of the 21st James, c. 3, is merely declaratory. Declaratory statutes are passed, when the ancient laws

* Lord C. J. Kenyon was even apprehensive of this power, while the patent remained in the hands of individuals. In the case of Hornblower and Boulton, 8 Term Rep. 95. "I am (he said) not one of those who greatly favour patents; for though in many instances, and particularly in this, the public are benefited by them, yet, on striking the balance upon this subject, I think that great oppression is practised on inferior mechanics by those who are more opulent." See page 84.
laws and customs of the kingdom have fallen into disuse, or have become obscure. The statute of the 21st James cannot be correctly said to impose any new restraints, but to prevent license being substituted for law, by avoiding the doubts and difficulties attending the legitimate exercise of the prerogative. Hence, *in perpetuum rei testimonium*, the parliament deemed it proper to interpose, and to declare what is, and shall be, the law of the land. So also the 25th E. 3. c. 2. raises no new treasons, but merely declares in what they consist, or enumerates the several kinds of the offence.

The venerable foundations of this declaratory statute of James, and the humane principles of the common law, as at this day referable to the subject, are adverted to in the following case. It occurred a very short time after the great parliamentary contest we have before noticed on the subject of monopolies, when the ancient princess was hastening to her grave. The object was the patent granted to Edward Darcy, groom of the chamber to Queen Elizabeth, for the importation and manufacture of playing cards, and it was resolved before Chief Justice Popham, that the grant was void.

It was an action on the case against Thomas Allien, and it was declared, "that the defendant knowing the said grant and prohibition in the plaintiff's letters patent, and others the premises, 15 Martii, 44 Eliz. without the Queen's licence,
licensure, or the plaintiff's, &c. did cause eighty gross of playing cards to be made, and those, as well as one hundred other gross of playing cards, of which many were made within the realm, or brought within the realm by the plaintiff or his servants, factors, or deputies, &c. not marked with his seal, he had imported within the realm, and had sold and uttered them to sundry persons unknown, and shewed some in particular, for which the plaintiff could not utter his playing cards, &c. contra formam predictarum literarum patentium et in contemptum dictae Domine Regine, whereby the plaintiff was disabled to pay the farm rent to the plaintiff's damages.

The defendant, excepting to one half gross, pleaded not guilty, and with respect to that, he pleaded the rights of the ancient city of London, of which he was a freeman, and of the ancient society of haberdashers, of which he was a member; and that he sold the said half gross of playing cards, being made within the realm, &c. as it was lawful for him to do: upon which the plaintiff demurred.

Two general questions were argued at the bar, which arose out of the distinct grants in the patent, the sole making, and sole importation.

I. If the grant to the plaintiff, of the sole making of cards within the realm, were good or not?
II. If the grant of the sole importation were so?

As to the first, for the plaintiff it was contended that it was good.

That playing cards were not an article of merchandize, but of vanity and idleness, and that the Queen, as parens patriae, might restrain their use; and farther, that in consequence of the frauds and abuses they occasioned, she might entirely suppress them.*

With respect to this, (the sole making cards,) it was resolved by Chief Justice Popham, and the whole court, to be utterly void.

It is a monopoly both against the common and the statute law.

1. All trades, which exercise men and youths in labour, are profitable, and any charter against the liberty of the subject is against the common law, and therefore void.

2. The

* See 3 E. 4, c. 5; 2 H. VII. 6, 6; 11 H. VII. 11, 13; 13 H. VII. 8; 2 R. III. 12; Plow. Com. 402; 6 Eliz. Dyer 225; 13 Eliz. 393; 18 Eliz. Dyer 352; 33 H. VIII. Dyer 52; 11 H. IV. 76; 19 E. 3; Ralsey 36, 43; Ass. Pl. 19. 5 E. 3, 29; 2 E. 3, 6; 7 F. N. B. 211 b.; 3 E. 2, Action on the Statute Br. 48 and 80 E. 3 Rot. Pat. The King granted to another all the wild swans betwixt London Bridge and Oxford.
2. The sole trade of a mechanical artificer is not only a damage to traders in the same way, but to all others; because it produces the three incidents of a monopoly, the increase of price, the diminution of quality, and the impoverishing artificers in other trades by such increase, and diminution multiplying the difficulties in the maintenance of their families.

It was further contended on the same question of the sole making, that the Queen was deceived in her grant; for, by the preamble of the grant itself, it appeared that it was made for the good of the public, and that being on the contrary prejudicial, as in the Earl of Kent's case, this grant is void, *jure regio*. The grant was also said to be a dangerous innovation; and for the term of twenty-one years, so that by descent or alienation, inexpert persons might obtain the monopoly. Lastly, it was affirmed to be against the freedom of trade protected by the statutes, the right to which supersedes every claim by charter or franchise.

With regard to the second question: "If the grant of the *sole importation* were valid," it was resolved that the enjoyment of such exclusive privilege, without any limitation, is likewise utterly against both the unwritten and written law; and the instance was adduced of the sole importation of sweet wine, granted in the time of Edward III. which was adjudged void. The principles of common law, which we have noticed,
noticed, and the statutes to which we have just referred, make unnecessary the repetition of the grounds on which this part of the case was opposed: the arguments on both discussions were the same, and the patent was determined to be "contrary to the law, and mischievous to the state, and therefore void."

On a scire facias to repeal a patent issue was joined; that the patent was inconvenient to his majesty's subjects in general.

On this occasion Buller J. held, that this issue was merely a consequential one; it stated no fact which could be tried by a jury, or which the defendant could come prepared to answer; and therefore refused to hear any evidence on this part of the case.
CHAPTER THE TENTH.

The Condition on which the Grant is made, or the Specification.

Sect I. What is the Description required in the Specification?

Sect. II. What is the Form of the Specification?

Sect. III. What is necessary for the Involvement of the Specification?

We have here no concern with the conditions respecting the duration or the nature and extent of the patent, or with the persons who are capable of being invested with this privilege: we confine ourselves in this chapter entirely to the proviso, which has become a part of the form of the patent grant, and exacts a specification of the object for which the grant is made, in the following terms:

"Provided also, that if the said A. B. shall not particularly describe and ascertain the nature of his said invention, and in what manner the same is to be performed, by an instrument in writing under his hand and seal, and cause the same to be enrolled in our High Court of Chancery within one calendar month next and immediately

Proviso of the patent grant.
immediately after the date of our said letters patent, that then these our letters patent, and all liberties and advantages whatsoever hereby granted, shall utterly cease, determine, and become void, any thing herein before contained to the contrary thereof in any wise notwithstanding *.

In this proviso these things are required:

1. To insert a particular description of the invention, on an instrument under the hand and seal of the inventor.

2. To cause the enrolment of such instrument in the Court of Chancery within one calendar month after the date of the grant.

* See the proviso in the form of the patent, page 61.
SECT. 1.

*What is the Description required in the Specification?*

ON the subject of the description in the specification, Buller J. laid down the following rules:

1st. A man, to entitle himself to the benefit of a patent of monopoly, must disclose his secret, and specify his invention in such a way that others of the same trade who are artists may be taught to do the thing for which the patent is granted, by following the directions of the specification without any new invention or addition of their own.

2dly. He must so describe it, that the public may, after the expiration of the term, have the use of the invention in as cheap and beneficial a way as the patentee himself uses it; and therefore if the specification describes many parts of an instrument or machine, and the patentee himself uses only a few of them, or does not state how they are to be put together or used, the patent is void.

3dly. If the specification be in any part materially false or defective, the patent is against law, and cannot be supported.
It was objected to the specification in the case of Boulton and Watt v. Bull, that it only stated a mechanical improvement, and not the form of a machine. Mr. J. Rooke did not consider this rendered the patent invalid, affirming, "if this mechanical improvement is intelligibly specified, of which a jury must be the judges, whether the patentee call it a principle, invention, or method, or by whatever other appellation; we are not bound to consider his terms, but the real nature of his improvement, and the description he has given of it, and we may, I think, protect him without violating any rule of law." So that if a specification incorrectly state the mode of doing a thing, instead of the thing done as the foundation of the patent, the verbal inaccuracy shall not vitiate the grant.

Mr. Justice Heath, on this part of the case, observed to the same effect. The question is, in as much as this invention is to be put in practice by means of machinery, whether the patent ought not to have been for one or more machines, and whether this is such a specification as entitles him to the monopoly of a method? If method and machinery have been used by the patentee as convertible terms, and the same consequences would result from both, it might be too strong to say that the inventor should lose the benefit of his patent by the misapplication of the term.

But
But on the other side it has been urged for the patentee, that he could not specify all the cases to which his machinery could be applied. The answer seems obvious, that what he cannot specify, he has not invented. The finding of the jury that steam engines may be made upon the principle stated by the patentee, by a mechanic acquainted with the fire-engines previously in use, is not conclusive. This patent extends to all machinery that may be made on this principle, so that he has taken a patent for more than he has specified; and as the subject of his patent is an entire thing, the want of a full specification is a breach of the conditions, and avoids the patent. Indeed, it seems impossible to specify a principle and its application to all cases, which furnishes an argument that it cannot be the subject of a patent. It has been usual to examine the specification, as a condition on which the patent was granted. I shall now consider it in another point of view. It is a clear principle of law, that the subject of every grant must be certain. The usual mode has been for the patentee to describe the subject of it by a specification; the patent and the specification must contain a full description: then in this, as in most other cases, the patent would be void, for the uncertain description of the thing granted, if it were not aided by the statute. The grant of a method is not good, because uncertain, the specification of a method, or the application of principle
principle is equally so, for the reasons I have alleged."

In the same case, Lord Chief Justice Eyre delivered his opinion as follows: "When the effect produced is some new substance, or composition of things, it should seem that the privilege of the sole working or making ought to be for such new substance or composition, without regard to the mechanism or process by which it has been produced, which, though perhaps also new, will be only useful, as producing the new substance. Upon this ground Dollond's patent was perhaps exceptionable, for that was for a method of producing a new object glass, instead of being for the object glass produced*. If Dr. James's patent had been for his method of preparing his powders, instead of the powders themselves, that patent would have been exceptionable upon the same ground. When the effect produced is no substance or composition of things, the patent can only be for the mechanism, if new mechanism is used, or for the process, if it be a new method of operating.

* It will be seen by reference to page 77, that the Chief Justice did not coincide with some of his learned brethren on the bench on the subject of Dollond's patent. It is now completely decided in Westminster Hall, that if a patentee denominate his discovery a method, when in fact the thing invented is something substantial, the verbal inaccuracy shall not vitiate the grant.
rating with or without old mechanism, by which the effect is produced *

A specification need not state mere incidents known to any body versed in the subject of the patent. This learned judge made the subsequent remark on this head in the same case: Suppose a newly invented chemical process, and the specification should direct that if some particular chemical substance should be poured upon gold in a state of fusion, it would be necessary, in order to this operation, that the gold should be put into a crucible: but it would be hardly necessary to state in the specification the manner in which, or the utensils with which, the operation of putting gold into a state of fusion was to be performed: they are mere incidents, with which every man acquainted with the subject is familiar.

Consistently with the rules we have stated from the authority of Mr. Justice Buller, a patent is void, if the specification be obscure.

1st, If by one process the patentee state he can produce three things, and he fail in any one of them.

2d, If

* Lord Chief Justice Eyre seems here to insinuate that a patent for a method might be good. It will be seen in various parts of this essay, that it is since completely decided that such a patent would be void.
2d. If the specification direct different ways and different ingredients to produce the same thing, and any of them fail.

Turner against Winter was an action on the case brought against the defendant, for infringing the plaintiff's patent, which was granted to him, for producing a yellow colour for painting in oil or water, and making white lead, and separating the mineral alkali from common salt; all by one process. On the trial before Mr. Justice Buller, at the sittings at Westminster, a verdict was found for the plaintiff: the specification had been regularly enrolled in due time, according to the established form, and contained the following description:

"Take any quantity of lead, and calcine it, or minium, or red lead, litharge, lead ash, or any calx, or preparation of lead fit for the purpose: to any given quantity of the above-mentioned materials, add half the weight of salt, with a sufficient quantity of water to dissolve it, or rock salt, or sal gem, or fossil salt, or any marine salt, or salt-water proper for the purpose: mix them together by trituration, till the lead becomes impalpable, or sufficiently comminuted. When the materials have been ground, let them stand for twenty-four hours, in which time the lead will be changed to a good white, and the salt decompounded; if not, the trituration must be repeated with the further addition of salt, till the white colour be obtained. The decom-
position of the salt may also be brought about by digestion or by calcination. The materials may be suffered to remain together before the alkali is separated by the addition of water, for a longer time than is specified above, according to the discretion of the operator, and the end he wishes to obtain. The yellow colour is produced by calcining the lead after the alkali has been separated from it till it shall acquire the colour wanted: this will be of different tints, according to the continuance of the calcination, or the degree of heat employed. The white lead must be finished by frequent ablutions, and by bleaching it till the white be made perfect."

On a motion to set aside the verdict, and grant a new trial, the subsequent observations were made by the Court.

Ashurst, J.—I think that, as every patent is calculated to give a monopoly to the patentee, it is so far against the principles of law, and would be a reason against it, were it not for the advantages which the public derive from the communication of the invention, after the expiration of the time for which the patent is granted; it is therefore incumbent on the patentee to give a specification of the invention in the clearest and most unequivocal terms of which the subject is capable. And if it appear that there is any unnecessary ambiguity affectedly introduced into the specification, or any thing which tends to mislead the public; in that case the

The object of the specification is to prevent the monopoly after the expiration of the term of the grant.

Any ambiguity introduced into the specification, to mislead the public, voids the patent.
the patent is void. Here it does appear to me, that there is at least such a doubt on the evidence, that I cannot say this matter has been so fully and fairly examined, as to preclude any farther investigation of the subject. Three objections have been made to this specification: the first is, that in the specification the public are directed "to take any quantity of lead, and calcine it, or minium, or red lead, from whence it is inferred, that calcining is only to be applied to lead; I confess if the objection had rested here, I should have entertained some doubt.

The next objection is, that in the subsequent materials to be added, the public are directed to add "half the weight of sea salt, or sal gem, or fossil salt, or any marine salt." Now "fossil salt" is a generic term, including "sal gem" as well as other species of fossil salt. And I understand that sal gem is the only one which can be applied to this purpose; so that throwing in fossil salt can only be calculated to raise doubts and mislead the public. Those words could not have been added with any good view; it must produce many unnecessary experiments; therefore, in that respect, the specification is not so accurate as it ought to have been.

Another objection was taken as to the white lead; to which it was answered, that the invention did not profess to make common white lead. But that is no answer; for if the patentee had intended to produce something only like white
white lead, or answering some of the purposes of common white lead, it should have been so expressed in the specification. But in truth the patent is for making white lead and two other things by one process. Therefore, if the process, as directed by the specification, does not produce that which the patent professes to do, the patent is void. It is certainly of consequence that the terms of the specification should express the invention in the clearest and most explicit manner; so that a man of science may be able to produce the thing intended without the necessity of trying experiments.

During the progress of the hearing, Mr. Justice Buller observed, "that at the trial three objections had been taken to the specification; 1st, That, after directing that lead should be calcined, it directed another ingredient to be taken, which would not answer the purpose, namely minium. Neither was it said that the minium should be calcined or fused: but if it had any reference to the preceding words, then it should be calcined, which would not produce the effect, fusion being necessary. 2dly, That "fossil salt" was improperly mentioned. There were many kinds of fossil salt, only one of which, namely, "sal gem" would answer the purpose; because it must be a marine salt. 3dly, That all these things put together did not produce the thing intended. And that the patent was for an invention to do three things in one process, whereas one of them, namely, white
white lead, could not be produced at all; for that a white substance like lead remained applicable only to some of the purposes of common white lead. The learned judge then said, that at the trial he had told the jury, that if either of these objections were well founded, it would avoid the patent.

After the arguments were concluded, and Mr. Justice Ashhurst had given the opinion we have stated, it was further remarked by

Buller, J.—Many causes upon patents have arisen within our memory, most of which have been decided against the patentees, upon the ground of their not having made a full and fair discovery of their inventions. Whenever it appears that the patentee has made a fair disclosure, I have always had a strong bias in his favour; because in that case he is entitled to the protection which the law gives him. How far that law, which authorises the king to grant patents, is politic, it is not for us to determine. When attempts are made to evade a fair patent, I am strongly inclined in favour of the patentee: but where the discovery is not fully made, the Court ought to look with a very watchful eye, to prevent any imposition on the public. Then the question is, whether the plaintiff has made a fair discovery? I do not agree with the counsel who have argued against the rule, in saying that it was not necessary for the plaintiff to give any evidence to shew what the invention
tion was, and that the proof that the specification was improper lay on the defendant; for I hold that a plaintiff must give some evidence to shew what his invention was, unless the other side admit that it has been tried and succeeds. But wherever the patentee brings an action on his patent, if the novelty or effect of the invention be disputed, he must shew in what his invention consists, and that he produced the effect proposed by the patent in the manner specified. Slight evidence of this on his part is sufficient; and it is then incumbent on the defendant to falsify the specification. Now in this case no evidence was offered by the plaintiff, to shew that he had ever made use of the several different ingredients mentioned in the specification; as for instance minium, which he had nevertheless inserted in the patent; nor did he give any evidence to shew how the yellow colour was produced. If he could only make it with two or three of the ingredients specified, and he has inserted others which will not answer the purpose, that will avoid the patent. So if he makes the article for which the patent is granted, with cheaper materials than those which he has enumerated, although the latter will 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 which he himself does.

As to the first objection which has been taken with respect to the minium: it was not pretended
tended by any of the plaintiff's witnesses that he ever made use of minium. And it was proved by the defendant's witnesses, that from the specification they should be led to use minium, because minium is lead already calcined, which is what the specification directs in the first instance. But minium will not answer the purpose. Then as to fusion: it is said that the public are directed by the words of the specification to continue the heat till the effect is produced; which must necessarily lead to fusion, though fusion is not expressly mentioned. But that is no answer to the objection; for the specification should have shewn by what degree of heat the effect was to be produced. Now it does not mention the fusion; and as one of the witnesses said, in order to produce the effect, "you must go out of the patent," for fusion is beyond calcination, and in some sense contrary to it; and by mentioning calcination, it should seem that fusion was to be avoided.

The next objection was as to the salts. "Fossil salts" is mentioned as a distinct species of salt, and many other salts are also mentioned as indifferent whether one or the other be used. But it was proved that fossil salt was a generic term, including several species, and that "sal gem" was the only species of it which would answer the purpose, because none of the others contained a marine acid, which was essential.
IN THE SPECIFICATION.

There was no contradiction by the witnesses on the third objection; for the most that the plaintiff's witnesses said was, that following the specification, the experiment only produced a white substance like lead.

Now, on either of these grounds, the patent is void. Because if the patentee says, that by one process he can produce three things, and he fails in any one; the consideration of his merit, for which the patent was granted, fails, and the crown has been deceived in the grant. Slight defects in the specification will be sufficient to vacate the patent. In a case before Lord Mansfield for infringing a patent for steel trusses, it appeared that the patentee, in tempering the steel, rubbed it with tallow, which was of some use in the operation; and because this was omitted, the specification was held to be insufficient, and the patent was avoided.

In the case of Hornblower and Maberly against Boulton and Watt, in error, it was objected as a second ground for avoiding the patent, that the specification was insufficient. It was, however, supported by the court, and the following opinions on this part of the case were delivered:

Grose, J.—By a proviso in the patent, the patentee is bound particularly to describe and ascertain the nature of his invention, and in what manner
manner the same was to be performed, by an instrument in writing under his hand and seal, and to cause the same to be enrolled in the Court of Chancery. On which another question arises, namely, whether the specification enrolled be sufficient. The aim of the legislature is obvious; on the one hand it was to encourage ingenious artificers, and able and studious men to invent and bring forward for the use of the public new manufactures, the produce of their own ingenuity, by holding out to them the reward of fourteen years monopoly; on the other hand, to secure to the public the benefit of the discovery, by causing to be enrolled a complete description of the thing to be done, and the manner of doing, that others might be fully informed of it, and at the end of the fourteen years to be enabled to work, or make the manufacture of which the patentee was the inventor.

Laurence, J. Then taking this to be a patent for an engine, it is objected that the specification is bad. In considering that question, it is necessary to see for what Mr. Watt has obtained his patent: he does not claim it for an improvement to a fire engine for any particular purpose, e. g. for raising water out of mines, or any other specific thing; but his claim is generally to an invention for lessening the consumption of steam applicable to all fire engines for whatever purpose they may be used, and whatever may be their construction, by an alteration of, and addition to, parts which are common
common to all, and upon which their powers of working depend. The objection that requires a more full description of the engine, goes the length of requiring a description of every engine that is acted upon by the force of steam. But I do not think that if his specification had been so comprehensive, his invention would have entitled him to a patent for the sole vending and making the whole engine so altered and improved; for such a patent would have been more extensive than the thing invented: the patent must be supported, as granted for an improvement and addition to old engines, known and in use, and I think that the patent is good in this point of view. For *Watt* claims no right to the construction of engines for any determinate object, except that of lessening the consumption of fuel in such pre-existing engines, and for nothing else. In the argument, the engine to diminish the consumption of steam was confounded with that which was intended to improve. Some of the difficulties in the case have arisen from considering the word *engine* in its popular sense, namely, some mechanical contrivance to effect that to which human strength, without such assistance, is unequal; but it may also signify "device," and that *Watt* meant to use it in that sense, and that the legislature so understood it, is evident from the words "engine" and "method," being used as convertible terms. Now there is no doubt but that for such a contrivance a patent may be granted, as well as for a more complicated machine; it equally
equally falls within the description of a "manufacture," and unless such devices did fall within that description, no addition or improvement could be the subject of a patent. If this be so, it only remains to be considered, whether or not for the improvement of fire engines, Watt has with sufficient accuracy stated a definite alteration or addition, which may be made in all fire engines, in such a way as to enable a workman to execute it; and it seems to me that he has; for he has directed him to make a vessel for the condensation, distinct from that in which the powers of steam operate, and to convey the steam as occasion requires, from the cylinder to the condensing vessel, to keep the cylinder hot by means distinctly described, and to extract by pumps the vapour which may impede the work; therefore it seems to me, that he has given distinct directions for the purpose: whether those directions were or were not sufficient, is not now a question for our decision; it was a question for the determination of the jury, and they have decided it."

Having assigned our reasons for introducing the extracts from the subsequent trial, we shall not repeat them here; but we take this opportunity of expressing our veneration for the memory of the learned judge who presided, and our anxiety at all times to collect from every source to which we can procure access, the scattered fragments conducive to the disclosure of
his opinions on the immediate subject of this Essay.

The following remarks were made in the sum-
mimg up of the evidence by Mr. Justice Buller, in the case of the King against Arkwright *.

"The questions for your decision are three:

1. Whether this invention is new?
2. If it be new, whether it was invented by the defendant? And,
3. Whether the invention is sufficiently de-
scribed by his specification?

"It seems to me the last is the question of the greatest importance: because, if you should be of opinion upon that question, that the specification is not certain enough, it may have the effect of inducing people, who apply for pa-
tents, in future times, to be more explicit in their specifications, and consequently the pub-
lic will derive a great benefit from it, and there-
fore I will state to you the evidence upon that point first, and will endeavour to state it sepa-
rately from all the evidence which is applicable to the other points of the cause.

"Upon this point it is clearly settled as law, that a man, to entitle himself to the benefit of a pa-

---

* See Appendix I. for the specification; and the engraving the end of the work.
a patent for a monopoly, must disclose his secret, and specify his invention in such a way, that others may be taught by it to do the thing for which the patent is granted; for the end and meaning of the specification is, to teach the public, after the term for which the patent is granted, what the art is, and it must put the public in possession of the secret, in as ample and beneficial a way as the patentee himself uses it. This I take to be clear law, as far as it respects the specification; for the patent is the reward, which, under an act of parliament, is held out for a discovery, and therefore, unless the discovery be true and fair, the patent is void. If the specification in any part of it be materially false or defective, the patent is against law, and cannot be supported.

"It has been truly said by the counsel, that if the specification be such, that mechanical men of common understanding can comprehend it, to make a machine by it, it is sufficient; but then it must be such, that the mechanics may be able to make the machine by following the directions of the specification, without any new inventions or additions of their own. The question is, whether, upon the evidence, this specification comes within what I have stated to you to be necessary by law, in order to support it?

"The prosecutors have attacked it in almost every part.

"The
IN THE SPECIFICATION.

"The first witness who speaks to the specification is John Lees, a quaker; he takes it up, upon the feeder, marked No. 3; he says, the old feeder was made by him; he has examined this specification, and thinks he could not make that feeder which is now used from the specification; he could not make it if he followed that specification.

"Hall, the next witness, says, it is not possible to make such a feeder from the specification; he could have made nothing of it.

"The next witness that speaks to any part of the specification is Hayes: he says, rollers were made by him in 1767; that in 1769 they were the same as this, and those used by the defendant, the one was fluted, and the other covered with leather; first they were fluted wood upon an iron axis, the other was the same, only covered with calves leather; he says he originally made them of a different proportion, the one to move faster than the other.

"If there was any alteration that the defendant made that was material, it ought to be specified in the patent; but, in speaking of that article, it is perfectly silent as to the material, or form in which it should be made.

"Then John Kay, speaking of the rollers, likewise says, one turned faster than the other; and there was a use in this, because it was to
draw the cotton finer. In this also the specification is perfectly silent.

"In the plan one appears to be something smaller than the other; but how much, or what were to be the relative dimensions, or upon what scale they were to be made, the specification says nothing.

"They call Mr. William Doubleday Crofts, who spoke to the whole of the specification. He says, the defendant applied to him, after the patent was granted, to prepare his specification. The plan was drawn, and he employed the witness to draw up the written account; says he, upon drawing up that, I told the defendant, I thought it was imperfectly done, and that it would not answer the purpose. I asked for the former specification, and he said that was drawn from a model of the machine by a draughtsman in London. The defendant said, he meant it should operate as a specification, but to be as obscure as the nature of the case would admit; for, at the expiration of fourteen years, the public would have the benefit of the machine, and he thought the machine ought to be locked up; but if it were not, he wished to prevent its being taken abroad. This witness says, he has seen the specification many times since, and, notwithstanding this conversation, it remained the same as it was when he first saw it.

"I be-
IN THE SPECIFICATION.

"I begin with this evidence, because it is very material to be considered, whether the specification, in any part of it, bears a doubt, because the obscurity of it was pointed out to the defendant before he made it, and he then professed to make it as obscure as he could; his object was to get the benefit from the patent so far as putting money in his own pocket, but as to the benefit the public were to receive, it was to be kept back as far as it could.

"The next witness was Francis Ambrey, a machine maker, who has worked at it six years; he attempted to make one according to the specification, but found it impracticable, and gave it up.

"The next is Joshua Wrigley; he made machines four years; he tried to do the best he could, but he could not make the machine from the plan. He says, that he tried it before there was any objection made to the specification.

"The next was Thomas Leaming; he says he examined the specification; he is a machine maker, has followed the business about ten years and an half, that he could not make it from the specification, that there was no roller in the cloth, that the fillet cylinder is deficient, and will only discharge half the cotton from the large cylinder, that the rollers have no pinions to shew their movements, neither any weights to keep them together; he could have made
made a machine according to the drawing, but if he had, that machine would be of no use at all.

"The next witness is Innison; he says he is used to make machines from drawings, that there are very few parts of the carding machine described; the crank and one cylinder belonged to it. He says it is impossible to make such a feeder as that described in the plan, because there was no axis to it, and from the specification he should have made a parallel cylinder, and never thought of making a spiral one; yet you observe, that this is the one used by the defendant. As to the rollers, it don't appear by the specification; some were to go faster than others, and, from the specification, without other sources: it is impossible to say how they should be made; as there is no scale to work by, no plan to go from, it is impossible to know how to do it.

"Upon his cross-examination, he says, as to the feeder, there is nothing but the want of a roller which makes that defective; that a roller is necessary to give a regular direction to the work, that it will not answer without it. He says, from the knowledge he has now, he should add a roller if he was directed to make the machine. But, gentlemen, that don't prove the specification to be sufficient; because, if a man, from the knowledge he has got from three trials, and seeing people immediately employed about it, is able to make use of it, it is his