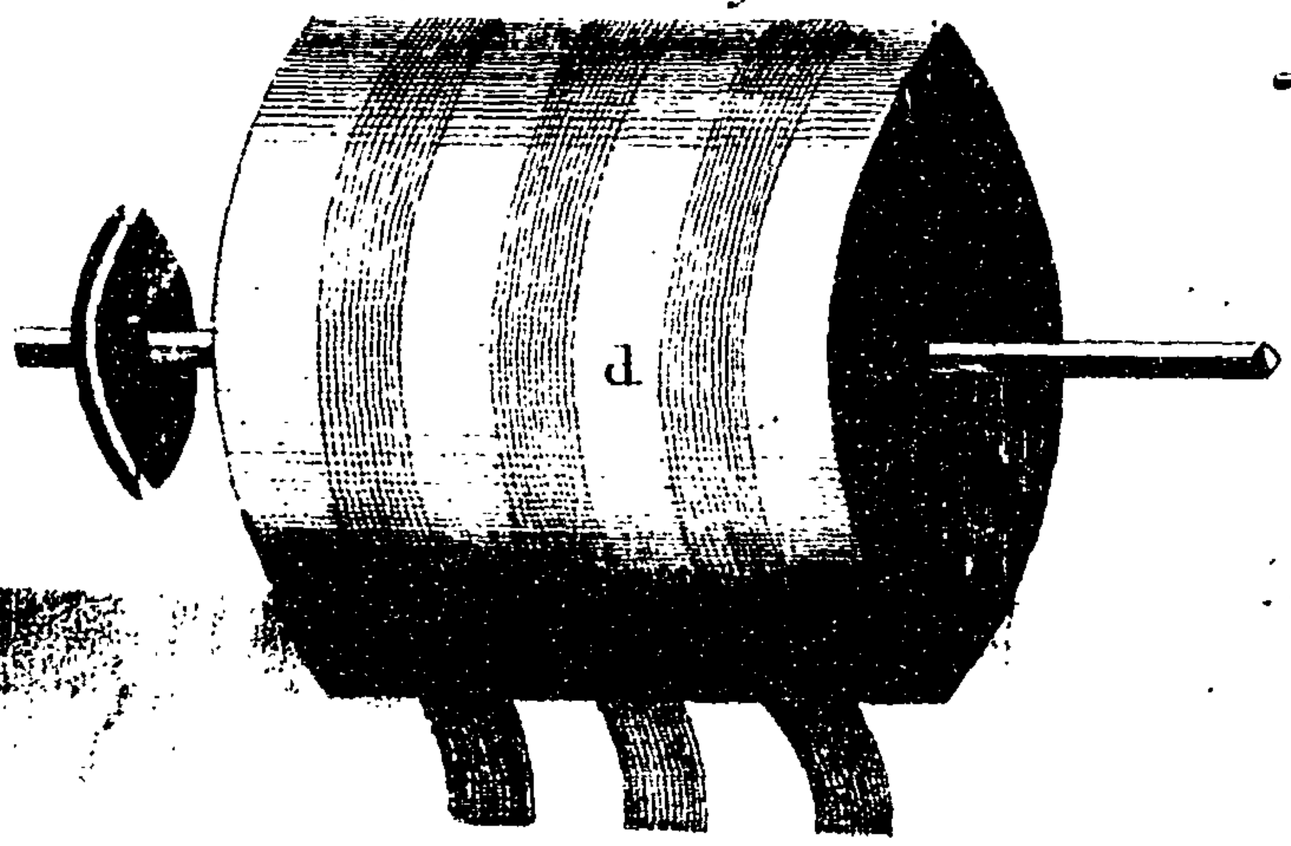
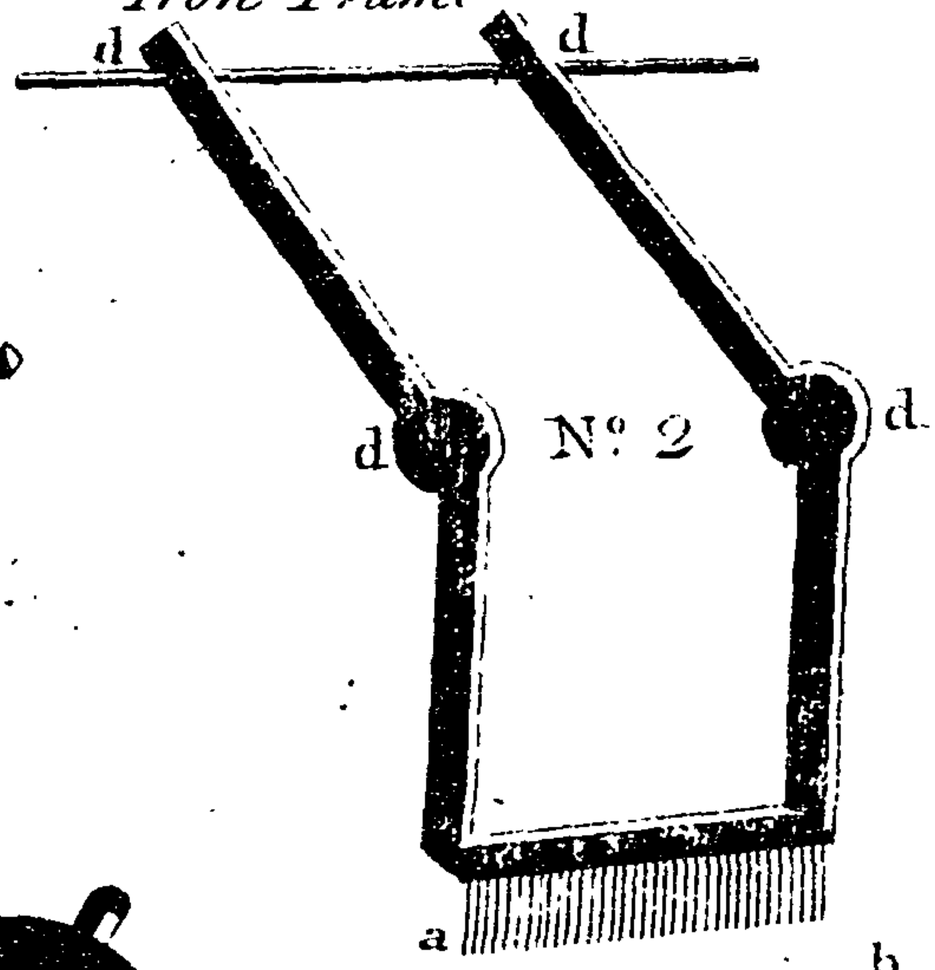
J. L. PLIMPTON.

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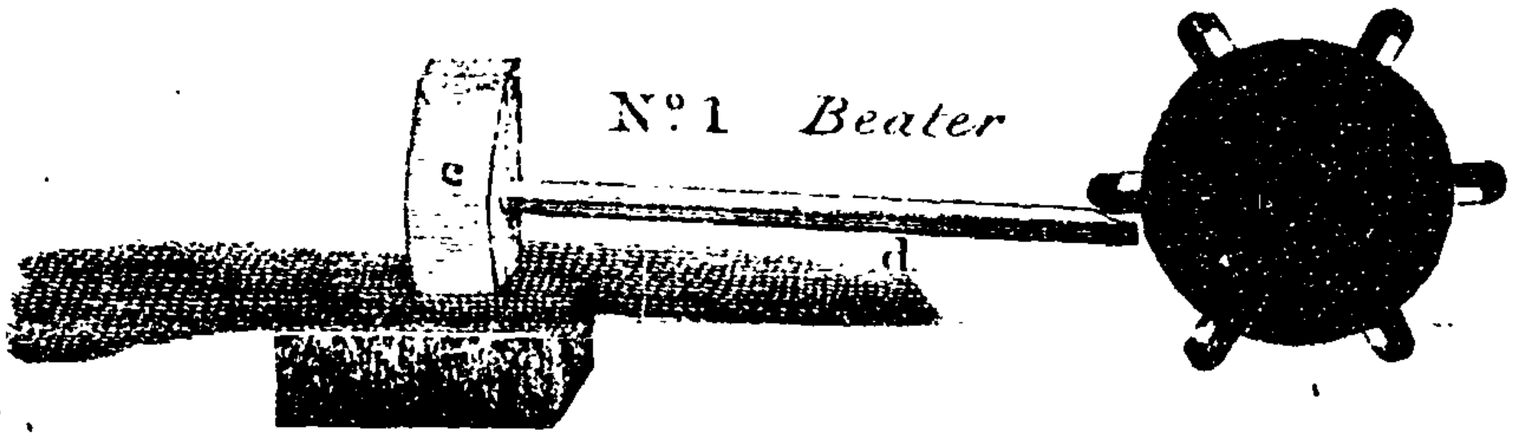
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Iron Frame

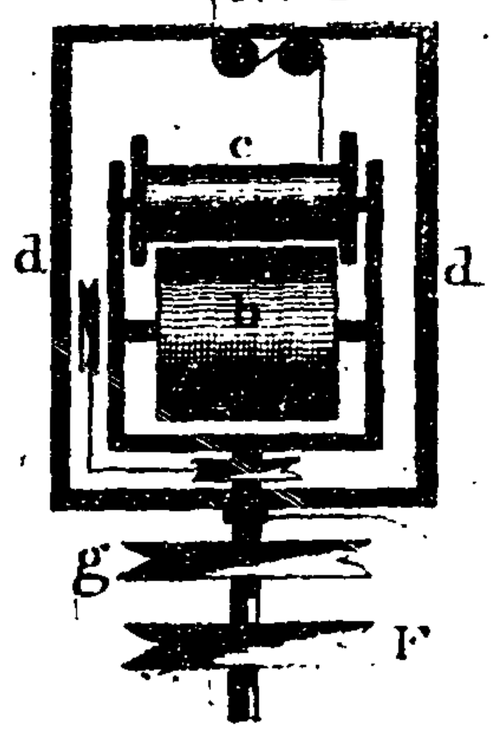


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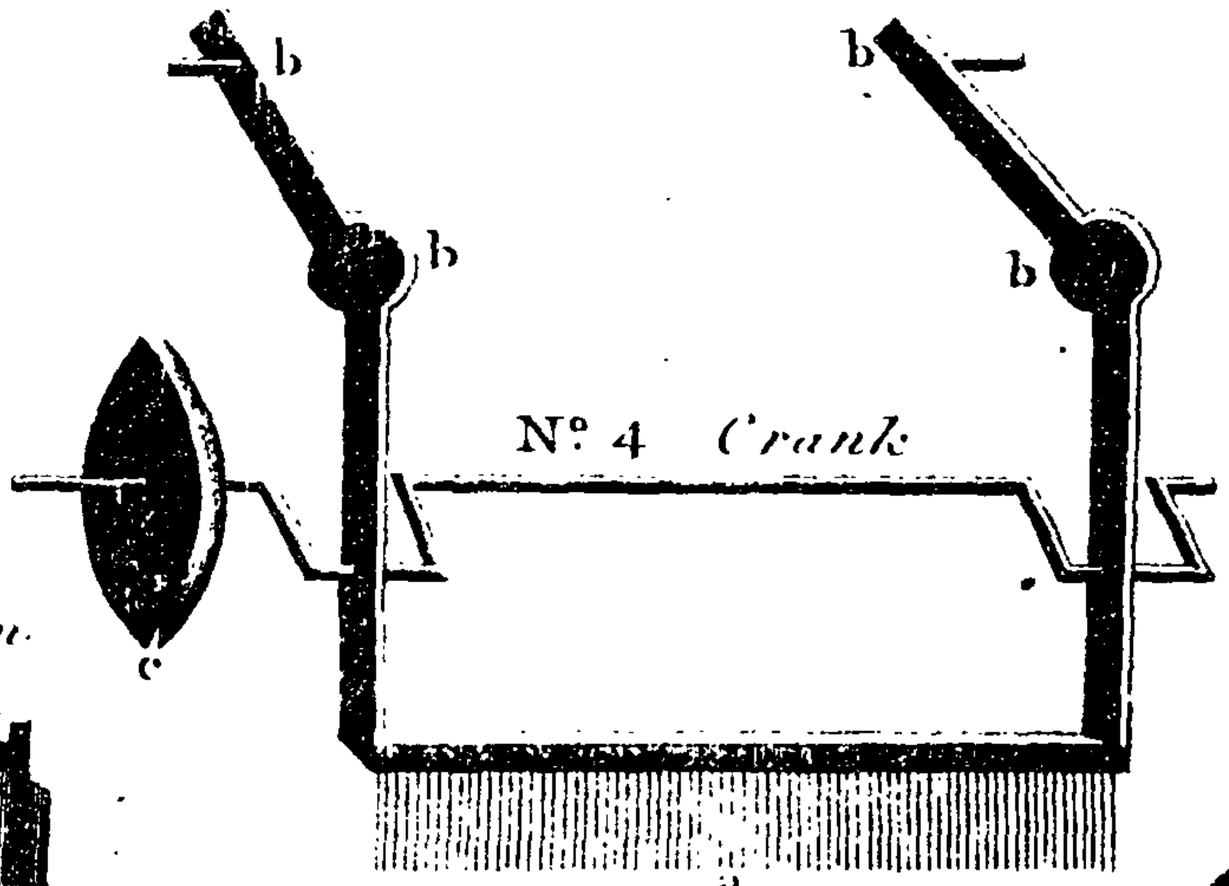


Twisting Machine

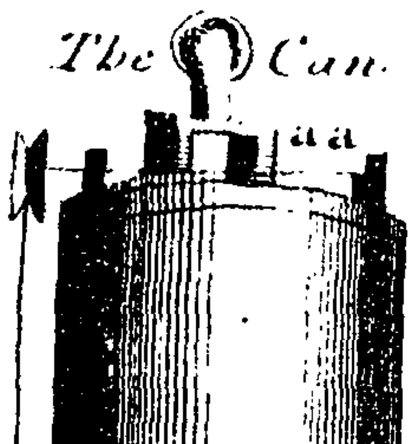
No. 8



No. 4 Crank



The Can



No. 7

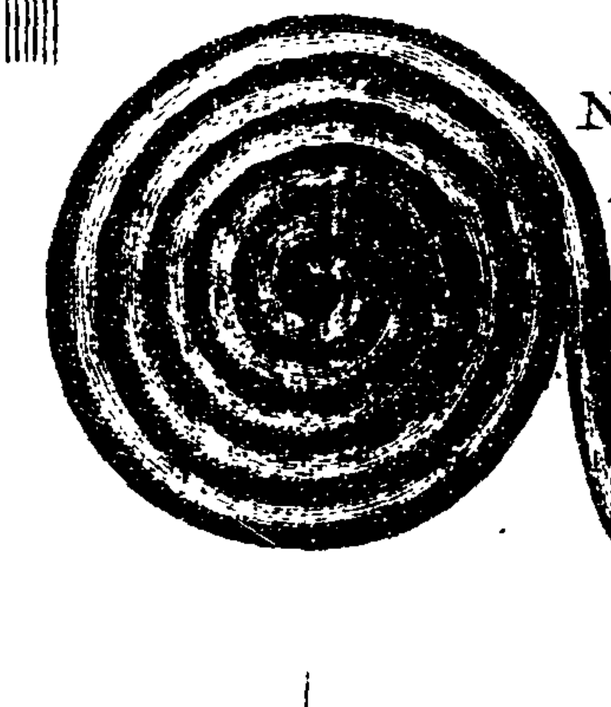
Regulating Wheel

No. 10

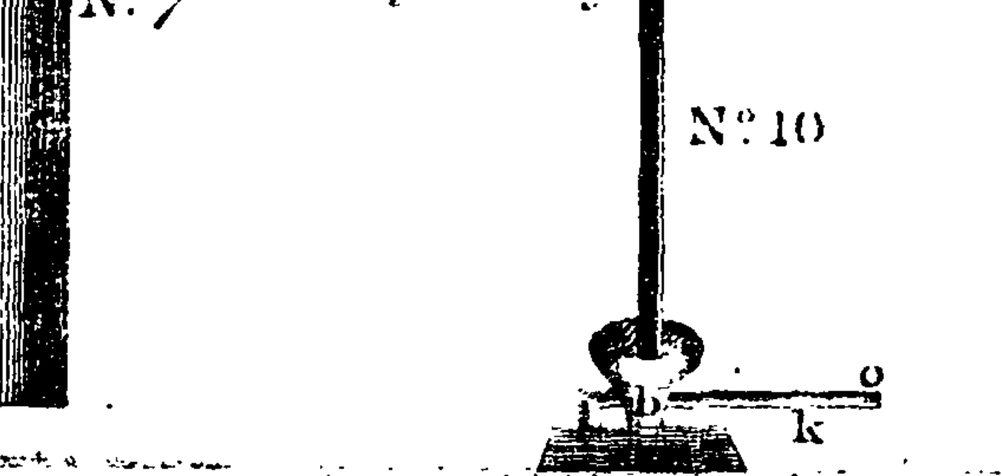
No. 3 Feeder

Spindle & Flyer

No. 9



No. 6 Rollers



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 FORMULÆ, 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 vucle." PROV.

LONDON,

PRINTED FOR THE AUTHOR, BY A. WILSON, WILD COURT;

AND SOLD BY LONGMAN AND REES, PATERNOSTER ROW.

1803.

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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.

PREFACE.

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 Donellus, 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 plair[illegible]t 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 anti-

quary, with the discriminating subtlety of the expert logician, and with the classic eloquence of the accomplished orator.

The opinions of the Judges it was necessary to recite in this work, in the express terms in which they appear in the Reports: yet, from the various matters of legal erudition to which these opinions are referable, it has been sometimes impracticable to confine 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 solemn judgments into detached parts, and thus not only lose sight of the bearings and connections, but probably of the very foundations 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 endeavoured to accommodate his plan to the ma-

jority

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, quàm 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

losopher 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 pagss 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.

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Wit (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. l et q e or in thesauro liberavit et quietus est; pat. rotulus patentium; 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.

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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 The, read Some.

DIRECTION TO THE 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 *. 3 Inst. 181.

Definitions of a monopoly.

Sir Edward Coke gives the following definition. "A monopoly is an institution or allow-
"ance 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 restrain-
"ed of any freedom or liberty that they had
"before, or hindered in their lawful trade."

* From μονος solus, πωλεω vendo.

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, sell- "ing, &c. any thing, so that no person be re- "strained in what he had before, or in using "his lawful trade *."

Hawkins, 1. 470. s. 1.

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.

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

Grotius de Jure Belli ac Pacis.

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 prophane 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 Ægyptus Inferior for the seite of the capital of his vast empire *.

Inquiry into the opinions of Grotius on monopolies.

Monopoly of corn in Egypt.

Extensive trade of Alexandria.

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

Νυν δε και στολοι μεγαλοι σελλονται μεχρι της Ινδικης και των ακρωτηριων των Αιθιοπικων εξ ων πολυτιμοτατος κομιζεται φορτος εις την Αιγυπτον. . . . . των δε βαρυτιμων βαρεα και ταλη, και γαρ δη και μονοπολειας εχει. Μονη γαρ η Αλεξανδρια των τοιουτων ως επι το πολυ και υποδοχειον εστι και χορηγει τοις εκτος. Geograph. Lib. XVII.

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.

Thales' monopoly of the olive woods.

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*.

Justice of monopoly.

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 Œconom. lib. 2. v. the greater part of this book, and particularly the purchase of the lead of Tyre by Pythocles.

Plin. Hist. Nat. lib. 8. c. 37. Monopoly of skins of hedgehogs. Hac cute exposcuntur vestes. Magnum fraus et ibi lucrum monopolio, &c.

Procopius, c. 25. Monopoly of Silk.

Diogenes Laertius, lib. 1. c. 26.

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.

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†.

Monopoly of the Roman merchants in oil.

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

Trade honourable.

The medium of improvement and happiness.

* 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.

† Omnes compacto rem agunt quasi in Velabro Olearii. Plaut. Capt. Act. 3. sc. 1.

‡ Off lib. 3. c. 6.

cenary principle could unite the ends of the earth in one common bond of confidence and humanity *.

Authorities referred to on the subject of monopolies.

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 †.

If

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

† To prevent conspiracies amongst traders against the public interest, a wise prohibition is on record, "Neve quis illicitis habitis conventionibus conjuret aut paciscatur. Cod. lib. 4. tit. 59." Where also see, "Jubemus ne quis cujuscunque vel piscis vel pectinum forte aut echini monopolium audeat exercere." Much learned dust has been raised by Gothefredus and others on the terms pectinum and echini, in this mandate of Zeno. V. Digest. lib. 47. tit. 11. 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 detesta-

tion

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 †.

Monopolies under Zeno.

Under Justinian.

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

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

 ingenuity

tion of exclusive privileges in commerce with much energy, v. J. de Wit. Politische Gronden. B. de Shroëter Refl. sur les Finances des Princes, p. 198, 204, 401. Werthoff Diss. de commerciis maritimis, s. XLIV. p. 50. See also Conclus de la Paix de Westph. art. LX. s. 2.

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 prefère le bien general a l'interêt particulier et ce seroit très mal connoître le cœur humain de s'imaginer qu'un monopoleur se comporteroit mieux qu'un Loup auquel on confieroit l'administration de la justice entre les troupeaux." He then adds with some malicious pleasantry, "La police de l'Empire agit vis â vis les monopoleurs a peu près comme les Papes contre les heretiques le Jeudi 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. Adjecit Zeno, ipsa rescripta imperialia non esse audienda, si cuiquam monopolia concedant.

† Monopolia non esse intermittenda, quoniam non ad commodum reipublicæ sed ad labem detrimentaque pertinent. Justinian.

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.

Monopolies were a conspiracy against the public interest.

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

The civil code superseded by the feudal system.

Commerce destroyed by the military fiefs.

Monopolies granted to the ports tended to revive commerce.

order to procure the supply of some of the indulgences indispensable in an improving state of society.

The origin of the Hanseatic league in the twelfth or thirteenth century.

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 conveniencies 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

Its extent and political importance.

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

The derivation of the word *hanse* has also occasioned differences of opinion among the learned. Lambecius 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*.

The means used to dissolve the confederacy.

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.

Its commercial utility preserve when its political importance was lost.

The Hanstowns supply the pecuniary exigencies of the princes in whose territory they were situated, and in return obtain royal grants.

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

Royal grants begin to be made to indivi-

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.

duals in consequence of the same supplies from private opulence.

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 nutricious aliment, applicable to the support of commercial prosperity.

Utility of the change in the English system with respect to monopolies.

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.

Similarity of the system of monopoly throughout Europe.

Notwithstanding all the calamities of the reign of John, it is to him that we are principally indebted for the franchises of the metro-

King John first granted municipal franchises.

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.

Nurseries of commerce necessary during its infancy.

London became a Hans-Town.

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

The British navy originated in piracy.

* "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 †.

A free trade established under Edward III.

The evil consequence of its abrogation.

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, Hamine, Wakeshoum, Creneth, and Forthclipe. Romney provided five ships, and in each twenty-four men: to this belong Bromhal, Lyde, Ofwanstone, Dangemares, and Romenhal. Hythe furnished five ships, and in each twenty-one seamen: to this belong Folkston, Feversham and Marge. Lastly, Sandwich furnished the same with Hythe: to this belong Fordiwie, 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 conduce 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.

The depression of British trade during the wars of the Roses.

The continuance of the same calamity under Eliz.

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 condescend, by a stretch of the prerogative, to reward its faithful servants in that form which obstructed

The penury of the English princes obliged them to resort to impolitic means of rewarding their servants.

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

The evil felt under Eliz.

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.

The woollen manufactures introduced, and the East India Company established.

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 *.

Monopolies in the reign of Eliz. threatened the destruction of commerce.

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, aniseseeds, vinegar, sea-coals, steel, aqua vitæ, brushes, pots, bottles, saltpetre, lead, accidences, oil, calamine stone, oil of blubber, glasses, paper, starch, tin, sulphur, new drapery, dried pilchards, transportation of iron ordnance, of beer, of horn,

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 controul over her was complete. Although the elevation of her rank, and the dignity of her mind, preclude dthose sexual compliances which would have been dangerous to the regularity of her government, yet she exhibited some portion

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.

The prodigality of Elizabeth in the royal grants.

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.

The resistance to them toward the conclusion of her reign.

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 *.

The monopolies most oppressive to the people are cancelled.

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.

The insincerity of James I. with respect to monopolies.

The diminished respect for the crown occasioned the statute against monopolies to be passed.

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.

Its beneficial effect.

Vindication of the public clamour against monopolies.

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.

Total customs of England 127,000l.

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

Customs of the counties only 17,000l.

counties in consequence of these grants, that of this total the sum of 17,000l. only was collected by the provincial officers, the metropolis

Customs of London 110,000l.

engrossing nearly six-sevenths of the commerce of the land. Yet even in London the benefits

The commerce of Britain nearly confined to two hundred citizens of London.

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 Bri-

Present state of commercial prosperity in the capital.

tain. 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 *.

It

* 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 depôt. The learned reader is not unacquainted

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 cessation of the ancient monopolies necessary to the political existence of the country.

The British shipping had been diminished one-third by the monopolies during the latter part of the reign of Elizabeth.

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

The two great objects of legislation abandoned by the system of monopoly.

acquainted with the famous passage in Ammianus Marcellinus on this capital. Sir Edward Coke indulged a little venial pride when he denominated it, "Cor Reipublicæ 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 commeatu 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 Colbert, 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 ad-

Benefit of the limitation of the prerogative.

vantage

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.

The maxims of modern policy in the royal grants, conducive to the public welfare.

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.

Personal ingenuity rewarded by them, and rendered extensively beneficial.

These maxims not generally applied in the commerce of this country.

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

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 detraction, 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.

Monopoly restricted by, 1. Lex non scripta; 2. Lex scripta.

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.

3 Inst. 181. 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 *.

Pechie. 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. Stap. 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 William 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. Duke of Suffolk.

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. Hawkins i. 470, s. 2. Grants of a known trade are void.

The King's grant to any particular corporation, of the sole importation of any merchandize, is void by the common law, whether such merchandize be prohibited by the statute or otherwise †. King's grant of sole importation when void.

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 ‡. Local grants when void.

It

* Rot. Parl. 50 E. 3. nu. 33.

† 2 Roll. Abr. 214; 2 Inst. 61; 3 Inst. 182.

‡ Raym. 489; 2 Chan. Ca. 165; 1 Vern. 127; Sand's Ver. East-India Company; Skin. 165, 226, 234; 8 Mod. 126.

Darcie's case.

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 *.

Grant of sole engrossing wills, &c. when void.

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; Vem. 120, 130, 275, 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 *.

2 Inst. 63. Monopolies contrary to Magna Charta.

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.

2 Rol. 174. l. 45 50. Grants of Monopolies void.

1 Rol. 4.

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. Davenant and Hurdys 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 contents of the statute stated generally.

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: The exceptions admitted into 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. 1st Exception.

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. 2d Exception.

3d. Or to letters-patent, grant, &c. about allum, or allum mines, or to the fellowship of hoastmen 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 3d Exception.

* For the statute at length, v. appendix F.

Abraham Baker about malt, or to Lord Dudley about cast works.

Monopolists to pay treble damages and double costs.

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.

21 Jac. I. c. 3. s. 6. The clause respecting patents for new inventions.

"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 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 explication of the expressions in the more material parts of it. 3 Inst. 182.

(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.

Explanation of the terms of the statute.

By his grant, commission, &c.

Countenancing sole buying contrary to law.

(Sole.) This word (sole) is to be applied to 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.

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.

(Of any thing.) As the words before were general, so these words (of any thing) are of a large extent. Res enim generalem habet significationem, quia tam corporea, quam incorporea, cujuscunque sunt generis, naturæ, 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.

(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.

(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 com-

mon

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.

Audacity of the monopolists.

(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 ure, exercise, or put in ure, any monopoly, &c.

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.

(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:

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.

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 grieved.

3. The party grieved 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.

Courts to which the clause extends.

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 attaint, 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 manufac- 1st proviso. Concerning new manufactures, and heretofore granted, &c.

tures 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

Pasch. 15 Eliz. in the Exchequer Chamber, Bircot's case.

Rot Parl. 21 E. 4. n. 39.
22 E. 4. cap. 5.
7 E. 6. cap. 6.
1 Jac. cap. 5.

* 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 fulled 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.

2d proviso, concerning new manufactures hereafter to be granted, &c.

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

* 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 apprenticehood,) 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 giv- 1 and 2 Ph. and Mary, cap. 7.
eth 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 4th proviso.
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 pur- 5th proviso.
view 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-petre or gun-

powder *. Thirdly, Or the casting or making of ordnance, or shot for ordnance. Fourthly, Grants and letters patent heretofore made, or hereafter to be made, of any office or offices heretofore erected, made or ordained, and now in being, and put in execution, (other than such offices as have been decried by any of his Majesty's proclamations,) so as to the thing by this branch excepted, four things are required: First, That it be an office. This extendeth only to lawful offices for divers causes: 1. It was necessary to except lawful offices in respect of these words (sole using). 2. Offices are duties, so called to put the officer in mind of his duty. 3. That which is void and against law, is no duty, unless it be not to use them. 4. Such as are erected against law, are monopolies and oppressions of the people, and no offices. 5. In acts of parliament lawful offices are intended, as in like cases hath been often adjudged; therefore,

* 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 parliament 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 quantities 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, edict, act, 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 præmunire.

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.

Lit. Sect. 731. Pl. com. 246. b. 11 H. 4. 80. 4 E. 4. 31. pl. 2.

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 decried (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 decried, 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 decried; for being contrary to the laws of this realm, as it is declared and enacted by this act, they are also decried with a witness, and can never be granted hereafter.

See the proclamation bearing date 10th July, an. 19. Jac regis; and another proclamation, bearing date 20 M[illegible]rtii, an. 19. Jac. regis.

The fifth proviso concerning the making of allum, or allum mines, needeth not, for they belong to the subject on whose ground soever the dare

dare is: and therefore any privilege thereof cannot be granted but in the king's own ground.

6th proviso.

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

Remaining provisoes.

The rest of the provisoes 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 provisoes 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.

Boulton & Watt v. Bull. Easter 1795. Explanation of the statute by C. J. Eyre. Definition of a monopoly.

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 expound it, has gone very much beyond the letter. In the case in Salkeld, the words "*new devices*" are substituted and used as synonymous with the words "*new manufactures.*"

which is contrary to law.

The evil incidents of a monopoly stated.

To what the saving of the statute extends.

The usage of the statute has gone very far beyond the letter.

On

Hornblower and al. v. Boulton and al. T. R. 8. 99

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.

Construction on the statute by Grose J.

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, 5, 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

Restriction of the statute for continuing the patent right.

The privilege of a monopoly can alone be claimed under 21 Jac. 1. c. 3. s. 6.

The power reserved to the crown by that clause in the statute.

tents

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 question in this case is if the thing be new, if the patentee be the inventor, and if the monopoly be not subject to one or more of these evil consequences.

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."

General design of the act explained.

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.

Divisions of the subject.

II.

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. 2 Inst. 2.

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 præsentes Literæ venerint.* 2 Inst. 1.

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 2 Inst. 77.

duced in patents for creations of rank, but
2 Inst. 77. 1. Ibid. 78. in other patents from the accession of that prince *teste meipso* has been inserted instead of the former.

William the Conqueror and his immediate
2 Roll. 180. l. 45. successor, sealed their patents with an impres-
Ibid. 181. l. 30. sion upon wax. Richard the 1st used armo-
Ibid. 181. l. 21. rial insignia on his seal, and, after his return from Jerusalem, changed his arms from two
Ibid. 181. l. 25. lions combattant to three lions passant.

2 Inst. 554. The law takes notice of three seals of the king; the great seal, the privy seal, and the signet.

2 Inst. 555. If mention be made of the king's seal, generally, it shall be understood of the great seal.

2 Inst. 554. 5. 6. 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.

R. 2 Co. 16 b. By the common law no grant of the king is available or pleadable, unless under the great
2 Rol. 182. l. 5. seal, but the king may make a warrant for a patent under the privy seal.

Eq. Ca. 54, 209. 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. Eq. Ca. 54. Eq. Ca. 54.

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 *. Manner of passing a patent. St. 27. H. 8. 11.

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. Ibid.

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 Ibid.

* 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.

St. 27. H. 8. c. 11. s. 2. The clerk of the privy seal, by examination of the warrant from the signet by 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.

St. 27 H. 8 c. 11. s. 5. 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.

8 Co. 18 b. 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

Ibid. 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 breve de privato sigillo.*

If

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

If a warrant for a patent be dated 31 Oct. 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. Semb. Dy. 135 b

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

CHAPTER THE SIXTH.

The Form of Letters Patent for New Inventions.

Sign manual. 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. engineer, maker, hath by his petition humbly represented unto us, that he, after much study and expence, 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

Improvements invented by A. B.

He is the first inventor, and the invention has not been used.

Prayer of the petitioner to have the exclusive benefit for fourteen years, and for his assigns.

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,

The prayer complied with according to the statute in such case made and provided.

* If it be the design of the inventor to extend the exclusive privilege further, 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 pesents next and immediately ensuing, and fully to be comp te 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 soever they be, within that said part of our united kingdom of Great Britain and

Royal command to all subjects not to interfere with the patent right.

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, devisor 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

Mandate to all officers not to molest A. B. his assigns &c in the exercise of his patent right.

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

If it appear that the grant is contrary to law, or prejudicial to the subject, if the thing invented have been in use before the date of the grant, or if A. B. be not the true inventor; in either or all of these cases the patent is void.

If it interfere with any letters patent heretofore granted, the present grant is, so far as it shall thus interfere, void.

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,

If the patent be transferred to more than five persons, or to any who act as a corporate body, or in any way contrary to the act of George the 1st, the patent to be void.

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

If the nature of the invention be not described, and such description be not enrolled within one calendar month after the date of the letters patent, the *patent to be void.*

These letters patent to be construed in the most beneficial sense for the patentee.

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 wheresoever, 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, Sr. Perceval.

May it please your Most Excellent Majesty:

Recapitulation of the grant, and of the invention.

This contains your Majesty's grant unto A. B. of C. in the county of D. engine-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

Recapitulation of the proviso for the specification and its enrolment.

ticular description of the nature of his said invention, 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 provisoes 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 King's grants are letters patent, or close letters, both which are of public record. Dr. & Stad. b. 1. d 8.

THE grants of the Crown of England are either in the form of charters or of letters. The latter are sometimes *(literæ patentes)* letters patent, at others *(literæ clausæ)* 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.

Offices for such grants.

The King of England is the arbiter of commerce.

The laws of England consider the King as 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, retricting 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 without the consent of the people.

The object of the statute of monopolies was to limit the prerogative, and to reserve only so much in the royal power as would be salutary to the state.

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 statute 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-

The royal grants rendered nugatory.

Darcy's patent.

Rot. Parl. An. 50. E. 3. M. 33.

* On the extent or limitation of the royal prerogative with respect to trade, the reader may consult the following authorities: 1 Sal. 32; 3 Lev. 359; R. 3 Lev. 359; R. Skin. 135; 8 Co. 125.

† V. Infra ch. 9, sect. 8, where the particulars of this case are detailed.

ward III. a patent for the sole importation of sweet wine into London. But we are not now driven to the necessity of resorting to the legal obscurities on this subject which occurred between the accession of Edward of Windsor and the demise of Elizabeth.

4 Inst. 88. A writ of *Scire facias* to repeal a patent lies in three cases.

A writ of *Scire facias*, to repeal letters patent, lies in three cases:

1st. When the king grants the same thing to two or more persons.

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

2d. When the king is deceived in his grant.

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

3d. When the grant is against law.

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.

Explanation of the first case.

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,

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. Of the second.

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, Of the third.

11 Co. 76.

11 Co. 88.

Mag. C
9 E. 3d
25 Ed.
27 E. 3

Reference to Coke's reports on the nature and antiquity of royal grants.

Coke, to whom the student so frequently has occasion to resort, on the most important questions in British jurisprudence *.

General rules of Lee, Chief Justice, of the cases w! erein mistakes do not vitiate the grant. Buller's Nisi Prius, 75.

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.

Further explanations from the same authority.

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

Where the King grants *ex certâ scientiâ 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.

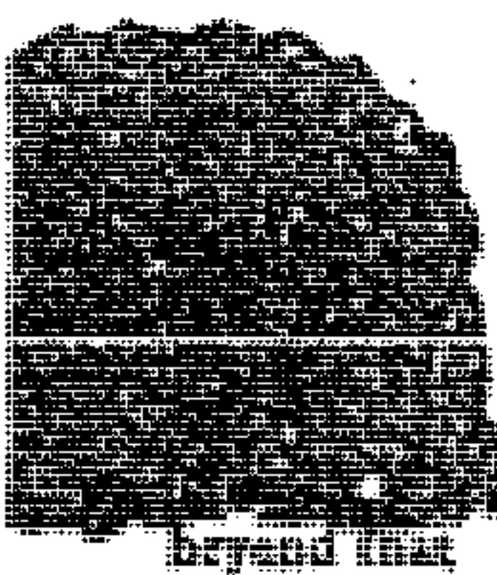
CHAPTER THE EIGHTH.

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 ure any monopoly, or any commission, grant, or licence, or other matter or thing tending to institute, strengthen, or countenance the same.

Patents for new inventions limited to fourteen years.

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.



beyond that term is void.

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 fourteen years commence from the date of the first letters patent.

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.

11 Co. 87.

The patent of Darcy, was for 21 years, and was made void.

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*.

Boulton & Watt v. Bull. Bl. rep. 1795. Easter term. The patent right may be extended by act of parliament.

In the above case it was extended to twenty-five years.

"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,

Remarks on the limitation by Heath J. p. 481.

* 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.

The Nature and Extent of Letters Patent for New Inventions.

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 distinctions between a royal grant and the grant of a subject.

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 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 gratiâ, certâ scientiâ 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.

Finch 100l. 10 Rep. 112.

The form of letters patent admits a beneficial construction for the inventor.

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.* Hornblower, v. Boulton. 8 term. Rep. 95.

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 *. Edgberry v. Stephens, 2 Salk. 447. 1. Hawk. 233.

No old manufacture in use before can be prohibited by the grants of the sole use of a new invention. 3 Inst. 184. 1. Hawk. 233.

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 Boulton and Watt, v. Bull. Blacks. Rep. Hil. East. and Trin. Term. 1795, C. B.

* See the case of Edgberry and Stephens, further noticed in the following section.

Distinction of an engine and a method.

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

21 Jac. I.

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

Machinery.

Substances.

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 term manufacture.

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

Subject of a patent ought to be vendible.

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.

Dollond's patent for a refracting telescope good. A patent for an improvement, or the thing improved is the same.

A patent cannot extend to a method. Patents for chemical processes are not for a method, but for a vendible substance.

The Marquis of Worcester not entitled to a patent for discovering the expansive force of steam, but for the machine by which that force was employed.

On

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

Explanation of what a principle is.

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

A patent must be for some new production, not for a principle.

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

Where a patent is granted for an improvement in a machine, the terms of the patent must not extend to the

objections

objections as much as possible in the back ground, 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

whole machine, but must be restricted to the improvement only.

A patent cannot extend to a principle, or a general law of experimental philosophy before known, for the object of a patent, is something new.

The distinction of a principle and its practical application.

If a man devise a double use of a thing known before, he cannot have a patent for such use.

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.

A principle reduced into practice is the thing invented.

Remarks on the St. 21 Jac. I. c. 3.

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

The object of the act is the manufacture.

The true intent of the act to be attended to, and not verbal criticism.

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

Dollond's patent was for object glasses.

The effect of Hall's not publishing his discovery.

Mechanical and chemical discoveries fit objects of a patent, although the materials be old, if the arrangement or compound be new; but the patent must be restricted to the arrangement or compound.

Dr. James's patent.

tent must have been for the fire engine, eo nomine; and in the second, for the specific compound 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 consumption, 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 particular 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 hitherto 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 medicine 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.

A new application of a known substance may not be the fit object of a patent.

Water tabbies how discovered, and how the inventor entitled to a patent.

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 water tabbies only: but if he could have had a patent for the principle of intermixing water with oil or colours, no man could have had a patent

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.

That patent would not extend to painted floor-cloths if prepared on the same principle.

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.

Morris against Branson. Sittings after Easter Westmr. 1776.

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.

A patent for an improvement is valid, but it must extend only to the improvement.

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

Hornblower v. Boulton, 8 Term Rep. 95.

On behalf of the plaintiffs it was argued in error, 1st, That unless the patent could be established

Application of 21 Jac. 1. c. 3.

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 farther 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

Patents wherein injurious.

A patent cannot be granted for a philosophical principle not organized.

* 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 plaintiffs 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.*

Technical explanations not necessary.

A manufacture is a thing 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

Observations on the statute 21st James I.

The intention of the legislature seems to be to enable the crown to grant patents for a *new manufacture only*.

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

Object of the specification to publish the discovery.

The patent and specification may be considered united to ascertain the patent right.

to be performed by an instrument enrolled. He does so; and that instrument describes the principles of the method, and the method by which those principles are to be carried into effect.

What in this case was determined to be a new manufacture by the verdict of the jury.

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 suffering 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 used 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 engine, 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.

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

A new manufacture is here described.

The verdict of the jury determined it to be so.

steam vessel of one uniform heat with the steam so long as the engine is worked.

Boulton & Watt v. Bull. Hil. Rep. Easter Term 1793.

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

What constitutes a new engine.

"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 any thing 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

argue 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."

If an addition to an old engine be a new manufacture.

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

That there was nothing new in the machine is decisive against the patent.

Bircot's case not decisive now. 3 Inst. 184.

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 subject,

Morris v Branson, Easter 1776.

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

If a patent were not valid for an addition, almost every patent granted would be nugatory.

Since Morris and Branson's case it has been generally admitted a patent for an addition is good.

Jessop's case.

The motive why a patent for an improvement only should not extend to the whole machine.

the invention itself. When a patent is taken for an improvement only, the public have a right to purchase that improvement by itself, without being incumbered with other things. A fire engine of any considerable size, I take it, would cost about 1200l. and suppose the alteration made by the plaintiff, with a fair allowance for profit, would cost 50 or 100l. is it to be maintained, that all the persons who already have fire engines must be at the expence of buying new ones from the plaintiffs, or be excluded from the use of the improvement? So in the case of the watch, may not other persons in the trade buy the new movement, and work it up in watches made by themselves? Where men have neither fire engines nor watches, it is highly probable that they will go to the inventor of the last and best improvements for the whole machine; and if they do, it is an advantage which the inventor gets from the option of mankind, and not from any exclusive right or monopoly vested in him. But here the plaintiffs claim the right to the whole machine. To that extent their right cannot be sustained, and therefore I am of opinion that there ought to be judgment for the defendant."

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

Hornblower v. Boulton. 8 Term Rep.

In the case of Hornblower & Maberley, 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 pretence 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

The patent is only for the additional improvment.

an

Bircot's case not law at this day, v. 3 Inst. 184.

an old manufacture: this doubt rests altogether upon Bircot's case, 3 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.

Additions often more valuable than the original machine.

Lord Coke's opinion not well founded, that a patent cannot be valid for the improvement of an old machine.

Laurence 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

The statute of James extends to new manufactures.

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 [illegible]ming several operations in the most convenient orde[illegible]but it may sig-

Watt's patent extended to a thing capable of being described.

nify 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. Hawkins 1. 470. s. 2. Liardet v. Johnson. Sittings at Westminster, Hil. 1775, Cor. L. 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

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. s. 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.

An invention imported is a new invention under the statute of monopolies.

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.

Edgberry and Stephens, 2 Salk. 447.

Boulton and Watt v. Bull, C. B. East. 1795.

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.

Turner and Winter. Dorneford's Rep. vol. 1

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.

King v. Arkwright, tried before Buller J. at Westminster, 25th June 1785,

"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.

A material and new improvement will support a patent.

"As

Enquiry into what is now in the machinery of Arkwright's patent. The beater not new.

"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.

The iron frame 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).

If ever used?

"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 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.

Any thing useless should not be inserted in a specification.

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

The feeder not new.

"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 shew 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.

Used before and not the invention of the defendant, therefore no subject of a patent.

"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 that speak to that article, except *Immison*, 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 improvement must be material and useful.

"The first witness upon the part of the defendant 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.

Deficiency in the patentee's evidence in respect to the feeder.

"Mr. *Watts* says it would do without the roller; but, if it were necessary, a man must be a great ideot if he has not sense enough to discover 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 contradicted by any one witness whatever for the defendant; upon the contrary, he is confirmed by one of the witnesses, *Hall*; and *Marsland*

The patentee is not in this case the inventor.

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.

The crank in Arkwright's machine nonew invention.

"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

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 *Brotherton*, 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.

Deficiency in the evidence of the patentee as to the crank.

"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.

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.

"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.

The filleted cylinder no new invention.

"Then *George Hargrave* says, it had no fil-

lets,

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 many rovers 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.

Another instance wherein the improvement must be material and useful to support the right to the patent.

"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.

The rollers no new invention.

"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 clock-maker 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. Deficiency in the patentee's evidence in respect to the rollers.

"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. The can.

"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 If nothing but the can be new, the question is, if it be material and useful?

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

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.

Evidence on Tennant's patent.

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.

The invention was not new.

It was not wholly the discovery of the patentee.

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.

Pernicious effects of monopoly.

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.

Security provided by the statute of James against those effects.

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

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.

Stat. 21 Jac. 3. merely declaratory. Design of declaratory laws.

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

* 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.

Bl.comm.Ins.3.

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.

Darcy v. Allien, Trin. 44 Eliz. Co. 11. 85.

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,

licence, 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 dictæ Dominæ Reginæ*, 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?

The questions were, if the sole making, and sole importation of cards were valid grants.

II.

II. If the grant of the sole importation were so?

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

20 H. 7. fo. 4. cap. Inst. Ang.

That playing cards were not an article of merchandize, but of vanity and idleness, and that the Queen, as *parens patriæ*, 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.

Fort. Laud. Leg. Ang. c. 26. Dovenant v. Hurdis, Trin. 41 El. Rot. 92. 21 E. 3. 46.

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; 13 E. 3; Release 36, 48; 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 30 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 artifice 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.

21 E. 3. 46. Magna Charta, c. 18. 9 E. 3. c. 1 & 2. 25 E. 3. c. 2. 27 E. 3. c. 11.

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,

Rot. Parl. Ann. 50. E. 3. M. 33.

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.*"

Patent determined to be illegal and mischievous.

King v. Arkwright; sittings Westminster after Trin. 1785.

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 Inrolment 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:

Proviso of the patent grant.

" 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

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. I.

What is the Description required in the Specification?

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

The King agt. Arkwright, sittings at Westminster after Tr. 1785. Rules laid down by Mr. J. Buller in the specification.

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.

Boulton & Watt v. Bull, Bl. Rep. 1795.

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,

P. 479.

"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.

Where an incorrectness in the specification will not vitiate the grant.

The erroneous use of the term method, instead of machine, in the specification, would 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

What cannot be specified has not been invented.

The specification is the condition on which the patent is granted.

The subject of every grant must be certain.

The grant of a method is not good, because uncertain.

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

The patent ought to be for some new substance, and not for the process by which it is produced.

Dollond's patent should have been not for the method, but for the object-glass produced.

James's patent.

* 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.

A specification need not state mere incidents vulgarly known.

The manner in which, and the utensils by which, the fusion of gold is produced, need not be specified.

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.

If a patentee state three things produced in his specification, and one of them fail, the patent is void.

* 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.

If a specification direct different ways and ingredients, and one of them fail, the patent is void.

2d, If the specification direct different ways, and different ingredients to produce the same thing, and any of them fail.

Turner & Winter. Dornford's Rep. vol. 1. p. 602.

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:

Extract from the specification of Turner, which voided the patent.

"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 sea 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

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 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.

Obscurity of the specification in the misuse of the term 'calcining.'

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.

Misuse of the term 'fossil salt,' in the same.

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

Objection to the terms 'white lead.'

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.

If the process, as directed, does not produce that which the patent professes to do, the patent is void.

The invention must be so clearly explained, that a man of science need not resort to 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,

Three objections to the specification.

First.

Second.

Third.

The patent was for an invention to do three things in one process; whereas one of them

could not be produced at all.

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.

If either of the objections were well founded, it would void the patent.

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

Most of the causes on patents have been decided against patentees from defects in the specification.

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.

A patentee must give evidence to shew what his invention was, on an action to protect his patent right from infringement.

Slight evidence on the correctness of the specification, and the validity of the patent is sufficient in such a case.

If he insert in the specification more ingredients than produce the effect, the patent is void.

Also if he employ cheaper materials than those inserted in the specification, as productive of the effect.

As to the first objection which has been taken with respect to the minium: it was not pre-

tended

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.

Minium is here directed to be employed, which will not answer the purpose.

The degree of heat to be employed not ascertained in the specification.

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.

Sal gem not properly distinguished from the other fossil salts 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.

The specification deficient in respect to the white 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.

The crown must not be deceived in the grant by the specification.

Slight defects in the specification sufficient to vacate the patent.

Tallow not being inserted as a means of tempering steel, voided a patent.

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:

Hornblower v. Boulton, 8 Term Rep. 97. 106.

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

The patentee must describe and enrol the nature of his invention.

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.

The design of the statute is to reward ingenuity.

And to disclose the produce of that ingenuity for the use of the public after the term of 14 years.

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

A patent grant must not be more extensive than the thing invented. If an improvement only be made, the patent must not extend to the whole engine.

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."

In an improvement or alteration, the precise addition or alteration of a machine must be so clearly stated, that a workman may execute it.

page 101. 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

his opinions on the immediate subject of this Essay.

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

King v. Arkwright, tried before Buller J. at Westminster, 25th June 1785.

"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 described 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 patents, in future times, to be more explicit in their specifications, and consequently the public will derive a great benefit from it, and therefore I will state to you the evidence upon that point first, and will endeavour to state it separately from all the evidence which is applicable to the other points of the cause.

It is of great consequence for the sake of the public that specifications be correct.

"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.

The specification must put the public in a way to understand the art in as ample and beneficial a way as the patentee himself uses it.

The patent is a reward for discovery.

The discovery must therefore be made, which is the object of that reward.

"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?

Mechanics must be able to make the machine by following the directions in the specification.

"The prosecutors have attacked it in almost every part.

"The

"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.

The feeder could not be made by following the 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.

The specification is silent on the peculiarities of the rollers.

"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.

If any alteration were made in them that was material, it ought to be specified.

"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 g[illegible]d, 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-

Mr. Arkwright's object was to make the specification obscure.

"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.

A machine maker could not make the machine by the instructions in the specification.

"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.

Some of its deficiences noticed.

"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 a machine according to the drawing, but if he had, that machine would be of no use at all."

If a machine had been made according to the drawing, explanatory of the specification, it would have been of no use.

"The next witness is *Inmison*; 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.

Other deficiencies in the specification noticed.

"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

The specification must be so clear that a mechanic may be able to make the machine without repeated trials.

his ideas improve the plan, and not the merit of the specification; if he makes it complete, it is his own ingenuity, and not the specification of the inventor. He says, as to No. 5, it will not work five minutes together before it will be entirely full of cotton: he is asked, supposing the cotton was to be spread upon the feeder only the breadth of the fillets, would it have that effect? He says it would not do even then.

"The next is *Benjamin Pearson*, who says, the cylinder the defendant uses was a worm, which stripped the whole off the large cylinder, and they spread the cotton the whole breadth.

"The next is *Thomas Barber*; he says he has been used to make machines from drawings; that he could make the limbs of this, but he does not see how to put them together from the specification; that there is no connection, no moving part or principle, no way of putting them together—nothing to set the rollers a-going. That if there is no axis, the feeder might move without it, but not with any regularity; that the fillet cylinder is not connected with any thing, the parallel filleted cylinder will not make the edges of the rovings good; it would not be carding, part of it would not be carded; that it must leave the cotton upon the great one, and must clog the machine. That, with the assistance of the written specification, he could not put the machine together.

Other deficiences noticed, especially that which respects the relation of the several parts of the machine to each other, and the union of the whole.

"*John Johnson* says, the specification is not a sufficient description of the machines that were produced in court; he has compared them with the specification and writing, and he is satisfied in his mind they could not be made from them: that No. 3 is in want of a roller, and therefore defective; that No. 4 is pretty well described; that there is no description of the rest of the machinery sufficient to make one by. That he is a cotton engine-maker. He says there is not sufficient directions to put the parts together; that one part is directed to be put to another, but there are chasms between.

"The next is Mr. *Cumming*, he is a watchmaker; he says that he has seen the machines more than once. He says it was mighty easy to have given a description of the machines, to bring it within the scope of a common mechanic; that is not done: that, putting himself in the situation he first saw the specification, he could not comprehend it at all, that now he has examined it so much, he could not make it from the specification, informed as he is; so you see his knowledge is from other means. At first he could not comprehend it; that if he had employed an artist to make the machines, he must have been asked a great many questions which he must have resolved, though he never should have been led to it by the specification; and if by accident I had hit upon the same machine

It was easy to give a description of the machine so as to bring it within the knowledge of a mechanic.

the

the defendant has made, I should not have known it was that meant by the specification."

" This evidence is as strong as any evidence that could be given upon the point. He says No. 6 would not give any instruction; that he could not find out by it that Mr. *Arkwright* meant the roller should be fluted, and that they would have relative velocities; that he has no authority for the motion by the specification, and it never could have occurred to him to have looked at the old machine; for he thought it an entire new invention, and not depending upon the old description. He says, if No 6. was representative of the roving passing from it into No. 7, which is the can, he should have understood it; but No. 7 is represented as a solid, and not a hollow axis to admit any thing else, and he thought *that* a want of evidence of its being an original invention. That it was very easy upon paper to distinguish the spiral from the parallel, but these are represented as parallels. He says, he never understood till that time, No. 7, 8 and 9 would any of them serve the same purpose. He says the principal cylinder appears by the specification to be the parallel cylinder, and, says he, if I had been conversant with the former machine, and even known the spiral cylinder had been used in that, yet I should have thought this plan meant to distinguish it from the spiral cylinder. If he is right in that, which don't seem to be contradicted by any witness that I can find,

there is nothing else to be said about this plan, but that it is calculated to deceive and mislead. If calculated to represent the cylinder made use of in the old machine, it might have been done by reference, and then the argument would have been proper, which the counsel for the defendant pressed: but if the defendant meant to make use of the parts of the old machine, he, by his description, has misled every body who was to make this machine now in question; because he has in his plan made the specification directly contrary to that used in the old machine. And therefore it is for you to say, (if Mr. Cumming's reason be not conclusive in itself,) whether, if there be one thing known, and a man gives a design of a different thing in contradiction to that, and yet means that the thing known should be used, is it not misleading mankind? This witness says there is nothing in the specification that puts No. 2 out of the question; he should have thought by finding it in the plan it was to be of some use, but he could imagine none for it."

If a new machine be founded upon an old machine, the peculiarities of the latter must be adverted to in the specification.

If there be one thing known, and a man gives a design of a different thing, in contradiction to that, and yet means that the thing known should be used, it is misleading the public, and vacating the patent.

"The next witness is *John Viney*; he says, a gentleman brought the drawing to him; he observed there was no scale, and it was not possible to form any idea of the dimensions of any one part of it. That within three weeks from this time, two other gentlemen brought it to him; that his reply was exactly the same, that he could not pay attention to any thing so totally

tally void of any sort of means for understanding it: they produced the description of the drawing, that he reviewed it at two or three different periods; at last, says he, I was left totally ignorant of the means of constructing the machine this was meant to describe, as ignorant as if I had never seen it. He says, he never saw a cotton mill, but, from his knowledge in general, he could form no idea of any man being capable of working from drawings that had no scale.

A scale necessary to the drawing attached to the specification.

"*Thomas Walford* says, he is conversant in filleting machines; that from this specification he could not have made the machine; it wants the means of communication; he takes No. 3 to be more like a worm than any thing else, from the appearance of it, and he could not tell how to apply it; that he could not put all the parts together; that it was a very easy matter to describe them so as to be understood, that the spinning machine was accurately described, and this is not at all so, that there is no scale to go by.

"*Mr. Harrison*, who was with his father at the experiments for the discovery of the longitude, told you, that he has examined attentively the drawing, and the explanation, and the machine; that this machine is not described by the drawings; he says he could not make them from it, but they might have been very easily described; he says, if he had added the roller

to

to No. 3, that would have been his own invention; that he never had seen a place for No. 2, and so many things are thrown in, which have nothing to do with the business, he thinks it must have been for the purpose of perplexing; he says, he concluded No. 6 was new, and did not refer to the first specification; and he gave the same reason that Cumming did about the rollers.

"*Mr. Ewer*, who is chairman of the committee of mechanics at the Adelphi, says, that he is acquainted with mechanics in general; he says, if a person confines himself to the specification solely, it is impossible to make the machine perfect without exercising his own inventive faculties; he does not think a person could make a machine entirely by that specification; he says No. 3 has no roller, that No. 5 is exceedingly imperfect; he makes the same objection the others do about the filleted cylinder; that he has seen a great many specifications, that he never saw one so obscure as this; some of the drawings are in perspective, the others only sections, and that those that are the most important, are the most confused in the description.

The most important parts are the most confused in the description.

"*Mr. Pilkington* says, that Mr. Arkwright gave him some cases which he was to present to the House of Commons, and desired the witness would read them, and promised to send him more by his servant, which he did. Those which

which were delivered by the defendant seem to me to be material; because they shew what the defendant's sense of this business was immediately after the first trial. It has appeared from what has been said on both sides, and it was so stated in this case, that he was beat upon the first trial upon the subject I am now stating to you, that is, *the specification;* he admits in that he has *not properly specified* how the machine was made, and he says, he purposely (in prevention of an evil, that foreigners might not get them,) omitted to give so full a description of his inventions in the specification, attending the last patent, as he otherwise would have done; this he admits, and he goes on and states a trial in *Westminster Hall*, in *July* last, at a large expence, when solely by not describing so fully and accurately the nature of his last complex machines as was strictly required by law, a verdict was found against him; he bows with the greatest submission to the court and the verdict against him; and he deprecates the favour of parliament.

The effect of the intention of an inventor to conceal his discovery in the specification.

The design to hide the invention from foreigners is no sufficient excuse for such concealment.

"Now, in a case where an invention is lucrative to so enormous a degree as you have heard, and where the verdict was given against him upon a particular point; had he not been most thoroughly convinced that the verdict was right, or if he could by any explanation have supported his specification, is it to be conceived for three years and a half he would lie by, and totally lose the benefit of his patent? But excepting

This lucrative invention would not have been abandoned had it been tenable.

cepting this application to parliament, (which does not go upon the grounds of his patent being good,) by abandoning it on account of his own fault, and desiring favour and bounty there, he relinquishes the patent for three years and a half.

Defence of the patentee on the specification.

" This is the evidence upon the part of the prosecutor *against the specification*, and it is material to see a little how the defendant's counsel endeavour to support it. Here is a specification, that states ten different instruments; it is admitted by them, that as to No. 8, it is of no use, and never was made use of by the defendant in his machine. It is also admitted, No. 9 stands exactly in the same situation, as

If a fair discovery be intended, useless particulars will not be intruded into the specification.

this could not be put into the machine. This is a little extraordinary; for, if he meant to make a fair discovery, why load it thus with things that they make no use of, and which are totally unnecessary? That could answer no purpose but to perplex. But, say the counsel, we will shew you that there were two machines, and they were two distinct things; for, say they, Nos. 3, 4, and 5, are the material parts of one machine, and those alone afford all the information ne-

If two machines be intended this intention must be stated in the specification.

cessary. Then, besides that, there is the roving machine, which consists of Nos. 6, 7, and 10, joined together. If that be the truth of the case, and there are to be two distinct machines to be made up by parts only of the instrument specified in this plan, let us see whether it is so said in the specification. There is not a word of it.

it. It begins with the first, or No. 1, which is a breaker or beater of seeds and husks, and a finer of the flax, hemp, and other articles, which are to be prepared for dressing. Then says the counsel, there was a difference as to those things, because the hammer was proper for the hemp, and not proper for wool. If there be that difference, it was necessary for the defendant to state it in his specification; but he has made no distinction, he has left to those who are to learn his art and secret, to use the same machine for every part of it; he has not distinguished between the cotton and the flax: the specification states, that it is proper for every thing. Is it so? It is admitted it is not. Is there any thing which states that these parts are for two machines, and how they are composed? *That* the specification is totally silent about. What is there in the specification that can lead you to say you must make use of three things for one of the machines, and three for the other, and which three for one or the other? And even were it so, what is to become of the other four? If those are of no use but to be thrown in merely to puzzle, I have no difficulty to say, upon that ground alone, the patent is void; for it is not that fair, full, true discovery which the public have a right to demand from an individual, who, under the sanction of parliament, gets so great a reward as a monopoly for fourteen years together.

If articles are thrown into the specification merely to puzzle, the patent is void.

" However, upon the part of the defendant, they

they have called several witnesses, to shew you it is perfectly intelligible, and that they can make the machines from this specification. The first is *Richard Priddon*, he, you observe, is partner with the defendant's son, and the defendant's son does actually work this machine; says he, No. 3 is the feeder described by the patent, and that was not in use before to his knowledge; he can only speak to his knowledge: says he, No. 6 are the rollers, with these the cotton is sized and roved, this is done with less labour than before, and better, because the lengths are longer.

"The next is *Charles Wilkinson*; he says he lived at *Nottingham*, kept an academy, that he was applied to by Mr. *Arkwright* to draw the specification; that he had no directions from the defendant to make it obscure, and he did it to the best of his skill; he had seen the old machine before; he thinks from this specification alone it might be made; he is not acquainted with the cotton business, but the essential parts are described; but he says, he looks upon the rollers to be the essential parts of the old machine; as to the roving box and the crank, he took them from a model of part of the machine, and all the rest from the defendant's description; as to a scale, he says a thing drawn in perspective does not admit of a scale; when you draw sections, it is necessary, he thinks it is necessary, to have a scale to shew the different proportions of the rollers.

"Now

" Now you see this man took his information, or a great deal of it, from the defendant himself; and supposing it true that he or any other person instructed by the defendant, and having seen what he does, can make a machine from the specification; yet that will never support it, unless other people, from the specification itself, who have any knowledge in the business, can also do it. That is not the case with this man; but the last thing he says is also a material thing against the patent; for he says, for different purposes, different proportions of the rollers are necessary. How is any man to find that out? It is not said in the specification it must be different in one case from the other, and that you are to have different rollers for hemp, or for cotton; all this remains to be the subject of a future discovery.

A stranger, without any information from the patentee, must, from the specification alone, be able to construct the machine, to support the patent.

The various proportions of the rollers for the different purposes of hemp and cotton, should have been stated in the specification.

" Mr. *Samuel Moore* says, he is well acquainted with mechanics, that he has been examined at both trials, that he never saw a cotton machine till a day or two before the first trial; he says, he has seen the old machine in use before; he says these are rather additions to the machine, than a whole and complete machine itself. Now you will observe what he says as to the making of it: 'I believe, with due attention to the old machine, and an accurate attention to the specification, I could direct a skilful artificer to make the machine.' This is all that a very ingenious sensible man can say of this specification; he has examined the instruments and

A knowledge of the old machine invented prior to Mr. Arkwright's, is necessary, in order to understand the specification.

and machine, and seen a great deal of it between the trials; and at last, he believes, with all the extreme caution that I have mentioned to you, that he could direct a skilful artificer to make the machine: he says, that as to No. 3, a piece of cloth, with cotton, or any other material that was to be carded, rolled up in it, would certainly move much better, and more steady with a roller within side, but it would do without it. If wanted, he thinks it would easily occur to a mechanic to put it in: that is, that a sensible man would have understanding enough to supply any defect in this specification: but in this case it proves the specification is insufficient: it will not do of itself, but wants something to be added: it is deficient, and there is nothing in the specification that imports there should be a roller in it.

The specification is insufficient, if a man of ingenuity be required to supply its defects.

"He says the crank is clear: as to No. 5, that it is intelligible to him; but, says he, if I was bound to proceed according to the form of the plan, I certainly could not direct a spiral cylinder.

"According to this account, how is the machine to be made? the question is, Whether that machine can be made hereafter, by persons that follow the trade, from this specification? The defendant uses a spiral cylinder; is that to be found out by the specification? Why, No! Mr. Moore says it cannot be done. The specification states, that there must be parallel fillets, and

It is necessary that the specification should be so explicit that from it alone an artificer should be able to construct a new machine.

and the defendant uses a spiral one: he admits it is so material to the case, that if it moved in a parallel form, it would choak the work; he says it does look as if it were intended to have a horizontal motion by the length of the spindle, but he admits there is no such description in the specification; he says, upon the former trial, the cotton was spread the whole breadth, and then it choaked; but now he sees it is put in fillets. There is no necessity for putting it the whole breadth of the cloth; he says he has read the verbal explanation, and it appears from the drawing and explanation that No. 6 is the section of the rollers.

"Now, it is admitted by the former witnesses, if there are sections of rollers, there ought to be a scale; and there is no scale, there is nothing in the plan to shew the different comparative velocity of the rollers, but there will be a difference, because the one is larger than the other in diameter.

"You see how that applies to this part of the evidence. There is nothing, says he, that shews what the difference of velocity should be; *that* remains for experiment hereafter. Is that the case with the defendant? No, he knew to a certainty what it was. The man that comes to give an account of the invention, says, I had calculated it, and the difference of the velocity was to be as five to one; this is the way I made my rollers: now the defendant has not said a word

The different velocities of the rollers, of five to one, should have been inserted in the specification.

of that in the specification; in that he has kept back the knowledge he had as to the size of the rollers and velocity, and it is left to people to find it out as chance may direct.

"He says, he understood pretty well what No. 7 was; but that was better explained by the machine itself. No. 10 he don't think is a difficult matter to account for, he says, that knowing the original machine, he could have put the machine together.

"He thinks now he could do it: but that does not apply to the question at all, if he means he could now do it from the four instruments, and the old machine, which the counsel have told you was all necessary to be understood, for that is not the thing described by this specification.

"Upon his cross examination, he says there is nothing in the specification which imports the cotton is to be laid on in fillets, *that* depends upon the rollers. As to the velocity of the rollers, that may or not depend upon their size; he says he is not a practical mechanic; he thinks there is no difference between the rollers of the first and last machines; he says, from the sections of the rollers, he could not determine what diameter the rollers should be for making any particular thread; he says, Nos. 6 and 9 are very much like the old machine; No. 2 is not used in this machine at all, he does not know what it alludes to; he thinks the can might do

without rollers, but much more ineffectually without the rollers: he thinks, upon the whole, it is sufficient for an intelligent mechanic now to make the machine by it.

"The next witness is Mr. *James Watt*; he says, having known the machine, and having the specification in his hand, he thinks he could make such a machine as this; but, when the specification was first put into his hand, he was told No. 1 and No. 2 were not used in the cotton manufactory. Then this man did not act in the same way the others did that were called for the prosecutor; because he had other knowledge conveyed to him more than he could collect from the specification. He did not immediately conceive what was meant by No. 5; he was not acquainted with the term fillet cards; upon reading the specification he did not conceive there was the old machine in it; he, by his own account, was misled, and formed a different idea of the specification and plan from what the defendant used. He says No. 3 would do without a roller, but if it was necessary, there could be nothing so common as putting in a roller; that it must occur to any man of common sense; from the plan he had not an idea the cotton was to be put in fillets; as to No. 2, he should have conceived *that* a separate machine; he admits the hammer, No. 1, is not a new invention, and that the rollers used in the roving and spinning machine perform the same thing; he says, there

is not a word about the wheels to turn the rollers; he says, to effectuate the different purposes, they must be of different diameters, or the same if they are differently moved by the wheels.

"The next witness is *John Stead*; he says he has seen the specification and the old carding machine, and knowing that, he believes he could make this machine from the specification; that he has done part from the drawing, that what he did was to try experiments; says he, my object was to make the new machine, but to avoid his patent. He has no doubt but he could have made the whole; he said it was necessary to find out something that might be clear of the patent, and what he made was by substituting different things, meaning to make a machine that might not come under the description of the patent; he says the specification so describes it, that he has no doubt whatever of making it. He says the roller in the feeder does not appear, but the purpose may be answered without; he has seen a mill which he was informed was built under the patent, and that is with a roller. The spiral card does not appear. As to the rollers, he says there must be a different velocity, but what that might be he cannot tell; and he believes no one set of rollers, of different diameters, could be ascertained for all sorts of work; he says the size of the rollers is not specified, and they could not specify that, because there must be different rollers for different sorts of work.

"Then,

"Then, according to his account, the defendant has not stated that which was necessary for any one thing. It is not so stated as to enable the person that reads that specification to know what size they are to be for any one thing to which this patent relates.

The diameter of the rollers is not stated for any one purpose to which the patent relates.

"The next witness is *Thomas Wood*, who was partner with *Pilkington*: he says he has examined the specification; he put No. 4, 5, 6 and 7 together, and that machine he has worked ever since; he don't recollect that the defendant used any thing else. If that be true, it will blow up the patent at once.; he says he believes nobody that ever practised would find any thing necessary upon this paper, but the No. 4, 5, 6 and 7; he should look after no others.

The inutility of six out of ten articles in the specification, must blow up the patent at once.

"Now, if four things only were necessary instead of ten, the specification does not contain a good account of the invention. As to the can, he made use of it without rollers at the mouth; he thinks it answers just the same without it.

"*William Allen* says, *Stead* furnished him with the specification and drawing a fortnight before the last trial, and desired him to make a model from the drawing and specification, which he did, which answered much the same for carding and roving; but, says he, I had another friend I talked to, that was one *Whit-*

more; he says the specification is competent to enable a workman to complete the machine; he says it occurred to him they were moveable rollers which were described to him as No. 6; he says, in order to procure different degrees of fineness in the roving that passed between those rollers, it is necessary there should be different degrees of velocity.

"*William Whitmore* has made models of machines for different purposes, He has seen the drawing and the specification. *Stead* shewed it to him, that he undertook to make the machine for carding, that he had not even the knowledge of the old machine at first. He says, the defendant employed him to make a model, and that *Allen* saw his model before his own was finished; says he, I had two or three hours conversation with the defendant after I had begun the model. I had a description of the old machine, but I think I could have done it without.

"The next witness is Dr. *Darwin*; he says he had seen the machine previous to the drawings; he thinks he might have made it from them; he says the want of a scale was not very material, but it would have been worse if they had been intended for different purposes; he says the rollers must have been of different diameters for different purposes.

"*John*

"*John Hagget* tells you he has known the defendant fourteen years; he says he has seen the specification, he thinks it is a sufficient description for a person acquainted with the old one to form a new one; that he was employed by Mr. *Arkwright* from the first beginning of these new machines, and trying experiments; that he gave him directions sometimes with chalk upon a board, and sometimes by crooking of lead and wire as models; he says he don't remember hearing him say he received instructions from any body else.

"Then *Thomas Bell*, a joiner, is called; he was concerned for the defendant about five years, in making parts of the machine that were invented from time to time; he says the crank, No. 4, he had never known to be used by any person before the defendant.

"This is the evidence that relates to the specification upon the one side and the other. You see, upon the part of the prosecution, they have called to you very ingenious men, that seem to be much beyond what are called common mechanics in life; they have all told you it is impossible for them to make the machine according to the specification. General observations on the evidence.

"Upon the other hand, several respectable people are called upon the part of the defendant, who say they could do it; but there is difference in their description; most, if not every one of them,

them, have looked at and seen how the machines were worked by the defendant, and have got their knowledge by other means, and not from the specification and plan alone. Besides, they admit the manner the defendant works it, is not consistent with the plan laid down, particularly as to the cylinder, a particular part of the business; for *Moore* says, this upon the face of it must be taken to be a parallel, whereas that which plainly appears to be used is a spiral; besides, after all this, they have spoken most of them in a very doubtful way; particularly Mr. *Moore*, who qualified his expression in the way which I have stated to you; and the others qualifying their expressions, saying, they think, upon the whole, they could do it. Suppose it perfectly clear they could, with the subsequent knowledge they had acquired, yet if it be true, that sensible men that knew something of this particular business, and mechanics in general, cannot do it, it is not so described as is sufficient to support this patent. It will be for you to say, upon this part of the case, whether you are satisfied this specification is such as, with the plan, it may be made from it or not, taking the whole machine in to its assistance, which, by the by, the specification has not taken notice of as known. If you think it is not sufficiently described, that alone puts a complete end to this cause, and then it will be unnecessary to trouble you any further.

If sensible men that know something of the business, and mechanics in general, cannot understand the thing invented, it is not so described as to support the patent.

"As

"As to No. 8 and 9, it is admitted those are entirely out of the cause, and may be used, says the counsel for the defendant, instead of No. 7.

"The question they make is, the specification does not import that No. 8 or 9 was necessary to be used, and because No. 10 is to be fixed to No. 6 to work No. 7, 8, or 9. Now the words of the specification are these: 'No. 8 is a machine for twisting the contents of No. 6, in which (d d) is a frame of iron; (b) a roller, upon which a bobbin is fixed; this is turned the same as No. 7, that is, by a dead pulley, or wheel fixed to a wooden frame at (G). Then No. 9 is a spindle and flyer fixed to No. 6, for twisting the contents from (b) in No 6. (a) is a pulley under the bobbin, which hath a communication by a band to No. 10 at (d d), it being a conical or regulating wheel, which moves the bobbin quicker or slower, as required.' This is the account given of those two, namely, that nothing imports to be used with No. 7, but, on the contrary, that was to be used instead of them; therefore you may take any one of these things, and it will do.

Recital from the specification.

Inutility of certain articles in the specification.

"The first question is, Whether that is the fair construction of this specification? Suppose it was so, it is perfectly clear the defendant has never used either of them, and some of the witnesses tell you they cannot use them at all.

Any redundance designedly introduced into the specification, to render it obscure, will vacate the patent.

One

One tells you they cannot be used, and therefore it is a little unfortunate they got into this specification, if nothing more was meant than to make a fair discovery of what was useful; but in this manner the description is given."

The jury, without a minute's hesitation, brought in their verdict for the crown.

SECT. II.

What is the Form of the Specification?

THE instrument containing the description must be under the hand and seal of the inventor, and must be accompanied with a drawing or design whenever verbal explanations are insufficient clearly to expose the subject of the invention.

The specification must be under the hand and seal of the inventor.

The following is the established form, which must be acknowledged before a Master in Chancery:

Form of the specification.

"To all to whom these presents shall come, I, A B, of C, in the county of D, hat-manufacturer, do send, greeting. Whereas his most excellent Majesty King George the Third, by his letters patent, under the great seal of Great Britain, bearing date at Westminster, the twelfth day of April, in the forty-third year of his reign, did give and grant unto me, the said A B, my executors, administrators, and assigns, his special licence, full power, sole privilege, and authority, that I, the said A B, my executors, administrators, and assigns, during the term of years therein expressed, should and lawfully might make, use, exercise, and vend, within England, Wales, and the town of Berwick-upon-Tweed, my new-invented material

Recital of the grant in the patent.

material article in the making of hats; in which letters patent there is contained a proviso, obliging me the said A B, under my hand and seal, to cause a particular description of the nature of my said invention, and in what manner the same is to be performed, to be enrolled in his Majesty's High Court of Chancery within one calendar month next and immediately after the date of the said recited letters patent, as in and by the same (relation being thereunto had) may more fully and at large appear. Now know ye, that in compliance with the said proviso, I, the said A B, do hereby declare, that my said invention is the hair of or from the kid's skin or kid's hair, which, if taken off the skin with lime, must be washed in water, or beat to free it from the lime; but if taken off the skin by stoving, or without lime, then the washing or beating will be unnecessary. After the same is dried in the air or upon the kiln, the hair may be mixed with wool, and made into hats, or made into hats without the aid of any other article; the same process of manufacture being pursued as is usual in the manufacturing of hats commonly called felt hats. In witness whereof I, the said A B, have hereunto set my hand and seal, the tenth day of May, in the year of our Lord one thousand eight hundred and three.

Also of the proviso therein for the description of the invention, and its enrolment, to give validity to the patent.

The description so required.

Hand and seal.

(Signed) "A. B."

SECT. III.

What is necessary for the Enrolment of the Specification.

AN instrument in writing, describing the invention, is to be enrolled in the High Court of Chancery within one calendar month next and immediately after the date of the letters patent, otherwise they are to be void.

The enrolment is an official duty, which is in course performed on the specification being presented at the repository of the court.

The enrolment of the specification is considered of great importance to the public; and if the patentee have passed over the time for the enrolment, it cannot be enlarged without an act of parliament for that express purpose.

In the case, ex parte Hoops, the petition was presented by the patentee of an invention of making paper of straw, and the object of it was, that the Lord Chancellor would dispense with the enrolment, or that some precautions should be taken to prevent the specification from being made public, suggesting the danger that foreigners might obtain copies of the specification in consequence of such enrolment.

Ex parte Hoops. Vesey's rep. Chan. vol. 6. 599. 1802. Jan. 22. Enrolment of a patent cannot be dispensed with for the purpose of preventing the specification being made public.

After a patent has passed, the time for enrolment cannot be enlarged without an act of parliament.

Lord Eldon, C. How can I do this? Either upon this or some other case in the last session a clause for this purpose was inserted in an act of parliament; and upon the motion of Lord *Thurlow*, upon reasons applying not only to that but to all cases, and seconded by Lord Rosslyn, the clause was universally rejected, and rejected as it appears to me, upon very substantial grounds, in which I readily concur. As to the worth of the apprehension suggested, a man has nothing more to do than to pirate your invention in a single instance, and he will then force you to bring an action, and then the specification must be produced.

The specification is for the use of all the King's subjects.

But with regard to the King's subjects a very strong objection occurs, which makes it necessary that the specification should be capable of being produced. They have a right to apply to the Patent Office to see the specification, that they may not throw away their time and labour, perhaps at a great expence, upon an invention, upon which the patentee might afterwards come with his specification, alledging an infriugement of his patent, when if those persons had seen the specification, they never would have engaged in their project. The enrolment is therefore for the benefit of the public.

It was then desired that the time, which would expire on the 17th of the next month, might be enlarged, in order that the petitioner might apply to parliament.

Lord

Lord Eldon, C. I cannot do that if the patent has passed; for the patent is void, if the proviso is not complied with. You should have applied to the Attorney General before the patent passed, for a longer time upon the special circumstances. I cannot take the Great Seal from a patent, and repeal it in the most essential point: it is a legal grant, with a proviso for the benefit of all the King's subjects. You can do nothing, except by an act of parliament to eularge the time mentioned in the proviso."

The patent is void if the proviso be not complied with.

The patent is a legal grant, with a proviso for the public benefit.

The petition was dismissed.

CHAPTER THE ELEVENTH.

On the Infringement, Repeal, and Surrender of a Patent.

Buller's N.P. 62. Action lies for infringement of a patent.

"IF the King grant a patent for the sole use of any invention, and the patent be good in law, an action lies against any person for infringing it.

If an action be brought, the patentee must shew that the invention be new, and that the specification be good.

"If the action is brought by the patentee, it is incumbent on him to shew, 1st, That the invention was new; 2dly, That the specification is full and complete; that is, such as that the public, after the term of the patent is expired, may have the benefit, and be able to do without further instructions, the thing for which the patent is granted."

Hale, 1. Vent. 222. If a grant by letters patent be pleaded, it ought to be stated under what seal.

4 Inst. 88. R. 2 Rol. 191. l. 20. If the King undertake to grant a thing not capable of being granted, he, *Jure Regio*, for the promotion of justice, may have a *Scire facias* for repealing his own grant; but if the patent be void in itself, *Non concessit* may be pleaded to it, without a *Scire facias* to repeal it.

If

If a grant be founded upon a false suggestion, the King, *Jure Regio*, may have a *Scire facias* for repealing it *.

4 Inst. 88. 2 Rol. 191. l. 35.

If the King grant, by his letters patent, the same thing to several persons, a *Scire facias* lies for repealing the last patent; in such a case, the *Scire facias* is to be brought by the first patentee. A *Scire facias* for the last patentee shall not be allowed, though he seem to have the right with him.

4 Inst. 88. Dy. 197. b. 198. a. Adm. Dy. 133. b. 2 Rol. 191. b. 50. Cont. 39 H. 6. 33. R. Dy. 276. b. 277. a.

A *Scire facias* is not necessary, where the cause of forfeiture appears by office or other record, for then the King may oust the patentee without such writ. If the King grant by patent to A, and afterwards by a second patent grant another thing to B, who by colour of it ousts A, where in truth A had not a grant for the same thing, he shall not have a *Scire facias*, but an assise.

R. 9 Co. 95. 96. 2 Rol. 191. l. 10.

2 Rol. 192. l. 12.

A *Scire facias* for repealing a patent may be sued in Chancery. If a *Scire facias* out of the petty bag is returnable, *coram nobis in Cancellariâ nostrâ in Octab, &c. ubicunque tunc fuerit*, it is good, without being limited, *ubicunque in Angliâ.*

In what courts the *Scire facias* lies. 4 Inst. 79. 88. Dy. 197. b. 3. Lev. 220. Rex. v. Harc. H. 5 G. Str. 146.

* See the case of a market, to the injury *(ad Nocumentum)* of another market, R. 3 Lev. 221; yet a writ *Ad Quod Damnum* was executed before the patent passed, which found it not *ad Nocumentum*. R. 2 Vent. 344.

4 Inst. 72. A *Scire facias* for repealing a patent may also be brought in the King's Bench. If it be re-
Mod. Ca. 229. turnable there, the King's Bench alone hath jurisdiction to examine the irregularity of the issuing return, &c.

In what manner to be sued. A *Scire facias* ought to be founded upon some record, and therefore a *Scire facias* to repeal a patent ought either to be in Chancery, where
R. 3. Lev. 222. the patent is upon record, or in a court, where
Semb. Mod. ca. 229. a forfeiture, or other cause of repeal, appears by office or other matter upon record in the same
R. 3. Lev. 223. court. The patent is a sufficient record upon which a *Scire facias* may be founded for repealing it. An inquisition, which finds a patent and a cause of forfeiture, is an adequate ground
R. 3. Lev. 222. for a *Scire facias*. A *Scire facias* is sufficient, if it alledge matter by *datum est nobis intelligi quod*, &c. for that is sufficient to put the party
Dy. 198. b. to an answer. If a *Scire facias* be by a former patentee, the cause of forfeiture need not be mentioned in the writ.

Pleas to a *Scire facias*, and judgment upon confession, or by default.
Dy. 197. b.
Dy. 197. b.
2 Rol. 192. b. 20. 25.
3 Lev. 221. If the defendant in a *Scire facias* can say nothing for maintaining the patent, judgment may be for annulling the patent upon his confession. Judgment will be in the same manner, if the defendant, being returned warned, makes default. The defendant may demur upon a *Scire facias*, if the matter alledged be not sufficient
Rex v. Eyre, H. 3. G. Str. 43. for the repeal of the patent. That the grant, (without mentioning the user) is to the prejudice of, &c. is a good issue.

The

The judgment in a *Scire facias* for repealing a patent, is, *Quod Literæ patentes Domini Regis revocentur, cancellentur, evacuentur et adnihilentur, et vacuæ invalidæ et pro nullo penitus habeantur, ac quod Irrotulamentum eorum cancelletur cassetur et adnihiletur.* The *Scire facias* is the last stage the law admits, the event of which in the nature of it is final. 4 Inst. 88. Dy. 197. b.

If a patent be delivered to be cancelled, and there is no actual surrendering, cancelling, or *vacatur* entered of the enrolment of the patent, it is not sufficient. Surrender of a patent. Semb. Lane 14.

If a person surrender his patent, and it be cancelled, and a note of it be indorsed, and afterwards the surrender enrolled, the patent is vacated. After the *vacatur* is entered upon the roll, a *constat* of it is not to be granted. Dy. 167. a. Dy. 167. a. in Marg.

If a patent be to two persons, and the chancellor make a duplicate, and deliver the original to one, and the duplicate to the other, a surrender of the original patent is sufficient, though the duplicate be not surrendered or cancelled; for the duplicate was made by the chancellor without warrant. A surrender, and cancelling with an indorsement of it, is not sufficient, if the surrender be not enrolled. Nor is a surrender to a master in chancery out of court, which was accepted by him and enrolled, sufficient, without delivery of the patent to be cancelled. R. Dy. 179. b. Dy. 167. a. 195. a. Semb. Dy. [illegible].

King v. Arkwright, by Sci. fa. 1785.

On the 25th June 1785, the cause by writ of *Scire facias*, was heard in the case of the King v. Arkwright, in the Court of King's Bench, before Mr. J. Buller, when the jury found a verdict for the crown. On the 10th of November, the same year, the court was moved for a rule to shew cause why a new trial should not be granted, on the ground of want of preparation with the competent evidence with which the defendant was afterwards provided. On this occasion the subsequent observations were made by the court.

Motion for a new trial.

The defence wholly unsupported.

Buller, J. (Interlocutory matter.) It appeared to me, after we had been four or five hours in the cause, the defendant *had not a leg to stand upon.* I thought it a point of duty and decency in me, in such a cause, and of that consequence, and where it had been tried before two respectable judges, who held a difference in sentiment, that I should hear it fully out.

Earl of Mansfield, C.J. It is very clear to me, upon your (the counsel's) shewing there is no colour for the rule. The ground of it is, if there is another trial, you may have more evidence. There is no surprise stated, no new discovery, but upon the material points in question you can give more evidence. There were two questions to be tried, that is the specification and the originality of the invention. There has been one trial in this court, another trial in the

Common

Common Pleas, where this patent has been questioned; and this proceeding is brought finally to conclude the matter; for it is a *Scire facias* to repeal the letters patent. The questions to be tried are stated upon record: there is not a child but must know they were to try the questions there stated; they come prepared to try them, they have tried them, and a verdict has been found which is satisfactory to the judge; and now you desire to try the cause again only that you may bring more evidence. There is not a colour for it.

The rule was refused; and four days after this application, the Court of King's Bench gave judgment to cancel the letters patent.

Rule refused. Judgment given.

The patent to Boulton and Watt was granted for the improvement of a steam engine, or an improved steam engine. On the infringement Mr. Justice Rooke remarked (p. 480): "I consider the most essential part of the patent, the keeping the cylinder hot, inclosing it in a case, and surrounding it with steam, as carried into practical effect at the time of granting the patent; this the defendant has infringed."

Boulton & Watt v. Bull, Bl. Rep. 1795.

On the 23d Dec. 1802, before Lord Ellenborough and a special jury, a trial was had for the alledged infringement of Tennant's patent for a bleaching liquor.

A patentee cannot maintain an action for the infringement of the royal grant, unless he can support the validity of his patent.

Lord Ellenborough, in his charge to the jury, declared this to be a scandalous patent, and equally unfounded in law and justice. From what he had seen when Attorney General, he said, he knew there were shameful abuses in patents, and his Lordship took this opportunity of hinting that some remedy was necessary to be applied.

The abuse of Patents requires some remedy.

Patentee nonsuited, because the invention was not new, and he not the sole inventor.

The plaintiff was nonsuited on two grounds; 1st. That the process had been used five or six years anterior to the date of the patent, and therefore was not a new invention; 2dly, That a chemist at Glasgow suggested to Mr. Tennant the agitation of the lime water, which was indispensable in the process, and therefore that it was not the invention of the patentee.

CHAPTER THE TWELFTH.

Some Matters incidentally connected with the Patentee

A ALLEDGED that he had a right to a certain patent machine, and having covenanted with B that he (B) should use it in a particular manner, B, on his part, covenanted to use it accordingly. In an action by A on such a covenant, B is not estopped from pleading in bar of the action that the invention was not new, or that A was not the inventor, but he may shew that the patent was invalid, and that on that account he had received no consideration.

Hayne v. Maltby. M. 30. G. 3. T.R. 438.

Yet if an action be brought by the assignee of a patentee against the patentee himself, the latter will not be permitted to shew, in the face of his own oath and deed, that it was not a new invention.

Oldham v. Langmead. Sittings after Trin. 1789, cor. Ld. Kenyon, 3 T.R. 439 and 441.

On the case, ex parte, O'Reilly, it appeared a patent even in fee could not stand if abused; but a doubt arose if a patent could be the subject of a trust.

Ex parte, O'Reilly, April 1790. 1 Ves. jun. 118 & 129.

An act passed in 1782, directs that any person actually possessed of a patent for a new invention, or a prolongation thereof by act of parliament, and having contracted with government

Contracts of Patentees with Government how dissolved.

vernment concerning the object of the said patent before the passing of this act, shall give notice of his intention to dissolve the said contract; and the same shall be null and void from the time of giving such notice.

CHAPTER THE THIRTEENTH.

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

IN a preceding chapter we have entered on the manner of passing a patent, as founded on the 27th H. 8. c. 11*; the present shall be devoted to some observations of a practical kind, which will, we presume, considerably facilitate the candidate for a patent, in acquiring the knowledge by which he is to obtain his object.

In the case, Ex parte O'Reilly, in Chancery, the court refused to seal a patent for representing Italian operas, because the provisions for carrying it on were by agreement with the Lord Chamberlain, his executors and administrators, and the right to the patent was not sufficiently connected with the property in the house. Ex parte, O'Reilly, April 1790. 1 Ves. Jun. 112.

It is not sufficient for the party applying merely to answer objections, but he must lay a proper case. Ibid.

On such application the court will take care that the King is not deceived, nor his object dis- Ibid.

* See Chap. 5. page 51 and 52.

disappointed, and will represent the whole to the King, but will not decide on the merits of various claimants.

Ibid. 128. The courts will not sign a patent, which does not put the parties under some controul, though there be no caveat.

Caveat. It is a precaution frequently taken by inventors, to deliver a caveat * at the chambers of the Attorney and Solicitor General, that the object of their labours may not be disappointed by anticipation. This caveat is useful for one year, after which, if the inventor have not brought his contrivance to maturity, he may renew it again for an equal period, and so forward for any successive number of years.

The caveat is not wholly unknown in our legal forms in the ecclesiastical courts, but is not always treated with respect in the temporal courts. In the former it is employed to stay certain proceedings; and an institution after a caveat entered, is void by the ecclesiastical law. From hence, by analogy, it has been considered with respect to the practice in patents, as sufficient to prevent a patent being taken out for the particular discovery or invention to which such caveat refers. This prejudice, however, has arisen with persons not acquainted with the forms and

1 Burn, 207.

duties

* See the form of the Caveat, Appendix M.

duties regarded in the public offices, and the expression in the caveat itself shews that its object is to obtain information of the intention of any person to take out a patent for a similar discovery. The caveat is deposited at the chambers of the Attorney and Solicitor General, and it is the rule of office, that if an application be made for a patent for an invention of the same nature, notice is given to the person who has taken the precaution to enter the caveat. If no such notice be received, it may be concluded that no attempt has been made to procure a patent for the object to which the caveat refers.

It will be seen in the concise form we have given of the caveat, that the discovery is expressed in very general terms, "*for any improvement in the steam engine.*" It is prudent to employ in this document these general expressions, in preference to the more contracted form, identifying the particular improvement; because in such a case notice would not be communicated for an invention, nearly allied to that comprized within the terms of the caveat, of which however it might be extremely material for the inventor, who enters the caveat, to be informed.

What is expedient to be done in the event of receiving notice, is the next consideration.

Should the party, entering the caveat, regular-

it, the Attorney General gives a separate audience to each of the rival inventors, and having listened to all they have to offer on the priority of the invention, and having examined the coincidence of the discovery, he makes his report to the King, according to his opinion of such priority, and the patent is granted agreeably to the prayer of that report*.

The opinion of the Attorney General may be well or ill founded. If ill founded, the party who is justly entitled to the King's grant, has a remedy to prevent the validity of the patent of the other party, should he consider that his social duties required its application; and as the public good may be sometimes promoted by it, we shall not hesitate to explain it. The reader is not now to be informed that if an invention be published before a patent be sealed, the patent is void. The inventor, thus aggrieved, therefore has only to publish the invention at any time (even the day) before the sealing of the patent, when the whole transaction will be nugatory, and the discovery will be thrown open for the general advantage. The publisher should, in such a case, particularly examine that he is not actuated by personal malice, and

that

* On a late occasion, when a dispute arose between two parties respecting the priority of the invention of an improvement on carriages, to prevent litigation, the Chancellor himself, in his private room at Westminster Hall, examined the models, and heard the pretensions of the suitors for the royal grant.

that he is not depriving ingenuity of its fair and honourable remuneration.

But we have chiefly suggested this to serve as a caution to the person intending to avail himself of the patent privilege, that he may not indiscreetly communicate his discovery to improper persons, for he will see how easy it would be for an ill-disposed individual to defeat his purposes, by abusing his confidence, and proclaiming his invention.

Petition. The petition is the next step preparatory to taking out a patent: it states the nature of the invention, and prays his majesty to grant his royal letters patent for the sole use of the invention for the term of fourteen years *.

Oath. This petition must be accompanied by an oath, taken before a Master in Chancery, which declares that the invention is new, and has not been practised to the best of the knowledge and belief of the inventor †.

In the form of the petition we have given, we have made the prayer reach only to the exclusive use of the invention in the united kingdom of Great Britain and Ireland, called England, the dominion of Wales, and Town of Berwick upon Tweed; but the petitioner may extend his application further, by adding the words,

* See the form of the Petition, Appendix N.

† See the form of the Oath, Appendix O.

words, and in all your Majesty's colonies and plantations abroad, which however is attended with the additional expence of five pounds sterling.

Report

On the receipt of this petition and oath by the Secretary of State, application is made to the Attorney General to report his opinion upon it *. This report is accordingly made to his Majesty, under the authority just referred to; and it states that a communication has been made by a principal Secretary of State; it recites the general expressions of the petition and of the oath; and it recommends, at the hazard of the petitioner, whether the invention be new or successful, that the royal letters patent be granted to him, he causing a particular description of his invention to be enrolled in Chancery.

Warrant.

His Majesty being thus informed through the proper officers, issues his warrant under the sign

Bill.

manual, in consequence of which the bill is made out, which is the grant of his Ma-

Patent.

jesty, and of this the patent is the transcript †. Nothing more remains for the patentee to perform (for so we may now call him) but correct-

Specification

ly to describe his invention, and to procure the enrolment of such description, which we have minutely explained in our preceding chapter on the specification.

These

* See the Report, Appendix P.

† See the Patent, ch. 6, p. 84, et infra.

These are all the documents with which the acquisition of the patent is concerned; and when these steps are regularly taken, the petitioner is completely invested with the privileges of the royal grant.

CHAPTER THE FOURTEENTH.

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

Most of the public records are preserved for the last 700 years.

Deficiencies under Stephen, Hen. 3, and the Wars of the Roses.

NOTWITHSTANDING the convulsions to which the country has been exposed from civil war, it is satisfactory to discover that the greater portion of the public records have been preserved from the time of that ancient register of William the Conqueror, Domes-day Book*, *Liber Judiciarius vel Censualis Anglie.* The principal deficiencies have arisen in the twelfth century, during the reign of Stephen; in the thirteenth, in the time of the third Henry; and from the termination of the Saxon line to the union of the families of York and Lancaster under Henry VII. comprizing a period of nearly two hundred years. No diligence that can be in future directed to this object is at all likely to supply the defalcation after the ineffectual exertions that have been recently made.

As

* This book was formerly kept under three different locks and keys; one in the custody of the treasurer, and the others of the two chamberlains of the exchequer. It is now deposited in the chapter house at Westminster, where it may be consulted, on paying to the proper officers a fee of 6s. 8d. for a search, and 4d. per line for a transcript.

As early as the reign of Edward III. these vouchers were considered the evidences of the people; and it is ordained that all the King's subjects shall have access to them. Statutes were passed for their protection from erasure, falsification, and embezzlement, in the 8th year of Richard II. and the 11th of Henry IV. Subsequently means were employed to preserve them in the successive reigns of Elizabeth, James, and Charles; but the internal commotions that shook the kingdom towards the middle of the 17th century, again threw every thing into confusion; the feeble attempts that were made to restore order soon after the Protectorate were unproductive, and the mischiefs were not completely retrieved until the time of Queen Anne, whose reign is not more celebrated for the exploits of Marlborough in military tactics, than for the compilation of the *Fœdera* of *Rymer* in political jurisprudence. This national Thesaurus is principally devoted to foreign transactions; but through the whole of that reign, and to the beginning of the time of George II. inclusive, much assiduity was applied in the collection and arrangement of the domestic records.

Records evidences of public right.

Rot. Parl. 46. E. 3 2 vol p. 314. Statutes passed to protect them.

8 R. 2. c. 4.

11 H 4. c. 3.

Attempts to preserve the records under Eliz. Ja. 1. and Ch. 1.

Rendered abortive in the 17th century.

Ayliff's Int. to the cal of ancient chrs p. 36.

Mischiefs redressed under Anne.

Importance of Rymer's Fœdera.

Domestic records arranged and collected under Anne, Geo. 1, and Geo. 2.

It will appear extraordinary that, from that period, nearly seventy years should have been permitted to elapse without any efforts being made to accelerate this design; but if the exertions have been postponed to the present time, they have been greater than at any former æra. The returns from the offices of public records,

Recent exertions to collect information on the state of the records.

in 1732, were only eighteen; those now produced are between three and four hundred. The committee appointed for the purpose prepared a catalogue of all the public repositories, and directed their applications to every officer whose duties were concerned in the care of these instruments *.

Cal. Rot. Pat. in Tur. Lond. printed in 1802.

In pursuance of an address of the House of Commons, during the last year, was printed the *Calendarium Rotulorum Patentium in Turri Londinensi*; and the authorities from which it is collected are MSS. procured in the year 1775, collated with two MSS. of the Cottonian library in the British Museum, marked Titus, C. II. and C. III.

Many omissions and deficiencies in the Tower copy have been supplied by that in the Museum, which is attributed to some capable clerk in the time of James I. who selected what appeared to him most material. The calendar we have referred to, though entitled to great merit, is given us with the caution, that being only a selection, various entries appear on the patent rolls which are not here described; therefore the diligent enquirer is not to be deterred from the examination of any record referred to elsewhere

* As many valuable papers, during the troublesome times to which we have referred, have fallen into private hands, it would have been desirable for the committee to have extended their researches to private collections.

where as being on the patent roll, because it is not to be discovered here.

The patent rolls in the Tower of London are in the fort, called Wakefield's Tower; they commence with the 3d year of John, and conclude with the 24th of the reign of Edward IV.

Rolls in the Tower from John to Edw. 4.

We have already said, that the patents for new inventions are enrolled in the Court of Chancery. They are under the direction of the Master of the Rolls, who is the chief clerk; in his custody are such enrolments and treaties as are not of high antiquity.

Patents for new inventions.

The repositories of the court, with which the patentee is principally concerned, are those distinguished under the names of the Chapel of the Rolls, the Petty Bag Office, and the Six Clerks' Office.

The offices through which they pass. Chapel of the Rolls. Petty Bag Office. Six Clerks Office.

In the Rolls Chapel the different classes of records are eighteen in number. The patent records begin with a small roll of Edward V. and are continued down to the 28th year of the reign of his present Majesty, or somewhat later. Upon these are enrolled all grants in fee or perpetuity of the demesne lands of the abbey, and escheat lands; all patents for creations of honour, grants of charters of incorporations and liberties, grants of offices, denizations, patents for new inventions, &c.

Rolls Chapel. Patent records therein from Ed. 5. to 28, Geo. 3.

The rolls annually made up.

These rolls are annually made up by the person appointed in rotation for the Riding Six Clerk, from the Privy Seals, or signed bills; from which also the patents and other instruments are engrossed, in order to be passed under the Great Seal by the several officers concerned. As soon as these enrolments are made, they are delivered by the Riding Six Clerk, (together with such intruments contained in the patent rolls as are estreated on rolls, called "Estreat Rolls," according to the statute of estreats;) and also the privy seals or signed bills, into the Petty Bag Office, in order to be examined by the senior clerk of the office, by whom the patent rolls, and the privy seals or signed bills are remitted into the Rolls Chapel, and the estreats into the Exchequer, where they are denominated the "Originalia of Chancery."

Statute of Estreats 16 Ed. 2.

Calendars of the instruments.

There are alphabetical calendars, or indexes of these instruments, in the Rolls Chapel, consisting of many folio volumes, which have been made yearly by the present clerk of the records, and the officers who have preceded him in that station. In these catalogues are given the names of the grantees, and refercnces to short abstracts, containing the date and general purport of the grants. The calendars have been found very correct; but as it often happens that persons requiring the inspection of grants are both ignorant of the time when the grant was made, and of the name of the grantee, calen-

dars of the names of places alphabetically arranged, referring immediately to the date and the name of the grantee, have been much wanted. The deficiency has been supplied by the executors of the late Henry Rooke, Esq. from whom five folio books, indexes to twenty-four others of the same size, have been procured *.

Additional calendars procured.

In the Petty Bag Office are sixteen distinctions of public records, among which are enrolments of specifications of patent inventions from the 8th of Queen Anne to the present time. These are put up with the surrender of offices during the same period, into seventy-three bundles, and are entered in a calendar, with an alphabetical index referring to each bundle. The persons who have the custody and arrangement of the records in this office are the three clerks of the Petty Bag, who jointly appoint an assistant, whose duty it is to arrange, take care of, and attend with the records when legally required during the office hours, from ten o'clock to two o'clock, and from five o'clock to eight o'clock in the evening, every day, holidays excepted. The clerks receive no remu-

Petty Bag Office contains enrolments of specifications of patent inventions.

Calendars referring to them.

Assistant of office to attend to them.

* The following are some of the fees payable at this office:

	£.	s.	d.
For search of the calendar each year, under each name	0	1	0
For taking down every roll	0	2	6
For taking out any instrument out of any bundle	0	6	8
For each sheet copied (close)	0	5	6
For certificate of being a true copy	0	2	0

remuneration for this duty excepting the appointed fees *.

Six Clerks Office. Records from Ch. 2. to Geo. 1. sent to the Tower.

From the Six Clerks' Office all the records, with a few exceptions, from the beginning of Charles II. to the first of George I. were sent to the Tower on the 16th of Oct. 1738, under a warrant from the Master of the Rolls; and some judgment may be formed of the extent of this clearance by the charge of 1000l. it incurred, and the period of six years it required to sort, clean, and arrange them. Notwithstanding the expence occasioned, and the time consumed, fifty-one more bundles were discovered afterwards, which were sent to the same place on the 23d of Oct. 1779.

Expence and time required for the arrangement.

Privy seals of the two last years of Geo. 3. with the Six Clerks.

Among other articles, the Six Clerks have in their care the privy seals, or signed bills of the two last years of his present Majesty, from which the grants, charters, &c. which have been passed under the great seal during that time were engrossed, in order that they may enrol them on the patent rolls, and make estreats from them.

Grants now enrolling.

Complete and correct alphabetical indexes are preserved.

There are complete and correct alphabetical calendars or indexes to each distinction of records

* The following are some of the fees:

	£.	s.	d.
Searching for a specification any number of years, and inspecting the same.....	0	1	0
Copying per folio, of seventy-two words, besides subpœna.....	0	0	8

cords under the care of the Six Clerks, whereby any record may be immediately referred to. The records in this office are sorted, bundled, and entered into a calendar at stated periods* .

Internal arrangement of the Rolls Chapel, and Six Clerks Office commended.

It is to the credit of the Rolls' Chapel and of the Six Clerks' Office, that the select committee of the House of Commons distinguished the internal arrangement of these two national repositories with its public approbation.

Petitions upon inventions in the State Paper Office.

The petitions upon inventions from 1685 to 1767 are deposited in the Old State Paper Office, Whitehall.

Patent Rolls in the Chapter House.

The situation and present condition of the buildings where the patent records are deposited.

Wakefield's Tower.

The patent rolls under John, Ed. 2, and Hen. 6, are in the receipt of the Exchequer at the Chapter House of Westminster Abbey. This venerable structure, and the Tower of London, are the only general repositories of records in the kingdom. Wakefield Tower, where the patent records are kept, incloses a magnificent apartment of an octagon form, the walls of which are ten feet thick, and the height nearly twenty-four. Under the direction of Sir William Chambers, the roofing was plated with iron, and a door of iron was substituted for

* Certain fees of the Six Clerks' Office:

	£.	s.	d.
Search of every record transmitted into the Record Office.:	0	1	0
Copies of record, in dormant cases, per sheet, ...	0	0	8
Attendance on persons desiring the perusal of any record	0	6	8

the old wooden door; so that it may be considered secure from fire and other accidents.

Rolls Chapel. The Rolls Chapel is in Chancery-lane, and appears fit to receive the records; they are of easy access, and are placed in presses somewhat removed from the walls.

Petty Bag Office. The records of the Petty Bag Office are in the Rolls yard; the building is detached from the surrounding houses, and is deemed sufficiently substantial, and well adapted to the purpose to which it is applied.

Six Clerks Office. The splendid edifice of the Six Clerks Office stands on a portion of the ancient garden ground of Lincoln's Inn. The Record Room was planned expressly for the use to which it is devoted, and after the experience of nearly four-and-twenty years, it has been found completely to answer the original design.

Commissioners to make an annual report on the public muniments. It will have been seen with satisfaction by every friend of order, that the superintendance over the public muniments of the kingdom, appointed the 19th of July 1800, was a permanent duty, on the progress of which the commissioners are directed to make an annual report to the King in privy council.

APPENDIX.

NOTE A. Chap. II. p. 14.

Principal Laws respecting the Freedom and Restriction of Trade.

ALL merchants, unless expressly prohibited, may have safe and secure conduct either to leave England, or to enter England; to stay in one place, or to travel through the country, by land or water, to buy or sell. St. M. Ch. 9; H. 3. c. 30.

Confirmed by 2 Ed. 3. c. 9.

The sea shall be *open to* all *merchants, to* pass where they please. 2 Ed. 3. c. 9.

All merchants, strangers not at enmity, may safely come and dwell in the realm, where they will; and from thence return with their ships, wares, &c.; and may freely sell, &c. paying the customs due. 27 Ed. 3. c. 2.

Confirmed by 14 Ed. 3. St. 2. 2.

All merchants, strangers, and denizens, or any other, may sell corn, &c. and every other thing vendible, to whom they please, foreigners or denizens, excepting the King's enemies; and any charter, proclamation, allowance, judgment, &c. to the contrary, shall be void. 9 Ed. 3. c. 1. 25 Ed. 3. c. 2.

Confirmed by 11 R. 2. c. 7.

5 R. 2. c. 1. All merchants, aliens, at amity with the king, may safely come within the realm, and in all cities, boroughs, &c.; abide with their goods as long as they please, without disturbance, and buy and sell, in gross and by parcels, to whom and of whom they please; and return, &c.

16 R. 2. c. 1. But as much as relates to selling by retail, was withdrawn, excepting victuals.

12 Car. 2. c. 18. s. 2. No alien, unless naturalized or made denizen, shall exercise the trade of a merchant, or factor, in any of the lands, islands, plantations belonging or which may belong to the king, or his successors, in Asia, Africa, or America, on pain of forfeiture of all his goods, &c.

11 Ed. 3. c. 3.
3 Ed. 4. c. 4.
1 R. 3. c. 12.
19 H. 7. c. 21.
25 H. 8. c. 9.
33 H. 8. c. 4.
5 Eliz. c. 7. By the statutes restraining importation of woollens, laces, ironmongery, cutlery, &c., it will be seen to what a considerable extent these limitations were carried before the conclusion of the sixteenth century.

3 Jac. 1. c. 6. All subjects of England may trade to and from Spain, Portugal, and France, paying their customs and duties; notwithstanding any incorporation, made by the king, to any, to have a sole trade there.

23 Geo. 2. c. 13. Any person soliciting, &c. any artificer, in any manufacture of Great Britain, or Ireland, to go abroad, forfeits 500l. and is to be imprisoned for one year: the second offence, double forfeiture and double imprisonment.

Note.—Persons exporting tools in the silk and woollen manufacture, forfeit the tools and 200 l.; Captain taking on board 100l.; Captain of king's ship 100 l. and cashiered; custom-house officer signing cocket 100 l. and forfeits his place.

NOTE

NOTE B. Chap. II. p. 15.

Fines relating to Trade or Merchandize.

Extracted from the History and Antiquities of the Exchequer, from the Norman Conquest to the End of the Reign of King Edward II. Taken from the Records. London Folio, 1711.

Many fines were made relating to trade or merchandize, with its incidents. The weavers of Oxford rendered a mark of gold for their gild (e). The Corvesers of Oxford rendered v ounces of gold, by way of gersome, to have again their gild (f).

Robert, son of Leuestan, rendered xvjl. for the weavers gild, in London (g).

The weavers of Lincoln fined in ij chascurs, that they might have their customs, (or rights), as the king commanded by his writs (h).

The weavers of Winchester fined in one mark of gold, by way of gersome, to have their customs and liberties,

(e). Telarij de Oxeneford r c de j marca auri, pro gilda sua: in thesauro vj l pro j marca auri, et quieti sunt. Mag. Rot. 5 Steph. Rot. 1. a.

(f). Corvesarij de Oxeneford r c de v uncijs auri de gersoma, pro gilda sua rehabenda; in thesauro xxx s. pro ij uncijs auri; et debent iij uncias auri. Ib. Rot. 1. a.

(g). Robertus filius Leuestani r c de xvj l, de gilda telariorum Londoniæ; in thesauro l, et Q. c. Ib. Rot. 15. a.

(h). Telarij Lincoliæ r c de ij fugatoribus, ut habeant consuetudines suas, sicut Rex præcipit per Brevia sua; in thesauro xls. pro ij fugatoribus, et Q. s. Ib. Rot. 12. a.

and the election of the alderman (of their gild). And the fullers of Winchester rendered vj l. for their gild (i).

Arnald, son of Mabel, was fined for leave to export corn to Norway (k). The burgesses of Glocester were fined that they might buy and sell in their guildhall, for the improvement of their burgh (l). Hugh Oisel and Adam his brother, fined in L marks, that they might buy and sell in England, without being charged with dismes and other dones, for two years. And Hugh Oisel fined in CCCC marks, for liberty to trade in England, and the king's other dominions; and to carry away his own merchandizes whithersoever he would, either in time of peace or war: provided that if he wrongfully owned any other man's goods, he should forfeit his own (m). Nigell de Havene, gave L marks for the partnership in merchandizes which he had with Gervase de Hanton (n). Walter de Leissebi and William de Cotes gave xviij l. de cremento, above the usual ferm, that they might have the toll and mills of Grimesbi, with the soke at ferm; they rendering L l. per annum in the whole, and repairing the mills when the same

(i). Telarij Wintoniæ debent j marcam auri de gersuma pro consuetudinibus et libertatibus suis habendis et pro eligendo aldermanno suo, et amodo dabunt ij marcas auri per annum; unde reddunt compotum inferius. Mag. Rot. 12. H 2. Rot. 8. a. Hantescira.

Telarij Wintoniæ r c de j marca auri de gersuma, et de j marca auri pro gilda sua, et de Lxs. de dimidio anno, in thesauro, xv l. in iij tallijs, et Q. s. Ib. Rot. 8. a. Civit. Wint.

Fullones Wintoniæ r c de vj l. pro gilda sua, in th. l. et Q. s. Ib. juxt.

(k). Ærn. filius Mabiliæ debet ij Girfalcones, pro licentia ducendi bladum in Norweiam. Mag. Rot. 27. H. 2. Rot. 6. a. Nordf. et Sudf.

(l). Burgenses de Gloecestria r c de ij s. ut possint emere et vendere in gildhalla sua, ad emendationem burgi; in th. l, et Q. s. Mag. Rot. 5. R. 1. Rot. 9. a.

(m) Hugo Oisel et Adam frater ejus [debent] L. marcas, ut possint emere et vendere in terra domini regis, sine decimis et alijs donis a proxima pascha post secundam coronationem domini regis in duos annos. Hugo Oisell [debet] CCCC marcas, pro licentia negociandi in Anglia et in alijs terris domini regis, et abducendi mercaturas suas proprias quocunq; voluerit, sive fuerit pax sive werra; ita quod si alterius res advocaverit, suas amittat. Sed ex hijs reddidit domino regi C marcas ultra mare; sicut rex testatur per literas suas archiepiscopo Cantuar. directas. Mag. Rot. 8. R. 1. Rot. 23. b. Londonia et Midd.

(n). Nigellus de Haverd [debet] L marcas, pro societate marcandisarum quam habuit cum Gervasio de Hantona. Mag. Rot. 9. R. 1. Rot. 2. a. Sussant. tit. De conventionibus per H. Cant. Archiepiscopum.

same wanted repairs: and that the merchants coming thither might safely pass and repass without disturbance, paying their quinzime: and that the said men of Grimesbi might safely pass and repass through the King's dominions with their merchandizes, under the right and ancient customs. And accordingly the sheriff was commanded to give them seisin of the said toll and mills, if he saw it to be for the king's profit (o). The men of Worcester fined in Cs. that they might buy and sell dyed cloth, as they were wont to do in the time of King Henry (p). And several other towns fined for the like: as Bedford (q). Beverley, and other towns in Yorkshire (r). Norwich (s). Huntingdon (t). Northampton (u). Gloccster (w). Nottingham (x). Newcastle

(o). Walterus de Leissebi et Willelmus de Cotes debent xviij l. de Cremento, pro habendis ad firmam tolneto et molendinis de Grimesbi cum soca sua, præter firmam quæ inde reddi prius consuevit; ita quod ipsi per totum reddent per annum L l. et ipsi ad custum suum molendina illa reparare faciant si reparatione indigeant; et per sic quod mercatores qui illuc venient salvo possint ire et redire sine impedimento, per xv partem dandi; et per sic quod prædicti homines de Grimesbi salvo possint ire et redire per terras regis in marcandisis suis per rectas et antiquas consuetudines. Et mandatum est vicecomiti, quod eis sine dilatione saisinam de prædictis tolneto et molendinis habere faciat, si viderit commodum esse regis. Mag. Rot. 6. J. Rot. 6. b. Linc.

(p). Homines Wigorniæ r c de C s. ut possint emere et vendere pannos tinctos, sicut solebant tempore Regis Henrici. Mag. Rot. 4. J. Rot. 2. a. Wircestrescira.

(q). Homines de Bedeford r c de iiij marcis, ut possint emere et vendere pannos tinctos, sicut solebant tempore Regis Henrici. Ib. Rot. 2. b.

(r). Ib. Rot. 4. b. Everwichscira.

(s). Homines de Norwiz [debent] C s. ut possint sine dampno emere et vendere pannos tinctos, sicut solebant tempore H. Regis. Ib. Rot. 8. b. Norf. et Sudf. tit. Nova Oblata.

(t). Homines de Huntendon r c de xl s. pro habenda licentia ut possint vendere pannos tinctos, sicut solebant tempore Regis Henrici; in thesauro l, et Q. s. Ib. Rot. 10. a.

(u). Homines de Norhanton r c de x libris, ut possint emere et vendere sine dampno pannos tinctos, sicut solebant tempore Regis Henrici; in th. l, et Q. s. Ib. Rot. 11. b.

(w). Burgenses Gloecestriæ r c de x marcis, ut possint sine dampno emere tinctos pannos de qualicunq; fuerint latitudine vel strictitudine; in th. l, et Q. s. Ib. Rot. 13. a.

(x). Homines de Notingham r c de v marcis, ut possint emere et vendere tinctos pannos de quacunq; fuerint latitudine, sicut solebant tempore Regis Henrici; in th. l, et Q. s. Ib. Rot. 14. a.

upon Tyne (y). Lincoln (z). Stamford, Grimesby, Barton, and Lafford (a). St. Albans, and Baldock (b). Berkhamstead (c). And Chesterfield (d).

Nicolas, the Dane, was to give the king a hawk every time he came into England, that he might have free traffic throughout the king's dominion (e). William Blund, for himself and his men, of Brich and Estorp, fined for the like (f). And the men of Dunwich (g). Simon Curlevach (h). And Alexander de Warham, (i) for the like. Mutatis mutandis

The

(y). Homines de Novo Castello super Tinam r c de xxv marcis, ut possint libere emere et vendere pannos, sicut solebant tempore Regis Henrici; in th. l, et Q. s. Ib. Rot. 14. b.

(z) Homines Lincolliæ [debent] xl marcas, ut possint vendere et emere pannos tinctos, sicut solebant tempore Regis Henrici. Ib. Rot. 17. a.

(a). Ibid. Rot. 17. a juxt.

(b). Idem vicecomes r c de ij marcis, de Hominibus S. Albani, ut possint emere et vendere tinctos pannos, sicut solebant tempore Regis Henrici; et de x s. de Baldach pro eodem; in thesauro liberavit in ij taleis, et Q. e, Ib. Rot. 19. b. Essex et Hurtf.

(c). Homines de Berchamstede r c de xl s. ut possint vendere sine dampno pannos tinctos; in th. l, et Q. s. Mag. Rot. 5. J. Rot, 10. b. tit. Berchamstede,

(d). Homines de Cestref [eldia] r c de ij marcis, ut possint emere et vendere pannos tinctos, sicut solebant tempore Regis H: in th. l, et Q. s, Mag. Rot. 4. Joh. Rot. 1. b. Not. et Derb. tit. Item de Oblatis, viz, ex Mag. Rotulo Cancellarij Scaccarij.

(e). Nicolas Dacus debet in quolibet adventu suo in Angliam j osturam regi, ut possit salvo et secure ire et redire cum marchandisis suis et negotiari per totam terram regis, quietus ab omnibus consuetudinibus quæ ad terram pertinent. Mag. Rot. 6. J. Rot. 8. a. Londonia et Midd.

(f). Willelmus Blundus debet iiij palefridos, ut ipse et homines sui de Brich et Estorp quieti sint de sectis scirarum et hundredorum et auxilijs vicecomitum et bailliverum suorum, et de omnibus placitis et querelis quæ ad eos pertinent, usq; ad terminum, sicut continetur in carta quam habent; et quod possint salvo ire et negotiari cum merchandizis suis per omnes terras regis, faciendo inde rectas consuetudines. Mag. Rot. 7. J. Rot. 16. a. Essex et Hurtfordscira.

(g). Homines de Dunewiz debent C millia allecum, per sic quod salvo et secure eant cum navibus suis. Ib. Rot. 20. bis. a.

(h). Simon Curlevach [debet] C s, quod salvo et sine inpedimento possit abducere a terra Angliæ usq; valericum v lestos de corijs, et salvo redire, faciendo inde rectas consuetudines. Mag. Rot. 10 J. Rot. 3. a. War. et Leircestr.

(i). Alexander de Warham r c de ij tonellis vini, pro habendâ licentiâ abdu-

The Abbat of Fescamp fined in two barrels of wine of Auxerres, that he might have the king's letters patent of licence to bring into England one ship load of wine, at one time, before the feast of St. Peter, ad vincula, in the eleventh year of the king's reign (k). Gerrard le Seintier gave two tonnels of wine, for letters patent giving him leave to bring into England a ship load of wine (l).

Geoffrey Fitz Pierre, the chief justicier, fined in two good Norway hawks, &c. that Walter le Madine might have leave to export a hundred weight of cheese out of the king's dominions (m).

King John, by his letters patent, gave to Fermald, his burgess, of Bayonne, and to Bernard, Fermald's partner, leave to bring a ship-load of corn from Normandy to Bayonne. But the letters patent imported a leave for that one voyage only (n).

abducendi unam navatam salis et coriorum usq; in Normanniam: in thesauro nichil, et regniæ ij dolia vini, per breve regis, et Q. c. Mag. Rot. 8 J. Rot. 13. b. Dors. et Sumers. Nova Oblata.

(k). Idem Abbas [de fiscammo] debet ij dolia vini aucerensis et raspati, pro habendis literis patentibus de licentiâ ducendi in Angliam unam navatam vini semel infra festum S. Petri advincula anni regni regis xj. Mag. Rot. 11. J. Rot. 1. a. Sudsexia. tit. Nova Oblata.

(l). Gerardus le Scintier debet ij tonella vini, pro abendis literis regis patentibus de licentiâ ducendi in Angliam unam navatam vini. Per plegiagium briani de insulâ. Mag. Rot. 11. J. Rot. 12. b. Everwichsc.

(m). Idem G. [filius Petri] debet ij bonos austurcos norrenses [sanos] et integros et ij tercell. [sed habet inde quietantiam per breve regis], pro licentiâ dandâ Waltero le Madine ducendi C pondera caseorum extra terram regis. Mag. Rot. 13. Joh. Rot. 6. b. Essexa et Hurtfordscira.

(n). Rex &c. Senescallo Normanniæ et Ballivis suis, &c. Sciatis quod nos dedimus licentiam Fernaldo burgensi nostro de Bayonâ et Bernardo socio suo, ducendi j Navatam bladi de Normanniâ usque Baionam. Et ideo vobis mandamus, quatinus ipsos bladum illud sine impedimento abducere permittatis. Et valeant litteræ istæ hac solâ vice, solummodo ad hanc navatam bladi ducendam. T me ipso apud danfront, xxv die Octobris anno r n quarto. Pat. 4. J. m. 8. Several other letters of licence to trade, negociari per terram regis, may be seen in this bundle of Pat. 4. J.

NOTE C. CHAP. II. p. 17.

A List of the principal Monopolies, by Royal Grant, from the Reign of Henry VII. to the Reign of Charles I. inclusive.

[From Anderson's History of Commerce.]

A.D.

1506 FOR Allum, to an Italian.

1530 Rope making at Bridport, exclusive of its neighbourhood.

1534 Woollen cloth, by the city of Worcester, exclusive of the adjacent country.

1544 Coverlets to York City.

1552 Felt hats, &c. to Norwich and Norfolk.

1585 A trade to Morocco.

1591 Printing a book.

1608 Allum.

1625 Saltpetre and gunpowder.

1629 Pawnbrokers in London.

1630 Melting of metals without sea-coal or wood.
Separating gold and silver from other metals.
Saltpetre, to multiply and make, in a field of four acres, sufficient to serve all our dominions.
Raising water from low pits by fire.
Making any sort of mills to go on standing waters, by continual motion, without the help of wind, weight, or horse.
Making all sorts of tapestry without any weaving loom, or any other way ever yet in use in this kingdom.
Making boats, ships, or barges to go against strong wind and tide.
Making the earth more fertile than usual.

1630

1630 For raising water from low mines and coal pits, by a way never yet in use.

Making hard iron soft, and likewise copper to be tough and soft, which is not in use in this kingdom.

Making yellow wax white very speedily.

Conveying fresh water to London from Hodsden; and for a lottery.

1631 Preserving marsh lands from inundations.

Soap made of English materials.

Starch, idem.

Playing cards, idem.

1632 A diving project.

An instrument called a wind-mate; very profitable when common winds fail, for a more speedy passage of calmed ships or vessels on seas or rivers.

The fish call; or a looking glass for fishes in the sea: very useful for fishermen to call all kinds of fishes to their nets, sears, or hooks. As several calls are needful for fowlers to call several kinds of fowls or birds to their nets or snares.

A water bow, for the more speedy preservation of houses on land, and ships at sea.

A building mould, or stone press, very requisite for the building of churches or great houses; by which stone windows, door cases, chimney-pieces, &c. are made more speedily, without hewing, cutting, sawing, carving, or engraving. As also for the making of bricks and tiles more beautiful to the eye, and more durable against foul weather; being as smooth as glass, on the one side or end, with divers colours or works, as if carved by curious workmen.

A moveable hydraulic, or chamber weather-call, like a cabinet; which being placed in a room, or by a bed-side, causeth sweet sleep to those, who either by hot fevers, or

otherwise,

otherwise, cannot take rest: and it withall alters the dry hot air into a more moistening and cooling temper, either with musical sounds or without.

1632 For the corrected crane, by which wine, oil, or any other liquor may be transfused from one vessel, which cannot be well removed, to another remote. As also water may be drawn from one place to another, without any sucking or forcing by the mouth, as vintners and others used to do.

1634 Cleaning of indigo.
Sedan chairs. For a price current.
Sope-making. For gardeners.
Saltpetre, gunpowder, &c.
Sealing of foreign hops, weighing hay and straw, and marking butter casks.

1635 Glass making. For raisin wines.
Gold and silver thread.
Malt and brewing.

1637 Cards and dice.
Maltsters and brewers licences.
Butter casks, pigs and bars of iron, and licensing hackney coachmen.
Wine casks used by brewers.
Drying malt and hops with sea-coal and turf.

In the years 1630 and 1632, under Charles I., the most singular ingenuity was displayed, if we may give credit to this account of the productions of the inventive talent. It will, however, be recollected by the reader, that at that time was issued the proclamation against calling parliament, and the severities of the star chamber and high commission courts were practised: hence these feigned discoveries, it will be admitted, were only new expedients to impose upon the public.

NOTE

NOTE D. CHAP. II. p. 18.

Some Extracts from the celebrated Debate on the Subject of Monopolies, in the House of Commons, in the Year 1601.

THIS debate began on the 20th of November, and the affair was first brought in by Mr. Lawrence Hide, for the purpose of passing an act to be entitled "An act for the explanation of common law, in certain cases of letters patent."

Mr. Spicer, M. P. for Warwick, introduced into his discourse several quotations from the learned languages, and gave a curious account of the origin of the word monopoly.—"Let us consider," said he, "of the word monopoly, what it is; Μονος is unus, and Πολις is civitas: so then the learning of the word is, a restraint of any thing public, in a city or commonwealth, to a private use, and the user called a monopolitan, quasi cujus privatum lucrum est urbis et orbis commune malum."

Our readers will entertain no very favourable idea of the learning of the house of representatives at that period, from this example of Mr. Spicer's etymological ingenuity. We cannot avoid quoting, as a specimen of the slavish principles which disgraced the Commons House when this great question was agitated, the speech of Francis Bacon, then the Attorney General, and afterwards Lord Verulam and Chancellor of England, one of the most able and enlightened men of any age or country:—"I confess," said he, "the bill, as it is, is in few words; but yet ponderous and weighty. For the prerogative

royal of the prince, for my own part I never allowed of it; and it is such as I hope shall never be discussed. The queen, as she is our sovereign, hath both an enlarging and restraining power. For, by her prerogative, she may first set at liberty things restrained by statute law, or otherwise: and, secondly, by her prerogative she may restrain things which be at liberty. For the first she may grant *non obstante*, contrary to the penal laws; which, truly, according to my own conscience," (and so struck himself on the breast,) "are as hateful to the subject as monopolies. For the second, if any man, out of his own wit, industry, or endeavour, finds out any thing beneficial for the commonwealth, or brings any new invention, which every subject of this kingdom may use; yet in regard of his pains and travel therein, her majesty, perhaps, is pleased to grant him a privilege to use the same only by himself, or his deputies, for a certain time. This is one kind of monopoly. Sometimes there is a glut of things, when they be in excessive quantity, as perhaps of corn, and her majesty gives licence of transportation to one man: this is another kind of monopoly. Sometimes there is a scarcity or a small quantity, and the like is granted also. These, and divers of this nature, have been in trial, both at the common-pleas, upon actions of trespass; where, if the judges do find the privilege good and beneficial to the common-wealth, they then will allow it; otherwise disallow it. And also I know that her majesty herself hath given commandment to her Attorney General, to bring divers of them, since the last parliament, to trial in the Exchequer: since which time, at least fifteen or sixteen, to my knowledge, have been repealed; some by her majesty's own express commandment, upon complaint made unto her by petition: and some by *quo warranto* in the Exchequer. But, Mr. Speaker," (said he, pointing to the bill,) "this is no stranger in this place; but a stranger in this vestment. The use hath been ever to humble ourselves unto her majesty, and by petition desire to have our grievances remedied; especially when the remedy toucheth her so nigh in point of prerogative. All cannot be done at once;

once; neither was it possible since the last parliament to repeal all. If her majesty make a patent, (or, as we term it, a monopoly,) unto any of her servants, that must go, and *we cry out of it: but if she grant it to a number* of burgesses, or a corporation, that must stand; and that, forsooth, is no monopoly. I say, and I say again, that we ought not to deal, to judge, or to meddle with her majesty's prerogative. I wish every man, therefore, to be careful in this business; and humbly pray this house to testify with me, that I, the queen's attorney general, have discharged my duty in respect to my place, in speaking in her majesty's behalf; and I protest I have delivered my conscience in saying what I have said *."

In consequence of the decided part taken on this occasion, by the best friends of the nation, the queen sent a message to the house, importing that the monopolies should be revoked; and on the 30th day of Nov. the speaker, attended by about one hundred and eighty members of the House of Commons, was admitted into the council room, where the queen, under a canopy of state, received them, and the following address was delivered; less worthy the Princess Elizabeth, than the Caliph Motazem.

" Most sacred, and more than most gracious Sovereign,

" We, *your faithful, loyal, and obedient subjects, and* commons, here present, vouchsafed, of your especial goodness, (to our unspeakable comfort,) access to your sacred presence; do, in all duty and humbleness, come to present that which no words can express, most humble and thankful acknowledgment of your most gracious message, and most bounden and humble thanks for your majesty's most abundant goodness, extended and performed

* Biography is more interesting and instructive than general history; principally because it gives us the opportunity of observing the same man under different biasses, according to the stations he occupies, and the interests he pursues. In the succeeding reign Bacon gave the following advice to Sir George Villiers, (afterwards Duke of Buckingham,)—" But especially, care must be taken that monopolies, which are the *canters* of all trading, be not admitted, under the specious colours of public good."—Bacon's works, folio, vol. 1, page 725.

formed to us. We cannot say, most gracious sovereign, we have called and been heard; we have complained and been helped; though, in all duty and thankfulness, we acknowledge your sacred ears are ever open, and ever bowed down to hear us, and your blessed hands ever stretched out to relieve us; we acknowledge, (sacred sovereign,) in all duty and thankfulness, we acknowledge, that before we call, your preventing grace and all-deserving goodness doth watch over us for our good; more ready to give than we can desire, much less deserve. That attribute which is most proper unto God, to perform all he promiseth, appertaineth also unto you, our most gracious sovereign, queen of all truth, of all constancy, of all goodness, never wearied in doing good unto us, (the deeds themselves do speak,) most careful to provide all good things for us, most gracious, most tender to remove all grievances from us, which all your princely actions have ever shewed, and even now your only mere motion and special grace for the good of all your people doth witness to us. We come not, sacred sovereign, one of ten, to render thanks, and the rest to go away unthankful, but all of us, in all duty and thankfulness, do throw down ourselves at the feet of your majesty. Neither do we present our thanks in words of any outward thing, which can be no sufficient retribution for so great goodness; but in all duty and thankfulness, prostrate at your feet, we present our most loyal and thankful hearts, even the last drop of blood in our hearts, and the last spirit of breath in our nostrils, to be poured out, to be breathed out, for your safety.

Then, after three low reverences made, he, with the rest, kneeled down.

[Parl: hist: of England, vol. 4. p. 452, et infra].

NOTE

NOTE E. CHAP. II. p. 30.

The principal Statutes relating to Patents, passed prior to the Statute of Monopolies, 21 James I. c. 3.

AN act annulling second letters patents during the king's pleasure, making no mention of the first letters patents. 6 H. 8. c. 15.

"The king's highness, of his goodness, calling to his remembrance, that where his grace hath granted to divers of his subjects (for their service to his grace done), lands, tenements, fees, offices, and other things, to have to them during his pleasure; and after other persons, by their sundry suits, have obtained of his highness other letters patents of the same, not advertising his grace of his former grants, whereby the said former patentees have been avoided, and put from the advantage of their said former grants and patents, contrary to the intent and grant of our said sovereign lord."

What shall be expressed in the king's letters patent, in the case of duplicate grants of the same boon.

Wherefore be it ordained, established, and enacted by our said sovereign, the lords spiritual and temporal, and the commons in this present parliament assembled, and by authority of the same, that if any person or persons from henceforth do make suit to the king's highness for any lands, tenements, offices, or any other things so by his grace granted, or hereafter to be granted to any person or persons during his pleasure, the said first patentee then being in life; that he do express in his said bill of petition or patent, the tenor of the said former patent, and that the king then hath determined his pleasure against the first

first said patentee; or else the second letters patents of any of the premises to any person hereafter to be granted, to be void and of none effect.

II. This act to commence and take effect from the fourth day of April next coming, and not before.

4 Ed. 6. c. 4. An act concerning grants and gifts, made by patentees out of letters patents.

Explained by 13th Eliz. c. 6. Grants made by patentees out of patents, shall be good.

"Where the right noble and famous king, of full worthy memory, King Henry the Eighth, father to our most dread and now natural sovereign liege lord sithence, the fourth day of February, in the twenty-seventh year of his late reign, and also the king's most excellent majesty, by their several letters patents, have given, granted, and bargained, sold, and exchanged, to and with divers and sundry the subjects of this realm, bodies politic and corporate, in fee-simple, fee-tail, for term of life or years, divers honors, castles, manors, lands, tenements, and other hereditaments and offices, after and since which grants, bargains, sales and exchanges, divers of the said patentees, their heirs, successors, or assigns, have bargained, sold, given, exchanged, or demised divers particular parts, parcels, or portions of the said honours, castles, manors, lands, tenements, hereditaments, and offices, or other things thereunto appertaining or belonging, to other person or persons, bodies politic or corporate; that is to say, to some of them in fee-simple, to some others in fee-tail, for term of life or years, or otherwise; and after the same patentees, for considerations then moving, have surrendered and given up their said letters patents into the Chancery, or otherwise the same letters patents have been forfeited by attainder, lost, cancelled, imbezzled, or by other ways or means have come to the hands of the king's majesty his late father, and thereupon oft-times the enrollment of the same hath been made void and frustrate, sometime in part, and sometime in the whole, by reason whereof such persons, bodies politic

politie or corporate as have had interest or title in or to the same castles, manors, or particular portions, or parcels of the same so as to them given and granted, have been in time past, and in time to come are like to be disinherited, or in danger of loss of their interest in or to the same, to their no little hindrance and peril.

An exemplification of the king's letters patents, under the great seal, shall be of as good force as if the same letters patents were shewn. 5 Co. 53. Dyer. 167. 179. Br. Surrender 51. Co. Lit. 225. b.

II. "For remedy whereof be it ordained, established, and enacted, by the authority of this present parliament, that all and every person or persons, bodies politic or corporate, which lawfully shall or may claim by force of any patent or patents made sithence the said fourth day of February, or hereafter to be made by the king's majesty, his heirs or successors, kings of this realm, or by any of them, and all other that now have or hereafter shall happen to have any good or lawful estate, right, title, rent, profit, interest, or possession, of, in, to, or out of any honours, manors, lands, tenements, hereditaments, or offices, or of other things to any of the premises appertaining or belonging, or to any part, parcel, or number of them, or any of them, by, from, or under any such patentee or patentees, or any of them, or by, from or under the heirs, successors, or assigns of them, or any of them, or by, from, or under the estate of any others which had, have, or hereafter shall have the estate, title, or interest of any such patentee, or patentees, or by any other means under the date of such letters patents, shall and may at all times hereafter, in any of the king's courts, his heirs or successors, and elsewhere, by virtue of this present act, make and convey unto himself title, by way of declaration, plaint, avowry, title, bar, or otherwise, as well against the king's highness, his heirs and successors, and every of them, as against any person or persons, unto the said honours, castles, manors, lands, tenements, offices, and other the premises or any part or parcel of the same, unto them or any of their predecessors or ancestors, or others whose estate they have in the same, by, from, or under the said patentees or any of them, or the heirs, successors, or assigns of any of them, or otherwise under the date of the said letters patents, comprised and contained in any exemplification or con-

stat thereof, made or to be made, by the shewing forth of the said exemplification or constat of the roll, or of so much thereof as shall serve for the matter in variance, under the great seal of England; and the said exemplification or constat of the said enrolment, so as is aforesaid pleaded and shewed, shall be of like and the same force and effect to all intents and constructions in the law, as the said first letters patents were and should be of, if the same were or should be pleaded or shewed.

13 El. c. 6. An act that the exemplification or constat of letters patents, shall be as good and available as the letters patents themselves.

A supply of the statute of 3 & 4 Ed. 6. c. 4. "For the avoiding of all such doubts, questions, and ambiguities, as heretofore have risen and been moved, and of such as hereafter might rise and be moved, in and upon the statute made in the parliament begun and holden at Westminster, the fourth day of November, in the third year of the reign of our late sovereign lord King Edward the Sixth, intituled, *An act concerning grants and gifts, made by patentees out of letters patents, and for a due and full supply of all such grants as may be thought to be therein.*"

An exemplification of letters patents shall be of the same force as the letters patents themselves. 5 Co. 53. Co. Lit. 225. b. II. "Be it enacted and declared, by the authority of this present parliament, that all and every patentee or patentees, their heirs, successors, executors, and assigns, and all and every other person and persons having by or from them, or any of them, or under their title, any estate or interest of, in, or to any lands, tenements, or hereditaments, or any other thing whatsoever, to such patentee or patentees, heretofore granted by any letters patents, either of the most famous princes, King Henry the Eighth, King Edward the Sixth, Queen Mary, King Philip and Queen Mary, or by any of them, or by the Queen's most excellent majesty that now is, at any time sithence the fourth day of February, in the twenty-seventh year of the reign of the said late king Henry the

Eighth, or else by the queen's majesty that now is, her heirs or successors, at any time hereafter to be granted, shall and may, at all times hereafter, in any of the queen's highnesses courts, her heirs and successors, or elsewhere, by the authority of this present act, make and convey, or be allowed and suffered to make and convey, to and for him, them, and every of themselves, such claim or title, by way of declaration, plaint, avowry, bar, replication, or other pleading whatsoever, as well against the queen's highness, her heirs and successors, and every of them, as against all and every other person and persons whatsoever, for or concerning the lands, tenements, hereditaments, or other things whatsoever, specified or contained in any such letters patents, or of, for, or concerning any part or parcel thereof, by shewing forth an exemplification or constat, under the great seal of England, of the enrolment of the same letters patents, or of *so much thereof as shall and may serve to or for such* title, claim or matter, the same letters patents then being and remaining in force, not lawfully surrendered nor cancelled, for or concerning so much and such part and parcel of such lands, tenements, hereditaments, or other thing, whereunto such title or claim shall be made, as if the same letters patents self were pleaded and shewed forth; any law, usage, or other thing to the contrary notwithstanding.

Coke, pla. 541.

An act for confirmation of grants made to the queen's majesty, &c. and of letters patents, made by her highness to others. Assurances made to or for the queen of any lands, &c. since February 8, anno 25, of her reign; and all letters patents made by the queen to others since that time, &c. confirmed. To what letters patents this statute doth extend, and to what not. A saving of the right of others. Sales of the queen's lands to be made by force of the commission in being before the end of the session of parliament, confirmed. Letters patents shall be expounded beneficially for the patentee. Misnaming, mis-recital, non-recital of the lands. Lack of finding

43 El. c. 1.

finding of offices. Mis-recital or non-recital of leases. Mis-recital or non-recital of the queen's estate. No estate-tail recited. Lack of certainty, casting, rating of the yearly rent or value. The lands valued at more or less than they be. Mis-naming or not true naming of the places where the lands lye. The lack of the true naming of the lands, and of the kinds, sorts, &c. Mis-naming of the corporation. Lack of attornment, livery, and seisin. Mis-naming of the late owners, notwithstanding. Letters patents of offices excepted. Recompence for the overplus of lands, sold by the queen, to be made by the rate of three-score years purchase. Certain grants excepted. Patents of concealed lands. Patents made by warrant of commissioners authorised to make composition with others. Patents decreed to be void by act of parliament, or in any of the queen's courts of record. Monopolies. Patents touching penal statutes. The right of others saved. Patents of lands whereof there is an estate-tail in the queen. Leases made to the queen by the bishop of Carlisle, excepted. 34 and 35 H. VIII. c. 21.—1 Ed. VI. c. 8.—7 Ed. VI. c. 3.—4 and 5 Ph. and M. c. 1.—18 El. c. 2.—35 El. c. 3.

NOTE

NOTE F. CHAP. IV. p. 31.

21 JA. I. c. 3. STATUTE OF MONOPOLIES.

An Act concerning Monopolies and Dispensations with Patent Laws, and the Forfeitures thereof.

"FORASMUCH as your Most Excellent Majesty, in your royal judgment, and of your blessed disposition to the weal and quiet of your subjects, did, in the year of our Lord God one thousand six hundred and ten, publish in print to the whole realm, and to all posterity, that all grants and monopolies, and of the benefit of any penal laws, or of power to dispense with the law, or to compound for the forfeiture, are contrary to your Majesty's laws, which your Majesty's declaration is truly consonant and agreeable to the antient and fundamental laws of this realm: And whereas your Majesty was further graciously pleased expressly to command that no suitor should presume to move your majesty for matters of that nature; yet nevertheless upon misinformations and untrue pretences of public good, many such grants have been unduly obtained, and unlawfully put in execution, to the great grievance and inconvenience of your Majesty's subjects, contrary to the laws of this your realm, and contrary to your Majesty's most royal and blessed intention so published as aforesaid." For avoiding whereof, and preventing the like in time to come, may it please your Excellent Majesty, at the humble suit of the Lords Spiritual and Temporal, and the Commons, in this present parliament assembled, that it may be declared and enacted by authority of this present parliament, that all monopolies and all commissions, grants, licences, charters,

All monopolies, &c. shall be void.
Still 214.
3 Inst. 181, 182, 183.
1 Haw. P. C. p. 230, and sequent.

and letters patents heretofore made or granted, or hereafter to be made or granted to any person or persons, bodies politic or corporate whatsoever, of or for the sole buying, selling, making, working, or using of any thing within this realm or the dominion of Wales, or of any other monopolies, or of power, liberty, or faculty to dispense with any others, or to give licence or toleration to do, use, or exercise any thing against the tenor or purport of any law or statute, or to give or make any warrant for any such dispensation, licence, or toleration to be had or made; or to agree or compound with any others for any penalty or forfeitures limited by any statute; or of any grant or promise of the benefit, profit, or commodity of any forfeiture, penalty, or sum of money, that is or shall be due by any statute, before judgment thereupon had; and whatsoever any way tending to the instituting, erecting, strengthening, furthering, or countenancing of the same, or any of them, are altogether contrary to the
3 Mod. 131. laws of this realm, and so are and shall be utterly void and of none effect, and in no wise to be put in ure or execution.

Monopolies, &c. shall be tried by the common laws of this realm.

II. And be it further declared and enacted by the authority aforesaid, that all monopolies, and all such commissions, grants, licences, charters, letters patents, proclamations, inhibitions, restraints, warrants of assistance, and all other matters and things tending as aforesaid, and the force and validity of them and of every of them, ought to be and shall be for ever hereafter examined, heard, tried and determined, by and according to the common laws of this realm, and not otherwise.

All persons disabled to use monopolies, &c.

III. And be it further enacted by the authority aforesaid, that all person and persons, bodies politic and corporate whatsoever, which now are or hereafter shall be, shall stand and be disabled and uncapable to have, use, exercise, or put in ure any monopoly, or any such commission, grant, licence, charter, letters patents, proclamation, inhibition, restraint, warrant of assistance, or other matter or thing tending as aforesaid, or any liberty, power,

or

or faculty, grounded or pretended to be grounded upon them or any of them.

The party grieved by pretext of a monopoly, &c. shall recover treble damages and double costs.

IV. And be it further enacted by the authority aforesaid, that if any person or persons, at any time after the end of forty days next after the end of this present session of parliament, shall be hindered, grieved, disturbed, or disquieted, or his or their goods or chattles any way seized, attacked, distrained, taken, carried away, or detained, by occasion or pretext of any monopoly, or of any such commission, grant, licence, power, liberty, faculty, letters patents, proclamation, inhibition, restraint, warrant of assistance or other matter or thing tending as aforesaid, and will sue to be relieved in or for any of the premises; that then, and in every such case, the same person or persons shall and may have his and their remedy for the same at the common law, by any action or actions, to be grounded upon this statute; the same action or actions to be heard and determined in the courts of King's Bench, Common Pleas, and Exchequer, or in any of them, against him or them, by whom he or they shall be so hindered, grieved, disturbed, or disquieted, or against him or them, by whom his or their goods or chattles shall be so seized, attacked, or distrained, taken, carried away, or detained; wherein all and every such person and persons, which shall be so hindered, grieved, disturbed, or disquieted, or whose goods or chattles shall be so seized, attacked, distrained, taken, carried away, or detained, shall recover three times so much as the damages which he or they sustained by means, or occasion of being so hindered, grieved, disturbed, or disquieted, or by means of having his or their goods or chattles seized, attacked, distrained, taken, carried away, or detained, and double costs; and in such suits, or for the staying or delaying thereof, no essoin, protection, wager of law, aid, prayer, privilege, injunction, or order of restraint, shall be in any wise prayed, granted, admitted, or allowed, nor any more than one imparlance: And if any person or persons shall, after notice given, that the action depending is grounded upon this statute, cause or procure any action at the common

He that delayeth an action grounded upon this statute, incurs a præmunire.

law grounded upon this statute, 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 actions as aforesaid shall be brought and depending, or after judgment had upon such action, shall cause or procure the execution of or upon any such judgment to be stayed or delayed by colour or means of any such order, warrant, power, or authority, save only by writ of *error or attaint*; *that then the said person and persons* so offending, shall incur and sustain the pains, penalties, and forfeitures ordained and provided by the statute of provision and præmunire made in the sixteenth year of the reign of King Richard the Second.

16 R. 2. c. 5.

Letters patents heretofore granted for 21 years, to use new manufactures, saved.

V. Provided nevertheless, 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 one and twenty years or under, heretofore made, of the sole working or making of any manner of new manufacture, within this realm, to the first and true inventor or inventors of such manufactures, which others at the time of the making of such letters patents and grants did not use, so they be not contrary to the law, nor mischievous to the state, by raising of the prices of commodities at home, or hurt to trade, or generally inconvenient, but that the same shall be of such force as they were or should be if this act had not been made, and of none other: and if the same were made for more than one-and-twenty years, that then the same, for the term of one-and-twenty years only, to be accounted from the date of the first letters patents and grants thereof made, shall be of such force as they were or should have been if the same had been made but for the term of one-and-twenty years only, and as if this act had never been had or made, and of none other.

Letters patents hereafter to be granted for 14 years, for new manufactures, saved.

VI. 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

sole working or making of any manner of new manufactures within this realm, to the true and first inventor and inventors of such manufactures, which others at the time of making such letters 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 from the date of the first letters patents or grant of such privilege hereafter to be made, but that the same shall be of such force as they should be, if this act had never been made, and of none other.

This act not to extend to grants sanctioned by parliament.

VII. Provided also, and it is hereby further intended, declared, and enacted by authority aforesaid, that this act, or any thing therein contained, shall not, in any wise, extend, or be prejudicial to any grant, or privilege, power, or authority whatsoever, heretofore made, granted, allowed and confirmed by any act of parliament now in force, so long as the same shall continue in force.

Warrants granted to justices, saved.

VIII. Provided also, that this act shall not extend to any warrant or privy seal, made or directed, or to be made or directed by his majesty, his heirs or successors, to the justices of the courts of the King's Bench or Common Pleas, and barons of the Exchequer, justices of assize, justices of oyer and terminer and gaol-delivery, justices of the peace, and other justices for the time being, having power to hear and determine offences done against any penal statute depending in suit and question before them, or any of them respectively, after plea pleaded by the party defendant.

Charters granted to corporations, saved. 3 Inst. 185.

IX. Provided also, and it is hereby further intended, declared, and enacted, that this act, or any thing therein contained, shall not in any wise extend or be prejudicial unto the city of London, or to any city, borough, or town corporate within this realm, for or concerning any grants, charters, or letters patents, to them or any of them; or unto any corporations, companies, or fellow-

ships

ships of any art, trade, occupation, or mystery, or to any companies or societies of merchants within this realm, erected for the maintenance, enlargement, or ordering of any trade of merchandize; but that the same charters, customs, corporations, companies, fellowships and societies, and their liberties, privileges, powers, and immunities, shall be and continue of such force and effect as they were before the making of this act, and of none other; any thing before in this act contained to the contrary in any wise, notwithstanding.

Letters patents that concern printing, saltpetre, gunpowder, great ordnance, shot, or offices, saved.

X. Provided also, and be it enacted, that this act, or any declaration, proviso, disablement, penalty, forfeiture, or other thing before-mentioned, shall not extend to any letters patents of grants of privilege heretofore made, or hereafter to be made, of, for, or concerning the digging, making, or compounding of saltpetre, or gunpowder, or the casting or making of ordnance, or shot for ordnance, nor to any grant or letters patents heretofore made, or hereafter to be made, of any office or offices heretofore erected, made, or ordained now in being, and put in execution, other than such offices as have been decried by any his majesty's proclamation or proclamations: but that all and every the same grants, commissions, and letters patents, and all other matters and things tending to the maintaining, strengthening, and furtherance of the same, or any of them, shall be and remain of the like force and effect, and no other, and as free from the declarations, provisions, penalties, and forfeitures contained in this act, as if this act had never been had nor made, and not otherwise.

This act shall not extend to commissions for alum mines.

XI. Provided, also, and be it enacted, that this act, or any declaration, provision, disablement, penalty, forfeiture, or other thing before-mentioned, shall not extend to any commission, grant, letters patents, or privilege heretofore made, or hereafter to be made, of, for, or concerning the digging, compounding, or making of allum, or alum-mines; but that all and every the same commissions, grants, letters patents, and privileges, shall be

be and remain of the like force and effect, and no other, and as free from the declarations, provisions, penalties, and forfeitures contained in this act, as if the act had never been had nor made, and not otherwise.

Nor to the liberties of Newcastle upon Tyne, nor to licences of keeping taverns.

XII. Provided also, and be it enacted, that this act, or any declaration, provision, penalty, forfeiture, or other thing before-mentioned, shall not extend or be prejudicial to any use, custom, prescription, franchise, freedom, jurisdiction, immunity, liberty, or privilege heretofore claimed, used, or enjoyed by the governors and stewards and brethren of the fellowship of the hoast-men of the town of Newcastle upon Tyne, or by the ancient fellowship, gild, or fraternity, commonly called hoast-men, for or concerning the selling, carrying, lading, disposing, shipping, venting, or trading of or for any sea coals, stone coals, or pit coals, forth or out of the haven or river of Tyne, or to any grant made by the said governor and stewards and brethren of the fellowship of the said hoastmen to the late queen Elizabeth, of any duty or sum of money to be paid for, or in respect of any such coals as aforesaid; nor to any grants, letters patents, or commission, heretofore granted, or hereafter to be granted, of, for, or concerning the licensing of the keeping of any tavern or taverns; or selling, uttering, or retailing of wines to be drunk or spent in the mansion-house, or houses, or other place in the tenure or occupation of the party or parties so selling or uttering the same; or for or concerning the making of any compositions for such licenses, so as the benefit of such compositions be reserved and applied to and for the use of his majesty, his heirs or successors, and not to the private use of any person or persons.

Nor to letters patents granted to Sir Robert Mansel, Knt. or to James Maxewell, Esq.

XIII. Provided also, and be it enacted, that this act, or any declaration, provision, penalty, forfeiture, or other thing before-mentioned, shall not extend or be prejudicial to a grant or privilege for or concerning the making of glass, by his majesty's letters patents under the great seal of England, bearing date the two and twentieth day of

of May, in the one and twentieth year of his majesty's reign of England, made and granted to Sir Robert Mansel, Knight, Vice Admiral of England: nor to a grant or letters patents, bearing date the twelfth of June, in the thirteenth year of his majesty's reign of England, made to James Maxewell, Esquire, concerning the transportation of calves skins: but that the said several letters patents, last mentioned, shall be and remain of the like force and effect, and as free from the declarations, provisions, penalties, and forfeitures before-mentioned, as if this act had never been had nor made, and not otherwise.

Nor to those granted to Abraham Baker or Lord Dudley.

XIV. Provided also, and be it declared and enacted, that this act, or any declaration, provision, penalty, forfeiture, or other thing before-mentioned, shall not extend or be prejudicial to a grant or privilege for or concerning the making of smalt, by his majesty's letters patents, under the great seal of England, bearing date the sixteenth day of February, in the sixteenth year of his majesty's reign, of England, made or granted to Abraham Baker; nor to a grant or privilege for or concerning the melting of iron ewer, and of making the same into cast-works or bars with sea coals or pit coals, by his majesty's letters patents, under the great seal of England, bearing date the twentieth day of February, in the nineteenth year of his majesty's reign of England, made or granted to Edward, Lord Dudley; but that the same several letters patents and grants shall be and remain of the like force and effect, and as free from the declarations, provisions, penalties, and forfeitures before-mentioned, as if this act had never been had nor made, and not otherwise.

NOTE

NOTE G. CHAP. V. p. 51.

EXTRACTS FROM 27 HENRY VIII. CHAP. XI.

An Act respecting the Offices through which the King's Grants shall pass, and certain Fees to which the Officers are limited.

WHEREAS the King's clerks of his grace's signet and privy seal, giving their daily attendance for the passing and writing of his Majesty's great and weighty affairs, and the causes of this realm, having for their entertainment and their clerks, no fees nor wages certain for those offices, other than such fees as cometh and groweth of the said signet and privy seal; to the intent that from henceforth they should not by any manner of means be defeated of any part or portion of the same their fees: be it therefore ordained, established, and enacted, by the consent and assent of the Lords Spiritual and Temporal, and the Commons, in this present Parliament assembled, and by authority of the same, that all and every gift, grant, and other writing, which shall be made or given in writing by the King's highness, or any of his most noble posterity, to any person or persons, signed with his grace's sign or the sign or signs manual of any of them, to be passed under any his grace's great seals of *England*, *Ireland*, Duchy of *Lancaster*, or any of his highness's counties, palatines, or principality of *Wales*, or by other process out of the Exchequer, after the fifteenth day of April, in the twenty-seventh year of his most noble reign, and that all and every gifts, grants, and other writings, of what name or names, quality or qualities soever the same be, or hereafter shall be named, deemed, or called, which the master

4 Inst. 45.

The King's grants shall be brought to the secretary or to a clerk of the signet.

of

of the King's wards, or general surveyors of the King's lands, for the time being, or any other office or officers that now be, or hereafter shall be made, shall, by virtue of an act of parliament, or any the King's grants to them or any of them made, or hereafter to be made in that behalf, give, grant, or make, after the aforesaid fifteenth day of April, to any person or persons in the King's name, to
8 Co. 18. be passed under any of his Majesty's seals, be in any wise first, and before the same grant, or any of them, be passed under anythe King's said seals, or other process made of the same, brought and delivered to the King's principal secretary, or to one of the King's clerks of his grace's signet for the time being, to be at the said office of the signet passed accordingly.

A warrant by the clerk of the signet to the lord keeper of the privy seal.

II. And be it also ordained and enacted by the authority aforesaid, that one of the clerks of the signet, to whom any of the said writings, signed with the King's most gracious hand, or the hand of any other aforesaid, or any of them fortune to be delivered, may and shall by warrant of the same bills, and every of them, within the space of eight days next after he shall have received the same, unless he have knowledge by the said secretary, or otherwise, of the King's pleasure to the contrary, make or cause to be made in the King's name, letters of warrant, subscribed with the hand of the same clerk, and sealed with the King's signet, to the lord keeper of the King's privy seal, for the further process to be had in that behalf; and that one of the King's clerks of the said privy seal, upon due examination had by the said lord keeper of the said privy seal, of the said warrant to him addressed from the office of the said signet as afore, may and shall within the space of eight days next after he shall have received the same, unless the lord keeper of the privy seal do give them commandment to the contrary, make or cause to be made, by

A warrant from the privy seal to the great seal.

warrant of the aforesaid warrant to the said lord keeper of the privy seal, address from the office of the signet aforesaid, other letters of like warranty, subscribed with the name of the same clerk of the privy seal, to the lord chancello. of England, lord keeper of the great seal, chancellor of

of the duchy of Lancaster, chancellor of the King's land of Ireland, treasurer and chamberlains of the exchequer, and chamberlains of any of his counties palatines, or principality of Wales, or other officer, and to every of them, for the writing and ensealing with such seals, as remain in their custody, of letters patent or closed, or other process making, due and requisite to be had or made upon any the said grants, according to the tenor of the warrant to them or any of them directed from the officer of the privy seal, as is afore specified.

The penalty for altering of the course aforesaid.

III. And also be it enacted, by the authority aforesaid, that no manner of clerk or clerks, or other person or persons, do write or make any manner of writing, warrant or warrants upon any manner of gift, or grant, made by the King's highness, or by any other his grace's officers as aforesaid, or procure the same or any of the same to be passed under the seals aforesaid, after any other sort, manner or fashion, or by any other warrant or warrants, than as before specified and delivered, upon pain to forfeit for every bill, warrant or writing, passed contrary to the order before limited and prescribed, the sum of 10l. the one-half thereof to be to our Sovereign Lord the King, and the other half to him that shall first sue for the same by action of debt, writ, bill, plaint, or information in any of the King's courts; in which action or suit, no essoin, protection, privilege, nor wager of law, shall be admitted; any manner act, statute, provision, proclamation, or other ordinance heretofore had or made, contrary to this present act, or any article of the same, in any wise notwithstanding.

Fees for writings which pass by immediate warrant.

IV. And nevertheless be it also enacted, that every of the said clerks, or other person, which shall pass in writing, or procure to be passed in writing, any grant or grants by immediate warrant, wherefore fees be paid at the great seal, shall of the parties receive for the offices of the said signet and privy seal, as well as such fees as in this act is taxed for writing of any such grant or other writings, as also the fees for the seal of the same; which

fees,

fees, and every part and portion thereof, the same clerk or clerks, by whom any grant shall pass in writing by immediate warrant, shall upon a bill of the hand of one one of the said clerks of the said signet or privy seal, deliver unto one of the same clerks of the signet or privy seal, within the space of three months next and immediately ensuing after the passing and sealing of any of the said grant or grants by immediate warrant, upon pain of 10l. to be by every such of the said clerks or other person as shall offend, forfeited, to be levied in form aforesaid, as often as he or they shall offend contrary to the meaning of this act.

This act shall not prejudice the lord treasurer for directing the warrants to the great seal.

V. Provided also, that this act, or any thing contained in the same, be not in any wise prejudicial to the lord treasurer of *England* for the time being, concerning such warrants or precepts, as he by virtue of his office shall and may direct immediately to the Lord Chancellor of *England*, or to any other person or persons for making out of the King's grants or letters patent, to any person or persons, of any offices, farms, or lands, or tenements, or of any other thing belonging to his nomination or disposition; but that as well he may direct his said warrants or precepts for the causes abovesaid, as also his clerk, or clerks, or other person, may procure the same to be sealed under any of the seals aforesaid, without any warrant to be before or after sued or obtained under the King's signet or privy seal for the same, in as large and ample a manner, and after such sort or fashion as he or they might have done at any time before the making of this act; any thing in the same act mentioned to the contrary notwithstanding.

(VI. This clause refers to leases of the duchy lands of Lancaster, which may pass under the seal of the same duchy, see 4 Inst. 210.)

(VII. This relates to the grant of a small office in the duchy.)

VIII. This

(VIII. This section treats of certain trifling fees to the clerk of the signet for writing warrants for tales or reward, gift of offices, pensions, &c.)

IX. Provided also, that the Lord Chancellor of *England* for the time being, shall and may at all times use his discretion in passing and speeding any thing by the great seal, and delivering the same without paying any fees for the great seal, signet, and privy seal, as the case of necessity shall require, and as hath been accustomed; and that the clerks for writing or procuring such writings and patents, by his commandment shall be discharged of all penalties expressed before in this act, for not receiving and paying fees to the signet and privy seal, any thing in this act contained to the contrary hereof notwithstanding.

The lord chancellor may pass instruments without fees.

(X. XI. XII. The first of these clauses refers to the officers and clerks of the court of augmentations. The second to the sealing of instruments in the King's private affairs, &c. The last respects grants or leases of farms under the yearly rent of 6l. 13s. 4d.)

NOTE II. CHAP. VII. p. 64.

On the King's Charter as regulating Trade.

THE King by his charter may constitute fraternities, or companies for the management of foreign or domestic trade.

For trade cannot be maintained or increased without order and government; and therefore, the King may erect gildam mercatoriam, a fraternity or incorporation of merchants for the advancement of trade. 8 Co. 125. a.

Skin. 224. None but the King can erect a society for trade.

Hard. 55. The King by his grant may require, that all ships which come to such a haven, unload in such a place, for the security of the customs.

1 Rol. 5. That ships shall unload in a public place, and not elsewhere.

Per. Dod. 1 Rol. 5. That tonnage be paid at such a port, more convenient for the King's officers, and not prejudicial to the subject.

Hard. 55. vide post. A grant by the King to the corporation of weavers in London, that none shall intermeddle with their trade, unless he be free of their fraternity, is good.

Hard. 55. A grant to London that every one who brings saleable goods there, shall pay such a toll, will be good.

2 Ca. Ch. 67 Acc. in Domo Proc. 1 Ver. 120. Skin. 234. R. Cart. 90. The King by his patent may grant that such persons shall have the sole printing of books of the common law.

Scmb. 2. Ca. Ch. 66. Skin. 234. Or the sole printing of almanacks.

2 Ca. Ch. 76 93. 1 Ver. 120. 275. Or the printing of the statute books, for they are matters of state.

2 Ca Ch. 93. 1 Ver. 120. Or English bibles.

Cart. 90. So by patent the stationers have the sole printing of bibles, testaments, common prayer books.

Cart. 90. So for civil law books, school books, almanacks.

R. per ten, J. 1068. 2 Ca. Ch. 67. But a patent, granted to Moor by King James, for the sole printing of books of the common law, does not extend to new books of the law never printed before the patent.

If

If the King grant power to the stationers for printing such books, he cannot afterwards grant to the university to print the same books. Dub. Skin. 234.

NOTE I. CHAP. VII. p. 68.

Law of Patents before the Statute 21st James I. c. 3.

THE curious reader may wish to refer to those decisions that relate to the exercise of the royal prerogative, in grants of privileges to the subject, as the law stood in that part of the time of Sir Edward Coke, which preceded 21 Ja. I.; we have therefore selected from the reports of that learned judge the most important causes on the subject.

The figures of the pages correspond with the original French copy, and with the marginal figures of the second Edition of the English translation, Lond. fo. A. D. 1680.

The following passages in the cases referred to, apply to those instances where the King's grant is good or otherwise, by the terms *mero motu*, ex certa scientiâ, et speciali gratiâ.

	Part	Page		
Case of Alton Wood	1	43, 44, 45, 46, 48, 49, 50, 51, 53,		Trin. 42 Eliz.
William Doddington	2	32,	-	Mich. 36 & 37
Sir Hugh Cho.. ey		50, 54,		Pasch. 39
The Marquis of Winchester	3	4,	-	Mich. 21 & 22
The Dean and Chapter of Norwich		73,	-	Mich. 40 & 41
Bozoun	4	34,	35,	Mich. 26 & 27
William Holland		75,	-	Trin. 39
Wheeler	6	6,	-	Pasch. 43
Lord Chandos		55,	-	Trin. 4 James
John Webb	8	45,	-	Mich. 6
Lord Stafford		74,	-	Trin. 7

Case

		Part	Page	
Case of	John Whistler - -	10	63, 64	Hil. 10
	Arthur Legat - -		109, 112, 113, 114,	Mich.
	Priddle and Napper -	11	11, -	

Where the King's grant made at the instance of the party, out of false suggestion, or false consideration, is void, or not.

		Part	Page	
Case of	Alton Wood - -	1	41, 43,	Trin. 42 Eliz.
	Sir Hugh Cholmley -	2	54, -	Pasch. 39
	Humphrey Barwick -		94, -	Pasch. 39
	Lord Chandos - -	6	56, -	Trin. 4 James
	The Wardens of the Church of St. Saviour's, Southwark - - -	10	67, -	Trin. 11
	Arthur Legat -		110, 111, 112, 113, 114,	Mich. 10

Where the King's grant is void for default of recital, false recital, misnaming, &c. and where not.

		Part	Page	
Case of	Alton Wood - -	1	43, 45, 46, 50, 51,	Trin. 42 Eliz.
	Wiseman - -	2	16, -	Trin. 27
	Lane - -		17, -	Mich. 28 & 29
	Sir Hugh Cholmley -		50, 54,	Pasch. 39
	Dowtie - - - -	3	3, 10,	Trin. 26
	Butler and Baker -		31,	Mich. 32 & 34
	The Dean and Chapter of Norwich - -		73, 76,	Mich. 40 & 41
	Fermor - -		78, -	Hil. 44
	Bozoun - - -	4	35, -	Mich. 26 & 27
	Barwick - - -	5	93, 94,	Trin. 39
	Lord Chandos - -	6	55, 56,	Trin. 4 James
	Sir Moyle Finch -		66, -	Mich.
	The Prince - -	8	29, -	Hil. 3
	Earl of Rutland -		55, 56, 57,	Mich. 6
	Earl of Cumberland -		167, -	Mich. 7
	Earl of Shrewsbury -	9	47, -	Trin. 7
	Auditor Curle -	11	4, -	Hil. 7
	Master and Fellows of Magdalen - -		67, 76,	Pasch. 18

Where the King's grant is void to all intents, because he was deceived in his grants, and not apprized of the law or grant.

		Part	Page	
Case of	Alton Wood -	1	43, 44, 45, 46, 47, 48, 49, 50, 51, 53,	Trin. 42 Eliz.

	Part	Part	
Case of Dodington - -	2	32, 34,	Mich. 36 & 37
Sir Hugh Cholmley -			Pasch. 39
Bozoun - - -	4	34,	Mich. 26 & 27
Barwick - - -	5	94,	Trin. 39
The Dean and Chapter of Norwich	3	73, 74,	Mich. 40 & 41
Fermor - - -		78, -	Hil. 44
Green - - - -	6	29, -	Trin. 44
Lord Chandos - -		55, 56,	Trin. 4 James
Sir Moyle Finch - -		66, -	Mich. 4
Earl of Rutland - -	8	56, -	Mich. 6
Lord Stafford - -		74, 77,	Trin. 7
Earl of Cumberland -		167, -	Mich. 7
Earl of Shrewsbury -	9	47, -	Trin. 7 James
Whistler - -	10	64, 65,	Hil. 10
Wardens of St. Saviour's, Southwark -		67, -	Trin. 12
Arthur Legat -		112, -	Mich. 10
Auditor Curle - -	11	4, -	Hil. 7
Priddle and Napper -		11, -	Mich. 10
Monopolies - -		87, -	Trin. 44 Eliz.
Earl of Devonshire -		90, -	Hil. 4 James

Where the King's grant is void to all intents, because not in his power to grant; and what things he cannot grant by letters patent.

	Part	Page	
Case of Mitton - -	4	33, 34,	Pasch. 26 Eliz.
Bozoun - -		35, -	Mich. 26 & 27
Wirral - -	5	50, -	Hil. 41
Sir Drue Drury -	6	73, -	Pasch. 5 James
Earl of Bedford -	7	8, -	Mich. 28-29 Eliz.
Penal Statutes - -		36, 37,	Hil. 2 James
The Prince - -	8	16, 17, 19, 22,	Hil. 3 James
Earl of Rutland - -		55,	Mich. 6
Lord Stafford - -		77, -	Trin. 7
City of London -		125, 126,	Hil. 7
Sir George Reynel	9	97, -	Hil. 9
Anthony Lowe -		123, -	Trin. 7
Arthur Legat -	10	113, -	Mich. 10
Auditor Curle -	11	4, -	Hil. 7
Priddle and Napper -		11, -	Mich. 10
Monopolies - -		87, -	Trin. 44 Eliz.
Earl of Devonshire -		90, -	Hil. 4 James

We might have extended this list of cases to a much greater length, under a variety of divisions into which the subject could have been dissected, but as they would be rarely applicable to the modern practice of patent law, we shall not here enlarge our catalogue. We shall however subjoin the principal statutes which bore upon the preceding cases from the time of the great Restitutor of British Law, Ed. I. to the 4 Ja. I. inclusive.

No

No undue grants to be made 4 H. IV. c. 4, confirmation of grants 1 Ed. IV. c. 1, 7 Ed. IV. c. 4, 7 Ed. VI. c. 3, 4 and 5 Ph. and M. c. 18, Eliz. c. 2, 43 Eliz. c. 1.

An act annulling during the King's pleasure second letters patent making no mention of the first letters patent - - - - - - - - - 6 H. VIII. c. 15

Form of patents, of confirmation, and liberties - - - - - - - - - 13 Ed. I. c. 6.

Letters patent shall not bear date before the day of the delivery of the King's warrant into the chancery - 13 H. VI c. 6.

Offices and fees connected with, and incident to the royal grant - - 27 H. VIII. c. 11.

Confirmation of patents - - - - 1 E. VI. c. 8.

In what way the enrolment of patents is to be received in evidence - 3 and 4 E. VI. c. 4.

The exemplification or constat of letters patent under the great seal may be pleaded - - - - - - - - 13 Eliz. c. 6.

The charter of incorporation for trading to Spain and Portugal annulled - 3 Ja. I. c. 6.

Elizabeth's charter to merchant adventurers of Exeter preserved - - - 4 Ja. I. c. 9.

NOTE

NOTE K. Chap. VIII. page 71.

Acts for continuing Patent Privileges, with the Reason assigned for their Continuance.

In 13 an act was passed for vesting in John Elwick, esquire, the sole property of an engine for making stone pipes, and to enlarge the terms granted by letters patent for that purpose.

This act was obtained for making valid the letters patent for the residue of the first fourteen years more, on the ground or considerations that the work or undertaking stood still several years; and by reason that Mr. Elwick had, by great pains, labour and industry, and at a considerable expence, amounting to several thousand pounds, very much improved the engine, by bringing the same to perform more work with less labour and expence than it was capable of doing when it was first invented.

In the year 1749 an act was passed for securing the whole property, benefit, and advantage of an engine invented by Israel Pownal, deceased, for raising ballast, sullage, and sand, and for removing banks, shelves, and shoals, in rivers and harbours, to the children of the said Israel Pownal, for a certain term of years.

The equity of this case arose from the death of the patentee, the inability of his family to work the engine, and the improbability of their being reimbursed the money laid out, unless the property, by the aid of parliament, was further secured to them; which accordingly was done.

In the year 1751 an act was passed for vesting, for a certain term of years, in Michael Menzies, Esquire, his executors, administrators, and assigns, the sole property of a machine, by him invented, for conveying of coals from the places where they are dug, to the heaps at the mouths of the pits, and, in some cases, from the heaps to the staithes or places where they are put on board ships or keels.

By this act, the benefit was secured to the inventor for an additional term of fourteen years, the first term granted by the patent being inadequate to the intense application, and the large sums of money expended in the pursuit.

To these might be added the enlargement of the term in William Clockworth's patent for porcelain ware, in 1775, and of Hartley's, for iron plates, in 1777; with several other recent instances of the extension of the term in the grants; but perhaps these will be sufficient to explain the general grounds on which the additional term is obtained.

The form adopted in the statutes, for the continuance of the patent privilege beyond the prescribed period of the royal grant, 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." See page 46 ante, opinion of Mr. Justice Grose, in Hornblower and al, *v.* Bull and al: from T. R. 8. 99.

NOTE

NOTE L. CHAP. IX. p. 101.

Specification of Richard Arkwright's Patent for his Invention of certain Machines for preparing Silk, Cotton, Flax, and Wool.

TO all to whom these presents shall come: I, Richard Arkwright, of Cromford, in the county of Derby, send greeting: Whereas I, the said Richard Arkwright, did, by my petition, humbly represent to his present most excellent majesty King George the Third, that I had, by much study, application, and expence, contrived, invented, and brought to perfection certain instruments or machines, which would be of public utility in preparing silk, cotton, flax, and wool for spinning, and constructed on easy and simple principles, very different from any that had ever been contrived; that in regard I was the first and sole inventor thereof, and that the same had never been practised by any other person or persons whomsoever, to the best of my knowledge and belief, I humbly prayed his said majesty to grant unto me, my executors, administrators, and assigns, his royal letters patent, under his great seal of Great Britain, for the sole use, benefit, and advantage of my said invention, within that part of his said majesty's kingdom of Great Britain called England, his dominion of Wales, town of Berwick-upon-Tweed, and also in his colonies and plantations abroad, for the term of fourteen years, according to the statute in that case made and provided: His said majesty being willing to give encouragement to all arts and inventions that might be for the public good, was graciously

ciously pleased to condescend to my request; and therefore, by his royal letters patent, bearing date at Westminster, the sixteenth day of December, in the sixteenth year of his reign, of his especial grace, certain knowledge, and mere motion, did give and grant unto me, the said Richard Arkwright, my executors, administrators, and assigns, his especial licence, full power, sole privilege, and authority, that I the said Richard Arkwright, my executors, administrators and assigns, and every of us, by myself, or themselves, or by mine and our deputy or deputies, servants or agents, or such others as I the said Richard Arkwright, my executors, administrators, or assigns, should at any time agree with, and no others, from time to time, and at all times thereafter, during the term of years therein expressed, should and lawfully might make, use, exercise, and vend my said invention, within that said part of his majesty's said kingdom of Great Britain called England, his dominion of Wales, and town of Berwick upon Tweed, and also in his colonies and plantations abroad, in such manner as to me the said Richard Arkwright, my executors, administrators, and assigns, or any of us should in our discretion seem meet; and that I the said Richard Arkwright, my executors, administrators, and assigns, should and lawfully might 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 therein mentioned; to have, hold, exercise, and enjoy the said licence, powers, privileges, and advantage therein before granted, or mentioned to be granted unto me the said Richard Arkwright, my executors. administrators, and assigns, for and during and unto the full end and term of fourteen years from the date of the said presents next and immediately ensuing, and fully to be complete and ended, according to the statute in such case made and provided. In which said letters patent is contained a proviso, that if the said Richard Arkwright should not particularly describe and ascertain the nature of my said invention, and in what manner the same is to be performed,

formed, by an instrument in writing under my hand and seal, and cause the same to be inrolled in his said majesty's High Court of Chancery, within four calendar months next and immediately after the date of the said letters patent *, that then the said letters patents and all liberties and advantages whatsoever thereby granted, should utterly cease, determine, and become void, any thing therein before contained to the contrary thereof in any wise notwithstanding; as in and by the said letters patent, relation being thereunto had, may more fully and at large appear. Now know ye, that I the said Richard Arkwright, in compliance with the said proviso, do hereby describe and ascertain the nature of my said invention, and declare that the plan thereof, drawn in the margin of these presents, is composed of the following particulars; (that is to say:)—No. 1, 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 center (d.) No. 2, an iron frame with teeth at (a,) working against a lower frame with like teeth at (b;) this lower frame is firmly connected to a wooden frame, by means of the screws (c, c;) the upper teeth are made to act against the lower, by means of the joints, (d, d, d, d.)—No. 3, is a piece of cloth with wool, flax, hemp, or any other such materials spread thereon, as at (a.) —No. 4, is a crank and a frame of iron with teeth at (a,) being moveable at the joints (b, b, b, b,) by means of a crank, and by a cord turning the pulley or wheel (c;) this motion of the teeth (a,) works them backwards and forwards upon the cylinder, No. 5, and dischargeth the cotton, wool, &c. from it at (d.)—No. 5, is the last-mentioned cylinder, which hath fillet cards: behind this cylinder, No. 3, delivers its contents upon another cylinder.—No. 6, consists of rollers fixed to a wooden frame, the contents of No. 5, being brought to it at (a,) and going through at (b,) produceth it a proper size (f;)

(c, c,)

* This term of four months was acceded to under the special circumstances. See chap 10, sect. 3, p. 175.

(c, c;) are brushes for cleaning the machine. No. 7, a cylindrical box for twisting the contents of No. 6, at (b;) (a, a,) are two rollers, one moving the other, between which the contents of No. 6, passeth into the cylinder (b;) (c,) is a dead pully fixed to the frame;—(d,) a cord which passing from the pully (c,) moves the rollers (a, a.)—(F,) a wheel; the movement of which is brought from (F,) to No. 10, and is fixed to No. 6.—No. 8, a machine for twisting the contents of No. 6, in which (d, d,) is a frame of iron; (b,) a roller, on which a bobbin, (c,) is fixed; this is turned the same as No. 7, that is, by a dead pulley, or wheel fixed to a wooden frame, at (g.)—No. 9, a spindle and flyer, being fixed to No. 6, for twisting the contents from (b,) in No. 6.—(d,) is a pulley under the bobbin, which hath a communication by a band to No. 10, at (d, d,) it being a conical or regulating wheel, which moves the bobbin quicker or slower as required.—No. 10, a spindle, which being fixed to No. 6, at (a,) worketh No. 7, No. 8, or No. 9. at (F, F, F,) by the pulley (F, e.)—(d,) a regulator for No. 9.—(b,) a socket, having a bolt going through (d, d,) and (F, c,) to (G,) stops or sets the whole going by means of a catch (a,) for the pulley (G, G,) being loose upon the spindle, (o,) a lever, moveable about, (k,) raiseth or falleth the bolt (h.) In witness whereof, I the said Richard Arkwright, have hereunto set my hand and seal, the tenth day of April, in the sixteenth year of the reign of his said most excellent majesty, George the Third, by the grace of God, of Great Britain, France, and Ireland, king, defender of the faith, &c. and in the year of our Lord, one thousand, seven hundred, and seventy-six.

RICHARD ARKWRIGHT.

Sealed and delivered by the abovesaid
Richard Arkwright, (being first
duly stamped) in the presence of

JOHN HARKER,

D. CROFTS, Clerk to Mr. Evans in Nottingham.

NOTE M. CHAP. XIII. p. 186.

Form of the Caveat.

CAVEAT against granting a patent to any person or persons for any improvement in the steam engine without notice to A. B. of the Strand, Westminster.

NOTE N. CHAP. XIII. p. 189.

Form of the Petition.

To the King's Most Excellent Majesty.

The humble Petition of A. B. of G. in the County of H. Engineer,

SHEWETH,

THAT your petitioner hath, after much study and expence, found out and invented various improvements in the construction of steam engines, and in the application of fuel to boilers, furnaces, and other purposes, which your petitioner conceives will be of great public utility; that your petitioner 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 or belief.

Your petitioner therefore most humbly prays your Majesty will be graciously pleased to grant unto him, his executors, administrators, and assigns, your Majesty's

royal letters patent, under the great seal of the united kingdoms of Great Britain and Ireland, for the sole use, benefit, and advantage of his said invention, within that part of your Majesty's united kingdom of Great Britain and Ireland, called England, your 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 your petitioner shall ever pray, &c.

NOTE O. CHAP. XIII. p. 189.

Form of the Oath.

A. B. of ————, maketh oath and saith, that after much study and expence, he has invented certain improvements in a steam engine: that he is the first inventor thereof, and that the same are entirely new, and have not been practised or used by any other person or persons to the best of his knowledge and belief.

(Signed) A. B.

Sworn, &c.

before

Master in Chancery.

NOTE

NOTE P. CHAP. XIII. p. 190.

Form of the Attorney General's Report.

To the King's Most Excellent Majesty.

MAY IT PLEASE YOUR MAJESTY,

IN humble obedience to your Majesty's commands, signified to me by his Grace the Duke of Portland, one of your Majesty's principal secretaries of state, referring to me the annexed petition of A. B. of G. in the county of H. to consider thereof, and report my opinion what may be properly done therein; which petition sets forth, that the petitioner hath, after much study and expence, invented certain improvements in the construction of steam engines, which the petitioner conceives will be of great public utility. That the petitioner is the first and true inventor thereof, and that the same has not been practised by any other person or persons to the best of his knowledge or belief. And the petitioner therefore most humbly begs that your Majesty will be graciously pleased to grant unto him, his executors, administrators, and assigns, your Majesty's royal letters patent, under the great seal of Great Britain, for the sole use, benefit and advantage of his said invention, within that part of your Majesty's kingdom of Great Britain called England, your 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.

I humbly beg leave to certify unto your Majesty, that in support of the allegations contained in the said petition, an affidavit, C. D. of E. in the county of F. gentleman, hath been laid before me, whereby he maketh oath and saith, that A. B. of G. in the county of H.

hath communicated to him certain improvements in the construction of steam engines, which this deponent conceives will be of great public utility, and that the same are entirely new and never before used or practised, to the best of this deponent's knowledge or belief.

Upon consideration whereof, and as it is entirely at the hazard of the petitioner whether the invention is new or will have the desired success, and as it may be reasonable for your Majesty to encourage all arts and inventions which may be for the public good; I am humbly of opinion, that your Majesty may, by your royal letters patent under the great seal of Great Britain, grant to the petitioner, his executors, administrators, and assigns, the sole use, benefit and advantage of his said invention, within that part of your Majesty's kingdom of Great Britain called England, your 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. If your Majesty should be graciously pleased so to do with the usual proviso, requiring the petitioner, within such reasonable time as should be limited in such letters patent, to be computed from the date thereof, to cause a particular description of the said invention, and in what manner the same is to be performed, under his hand and seal, to be enrolled in your Majesty's High Court of Chancery, otherwise the said letters patent to be void.

All which I humbly submit to your Majesty's royal wisdom.

(Signed) SP. PERCIVAL.

10 *June* 1803.

List

List of Patents obtained between 1st January 1800, and 31st March 1803; alphabetically arranged, according to the Subjects to which they refer.

Note.—The Professions or Employments, and Places of Residence of the Patentees, are given in a subsequent Catalogue.

THE following List comprises three hundred and twenty-five patents which have been granted during the last three years and three months. The concise remarks which are sometimes introduced on the general design or utility of these patents are given from the authority of the patentees: they will therefore be conceived to be more correct; but some allowance must be occasionally made for the prejudices of the inventor, however ingenious or liberal, in favour of his own discoveries.

It is a melancholy reflection, that of the numerous patents which pass the great seal, and, of course, subject the grantee to considerable expence; very few become sufficiently popular and notorious to reward him for the application of his time, labour, and talents. We mention this as a caution to men of enterprize and ability, that the sanguine temperament to which they are commonly subject may not lead them to colour too highly the remote prospect. A profound observer of human nature has told us, that before we arrive at the age of forty, we usually make an anticipation too favourable of the future; and the spirit and energy which supply the in-

ventive talent, is peculiarly liable to this species of self-deception.

It will be seen in the Catalogue, that a great variety of patents have been extended to objects connected with those branches of the trade and manufactures of this country, which are of the first importance to commercial prosperity. No less than thirteen patents in a very short period have been assigned for improvements on the steam engine *; most of which would have been probably suppressed if the legal discussion on the patent of Messrs Boulton and Watt, for an improvement on the same invention, had not completely decided the question on the competency and validity of patents for improvements, whenever those improvements can be deemed *material* and *useful*.

The mere inspection of the following list will shew how necessary it is that patentees should be informed of the rules laid down in the law of patents. It will be seen how great a portion of the grants appear by their titles to be extended not to any *piece of mechanism, utensil, or manufacture*, but to a *process, method*, or *principle* for which no patent can be valid. It is, however, some consolation to reflect, that what is stated as such is often the application of a method, process, or principle in some substantial form, for which a patent can be maintained. It is now understood, that where this construction can be given, it will be applied in the most beneficial sense for the patentee; and that no advantage will be taken of minute verbal criticisms, to render the royal grant nugatory, and to disappoint the inventor of his equitable reward.

* Another patent has been taken out for the steam engine since the date of the list, which, with some other patents, will be introduced as Addenda to this Catalogue.

CATA-

CATALOGUE.

A.

1 ACID, White Lead, &c.—Thomas Grace; for a method of making an acid for corroding lead, and for other purposes; and also a new method of preparing and making white-lead, either with or without the said acid. December 30, 1800.

2 Air slides.—Charles Mercie; for slides, which he calls air slides, to be fixed to windows, doors, and partitions of all descriptions, for preventing the external air from entering rooms, carriages, &c. February 6, 1802.

3 Alarum.—Joseph Smith; for a method of fixing and setting an alarum, or alarum bell, so contrived as to alarm and awaken families in case of fire. August 19, 1802.

4 Alkali.—George Hodson; for a method of preparing or manufacturing fossil or mineral alkali, from various substances. February 27, 1802.

5 Arches, construction of.—Thomas Wilson and Rowland Burdon; for methods of uniting, combining, and connecting the metallic patent blocks of the said Rowland Burdon, for the construction of Arches. July 23, 1802.

B.

6 Bagging.—Benjamin Haden; for an improvement in the manufacture of bagging, for packing of nails, and other purposes. February 28, 1803.

7 Barges, &c.—James Tremeere; for a method of working barges and other vessels. October 5, 1801.

8 Barilla.—Thomas Howard; for a new method of making British barilla and pot-ash, and of obtaining a greater quantity of alkali than hitherto discovered. June 2, 1801.

9 Barrel Organs.—John Longman; for newly invented improvements in the construction of barrel organs, to prevent them from getting out of order; and that other musical instrument or instruments may be internally united or attached thereto, and to play with the same barrel. January 27, 1801.

10 Beer, &c. drawing.—Thomas Parkinson; for an hydrostatic engine or machine, for the purpose of drawing beer, or any other liquors, out of a cellar or vault; or for raising water out of mines, ships, and wells; or for any other purpose where fluids are required to be raised. February 1, 1800.

11 Bleaching.—John Turnbull, junior; for his newly invented processes, or improvements of processes, and apparatus applicable to the bleaching or whitening, and to the purifying, washing, and cleansing of cotton, flax, hemp, silk, and wool, and to the purifying of goods of every description, made or manufactured of cotton, flax, hemp, silk, and wool. Nov. 15, 1800.

12 Boats or Barges conveying.—Lawson Huddlestone; for a method of conveying boats or barges from a higher level to a lower, and *vice versa*, on canals. December 30, 1800.

13 Boats or vessels moving.—Edward Steers; for a machine to be applied to boats or vessels, for the purpose of moving them along with ease and celerity. March 19, 1800.

14 Bolting Cloths.—Benjamin Blackmore; for an elastic spring, for the improvement and more complete manufacturing and forming bolting cloths without seams. March 31, 1800.

15 Books binding.—Ebenezer Palmer; for a metallic hinge or chain, whereby the art of binding books is greatly aided and improved; particularly merchants' account books. June 13, 1800.

16 Boring.

16 Boring.—Joseph Chirm; for a machine, on an improved construction, for the purpose of boring timber for water pipes, and other purposes. May 12, 1801.

17 Boring Cylinders.—Michael Billingsley; for an instrument, engine, or machine, to be worked by steam, water, or horses, for the purpose of boring cylinders. December 22, 1802.

18 Box and Axle-trees.—John Lockett; for a new box and axle-tree for carriages of every description; and for lathes and grindstones, upon a new and improved principle. July 8, 1800.

19 Box, Metal.—Joseph Jacob; for a metal box for the axle-trees of wheels, carriages, mills, engines, and other machines. Jan. 20, 1803.

20 Breach and Lock.—Charles Grierson; for a breach and lock for single and double-barrel guns, pistols, and other fire-arms, on a new and improved principle. December 19, 1801.

21 Bricks.—John Stevens and Thomas Angell White; for their new method of making bricks. January 16, 1801.

22 Bricks, Tiles, and Pottery Ware.—Isaac Sandford; for a method of manufacturing and making bricks, tiles, and pottery-ware, in general, and of discharging the moulds used therein. January 13, 1800.

23 Bridges, Warehouses, and other Buildings.—Samuel Wyatt; for a method of making and constructing bridges, warehouses, and other buildings, without the use of wood, as a necessary constituent part thereof. June 10, 1800.

24 Building.—Samuel Miller; for a machine and process for manufacturing materials for the better securing walls and roofs of houses from lateral pressure, and the inclemency of the weather; by which process the buildings will be built of better materials, and rendered more durable. October 13, 1801.

25 But-

25 Buttons.—Joseph Barnett; for a method of making buttons for wearing apparel. February 4, 1800.

C.

26 Cables and Hawsers.—James Mitchel the elder, and James Mitchel the younger; for their further improvements in the manufacturing of cables and hawsers.—March 9, 1802.

27 Calico, &c. glazing.—Jabez Carter Hornblower; for a method of glazing calicoes, cottons, muslins, linens, &c. February 4, 1800.

28 Calico printing.—James Duxburgh; for a machine or instrument to print distant sprigs or spots on calico, cotton, stuffs, linen, silk, satin, cloth, woollen, baize or leather, in a more complete and expeditious manner than has been hitherto used. December 17, 1800.

29 Candles.—Thomas Binns; for a method of manufacturing candles of spermaceti, tallow, or any other solid inflammable substance. April 23, 1801.

30 Candlesticks.—William Rayhould; for candlesticks upon entirely new principles, which will receive, and hold firm, candles of various sizes. May 12, 1800.

31 Capstans, &c.—Thomas James Plunknett; for improvements in capstans and windlasses for ships, and other purposes. February 26, 1801.

32 Carriages.—William Turner; for a machine to, applied to, and adopted in the construction of wheel-carriages; for improving the principle, and increasing the power of the draught, so as to reduce the quantity of active force necessary to be employed therein. May 30, 1800.

33 Carriages.—George Medhurst; for a method of driving carriages, of all kinds, without the use of horses. August 2, 1800.

34 Carriages.—Isaac Hadley Reddell; for a method of constructing carriages for the conveyance of merchandize

chandize either by land or water; which carriages may be removed, either loaded or unloaded, from the land to the water, or from the water to the land, with ease, expedition, and safety. August 2, 1800.

35 Carriages.—Isaac Hadley Reddell; for his newly invented method of constructing travelling carriages, which are more safe, and, in many respects, more eligible, than those which are now in common use. August 13, 1800.

36 Carriages.—John Theodore Koster; for a new method of building carriages. August 31, 1801.

37 Carriages.—Thomas German; for a method of greatly easing the labour, and lessening the number of horses in the draft of coaches, carts, waggons, drays, and all land carriages whatsoever. September 12, 1801.

38 Carriages.—Richard Pottinger; for an apparatus whereby persons riding in carriages may, on occasions, and in circumstances of imminent danger, liberate themselves, and escape impending mischief, by freeing the horse or horses instantly from the carriage. February 27, 1802.

39 Carriages.—John Lewis; for a method of preventing accidents by a horse or horses drawing a carriage or carriages. February 27, 1802.

40 Carriages.—James Roberts and Edward Brine; for machinery for the purpose of dragging or locking the wheels of carriages of every description, and for instantaneously disengaging the horses therefrom. November 29, 1802.

41 Carriages.—Philip James Meyer; for a machine to prevent danger to persons driving, or being in curricles, single horse-chaises, or other carriages, by horses being restive, breaking or running away with such carriages, or backing, in consequence of taking fright while harnessed thereto. March 24, 1802.

42 Car-

42 Carriages.—John Williams; for a method or means of disengaging horses from carriages. March 24, 1802.

43 Carriages.—G. F. Bauer; for improvements in the construction of carriages, and the wheels of carriages. May 5, 1802.

44 Carriages.—James Tate; for improvements in the construction of wheel carriages. June 26, 1802.

45 Cement.—John Baptist Denize; for a cement for various purposes. July 16, 1800.

46 Clarinet, &c.—James Wood; for an improvement upon the musical instrument called the clarinet; which invention is also, as to part thereof, applicable to an improvement upon most of such other musical wind instruments as are played upon with keys. March 19, 1800.

47 Cloth, finishing of.—Robert Fryer and James Bennet; for a method of manufacturing, cutting, dressing, dyeing, and finishing of cloth. June 20, 1800.

48 Collars for Horses.—John Edwards; for newly invented collars for horses, on an improved construction. May 2, 1801.

49 Colour from Malt.—Matthew Wood; for preparing a colour from malt, for the purpose of colouring spirits, wines, and other liquors. May 31, 1802.

50 Colours preparing.—Thomas Smyth; for a method of preparing colours in cakes and powder, from logwood and other vegetable substances, for drying and painting. July 16, 1800.

51 Common Waggon, Improvements on.—Robert Mason; for improvements on a common waggon, whereby the same may be separated and used as two carts, which he denominates the "Patent Hampshire Waggon." February 28, 1803.

52 Cooking.—Edward Walker; for a portable stove or kitchen, for the purpose of dressing and cooking victuals. May 12, 1801.

53 Cooking.—George Stratton; for improvements in machines for cooking, and fire places. June 26, 1801.

54 Cop-

54 Copper-Plates.—William Weller; for a method of manufacturing, forming, making, and engraving copper plates, for printing policies to secure persons from loss of property of certain descriptions. June 17, 1800.

55 Cordage.—Joseph Huddart; for improvements in tawing and manufacturing cordage. July 1, 1800.

56 Cordage.—William Chapman; for the application of certain substances, either separately or combined, as a preservative of cordage. June 5, 1801.

57 Cordage.—William Hoard; for an improved portable machine for manufacturing ropes and cordage, of any length, in a short space of ground, peculiarly adapted for shipping. July 20, 1801.

58 Cork-Screws.—Edward Thomason; for an improvement on cork-screws. May 7, 1802.

59 Corn and seeds, separating from the straw.—William Lester; for an engine or machine, on an improved construction, for separating corn and seeds from the straw; part of which machinery may also be applied to other useful purposes. June 19, 1802.

60 Corn damaged.—Henry Gardiner; for a method of preventing all sorts of corn and seeds, and various other merchandize, from receiving damage by heat, on board ships, and in warehouses, &c. and of improving all such corn, &c. as may have received damage by heat or otherwise. April 15, 1802.

61 Corn, Grass, &c. cutting.—Robert Meares; for a machine for cutting standing corn, grass, and the like. May 20, 1800.

62 Corn or Grain, dressing of.—John Cooch; for a machine for the purpose of winnowing or dressing corn or grain for bread, cattle or seed. June 17, 1800.

63 Corn Mills.—Thomas Wright; for an improved method of making hand-stone corn-mills, for the purpose of grinding wheat and other grain into flour. April 25, 1801.

64 Cotton.—Anthony Bowden; for an engine or machine

chine for bathing or beating and cleaning cotton. July 1, 1801.

65 Cotton Wool, &c. cleansing.—Thomas Connop; for a machine for batting, opening, and cleansing cotton wool, and sheep's wool. March 30, 1802.

66 Cotton Wool, beating and dressing.—James Pearson; for a machine for beating and dressing cotton wool, or flax. April 15, 1802.

67 Cotton, &c. retaining, when pressed.—Archibald Blair; for a method of retaining cotton, and other elastic substances, when pressed. August 19, 1802.

68 Cotton Warp, dressing.—Thomas Johnson; for a method of preparing and dressing cotton warp. February 28, 1803.

69 Cotton Wool, batting and opening.—Wm. Walmsley; for a machine for batting and opening cotton wool, sheep's wool, tow, hemp, and flax, upon a a new principle. July 2, 1802.

70 Cotton Yarn.—Robert Stewart; for a method of starching and preparing cotton yarn in that state called the cop, by which means it is at once fitted for being made into warp, on the chain of the web, without undergoing certain operations at present in use; and also that the cotton yarn so prepared by him in the cop, is in like manner at once fitted for the purpose of weft or woof, by which means certain expensive operations are also saved. March 19, 1800.

71 Covering the Floors of Rooms.—Thomas Winter; for a new manufacture for covering the floors of rooms, for covering and packing goods and merchandizes, and fit to be used for various other purposes. June 2, 1801.

72 Crank, compound.—George Medhurst; for a newly invented compound crank for changing a circular motion into a rectilinear one, and *vice versa*; which is applicable to various mechanical purposes. January 27, 1801.

73 Creeks, cleansing.—Stephen Hooper; for machines or machinery, upon improved principles, and methods of

of using the same, for the purpose of cleansing creeks, bars of harbours, and preventing bars from making. Feb. 5, 1803.

74 Curricle Bar.—Obediah Elliot; for an eccentrical anti-labourist spring curricle bar, for one or more horses, upon a new and improved construction. March 9, 1802.

75 Cutlery Ware.—Joseph Eyre; for a method or process of impressing the japan upon ornamented handles of knives, forks, razors, and other cutlery ware, made of wood, paper, &c. in imitation of handles made of tip or horn. December 13, 1800.

D.

76 Dentifrice.—Joseph Sigmond; for his newly invented preservative lotion and dentifrice, which he calls the British Imperial Lotion and Dentifrice, for preserving and beautifying the Teeth and Gums. November 25, 1800.

77 Dining Tables.—Robert Walker; for dining tables, upon an entirely new construction. November 6, 1802.

78 Distilling, drying Coffee and Sugar, mode of.—Charles Wyatt; for improvements in the apparatus for, and mode of distilling, and for drying coffee and sugar. August 2, 1802.

79 Diving Machine.—William Forder; for a diving machine, to be used about shipping, and in stopping holes and leaks in ships bottoms, and for other purposes. October 2, 1802.

80 Doors.—Thomas Pritty; for affixing and hanging certain springs, joints, and other apparatus to doors. May 5, 1802.

81 Drawing and Painting.—Thomas Robert Guest; for boxes of a new and improved construction of various forms and sizes, to contain certain new and improved materials, and other necessary articles for drawing and painting; likewise an entirely new method of arranging on scientific principles, the

colours to be contained in the said boxes. Which arrangement will be of the greatest utility to officers of the army, and engineers, for reconnoitering sketches or plans; to the navy, for signal cards; as well as to professional men, and private persons. June 2, 1801.

82 Dressing Piece Goods.—Thomas Jotham; for a machine for raising the wool pile or fibres on woollen, cotton, or other piece goods, preparatory to shearing; and for dressing or dubbing cloths, either wet or dry, otherwise than by geren cards and pickards. September 15, 1801.

83 Dressing Piece Goods.—Thomas Fryer; for a method of manufacturing goods from cotton, cotton and woollen, cotton and silk, cotton and linen, or cotton and mohair, in such a manner as to appear as if covered with ermine or fur, and in imitation thereof. October 30, 1801.

84 Drill.—William Jackson; for a machine or drill to be fixed to a plough-beam for drilling or sowing turnips. Nov. 3, 1801.

85 Drowning, Machine to prevent.—Lawrence Collin, and James Butters; for a machine for saving persons, though ignorant of the art of swimming, from drowning, which they propose to call the Collinette. December 3, 1801.

86 Dry Harbours, &c. deepening.—Stephen Hooper; for his newly invented method, by means of certain machinery, of cleansing and deepening dry harbours, rivers, creeks, &c. part of which machinery may be applied to other useful purposes. December 4, 1800.

87 Drying Piece Goods.—Alexander Bryce; for a method of drying all kinds of yarn, whether linen, woollen, cotton, or silk, or composed of all or either of these articles, as also all kinds of cloth or stuffs commonly called piece goods. January 2, 1802.

88 Dyeing.—Joseph Lewis; for improvements in the art of dyeing, by means of a new method of cooling the cloth,

cloth, and other piece goods, (particularly in dyeing black); and a new mode of applying the fire for the purpose of heating the boiler or other vessels, and which may be also applied to the heating of other boilers or vessels where heat is required. January 16, 1802.

89 Dyeing with Madder.—John Leach; for a method of using madder in dyeing calicoes, linens, and stuffs, whereby a great saving is made in the consumption of that root or drug. April 6, 1802.

E.

90 Engines, &c. Hydraulic.—J. G. J. B. Count de Thiville; for certain new methods of giving an independent moving power to all machines by means of hydraulic engines; and also of constructing and employing separately several of their parts, such as wheels, pistons, and apparatus for reducing friction, upon new principles. February 5, 1801.

F.

91 Fat, Animal.—Thomas Binns; for his newly invented method of applying heat for the purpose of melting and manufacturing animal fat, and a variety of other solid substances. October 27, 1800.

92 Felt.—William Bicknell; for a method of covering felt for the making of caps and helmets, and for various other useful purposes. April 28, 1801.

93 Files, manufacturing of.—William Nicholson; for machinery for the better and more expeditious manufacturing of files. August 14, 1802.

94 Fire-Arms.—Deers Egg; for improvements upon fire-arms. March 23, 1803.

95 Fire-Arms.—Thomas Gill, for a new method of rifling the bores or calibres of cannon, and of musquet, carbine, gun, and pistol barrels. August 2, 1800.

96 Fire-Arms.—Joseph Hall; for a hammer for guns, pistols,

pistols, and other fire-arms, which contains the prime, and effectually preserves it from damp and and rainy weather. January 16, 1802.

97 Fire-Grate.—Matthew Wyatt; for a fire-grate upon an improved construction. December 21, 1802.

98 Fire-Stove.—Robert Young; for an improved fire-stove or grate. February 3, 1801.

99 Flax, Hemp and Silk.—Thomas Parker, William Telper, and Alexander Alfeck; for their further improvements in preparing and manufacturing flax, hemp, silk and other materials. April 8, 1802.

100 Flax, improvement in manufacturing of.—Thomas Parker, William Telper, and Alexander Alfeck; for their improvements in preparing and manufacturning flax, hemp, silk and other materials. February 3, 1801.

101 Flies, &c. chasing away.—William Dobson; for machinery for the purpose of chasing away flies and venomous insects. November 25, 1802.

102 Fluids, decomposing, &c.—John Wilson; for a method or methods of purifying, clarifying, reducing, separating and decomposing fluids. May 31, 1802.

103 Force, repulsive.—Samuel Miller; for his improved method of applying the repelling or repulsive force of nature, in order to give a stronger impulse to any substance or body in motion, as well as to destroy the effects of its baneful activity. March 16, 1803.

104 Friction, lessening.—William Sellers; for a newly improved apparatus of machinery, for the purpose of diminishing friction, and communicating a direct rotary motion from one wheel to another, by means of cranks, which he calls alternate relieving cranks, applicable to wind or water drainage mills, or those for raising water for irrigation, and various other useful purposes. June 18, 1801.

105 Frog, artificial.—Edward Coleman; for an artificial frog,

frog, which being applied to the natural frogs of horses feet, will effectually prevent contracted hoofs, thrushes, and cankers. February 1, 1800.

106 Fuel.—Peter Davy; for improved fuel. May 20, 1800.

107 Fuel.—James Anderson; for a method of economising fuel in the heating of houses, and for improving the construction of hot-houses. February 10, 1801.

108 Furnace Stove, or Fire-Place.—Edward Stephens; for a furnace stove, or fire-place, which can conveniently be applied to the burning of lime-stone, at the same time that it is used for heating all manner of corn-kilns. January 29, 1803.

109 Furniture.—John Elwick; for a new method of framing together chairs and sofas of every kind, and which invention is intended to be applied to every description of household furniture. July 1, 1800.

G.

110 Games.—Ann Young; for an apparatus consisting of an oblong-square box, which, when opened, presents two faces or tables, and of various dice, pins, counters, &c. contained within the same; by means of which six different games may be played, which, besides being amusing and interesting, and such as children of eight years old may be taught to play, are at the same time an improving exercise upon, and serve to render familiar, and to impress upon the memory, the fundamental principles of the science of music, particularly all the keys or modulations, major and minor, both with common and uncommon signatures, musical intervals, chords, discords, with their revolutions, and the most useful rules of thorough bass. March 16, 1801.

111 Gear.—Robert Dickinson; for improvements in the the construction of, and additions to, the saddles, harness, and other gear, necessary or useful for the employ of horses and other animals. November 10, 1801.

112 Glass.

112 Glass.—John Donaldson; for a method of making all kinds of glass in a more expeditious manner than hitherto attempted. March 5, 1802.

113 Goniometer.—Napthaly Hart; for an instrument, or goniometer, which will measure or lay down angles to minutes, from the smallest radius to any extent, draw circles to any radius, draw and measure all kinds of right-lined figures made use of in geometry, trigonometry, and navigation, with an accuracy and dispatch hitherto not known, which instrument he calls the Hartesian Goniometer, and a clamp, applicable thereto, and to other useful purposes; and also a new suspensor and orbicular castor, applicable to maritime and other purposes. December 3, 1801.

114 Gout, Rheumatism, &c.—William Beer; for a medicine, and method of administering the same, for the more effectually curing the gout, rheumatism, &c. December 9, 1802.

115 Grain and Seeds, depositing in the ground.—James Richards; for a machine or machines for setting or depositing in the ground, grain and seeds. April 26, 1800.

116 Grinding Bark, Mill for.—James Weldon; for his further newly invented machine or mill for grinding bark, and various other articles, for which he obtained former letters patent in January 1798; and which machine or mill so improved, may be applied to several other useful purposes. February 10, 1801.

117 Gums, Substitutes for.—Archibald Earl of Dundonald; for a new method or methods of preparing a substitute or substitutes for gum-senegal, and other gums, extensively employed in certain branches of manufacture.

118 Gun.—Robert Vazie; for an improvement in the construction and application of a gun, by means of removing the touch-hole from the side to the centre of the butt-end of the barrel, and forming therefrom a cylindrical communication, &c. January 23, 1801.

119 Gun and Pistol Locks.---John Prosser; for a new-invented water-proof pan and hammer for gun and and pistol locks; and also a breech for gun and pistol barrels, for the purpose of a quicker and more forcible explosion of gun-powder. December 9, 1800.

120 Gunpowder, Conveyance of.—Henry Smith; for an improved vessel or barrel for the more safe and expeditious carriage and conveyance of gunpowder. Nov. 13, 1802.

H.

121 Harbours, Rivers, &c.—Stephen Hooper; for machines or machinery for the purpose of cleansing harbours, rivers, &c. November 10, 1801.

122 Hard Substances, dividing.---Samuel Millar; for a machine and process for more easily dividing hard substances, as well as for raising all kinds of heavy weights, and driving all sorts of machinery. February 4, 1800.

123 Harps.---Sebastian Errard; for improvements in the musical instrument called the harp. March 24, 1802.

124 Harps.---Errard; for improvements in the construction of harps and piano fortes. May 16, 1801.

125 Harps, Pedal.---George Froschle; for improvements in the pedal harp. May 3, 1800.

126 Harrows.---William Wilde; for improved machinery or apparatus to be attached or connected to harrows, whereby those implements of husbandry will execute their work to much greater advantage than by any mode hitherto practised. February 17, 1801.

127 Hats, Caps, &c.---William Pritchard and Thomas Wilmore; for an article for the use of hats, soldiers caps, helmets, &c. May 2, 1801.

128 Hats, Leghorn, and Caps.—Richard Hunt; for improvements on Leghorn and chip hats. May 18, 1802.

129 Hats, Straw Plait for.—Edward Simpson and Caleb Isbister;

Isbister; for an improved manufacture of straw plait, made of split straw, presenting only the outside surface of the straw to the eye; and also of other plait of split straw, laid, put, or stuck upon silk, paper, or wood. May 8, 1800.

130 Hay, &c. cutting.—William Lester; for an engine or machine for cutting hay and straw into chaff, and other purposes, for the use of cattle. February 4, 1800.

131 Hay, &c. cutting.—William Lester; for his further improvement upon an engine or machine for cutting hay and straw into chaff, for which he obtained former letters patent. February 17, 1801.

132 Heating Air.—Bryan Higgins; for an apparatus for heating air equally to any requisite degree, and methods of applying the air so heated with peculiar advantage, efficacy, and economy of the fuel, to the numerous purposes for which stoves and kilns have hitherto been employed. February 19, 1802.

133 Heavy Bodies, moving.—William Pocock; for a machine for raising, lowering, and moving heavy bodies. April 23, 1800.

134 Herrings and Sprats, preserving.—Benjamin Batley; for his newly invented method of curing herrings and sprats. Sept. 11, 1800.

135 Herrings and Spr , preserving.—Benjamin Batley; for a further new method of curing and preserving herrings and sprats, which will also extend to the curing and preserving of other fish. January 20, 1801.

136 Hinges.—Stephen Wells; for hinges on a new construction. April 3, 1802.

137 Horses, Harness of, &c.—Robert Dickinson; for improvements in the arts of working, and making the furniture, accoutrements, or apparatus, useful or necessary for the employment of horses, or otherwise relating to the same. September 27, 1802.

138 Horse-Shoe.—William Moorcraft; for a further new and improved method of manufacturing horse-shoes. May 3, 1800.

139 Horse-

139 Horse-Shoe-Nails.—John Spencer; for a new method of making horse-shoe-nails. June 20, 1801.

140 Horses, ungovernable.—Robert Wilson; for an apparatus for the purpose of stopping ungovernable horses. January 20, 1803.

141 Horizon Artificial.—Chester Gould; for an apparatus or artificial horizon, to be attached to, and used with the quadrant or sextant, for the purpose of taking the altitudes of celestial and other objects, either on land or water, without the assistance of the natural horizon. November 17, 1801.

142 Human Body, supporting.—Augustus Fred. Thoelden; for a mechanical apparatus for supporting the human body. October 30, 1802.

143 Hydraulics.—Thomas Parkinson; for an apparatus to be applied to engines for conveying fluids therefrom. January 2, 1802.

144 Hydrometers.—William Specr; for an improvement in the construction of hydrometers. August 2, 1802.

J.

145 Jacks.—Thomas Penny; for a mode of sinking, locking up the jacks, pressing, drawing back the needle bar, and keeping up the jacks in the frames, for the more simple and expeditious frame-work knitting of silk, thread, cotton, and worsted. July 24, 1800.

146 Iron Liquor.—James Ashworth; for a method of making iron liquor, for the use of dyers and printers. March 24, 1802.

147 Iron, Pig.—Isaac Birch; for improvements in, or additions to, the furnace as hitherto used for smelting and making pig iron. April 8, 1802.

148 Iron-Rail Roads.—Jonathan Woodhouse; for a method of forming a cast-iron rail, or plate, which may be used in iron-rail roads, or ways, for the working and running of waggons, carts, drays, and other carriages, on public and other roads; and also a new method of fixing, fastening, and securing

such cast-iron rail, or plate, on such roads. February 28, 1803.

L.

149 Lamp and Burner.—John White and James Smethurst; for a newly invented lamp and burner. Nov. 15, 1800.

150 Lamp or Lanthorn.—Thomas Dawson; for a lamp or lanthorn, upon an improved construction. November 25, 1802.

151 Lamp.—J. G. J. B. de Thiville; for a lamp or light, for lighting chambers, rooms, halls, &c. May 26, 1800.

152 Lamps and Reflectors.—James Smethurst and Nicholas Paul; for improvements in lamps and reflectors. October 30, 1802.

153 Lands, draining of.—Richard Lumbert; for improvments on the plough, or machine for draining land. February 4, 1800.

154 Lead, &c. extracting.—William Henry Clayfield; for a method of reducing and extracting lead, and other metals from a compound substance, commonly known by the name of Regulus. February 10, 1803.

155 Lead Saccharum.—John Whitton; for a lead saccharum, for the use of calico printers, and several other useful purposes. May 10, 1800.

156 Leather.—James Hitchcock; for his newly invented art or method of changing and converting skins of parchment and vellum into leather, and making such leather water-proof. September 15, 1800.

157 Leg and Arm, artificial.—James Potts; for his newly invented artificial leg and arm, upon a new and improved construction. Nov. 15, 1800.

158 Lever, universal.—Simon Huguenin; for a machine for accelerating motion with little friction, to be called the universal lever. November 13, 1802.

159 Lime.—Charles Earl of Stanhope; for a new method of burning chalk, marble, and lime-stone into lime. July 20, 1801.

160 Linen

160 Linen cloth, &c. bleaching.—John Glover, for a method of bleaching linen cloth, and other cloths. March 24, 1800.

161 Liquors, heating.—Thomas Martin; for a method of applying fire by means of certain machinery, for the purpose of heating liquors, and applying such liquors when heated to various useful purposes. November, 20, 1802.

162 Locks.—Samuel Holemberg; for locks and fastenings for general uses, on a new and improved construction. June 24, 1801.

163 Logs.—Chester Gould; for an instrument or log for ascertaining a ship's distance at sea. May 20, 1800.

164 Logs.—Chester Gould; for additional improvements on an instrument or log for ascertaining a ship's distance, for which he obtained former letters patent in May last. December 17, 1800.

M.

165 Manure.—Lewis James Armand Estienne; for an invention, communicated to him by a foreigner, of reducing human excrement into a powder, divested of all nauseous smell, preserving at the same time its fertilizing properties in rendering land infinitely more productive and vegetative than any other manure hitherto discovered. January 9, 1802.

166 Marine Level.—William Fitzgerald; for a mathematical instrument to be called "the Marine Level," the properties of which are to shew every deviation from the horizontal plane of ships and vessels, and which is also applicable to various purposes in surveying, levelling, and ascertaining elevated situations. August 11, 1801.

167 Mars, Powder of.—Innocenzo Della Lend; for a medicine called "Flogistical and fixed Earth of Mars, or Powder of Mars," for the cure of various diseases. August 2, 1800.

168 Masts, Yards, Bowsprits, &c.—George Smart; for a method of combining masts, yards, bowsprits, &c.

hollow, so as to give them lightness and strength, and which may be applied to other useful purposes. June 17, 1800.

169 Measuring Glasses.—Timothy Lane; for measuring glasses for compounding medicines. June 5, 1801.

170 Metal, manufacturing of.—David Mushet; for his newly invented processes applicable to metallurgy, or the manufacturing of metal, or metals, not only from from their metallic state or states, to the completion of the various articles or utensils usually made of such metal or metals, but also, from the state of the ore into their metallic state or states, in bars, ingots, or otherwise. Nov. 13, 1800.

171 Metals, purifying.—Joseph Hately; for a method of purifying metals. August 31, 1802.

172 Mill, floating.—Benjamin Hawkins; for a new floating mill, or engine to be worked by tides and currents of water for grinding all sorts of grain and various other purposes. August 20, 1801.

173 Mill for Bark.—James Whitby, George Bodley, and John Davis; for a mill for grinding bark. September 3, 1801.

174 Mill for grain.—Zachariah Barrett; for a method of grinding corn or other grain by a newly invented mill or machine, either moveable or immoveable, and intended to be worked by water, wind, horses, hand, or otherwise. September 18, 1801.

175 Motion, Perpetual.—William Johnson; for a machine with new means of obtaining power in mechanical operations, of the nature of a self-moving power or perpetual motion. March 19, 1800.

176 Motion, perpetual.—William Johnson; for a machine which has the principle of its motion within itself, denominated the perpetual motion, or mechanical self-moving power. February 10, 1801.

177 Mortices, Machine for cutting.—Marc Isambard Brunel; for a machine for cutting one or more mortices, forming the sides of, and cutting the pin hole of, the shells of blocks. February 10, 1801.

178 Muslin, &c. Trimmings or borders of.—Marc Isambard

bard Brunel; for trimmings or borders of muslin, lawn, or cambrick. November 27, 1802.

179 Music Book.—John Antes, for a machine to turn over the leaves of any music book, by means of a pedal, or a motion with the knee. April 10, 1800.

180 Musical Instruments.—Peter Litherland; for a method of keeping in tune various musical instruments, by means of an apparatus. July 31, 1830.

181 Musical Instruments.—Isaac Hawkins; for his new invention, applicable to musical instruments; the principles of which are also designed to be applied to other machinery. November 13, 1800.

182 Musical Instruments.—John Conrad Becker; for improvements in musical instruments, chiefly applicable to harps and piano-fortes. Nov. 7, 1801.

183 Musical Instruments.—Edward Riley; for moveable keys for piano-fortes, organs, and other instruments.

184 Musical Instruments.—Peter Litherland; for a mode of keeping musical instruments in tune, and of preserving the strings from breaking. March 24, 1802.

N.

185 Nails, &c. making.—John Bennock; for a method, or machine for making nails, bolts, rods, watch-springs, clock-springs, and metal plates. February 17, 1801.

186 Naval Architecture.—William Playfair and Nicholas le Farre; for their newly invented improvements in naval architecture, whereby all vessels of all burdens may be enabled to sail faster than they now do, particularly in a heavy sea. December 12, 1800.

187 Navigation.—Henry Penneck and Robert Dunkin; for methods of improving the sailing and navigating of certain ships and vessels. February 19, 1802.

188 Nets.—Robert Brown; for a method of manufacturing nets of all kinds. January 16, 1802.

O.

189 Oil, Essential.—Henry Tickell; for a method of more effectually dissolving and extracting the virtues, and preserving the essential oil of hops, malt, and other vegetable substances used in brewing, distilling, &c. June 13, 1800.

190 Optical Apparatus.—Paul de Philipsthal; for an optical apparatus, whereby he is enabled to represent, in a dark space or scene, the human figures, in various characters, proportions, and sizes, and by which means painters and other artists may, accurately, enlarge or diminish with more certainty and facility than has hitherto been known or done. January 26, 1802.

191 Ordnance.—Anthony Cesari de Poggi; for improvements in the construction and using of ordnance to be employed both in the sea and land service. July 24, 1800.

192 Ovens, Portable.—Robert Darby and Morgan Nicholls; for a method of making portable ovens, in various sizes and shapes. May 1, 1800.

193 Ovens, portable.—James Power; for a portable oven on a new or improved construction. February 5, 1801.

P.

194 Paper.—Matthias Koops; for a method of manufacturing paper from straw, hay, thistles, waste, and refuse of hemp and flax, and diffcrent kinds of wood and bark, fit for printing, and other useful purposes. August 2, 1800.

195 Paper.—Matthias Koops; for a method of manufacturing paper from straw, hay, thistles, waste and refuse of hemp and flour, and different kinds of wood and bark. February 17, 1801.

196 Paper.—John Gamble; for a machine for making paper in single sheets, without seam or joinings, from one to twelve feet and upwards wide, and from one to forty-five feet and upwards in length. April 20, 1801.

197 Paper, &c.—William Plees; for a method of manufacturing paper for various purposes. September 27, 1802.

198 Papers, preserving.—Richard Scott; for a method of preserving papers, and other property, from being injured by fire. February 10, 1801.

199 Paste, making. Joseph Wilkes and Thomas Jewsbury; for their new method of making paste, to be used in weaving and sizing calico, and for pasting paper, &c. January 16, 1801.

200 Pattens.—William Milner; for a method of making women's pattens. May 15, 1800.

201 Pattens or clogs.—Josiah Longmore; for a patten and clog. June 2, 1801.

202 Perukes.—William Robinson; for a method of making perukes and scalps. November 10, 1801.

203 Perukes.—Alexander Ross; for gentlemen's perukes or wigs. November 29, 1802.

204 Piano-fortes.—Antinous Bemetzrieder, Robert Scott, John Scott, and Alexander Scott, for a method of making piano-fortes, entirely new, both in principle, construction, and shape. November 10, 1801.

205 Piano Fortes, upright.—Thomas Loud; for improvements in the action and construction of upright piano fortes. March 9, 1802.

206 Pills.—William Barclay; for a medicinal compound, called the Rev. Mr. Barclay's Antibilious Deobstruent Pills. July 14, 1802.

207 Porcelain and earthen-ware.—William Turner and John Turner; for a method of manufacturing porcelain and earthen-ware, by the introduction of a material not heretofore used in manufacturing those articles. January 9, 1800.

208 Plough.—John Southey, Lord Somerville; for a double furrowed plough fit and proper for ploughing land in this kingdom. February 6, 1802.

209 Plough.—James How; for a plough upon an improved construction. October 30, 1802.

210 Plush.—Timothy Cobb; for improvements in the manufacturing a kind of piece goods, called shag, or plush. February 21, 1803.

211 Pneumatic Power.—Lionel Lukin; for a new method of giving power to machinery by the application of air and water. August 20, 1801.

212 Pneumatic machinery.—James Glazebrook; for his further improvements upon the methods of working and giving power to machinery, by means of the properties of airs, which methods were originally invented by him, and for which he obtained former letters patent. May 21, 1801.

213 Pneumatics.—Thomas Barnet; for an invention whereby a requisite quantity of air will introduce itself into any vessel containing fluids, or a superabundant quantity of air therein, discharge itself so as to preserve the fluid in a constant state for use. November 6, 1802.

214 Power, mechanical.—William Johnson; for a machine with new means of obtaining power in mechanical operations, of the nature of a self-moving power, or perpetual motion. June 10, 1800.

215 Power, mechanical.—Mark Brocone; for an instrument or engine possessing a power to work engines or machines, whether on water or land, or for other purposes to which the same can be applied. July 31, 1801.

216 Power, mechanical.—William Parkes; for a perpetual power that will give motion to all kinds of machinery, mills, engines, carriages, ships of war, mercantile and other vessels, lighters, craft, and boats of every description. August 20, 1801.

217 Power, mechanical.—Richard Brayshay and William M'Mahon;

M'Mahon; for a machine for the purpose of gaining an increased speed and power to all mechanical operations by land and water. October 30, 1801.

218 Pressing.—Archibald Blair; for machinery, to be variously constructed, for pressing all sorts of substances to which it may be found applicable. May 31, 1802.

219 Printing.—John Aloysius Senefelder; for a new method and process of performing the various branches of the art of printing on paper, linen, cotton, woollen, and other articles. June 20, 1801.

220 Printing Press, Copper Plate.—Robert Kirkwood; for improvements on the copper plate printing press. February 28, 1803.

221 Printing and writing Ink, extracting.—Matthias Koops; for a mode of extracting printing and writing ink from printed and written paper, and converting the paper, from which the ink is extracted, into pulp. April 28, 1800.

222 Pump.—Joseph Landels; for a method of working pumps by machinery. September 20, 1802.

223 Pump.—Thomas Witherby; for a pump, and method of working machinery. June 23, 1801.

224 Pump.—Edward Shorter; for an apparatus for working pumps. March 21, 1803.

255 Pump and a Plough.—William Plenty; for his newly invented pump and a plough, upon an improved construction. October 11, 1800.

226 Punch or Prop.—John Charlton; for a punch or prop for supporting the roofs of mines. April 10, 1802.

R

227 Rats, &c. destroying.—Henry Cundell, junior; for a composition called Cundell's Myoctonus, for destroying

destroying rats and other destructive vermin. July 26, 1800.

228 Register Stove.—John Lewell; for a register stove upon improved principles. December 21, 1802.

229 Refrigerator.—Henry Tickel; for an apparatus or refrigerator, for more speedily and effectually cooling the worts, and other fermented, fermentable, or other liquors, or melted or dissolved animal or vegetable substances, manufactured, made, or used by, or in the processes of brewers, distillers, vinegar-makers, sope-makers, sugar-refiners, chemists, or other manufacturers of articles of a similar nature, or using similar processes. May 2, 1801.

230 Roads.—Lawrence Hollister; for machinery for improving roads. May 5, 1802.

231 Ropes laying.—John Grimshaw; for improvements in machinery for laying ropes. October 5, 1802.

232 Rudder.—William Bolton; for a rudder, and the means of preserving the same. June 23, 1801.

233 Ruptures, curing of.—Joseph de Oliveira Barretto and Mary de Lima Barretto, his wife; for a method of curing ruptures. August 30, 1802.

S.

234 Saddles.—Walter Inglis; for a method of forming and making a saddle upon a new and improved construction. May 21, 1801.

235 Saddles.—Robert Dickinson; for a method of fixing the straps of, and to saddles, to which the girths are usually made fast. February, 6, 1802.

236 Salt.—James Manley; for improvements in the manufacturing of salt. July 1, 1801.

237 Sashes, &c.—William Bullock; for a fastening to be applied to sashes or dining tables. October 8, 1801.

238 Scale Weights.—William Wilson; for an improved plan

plan of making, adjusting, and stamping scale weights. April 30, 1801.

239 Screws.—Richard Maullin; for a machine or contrivance to mould or withdraw patterns for the casting of wood, bed, and all other screws, which are got up in cast-iron, brass, or other metallic compositions. February 28, 1800.

240 Seal-Down.—Robert Fryer and Samuel Fryer; for a mode of manufacturing the down or wool of seals, by mixing it with sheep or lamb's wool, preparing it to be carded, roved, or spun into yarn; which yarn will be capable of being woven into silk, woollen, linen, or cotton; into a cloth fit for garments. May 15, 1800.

241 Ship, Motion of.—Edward Shorter; for a machine or engine for working and causing the progressive motion of ships and vessels of every description, without the assistance of sails or oars. February 4, 1800.

242 Ship or Vessel.—John Whitely Boswell; for a method of building or fabricating ships or vessels for navigation. May 20, 1802.

243 Ship Beams.—Joseph Brindley; for a method of more effectually securing ship beams to their sides. September 20, 1802.

244 Shipping and Marine.—William Collins; for the application of sundry articles and materials to be used chiefly for the preservation of shipping, and marine purposes. April 23, 1800.

245 Shoes, elastic Fastenings for.—George Hall; for a method of making elastic fastenings for shoes, &c. November 28, 1801.

246 Silk, Thread, &c. doubling.—John Sharren Ward; for a machine upon new and improved principles, for the purpose of doubling either silk, cotton, flax, hemp, worsted, yarn, or other threads. December 30, 1800.

247 Skins of Sheep and Lambs.—Thomas Richardson; for improvements in the art of preparing, colouring,

ing, and uniting the skins of sheep and lambs. June 26, 1802.

248 Slates.—Barker Chifney; for an improved method of preparing and laying diamond and other slates, in covering houses and other buildings, and for preparing slates for other purposes. May 2, 1801.

249 Slates.—Barker Chifney; for improvements in the manufacturing and preparing roofing slates, and inlaying the same. March 8, 1803.

250 Snuffers.—John Wilkes; for a method of making self-acting cylindrical spring snuffers upon a new construction, which cut off, confine, and extinguish the snuff at one motion. July 10, 1801.

251 Snuffs, Essences, &c., Boxes for.—George Harris; for newly invented boxes, on an entirely new principle, for snuffs, essences, &c. July 1, 1800.

252 Sope.—George Waring; for a method of making sope of a peculiar quality. April 28, 1801.

253 Sope, Substitute for.—John Vancouver; for newly discovered materials, which, by certain new processes of manufacture, are capable of being rendered a substitute for sope. July 28, 1802.

254 Soundings at Sea.—Edward Massey; for an instrument or apparatus for taking soundings at sea with more certainty and correctness than heretofore; and for other nautical purposes, and matters connected with, or relating to navigation. March 24, 1802.

255 Springs for Perukes.—Thomas Bowman; for a newly invented method of making perukes or wigs with fastenings made of a certain elastic compressed steel spring or springs, and also with other flat springs or wires, made of steel, for the closer adhesion of the points and wiskers to the head and face. October 21, 1800.

256 Spun Materials.—George Holland; for improvements in woollen-yarn, worsted, silk, and various other kinds of spun materials for the purpose of manufacture. July 2, 1800.

257 Stays.

257 Stays.—Martha Gibbon; for newly invented stays for women and others. December 17, 1800.

258 Stays.—James Gayleard; for long stays, short stays, and corsets on an improved construction. February 1, 1803.

259 Steam Engine.—John and James Robertson; for their newly invented method of applying steam in the working of steam engines; by which a great saving of fuel is obtained. August 13, 1800.

260 Steam Engine.—Edmund Cartwright; for improvements in the framing, combining and organizing the parts and mechanism of steam engines, so as to make them more commodious and portable, and also in the mode of regulating their velocities, and in lessening the waste of power. February 5, 1801:

261 Steam Engine.—Richard Wilcox; for improvements upon the fire or steam engine and furnace. April 30, 1801.

262 Steam Engine.—William Hase; for a steam engine on an improved construction, by which a considerable reduction will be made in the consumption of coals. May 14, 1801.

263 Steam Engine.—Matthew Murray; for an improved method of constructing the air-pump and sundry other parts belonging to a steam engine, by which a considerable saving will be made in the consumption of fuel, and an increased power obtained. August 11, 1801.

264 Steam Engine.—William Symington; for a mode of constructing steam engines, and applying their power to the purpose of producing a rotary and other motions without the interposition of a lever or beam. October 14, 1801.

265 Steam Engine.—Joseph Bramah; for improvements in the construction of steam engines and boilers, and for the purpose of generating steam, and other purposes. November 28, 1801.

266 Steam Engine —Richard Wilcox; for improvements

on

on the steam engine, furnace, or boiler; and air pump. January 23, 1802.

267 Steam Engine.—James Sharples; for newly invented mechanical powers applicable to steam engines; part of which machinery may be applied to other useful purposes. January 28, 1802.

268 Steam Engine.—Richard Trevithick, and Andrew Vivian; for methods of improving the construction of steam engines, and the application thereof for driving carriages, and for other purposes. March 24, 1802.

269 Steam Engine.—Phineas Crowther; for a method of applying the power of a reciprocating steam engine to the crank or rotative axis, for drawing coals, lead, tin, &c. out of the mines, &c. February 28, 1800.

270 Steam Engine.—Matthew Murray; for new combined steam engines, for producing a circular power, and certain machinery thereto belonging, applicable to the drawing of coals, ores, and all other minerals, from mines; and for spinning cotton, flax, tow, and wool, or for any other purpose requiring circular power. June 28, 1802.

271 Steam Engine.—Thomas Saint; for a method of increasing the effect of steam engines, and saving fuel in the working thereof. December 21, 1802.

272 Steel, bending.—Joseph Egg; for his newly invented method of bending steel without the assistance of heat, which may be applied to the manufacturing of surgical instruments, and to a variety of other useful purposes. August 31, 1800.

273 Stirrups,—Emanuel Hesse; for improvements in stirrups. July 24, 1800.

274 Stirrups.—Isaac Hadley Reddell; for a method of making stirrups. August 2, 1800.

275 Stirrups.—Thomas Maltby; for a stirrup. June 14, 1802.

276 Stop-Cock.—Thomas Grylls; for his newly invented stop-cock for barrels, and other vessels, which prevents the wasting of liquor.

277 Stove,

277 Stove, Portable.—George Bodley; for a portable stove or kitchen, for the purpose of dressing victuals. February 27, 1802.

278 Straw, Machine for cutting.—Thomas Sawdon; for a machine for cutting straw for fodder for cattle, on principles entirely new. July 23, 1802.

279 Sugar refining.—Thomas Wakefield; for a new method of refining sugar. June 2, 1801.

280 Sugar Canes, Mills for grinding.—Thomas Paton; for improvements in the construction of mills for grinding sugar canes. June 24, 1800.

T.

281 Tables.—John Marshall; for a newly invented dining and other tables, on an improved construction. April 29, 1800.

282 Tables.—Richard Gillow, for improvements in the method of constructing dining and other tables. May 1, 1800.

283 Tannery.—Joseph Weeks; for an apparatus, or set of machinery, for a tannery. June 10, 1800.

284 Tanning.—Thomas Bagnall; for a mill or machine to chop bark and grind riddle and pound it; to beam or work green hides and skins out of the mastering, or drench, and make them ready and fitting for the ouse or bark liquor; to beam sheep skins, and others, for the skinner's use, and for scouring or taking the bloom off tanned leather when in the carrying state. May 21, 1801.

285 Tanning.—G. F. Lenz; for a method of constructing tan pits for the tanning of hides and skins, and for striking hides by machinery. June 18, 1801.

286 Tanning.—Francis Brewin, for a new and improved method of tanning. November 3, 1801.

287 Tanning.—Thomas Martin; for improvements in the art of tanning and dressing hides and skins. April 19, 1802.

288 Tanning.—John Lawrence; for a new method of tanning. May 10, 1802.

289 Tanning.—John Cant Gate, and John Millan; for a new method of tanning leather. May 31, 1802.

290 Tan-pits, &c.—G. F. Lenz; for a method of constructing tan-pits, for tanning hides by machinery. March 27, 1801.

291 Telegraph.—James Boaz; for a new and improved method of communicating thoughts, information, and intelligence, to and from different places, at a distance from each other, by means of signs, by lights or otherwise. December 3, 1801.

292 Telescopes.—Dudley Adams; for a method of rendering telescopes more portable than hitherto, upon a new principle. May 30, 1800.

293 Tobacco, &c.—John Stevenson; for a method of stoving and drying tobacco, in the preparation of snuffs. November 10, 1801.

294 Tournequet.—John Horatio Savigny; for an instrument called a Tournequet, for more effectually hindering and stopping the effusion of blood in gunshot and other bad wounds, &c. March 31, 1800.

295 Transparencies.—Charles Kandoin Berenger; for a method of printing and colouring transparencies on silk, cotton, linen, and other woven manufactures, for carriage and winder blinds, screens, &c. March, 31, 1800.

296 Trusses.—Thomas Barfield; for improvements in the construction of elastic trusses for ruptures. June 18, 1801.

297 Trusses.—Robert Clark; for improvements in the construction of trusses for ruptures. March 23, 1803.

298 Tuning.—Egerton Smith, and Thomas Todd; for a method of tuning, and keeping in tune, musical instruments. June 5, 1801.

299 Types.—Philip Rusher; for improvements in printing types. May 20, 1802.

U.

300 Umbrellas and Parasols.—Abner Cowell Lea; for a method

method of manufacturing the furniture for umbrellas and parasols. January 2, 1802.

301 Umbrellas and Parasols.—John Barnett and Joseph Barnett; for a new and improved method of making parasols and umbrellas. December 21, 1802.

V.

302 Vacuum.—Christopher Wilson; for a method of making and obtaining a vacuum or vacuums, whereby powers are gained or obtained applicable to the improvement of hydraulical, pneumatical and mechanical machines or engines, or any others where fluids, steam, or vapour may be used or applied. March 9, 1802.

303. Vanes or Sails, for windmills.—Thomas Charles Baker; for vanes or sails for windmills. January 28, 1802.

304 Ventilation.—David Stewart; for a method of ventilating dwelling houses, theatres, hospitals, and other buildings; and also of ventilating, heating, and constructing of every kind of building; for forwarding or preserving trees, plants, shrubs, flowers, fruits, roots, and vegetables, on an improved principle, thereby reducing the consumption of fuel, simplifying the mode of management, and rendering more certain the production of fruit and flowers. November 3. 18 1

305 Verdigris in Lumps or Powder.—Daniel Craaner; for a method of making verdigris in lumps or powder, with ingredients, the produce of Great Britain, which will not only answer every purpose of foreign verdigris, but can be used as a water-colour upon paper. November 30, 1802.

W.

306 Washing.—George Medhurst; for improvements of certain machines for washing and wringing linen,

woollen, wool, cotton, silk, velvet, or any other commodity that requires washing, cleansing, or scouring. July 10, 1801.

307 Water, clarifying of.—Henry Grant; for a machine for purifying and clarifying water, whereby the most putrid or foul water may be rendered perfectly sweet and clean. March 24, 1802.

308 Water-Pipes, &c. constructing of.—John Scott, James Clarkson, William Tatham, and Samuel Mellish; for newly invented articles, which they have denominated "Tatham's Clumps." for the purpose of constructing water-pipes, sewers, tunnels, wells, &c. and other circular walls or buildings. December 21, 1802.

309 Water and other Fluids, raising.—George Elliot; for a machine for the purpose of raising water and other fluids. August 2, 1802.

310 Water-proof Articles.—Rudolph Akerman, and Peter James Cutteau; for an improved method of rendering all sorts of woollen cloths, cotton, linen, silk, hats, paper, and other manufactures and substances, perfectly water-proof, and so as to be used on all occasions where a power of repelling rain, wet, or moisture, may be required. April 28, 1801.

311 Water-proof Cloathing; John Walker, and Godfrey Alphy; for a method of making and manufacturing men's hats and caps, and rendering them perfectly water-proof; as also all kinds of leather, cotton, linen, silk, stuffs, pasteboard, and other manufactures and substances, for the purpose of being worked up into shoes, boots, women's hats and bonnets, and other wearing apparel, and to be used on all occasions where a power of repelling wet or moisture may be required. November 3, 1801.

312 Water-proof Cloth.—Elizabeth Duke, and James Jacks; for an invention communicated to them by a person residing in America, whereby they are enabled to render all sorts of woollen, cotton, and

linen cloths, canvas, silk, hats, paper and other manufactures, water-proof. April 2, 1802.

313 Weighing.—David Hardie; for an apparatus for weighing, in a manner less liable to error, and with greater expedition than by any of the modes of weighing hitherto used. March 19, 1800.

314 Weights, raising —James Power; for a machine for the purpose of raising weights, and for various other purposes. April 7, 1802.

315 Weights, raising or lowering, and for working mills. —John Harriott, and Thomas Strode; for an engine for raising or lowering weights of all kinds, and for working mills, and other similar purposes. April 13, 1802.

316 Weights, raising.—George Matcham; for a principle or mechanical power for raising great weights, in preventing ships from sinking, in raising ships when sunken, or in rendering ships which are disproportioned to shallow water capable of entering rivers, passing bars or shoals, or otherwise moving in shallow water, and for a variety of other purposes. January 29, 1803.

317 Windlass.---Robert Gibson; for a windlass upon an improved construction, which may be applied to ships, and other useful purposes. February 26, 1801.

318 Windmills, Sails for.---Robert Sutton; for his newly invented sails for windmills, on an improved construction, whose motion and power are regulated by gravitation. August 13, 1800.

319 Wood, &c. parallel Surfaces of.—Joseph Bramah; for a machine for the purpose of producing straight, smooth, and parallel surfaces, on wood, and other materials. October 30, 1802.

320 Wool, Cotton and Hose, batting or beating and cleaning.—John Thomas; for a method in addition to the machine and methods now in use for the batting or beating and cleaning wool, cotton and hose, preparatory to the carding and spinning thereof. April 19, 1802.

321 Woollen Cloth.—Joseph Nelson; for a method of making or manufacturing woollen cloth. February 19, 1802.

322 Woollen Cloth, &c. cropping and shearing.—Isaac Sandford; for a machine for cropping or shearing woollen, cotton, linen, silk, and all other cloths made with a nap, that require to be cropped or sheared. November 14, 1801.

323 Woollen Cloth, dressing, &c.—Joseph Fryer; for a machine for the purpose of cutting, dressing and finishing woollen cloth. May 31, 1802.

324 Woollen Cloth, &c. felting—James Bennet; for a method of felting woollen cloth; and also of felting cloth manufactured of sheep's wool, and other combined materials. March 10, 1803.

Y.

325 Yarn.—Archibald Thompson; for machinery for the purpose of spinning rope-yarn or sail cloth yarn, and for laying or making ropes, and other cordage. November 10, 1801.

ADDENDA,

Consisting of Patents granted since the Date of the preceding List.

Bainbridge William, Little Queen's Street, Lincoln's Inn Fields, musician, for improvements on the flageiet, or English flute. April 1, 1803.

Boond William, Manchester, Lancashire, cotton manufacturer, for a newly invented manufacture of mixed and coloured cotton-velvets, velveteens, velverets, thicksets, cords and other cotton piece goods, commonly called fustians. April 5, 1803.

Hawkins, Richard Francis, Woolwich, Kent, gentleman, for a method of applying a certain power to the working of ship and other windlasses, ship and other winches, cranes, and other purposes, on which the same hath never before been employed. April 5, 1803.

Leach, John, calico-printer, Merton Abbey, Surrey, for improvements on steam-engine boilers, which improvements are applicable to boilers in general. April 7, 1803.

Davis, Daniel Paulin, Bloomsbury Square, Middlesex, for a method of cleaning and clearing chimnies. April 11, 1803.

Todd, John, Bolton, Lancashire, cotton spinner, for a method of weaving and manufacturing woollen, cotton, linen, silk, and worsted cloths or stuffs; and also certain improvements on, and additions to, the machines used in weaving, by means of looms wrought by water, steam engines, or any other power. April 14, 1803.

Horrocks, William, Stockport, Cheshire, cotton manufacturer, for improvements on the loom for weaving cotton and other goods by steam or water. April 20, 1803.

Day, Samuel, Charter House, Hinton, Somersetshire, for an engine or time-piece, which he denominates the Watchman's Noctuary, and Labourer's Regulator. April 20, 1803.

Hall, James, Mellor Glossop, Derbyshire, weaver, for improvements upon looms. April 27, 1803.

Alphabetical List of the Names of the Patentees who have received Patents between the 1st of January 1800, *and the 31st of March* 1803, *inclusive; with their Professions or Employments, and Places of Abode.*

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