A

COLLECTION

OF

THE MOST IMPORTANT CASES

RESPECTING

PATENTS OF INVENTION,

&c. &c.

A

COLLECTION

OF

THE MOST IMPORTANT CASES

RESPECTING

PATENTS OF INVENTION

AND

The Rights of Patentees,

WHICH

LAW SCHOOL

HAVE BEEN DETERMINED IN THE COURTS OF LAW SINCE THE STATUTE FOR REGULATING MONOPOLIES.

TO WHICH ARE ADDED,

SOME PRACTICAL OBSERVATIONS

RESULTING FROM

THE DECISIONS ON THE SEVERAL CASES.

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PREFACE.

THE collector of these cases having been upwards of thirty years in the office of the Rolls Chapel, has frequently had his attention drawn to patents and specifications of inventions, that being one of the offices in which such specifications are enrolled; and having for many years been concerned for inventors, in soliciting patents for their inventions, he has consequently been led to think much upon the subject, and has felt great surprise, and regret, that no book of the kind, now proposed, has ever been produced by any gentleman versed in this sort of business, and competent to the work.

He has mentioned his plan to several gentlemen in the profession of the law, to others,

who, like himself, are employed as agents for procuring patents, and also, to some scientific and mechanical persons, who have uniformly approved of the idea; and spoken in the strongest terms, both of the necessity and utility of such a work as is now offered to the public.

He has, it is true, in some degree, been anticipated by Mr. Collier's "Essay on the Law of Patents for Inventions," and by Mr. Hands's book on "The Law and Practice of Patents for Inventions;" but as appears to the compiler and those whose opinion he has been favoured with upon the subject, not in such a manner as to preclude the necessity of the present undertaking, as they are neither of them regular reports of cases, shewing the arguments of counsel, and giving the *dicta* of the judges settling the various points; besides which, one has given much extraneous matter, and the other is almost exclusively confined to forms, with many of which the patentee or his agent has nothing to do, it being the duty of the officers in the offices through which the patent passes in

its progress, to draw most of the instruments there given.

Those books, however, are now nearly, if not quite out of print, having met with a very rapid sale, from the want experienced not only by patentees, but by the profession, of a work which would bring the whole of the law of patents into one point of view; the compiler, therefore, is induced to offer the present collection to the public, not from any confidence in his superior qualifications for such an undertaking, as he is aware that the only merit he can claim is that of diligence in collecting the materials. A great deal of laborious research, and he hopes due diligence, has been given, in collecting from various sources, what appeared to him to be the most important decisions upon the subject, and he takes this opportunity of expressing his grateful thanks to those gentlemen of the profession who have kindly furnished him with the papers in many of the cases here reported, which he had no means of bringing before the public without their liberal assistance; but still many cases may,

and certainly do remain, of which no report is given, and which the parties interested may consider as important as those included in this work. To such he has only to observe, that he has inserted every case he has been able to procure, which contained any new points respecting patents, or which had acquired notoriety by the magnitude and importance of the invention; but if his labours should be so well received as to require a second edition, he respectfully solicits the communication of papers in any causes which may be omitted in this collection; and he will, with thankfulness to the communicator, insert a report of any important or new decision in a future edition, or should he be furnished with sufficient matter, he intends to lay it before the public in a supplemental volume, so that the purchasers of the present edition need not incur any more expense than necessarily arises by the increased bulk of the work, or be under the necessity of purchasing the second edition.

Some cases might perhaps have been added from the Chancery reports, and it may be

thought an error of judgment to have wholly omitted them, but they would have swelled the size of the book beyond his wish, and as most, if not all of them, have been referred to the courts of law, it is hoped that every requisite information upon the subject will be obtained by confining the work to decisions in those courts; besides which, the Court of Chancery never decides upon the validity of a patent, the practice there being nothing more than to grant an injunction, at the prayer of the patentee, against any person infringing his patent, and to order an account of profits; but if any question arises upon the validity of the patent, the novelty of the invention, or the sufficiency of the specification, it is uniformly referred to a court of law.

Rolls Chapel Office,
August, 1816.

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ERRATA.

Page 295, line 5, for *in* effect, read *an* effect.

Page 352, lines 5 and 8, for Mr. *Cumden*, read Mr. *Crunden*.

INTRODUCTION.

Respecting Monopolies, and the History of Patents for Inventions.

THE system of monopoly as exercised prior to the statute of 21 Ja. I. cap. 3, was not only a means of rewarding favourites of the Crown, and faithful servants of the public, but had also become a source of revenue to the Crown, arising from the rents sometimes reserved by the Letters Patent granting monopolies to individuals and companies, who, by having the sole privilege of making or vending any article granted to them, were enabled to obtain great advantage to themselves, and such monopolies by their abuse had become a serious grievance to the public.

These monopolies have been at various times the ground of complaint on the part of the public; and great inconvenience having been experienced from them, Queen Elizabeth, in order to prevent an act being brought into Parliament for that purpose, called in some of the most offensive grants. But the principle of granting such exclusive privileges, although perhaps in a limited degree, still continued in use until near the end of the reign of King James the First, notwithstanding that monarch, soon after his coming to

the crown, had declared himself an enemy to them. The House of Commons however, at this period, gave great attention to the subject, and after much investigation, and many complaints of this and other abuses of the Prerogative, a bill passed that house in the 19th year of this reign, for the purpose of restraining monopolies, and which bill was ordered to be carried to the Lords with a special recommendation; but it was by them rejected.

In the Parliament which met 19th Feb. 21 Ja. I. the Commons, profiting by the union which for a short time seemed to subsist between the King and his new Parliament, lost no time in bringing in another bill for restraining monopolies, the former bill having been, as Hume says, "encouraged by the King, but had failed by the rupture between him and the Commons:" for although the King was stated to have recalled all Patents of Monopoly, yet the Commons were not satisfied without a declaratory law against them. But it does not appear that the King really intended to put an end to grants of this description, if the act had not passed; as many grants are recorded in this very year, and during the progress of the bill, of sole privilege for twenty-one years and other terms, not only for new inventions, but for matters which are not stated in the grants to be new inventions; some of them reserving rents to the Crown, and one in particular, extending the privilege to Scotland and Ireland; a practice not in use at the present day, as Patents of Invention for each of the three parts of the United Kingdom now pass under distinct seals.

The act was made a declaratory, rather than an enacting statute, as monopolies had at all times been considered contrary to the ancient and fundamental laws of the realm, as well as to Magna Charta; and many had, at different times previous to the passing of this act, been set aside in the courts upon those grounds. They were also found by experience to be very prejudicial to an extension of commerce.

This bill was read a first time in the House of Commons, on the 24th Feb. and passed that house on the 13th March; when it was ordered "to be carried up to the House of Lords alone, by Mr. Glanvyle well attended, with a special recommendation from the House of Commons of the good attention thereof to it."

The fate of this bill was more fortunate than that of its precursor; as, after much consideration and delay, and several amendments by the Lords, and some conferences between them and the Commons, it passed the Upper House, and having received the Royal Assent on the 2d Nov. 1624, 22 Jac. I. became the law of the land, upon which all subsequent patents for the sole use of inventions are grounded, and from this period our present law of patents may properly be said to commence.

It is not the object of this work to make a display of learning, by defining the word "Monopoly;" or to give an account of the different monopolies which have been practised in Greece and elsewhere, or even in England, prior to the Statute of James, or to give the opinion of Gro-

tius, or other learned authors of antiquity upon the subject, as hath been done by the late essayist "on the Law of Patents for new Inventions." Suffice it to say, that Sir Edward Coke, in his 3 Inst. 181, gives the following definition of a monopoly:—"A monopoly is an institution or allowance by the King, by his grant, commission, or otherwise, to any person or persons, bodies politic or corporate, of or for the sole buying, selling, making, working, or using of any thing, whereby any person or persons, bodies politic or corporate, are sought to be restrained of any freedom or liberty that they had before, or hindered in their lawful trade;" which definition was certainly correct, according to the practice before the passing of the statute now in force upon that subject: but a more just definition of the word, according to the present state of the law, is given by Hawkins, in his Pleas of the Crown, I. 470, where he says, "A monopoly is an allowance by the King to any person, for the sole making, selling, &c. any thing, so that no person be restrained in what he had before, or in using his lawful trade."

The principle of the kind of monopolies under consideration, namely Patents for Inventions, is now pretty well understood; and it is generally allowed, that though it would be infinitely mischievous to the public, if useful discoveries were to be for ever locked up and made the property of private individuals, yet it is equally useful to the public, that the first inventor of such useful discoveries should have the benefit of them for a

limited time; for it is plain, that the public would have no benefit, that there could be no improvement in the manufactures of the country, unless the labour, the time, and the expense of ingenious men were applied to the purpose of new discoveries and improvements.

It is well known that the most useful discoveries that have been made in the arts and manufactures of the country have not been made by speculative and recluse philosophers in their closets; but by ingenious mechanics, practically acquainted with the subject matter of these discoveries. It therefore follows, that those persons whose only means of getting their subsistence is by the exercise of their own labour, skill, and ingenuity, must necessarily be prompted by an expectation of advantage to themselves, to spend much time and labour, and incur the expense of experiments in stepping out of the beaten track, and endeavouring to bring forward any great or essential improvement in the branch in which they are concerned. Such improvements frequently require not only ingenuity, but much thought, long attention, great labour, and repeated experiments; not only requiring labour, but attended with considerable expense. It could not therefore be expected, that the most ingenious men of this description should sacrifice their time and labour in seeking improvements which, although of great benefit to their country, would be ruincus to themselves, unless some mode was devised to secure to them an advantage from their invention.

The most fair and equitable mode for doing this seems to be that which the statute of 21 Jac. has provided, which enables the Crown to secure to the inventor of any new and useful discovery, the exclusive benefit and profit of it for a limited time. It is fair and equitable for this plain reason, because if the invention is of no use, or has no ingenuity, and produces no beneficial effect, the exclusive enjoyment of it will produce no profit to the inventor. On the contrary, if it is of great ingenuity, and a considerable improvement to manufactures, and benefit to the public, the exclusive profit for the time limited will be of consequence to the inventor; and therefore this mode of encouraging ingenuity seems calculated to produce its effect, without violating any principle of commerce or of justice; because the reward is exactly proportioned to the merit and utility of the invention: the more meritorious and beneficial to the public any discovery will be when laid open, the more beneficial it is likely to be to the inventor while he has the exclusive enjoyment of it. It takes nothing from the public of which they were before in possession; while it tends greatly to promote the general interest of the community. The justice and equity of such monopolies cannot therefore surely be disputed, and still less their utility.

Many instances might be adduced to prove that, without the hope of such reward, ingenious persons would not sacrifice their time and property in bringing their ideas into practical use; but it will be sufficient to mention the very im-

portant improvements of Mr. Watt upon the steam-engine, who devoted many years, and spent a very considerable sum of money in making experiments before he could effect his object, which it is not in the nature of things to suppose he would have done, if he was not to have an exclusive privilege so as to prevent the world at large from availing themselves of his skill, labour, and expense, the moment he had brought his invention to maturity. But it is unnecessary to say any thing more in defence of the restricted monopoly now in use under this statute; as, however odious in former times such monopolies were looked upon, and which, indeed, when carried to the extent they were previous to the statute, were extremely pernicious to the public weal; they are now become very advantageous to the commercial prosperity of the country, and manufacturers and others are not only not ashamed, but even proud of having their manufactures and inventions called "Patent," and themselves styled "Patentees."

In order that the law of patents, and the foundation and meaning of such grants may be clearly understood, and the whole law upon the subject brought into one point of view, it has been thought proper to give, at the end of this introductory chapter, the declaratory statute by which the law of patents of invention is now determined, and upon which alone they rest; and there might also have been added, the explication of the more material parts of it, by that great luminary of the law, Sir Edward Coke; in whose time, and with whose assistance (he having been chairman of the com-

mittee to whom the bill was referred), this act was framed and passed (and who of course must have been fully competent to explain the meaning and intent of it), as given in 3 Inst. 182; but as his comment relates mostly to the parts of the act with which we have at present nothing to do, it is omitted.

There is also added, the form of letters patent for inventions, as now in use; although, it may be observed, that the powers and provisoes contained in these patents have varied from time to time, agreeably to the suggestions of the Attorney or Solicitor General for the time being, whose duty it is to draw these instruments, and who, by the King's warrant, is directed "to insert therein all such clauses, prohibitions, and provisoes, as are usual and necessary in grants of the like nature, and as he shall judge requisite."

The most material alteration that has taken place in these grants, is the addition of the proviso for enrolling a specification within a given time; which was not introduced into these letters patent until near the end of Queen Anne's reign; although we find that proviso spoken of in the arguments in some of the following cases, as a *legislative* measure; but no provision whatever is made in the act, for enrolling any description which should enable the public to practise the invention at the end of the monopoly granted to the patentee.

There was, indeed, a sort of specification generally contained in the patent, which must have been given in the petition praying for the exclu-

sive privilege; but it was not such a specification as is now requisite, and which would enable the public to manufacture the article when the patent-right had expired; and there was no clause or proviso inserted in the patents that if the description given therein should be insufficient for that purpose, the patent should be void; consequently the world was entirely dependent upon the fidelity, and it may be said in many cases, the generosity of the patentee, whether the invention should become public at the end of his term or not, as it is evident that many very important inventions, without a proper and sufficient specification for the benefit of the public, might still be withheld from the world as to their public use and exercise.

Hence, no doubt, and either from the conviction and experience that fraud and concealment had been made use of by patentees, in order to keep their inventions from being brought into public use upon the expiration of their patents, or perhaps from its having been discovered that it was unsafe for the inventors to give a full description of their inventions before their patents had passed the Great Seal (as their privilege only commences at that period, and if by any means, however fraudulent, the invention should previously have been made public, the patent would be void), the law officers of the Crown found it expedient, and even necessary, both for the advantage of the public and the patentee, to introduce this proviso.

The time allowed for enrolling the specification was varied at different periods, having at

first usually been four months from the day of the date of the letters patent; but when the late Lord Alvanley was Attorney General, he reduced the time to one month, under the idea, it is presumed, that the invention should be perfected without further experiments before the patent was obtained, and that one month was amply sufficient to put the specification in due form; but the time given for this purpose has lately been extended to two months, probably on account of the difficulty of drawing such a specification in matters of great importance as shall enable a patentee to support his patent if brought into a court of law, as most of the actions upon patents have turned upon the insufficiency of the specification.

This time however is sometimes enlarged to such longer period as may be thought proper by the Attorney or Solicitor General, according to the circumstances of the case, upon a request to him at the time he is applied to for his report upon the petition for a patent, particularly if the inventor in his affidavit of his invention makes oath that it is his intent to apply for patents for Scotland and Ireland, in which case it is usual to allow six months, as patents take longer time to be completed in those countries than in England; and if the specification was enrolled here within the usual time, the invention might perhaps be brought into public use in those countries before such patents had passed the respective seals, whereby the inventor would lose the benefit of them. But it should be observed, that if the application is

not made at the time beforementioned, and an order procured accordingly, the King's warrant will be made out with the proviso for enrolling a specification in the usual time, and it will then be too late to have the time enlarged without incurring the expense and loss of time (which is often a greater object with inventors than the expense) of beginning the process of soliciting the patent *de novo*, as the Lord Chancellor himself has not the power of dispensing with the proviso, or enlarging the time limited for enrolling the specification, if the patent has passed the great seal.

In the case, ex parte Koops, 6 Ves. 599, 22d Jan. 1802, a 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.

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.

"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 Office to see the specification, that they may not throw away their time and labour, perhaps at a great expense, upon an invention, upon which the patentee might afterwards come with his specification, alleging an infringement 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 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 enlarge the time mentioned in the proviso."

The petition was dismissed.

It may, perhaps, upon a first view, excite some surprise on referring to the cases hereafter given, that although the statute upon which the legality of these patents is founded, passed at so early a period as the reign of King James the first, yet the decisions (with the single exception of the first case) are all of so recent a date as the present reign; and the compiler fears he may, on that account, be accused of professing more than he has performed, or of want of due diligence in searching for cases; in answer to which he has only to refer to the following expression of one whose diligence and knowledge will not, he is very confident, be disputed, viz. the late Lord Chief Justice of the Court of Common Pleas, Sir James Eyre, who, so recently as the 16th May, 1795, in the case of Boulton *v.* Bull, after stating that patent-rights are no where accurately discussed in our books, said, that "the case of Edgeberry *v.* Stephens is almost the only case upon the patent-right under the saving of the statute of James the first that is to be found." Under the sanction of so high an authority, it might have been deemed unnecessary to make much research into the old books, in full confidence that it would be totally useless; such research has, however, been made through the books of reports subsequent to James the first, and, as might have been predicted, without finding any other important cases upon patent-rights than those which are hereafter given. But when it is considered that these grants were not so much in use in former periods as they have been

of late years, sometimes not more than eight or ten, and frequently not so many, having passed in a year, although at present there are seldom so few as one hundred; it is by no means surprising that more subjects of litigation should arise now than in former times. Whether the great increase in the number of patents in the present age has arisen from the increased ingenuity, or from the greater spirit of speculation of our cotemporaries, or from what other cause, is not for us to inquire, but such is the fact.

Another reason why so few cases upon this subject are reported is, that many, or perhaps most of the trials upon this subject, have been at *Nisi prius*, and therefore it has not been practicable to give so many of those decisions as could have been wished; the books in general only having those cases which have come before the Court upon motions for new trial, upon cases reserved at *Nisi prius* for the opinion of the Court or some other reason, making it necessary to be heard in full Bench. Some instances, however, which appeared important, have been reduced into the form of reports from papers obligingly furnished by gentlemen of the profession who were concerned in the causes; and as all the points of law which were considered as settled, are given either in the arguments of counsel, or the opinions of the judges in the cases reported in this work, particularly in the elaborate reports of the cases of Boulton *v.* Bull, and Hornblower *v.* Boulton, which occupied so much of the time of the Courts of King's Bench and Common Pleas, it is hoped

that all the decided points respecting patents of invention and the rights of patentees, will be by this work brought at once before the public.

It may, however, be proper to observe, for the information of those not acquainted with law proceedings, that a cause tried at *Nisi prius* is not in itself final, although the parties frequently think it advisable, from the nature of the evidence adduced upon the trial, to acquiesce in the verdict of the jury; but it is still competent to them to move for a new trial; or other parties, upon a similar case arising, may think proper to resort to the court. Yet it seldom happens that when parties to a suit have acquiesced in a verdict at *Nisi prius*, other parties will think it expedient to bring the same point before the court; and therefore, under such circumstances, the point in question may be considered as established.

The statute of 21 Jac. limiting the power of the Crown to grant these monopolies for any term exceeding fourteen years, no extension can be obtained by any authority short of an act of parliament; and it was at one time intended to give in this work a list of all the acts which had passed for that or other purposes connected with patents of invention, but upon further consideration it has been thought unnecessary to increase the size of the work by inserting matter, which although not absolutely foreign to the subject, would not give any elucidation of the law relating to it. It has been thought equally unnecessary to follow the example of the author of "a Treatise upon the Law and Practice of Patents for Inventions,"

by giving the form of the report, warrant, bill, and other proceedings in the progress of passing a patent, which are prepared officially; and it has also been considered not only inexpedient, but as tending rather to deceive than to afford information, to give the form of a specification, as hath been done by the gentlemen who have before treated upon this subject, that instrument being of too much importance to be considered as a mere matter of form, the validity of the patent depending in a very great degree upon its accuracy and sufficiency.

21 JA. I. c. 3.

An Act concerning Monopolies and Dispensations with Penal 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 of 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 ancient and fundamental laws of this your 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 royal and blessed intention so published as aforesaid. For avoiding whereof, and preventing of the like in time to come, May it

please your most 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, And be it declared and enacted by the authority of this present parliament, that all monopolies and all commissions, grants, licences, charters, 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 all proclamations, inhibitions, restraints, warrants of assistance, and all other matters and things whatsoever any way tending to the instituting, erecting, strengthening, furthering, or countenancing of the same, or any of them, are altogether contrary to the 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.

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.

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

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 chattels any way seized, attached, 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 and 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 and 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 chattels shall be so seized, attached, 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 chattels shall be so seized, attached, 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 chattels seized, attached, 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 law grounded upon this sta-

tute, 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.

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 prices of commodities at home, or hurt of 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.

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 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 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 accomplished 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.

VII. Provided also, and it is hereby further intended, declared, and enacted by the 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 or confirmed by any act of parliament now in force, so long as the same shall so continue in force.

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, to compound for the forfeitures of any penal statute, depending in suit and question before them, or any of them respectively, after plea pleaded by the party defendant.

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 made or granted, or for or concerning any custom or customs used by or within them or any of them; or unto any corporations, companies, or fellowships 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

o'her; any thing before in this act contained to the contrary in any wise notwithstanding.

X. 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 letters patents or grants of privilege heretofore made, or hereafter to be made, of, for, or concerning printing; nor to any commission, grant, or letters patents 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 and 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, or 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.

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 alum, or alum-mines; but that all and every the same commissions, grants, letters patents, and privileges, 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.

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, guild, 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 and river of Tyne, or to a grant made by the said governor and stewards and brethren of the fellowship of the said hoast-men 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 licences, 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.

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 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 day of June, in the thirteenth year of his majesty's reign of England, made to James Maxwell, 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.

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.

The Form of Letters Patent for New Inventions.

GEORGE the Third, by the Grace of God, &c. To all to whom these presents shall come greeting. Whereas A. B. of C. in the county of D. engine maker, hath by his petition humbly represented unto us, that he, after much study and expense, hath invented, &c. which the petitioner conceives will be of great public utility; that he is the first and true inventor thereof, and that the

same hath not been practised or used by any other person or persons to the best of his knowledge and belief. The petitioner therefore most humbly prayed that we would be graciously pleased to grant unto him, his executors, administrators and assigns, our royal letters patent, under the great seal of our united kingdom of Great Britain and Ireland, for the sole use, benefit, and advantage of his said invention, 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, exercise, and vend his said 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, in such manner as to him the said A. B. his executors, administrators or assigns, or any of them, shall in his or their discretion seem meet. And that he the said A. B. his executors, administrators and assigns, shall and lawfully may have and enjoy the whole profit, benefit, commodity and advantage from time to time coming, growing, accruing and arising by reason of the said invention, for and during the term of years herein mentioned, *To have*, hold, exercise, and enjoy the said licence, powers, privileges, and advantages herein before granted or mentioned to be granted unto the said A. B. his executors, administrators and assigns, for and during, and unto the full end and term of fourteen years from the date of these presents next and immediately ensuing, and fully to be complete and ended according to the statute in such case made and provided. And to the end that he the said A. B. his executors, administrators and assigns, and every of them, may have and enjoy the full benefit and the sole use and exercise of the said invention, according to our gracious intention herein before declared, We do by these presents, for us 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 Ireland, called England, our dominion

nion 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 or 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, headboroughs, and all other officers and ministers whatsoever of us our heirs and successors for the time being, that they or any of them do not, nor shall at any time hereafter during the said term hereby granted, in any wise molest, trouble, or hinder the said A. B. his executors, administrators or 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. as aforesaid, then upon signification or declaration thereof to be made by us, our heirs or successors, under our or their signet or privy seal, or by the lords and others 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 hath 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, and town of Berwick-upon-Tweed aforesaid, 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 and persons to whom like letters patent or privileges have been already granted as aforesaid, shall distinctly use, and practise their several inventions by them invented and found out, according to the true intent and meaning of the same 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, or administrators, or any person or persons which shall or may at any time or times 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 or authority, of the sole 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, 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 pretence of carrying on the said liberty or privilege hereby granted, or shall by him or themselves, or his or their agents or servants, re-

ceive 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 by us 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 the first, 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, or authority shall at any time hereafter become vested in or in trust for more than the number of five persons, or their representatives at any one time, (reckoning executors or administrators as and for the single person whom they represent, as to such interest as they are or shall be entitled to in right of such their testator or intestate); 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 inrolled in our High Court of Chancery, within two calendar months next and immediately after the date of these our 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 inrolment 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, construed, 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 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 or quality of the said invention, or of the materials thereto conducing and belonging. In witness, &c.

CASES

RESPECTING

PATENTS OF INVENTION, AND THE RIGHTS OF PATENTEES.

IN THE COURT OF KING'S BENCH.

Edgeberry v. *Stephens.*

5. C. Salk. 447.

A GRANT of a monopoly may be to the first inventor, by the 21 Jac. 1. and if the invention be new in England, a patent may be granted, though the thing was practised beyond the sea before; for the statute speaks of new manufactures within this realm, so that, if they be new here, it is within the statute: for the act intended to encourage new devices useful to the kingdom, and whether learned by travel or by study, it is the same thing. Agreed by Holt and Pollexfen in this case.

IN THE COURT OF COMMON PLEAS.

Arkwright v. *Nightingale.*

17 Feb. 1785.

THIS was an action brought for an infringement upon a patent granted to the plaintiff, for certain instruments and machines for preparing silk, cotton, flax, and wool, for spinning. The patent was dated 16 Dec. 16 Geo. 3, and the specification inrolled the 13th April following.

Mr. Serjeant Adair, for the plaintiff, said, that he was the better enabled to state the subject of the dispute between the parties, because he had been furnished with experience from a former and incomplete discussion of this question in another place, where the decision had been against the plaintiff, he having been nonsuited. The cause in the court where it was before tried, was not understood either by the court, the jury, the counsel, or the witnesses. It was no imputation upon them to say, that in that stage of the business they neither did nor could understand the real question to be tried, because the objections came by surprise upon the parties. Mr. Arkwright, relying upon his own skill, had supposed, that every lawyer must necessarily be an ingenious mechanic, but in this he was mistaken; as many are not informed of the principles of mechanics, and, if informed of the principles, they are ignorant of the practice. The ingenious and

able mechanics who were examined upon that occasion, were some of them unacquainted with the principles of the manufactory to which that machine was to be applied, and with the machines in use before Mr. Arkwright's invention; it was, therefore, inevitable, that the cause should be imperfectly understood, and imperfectly stated. This is a patent granted to Mr. Arkwright, as the inventor of certain instruments or machines (in the plural number) which would be of public utility in preparing cotton, flax, and wool for spinning. The object of these machines is distinctly described in the patent; it is not a machine for spinning any of those materials, but for preparing them for the operation of spinning. If, therefore, Mr. Arkwright has invented a way of preparing (as stated in the patent) the raw materials in a manner which shall improve our manufactures in quality, more expeditiously and with less labor, he has done an essential benefit to the public, and is entitled to derive a benefit from it himself, provided he has complied with the legal requisites; for it is necessary to secure the benefit in reversion to the public, as the law does not suffer an inventor to enjoy the benefit of an invention for any period of time, at the risque of afterwards letting the secret die with him, or *wilfully concealing it*; it is, therefore, required in all patents, that the nature of the invention shall be so described, as that at the expiration of the patent, other people may make use of the same thing. In what is technically called the specification, Mr. Arkwright has fully and suffi-

ciently described that invention. In all inventions, that in which this precaution is of the least importance to the public, and in which there is the least danger of an invention, once brought into use, being lost, is in the invention of new ingenious machines; because, from the use of them, it must necessarily happen, from their being in a number of hands, that if the inventor wished to conceal them from the public, if he had been ever so artfully obscure in his specification, in order to prevent the public getting to the knowledge of them, it would not be in his power to do so; for a machine once introduced, and in general use, can never be lost; it must, from the use and nature of it, be known at the time the patent expires. It is not, however, contended, that a plain and intelligible specification is not in every case necessary. As to a very ingenious and complicated machine, it must be plain and intelligible to ingenious mechanics, to men informed of the effect which that machine is intended to produce, and intimately acquainted with the means used to produce similar effects before; without these requisites, the ingenuity of man cannot make a plain and intelligible specification of a complicated machine. If an ingenious mechanic was to make a new invention in clocks or watches, it would not be incumbent upon him to make a specification intelligible to a common cobbler; the person must be acquainted with the construction of watches in use before; and it will be sufficient in the principles of common sense, and to satisfy the requisition of the law, if the specification is suffi-

cient to enable a skilful watchmaker, who knew nothing of the invention but from the specification, to add those improvements to the movements that were before in use. That will explain what was meant by saying, that the cause was not understood upon the former trial, because it was not then explained what the principles of the machines in use before this invention were; what effects they produced, and what defects this invention proposed to remedy, and what new effects it was to produce. When the machines that were in use before Mr. Arkwright's invention are produced and explained, it will be perfectly clear that any mechanic of common ingenuity, who was acquainted with those machines, could, from the drawing and the description, make the machine invented by Mr. Arkwright. There was another source of obscurity and mistake, which existed at the time of the former trial, which was, that after the granting of Mr. Arkwright's patent, both he himself, and those who had encroached upon the patent, had made several alterations in the form and construction of different parts of the machine, so that the model then produced, which was a direct model of the machine as then used in its improved state, exhibited an appearance not perfectly corresponding with the drawings in the specification. To explain that there will be produced a model of the machines in use before Mr. Arkwright's invention, then an application of the parts of that invention, made exactly after the description contained in the specification, and applied to the principles of the old machine,

which will shew what a workman would make from the description in the specification, and it will be proved, that that machine will produce all the effects that are required by this new invention; it will also be proved, that the machine in its improved state, with the advantage of little alterations, is substantially the same machine with all its constituent parts, worked upon the same principles, and, in fact, is only a more finished way of making the same thing, and producing the same effect; and more than one witness will be produced, who never saw a cotton-mill in their lives, who have actually made the machine from the specification alone.

The learned serjeant then desired the models to be brought into court, and explained them successively, comparing the parts with the specification, and shewing the manner in which they were applied to the old machine, and the advantages gained by the addition.

One objection taken to the specification upon the former occasion was, that it did not describe in what manner the cotton was to be taken off the cloth; but that being part of the machine before in use, it was not necessary to describe it: and the witnesses who are mechanics will say, that when they are told that No. 3. delivers its contents upon another cylinder, that that is sufficient description to any man who knew the construction of the former machine, to understand, that the rollers in the former machine must be retained in use; it therefore was perfectly intelligible to any man who had ever seen the former machine. The two rollers

are not specified: no part of the old machine need be specified. The next objection at the former trial was to the cylinder substituted in the place of the old one: the objection to that was, that if it was worked with parallel card fillets round it, the effect would be certain; being spread upon the whole of the web of cloth that discharged it on the other cylinder: there being no card in the interval between these fillets, that interval would be choaked up with cotton, so as to obstruct the moving of the machine, and, therefore, it was contended, that that description in the specification was imperfect. In answer, it is no where said, that the cotton is to be spread over the whole of the web, and if it is spread in corresponding fillets, the fillets on the machine will take it off; but they say Mr. Arkwright has departed from this, and has made an improvement upon that card cylinder. He has so; the way is, by placing those cards in a spiral line round the cylinder. It certainly is an improvement, but it was a very obvious improvement to any man acquainted with the principles of mechanics; and although this has been chosen as the most convenient way, there is another mode of producing the same effect, suggested by the drawing in the specification: for the axis in the drawing projects a great way beyond the cylinder, which necessarily suggests the idea, that it was to have a motion backwards and forwards, parallel to its axis. The spiral fillet is not essential, although it is a better method of producing the same effect; but a machine to produce this effect could have been produced from the specification alone. It would

be nonsense to protect the rights of men for ingenious inventions by patent, if other persons were able to alter the form and construction; because, every mechanic, when he knows the invention, and the effect to be produced, can alter the machine into fifty shapes, and yet, if he retains the principles, it will produce the same effect, although the machine, to common eyes, would appear totally different; it might agree in every principle of this specification, and produce entirely the same effect. This completes the improvement in the carding machine. The next machine is for sizing and roving. The parts described in the specification may be worked together, or separately, but, in point of fact, they are generally worked separately. They say, it is not said that the rollers mentioned in the specification are to be set in motion, or how they are to be set in motion. While the rollers remain without motion, they cannot produce much effect; therefore, no man can suppose that the rollers are to remain at rest. Motion must be given to them: there is no occasion to state the manner, it may be by pullies, and in a variety of ways, well known to mechanics. But, say they, the degree of velocity of these rollers is not specified. Look to the drawing: one pair of rollers is larger than the others, consequently, the velocity of the larger roller will be greater than that of the smaller. There remains one objection more, that in the machine produced in the Court of King's Bench, these rollers were pressed down by weights; and there is nothing said about weights in the specifi-

cation. True, but it is manifest that the rollers can produce no effect, if the upper are not pressed down to the lower. Now, it is not necessary that it should be done by weights, it may be done by making the upper roller heavy enough to produce the effect; or it may be done by a spring fixed to the axis of the upper roller, which would give it a uniform pressure, and some think that the better mode. But no mechanic employed to construct a machine could be so ignorant as not to know that the upper rollers must be pressed down upon the others; therefore, that is an objection addressed to children. A fourth objection was made, that in the machine then produced, the rollers were fluted. The effect of that will be to make them draw more than plain ones, but every mechanic knows that; or, if they are not fluted, but made rough, it will produce the same effect: therefore, it was not necessary to convey the information that they should be fluted, nor, in fact, is it necessary, for they are frequently used without being fluted; and if you look to the old machine, you will see they were in that case fluted, and it would have been arrogating an invention that was not his, if he had put it in his specification. The whole of the roving machine is entirely new; for this operation was done entirely by hand before. The question will be, whether it is sufficiently described. Mechanics will tell you, that the description is so plain, that any one who has seen the specification might understand it in a quarter of an hour, and could have made it perfectly. Other parts described in the specifica-

tion are disused, and, therefore, are not the subject matter of the present action; they were different modes of producing the same effect. Now, the material point to be attended to is, that every constituent part is accurately described: you have before you the whole of these two very ingenious machines, for they are two in effect, the first for carding, the next for sizing and roving. I have, I trust, explained to your satisfaction the nature of the machine as applied to the specification, and I do not doubt but you will say, that the specification is a sufficient description of these machines. In addition to that, we shall call the first men in the kingdom for ability in the mechanical line, who will all tell you, that being informed of the machine formerly in use, and reading the specification, they could direct the construction of the machine in question. We shall also produce several workmen, who, from the specification alone, have made the machine. After that, it cannot be contended, that it is not sufficiently understood, and cannot be constructed.

After some of the witnesses had been examined, Mr. Bearcroft, on behalf of the defendant, submitted to the Court, that this appeared to be a new invention, the application of which, to an old machine, was not described. On the contrary, the patent was for an invention of a machine or machines useful in preparing these articles for spinning, and, therefore, that the case did not apply to their patent, nor to their declaration; for the new invention will not work alone, but must be

applied to the old machine. He said, he had known that objection lead to a nonsuit.

Lord Loughborough.—I have known it overruled. In all the oylet-hole work patents, they are additions to the old stocking frame, and they are not so described. I tried one of those causes last term; the objection made at the trial was, that the description was to be taken from the terms of the patent, which were loose and inaccurate. I was of opinion, then, that the description was to be looked for in the specification, the description of what was invented; but upon that I am very confident there was no reference to the old machine.

Mr. Serjeant Adair.—I can speak of that with certain recollection, and the same was the case with March's patent two years ago.

Some witnesses were then examined, who had made models to produce the intended effect from the specification alone, without any other knowledge of the machine.

Lord Loughborough.—Mr. Bearcroft, will any number of witnesses prove that this machine cannot be made from the specification?

Mr. Bearcroft.—It is extremely difficult to prove the negative, undoubtedly; but whether these gentlemen have proved the positive will be the question.

Mr. Bearcroft then addressed the jury on the part of the defendant. He felt the weight of the case as proved on the part of the plaintiff, but he had often seen cases as strong as the present,

where a cool consideration of all the circumstances has produced a conviction very different from what might be expected from the first impression. It is a great libel on the court who tried the former cause, to say, that neither judge, counsel, or jury understood it. Mr. Arkwright had a great number of counsel; were they all useless? Did they not know his case? When was the gross injustice complained of done? At the end of Trinity term, 1781, was this verdict given against Mr. Arkwright. There were then nine causes depending upon the same question. If that cause was not understood, why not apply for a new trial upon that ground? for it is no disgrace to sensible professional men, that, at a first trial of a cause of this sort, they did not perfectly understand it, and the court would have hearkened to the application. Mr. Arkwright did not apply for a new trial, nor did he try any one of his remaining eight causes. If he thought proper to appeal from that court to this, why did he not do it recently? It was notorious to the world, that Mr. Arkwright had brought an action against persons who had stole his patent, and that there was a verdict against him; it was of course understood that he could not support his patent. He lays by four years; had not all mankind a right to suppose that this patent was invalid? The consequence has been, that a great number of innocent men have set themselves to work, using, it is admitted, this invention, as they had a right to do, by the concession and confession, in point of fact, of Mr. Arkwright himself, all of

whom must now be totally undone, in consequence of Mr. Arkwright's lying by, although he was capable of producing (as it will be contended he has done to day) evidence that would have intitled him to a verdict. Why did he not produce this evidence before? No mortal could suppose he had it. Notwithstanding this evidence, I undertake to prove, that in the specification, Mr. Arkwright has not only not communicated his secret in the way that he ought by law to have done, but that he has purposely withheld it from the public. It has been said, that in this matter it is of little importance that the secret is not communicated, as it will be used by a great number of hands, and, therefore, cannot fail to be handed down to posterity. The observation is true in point of fact, but will not operate in point of law, and, therefore, is nothing to the purpose; for, if the precedent condition of the patent be a disclosing *bond fide* the secret, it is essential to the privilege granted, and, without it, he derives no peculiar privilege whatever from his invention. Now, Mr. Arkwright has not by his specification communicated to the public at large this invention honestly, and fairly, but the *mala fides* appears upon the whole of the specification. It is not calculated to communicate, but to secrete: not to open and explain, but to hide. Why are pieces of mechanism introduced and jumbled together in the drawing with what has no relation to the invention, except to create puzzle and confusion? We are told, that certain parts of the drawing No. 1, 2, 8, and 9, have nothing to do with the

business. Then I wish they did not appear. Oh, but, say they, they are original inventions for some other purpose, perhaps, and, therefore, he has a right to have the advantage of them in his patent. I doubt the propriety and the legality of jumbling four or five different inventions in one patent.

LORD LOUGHBOROUGH.—I dare say you will see the reason why they jumble them into one patent, it is to save fees. It is a practice common enough; but when the Attorney or Solicitor General's clerks are attentive, it is not suffered to pass.

Mr. Bearcroft.—Here is a jumble of different instruments for different operations. There never yet was a man who meant really to explain what he was describing; but, that if he put a dozen things together, calculated for different subjects, did not tell you which was for which. The best way is to pursue some *lucidus ordo*, and describe the particular parts in the order of contiguity as they lie to each other. Why is the order subverted? He jumps from one end to the other of the machine. This seems calculated for no other purpose except to bewilder the understanding. When a patent is obtained, the inventor is bound to communicate the best way he has of performing the work by his invention; if any alteration should be made afterwards, which is only an improvement of the machine, it would be absurd to find fault with withholding that which was not known. In the specification, there is not any thing like a fluted cylinder, or a cylinder covered with leather; yet it is very material, and Mr.

Arkwright's own machines have been so used. The spiral fillet, instead of the parallel one, is important, and it ought to have been communicated. If Mr. Arkwright had improved his principle at the time of obtaining his patent, he ought to have communicated that improvement; and if fluted rollers are used, and are best, it ought to have been so stated in the specification: and not having been done, ought to raise a suspicion that there is a studied design to conceal.

The learned counsel, after commenting upon the evidence produced for the plaintiff, stated, that he had to produce witnesses of high reputation and great knowledge in mechanics, who will say, that with the knowledge of the old machine, and what is to be derived from the specification, they think the machine could not be made, and that it must have been purposely concealed; which latter suggestion will be supported by evidence. If an artist means to communicate the secret of his invention, why did he not shew a model of the machine to the person he employs to make a description of it? But that would not have answered his purpose; for if he had done so, many things would have appeared in the drawing, which do not appear in it. A witness will be called, who was employed in the writing of this specification, who will tell you that it struck him upon considering it, that it was not as good a description of this, as could be given. He made the observation to Mr. Arkwright: his answer was, "I do not mean to put it so that it "should be understood, for then the French will

"get it," or something of that sort. There is another piece of evidence behind. Mr. Arkwright, after his defeat in the Court of King's Bench, applied to the House of Commons to try if he could not get an act of parliament to relieve him: and in his printed case, stating the reason of his applying to parliament, he speaks of the verdict against him in the King's Bench in these words: "At the time Mr. Arkwright obtained his last patent, he justly concluded that his inventions were of great national importance, and conceived that they would be sought after by foreigners, to introduce into other countries; he therefore, purposely, in prevention of that evil, (he had almost said national injury) omitted to give so full and particular a description of his inventions in his specification attendant on his last patent, as he otherwise would have done; and in order the more effectually to guard against foreigners, it has been Mr. Arkwright's uniform rule, to forbid the admission of them into any of his works." For fear that foreigners might steal this invention, he withholds it from Englishmen to the end of fourteen years. If that is the fact, that he meant not to disclose his invention lest foreigners should steal it, he cannot have his patent; for, at the peril of all that, the law requires it. He has declared he purposely omits a full and fair disclosure, lest foreigners should have it; if he has done so, there is an end of his patent. It is highly for the public benefit, that, upon this occasion, a verdict should be given against Mr. Arkwright.

Lord Loughborough.—We must never decide private rights upon any idea of public benefit. I must tell the jury, that they must shut out that part of the argument. I cannot let a cause between A. and B. be determined upon consequential reasons, that it is beneficial to the public that A. should prevail.

Mr. Bearcroft, with great submission, thought it material in this case; for, by the statute against monopolies, no patent is to prevail, that is generally inconvenient, or against public trade.

Mr. Serjeant Adair, in reply, contended, that enough had appeared to-day to warrant his assertion, that the cause was not understood in the Court of King's Bench. Mr. Arkwright's long acquiescence in the event of the former trial, is complained of; but that complaint comes with a very ill grace from those who have been all along profiting by that acquiescence. A man who has been once beaten in a Court of high authority, does not feel himself immediately bold enough to enter into another Court. It was natural for Mr. Arkwright to endeavour to procure every ground of evidence, before he brought the matter to another discussion; in fact, this action was brought a considerable time ago: and has been brought forward as soon as the attendance of witnesses could be procured.

The question in this cause is truly stated to be, whether this specification is such as the law requires, in order to support the patent. And it has been admitted as true, in point of fact, that a declaration in the case of a machine of this exten-

sive utility, is less necessary than in other cases that are not the visible object of the senses; but it was added the law requires it. It is not contended that it is not necessary, in point of law, that there should be such a specification as will enable a proper judge of the subject to practise the invention, but a jury will be less curious and minute in examining a specification of that kind, than where there is no means of preserving that benefit to the public, but the intelligibility of the specification. An attempt is made to persuade you, that Mr. Arkwright intended to conceal this invention; not to disclose, but to render it more obscure. Now, if it is true, that from the general use of these machines it is impossible to keep them secret, Mr. Arkwright must be a downright id ot, if he had, in order to make his patent void, purposely concealed by his specification that from the public, which, it is admitted, it was impossible for him to conceal; for, these machines being necessarily brought into pretty general use, it is obvious, that if there had been no specification at all, or if it had been the most studiously obscure that ingenuity could have made it, long before the expiration of the patent, a vast variety of persons, certainly, could have made it; therefore, Mr. Arkwright must know that it was impossible this should remain a secret, and that the only effect of a studied obscurity would be to render his patent doubtful, if not void. One part of the evidence on the part of the plaintiff, if believed, must make an end of this cause. There is the evidence of five witnesses, who have positively sworn that they

made the machine from the specification. Do you, or do you not believe those five witnesses to be perjured? If you do, and reject their evidence, still the balance of the evidence is in favor of the plaintiff; but, if you believe them, your verdict must be for the plaintiff. For, if it is true that they, with no other information, than a knowledge of the old machine, and the specification of the new one, have made the new machine, it is of no consequence if fifty or five hundred men were called to prove that they could not have done the same thing. But there is a piece of evidence which deserves particular attention; the evidence of a man who had been long concerned in the manufactory, and who, immediately on Mr. Arkwright's invention coming out, had recourse to the specification, and from thence added all the material parts to the old machine. Is that, then, a specification, unintelligible as Chinese? It was the source of information to which every body had recourse, who wanted to steal the invention, and every man who had recourse to it, and had sufficient ingenuity on the subject, did steal it. If, then, one man is to have credit who tells you, that wishing to get the benefit of this, he got the specification from the office, and from thence made the machine, it will overbear the evidence of five hundred witnesses, who say they think it could not be done.

LORD LOUGHBOROUGH, before he stated the evidence, took notice of some things that had occurred in the course of the trial, merely for the purpose of laying them aside as foreign to the

purpose of the inquiry. There is no matter of favor can enter into consideration in a question of this nature. The law has established the right of patents for new inventions; that law is extremely wise and just. One of the requirements is, that a specification shall be enrolled, stating the nature of the invention; the object of which is, that after the term is expired the public shall have the benefit of the invention, but without that condition is complied with, the patentee forfeits all the benefit he derives from the great seal.

It has been said that many persons have acted upon an idea that Mr. Arkwright had no right, he having failed to establish it when this cause underwent an examination in another place, in which the event was unfavorable to him. If the question at present were what damages Mr. Arkwright should have received for the invading that right, I would have allowed the parties to have gone into evidence to shew to what extent persons had acted upon the faith of the former verdict; but the question now is upon the mere right: and if the result of this cause is in favor of the plaintiff, the verdict will be with one shilling damages. A future invasion of this right would entitle Mr. Arkwright to an action for damages, but in the present case they are not asked.

It is said, it is highly expedient for the public that this patent, having been so long in public use after Mr. Arkwright had failed in that trial, should continue to be open; but nothing could be more essentially mischievous than that questions of property between A. and B. should ever be

permitted to be decided upon considerations of public convenience or expediency. The only question that can be agitated in Westminster hall is, which of the two parties in law or justice ought to recover.

There are many objections that may be taken to patents, but the only objection in this case is, that the specification is not so intelligible, that those who are conversant in the subject are capable of understanding it, and of perpetuating the invention when the term of the patent is expired. The clearness of the specification must be according to the subject matter of it; it is addressed to persons in the profession having skill in the subject, not to men of ignorance; and if it is understood by those whose business leads them to be conversant in such subjects, it is intelligible.

The first witness described the machine in use before the plaintiff's patent was obtained, which was simply applied to the purpose of carding; all beyond that purpose, that is contained in Mr. Arkwright's invention, I take to be perfectly new.

The next witness was the person applied to by Mr. Arkwright to draw up for him a description of his machines to be inserted in his specification. He says positively that the instructions given to him were not to conceal, but to make the description plain; and Mr. Arkwright relied upon his skill and capacity for making that plain which Mr. Arkwright had communicated to him, in the best manner he could.

His Lordship then stated the evidence of four witnesses, who had given their opinions upon the-

ory, upon observation, and as men of skill and mechanical knowledge, that the specification was sufficient to convey clear ideas to their minds, from whence they could direct the making of the machine.

Mr. Wise says he did actually make a machine from the specification without any previous knowledge of the old machine, except a cursory view.

Thomas Wood says he never saw the plaintiff's works till last September. That about the time the patent came out, he got a copy of the specification from the office, and from that copy actually made the machine; and from the specification only, applied the parts to the old carding frame; and that for three or four years they have been constantly in use. He says fluted rollers were not new, they had been used by him years ago.

William Allen made a model of the machine from the specification. He had never seen a carding machine, but it was described to him by the person who brought him the specification.

William Whitford, after considering the specification about an hour, undertook to make the machine. The old carding machine was described to him, and he also made the machine.

Both these witnesses said the conversation was perfectly fair, and that they were not led by any thing said to them.

This is the evidence on the part of the plaintiff, and that evidence, to be sure, affords a very strong body of proof; for the question being whether the specification is intelligible or not, the man who drew the specification says he was desired

to make it as plain as he could; and he swears that, to the best of his judgment, he did endeavour to make it plain; that is so far, as to the fairness of the instruction. Then he and three other persons of skill swear, that it is so intelligible to their apprehensions, as to convey to them a clear idea of the manner of making the machine. Then five persons swear that they constructed this machine from the specification alone; and one of them, divers years ago, clearly from the specification alone, made the very machine to produce the very effect, and had it in work, producing the very effect produced by Mr. Arkwright's.

The comment upon this by the defendant's counsel is, that these were trials made by the plaintiff's desire, which should have been made with more caution; the persons should have been talked to before witnesses, but I cannot conceive that any evidence would have added force to the testimony that is given. Supposing Mr. Arkwright, in making these trials, to have made them in such a manner as to evade all suspicion, with the best precautions that the ingenuity of man could suggest, still nothing more could be attended to than the positive testimony of the persons who gave the description, and who received it. Now they swear that no other person gave them information, and the person who gave the information swears he gave them none but fair information; and one witness swears he had no information at all, but took it upon himself, taking a copy of the specification and using it.

Mr. Bearcroft has called witnesses, many of them

of undoubted character and skill, who say that from the specification they should not be able to make the machine; and most of them have said that they think it not probable that the person who drew the specification meant to describe the invention. Now that is nothing more than a corollary from their own opinion, because it is not intelligible to them.

The last witness is the attorney's clerk who prepared the formal part of the specification, and ingrossed the whole of it, and I think his evidence does not amount to a great deal. He says, that when he observed to Mr. Arkwright that the specification was not so clearly drawn as he thought it might be, Mr. Arkwright's answer was, that it was not lately usual to make the specification too plain, lest the invention should be carried abroad; and seemed to regret that the specification was not locked up for fourteen years, as a matter of public convenience; but he added, he believed it would be sufficient for the security of his patent.

A good deal was said in the opening of the defendant's case, that Mr. Arkwright meant to understate his description, so as to keep the world in ignorance of his invention; and that, though he might do it to keep it from the French, yet that he had overshot himself, and had kept it from the subjects of this country; that he had not complied with the grant, and must stand to the consequence. Now unless a great degree of folly indeed is ascribed to Mr. Arkwright, you cannot apply that idea to his mind. He must

necessarily put people in possession of it; and it is plain, by the conversation he held with the attorney's clerk, that he thought the specification was sufficient according to the terms of his patent, that he should make his invention sufficiently known.

Having stated the whole of the evidence, I cannot conclude without saying, that this case turns upon a very short point; there is no matter of argument in it: it is simply whether you believe five witnesses who have sworn to a positive fact; for if their testimony does not obtain effect with you, it can only be on supposition that they are every one of them perjured, because the reasoning is only this; that that which five men have done is possible to be done. Therefore the only question for your consideration is, whether these five men have made the machine? Each of them come and positively swear they have done it; and if they have not done it from such information as they state themselves to have received, they are each of them perjured.

Therefore the single question is, whether you believe these five persons are perjured, or that they speak the truth? According as you are of opinion, one way or the other, you will find your verdict for the plaintiff or for the defendant.

Verdict for the plaintiff.

IN THE COURT OF KING'S BENCH.

The King against *Arkwright.*

June 25, 1785.

THIS cause was instituted by the Attorney General by writ of *scire facias* to repeal a patent granted 16th December, 1775, to Mr. Richard Arkwright, for an invention of certain instruments or machines for preparing silk, cotton, flax, and wool, for spinning. The proceedings originated in the petty bag in the Court of Chancery, and were transmitted by the Lord Chancellor to the Court of King's Bench, to be there tried.

The allegations in the writ of *scire facias* were,

1. That the grant was prejudicial and inconvenient to the King's subjects in general.

2. That the invention, at the time of granting the letters patent, was not a new invention, as to the public use and exercise thereof within England.

3. That the same was not invented and found out by the said Richard Arkwright.' And

4. That the said Richard Arkwright had not, by an instrument in writing, under his hand and seal inrolled in the High Court of Chancery, particularly described and ascertained the nature of his said invention, and in what manner the same was to be performed.

Mr. Bearcroft, on the part of the prosecution,

stated that a case of greater importance, of greater value to the individuals disputing it, and to the public in general, was never yet tried in any court. Upon the part of the defendant, Arkwright, it is a question of great property; for if he is right and well founded in this patent, it is of such value to him, that it will produce him great sums of money. Upon the other hand, if the patent has no validity in point of law, and yet it should be determined that it has, the consequence will be, that some individuals, well worthy of consideration, will be losers of sums much greater than any Mr. Arkwright can assume to be interested in, great as they are. There is also a matter of infinite importance behind, for if the determination should be for the validity of the patent, it will endanger the loss of the most valuable manufactory that this country knows, viz. the manufactory of cotton.

The first thing to be attended to, since these proceedings are totally to render void a patent, is the nature of that patent; and the machine from which Mr. Arkwright has derived great advantages, and of which he contends, by virtue of this patent, he has the sole use and property during the fourteen years, for which a certain act of parliament in certain cases allows a monopoly to be granted by the crown.

The date of the patent is, 16th December, 1775. The manner in which Mr. Arkwright describes his invention, upon the footing of which he asks and obtains the patent, and derives all the consequences, which by law he may; the expressions he

uses should be attended to, and almost every word used by him in his petition, and stated as the ground of the grant, are extremely material.

Mr. Arkwright is recited by his patent to have suggested that he has invented certain instruments or machines, which he conceives would be of public utility in preparing silk, cotton, flax, or wool, for spinning; and that the same instruments or machines were cónstructed upon easy and simple principles, very different from any yet contrived.

In truth, so far is this from being the true description of these machines, that they deserve a description the very reverse of this; for, in fact, they are not materially different from some before contrived; on the contrary, they are the same.

It will be impossible to understand a step of what remains behind, without first having a general acquaintance with the nature of spinning cotton, and of the process towards the spinning of it, together with an acquaintance with the patent machine of Arkwright, that is to perform the operation for preparing for that spinning.

The various manufactures which are performed in and about Manchester are fabrics so ingenious, beautiful, and useful, that they have all the qualities that can recommend them to human nature; and in that article we are universally envied, and that sort of manufacture is coveted by every nation which has at all turned itself to manufactures; the basis and principle of all those manufactures are, the fineness and excellence in the spinning

and twisting of the cotton thread, of which they are composed; therefore, every part of the process towards the making that fine and excellent cotton thread, is of the utmost importance to the kingdom in general.

To produce a fine thread, the cotton must be carded; this operation used to be performed by hand, and it took up a great deal of time, and of course was very expensive. The next process was, what the manufacturers called roving; roving means taking the cotton after it is carded and performing the operation of spinning by a wheel, making it into a coarse yarn thread or webb. This coarse thread, the roving, must be re-spun to make it fine, and give it a proper twist, and that sort of consistency, which is the foundation of the excellence of the Manchester manufacture; this too used to be done by hand. This spinning was the last and important finishing. If, therefore, a machine could be found out that in less time, and consequently at less expense, and in a better manner, could contrive to spin a second time, the first coarse spinning, called roving, it most undoubtedly was an improvement, and an invention of great value and merit, and of great importance to the public; and for which the inventor was fairly entitled to all that reward that can be derived from the monopoly permitted by law, which is, the sole enjoyment of the patent for fourteen years.

Now Mr. Arkwright was in possession of a patent for that operation of spinning, which makes the roving into fine thread, which patent expired

upon the 3d July, 1793. The language of that patent was a machinery "never before found out for the making of web or yarn of cotton, flax, or wool, which will be of great utility to manufacturers."

That patent machine which was excessively ingenious should be thoroughly understood, for upon that a great deal turns, and that alone, when truly understood, is sufficient to overturn this patent, and make out one of the propositions alleged upon the *scire facias*, namely that this patent of 16th Dec. 1795, was not for a machine that at that time was a new invention.

Mr. Bearcroft then explained, by a model in court, the operation of the spinning machine for which Mr. Arkwright's first patent was obtained; and observed, that that machine would either make the roving, the coarse thread, or the spinning, the fine thread; the roving, in truth, is the first thread in the business, but it is the coarse one; but take the roving back again when it is made, and instead of the carded cotton, let the roving go under the operation a second time, and it comes out a fine thread. Both the roving and spinning are threads, the one a coarse thread, the other a fine one, equally performed by that very spinning machine.

Having given the idea of the machine for spinning, and shewn that it will operate to produce either a coarse or a fine thread, the next thing will be to shew the sort of patent which is in question.

The patent for spinning expired in July, 1803;

Mr. Arkwright had therefore lost a profitable monopoly. He was unwilling to part with it, if by any means he could contrive to keep up the monopoly in another shape. Upon that idea he took every step in the business. Mr. Arkwright, upon the expiration of the patent for spinning the fine thread, could no longer in those words enjoy that thing at all: but as the cotton manufactory depends upon the carding, roving, and spinning, if he could contrive to get a patent, and to gull the world to submit to that patent as a new invention for the roving and the carding, it would answer all his purposes.

The learned counsel then described the machines for preparing cotton for spinning, for which the patent in question was obtained, and had the operation performed in court, by first carding, and then roving the cotton; after which he observed, it was for him to shew upon what ground of law, and of fact he contended upon behalf of the crown and the public, that these two machines ought to be nullified and held of no validity.

By an act of parliament in King James's reign, which put an end to great and growing evils that the world at that moment very properly complained of, it was thought right to reserve a power of monopoly, that might be made use of for the benefit of the public; and it was thought, that if a reward to ingenious men, who should study to invent any matter of great use to the public, was given to those inventors in shape of a monopoly, for a given time, it would be a benefit to the public. That was the idea of the legis-

luture, and, of course, there was a power given to the Crown, to grant patents for new inventions, for a term of fourteen years. But adopting that idea, the framers of the act of parliament were clearly of opinion, that power ought to be guarded for the sake of the public; and the way in which they guarded it was this: in the first place, says the act of parliament, it shall ever be an express condition with the inventor, to whom a patent is granted for a monopoly of his invention for fourteen years, that he should pay for it in this coin: he should disclose the manner in which he performs his invention, in an honest, fair and plain way, so that the public at large shall be in complete possession of all he knows of the subject at the end of the fourteen years. That is the express bargain and stipulation required by the act, and of consequence inserted in this and every other patent that is granted*.

* It may perhaps excite some degree of astonishment, that so able and learned a man as the late Mr. Bearcroft, and in such a very important cause as the present, should argue upon an act of parliament, without having read it, or even the short proviso reserving power to the Crown, to grant the sole use of new inventions, to the true and first inventors thereof; but such evidently is the fact, as the statute does not in any part of it, require a description of the invention to be enrolled, nor was the proviso for that purpose introduced into patents, for near a century after the passing of the act. This idea, however, has been entertained and argued upon by many eminent counsel, and even adopted by the Bench in some of the cases reported in this work, although it may not always appear in these reports, the word "Grant," having sometimes been substituted for the word "Act;" a liberty for which it is hoped the motive will be a sufficient excuse.

It is likewise an express condition to make a patent have any operation, however new, ingenious, and excellent the invention may be, that it should not have an effect prejudicial and inconvenient to the King's subjects in general; in other words, to the public.

Another essential circumstance to the validity of a patent is, it must be the invention of the patentee himself; and it must be, that the invention, and the manner of performing it, must be honestly and fairly disclosed by a specification, and the specification must be enrolled in a certain time in the Court of Chancery. All those things are necessary; none of those things exist in this case. These are the grounds, any one of which, if maintained in point of law, will entitle the Crown to a verdict to vacate this patent.

The first objection, and the most serious to the public, is, that this grant is prejudicial and inconvenient to the public in general, as it endangers the loss to this country of a manufacture, which before was the most envied and coveted of any we can boast; and not only endangers the loss of it, but renders it extremely probable, and tends to draw off from the industrious exercise of this business in this country, a multitude of labourers, who support themselves to the benefit of the public; as it would carry the carding into foreign countries, and they would carry this art with them to foreign countries. Can any thing be more prejudicial and inconvenient to the subject, than a patent to a private man, which endangers the loss of a trade of such importance to this coun-

try as a nation?—If this patent remains good in point of law, it prevents every individual from the preparation of cotton for all the cotton manufactures in this country. Other countries at this moment, and for years, have had their eyes turned upon this, with an endeavour, if they can, to take from us our trade and manufactures, and this will have the effect of it, upwards of 30,000 people will be robbed of their manual labour in this business, and people will be ruined, who, upon the strength of what has passed, have laid out near £300,000 in this kind of business.

If it be asked, why did they invade another man's right? if they do it, they do it at their own peril. The answer is this. In the sittings after Trinity Term, 1781, Mr. Arkwright was the plaintiff in nine causes that he brought here for invading this patent, and using those machines without his licence. One of these actions was brought against Colonel Mordaunt, a gentleman of family, but not much fortune; who was thought, from the lightness of his purse, the fittest to be put in the front. An objection was taken, that if this was a new invention, Mr. Arkwright had not fairly communicated it by his specification; but had absolutely contrived to hide it. Upon that simple ground, to the perfect satisfaction of the judge who tried it, the jury found that the patent was of no validity; for Mr. Arkwright, instead of disclosing his invention, did all he could to hide and secrete it; and upon that ground a verdict was given for Colonel Mordaunt, and Mr. Arkwright imagined the same objection would be ad-

missible in the other cases, though the cases were somewhat different in their nature: there was an end of his patent from that time, and all the world had a right to take it so. From that time Mr. Arkwright never dared to raise this question again, till he found a disposition to go into the Common Pleas. Why did he not contest that verdict? There was not a word said against it till in the Court of Common Pleas, in the sittings after Hilary Term, 1785, when it was said that the judge, counsel and jury of the Court of King's Bench, though very ingenious men, yet, *quoad hoc*, this business, were perfectly fools, and knew nothing about it. The counsel for Mr. Arkwright, as well as the rest, did not know a bit of what they were about. It followed therefore, that ingenuity and apprehension equal to such a cause as this, were only to be found in the Court of Common Pleas.

But now to the verdict in 1781—Did he dispute it? Why did he not apply to the court for a new trial? Upon such a subject as this, there is a great inclination in a court to grant a new trial; because the court will be cautious upon a subject of this kind. It is not impossible the first time it might not be truly understood, and therefore if he could have created a doubt in the mind of the Court of King's Bench, that would be enough to grant a new trial, if he had applied for it; and if the court would not grant it, he might have granted himself a new trial; he might have granted himself eight new trials if he thought proper, for there was but one life of this cat ex-

tinguished; there were eight left, but he never applied for a new trial, never tried any one of those eight causes. What had the world at large to conclude from that? What are notorious trials in a great court, and what is to be the effect, if the eyes of the world are to be turned upon a decision, and the party interested to dispute the rectitude of that decision, submits to it for three years and a half, without a struggle? Has not all mankind a right to conclude that he had given up all thoughts of the validity of his patent, and that he had totally lost it?

But he was satisfied of the fact himself; for, instead of applying to a court of justice, he applied to the House of Commons in order to set him right, in respect to the consequences which he submitted to in a court of law. His application to Parliament was for a prolongation of his spinning machine: that was what he wanted. He gave up all ideas of the validity of this patent, and stated in terms he had purposely avoided disclosing the invention by his specification, out of public spirit, because the French should not steal it. These are his words. "At the time Mr. Arkwright obtained his last patent, he justly concluded that his inventions were of great national importance, and conceived they would be sought after by foreigners to introduce into other countries; he, therefore, purposely, in prevention of that evil, (he had almost said national injury) omitted to give so full and particular a description of his inventions in his specification attendant on his last patent, as he otherwise would have done; and in order the

more effectually to guard against foreigners, it has been Mr. Arkwright's uniform rule, to forbid the admission of them into any of his works; other gentlemen, natives of this kingdom, were most generally admitted, on proper application. Mr. Arkwright was the more inclined to omit so full a description of his inventions, as by a clause in the said letters patent, he was led to believe that it was not essentially necessary; because it is therein said, that 'the said letters patent should be good and effectual in the law, according to the true intent and meaning thereof, notwithstanding the not full and certain describing the nature and quality of the said invention, or of the materials thereunto conducing and belonging.'"

If there is such a clause in the patent, they may leave it there, it will have no effect in point of law; because it is the express condition of the act of parliament itself, he should fully and fairly disclose. The reason, says he, I did not disclose it fully is, because foreigners would have understood it; which is the same thing as if he had said, I meant it should not be understood. Did he so? Then there is an end of his patent.

The second objection is the allegation upon this *scire facias*; that this invention at the time of the letters patent, which was the 16th December, 1775, was not itself a new invention; at the time, all the parts that go to compose it, with very little or no essential difference, existed and were used, and were applied to the purpose. The larger cylinder, that performs the operation of carding, was in common and constant use; the smaller cylin-

der, for the purpose of taking off the carded cotton, was in constant use, covered all over, not only with parallel, but spiral carding fillets; that which he uses now is the spiral one. The operation of the crank taking off the cotton from the second cylinder, is no invention of Mr. Arkwright's, it is no new invention: all its parts and operations were in use before, except the rollers, and they were not new at the time of the date of this patent, in 1775; for they were used in the first patent that expired in 1783. Roving is spinning, and spinning is roving; and all is performed by the rollers; and it is either one or the other as you put the rough cotton or thick thread. In the first place it is roving, or a coarse thread; in the second place, spinning, or the fine thread. But, if this was a new invention, it was not Mr. Arkwright's, it was the invention of a very poor man now alive, who will be produced. He did it; but he was poor, and could not carry it much into execution. He communicated it as a great secret to another man, who sold it to Mr. Arkwright; therefore, it is not Mr. Arkwright's invention.

The last objection, which is a very important one, if not the most important in the business, is, that he has not fairly disclosed his invention. He stated his own case rightly and truly to the House of Commons, that he did not disclose it by his specification*.

* It may be assistant towards the elucidation of the following arguments, to give, by way of note, the words of Mr. Arkwright's specification, although no complete idea of the specification can be given without the drawing. It has not, however,

No. 1. the first article, describes a beater, or breaker of seeds, husks, &c. and a finer of the

been thought necessary to increase the expense of this work, by having the plate engraved, as the same reason would exist for engraving specifications in some other of the cases reported. An additional reason may be, that it is engraved in the printed account of this trial, and in Mr. Collier's Essay. The words are as follow: "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 beat r 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.) 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 cranks, 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, delivereth 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,) are brushes for clearing 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 pulley fixed to the frame;—(d,) a cord which passing from the pulley (c,) moves the rollers (a, a.)—(F,) a wheel; the movement of which is

flax, hemp, and other articles which are to be prepared for dressing. Now as that is the specification, and the disclosure of the invention, for which this patent is granted, it may be expected that this hammer is necessary for the performance of the work. It is never used, and is put in front of the specification for no other purpose but to puzzle and confound. This hammer is not only useless, but it is mischievous; if you put cotton under this hammer, and work the wheel about, you will absolutely spoil it for the operation of roving and spinning. We should be late indeed in the discoveries of this country, if we were to resort to Mr. Arkwright in the year 1775, for the invention of the lever, with a hammer at the end, to be turned by a wheel upon a centre: no man can tell who was the inventor, it is so old and well known.

No. 2. is an iron frame with teeth, working

brought from (F,) to No. 10, and is fixed to No. 6.—No. 8, a machine for twisting the contents of No. 6. in w'ich (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, c.) (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, &c."

against a lower frame with like teeth; this lower frame is firmly connected with a wooden frame by means of screws; the upper teeth are made to work against the lower by means of joints. So here are artificial teeth, but for what purpose, except that of confusion, cannot be shewn, for in fact it is not, nor ever was applied in this business.

Now we come to something that is meant to describe the thing you have seen; but here, too, Mr. Arkwright is exceedingly sparing of his disclosures. The cloth with the wool upon it which is called the feeder. There is in the centre of it a little roller, upon which it turns round with firmness, without which the cloth and cotton would get within the wheel: but that roller which is the most essential part of it is not pointed out in No. 3. In explaining a complicated machine that was to perform a process in a manufacture, if it was meant to communicate it to other men, the course would have been to speak of that part of the machine which first begins the work; then to speak of that which succeeds in the next part of the operation; and so on to the end. Method and order throw light upon any subject; therefore it was not for Arkwright's purpose to proceed in any order. The next thing to the feeder and the rollers, is a very important part of the machine; it is a great carding cylinder: of that not a syllable is said in the specification. Why?—Oh, say they, we have no occasion to describe that, that was well known and common in the trade, we apply our new invention to that old

carding frame and cylinder. Do they so ?—Then it is a flat contradiction to the patent, for it ought to be for the application of that novelty, and produce an effect by its application to the old machine, that should be stated, and many of those patents have been questioned, and that point has been solemnly determined by the court; because, you are *inventing a new thing that will produce* a new operation; you are not to take that which is an old invention, and put it together, and call it a new invention; but you should state, that it is for an addition to an old invention. It is essential to the description that he should tell how he performs this invention. Does he not do it with the assistance of the old carding cylinder? Ought he not to tell you so, and that the invention is an addition to it?—but he has not said a syllable of it.

After the cloth, which is the feeder of the cotton, the next important parts of the machine are, the rollers. Do they not occur next in order? No; that might have explained the thing, and put people in mind of the rollers, and the former patent for spinning. But for the purpose of confusion in general, those that ought to occur, as No. 4, after No. 3, are postponed to No. 6, and instead of speaking of them, the crank, with teeth, is mentioned, that is No. 4, but that is not the natural place for it.

No. 5. in the specification is described as a cylinder, which has fillet cards, behind this cylinder No. 3. delivers its contents upon another cylinder. In the specification it is a cylinder with parallel fillets, but the spiral fillets are the best; they use

them, then why insert parallel ones in the specification?

Then we come to the rollers. Mr. Arkwright was vastly shy in talking about the rollers; he certainly could describe them, for he has described them in his first patent, he thought it necessary to describe them then. Why not now? because if he had described them, he must have described them in the same manner, and then it would be seen that it was the same thing as his former patent, and that after that had expired, still he wanted to have it again, and that is the reason why he stopped short of the description.

We then come to No. 7, which is the can upon the roving machine, but there is nothing new in that can; except a pair of rollers, it was like the first expired patent, and like the rollers, is put for no other purpose than to confound and puzzle, and to hide the identity of the thing. It produces no new effect, and at this moment those that use Mr. Arkwright's machine most frequently use it without the can.

No. 9, is no new invention, but No. 9, and 10, are exactly like No. 1, and 2; that is, they have no relation to the subject, and never were used at all.—No. 8, is not used at all.

A witness will be called that was actually employed to draw the specification by Mr. Arkwright, who was so struck with the lameness of the specification, and its inadequacy to convey the idea of a new invention, that he said "I don't think this will do, nobody will be able to do it by this;" "Never mind that," said Mr. Arkwright, "I don't mean they should," or to that effect.

This is the nature of the case, and the evidence to be produced will undoubtedly establish every one of the objections stated, namely, that it is a great inconvenience to the public, that it was not a new invention at the time the patent was granted, that it is not a new invention by Mr. Arkwright at all, and that he has not disclosed his invention.

Mr. JUSTICE BULLER did not permit the counsel to call any evidence with respect to the first issue, upon the ground of its being merely a consequential issue. It is a question of law, whether it is prejudicial or not? When the facts were stated, therefore, if it was thought necessary to attack the patent upon those general words of the act of parliament, it should have been stated in what respect it was so then, and the fact would have been put in issue. This was such a surprise upon the party, he could never come prepared to answer it.

Mr. Serjt. Adair, for the defendant, began by stating that if there ever was a case which called for a cool and deliberate hearing, and a minute attention to both sides of the question, it certainly was the very important cause to be then decided. What passed upon former occasions in this court, or any other, was nothing to the purpose, and ought to have no influence upon the verdict. Upon both the former trials, the single question was, Whether Mr. Arkwright had sufficiently described his invention or not? The utility, or originality of that invention, has never been disputed till to-day.

That the continuance of a patent may produce some inconvenience to those engaged in the same branch of manufacture, is not to be denied; but that is an inconvenience which the law has recognized, and which they must submit to, if the party is entitled to the protection of the law; because the law has thought proper to give this encouragement to ingenious inventors. If no benefit was to be derived to the inventor from the exercise of his ability and ingenuity, for the loss of his time and the expenditure of his fortune, who would be sufficiently public-spirited to devote their time and labour for the benefit of the public, in a thing that the public were immediately to derive a benefit from; and for the sake of the public to ruin themselves and families? But in order to prevent that discouragement, the wisdom of the country has thought fit to hold forth that encouragement to men, to give their time to the improvement of the manufactures of the country, and they could not have framed one better adapted to the purpose, because the reward is proportioned exactly to the ingenuity. If the invention is worth nothing, he will derive no profit; if ingenious and valuable, he will derive an adequate profit during the time, and the public will receive the benefit in reversion.

The questions to be tried are these. First, whether this is, or not, a new invention? In the next place, whether Mr. Arkwright is, or not, the inventor? and next, whether he has sufficiently disclosed the nature of that invention; to

secure the benefit of it to the public, after the expiration of his patent?

With respect to the two first questions, it will be necessary to consider the principles upon which those questions ought to be tried, and a precise idea should be formed;—what is a new invention within the meaning of that word, as applicable to improvements in the manufactures of the country, or upon machines intended for that purpose? It is not now to be decided, whether a new invention or improvement produced to the public, and made the subject matter of a patent, must be all, or perhaps, any of the constituent parts of the machine new; for the more important part of the mechanical powers have been discovered many centuries ago: therefore, if things are to be traced to their source, to their first constituent parts, no man living could produce that which would deserve the name of a new invention. It is the combination of those parts in the machine, and producing the effect of them, that alone constitutes a new invention; in other words, that is a new invention in a machine which consists of a new combination of old parts, and that is a new invention which consists of a new combination of old principles. The evidence that has been produced has been calling witnesses to prove, that in respect to each particular part of the machine, it has been in use before Mr. Arkwright's patent; but not one witness has been produced, who ever saw such a machine as Mr. Arkwright's before the date of his patent, or who has proved that the combination of those parts has been applied to

the purpose, or that the work to which they have been exercised has ever been done before by any individual, or that the carding machine and the roving machine have ever been used before, as applied to the purpose of Mr. Arkwright's patent, and the use of the particular parts of it.

With respect to the crank, No. 4, several witnesses have said, that part of the machinery had been in use before the date of Mr. Arkwright's patent; but some doubt has been left upon their testimony, which will, in some degree, be cleared up, when the witnesses for the defendant come to be heard. Certain it is, the application of that crank was originally made by Mr. Arkwright; but whether the evidence that before he had obtained his patent, the discovery and application of this crank had so far gone abroad that it was used by others, and applied to the purpose, will amount to such a public use and exercise, even of that part of the machine, as would be sufficient to deprive Mr. Arkwright (who certainly was the inventor) of the benefit of his patent, is a question of law. The mere circumstance of this use or application of the machine having been found out or known to others before the date of Mr. Arkwright's patent, is not sufficient to avoid that patent.

The question to be tried, is not whether this was a new invention, strictly; but whether it is a new invention, as to the public use and exercise thereof? The man who first brings his invention to that degree of maturity as to make it capable of general use, he alone is entitled to the

patent; and however others may have tried experiments, however they may have; for a time, even worked experimentally in their shops; yet if not applied to the general purposes of manufacture, Mr. Arkwright will be entitled to a verdict.

After commenting upon the evidence, with respect to the other parts of the machine, of which it was alleged Mr. Arkwright was not the inventor, the learned serjeant came to consider the objection taken to those parts which were said to be parts of the spinning machine, and observed that it was an undoubted fact that the spinning patent never paid for itself, nor indemnified Mr. Arkwright for the construction of those machines, because of the modes in use at that time for preparing the cotton from the coarse state, which employed much time and many hands to prepare it for spinning, and the spinning machine could not be applied to that extent and celerity as it might have been, if this discovery had been made, which is now pretended to be cotemporary with that. Is it possible to believe that Mr. Arkwright's new patent for roving was nothing more than an intent to continue the spinning patent? If the spinning machine was equally applicable to this purpose, is it to be conceived he would have been so long without reaping the benefit of this useful invention?—Had Mr. Arkwright known that, at the commencement of his spinning patent, he could have applied that machine to the purpose of roving, and could have had a complete machine for

carding and roving; it would, in all probability, have produced by this time to Mr. Arkwright all those profits which he has never received but in idea: the fact is, it never occurred to him, or any body else, that those machines were applicable to the purposes which have been since discovered. If the invention is new, as to the application and exercise of the machine, and the introduction of a new part, or the application in a different manner to introduce a different effect, that is to all intents and purposes a new invention, though some parts were used in the old machine. It is alleged, that the roving machine in its parts consists of No. 6, and No. 9, which are the same, as they say, with those in the spinning machine: supposing they were, is it contended the roving machine, which consists of Nos. 6 and 9, are the same parts of the machine with No. 7? They are parts of the machine, though not pretended to produce the effect, with which the spinning machine has nothing at all to do; then, it is an answer to say, a combination of those parts has produced a new machine, applicable to a new purpose.

There must have been some reason that this evidence, in defence of these encroachments, has been hitherto concealed till four years from the expiration of the patent; if, therefore, Mr. Arkwright's acquiescence under one verdict is talked of, what must be thought of the acquiescence of gentlemen, possessed so many years of the most decisive evidence to annihilate Mr. Arkwright's patent? they have put themselves to the expense

of thousands of pounds in litigating the other stages of the cause, and it is only to-day they have found out that evidence which is stated to be so material as to make an end of the cause.

Mr. Arkwright stands in this critical situation: if any one of these issues is found against him, it is the same as if the whole were; they all equally go to the invalidation of his patent: he therefore has the labouring oar in the highest degree. It is incumbent upon him to entitle himself to a verdict upon all these issues: some observations are therefore necessary upon the principles upon which the other issues ought to be decided.

Where a man would, by the authority of the crown, intitle himself to an exclusive benefit for a limited time, care should be taken that the secret should not fall with him, but it should be recorded, and remain for the benefit and free exercise of the public, after the expiration of that time; that is the meaning of the law that requires a specification: therefore, the language of the law and common sense is, that that specification is sufficient which does preserve the benefit of the discovery to the public.

Another circumstance which should be attended to is, the different subject matter for which patents for new inventions may be granted; and there is none in which the minute exactness of a specification is so little required as in that of an improvement in machinery, for the moment the machine is brought into use, the inventor not being himself the maker; the workmen employed in making those machines, and the workmen employed in

the manufactories, are all possessed of the secret. In this specification the nature of the thing secures the benefit to the public, for it is an absolute impossibility that the machine can be brought to perfection, and remain in use for fourteen years, and the construction of it should remain a secret at the end of the term. It is not contended from that principle, that those specifications that are necessary should not be made in the case of a machine, or that the specifications should be wholly unintelligible, or that the party has then complied with that requisite. It is admitted, that a specification that cannot be understood is the same as no specification at all; but in the construction of a specification of a machine, common justice requires you to be less critical and exact than in the specification of a medicine or instrument which must die with the author of it. The reason furnishes an answer to the imputations thrown upon Mr. Arkwright of a fraudulent and studied concealment of the invention, which is, the absolute impossibility of such machines being kept a secret. He must be below the common rank of men to be guilty of so gross an absurdity as to destroy his own patent, by endeavouring to conceal that which all the world knows is impossible to conceal, from the nature of the business. Then as to the degree of perspicuity, it is not only not necessary, but not proper that it should be so described that any man without a previous qualification but that of being able to read, should understand how to make the machine. If that was the meaning of the law, all those mischiefs,

which there has been some evidence to shew did suggest themselves to Mr. Arkwright's mind, would arise from the invention getting abroad; and perhaps our enemies, during the time it was locked up from public use here, might make use of it, which would be injurious in the strongest degree; that is not, and ought not to be required by law. What the law requires is, that the specification ought to be such as to enable a mechanic of reasonable general knowledge in his profession, and thoroughly acquainted with the machines before in use, to produce the same purposes, and all the prior improvements of them; with that previous knowledge, and the assistance of the specification, to make the machine; that is the true standard upon which the specification should be tried: and if the specification is intelligible to those that ought to understand it, whose business it is, and who have been bred up in it, and know the effects, and the methods applied before, it is intelligible according to law and sound policy, and is all which the law requires.

As to another part of the case, there are in this specification several distinct parts of machinery which certainly do not now compose any part of the machine. It will be shewn why they were so introduced, although it was said to be only to puzzle and perplex, and render the specification more obscure. The subject matter of the patent is, for a method, said to be a new invention, and of public utility, in preparing cotton; not cotton alone, but silk, cotton, flax, and wool for spinning.

No. 1, it is said, can be introduced for nothing but to puzzle; that it is not only useless, but mischievous if you were to beat cotton with it: but the patent is not confined to cotton, and who has not heard of the beating of hemp? It is a thing in constant practice; and it is necessary that hemp should be beaten before it could be carded, or any thing else done with it.

No. 2 was a machine distinct in its nature from the other. It occurred to Mr. Arkwright that it might be made useful in drawing out and stretching the fibres of the flax, hemp, &c. previous to being carded; but the card is afterwards found to answer every purpose intended for that: that has, in fact, been laid aside, and is not now in use. But it is not law that a man is under the necessity of continuing the use of every circumstance he shall specify in his patent, or be in danger of losing his patent. A man applies for a patent frequently in the infancy of an invention: must he put every thing in it that appears useful to be applied? Does the law require, if upon repeated experiments, and better knowledge, they find any parts may be more conveniently laid aside, that by so doing they forfeit their patent, which was more complete without them?

As to Nos. 8 and 9, the objections appear to arise from a total neglect or forgetfulness of the terms of the specification itself, for they stop at No. 9; they totally forget that No. 10 exists, much less the manner in which it is described. No. 10 is described as a spindle, which being fixed to

No. 6, worketh Nos. 7, 8, *or* 9, by a pulley. No man can conceive that Nos. 7, 8, *and* 9, are to become parts of the machine at once.

Having replied to those objections, it was contended, that the rest of the specification contained a complete and full description, and was intelligible to those that are mechanics, and acquainted with the machines formerly in use: to such a man, in point of law, this specification is addressed.

No. 3 is described to be a piece of cloth with wool, flax, hemp, or any other such material, spread thereon. Now, it is said, this is an exact description of the old feeder; but that which is not explained by words, is explained by the drawing: it must not be a flat piece of cloth, but a piece of cloth rolled up, of which the drawing conveys the idea; the cotton is not to remain flat as before, but to be rolled up.

Another objection to it is, that it is bad; because, from the drawing, there is no axis or roller which it is rolled round. But if it is true that this cloth could not be used unless it was rolled upon a roller, every man who was of that opinion would have rolled it upon a roller, notwithstanding it was not so specified; it would not, therefore, be right to avoid a specification on that account: but the roller is not necessary, it may be done without any roller at all.

The next part of the machine is the crank, No. 4; not one of these witnesses pretended ignorance upon that subject, because no mechanic

that sees the drawing could doubt about it; no smith is so ignorant that he cannot make a crank. They say, that don't stand next in order in its application to the machine, though it stands next in number: but that objection is as frivolous as any that can be made. The description in the specification says it works backwards and forwards upon the cylinder No. 5, not No. 3, and discharges the cotton, wool, &c. from it.

The next is No. 5, the last-mentioned cylinder, which has fillet cards instead of the horizontal cards before in use. Two cylinders were before in use: when you know that, and are told that No. 5 is a cylinder from which the cotton is to be discharged, could any man of common sense doubt that that is to be the second cylinder and not the first? It also describes fillet cards; and it is said that the machine now used has not such cards, but has spiral fillets. The spiral fillets are pretty generally used, and have been used for some time back, and are certainly an improvement. It is true No. 5 describes parallel fillets, and not those now in use; but it describes one that acts upon the same principle, and will produce the same effect, but in a less improved state, to that which subsequent ingenuity has made it.

If this is a sufficient description of the invention, and will produce the effect desired, that is sufficient. Whether it is a subsequent improvement made by the inventor himself, or any body else, it will not affect or have a retrospect to that specification; the specification need only describe

the principle upon which it is to act. It would be hard indeed, and counteracting the intention of patents, if that was to cramp and restrain him from making further improvement, lest the specification should be found defective; the subsequent improvement by Mr. Arkwright or others would not vitiate the specification, if it contains the description of a machine that will answer the purpose. It is said, if the first machine that used the cotton was spread all over, it is clear the fillet cards took no more than their own breadth, and the intervals were choaked up. That is true, if they were to be spread all over; but who told them it was to be spread all over? If they make a machine with such fillet cards, would any man spread it all over for any other purpose but to choak the machines? Could any man be so ignorant to suppose the fillets could act beyond their own breadth? Is there any thing in the specification which directs them so to do? If it did, it would be obscure indeed: that, therefore, is no objection to the fillet cards. It will answer if it is spread its own breadth, which is sufficient for all the purposes of the manufacture; but in the drawing of the axis of that cylinder, it is of a very extraordinary length, not cut off just where it should be inserted in the frame: it is of a length that leaves room for the cylinder to be moved backwards and forwards in a direction parallel to its axis. Now the mechanics who will be called in evidence will say, that that length of axis would necessarily suggest that idea to their minds, if

they intended the cloth to be covered its whole breadth; and that if it should be taken off the cloth, it should have the length of axis which would allow for its being taken off, and that is conveyed by the drawing. It will perform that effect, and is, perhaps, a better method than that which is but just hit upon, and carried into use, of the spiral fillets which card off the whole, and enables you to spread it the whole breadth; but if it is a better way, and more commodious by the spiral cylinder, notwithstanding the finding out those principles afterwards, no patent can restrain an inventor from using it.

The most important difference of all the others between this machine, new improved and perfected by Mr. Arkwright, for which new improvement he has got his patent, and the one in use before that, is—by the old one you take off the cotton by short lengths, which rendered the manufacture much inferior, and *this* takes them off by one continued operation, the carding going on as long as it should be fed with cotton; that stands undisputed with Mr. Arkwright.

Having now gone through Nos. 3, 4, and 5, which, together with the parts of the old machine, will form a complete carding machine; therefore the specification is sufficient to explain it, and the application of it to the old machine. The want of direction of that application has been complained of. Now there is an expression which does most clearly and indisputably point that out; it is this: No. 5 is the last-mentioned cylinder

which has fillet cards, "behind this cylinder (to wit, No. 5) No. 3 delivereth its contents upon another cylinder." Now can any man who knew the former machine consisted of two cylinders to a feeding machine, and delivereth its contents upon one of those cylinders, and is told in the new machine No. 5 the new cylinder and feeding machine delivers its contents behind it upon another cylinder,—can any man, in his common senses, doubt that that other cylinder is a new cylinder? Then the place of the new cylinder and the old cylinder is correctly ascertained; for No. 4 describes the crank as discharging the cotton from the new cylinder; it fixes the place of that cylinder to be the last of the two, not only the use, but the locality of both those cylinders are therefore ascertained to every man of common understanding.

The learned serjeant then, by a machine worked in court, shewed that the cardings by the old method were taken off in short lengths, and that the fibres did not give the length even of those cardings, but were transversed; whereas the fibres of the cotton carded upon the new machine were all longitudinal. That No. 4 unrolled without a roller in it. He next shewed the operation of the cylinder with the fillet cards and the crank, whereby the cotton came off in continued lengths from the fillets; and contended that any man of common sense would say it was a complete description, because No. 3 is the feeder which feeds it with cotton, No. 5 receives the contents of the carding machine, and the contents are discharged

from No. 5 by the crank, after it is carded, which is the last part; and that it was clear, from the description of those numbers, that no man would look for any part of the carding machine without.

The next thing is the roving machine, which produces the two operations of sizing and roving, which is the second operation. That machine consists of Nos. 6, 7, and 10. The reasons why no man upon earth could conceive Nos. 8 and 9 made a part of it have already been stated. Some of the first mechanics in the kingdom will give evidence that the drawing and description does convey a distinct and intelligible idea; and that they could direct any man to make the machine for what is called sizing by the description. The next is the roving box, No. 7, which is described to be a cylindrical box for twisting the contents of the rollers No. 6, which the mechanical gentlemen will say is perfectly intelligible. No. 10 is a spindle; the place where it is fixed is described; the regulator which stops it and sets it going is an improvement, but not an essential part of the machine; it may be add ' or left out, the effect is the same. The machine consists of three parts, Nos. 6, 7, and 10, all of which are necessary to produce a complete effect; and therefore to complete the different machine from the spinning machine, there is not the same combination of parts, nor are there the same parts; upon the whole there is a complete machine, in some parts essentially different, and in their combination totally different, from that in the former patent.

Until this ingenious combination, it never entered into the head of any man that the spinning machine, or any part of it, was applicable to the purpose of roving.

Three distinct classes of witnesses will be called: first, those acquainted with the cotton manufacture, who will prove that these machines, in their improved state, were not in use before Mr. Arkwright's invention; next, some of the most eminent mechanics in the world, who will give the most solid reasons, and declare, that from the specification alone, provided they were informed of the machine before in use, they could have produced a machine in its improved state; and lastly, workmen of that trade, who will swear not only that they could make the machine from the specification, but that they have so done without any other instruction but being apprized of the machines formerly in use, and have brought them to a state of perfection to act upon the same principles, and produce the same effects. So far, therefore, as to the attempt made to prove there is obscurity in the specification; it is perfectly nugatory.

The last piece of evidence is the paper which purports to be a Case intended for the House of Parliament. In what way Mr. Arkwright was advised to state his Case there, is wholly immaterial in a case that affords so much actual evidence of the fact; and that Mr. Arkwright could study to conceal from his country this invention, which it will be proved, is effectually described, is

altogether an impossibility; and, therefore, if it was intentionally rendered not so clear as to be understood by Frenchmen, who are totally strangers to the cotton manufactory, he has done right and laudably, if he has not done it so as to conceal it from the millwrights and machine-makers who understand the former machines in use.

Mr. Bearcroft, in reply, contended that three propositions were made out, every one of which destroys the validity of this patent.

The first proposition is, that this machine was not a new invention when the patent was obtained. What is the invention? A machine for preparing cotton and flax upon simple principles, but in a very different way than ever was done before by spinning. Now is this done by any new invention? If it is, is it not done by the application of several other things to the old carding machine? Does the merit of the invention consist in that? Why is it not so described? If the merit of this machine was ever so new and meritorious, they have not described it in their patent. For if the merit and novelty of the invention consists in the application of all the parts in the old machine, and any new matter added; in point of law, in order to maintain their patent, that ought to be their description. It is a settled point, for it has been so determined, that if a new invention, which is the ground of a patent, is the addition of a new application to an old machine, they should so describe it in their patent; it was expressly determined in the case Williams *v.* Brodie. Williams

brought an action against Brodie for invading his patent for a machine which was described all of it together, taking it in the patent, and covering the old stove, which was an existing thing, which the world was in possession of before. The plaintiff Williams's merit was very great; it was allowed on all hands to be excessively ingenious, and perfectly equal to maintain a patent. It was the insertion of a pipe for conveying the air into the same stove; it was much admired, and the whole world bought it. But it was not described properly in the patent, it was taken with the addition, describing the thing in the patent, and the stove with it; but it was not described as a new application of a new invention upon an old thing; upon which there was a verdict for the defendant.

If an addition is made to an old machine, and it is described all together in the patent, nothing but confusion will follow; and although the patent upon the face of it seems to cover the whole, it does not. Many are the inventions of new applications to the old stocking frame: that was the form of all the patents; they are patents for that application, describing it as a new application. This is not so: but, taking these as additions to the old machine, was it a real novelty at the time of the patent in 1775? What is the feeder? Cotton upon cloth. So was the old one. The difference is, it is rolled up; but have any of the witnesses proved any important or great convenience of the sort it describes? Can it be said, that the invention of this cloth, rolled up and covered

with cotton, is so superior to the old one in use long before, that it alone is enough to ground the merit of a new invention? After the cloth feeder, we come to the old carding machine; but, as we are hunting after novelties, we must dismiss that old machine. Then what is the novelty? It is a cylinder that procures a perpetual carding. Is that a novelty? Mr. Pilkington swears the contrary. Then there is no novelty in that. But, say the gentlemen, that is an improvement: and, if we have a patent, may we not improve it afterwards, and use it? Most undoubtedly you may; but what have you got this patent for? Substantially only for that which existed at the time of the patent; not for that which is to be invented afterwards. But finding, as they say, the spiral fillets more convenient, as they take all off, upon what ground are they to be taken to be part of the patent? If it is not so, the merit of the spiral fillet is out of the question; for it is no part of the patent, and is not specified, and did not exist at the time: it is an after thought. But although the cylinder with parallel fillets, performing the continual carding, exactly in the same way as stated in the specification, was in use before, it is said, it was not in public use. What, then, is public use? It was used by Pilkington in the presence of Arkwright; he used it for the purpose of his trade, and in the presence of all his servants that were employed about him. Is not that public use? But, say they, it was all stolen from Mr. Arkwright. If Mr. Arkwright thought Pilkington was invading his patent, could he not

have got some of the various servants that assisted in that operation, to have given evidence against him? Mr. Arkwright is ready enough with his actions, and would have brought one against Pilkington if he dared; and the true reason why he did not, was, that they invented, and were in the exercise and enjoyment of it before him.

It has been shewn, that the feeder is not new, and that the continual carding by fillets is not new: the spiral fillet is out of the question, as it was not existing at the time, nor is it in the specification.

Then there is the crank. Is that new? One of their own witnesses said that it was used in 1772.

Then as to the roving machine; we are asked is there no novelty in the rollers? None at all; they were not new in December, 1775, because they were invented before; and we will suppose by Mr. Arkwright, upon which his original patent for spinning was granted, and of which he has had the benefit for fourteen years, and raised a great fortune of above £100,000. But it appears from his printed case, that "he wanted to connect, and confirm, and to consolidate the former patent with the present." That was the secret of the whole; his great object is to preserve and elongate that patent which he thought expired too soon. But he cannot, by law, get the same thing which he tried the House of Commons for; and as all these rollers for roving are the identical rollers for which he had the benefit of his former patent, and applied to the spinning, all the dif-

ference between the roving and spinning being, that one is a coarse thread, the other a finer. Where is the novelty, if this produces the same effect, and the difference only coarse or fine?

Now, as to the box. The learned Serjeant says, this tin canister is itself an invention that deserves a patent. Why? because they have clapped a couple of rollers upon the top of it. That, our witnesses say, does more harm than good, which evidence stands uncontradicted; for the first manufacturers, in point of profit, work it without rollers: not because they cannot buy it, but because they cannot get any thing by it. These observations, it is hoped, will be sufficient to maintain the first allegation, and to entitle the king to your verdict.

To proceed to another point. Suppose it is new; Mr. Arkwright is not the inventor. A witness of unsullied character, who was bred up to this business, upon his oath positively says, he himself invented rollers exactly like those, and that they were employed in the same business. That he communicated it as a secret to one Kay; Kay tells Mr. Arkwright of it, who, by the next morning, was satisfied of the value of this invention, takes Kay for a servant, keeps him for two years, employs him to make several models of that which is now called a new invention, and made the foundation of this patent.

Now to the last question, which is the same that has been twice tried. It was decided one way in this court, another way in the court of Common Pleas; it comes, therefore, fairly, and

without prejudice, for decision upon the present trial, and the present evidence. The point is, that Mr. Arkwright, by his specification, not only did not make a fair disclosure, but purposely intended to puzzle and confound the secret, to prevent its being understood. Is there any doubt, but Mr. Arkwright was perfectly equal to the description? He could have done it fairly, if he had been fairly disposed. His specification under the first patent for spinning—was not that a discovery of importance? Was there any reason why he should be more willing to part with that to the French, than the new patent? There he does all I wished him to do here; all that a man does, who fairly means to disclose the thing, he does; that is to say, there is an exact drawing of the machine itself, the perspective in such a situation you can best see the most of its parts. But, because the drawing in perspective would of necessity hide some parts of it, the principal parts, the several rollers are drawn by themselves, and described exactly; and lest there should be any mistake about it, there is a scale at the bottom of the drawing. That is the specification, and that is the description by which any workman, who makes machines, can make that machine. It shews, that Mr. Arkwright can disclose when he pleases, and can put it in every part so plain, that a child may understand it; and why not do it afterwards? Why disclose fully in the first instance? He knew the value of his patent, and was ready to pay the price of it. Why not do the same now? because, if he did, he knew that any

man who put his eyes first upon that patent and specification, and then upon this specification, if fairly and fully made, would have seen that they were in truth the same. Comparing this specification which he chooses to make, with that he made before, could he not, if he would, have given a proper description of it? It is true he chooses not to do it. If this had been the first time, he would have had an excuse; he might have said at first, I did not understand it, if the first had been incomplete; the second I did understand better, because I had experience. However, the second description is not the best, but it is just the reverse, manifestly for the purpose of deception.

Then there is the evidence of Crofts, the man to whom Mr. Arkwright goes to make his specification; and when the man says, I don't think this is a proper specification, I am afraid it will not do, says Mr. Arkwright, I mean it should do very well for the patent. That seems to be the substance of his answer to Crofts. And why not do it? We are told, because he chooses to keep it from the French. The printed case states, two or three times over, that to be done on purpose. Is it possible, then, to say any thing but this of it, that, beyond all doubt, this gentleman meant not to disclose the invention?

We are very properly asked, what is the sort of disclosure required by law? These are the words of the act of parliament, and the words of the concession upon which all letters patent are granted; it ought to be a specification "particularly describing and ascertaining the nature of his inven-

tion, and in what manner the same is to be performed." The evidence called upon that point differ in opinion. Some say it is impossible to do it by the specification, others giving an opinion that it may be done; and two persons have chosen to swear, they did it without any assistance. It is wonderful and extraordinary, and so extraordinary, that if that sort of thing could be fairly performed, it is of the utmost importance to Mr. Arkwright to demonstrate the fact to be so. Mr. Arkwright was warned by the two first trials, and ought to have taken care to have gained it the utmost credit of which it was capable. Two men swear it; one of them had a conversation with Mr. Arkwright, and somehow or other it was, he took care to acquaint him with the old machine; two or three words cleverly put in might direct the man's ideas to this. What ought Mr. Arkwright to have done? He ought to have desired persons to pick out able workmen, and put them in rooms with witnesses, and have had no communication with those witnesses, and brought witnesses to say he had no communication with them, and have put the specification into the hands of the persons appointed to do it; and, if they did it, it would have been fully proved. Nothing of the kind has been done.

The observations upon the face of the specification itself, the evidence of the man that drew it by Mr. Arkwright's directions, and the printed case confessing the fact, are decisive, that he did not mean to disclose, and that he has not disclosed it. It is not enough to give such a description,

that by a possibility some who are of the business may be able to do it, it ought to be plain and certain to common understandings, and common skill in subjects of this kind. Does it follow that because two or three are found to say they could do it, that any body else could do it? There is still so much difficulty, as shews his intention was to conceal it.

Mr. Justice BULLER.—This is a *scire facias*, brought to repeal a patent granted to the defendant, for the sole use of instruments or machines, which he represented to his Majesty that he had invented, and which would be of great utility to the public, in preparing silk, cotton, flax, and wool for spinning, and that those machines are constructed on easy and simple principles, very different from any that had ever yet been contrived; that he was the first and sole inventor thereof, and that the same had never been practised by any other person whatsoever. It was upon this representation made by the defendant that he obtained the patent now in question.

The proceeding by *scire facias*, to repeal a patent, is somewhat new in our days; none such has occurred within my memory, though in former times they certainly were very frequent.

The decision of this cause, it is admitted, is of very great importance to the public upon the one hand, and to the individual who has the patent upon the other. The value is likewise stated to be very extensive; and besides, there have been two different decisions upon the question.

It is for these reasons I chose to give the cause a much fuller and more patient hearing than I should have thought either necessary or proper, if it had been merely an action for damages between two individuals.

If I found myself under the necessity now of differing in opinion from either of the two very great and respectable authorities before whom this question has been brought, I should do it with great hesitation, and with great diffidence of my own opinion; but, happily for you and for me, we are relieved from that difficulty, because it is admitted on both sides, that different evidence has been produced now, from that which was laid before either of the courts upon the former trials; and, therefore, it will be for you to decide the several questions which I will state to you presently, upon the evidence which you have heard here, without regard to either of those former decisions.

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.

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

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

The prosecutors have attacked it in almost every part.

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

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

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

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

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

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

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

I begin with this evidence, because it is very material to be considered, whether the specification, in any part of it, bears a doubt, because the obscurity of it was pointed out to the defendant before he made it, and he then professed to make it as obscure as he could; his object was to get

the benefit from the patent so far as putting money in his own pocket, but as to the benefit the public were to receive, it was to be kept back as far as it could.

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

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

The next was Thomas Leaming; he says he examined the specification; he is a machine-maker, has followed the business about ten years and a 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.

The next witness is Immison; he says he is used to make machines from drawings, that there are very few parts of the carding machine described; the crank and one cylinder belonged to it. He says it is impossible to make such a feeder as that described in the plan, because there was no axis to it, and from the specification he should have made a parallel cylinder, and never thought

of making a spiral one; yet, you observe, that this is the one used by the defendant. As to the rollers, it don't appear by the specification; some were to go faster than others, and, from the specification, without other sources; it is impossible to say how they should be made; as there is no scale to work by, no plan to go from, it is impossible to know how to do it.

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

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 watch-maker; 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 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 rollers 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, Nos. 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.

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 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.

Thomas Walford says, he is conversant in filleting machines; that from the 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 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.

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 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.

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 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.

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 endeavoured 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 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 necessary. 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 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 the 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? *What* 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.

However, upon the part of the defendant, 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 Pridden; 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 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. This 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.

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 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.

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 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 choke 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 choked; 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 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 speci-

fication 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, 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 next witness is Thomas Wood, who was partner with Pilkington: he says he has examined the specification; he put Nos. 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 Nos. 4, 5, 6 and 7; he should look after no others.

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 Whitmore; 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 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.

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, 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 old 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.

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

Now, if in your opinions it is material to go into these points, I think the law in general is very different on them from what I have stated in the specification, because, in the case of an invention, many parts of a machine may have been

known before, yet if there be any thing material and new, which is an improvement of the trade, that will be sufficient to support a patent; but whether it must be for the new addition only, or for the whole machine, would be another question. It seems to me, not to be necessary now to state precisely how that would be, because this patent is attacked upon the ground that there is nothing new; therefore I will go over the articles one by one, and see what is stated upon the different articles which are here mentioned.

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

Now this, it is said, is not stated by the specification to be joined to any thing else, and therefore it must be taken to be a distinct thing. It is admitted, that it is not a new discovery, for Emerson's book was produced, which was printed a third time in the year 1773, and that is precisely the same as this. Several other witnesses speak to that. Upon the part of the defendant there is no contradiction; and therefore I will pass it over without going over the rest of the evidence, as clear that it is not new.

Then the second thing is an iron frame with teeth (a), working against a lower frame with like teeth (b). It says, this lower frame is firmly con-

nected to a wooden frame, by means of the screws (c, c,) and the upper teeth are made to act against the lower, by means of the joints marked (d).

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

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

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

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

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

He 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.

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 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.

Mr. Watt 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 proved he used it long before the time of the patent. The next is No. 4, that is the crank: Mr. Marsland says, that after he had used the crank, the defendant objected to it; therefore, says he, I gave it up.

But Elizabeth Hargrave tells you, this crank was first used by her husband (and he died about eight years ago) in partnership with James at Nottingham; that he worked by himself, and took great pains about the crank, and completed it so long ago that he began working it thirteen or fourteen years since. She says he carded with it, and took the carding off the cylinder by such

a crank as is now produced; that it took it off exactly the same; that he used it in his factory. She says, the defendant was then in business, and lived at Nottingham; that she never saw the crank any where but in her husband's room. She afterwards told you, when that crank was finished, it was carried down to the shop thirteen years ago, and above, and he there worked with it; and when her husband invented it, he employed Whitaker, a smith, to put it in iron.

Then George Hargrave says, his father used the crank in the public shop where all the men worked; this was in 1773, when he came from Lancashire to Nottingham. After the time that he got there, his father had it in public 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 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.

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; his evidence does not apply to this part of the case.

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

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

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

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

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

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

Then George Hargrave says, it had no fillets, 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 rovings 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 defendant's 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 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 carding in 1774; he did not make much difference between the roving and spinning machines.

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

in the manner the defendant has used it now, and likewise being carded quite through.

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

Then it comes to No. 6. Hayes says he made use of the rollers in 1767, and in the same manner two years after as these were; one was fluted wood upon an iron axis, the other the same, only covered with leather.

Hayes says he tried the spinning of cotton by the rollers; he employed one Kay, a 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 to 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, the defendant's, spinning.

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

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

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

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

If it be so, it brings the case to a short point indeed; for if nothing else is new, the question is, Whether it is material or useful? The wit-

nesses upon the part of the prosecution say, it is of no use at all. In the first place, they had that before which answered the same purpose, though not made exactly in the same form: it was open at top, it twisted round, and laid the thread precisely in the same form, and had the same effect this had; so if it was new, it is of no use; but they say it is not new, for though it was not precisely the same shape, in substance it was the same thing, that is not contradicted.

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

As to Nos. 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 Nos. 8 or 9 was necessary to be used, and because No. 10 is to be fixed to No. 6 to work Nos. 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.

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. 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.

As to No. 10, 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 what the use of it is: so this seems to stand without any evidence at all.

Gentlemen, thus the case stands as to the several component parts of this machine; and if, upon them, you are satisfied none of them were inventions unknown at the time this patent was granted, or that they were not invented by the defendant: upon either of these points the prosecutor is entitled to your verdict.

If upon any point you are of opinion with the prosecutor, you will find a verdict for him.

If upon all the points you are of opinion for the defendant, you will find a verdict for him.

Verdict for the Crown.

10th November, 1785.

Mr. Serjeant Adair moved the Court of King's Bench on behalf of Mr. Arkwright, for a rule to shew cause why a new trial should not be granted.

The learned Serjeant, after mentioning that this question had been the subject of discussion in two trials prior to that which was the subject of the present application, and that each had turned upon the sufficiency or insufficiency of the specification, stated from an affidavit of Mr. Arkwright, that he acquiesced in the verdict against him on the first trial for a considerable time, conceiving the law to be stricter in that respect than he was afterwards advised it was. Upon being given to understand, that there was a different construction of law upon the point, he thought it right to make another trial upon that principle; in consequence of which, he brought a new action, and obtained a verdict. That the sufficiency of the specification, upon the second trial as well as the first, was the only point gone into before the court; and that upon the *scire facias* being brought against him, he was led to suppose that his opponents had already brought forward all their artillery against him, and that the subject

of the *scire facias* was only to procure, in another shape, a revision of the same question.

He was led to suppose, that upon two trials, upon a question of such importance, no evidence that appeared material to the party would have been kept back, and he swears that he did not expect them to adduce, after so many trials, evidence to attack the originality of the invention. He went, therefore, into the defence merely of the specification, and came to trial upon the *scire facias* altogether unprepared as to the novelty of the invention, except so far as the witnesses called to explain the specification could accidentally speak upon the subject. It however turned out upon the trial, contrary to the expectations of Mr. Arkwright, that the chief force of the evidence was against the originality of the invention, which was a considerable degree of surprise to Mr. Arkwright, who was unprepared with witnesses to contradict it.

The present application to the court rests upon this ground, that Mr. Arkwright states in his affidavit, that for the reasons before mentioned, he was not prepared with that evidence which he would have adduced, and should be able to adduce upon a future occasion, if the court will give him an opportunity, in order to contradict and explain the evidence against him.

Besides his own affidavit, he will produce another affidavit, the purport of which is to state the evidence that could have been given to contradict the evidence of Kay and Mrs. Hargrave, and

some others that were material upon that part of the case.

Another point upon which Mr. Arkwright states he was not provided with evidence, not conceiving it a point to be litigated, was, there were some articles in the specification which were supposed to be immaterial, and to be inserted only for the purpose of puzzling and perplexing. It can be proved that some or most of the parts were material, when the machine came to be applied to wool instead of cotton; and the others had actually been used by Mr. Arkwright and his workmen. It was therefore necessary to insert them, in order to cover the whole of what he conceived his invention. It was stated that many of the witnesses called to that point, were in the original brief upon the first trial. If so, upon what ground but that of deceiving and reserving a masked battery of evidence, could it be possible, a party in a matter in which he was so much interested, would not discover it?

If the whole of that evidence had been adduced upon the first, or even on the second trial, there might have been an opportunity, in the further discussion of the business, to procure an examination of that matter, by fresh evidence, or some other way: they ought not to have waited till the trial by *scire facias*, which is the last stage the law admits; the event of which, in the nature of it, is final.

Lord Mansfield.—It is very clear to me, upon your own shewing, there is no color 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, the specification, and the originality of the invention: there has been one trial in this court, another trial in the 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 color for it.

Rule refused.

14th November, 1785.

The Court of King's Bench gave judgment to cancel the letters patent.

THE KING *v.* ELSE.

S. C. 2 Lan. R. 109. note.

Sittings after Michaelmas term, 1785.

In this case the patent was for a new invented manufacture of lace called French, otherwise, Ground lace. The specification went generally to

the invention of mixing silk and cotton thread upon the frame. On the part of the prosecutor, it was clearly shewn that, prior to the patent, silk and cotton thread had been used together, and intermixed upon the same frame; and the defendant's counsel acknowledged the fact, but said, he could prove clearly that the former method of using the silk and cotton thread was quite inadequate to the purpose of making lace, on account of it's coarseness, and that the defendant alone had invented the method of intermingling them, so as to unite strength with firmness.

Mr. Justice BULLER.—It will be to no purpose. The patent claims the exclusive liberty of making lace composed of silk and cotton thread mixed; not of any particular mode of mixing it, and therefore, as it has been clearly proved and admitted, that silk and cotton thread were before mixed on the same frame for lace in some mode or other, the patent is clearly void, and the jury must find for the crown.

Verdict for the crown.

IN THE COURT OF KING'S BENCH.

Turner against *Winter*.

S. C. 1. T. R. 602.

5 Feb. 1787.

THIS 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; and on a motion to set aside that verdict, and grant a new trial, these facts are reported. The plaintiff, within the usual time, had enrolled the following specification:

"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 decomposition 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 the part of the plaintiff it was proved, that the first effect of the process was the separating of the mineral alkali from common salt; that that produced white lead; and that by continuing the process to a certain degree, and afterwards exposing the matter, the yellow colour was produced. That, as the specification required the heat to be continued till the colour was obtained, any person, trying the experiment, would necessarily be led to fusion. That a chemist would see by the specification, that, if less heat would not answer the purpose, he must go on to fusion. The difference between fusion and calcination, both of which proceed from different degrees of heat operating upon the subject matter, was, that the substance to be calcined continued in a solid form; whereas fusion is a liquid state to which the substance may be reduced by continuing the heat. Instances were produced by persons who had made the colour by the help of the specification, after trying some experiments. In trying those experiments, minium had been fused in the first instance. The white lead produced by following the directions in the specification was not what was sold as such, but a white substance, the basis of which was lead.

For the defendant it was proved, that the patent colour could not be made by following the directions of the specification; for calcination was not sufficient to produce the effect intended: it was necessary to go on to fusion. That, as it appeared upon the specification, minium, or red lead, might be considered most convenient for the purpose, because a previous process was necessary to reduce lead to minium, or litharge, before the other parts of the process were to be begun; minium and litharge differing only in having undergone different degrees of calcination. But that minium would not produce the effect, unless first fused. And that if red lead were calcined, the experiment would not succeed without fusion; whereas, according to the terms of the specification, fusion should be cautiously avoided. That the specification was calculated to mislead, also, with respect to the salts. For fossil salt is a generic term, including all mineral salts: but only one species of fossil salt, namely, sal gem, has marine acid, without which the colour could not be produced. That several persons had tried to make white lead by the specification, but had not succeeded. They could only produce a greyish white powder, quite unfit for painting, and not merchantable.

Mr. Justice BULLER, after reporting these facts, observed, that at the trial three objections had been taken to the specification; 1st, That, after directing that lead should be calcined, it directed another ingredient to be taken, which would not answer the purpose, namely, minium. Neither was it said that the minium should be calcined or

fused: but if it had any reference to the preceding words, then it should be calcined, which would not produce the effect, fusion being necessary. 2dly, That "*fossil* salt" was improperly mentioned. There were many kinds of fossil salt, only one of which, namely, "*sal gem*," would answer the purpose; because it must be a *marine salt*. 3dly, That all these things put together did not produce the thing intended. And that the patent was for an invention to do three things in one process, whereas one of them, namely, white 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.

Messrs. Erskine and Piggott shewed cause against the rule for granting a new trial, and contended, that, in actions for infringing patents, it is not necessary for the plaintiff to give any evidence to shew what the invention is, but that it is incumbent on the defendant, if he objects to the specification, to shew that it is defective, and that persons acquainted with the subject could not, by the assistance of the specification, effect the thing intended. The consideration which the patentee gives for his monopoly, is the benefit which the public are to derive from his invention, after his patent is expired: and that benefit is secured to them, by means of a specification of the invention. But it is not necessary that that specification should be such, as that persons unacquainted with

the terms of art, which must necessarily be used in writing it, should be able to understand it. It is sufficient, if persons of skill can understand the process, by means of the specification, so as to keep alive the discovery, after the patentee's exclusive title is expired.

The first objection which has been raised against the sufficiency of this specification has no weight; for, though the direction to calcine is applicable to all the ingredients in the first part of the description, yet scientific persons would instantly discover what degree of heat was necessary to be used to each of those ingredients; and that minium, being already a calx, must be fused. 2dly, The heat is ordered to be continued till the experiment succeeds, and the colour is produced. Fusion is a necessary consequence of continuing the heat; and this direction would be sufficiently understood by all persons acquainted with the subject.

As to the second objection, with respect to the "fossil salt." The specification begins with "sea salt," which is the genus; then it states, not "any fossil salt," but "fossil salt," or "any marine salt:" the marine salt is, therefore, the basis of the experiment. So that no fossil salt, but what is likewise a marine salt, can be taken under this description.

The answer to the third objection is, that a species of white lead is produced, though not the common ceruse; and the patent does not profess to make the common white lead. Besides, the making of white lead was not the subject of the

present action, which was for making the yellow colour; this accounts for the plaintiff's not being prepared to prove this part of the specification. Upon the whole, this was a mere matter of evidence, as to the sufficiency of the specification, upon which the jury have exercised a sound discretion.

Mr. Bearcroft, in support of the rule, was stopped by the court.

Mr. Justice Ashhurst.—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 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 ob-

jection had rested here, I should have entertained some doubt.

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

Another objection was taken as to the white lead; to which it was answered, that the invention did not profess to make common white lead. But that is no answer; for if the patentee had intended to produce something only like white 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.

Mr. Justice BULLER.—Many cases 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 was, and that the proof that the specification was improper lay on the defendant; for I hold that a plaintiff must give some evidence to shew what his invention was, unless the other side admit that it has been tried and succeeds. But wherever the patentee brings an action on his patent, if the novelty or effect of the invention be disputed, he must shew in what his invention consists, and that he produced the effect proposed by the patent in the manner specified. Slight evidence of this on his part is sufficient; and it is then incumbent on the defendant to falsify the specification. Now in this case

no evidence was offered by the plaintiff, to shew that he had ever made use of the several different ingredients mentioned in the specification; as for instance minium, which he had nevertheless inserted in the patent; nor did he give any evidence to shew *how* the yellow colour was produced. If he could only make it with two or three of the ingredients specified, and he has inserted others which will not answer the purpose, that will avoid the patent. So if he makes the article for which the patent is granted, with cheaper materials than those which he has enumerated, although the latter will answer the purpose equally well, the patent is void, because he does not put the public in possession of his invention, or enable them to derive the same benefit which he himself does.

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

witnesses said, in order to produce the effect, "you must go out of the patent," for fusion is beyond calcination, and in some sense contrary to it; and by mentioning calcination, it should seem that fusion was to be avoided.

The next objection was as to the salts. "Fossil salt" 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.

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

Now, on either of these grounds, the patent is void. Because if the patentee says, that by one process he can produce three things, and he fails in any one; the consideration of his merit, and 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.

Rule absolute.

IN THE COURT OF KING'S BENCH.

Hayne and another, against *Maltby*.

S. C. 3 T. R. 435

17 Nov. 1789.

THIS was an action of covenant on articles of agreement, which recited that the plaintiffs were assignees of T. Taylor, of a patent for an engine or machine to be fixed to a common stocking frame, for making a sort of net or open work, called point net; and that the defendant had applied to the plaintiffs for their permission to use a stocking frame to one of their patent machines, to which they had consented, on condition of his working it in the manner described in the specification; and then stated a covenant by the plaintiffs with the defendant, that he should, during the remainder of the term of the letters patent, freely use and employ one stocking frame, with their patent engine or machine thereto, in case the same should be worked only in the manner described by the specification, without any interruption by them; and also a covenant by the defendant, that he would not, during the residue of the term of the letters patent, use or employ any of the patent engines, or any engines resembling the same, except the stocking frame and machine in the articles allowed to be employed by him. The declaration then averred enjoyment by the defendant without any interruption from the

plaintiffs; and then assigned two breaches; one for using and employing patent engines or machines, other than and besides that by the agreement allowed to be employed by him; the other for using engines or machines resembling the patent machines.

To this there were several pleas; the three last of which only are material here. The third plea set forth the letters patent, which stated a petition by the patentee, calling himself the inventor of the machine, and contained the usual proviso, *that they should be void, if the patentee did not* enrol a specification of his invention in Chancery in four months; and then averred, that the patentee did not enrol such specification.

The defendant, in his fourth plea, said, that the invention mentioned in the patent was not a new invention; and in the fifth, that the invention was not discovered by Taylor, the patentee.

The plaintiffs demurred to the 3d, 4th, and 5th pleas; because the defendant attempted to put in issue matters foreign to the merits of the cause, inasmuch as he was estopped by his deed from putting those matters in issue here.

Mr. Wigley, in support of the demurrer, contended, that the defendant was estopped by his deed to say that this was not a new invention, or that it was not discovered by the patentee. Wherever a party has entered into a specialty, he cannot afterwards be permitted to say that he received no consideration for it, though he may plead that the consideration was illegal. In Oldham v. Langmead, tried before Lord Kenyon, at

the sittings after Trinity Term, 1789, where the action was brought by the assignee of the patentee against the patentee, his Lordship would not permit the latter to shew that it was not a new invention against his own deed. If, in point of fact, this were not a new invention, the defendant should have repealed the letters patent by *scire facias*, and then applied to the Court of Chancery to have had the deed delivered up to be cancelled. But by his deed he has admitted that the plaintiffs had a title; and, as long as the term mentioned in it exists, he is estopped from denying it; in the same manner that a tenant, who holds under a demise from his landlord is, in answer to an action for rent.

Mr. Chambre, on the other side, argued that the defendant is not estopped by his deed to shew that he has entered into this covenant, not only on an illegal consideration, but also without any consideration. A person cannot indeed aver against a record, though he may against the operation of it. Here then, as the deed recites that the plaintiffs were in possession of a patent, the defendant is perhaps estopped to deny it; but it cannot estop him from denying the operation of it. In this indenture, the plaintiffs do not assign the patent to the defendant; they only covenant that the defendant may use the engine in a certain manner, which he might have done without the covenant. For on this record it must be taken that the invention was not new; and then this is a covenant without consideration, or entered into for an illegal consideration; because it operates

in restraint of trade. In Mitchell *v.* Reynolds, 1. P. Williams, 181. it was held that a covenant in restraint of trade in a particular place, if without consideration, or in restraint of trade generally was void. And this also answers the argument of estoppel; for no deed of this sort can operate by way of estoppel, as it is against public policy. Neither could it be necessary for the defendant to sue out a *scire facias* to repeal the patent, before he disputed its validity; because in all actions brought by a patentee for infringing the patent, it is incumbent on him to make out his right.

Mr. Wigley, in reply, contended that this is not a void consideration: but, if it were, it will not avoid a deed in a court of law. With respect to this being in restraint of trade; though a covenant not to set up a trade generally be bad, yet the party may covenant not to set up a trade in a particular place; and the covenant in this instance is similar to the latter; for it is a covenant not to use a particular machine. Even admitting this patent to be void, this is not so hard a case as that of a tenant who may be compelled to pay rent to a person having a title paramount his landlord's, and who is nevertheless estopped to impeach his landlord's title in an action for the same rent.

Lord Chief Justice KENYON.—The facts of this case are shortly these: the plaintiffs, pretending to derive a right under a patent, assigned to the defendant part of that right, on certain terms; and, notwithstanding the facts now disclosed shew that they have no such privilege, they still insist

that the defendant shall be bound by his covenant, though the consideration of it is fraudulent and void. This is not to be considered as a covenant to pay a certain sum in gross, at all events; but to use a machine in a particular way, in consideration of the plaintiffs having conferred that interest on the defendant, which they professed to confer by the agreement. Now in point of conscience, it is impossible that two persons can entertain different ideas upon the subject. But it is said, that though conscience fails, the defendant is estopped in point of law from saying that the plaintiffs had no privilege to confer. But the doctrine of estoppel is not applicable here. Where indeed an heir apparent, having only the hope of succession, conveys, during the life of his ancestor, an estate, which afterwards descends upon him: although nothing passes at that time, yet when the inheritance descends upon him, he is estopped to say that he had no interest at the time of the grant. There an estoppel is founded on law, conscience, and justice; but what is the case here? Who is estopped? The person supposed to be estopped is the very person who has been cheated and imposed upon. In the case Oldham *v.* Langmead, the patentee had conveyed his interest in the patent to the plaintiff; and yet, in violation of his contract, he afterwards infringed the plaintiff's right, and then attempted to deny his having had any title to convey. But I was of opinion that he was estopped by his own deed from making that defence. But there is no similarity between that and the present case.

Neither does this resemble the case of landlord and tenant; for the tenant is not at all events estopped to deny the landlord's title: the estoppel only exists during the continuance of his occupation; and if he be ousted by a title paramount, he may plead it.

Mr. Justice ASHHURST.—This is a good plea; and the defendant is not estopped from disclosing any of the matters contained in it. This is not like the case of landlord and tenant: as long as the tenant enjoys the estate, he shall not be permitted to deny his landlord's title; for he has a meritorious consideration; but when he is expelled by a person having a superior title, he may plead it. But this is a case of a very different kind. The plaintiffs use this patent as a fraud on all mankind; and they state it to be an invention of the patentee, when in truth it was no invention of his. The only right conferred on the defendant by this agreemem, was that of using this machine, which was no more than that which he, in common with every other subject, has without any grant from the plaintiffs.

Mr. Justice BULLER.—In the construction of all covenants and agreements, the court has universally considered the intention of the parties. Now here the plaintiffs asserted that they had an exclusive right to a particular machine; and if they had, they might convey it to any other person. They then came to an agreement with the defendant, by which they covenanted, that he should be at liberty to use the patent machine, of which they were then in possession, provided he

would use it in the manner therein specified; in consideration of which, he covenanted not to use any other machine. But it is now discovered that they had no such right, and therefore the defendant has not the consideration for which he entered into this covenant; and notwithstanding which, they insist that he is still bound. I think that the case of landlord and tenant is not unlike this; for the facts in this case, disclosed by the pleas, are equivalent to an eviction of the tenant. As long as the tenant holds under the lease, he is estopped from denying his landlord's title; but when he is evicted, he has a right to shew that he does not enjoy that which was the consideration for his covenant to pay the rent, notwithstanding he has bound himself by the covenant.

Mr. Justice GROSE declared himself of the same opinion.

Judgment for the defendant.

IN THE COURT OF COMMON PLEAS.

Boulton and Watt v. *Bull.*

S.C. 2 H.Bl. 462. 3 T.R. 95.

16th May, 1795.

THIS was an action on the case for infringing a patent.

The first count of the declaration stated, that the king by letters patent, under the great seal, dated 5th January, 9 Geo. III. granted to the pe-

titioner, James Watt, the sole benefit and advantage of making, exercising, and vending a certain invention of him the said James Watt; being a method by him invented, of lessening the consumption of steam and fuel in fire engines, for the *term of fourteen years, with a proviso* for a specification, &c. in the usual manner. It then stated, that by an act of parliament, passed 15 Geo. III. the benefit of the patent was extended to twenty-five years, to the said James Watt and his assigns: that on 5th September, 1777, he assigned two thirds of the patent right to Boulton the other plaintiff, for the remainder of the term of twenty-five years, and that the defendant, against the consent of the plaintiffs, made, constructed, and sold *divers engines, in imitation of the said engine* so invented and found out by the said James Watt, and of the like nature and kind, in breach of the said act of parliament, and against the privilege granted to the said James Watt as aforesaid. The second count was for making and constructing (omitting selling) engines, &c. similar to the first count. The third count was for making, constructing, and selling engines, &c. partly in imitation as before. The fourth, for making and constructing engines partly in imitation, &c. The fifth, for using and putting in practice the invention of the said plaintiff James Watt. The sixth, for using and putting in practice part of the said invention. The seventh, for counterfeiting. The eighth, for imitating. The ninth, for resembling. The tenth, for counterfeiting in part. The eleventh, for imitating in part; and

the twelfth, for resembling in part the said invention.

The general issue was pleaded; and the cause came on to be tried before the Chief Justice at the sittings after Trinity term, 1793, when a case was reserved for the opinion of the court, which stated, that his majesty, by letters patent, dated the fifth January, in the ninth year of his reign, granted to the plaintiff James Watt, his special licence, full power, sole privilege, and authority that he the said James Watt, his executors, administrators, and assigns, should, and lawfully might, during the term of fourteen years therein mentioned, use, exercise, and vend, throughout England, Wales, and Berwick upon Tweed, and the colonies and plantations abroad, his the said James Watt's new invented method of lessening the consumption of steam and fuel in fire engines, with the usual proviso for inrolling a specification. That the said James Watt did, in pursuance of such proviso, cause a specification or description of the nature of the said invention to be inrolled in the Court of Chancery, which description was particularly set forth in the said act of parliament, and was as follows: "My method of lessening the consumption of steam, and consequently fuel in fire engines, consists of the following principles: first, that vessel in which the powers of steam are to be employed to work the engine, which is called the cylinder in common fire engines, and which I call the steam vessel, must, during the whole time the engine is at work, be kept as hot as the steam that enters it; first, by inclosing it in a case of wood, or any

other materials that transmit heat slowly; secondly, by surrounding it with steam or other heated bodies; and thirdly, by suffering neither water nor any other substance colder than the steam to enter or touch it during that time. Secondly, in engines that are to be worked wholly or partially by condensation of steam, the steam is to be condensed in vessels distinct from the steam vessels or cylinders, although occasionally communicating with them. These vessels I call condensers, and whilst the engines are working, these cylinders ought at least to be kept as cool as the air in the neighbourhood of the engines, by application of water or other cold bodies. Thirdly, whatever air or other elastic vapour is not condensed by the cold of the condenser, and may impede the working of the engine, is to be drawn out of the steam vessels or condensers, by means of pumps wrought by the engines themselves or otherwise. Fourthly, I intend, in many cases, to employ the expansive force of steam to press on the pistons, or whatever may be used instead of them, in the same manner as the pressure of the atmosphere is now employed in common fire engines. In cases where cold water cannot be had in plenty, the engines may be wrought by this force of steam only, by discharging the steam into the open air, after it has done its office. Fifthly, where motions round an axis are required, I make the steam vessels in form of hollow rings or circular channels, with proper inlets and outlets for the steam, mounted on horizontal axles, like the wheels of a water-mill: within

them are placed a number of valves, that suffer any body to go round the channel, in one direction only. In these steam vessels are placed weights so fitted to them as entirely to fill up a part or portion of their channels, yet rendered capable of moving freely in them, by the means herein after mentioned or specified. When the steam is admitted in these engines, between these weights and the valves, it acts equally on both, so as to raise the weight to one side of the wheel, and by the re-action on the valves, successively to give a circular motion to the wheel: the valves opening in the direction in which the weights are pressed, but not on the contrary. As the steam vessel moves round, it is supplied with steam from the boiler, and that which has performed its office may either be discharged by means of condensers, or into the open air. Sixthly, I intend, in some cases, to apply a degree of cold not capable of reducing the steam to water, but of contracting it considerably, so that the engines shall be worked by the alternate expansion and contraction of the steam. Lastly, instead of using water to render the piston or other parts of the engines air and steam tight, I employ oils, wax, resinous bodies, fat of animals, quicksilver, and other metals in their fluid state."

And the said James Watt, by a memorandum added to the said specification, declared that he did not intend that any thing in the fourth article should be understood to extend to any engine, where the water to be raised enters the steam vessel itself, or any other vessel having an open

communication with it. In the fire engines referred to in the said specification, and which were in use prior to the patent in question, motion was given to the piston by the pressure of the atmosphere, acting upon one side of it, while a vacuum or certain degree of exhaustion was produced on the other side, within the steam vessel denominated the cylinder, by means of the injection of cold water, whereby the steam was condensed; which operation, prior to the invention of the said James Watt, was always performed in the steam vessel or cylinder itself, when the steam had been condensed, and the piston had descended, such portions of air and water as remained under it, within the steam vessel or cylinder, were expelled through valves, by the next succeeding steam from the boiler, and that steam counterbalancing the pressure of the atmosphere at the open end of the cylinder, allowed the piston to rise up with that end of the lever to which it was attached, while the other end of the lever, and the matters attached thereto, descended by reason of their greater comparative weight, and thus the engine was restored to that state in which it was previous to the first condensation. The steam was, for this purpose, as occasion required, admitted through a pipe from a distinct vessel called the boiler, where it was generated, which occasionally communicated with the cylinder, by means of a valve, which was opened and shut by the action of the engine. The injection of cold water was in like manner admitted, as occasion required, into the cylinder, through a pipe from

another distinct vessel containing cold water, called the injection cistern, by means of a cock or valve which was also opened and shut by the action of the engine, and such pumps as were used in these engines were also wrought by the engines themselves. The construction and use of pumps for drawing out air, elastic vapour, or water from places or vessels where a vacuum or exhaustion was required, were known and practised before the obtaining the letters patent above mentioned, but had not been applied to the cylinders or condensers of steam engines. The said invention of the said James Watt was, at the time of making the said letters patent, a new and useful invention; and the said privilege, vested by the said act of parliament, in the said James Watt and his assigns, was infringed by the defendant, in the manner charged upon him by the declaration. The said specification made by the said James Watt is of itself sufficient to enable a mechanic acquainted with the fire engines previously in use, to construct fire engines producing the effect of lessening the consumption of fire and steam in fire engines, upon the principle invented by the said James Watt.

The questions for the opinion of the court were;

First, whether the said patent was good in law, and continued by the act of parliament above mentioned.

Second, whether the above specification of the plaintiff James Watt was, in point of law, sufficient to support the above patent.

This case was twice argued; the first time by

Serjeant Watson for the plaintiffs, and Serjeant Le Blanc for the defendant; and the second by Serjeant Adair for the plaintiffs, and Serjeant Williams for the defendant.

The substance of the arguments on the part of the plaintiffs was, that they have a right to recover damages for the infringement of their patent, which is good in law, and continued by the act of parliament, and also duly supported by the specification. It is good in law, being for a newly discovered method of producing an important effect in the use of the old steam engine, and comes within the provision of the stat. 21 Jac. I. c. 3. s. 6. By every fair rule of construction, the words working or making any manner of new manufactures, must include the invention of the plaintiffs. The term manufacture means any thing made or produced by art, and the method or invention for which the patent is granted is to produce an effect by artificial means, by which the consumption of fuel shall be lessened in steam engines. Whether the word method be used as in the patent, or engine as in the act for continuing it, the meaning is the same, and the court will not deprive the plaintiffs, the merit and utility of whose invention is admitted on all sides, of the benefit of that invention by mere verbal criticism.

J. HEATH.—" When a mode of doing a thing is referred to something permanent, it is properly termed an engine; when to something fugitive, a method."

This patent is not expressed in terms new or

unusual; almost all the patents upon record, that have been granted to those who have made discoveries or improvements in the mechanic arts, being for the method of doing the thing, and not for the thing done.

J. HEATH.—"Is there any instance of a patent for a mere method?"

The patent granted to Dollond, for his improvement in making the object glasses of telescopes, was for "an invention of a new method of making the object glasses of refracting telescopes." So also Hartley's patent was for his method of securing buildings from fire. So likewise are the numerous patents that have been granted for the different improvements which have been made of late years in chemistry and medicine; (many patents of this kind were cited). The patent therefore of the plaintiffs is good in law, and is continued by the act 15 Geo. III. That act expressly recites the patent, and extends the benefit of it for twenty-five years, to Watt and his assigns. It was therefore clearly the intention of the legislature that the patent already granted should be continued, and the court will construe the act in such a manner as to effectuate that intention.

With regard to the specification, that is sufficiently explicit to support the validity of the patent. The improvement made by Watt consists in a discovery, that by letting out the steam from the cylinder into another vessel, in order to condense it, instead of admitting cold water into the cylinder for that purpose, as was done in Newcomen's

engine, and by keeping the cylinder hot, the consumption of steam and consequently of fuel would be diminished. The communication between the cylinder and the other vessel is formed by means of valves, which were before in use in Newcomen's engine, and therefore not necessary to be more accurately described, and the mode of keeping the cylinder hot is explicitly stated in the specification. There is no new mechanical construction invented by Watt, capable of being the subject of a distinct specification; but his discovery was of a principle, the method of applying which is clearly set forth, and therefore a drawing would have been unnecessary. So in Dollond's patent; the specification describes the principle, but not the mechanical construction by which it is carried into effect. It recites that a patent had been granted to him, for "the invention of a new method of making the object glasses of refracting telescopes, by compounding mediums of different refractive qualities, whereby the errors arising from the different refrangibility of light, as well as those which are produced by the spherical surfaces of the glasses, were perfectly corrected." It then goes on to state, after mentioning the defects of the telescopes then in use, that in the new telescopes the images of objects were formed by the difference between two contrary refractions: the object glass being a compound of two or more glasses put close together, whereof one was concave and the other convex: that the excess of refraction by which the image was formed was in the convex glass, which was made of a medium or

substance, in which the difference of refrangibility was not so great as in the substance of which the concave glass was formed; therefore, their refractions being proportioned to their difference of refrangibility, there remained a difference of refraction by which the image was formed, without any difference of refrangibility to disturb the vision; and that the radii of the surfaces of each of those glasses were likewise so proportioned, as to make the aberrations which proceeded from their spherical surfaces respectively equal, which being also contrary, destroyed each other. But there is no mention of any mechanism, nor does the specification state the degrees of sphericity or curvature of the concave or convex glasses; because it is well known that the curvature of the one must be proportioned to that of the other, in order to correct the refrangibility of the rays of light. It is also to be observed, that the jury have found that the specification is sufficient to enable a mechanic acquainted with the fire engines previously in use to construct fire engines producing the effect of lessening the consumption of fuel and steam, upon the principle invented by the plaintiff Watt. It is therefore upon the whole submitted to the court, that both the questions stated in the case must be answered in the affirmative.

Justice BULLER.—"The objection to Dollond's patent was, that he was not the inventor of the new method of making object glasses, but that Dr. Hall had made the same discovery before him. But it was holden, that as Dr. Hall had

confined it to his closet, and the public were not acquainted with it, Dollond was to be considered as the inventor."

The arguments on the part of the defendant were the following:

This question may be argued on three grounds. 1st, On the patent. 2d, Upon the act of 15 Geo. 3. 3d, Upon the act and patent taken together.

In considering the case upon the patent itself, the patent appears to be void, because it differs from the specification; the patent being for a formed instrument or machine, but the specification for principles unorganized. It is for a new invented method. Now the word invention, when applied to mechanical subjects, properly signifies something which has been already formed, some manufacture or machine, and is not applicable to mere unorganized principles. The plaintiff Watt cannot be said to have invented the principles, for those principles were in use in Newcomen's steam engine. It is true that the application of those principles in the manner described in the specification is new; but it was well known long before, that steam had an expansive power, and was condensed by cold. It is in this sense that the word invention is used in the patent. It recites that Watt had represented to the king, "that he had, after much labor and expense, invented a method of lessening the consumption of steam and fuel in fire engines." From these words it seems clear that he meant it to be understood by the crown, that the invention which he represented himself to have made was completely formed,

and not that he had merely conceived in his mind the application of certain known principles, by which the consumption of steam and fuel would be lessened in fire engines: for the ideas of the principles before they were organized could not have been attended with great labor, and much less with great expense. That the representation was understood in this sense by the crown, will appear from considering other parts of the patent. The king grants to Watt, that he shall "make, use, exercise, and vend his said invention."

In another part of the patent, all persons are forbidden to counterfeit, imitate or resemble the said invention, and to make or cause to be made any addition thereto, or subtraction therefrom. In another part, it is provided that the patent shall not extend to give privilege to Watt, to use or exercise any invention or work whatsoever which had theretofore been found out or invented by any other, and publicly used or exercised; but that every other person should use and practise their several inventions. Now it is impossible that any of the expressions thus cited from the patent can be applied to the invention of mere unorganized principles of science. If then the patent be, which it clearly is, for a formed instrument or machine, it is void; because it is admitted that there is no specification descriptive of any formed instrument whatever, nor is there any drawing or model.

But supposing it to be a patent for mere principles, (for the specification states that the invention consists of principles,) it is neither ori-

ginally good in law, nor continued by the act of 15 Geo. 3. It is not good in law, because it does not fall within the construction of the stat. 21 Jac. 1. cap. 3, upon which alone it must, if at all, be supported. The 6th section of that act provides, that nothing therein contained shall extend to any letters patent, or grants of privilege for fourteen years or under, thereafter to be made, of the sole working or making of any manner of new manufactures, which others at the time shall not use. The word manufacture is descriptive either of the practice of making a thing by art, or of the thing when made. The invention, therefore, of any instrument, used in the process of making a thing by art, is a manufacture, and the subject of a patent within the statute, because such an instrument is itself a thing made by art. So, also, medicines may be said to be a species of manufacture, and within the provision of the statute, because they consist in the practice of mixing together and making up by art the different ingredients of which they are composed, and are the result of principles organized, as far as the nature of the thing will admit. The same observation may be made with respect to Dollond's telescopes, which are certainly a manufacture, and within the stat. 21 Jac. I: but they consist of principles reduced into form and practice, as much as the subject will admit, and the patent is for glasses completely formed, not for mere principles; and the specification describes the manner in which the invention is to be carried into execution, with all the perspicuity of which the thing

is capable. That this is the true meaning of the term manufacture, as it is used by the legislature, likewise appears from the words "making or working" being applied to it, and "which others at the time shall not use," and also from the provision that the patentee shall ascertain the nature of his invention, and in what manner the same is to be performed. The specification is the price which the patentee is to pay for the monopoly. In the construction of specifications, it is a rule that the patentee must describe his invention in such a manner, that other artists in the same trade or business may be taught to do the same thing for which the patent is granted, by following the directions of the specification alone, without any new invention or addition of their own, and without the expense of trying experiments. (Turner v. Winter, p. 152.) This necessarily excludes any supposition, that mere principles can be the subject of a patent. That this is the true construction of the word manufactures in the statute appears also from Lord Coke's commentary on it, 3 Inst. 184; who, as appears from the journal of the House of Commons, was chairman of the committee to whom the bill was referred, and who, therefore, probably either drew or perused it. This construction of the word manufactures in the statute is also fortified by the opinion of Mr. Justice Yates, in the controversy respecting literary property, 4 Bur. 2361. Miller v. Taylor, who there held in illustration of the subject before him, that mere principles, not embodied, and reduced into practice, were not the subject of a

patent. Until they are so embodied, they are like the sentiments of an author while in his own mind. In that state, they are alike the property of him or of another. But, when once they are published, then, and not before, his exclusive property in them, or in the organization of them, commences. In Sir Richard Arkwright's case too, the learned judge before whom it was tried, (Mr. J. Buller) stated in his summing up, that, for a principle alone, a patent could not be obtained. And, independent of authorities, the reason of the thing shews that such a patent could not be obtained within the meaning of the statute. By obtaining a patent for principles only, instead of one for the result of the application of them, the public is prevented, during the term, from improving on those principles; and, at the end of the term, is left in a state of ignorance as to the best, cheapest, and most beneficial manner of applying them to the end proposed.

It is true, indeed, that the jury have found, that the specification made by Watt is of itself sufficient to enable a mechanic acquainted with fire-engines previously in use to construct fire-engines, producing the effect of lessening the consumption of fuel and steam in fire-engines, upon the principle invented by Watt. But it is not found that the specification would enable a mechanic to construct Watt's fire-engines; *nor is it found to what* extent the consumption of steam and fuel would be lessened in fire-engines, constructed upon the *principles stated in the specification: nor whe*ther those engines would have the effect of lessen-

ing the consumption of steam to the same degree with Watt's engines. All this is left uncertain. The merit of the invention must be measured by the quantity of fuel which may be saved by it. Now, it is possible, that agreeable to this finding, a fire-engine might be made, which would produce the effect of lessening the consumption of fuel and steam, upon the principles mentioned in the specification; but yet such engine might save only one bushel of coals, or other fuel, where Watt's engine would save one hundred. The finding of the jury, therefore, does not mend the case. The specification ought to have described the method by which the machine might be made to save the greatest quantity of fuel which it was known to be capable of saving, and which it in fact does save, when used by the inventor. It is a settled rule of law, that if a patentee makes the thing for which the patent is granted with cheaper materials, or if he applies and uses it in a more advantageous and useful manner than is described in the specification, the patent is void; because he does not put the public in possession of his invention, or enable them to derive the same benefit that he himself derives from it. (Turner v. Winter, p. 154.).

It is to be shewn, in the next place, that the patent is not continued by the act 15 Geo. 3. c. 61. The title of it is, "An act for vesting in James Watt the sole property of certain steam-engines, called fire-engines, of his invention." It recites that the king, by his letters patent, had given and granted to Watt the sole benefit and

advantage of making and vending certain engines, by him invented, for lessening the consumption of steam and fuel in fire-engines, with a proviso, that he should cause a particular description of the nature of the said invention to be inrolled, and that he accordingly had caused a particular description of the nature of the said engine to be enrolled. It further recites, that the said James Watt had employed many years, and a considerable part of his fortune, in making experiments upon steam-engines, commonly called fire-engines; but, on account of the many difficulties which always arise in the execution of such large and complex machines, he could not complete his intention before the end of the year 1794, when he finished some large engines as specimens of his construction; and that his engines might be of great utility, and then enacts, that the sole privilege of making, constructing, and selling the engines therein before particularly described, shall be vested in Watt for twenty-five years, and that he, during the said term, shall make, exercise, and vend the said engines. Now, is it possible to say that this act continues a patent for mere principles? Certainly not. If, therefore, the patent be really for principles, it is not continued by the act: but supposing, that though the act does not describe the patent according to the terms of it, yet it does describe it according to its import, namely, as a patent for principles; in that case it would not be within the protection of the stat. of 21 Jac. 1, for the reasons already offered.

There is a proviso in the act 15 Geo. 3, that

every objection in law, competent against the said patent, should be competent against the act, to all intents and purposes, except so far as relates to the term thereby granted. Though this, therefore, is a grant of a monopoly by the legislature, yet it is to receive precisely the same construction as if it had been a grant by letters patent. Now, the grant itself is void, being founded on a false suggestion of the party to whom it is made; for, it is a rule of law, that if the king's grant be founded on a false suggestion of the party to whom it is made, it is void; as if any thing mentioned in the consideration of the grant be false. The consideration, which is the foundation of this grant in the act, is the recital, that the king had, in January, 1765, by his letters patent, granted to Watt, for the term of fourteen years, the sole benefit and advantage of making and vending certain engines by him invented for lessening the consumption of steam and fuel, and that, owing to the reasons which are mentioned in the recital, it was probable that the whole term granted by the patent would elapse, before he could receive any compensation adequate to his labor; for which reasons, the term granted by the patent is prolonged, and the act vests in him the sole privilege of making, constructing, and selling the said engines, for twenty-five years; that is, the engines, the sole making and vending of which the king had granted by his said letters patent. But it is admitted, that the king did not grant by the patent a monopoly for making and vending any engines whatever. The recital, therefore, which

is the very foundation of the grant, is untrue. It has been also adjudged, that if a private act of parliament, like the present, be founded upon a false recital, the act is void. Plowd. 390. Earl of Leicester v. Heydon, where it is laid down, that statutes which misrecite things to which they refer, are void: and that, in the principal case, the statute which recited that A. was attainted, when, in fact, he was not attainted, was void. Another objection to this act, 15 Geo. 3. is, that it professes to vest in Watt the exclusive property in an entire machine, notwithstanding the invention, which he claims to be his, is admitted of an improvement only of a known machine. And upon this point it is to be observed, that Lord Coke says, (3 Inst. 184) " 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." The act is also defective, in not setting forth any specification of a formed instrument or machine; it is, indeed, admitted, that no such specification is to be found.

If the subject be viewed as arising from the patent and act taken together, the arguments which have been already used, respecting those instruments separately, apply themselves more strongly, inasmuch as if the act be considered as explanatory of the patent, or as a part of it, there cannot be a doubt but that it means to grant a monopoly for a formed engine or machine. Upon

the whole, therefore, of the case it appears, either that the patent is for an entire formed machine, when it ought to have been for an improvement only, and in which case the specification does not correspond with it; or it is for mere principles, which, according to the stat. 21 Jac. 1. cannot be the subject of a patent.

The following is the substance of the reply. The patent is neither for a formed instrument, nor is the specification for a principle unorganised. The former is for "a new invented method of lessening the consumption of steam and fuel in fire-engines," by whatever mode that effect may be produced: the latter states both the principle of the invention, and also the mode in which it is to operate; namely, the preserving the cylinder hot by the means described, and the condensing the steam in separate vessels communicating with the cylinder. The difference in the terms used in the patent and the specification, arises from the nature of the subject; but the real meaning of them is the same. Where an improvement is made upon a machine already known, the patent ought not to be for the machine itself, but for the method of improving it. Thus, a patent was granted in 1759, to one Wood, for "a scheme to work a fire-engine at half the expense of coals," an effect which must have been caused by an alteration of the engine; yet the patent was for the scheme or method, and not for the engine itself. And, in the case of an improvement in making watches, Jessop's patent was avoided, because it was for the whole watch,

when the invention consisted of only one movement. But, notwithstanding this rule, if from the nature of the thing, a patent for the new method or improvement only should have the effect of giving a right to the whole machine, that is not of itself a ground on which the patent can be set aside.

After consideration, the judges thus delivered their respective opinions.

Mr. Justice Rooke, after stating the special case at length, thus proceeded. From this state of the case, and from the admission of counsel on both sides, I assume the following facts, namely, that the plaintiff Watt is the inventor of a new and useful improvement in fire-engines, whereby the consumption of steam, and consequently of fuel, is considerably lessened: that the improvement is of such a nature, that it may legally be the object of protection by royal patent: that a patent has been granted to the inventor, on the condition of a specification of the nature of the invention: that a specification has been made, sufficient to enable a mechanic to construct fire-engines containing the improvement invented by the patentee; and that 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.

Under these circumstances, I think I conform to the spirit of the stat. 21. Jac. I. c. 3. s. 6. if I in-

cline to support this patent, provided it may be, supported without violating any rule of law; and I think so for two reasons: first, because the patentee is substantially entitled to the protection of the patent; and secondly, because the public are sufficiently instructed, and will be duly benefited by the specification. Against the claim of the patentee, certain objections have been made, which, it is contended, deprive him of all legal right to that protection. First, it is objected that the patent is not for fire-engines upon the particular construction which contains this new improvement, but for a new invented method of lessening the consumption of steam and fuel: secondly, it is objected that no particular engine is described in this specification, but that it only sets forth the principles; and the last objection is, that the statute has not duly prolonged the patent, because the patent is for a method, and the statute for an engine. It is obvious that these objections are merely formal; they do not affect the substantial merits of the patentee, nor the meritorious consideration which the public have a right to receive, in return for the protection which the patentee claims. With regard to the first objection, it is, that the patent is not for a fire-engine of a particular construction, but for a new invented method. It pre-supposes the existence of the fire-engine, and gives a monopoly to the patentee of his new invented method of lessening the consumption of steam and fuel in fire-engines. The obvious meaning of these words is, that he has made an improvement in the construction of fire-engines; for what does

method mean, but mode or manner of effecting? What method can there be of saving steam or fuel in engines, but by some variation in the construction of them? A new invented method, therefore, conveys to my understanding the idea of a new mode of construction. I think those words are tantamount to fire-engines of a newly invented construction; at least I think they will bear this meaning, if they do not necessarily exclude every other. The specification shews that this was the meaning of the words, as understood by the patentee; for he has specified a new and particular mode of constructing fire-engines. If he has so understood the words, and they will bear this interpretation, then I think this objection, which is merely verbal, is answered. To which I add, that patents for a method or art of doing particular things have been so numerous, according to the lists left with us, that method may be considered as a common expression in instruments of this kind. It would, therefore, be extremely injurious to the interests of patentees, to allow this verbal objection to prevail. As to the second objection, that no particular engine is described, that no model or drawing is set forth, I hold this not to be necessary, provided the patentee so describes the improvement as to enable artists to adopt it when his monopoly expires. The jury find that he has so described it. It is objected that he professes to set forth principles only; but we are not bound by what he professes to do, but by what he has really done. If he had professed to set forth a full specification of his im-

provement, and had not set it forth intelligibly, his specification would have been insufficient, and his patent void. It seems, therefore, but reasonable, that if he sets forth his improvement intelligibly, his specification should be supported, though he professes only to set forth the principle. The term principle is equivocal; it may denote either the radical elementary truths of a science, or those consequential axioms which are founded on radical truths, but which are used as fundamental truths by those who do not find it expedient to have recourse to first principles. The radical principles on which all steam engines are founded are the natural properties of steam, its expansiveness and condensibility. Whether the machines are formed in one shape or another; whether the cylinder is kept hot or suffered to cool; whether the steam is condensed in one vessel or another, still the radical principles are the same. When the present patentee set his inventive faculties to work, he found fire-engines already in existence, and the natural qualities of steam already known and mechanically used. He only invented an improvement in the mechanism, by which they might be employed to greater advantage. There is no newly discovered natural principle as to steam, nor any new mechanical principle in his machine: the only invention is a new mechanical employment of principles already known. As to the specification, some part of it, so much as represents the future intentions of the patentee, may be considered, according to the language of the specification, as merely theoretical; but the greater

part describes a practical use of improved mechanism, the basis on which the improvement is founded. The object of the patentee was to condense the steam without cooling the cylinder: the means adopted to effectuate this were to inclose the cylinder in a case which will confine the heat or transmit it slowly, to surround it with steam or other heated bodies, and to suffer neither water nor any other substance colder than the steam to enter or touch it during that time. These means are set forth. The objection is, that there is no drawing or model of a particular engine; and where is the necessity of such drawing or model, if the specification is intelligible without it? Had a drawing or model been made, and any man copied the improvement, and made a machine in a different form, no doubt this would have been an infringement of the patent: why? because the mechanical improvement would have been introduced into the machine, though the form was varied. It follows from thence, that the mechanical improvement, and not the form of the machine, is the object of the patent: and if this mechanical improvement is intelligibly specified, of which a jury must be the judges, whether the patentee calls 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. As to the articles of the specification which denote intention only, and do not state the thing to which

it is to be applied, I do not think he could maintain an action for breach of these articles; for he cannot anticipate the protection before he is intitled to it by practical accomplishment. But the patent is for a method already adopted, and the two first and most material articles are set forth as already accomplished, and the case states it was new and useful, at the time of making the patent. I therefore 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, and I will presume, after a verdict, where nominal damages only are given, that the evidence was applied to, and the damages given for those articles only which are well specified. Now, if he has infringed those articles which are well specified, he shall not be excused from an action; because he has been guilty of an additional infringement on that which is specified as matter of intention only. As to the objection of the want of a drawing or model, that at first struck me as of great weight. I thought it would be difficult to ascertain what was an infringement of a method, if there was no additional representation of the improvement or thing methodized. But I have satisfied my mind thus; infringement or not, is a question for the jury: in order to decide this case, they must understand the nature of the improvement or thing infringed; if they can understand it without a model, I am not aware of any rule of law which requires a model

or a drawing to be set forth, or which makes void an intelligible specification of a mechanical improvement, merely because no drawing or model is annexed. In the present case, I do not hear that the want of a drawing or a model occasioned any difficulty to the jury; they have expressly decided that Mr. Watt has the merit of a new and useful invention, and that this invention was infringed by the defendant. How then can I say that they could not understand it for the want of a drawing? Especially when they have added, that the specification is sufficient to enable a mechanic, acquainted with the fire-engines previously in use, to construct fire-engines producing the effect of lessening the consumption of fuel and steam, upon the principle invented by the plaintiff. For these reasons, I think the second objection, that no particular engine is set forth, is not of sufficient weight to destroy the effect of the patent.

Mr. Justice HEATH.—This patent is expressly for a new invented method for lessening the consumption of steam and fuel in fire-engines. It appears that the invention of the patentee is original, and may be the subject of a patent: but 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. In truth it is not so. His counsel have contended for the exclusive monopoly of a method of lessening the consumption of steam and fuel in fire-engines, and that therefore would better answer the purposes of the patentee, for the method is a principle reduced to practice; it is in the present instance the general application of a principle to an old machine. There is no doubt that the patentee might have a patent for his machinery, because the act of parliament he obtained acknowledged his patent, and he himself, in 1782, procured a patent for his invention of certain new improvements upon steam and fire-engines, for raising water, &c. which contained new pieces of mechanism applicable to the same. Upon this statement the following objections arise to the patent, which I cannot answer; viz. that if there may be two different species of patents, the one for an application of a principle to an old machine, and the other for a specific machine, one must be good and the other bad. The patent that admits the most lax interpretation should be bad, and the other alone conformable to the rules and principles of common law, and to the statute on which patents are founded. The statute of 21 Jac. I. prohibits all monopolies, reserving to the King, by an express proviso, so much of his ancient prerogative as shall enable him to grant letters patent, and grants of privilege, for the term of fourteen years or under, of the sole working or

making of any manner of new manufactures within this realm, to the true and first inventor and inventors of such manufactures. What then falls within the scope of the proviso? such manufactures as are reducible to two classes. The first class includes machinery, the second substances, (such as medicines) formed by chemical and other processes, where the vendible substance is the thing produced, and that which operates preserves no permanent form. In the first class the machine, and in the second the substance produced, is the subject of the patent. I approve of the term manufacture in the statute, because it precludes all nice refinements, it gives us to understand the reason of the proviso, that it was introduced for the benefit of trade. That which is the subject of a patent ought to be specified, and it ought to be that which is vendible, otherwise it cannot be a manufacture: this is a species of new 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 the 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. Another objection may be urged against the patent, upon the application of the principle to an old machine, which is, that whatever machinery may be hereafter invented, would be an infringement of the patent, if it be founded on the same principle. If this were so, it would reverse the clearest positions of law respecting patents for machinery, by which it has been always holden, that the organization of a machine may be the subject of a patent, but principles cannot. If the argument for the patentee were correct, it would follow that where a patent was obtained for the principle, the organization would be of no consequence. Therefore, the patent for the application of the principle must be as bad as the patent for the principle itself. It has been urged for the patentee, that he could not specify all the cases to which his machinery could be applied. The answer seems obvious, that what he cannot specify he has not

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

Mr. Justice BULLER.—Few men possess more ingenuity, or have greater merit with the public, than the plaintiffs on this record; and if their patent can be sustained in point of law, no man ought to envy them the profits and advantages

arising from it. Even if it cannot be supported, no man ought to envy them the profits which they have received, because the world has undoubtedly derived great advantages from their ingenuity. We are called upon to deliver our opinions on the dry question of law, whether, upon the case disclosed to us, this patent can or cannot be sustained? I shall deliver my opinion first upon the case itself, and secondly on the arguments which have been urged at the bar.

The case states the plaintiffs patent, the specification, and the act of parliament. It gives a description of the old engine, and then states that the invention of the plaintiffs is a new and useful one; and that the specification is sufficient to enable a mechanic to construct fire-engines, producing the effect of lessening the consumption of fuel and steam in fire-engines, upon the principle invented by Mr. Watt. One objection made by the defendant was, that it did not appear on the case that a mechanic could, from the specification, construct an engine which should lessen the consumption of fuel and steam with equal effect, or to the same extent, as Mr. Watt himself did. If the negative appeared, namely, that a mechanic could not from the specification make an engine with equal effect, or if it required expense and experiments before it could be done, I agree that either of those facts would avoid the patent; but that is not so stated: and upon this case, I think, we are bound to say there is no foundation for either of these objections. There is another objection to the case, which I think more important,

and that is, that the jury have not told us wherein the invention consists; whether it be in an additional cylinder or other vessel to the old machine, or what the addition is, or whether it be only in the application of the old parts of the machine, or in what is called at the bar, the principle only, or in what that principle consists. These defects have opened a great field of argument, and have driven the plaintiffs counsel to the necessity of endeavouring to support his case on all possible grounds. The old engine consisted of a cylinder, a boiler, a pipe which occasionally communicated between them, an injection 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 expressly admitted on the argument, that there was 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 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.

The very statement of what a principle is, proves it not to be a ground for a patent: it is the first ground and rule for arts and sciences, or in other words, the elements and rudiments of them. A patent must be for some new production from those elements, and not for the elements themselves. The plaintiff's case is considerably distressed in many parts of it, and as it seems to me, the arguments which have been adduced were very much calculated to keep clear of difficulties, which the counsel foresaw might be introduced into the case; as first, that unless the principle can be supported as the ground of the patent, there may be some danger of confirming the defendant's objection to it; secondly, that unless the principle can be supported it may open a fatal objection to the specification, because that does not state in what manner the new machine is to be constructed, how it varies from the old one, or in what way the improvements are to be added; or, thirdly, because the patent embraces the whole principle, and is founded on that alone, but the invention is taken to consist of an improvement or addition only. Another objection may arise both to the patent and specification, viz. that the patent is granted for the whole engine, and not for the addition and improvement only.

Perhaps it may be convenient and judicious to keep these objections 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 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 a thing are the same, and I think it impossible to support a patent for a method only, without having carried it into effect, and produced some new substance. But here it is necessary to enquire, what is meant by a principle reduced into practice? It can only mean a practice founded on principle, and that practice is the thing done or made, or in other words, the manufacture which is invented.

This brings us to the true foundation of all patents, which must be the manufacture itself, and so says the statute, 21 James I. c. 3. All monopolies, except those which are allowed by that statute, are declared to be illegal and void. They were so at common law, and the sixth section excepts only those of the sole working or making any manner of new manufacture; and whether the manufacture be with or without principle, produced by accident or by art, is immaterial. Unless this patent can be supported for the manufacture, it cannot be supported at all. I am of opinion, that the patent is granted for the manufacture, and I agree with my brother Adair, that verbal criticisms ought not to avail, but that 'principle' in the patent, and the 'engine' in the act of parliament mean, and are the same thing. Besides, the declaration is founded on a right to the engine, and therefore unless the plaintiffs can make out their right to that extent, they must fail. In most of the instances of the different patents, mentioned by my brother Adair, the patents were 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 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 pre-

pare 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. 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. 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 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, 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 500*l.* 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 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 1200*l.*; and suppose the alteration made by the plaintiff, with a fair allowance for profit, would cost 50 or 100*l.* is it to be maintained, that all the persons who already have fire-engines must be at the expense 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.

Lord Chief Justice EYRE.(a)—Upon this case two questions are reserved for the opinion of the court; the first, whether the patent is good in law, and continued by the act of parliament mentioned in the case? the second, whether the specification, stated in the case, is, in point of law, sufficient to support the patent? As I take it, the facts of the case are stated with a view to the application of them to these questions, and not to any other questions which may be thought to arise upon them. Perhaps, indeed, if the court saw that another material question might arise out of these facts, which had escaped the attention of the court and jury at *nisi prius*, they might direct the case to be amended, or a new trial to be had in order to introduce it. These two questions were thus stated, in order to bring before the court the points of law insisted on upon the part of the defendant, and also to give an opportunity for considering a doubt which occurred to me upon my first view of the case at the trial; which was, Whether a patent-right could attach upon any thing not organized and capable of precise specification? As those two questions are framed,

(a) A good deal of this opinion is adopted by the Court in The King v Wheeler 2 Barn & Ald. 345.

there are three points for the consideration of the court. First, whether the patent was, in its original creation, good or bad? Secondly, taking it to be good, whether it was continued by the act of parliament? And thirdly, taking it to be good in its original creation, and to have been continued by the act of parliament, subject to an objection for the want of a specification, whether there has been a sufficient specification? Though we have had many cases upon patents, yet I think we are here upon ground which is yet untrodden, at least was untrodden till this cause was instituted, and till the discussions were entered into which we have heard at the bar, and now from the court. Patent rights are no where, that I can find, accurately discussed in our books. Sir Ed. Coke discourses largely, and sometimes not quite intelligibly, upon monopolies in his chapter of monopolies, 3 Inst. 181.; but he deals very much in generals, and says little or nothing of patent rights as opposed to monopolies. He refers principally to his own report of the Case of Monopolies, 11 Co. 86. b.; he also mentions a resolution of all the judges in 2 and 3 Eliz. from a manuscript of Dyer, condemning a grant to the corporation of Southampton by Philip and Mary for the sole right of importing Malmsey wine, and that no Malmsey wine should be landed at any other place, upon pain to pay treble customs. He also mentions Bircot's case in the Exchequer Chamber, 15 Eliz. for a privilege concerning the preparing and melting of lead ore, but he states no particulars; and the principle on which that

case was determined has been, as my brother Buller observes, not adhered to; namely, that an addition to a manufacture cannot be the subject of a patent. There is also a case in Godbolt, 252., and there are a few others condemning particular patents, which were, beyond all doubt, mere monopolies. The modern cases have chiefly turned upon the specifications, whether there was a fair disclosure. Such was the case of Turner *v.* Winter (p. 145). The case of Edgeberry *v.* Stephens (p. 36.) is almost the only case upon the patent right under the saving of the stat. of Jac. 1. that is to be found. That case establishes, that the first introducer of an invention practised beyond sea, shall be deemed the first inventor; and it is there said, the act intended to encourage new devices, useful to the kingdom; and whether acquired by travel or study, it is the same thing. Deriving so little assistance from our books, let us resort to the statute itself, 21 Jac. 1. c. 3. We shall there find a monopoly defined to be, "the privilege of the sole buying, selling, making, working or using any thing within this 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;" se-

condly, " 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 of Edgeberry *v.* Stephens, the words " new devices" are substituted and used as synonymous with the words " new manufacture."

It was admitted in the argument at the bar that the word " manufacture" in the statute was of extensive signification ; that it applied not only to things made, but to the practice of making, to principles carried into practice in a new manner, to *new results* of principles carried into practice. Let us pursue this admission. Under things made, we may class, in the first place, new compositions of things, such as manufactures in the most ordinary sense of the word : secondly, all mechanical inventions, whether made to produce old or new effects, for a new piece of mechanism is certainly a thing made. Under the practice of making we

may class all new artificial manners of operating with the hand, or with instruments in common use, new processes in any art producing effects useful to the public.

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 Dolland'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 with or without old mechanism by which the effect is produced.

To illustrate this: the effect produced by Mr. David Hartley's invention for securing buildings from fire, is no substance or composition of things; it is a mere negative quality, the absence of fire: this effect is produced by a new method of disposing iron plates in buildings. In the nature of things the patent could not be for the effect produced; I think it could not be for the making the plates of iron, which, when disposed

in a particular manner, produce the effect, for those are things in common use. But the invention consisting in the method of disposing those plates of iron so as to produce their effect, and that effect being a useful and meritorious one, the patent seems to have been very properly granted to him for his method of securing buildings from fire. And this compendious analysis of new manufactures mentioned in the statute satisfies my doubt, whether any thing could be the subject of a patent but something organized and capable of precise specification. But for the more satisfactory solution of the other points which are made in this case, I shall pursue this subject a little further. In Mr. Hartley's method, plates of iron are the means which he employs, but he did not invent those means, the invention wholly consisted in the new method of using, or I would rather say, of disposing a thing in common use, and which thing every man might make at his pleasure, and which therefore, I repeat, could not in my judgment be the subject of the patent. In the nature of things it must be, that in the carrying into execution any new invention, use must be made of certain means proper for the operation. Manual labor to a certain degree must always be employed, the tools of artists frequently, often things manufactured but not newly invented, such as Hartley's iron plates, all the common utensils used in conducting any process, and so up to the most complicated machinery that the art of man ever devised. Now let the merit of the invention be what it may, it is evi-

dent that the patent in almost all these cases cannot be granted for the means by which it acts, for in them there is nothing new, and in some of them nothing capable of appropriation. Even where the most complicated machinery is used, if the machinery itself is not newly invented, but only conducted by the skill of the inventor, so as to produce a new effect, the patent cannot be for the machinery. In Hartley's case it could not be for the effect produced, because the effect, as I have already observed, is merely negative, though it was meritorious. In the list of patents with which I have been furnished, there are several for new methods of manufacturing articles in common use, where the sole merit and the whole effect produced are the saving of time and expense, and thereby lowering the price of the article and introducing it into more general use. Now I think these methods may be said to be new manufactures, in one of the common acceptations of the word, as we speak of the manufactory of glass, or any other thing of that kind. The advantages to the public from improvements of this kind are beyond all calculation important to a commercial country, and the ingenuity of artists who turn their thoughts towards such improvements is in itself deserving of encouragement; and in my apprehension it is strictly agreeable to the spirit and meaning of the stat. 21 Jac. 1. that it should be encouraged; and yet the validity of these patents, in point of law, must rest upon the same foundation as that of Mr. Hartley's. The patent cannot be for the effect

produced, for it is either no substance at all, or, what is exactly the same thing as to the question upon a patent, no new substance, but an old one produced advantageously for the public. It cannot be for the mechanism, for there is no new mechanism employed: it must then be for the method; and I would say in the very significant words of Lord Mansfield in the great case of the copy right (4 Burr. 2397.), it must be for method detached from all physical existence whatever; and I think we should well consider what we do in this case, that we may not shake the foundation upon which these patents stand. Probably I do not over-rate it when I state that two-thirds, I believe I might say three-fourths of all patents granted since the statute passed, are for methods of operating and of manufacturing, producing no new substances and employing no new machinery. If the list were examined, I dare say there might be found fifty patents for methods of producing all the known salts, either the simple salt, or the old compounds. The different sorts of ashes used in manufactures are many of them inventions of great merit, many of them probably mere speculations of wild projectors; the latter ought to fall, the former to stand. If we wanted an illustration of the possible merit of a new method of operating with old machinery, we might look to the identical case now in judgment before the court. If we consider into what general use fire-engines are come, that our mines cannot be worked without them, that they are essentially necessary to the carrying on many of our prin-

cipal manufactures, that these engines are worked at an enormous expense in coals, which in some parts of the kingdom can with difficulty be procured at all in large quantities, it is most manifest that any method found out for lessening the consumption of steam in the engines, which, by necessary consequence, lessens the consumption of coals expended in working them, will be of great benefit to the public, as well as to the individual who thinks fit to adopt it. And shall it now be said, after we have been in the habit of seeing patents granted in the immense number in which they have been granted for methods of using old machinery, to produce substances that were old, but in a more beneficial manner, and also for producing negative qualities by which benefits result to the public, by a narrow construction of the word "manufacture" in this statute, that there can be no patent for methods producing this new and salutary effect, connected, and intimately connected as it is with the trade and manufactures of the country? This I confess I am not prepared to say. An improper use of the word principle in the specification set forth in this case, has, I think, served to puzzle it. Undoubtedly there can be no patent for a mere principle; but for a principle so far embodied and connected with corporeal substances as to be in a condition to act and to produce effects in any art, trade, mystery, or manual occupation, I think there may be a patent. Now this is, in my judgment, the thing for which the patent stated in the case was granted, and this is what the speci-

fication describes, though it miscalls it a principle. It is not that the patentee has conceived an abstract notion that the consumption of steam in fire-engines may be lessened, but he has discovered a practical manner of doing it, and for that practical manner of doing it he has taken his patent. Surely this is a very different thing from taking a patent for a principle; it is not for a principle, but for a process. I have dwelt the more largely upon this part of the case, because, in my apprehension, this is the foundation upon which the whole argument will be found to rest. If upon the true construction of the statute there may be a patent for a new method of manufacturing or conducting chemical processes, or of working machinery so as to produce new and useful effects, then I am warranted to conclude that this patent was in its original creation good. I will next consider the specification before I proceed to the consideration of the questions arising upon the statute for continuing this patent. The specification has reference to the patents and not to the statutes, and therefore it will be proper to consider it in this stage of the argument. I distinctly admit that if this patent is to be taken to be a patent for a fire-engine, the specification is not sufficient; it is not a specification of mechanism of any determinate form, having component parts capable of precise arrangement and of particular description. On the other hand, if the patent is not for a fire-engine, but in effect for a manner of working a fire-engine so as to lessen the consumption of steam,

which, as I conceive, the words of the patent import, let us see whether this specification does not sufficiently describe a manner of working fire-engines so as to produce the effect expressed in the patent, and whether the only objection to the specification is not that it is loaded with a redundancy of superfluous matter. The substance of the invention is a discovery that the condensing the steam out of the cylinder, and protecting the cylinder from the external air, and keeping it hot to the degree of steam heat, will lessen the consumption of steam. This is no abstract principle, it is in its very statement clothed with practical application: it points out what is to be done in order to lessen the consumption of steam. Now the specification of such a discovery seems to consist in nothing more than saying to the constructor of a fire-engine, "for the future condense your steam out of the body of the cylinder instead of condensing it within it, put something round the cylinder to protect it from the external air and to preserve the heat within it, and keep your piston air tight without water." Any particular manner of doing this, one should think would hardly need to be pointed out, for it can scarcely be supposed that a workman capable of constructing a fire-engine, would not be capable of making such additions to it as should be necessary to enable him to execute that which the specification requires him to do. But if a very stupid workman should want to know how to go about this improvement, and in answer to his question was directed to conduct the steam which

was to be condensed, from the cylinder into a close vessel by means of a pipe and a valve communicating with the cylinder and the close vessel, to keep the close vessel in a state of coldness sufficient to produce condensation, and to extract from it any part of the steam which might not be condensed by the pump, and was also told to inclose the cylinder in a wooden case, and to use a resinous substance instead of water to keep the piston air tight, can it be imagined that he would be so stupid as not to be able to execute this improvement with the assistance of these plain directions? If any man could for a moment imagine that this was possible, I observe that this difficulty is put an end to, because the jury have found that a workman can execute this improvement in consequence of the specification. Some machinery it is true must be employed, but the machinery is not of the essence of the invention, but incidental to it. The steam must pass from the cylinder to the condensing vessel, for which purpose there must be a valve to open, a pipe to convey, and a vessel to receive the steam; but this cannot be called new invented machinery, whether considered in the parts or in the whole, and therefore there can be no patent for this addition to the fire-engines. Suppose a new invented chemical process, and the specification should direct that 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, and should be melted in that 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. Some observations were made in the course of the argument at the bar, on its being left unascertained both in the specification and case, to what extent the consumption of steam would be lessened by the invention; but the method does not profess to ascertain this, it professes to lessen the consumption; and, to make the patent good, the method must be capable of lessening the consumption to such an extent, as to make the invention useful: more precision is not necessary, and absolute precision is not practicable. The quantity of steam which will be saved in each machine must depend upon a great variety of circumstances respecting each individual fire-engine, such as the accuracy of casting or boring the cylinder, or the dimensions of it, the accuracy of the workman in putting his apparatus together, the care in keeping the cylinder in a proper degree of heat, and the more or less perfect order for working, in which the engine is kept: all these circumstances will affect the quantity of steam to be lessened. Some weighty observations have been made upon parts of this specification, but those parts appear to me not properly to relate to the method described in the patent; they are rather intimations of new projects of improvement in fire-engines, and some of them, I am very ready to confess, either very loosely de-

scribed or not very accurately conceived: I do not undertake to pronounce which, but one or other is pretty clear. They are the 4th and 5th articles: the 1st, 2d, 3d, and 6th, appear to me to belong to this method, and very clearly to point out and explain the method to every man who has a common acquaintance with the subject, and to be intelligible even to those who are unacquainted with it. If there be a specification to be found in that paper, which goes to the subject of the invention as described in the patent, I think the rest may very well be rejected as superfluous. If indeed the defendant could have shewn that he had not pirated the invention which is sufficiently specified, but that what he hath done hath a reference to another method of lessening the consumption of steam, to which the questionable parts of the specification were meant to relate, the objection to the specification would have remained, and perhaps some other objections which have been alluded to, might have been taken both to the patent and specification. But I would observe here, that with regard to this and some other difficulties, there is no question reserved in this case respecting the infringement of the patent; the general fact only is stated, that it has been infringed by the defendant, and in the consideration of a case reserved, we are not to search for difficulties upon which the parties have not proposed to state any point to us for our judgment, and into which I think we are not at liberty to go. The difficulty which struck me, as it did my brother Buller, with respect to the de-

claration, is applied to the patent as it originally stood, not as it now stands, continued by the act of parliament; if we were at liberty to go into it, that difficulty might perhaps produce a nonsuit, and that nonsuit a new action, in which the difficulty would be removed. But this cause was instituted to try the merits of the patent; I thought therefore that a formal objection was wisely overlooked. Supposing then the difficulty upon the patent itself and the specification to be got over, the act of parliament remains to be considered. The objection, stated in the strongest manner, would amount to this, that the act continues a patent for a machine, when in fact the patent is for a process. It is to be observed that there is nothing technical in the composition or the language of an act of parliament: in the exposition of statutes the intent of parliament is the guide. It is expressly laid down in our books, I do not here speak of penal statutes, that every statute ought to be expounded, not according to the letter but the intent. 2 Roll. Abr. 118. Plowd. 350, 363. This doctrine has been carried into effect by cases: though a corporation be misnamed in an act of parliament, if it appears that the corporation was intended it is sufficient. 11 Co. 57. b. So the statute of *Quia emptores terrarum* has said that every one shall hold of the lord paramount *secundum quantitatem terræ*, but this shall be construed to be, *secundum valorem terræ*, for so was the intent. Plowd. 10. 57. We all know that an act of parliament may be extended by equity. No authority has been cited which amounts to proof

that a mistake in point of description in an act of parliament of this nature, when the true meaning can be discovered, and when there is a foundation on which the act can be supported, shall vitiate it. The case cited from Plowden differs essentially from this case. The act of parliament in that case gave effect to a supposed legal attainder, and proceeded upon it altogether: if the ground-work fell and there was no legal attainder, nothing remained; the supposed attainder in that case fell, consequently all fell. Now the difference between that case and the present is this, here the true patent meant to be described exists, and may therefore be a ground work to support the act. This case was compared to the case of the king being deceived in his grant, but I am not satisfied that the king, proceeding by and with the advice of parliament, is in that situation, in respect of which he is under the special protection of the law, and that he could on that ground be considered as deceived in his grant; no case was cited to prove that position. The objection on the act of parliament is of the same nature as one of the objections to the specification; the specification calls a method of lessening the consumption of steam in fire-engines a principle, which it is not; the act calls it an engine, which perhaps also it is not; but both the specification and statute are referable to the same thing, and when they are taken with their correlative are perfectly intelligible. Upon the wider ground I am therefore of opinion that the act has continued this patent. A narrower ground was taken in

the argument, which was to expound the word engine in the body of this act, in opposition to the title of it, to mean a method; and I am ready to say, I would resort to that ground, if necessary, in order to support the patent, *ut res magis valeat quam pereat.* But it is not necessary: for let it be remembered, that though monopolies in the eye of the law are odious, the consideration of the privilege created by this patent is meritorious, because, to use the words of Lord Coke, "the inventor bringeth to, and for the commonwealth, a new manufacture by his invention, costs, and charges." I conclude, therefore, that the judgment of the court ought to be for the plaintiff.

The court being thus equally divided, no judgment was given.

This question came afterwards to be decided in the court of King's Bench, in the case of Hornblower v. Boulton, (hereafter given) which went thither by error from the court of Common Pleas.

IN THE COURT OF KING'S BENCH.

Cameron v. *Gray.*

13 June, 1795.

MR. GASELEE moved to change the venue in this action, which was for infringing the plaintiff's patent, from Middlesex to Northumberland, upon

the common affidavit that the cause of action arose in the latter county.

Lord Kenyon.—The plaintiff cannot make the proper and necessary affidavit, that the cause of action arose wholly in Northumberland, and not elsewhere, when it is manifest, that the substratum of the action, namely, the patent, is at Westminster.

Rule refused.

IN THE COURT OF KING'S BENCH.

Hornblower and Maberley, against *Boulton and Watt, in error.*

25 Jan. 1799.

This was an action on the case, brought in the court of Common Pleas, by the defendants in error, against the plaintiffs in error, for infringing a patent.

The declaration stated letters patent granted by the king, dated 5 Jan. 9 Geo. 3. in which, after reciting that Watt, one of the plaintiffs below, had invented "a method of lessening the consumption of steam and fuel in fire-engines," was granted to Watt, his executors, administrators, and assigns, the sole privilege of "making, using, exercising, and vending his said invention" for fourteen years, and by which letters patent, all

other persons were prohibited "using, or putting in practice the said invention, or counterfeiting, imitating, or resembling the same, or making any addition to, or subtraction from it, without the licence of Watt;" on condition, that Watt should enrol a specification of his invention in Chancery, within four months. It then stated, that on the 29th of April, in the same year, he did enrol a specification in Chancery*; averring, that such specification "particularly described and ascertained the nature of the said invention, and in what manner the same was to be performed." The declaration then set forth an act of parliament, 15 Geo. 3. extending the privilege to twenty-five years, with a proviso, "that every objection in law, competent against the said patent, should be competent against the said act, to all intents and purposes, except so far as related to the term thereby granted." It then stated, that on the 5th of September, 1777, Watt, by deed, assigned to Boulton (the other plaintiff below) two thirds of his interest under the patent and act of parliament, and then it alleged, that the defendants below, unlawfully and unjustly, and without the licence of the plaintiffs, constructed divers, to wit, ten fire-engines according to, and in and with a method of lessening the consumption of steam and fuel in such fire-engines, in imitation and resemblance of the method of lessening the consumption of steam and fuel in fire-engines,

* The specification is set out at length in the case Boulton and Watt v. Bull, p. 164, et seq.

so invented by Watt, and secured to him and his assigns.

The defendants below pleaded not guilty; and a general verdict having been found for the plaintiffs below, and judgment given for them by the court of Common Pleas, although the case was not argued in that court, the court having been equally divided in a former case, arising on this patent, (Vide Boulton and Watt v. Bull) the defendants brought a writ of error, and besides the general error, assigned for error, that the invention for which the letters patent were granted is not an invention of any formed or organized machine, instrument, or manufacture, but of mere principles only, for which no such letters patent could, by law, be granted.

This case was twice argued with great ability, the first time in Michaelmas Term, 1798, by Mr. Gaselee, for the plaintiffs in error, and Mr. Holroyd for the defendants, and now by king's serjeant Le Blanc for the former, and Mr. Rous for the latter. On behalf of the plaintiffs in error it was argued, first, that unless the patent could be established as for a formed machine, it could not be supported under the proviso of the statute 21 Jac. 1. 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; 3dly, that the specification did not contain a sufficient description of a machine; and, 4thly, that the patent was taken for the whole, when it ought to have been for an ad-

dition only: the addition alone appearing, in the specification, to be of the plaintiff's invention.

But the court gave judgment in favour of the plaintiffs in error.

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 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 Hardwicke 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.

Mr. Justice Ashhurst.—Every new invention is of importance to the wealth and convenience of the public; and when they are enjoying the fruits of an useful discovery, it would be hard on the inventor, to deprive him of his reward. In this case, the jury have found by their verdict, that all the allegations in the declaration were proved, one of which was, that the inventor had, by his specification, particularly described the nature of his invention, and the manner in which it was to be performed; and having thus complied with the terms of the patent, I think he is, in point of law,

as well as justice, entitled to the benefit which the patent and the act of parliament intended to confer on him.

Mr. Justice GROSE.—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. 1. c. 3. s. 6. under which the plaintiff, or any party, can alone claim the privilege of a monopoly. The power thereby reserved to the king is, "that any declaration before mentioned shall not extend to any letters patents and grants of privilege, for the term of fourteen years or under, thereafter to be made, of the sole working or making of any manner of new manufactures within this realm, to the true and first 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 com-

modities 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?

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 same was to be performed, by an instrument in writing under his hand and seal, and to cause the same to be enrolled in 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 it, 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. Upon some of the questions there seems to be no doubt: there is no doubt on this record, coupled with the finding of the jury, that the patentee was the inventor of that which is stated in the declaration to be (by whatever name it may be called) an in-

vention, method, principle, or manufacture. Neither is it contended, that the subject of the patent is mischievous to the state, hurtful to trade, or generally inconvenient. On the contrary, every man's experience, as far as report goes, tells him that the invention has infinite merit, is for very many purposes highly beneficial to the public, and is in great request. As to the specification, I shall content myself with repeating what was said by one of the learned judges of the Court of Common Pleas, that if the specification be such as to enable artists to adopt the invention and make the manufacture, it is sufficient. It is averred in the declaration that the patentee did in pursuance of the proviso particularly describe and ascertain the nature of the invention, and in what manner the same was to be performed, by an instrument in writing under his hand and seal inrolled in the Court of Chancery; that fact was necessary to be proved to intitle the plaintiffs to a verdict, and by the verdict which they obtained, I consider that fact as ascertained and concluded in their favour.

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 statute, 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 those expressly mentioned. But, as I said before, this is not material for me to determine, inasmuch as it seems to me, upon the best consideration, that this is not a patent for a mere principle, but for the working and making of a new manufacture within the words and meaning of the statute. I have been led to adopt this opinion by considering the words and description of the invention in the patent, as referring to, and explained by, the specification, and the specification itself as part of the patent. The ground on which I have felt myself at liberty to do so is this. The benefit to the public is from the specification disclosing to

the world how others may make and use the same manufacture; without the specification the public have not that information; and by the condition of the letters patent, without the specification the patentee is not entitled to his monopoly. It being provided therefore by the patent that there must be a specification, and there being necessarily one in consequence of that proviso, I consider the patent and specification so connected together as to make a part of each other, and that to learn what the patent is, I may read the specification and consider it as incorporated with the patent. Now the patent recites that Mr. Watt had invented a method of lessening the consumption of steam and fuel in fire-engines; it grants to him the sole use and exercise of that invention, upon condition he would disclose the nature of the invention, and in what manner the same was to be performed by an instrument enrolled. He does so, and that instrument describes the principles of the method, and the method by which those principles are to be carried into effect. The method is founded on the principles of keeping the steam vessel the whole time the engine is at work as hot as the steam that enters it: this is to be done by the manufacture of a case of wood, or some other material that transmits heat slowly, and by surrounding it with steam or other heated bodies, and suffering neither water nor 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 rotary motions or motions round an axis are required, namely, with weights and valves; and directs how in such case the steam vessel shall be supplied with steam, and how that which has done its office shall be discharged. And he also states a method by which the engine may be worked by the alternate expansion and contraction of the steam. This method, however, if not effected or accompanied by a manufacture, I should hardly consider as within the statute of James. But it seems to me that in this specification he does describe a new manufacture, by which his principle is realized, that is, by which his steam vessel is kept as hot as the steam during the time the engine is at work, by which means the consumption of steam and fuel is lessened. Thus he specifies the particular parts requisite to produce the effect intended, and states the manner how they are to be applied. He describes the case of wood in which the steam vessel is to be inclosed, the engines that are to be worked wholly or partially by condensation of steam, the vessels that he denominates condensers, and the steam vessel 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 is to be the lessening of the consumption of steam and fuel by keeping the steam vessel of one uniform heat with the steam so long as the engine is worked.

Taking it however as a patent for an engine, it is objected that the thing was 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 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.

The statute 15 Geo. III. I observe, secures to the patentee the privilege of constructing and selling the engines in words; on which account it has been objected that it falsely recites the patent, and therefore cannot operate in support of it; but the statute must have a reasonable construction, to support rather than defeat the intention of the legislature and their grant; and by attending to every part of the statute, it is obvious that the engines secured to the patentee are such as are improved in the manner stated in the specification, and not the original fire-engines. For the statute reciting the patent, recites it as a grant of the benefit and advantage of making and vending "certain engines by him invented for lessening the consumption of steam and fuel in fire-engines." Now those were not the original fire-engines but the improved ones, and those that were so improved were the only ones invented for lessening the consumption of steam and fuel in fire-engines; which shews that the legislature considered the patent as a patent for the improvement of the engine described in the specification, and not as a patent for a mere method or for the original fire-engine. The subject is new to me, not affecting to be a mechanic, and I have had great difficulties in making up my mind upon it. I am inclined, however, to think that a patent cannot be granted for a mere principle; but I think that although, in words, the

privilege granted is to exercise a method of making or doing any thing, yet if that thing is to be made or done by a manufacture, and the mode of making that manufacture is described, it then becomes in effect (by whatever name it may be called) not a patent for a mere principle, but for a manufacture, for the thing so made, and not merely for the principle upon which it is made. Where then is the mischief to the public, or how in this case is the intention of the legislature defeated? They intended, that after fourteen years, the public should, from the specification, be in possession of the manufacture and the art of making it, and that for those fourteen years the patentee should have the monopoly of it as his reward. The patent is nothing without the specification, and the patentee can gain no advantage by it. It is also useless unless the specification be such from which the public may gain information; therefore, whether the patent call the manufacture by its name, or style it an invention, a mode, a method, or any other manner, it signifies nothing, for the specification describing the thing as required by the patent must be resorted to, and may fairly be deemed a part of the patent itself. If that be so, I read this patent, and find that it is for a method to be pursued according to the directions of the specification, and looking to the specification, I see that by pursuing the method pointed out, a manufacture is produced by the ingenuity of the inventor, and of which the public are to have the benefit. Then the intention of the legislature is fulfilled; the public enjoy the fruits of the author's inge-

nuity, and the author gets the monopoly for a certain term. It signifies nothing to either, whether the patent be for the engine so made; or for the method of making it, if that method be sufficiently described in the specification. Upon these grounds, with that deference which I ought to feel upon a subject with which I do not profess myself to be much conversant, my opinion is, that the judgment of the Court of Common Pleas ought to be affirmed.

Mr. Justice LAURENCE.—Two objections have been made by the plaintiffs in error; first, that this is not an invention for any formed or organized machine, instrument, or manufacture, but of mere principles only: secondly, that the specification is bad. As to the first, the claim of the plaintiffs below is founded on the proviso in the statute of James, which allows the crown to grant patents in favour of new manufactures, and therefore it must rest on the ground of Watt's having invented some new manufacture. If it were necessary to consider, whether or not mere abstract principles are the subject of a patent. I should feel 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 performing several operations in the most convenient order: but it may signify 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. 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 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 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: whe-

ther 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.

Judgment affirmed.

IN THE COURT OF COMMON PLEAS.

John and Charles Cartwright v. *Amatt and another.*

S. C. 2 Bos & Pul. 43.

18th November, 1799.

THIS was an action on the case for the infringement of a patent. The declaration, after stating the grant of letters patent to one Edmund Cartwright, the inrolment of the specification, &c. proceeded to aver, that the said Edmund Cartwright, afterwards and before the committing the grievances after mentioned, by a certain indenture made between the said Edmund Cartwright of the first part, the plaintiffs of the second part, and certain other persons therein mentioned and referred to of the third and fourth parts, did, for the considerations therein mentioned, assign and set over unto the plaintiffs, *their* executors, &c. the before mentioned letters patent, saving, excepting and reserving unto the said Edmund Cartwright, his executors and administrators, until the final determination and conclusion of a certain suit then depending, and now long since ended and con-

cluded, such of the said letters patent as should be necessary to be given in evidence for the support of the said suit, and the legal right and interest of the said Edmund Cartwright in and to the same.

The cause came on to be tried before Mr. Justice Rooke, at Guildhall sittings, after Trinity term, 1799, when the deed of assignment being produced in evidence, it appeared from the recital, that as there was a suit depending between Edmund Cartwright plaintiff, and William Toplis defendant, respecting an infringement of certain letters patent, and until such suit had been legally tried, the legal right or property of the said Edmund Cartwright in such letters patent as related to the inventions of combing wool and similar articles, (which were the letters patent in question), could not, it was apprehended, be fully assigned or made over by him to the plaintiffs without hazard of defeating the said suit; it was agreed that in the mean time, and until such suit was determined, Edmund Cartwright should continue legal owner of the patents, in trust for the plaintiffs, in whose custody they were to remain, and who were to have all the benefit arising from them. Then followed an absolute grant of the said letters patent together with others to the plaintiffs, with the following exception: "Save and except nevertheless, and out of these presents reserving unto the said Edmund Cartwright until the final determination or conclusion of the suit or action now depending between him the said Edmund Cartwright, and the said William

Toplis, all such of the said herein before mentioned patents as are or shall be necessary to be given in evidence for the support of the said suit or action, and the legal right or interest of the said Edmund Cartwright in and to the same, upon the trusts, &c." After the trusts was inserted this covenant for further and better assigning the letters patent, "that when and so soon as the said suit or action now depending between the said Edmund Cartwright and the said William Toplis shall have been finally determined, he the said Edmund Cartwright shall forthwith thereafter well and effectually grant, assign, and make over to the plaintiffs upon the trusts, &c. the said herein before excepted grants or letters patent, touching or relating to the said inventions, and every or any other matters in contest, for which the same were reserved out of these presents and the specifications thereof, and all his legal and other estate and interest therein; and that in the mean time, and until such last mentioned assignment thereof shall be made and executed, he the said Edmund Cartwright shall and will stand legally possessed of and interested in the same reserved grants or letters patent for the behoof of them the plaintiffs, their executors, &c. subject to the same trusts, &c." It was objected on the part of the defendants, that as no assignment had taken place subsequent to the determination of the depending suit, the legal interest not being vested in the plaintiffs by the deed produced, still remained in Edmund Cartwright, and therefore the plaintiffs could not recover.

The learned judge, being of that opinion, directed a nonsuit.

Mr. Serjeant Runnington, on a former day, moved to set aside this nonsuit, and contended that it was the manifest intention of the parties that the whole legal interest should pass to the plaintiffs as soon as the suit which was depending should be determined; and that the last covenant, which was only inserted *pro majori cautelâ*, ought not to be allowed to defeat that intention: a rule *nisi* was accordingly granted.

On this day Mr. Serjeant Shepherd and Mr. Serjeant Lens were to have shewn cause against that rule; but

Mr. Justice ROOKE said that on a further consideration of the effect of the deed than was given to it at *nisi prius*, he was convinced that the legal interest vested in the plaintiffs immediately on the determination of the suit that was depending at the time when the indenture was executed.

The rest of the court expressed themselves to be clearly of the same opinion.

Rule made absolute without argument.

IN THE COURT OF COMMON PLEAS.

Hesse v. *Stevenson.*

S.C. 3 Bos & Pul. 565. 4 Bos & Pul. 133.

Michaelmas Term, 1803.

THIS was an action of covenant, tried before Lord Alvanley, Chief Justice, at the sittings after Easter Term, 1803. The declaration stated, that by deed-poll made by the defendant, 5 Jan. 1802, reciting, that certain letters patent had been granted by his majesty, to Matthias Koops, dated the 17th of February, and the 18th of May, 1801, granting unto the said Koops, his executors, administrators, and assigns, the sole privilege of making paper from straw, hay, thistles, waste and refuse of hemp and flax, and different kinds of wood and bark, for the terms of fourteen years, and fourteen years from the respective dates of the letters patent, and for the places in the said letters patent mentioned; also reciting, that Koops, by deed of assignment, dated the 26th of February, 1801, assigned certain shares of the said letters patent unto James Stevenson, (the defendant) John Forbes, John Hunter, and William Tate, their executors, administrators, and assigns; and also reciting, that by an act of parliament, 41 Geo. 3, it was (amongst other things) enacted, that it should and might be lawful, to and for the said Koops, his executors, administrators,

and assigns, or any or either of them, to transfer or assign the said letters patent respectively, or either of them, or any part or share, parts or shares thereof, or any benefit or advantage to arise therefrom, to any number of persons, not exceeding sixty; and also reciting, that the said Stevenson had agreed to sell and dispose of ten thousandth-parts or shares of and in the said letters patent to the plaintiff, in consideration of £1800; and that the said James Stevenson assigned the same accordingly. The said James Stevenson did, by the said deed-poll, covenant, promise, and agree to and with the said Obadiah Legrew Hesse, his executors, administrators, and assigns, that he, the said James Stevenson, had good right, full power, and absolute and lawful authority, to assign and convey the said ten thousandth-parts or shares of and in the said letters patent, and concern for making paper from straw and other base materials; and then the plaintiff assigned by way of breach, that the said James Stevenson had not good right, full power, or absolute or lawful authority, to assign and convey the said ten thousandth-parts or shares of and in the said letters patent and concern, according to the tenor and effect, intent and meaning, of the said deed-poll. The defendant, by his plea, craved oyer of the deed, and the covenant was stated in these words: "That I, the said James Stevenson, have good right, full power, and absolute and lawful authority, to assign and convey the said ten thousandth-parts or shares of and in the said letters patent, and concern for making paper,

&c.; and that I have not, by any means directly or indirectly, forfeited any right or authority I ever had, or might have had, over the said ten thousandth-parts or shares." And then the defendant pleaded, that he had good right, full power, and absolute and lawful authority, to assign and convey the said ten thousandth-parts or shares of and in the said letters patent and concern, according to the tenor, effect, intent and meaning of the said deed-poll, and of the covenant of the said James Stevenson, in that behalf made as aforesaid; upon which issue was joined. The jury found a verdict for the plaintiff for £1800, subject to the opinion of the court upon the following case.

On the 30th June, 1790, a commission of bankrupt issued against the said Koops, whereupon he was duly declared a bankrupt, and William Chapman, and Thomas Hill, were chosen assignees under the same; and from that time to this, the said Koops hath not obtained his certificate. On the 17th of February, and the 18th of May, 1801, the said Koops obtained his majesty's letters patent, as stated in the declaration. An act of parliament passed in the forty-first year of his present majesty, recited in the deed and in the declaration, enabling the said Koops, his executors, administrators, and assigns, to assign the benefit of the said invention, to any number of persons, not exceeding sixty; which act is declared to be a public act. On the 9th of September, 1801, the creditors of the said Koops executed a deed, which, after reciting the commission of bankrupt, and the

several proceedings had under the same, and that the said Koops had, by advertisement in the London gazette, called a meeting of his creditors on the 12th of June, at which he proposed to pay all his creditors who had proved their debts under the said commission, as much as then remained due to them, namely, five shillings in the pound within one month, and the remainder by three instalments, to be secured by the said Koops in such manner as his said assignees should think proper; but that such instalments of the foreign debts should be deposited in the hands of bankers, to be approved of by the said assignees, or paid into the court of Chancery, to abide the event of an application to that court, to be made within twelve months; and that the said Koops should indemnify the assignees against all the costs of such application, and the carrying the agreement after mentioned into effect. And that thereupon, by a memorandum in writing, signed by the creditors of the said Koops, parties thereto, dated the said 12th of June, 1801, after reciting the said proposal, it was unanimously agreed by the said creditors, that the said proposal should be acceded to, and that the assignees should take such measures as might be necessary, to carry the same into effect; and that, on receipt of the first instalment, and such security being given for the payment of such respective debts, and depositing the first dividends of the foreign debts by the said Koops, the said several creditors did thereby undertake, so far as concerned themselves respectively, to execute good and sufficient releases in

the law to the said Koops, and to give him such assistance in superseding the commission of bankrupt, as the said assignees should think proper; and further reciting, that the said Koops had, in pursuance of the aforesaid agreement, paid to the assignees, and such other of the said several creditors of the said Koops, parties thereto, as were resident in England, five shillings in the pound, upon the amount of their respective debts proved; and that on the day of the date of the said deed he paid into the banking-house of Baron Dimsdale, and Co., to the account of the assignees, five shillings in the pound on the foreign debts; and also, that in pursuance thereof, the said Koops had given to the assignees a warrant of attorney for £20,000, to secure the remaining fifteen shillings in the pound. It was witnessed, that in consideration of the premises, the said Koops did undertake to pay to the said William Chapman and Thomas Hill, their executors, administrators, or assigns, the remaining fifteen shillings in the pound, in trust to pay themselves and the rest of the creditors, parties thereto, resident within the kingdom, the remaining fifteen shillings in the pound on their respective debts, by three instalments; and also to pay into the said banking-house in the name of the assignees, the remaining fifteen shillings in the pound upon the foreign debts; and in case of any surplus after payment of such debts, with all costs and expenses, to pay the same to the said Koops, his executors, administrators, or otherwise, as he or they should direct; and it was further witnessed, that in pur-

suance of the said agreement, and in consideration of the premises, they, the said Chapman and Hill, and the several other creditors of the said Koops, parties thereto, did remise, release, and quit claim unto the said Koops, his heirs, executors, and administrators, all actions, suits, claims, and demands whatsoever, which they, or any, or either of them then had, or hath or thereafter should or might have, challenge, claim, or demand, against the said Koops, his heirs, executors, administrators, or his or their estate or effects, on account of the debts to them, or any or either of them, due and owing from the said Koops, or of any other cause, matter, or thing whatsoever, save and except such actions, suits, claims, or demands, as might arise under or by virtue of the said deed, or of the said bond or judgment therein before recited; and further, that until default in payment of the instalments, the said Chapman and Hill should not take out execution on the said judgment, or proceed on the said bond, or otherwise molest the said Koops; and that upon payment of the said instalments, satisfaction should be acknowledged on the roll. Three of the creditors of the said Koops who had proved debts under his commission to the amount of about £600, never executed such deed. The said Koops paid the first instalment; but failing to pay the subsequent instalments, he lodged certain securities in the hands of the solicitor to the assignees, amounting to £1690. 11*s.* 6*d.*, the produce of which has since been received by the assignees, for the benefit of the creditors. He also lodged certain

securities from Mr. Richard Twiss, in the same hands, to the amount of £3500, which have since been proved by the said assignees, under a commission of bankrupt against the said Twiss, and the remainder of the said fifteen shillings in the pound not having been satisfied by the said Koops, the said Chapman and Hill entered up judgment against the said Koops on the warrant of attorney given by him on the 31st of March, 1802; and, on the 14th of October following, issued a *fi. fa.* thereon, against the effects of the said Koops, and entered his dwelling-house, sold his furniture and other effects therein, amounting to a considerable sum of money; and also entered upon the premises where the manufactory under the said letters patent and act of parliament were carried on, and took possession of the same, and the effects therein under the said execution, and still continue to keep possession thereof.

The question was, whether the plaintiff was entitled to recover? if so, the verdict to stand, if not, to be entered for the defendant.

Mr. Serjeant Onslow, for the defendant, was called upon by the court, and argued to the following purport: First, upon the fair construction of the covenant, upon which the plaintiff has declared, he cannot recover, unless he shew, by way of breach, that the defendant has, by some act of his own, impeached that title which he conveyed to the plaintiff. Secondly, supposing the conveyance from the defendant to have been imperfect, still the assignees, by their conduct, have precluded themselves from disputing the title

which the defendant conveyed to the plaintiff. Thirdly, the interest of Koops in the patent did not pass under the assignment of the commissioners of bankrupt. Lastly, the act of parliament stated in the case, enabled the plaintiff to convey a good title. First, the words of the covenant are, that the defendant has good right, full power, and absolute and lawful authority to assign and convey, but they are followed by the qualification, that he has not done any thing to forfeit his right. This qualification must be construed to control the whole covenant; nor will the arrangement of the words vary that construction. The doctrine laid down in Browning v. Wright, 2 Bos. and Pul. 13, is peculiarly applicable to the present case. In that case, Lord Eldon, after stating that covenants against the acts of all mankind are, in general, only required in conveyances of leasehold property, observes, "what would be the use of any of the other covenants, if the covenant relied on were general? It would be of little service to the grantor to insist that the warranty and the covenants for quiet enjoyment and further assurance were specially confined to himself and his heirs, if the grantee were at liberty to say, I cannot sue you on those covenants, but I have a cause of action arising on a general covenant, that supersedes them all." In support of his reasoning upon this point, his Lordship refers to the case of Fielder v. Studley, Finch 90. On the authority of this case I contend, that the defendant's covenant is confined to the impeachment of his title, by some act of his own. Both in deeds and wills,

the court is to look to the real intent of the parties. Various cases were then cited in confirmation of this position.

Upon the second ground of defence, the learned Serjeant then cited three cases to shew, that, unless the assignees disaffirm the title of an uncertificated bankrupt, he may dispose of the property acquired by him, subsequent to the bankruptcy. Besides, the assignees have, by their own express acts, precluded themselves from disputing the title of the bankrupt; for, at a public meeting of the creditors, summoned by advertisement in the gazette, they entered into a composition with Koops, the terms of which have been complied with by him: and in consideration of which, the assignees, together with the creditors at that meeting, released to Koops all actions, suits, claims, and demands whatsoever. Shall the assignees, after reaping the benefit of the composition entered into with Koops, now, or at any future time, be at liberty to disaffirm his title to that property which he conveyed to the defendant, and the defendant to the plaintiff? The assignees have the power of compounding a debt if they think proper, and such composition will be good against the creditors, though the conduct of the assignees may be impeached before the Lord Chancellor. Supposing the deed of composition not to be legally binding upon the assignees, because some of the creditors did not assent, yet inasmuch as it has been carried into effect, it may operate in a court of equity, and may induce such court to injoin the assignees from doing any act by which

the title of the bankrupt may be disaffirmed. If so, the defendant's title is not radically bad: for the defendant can never be evicted, and, consequently, can have no right to complain of a breach of covenant. Thirdly, the right to the invention being a mere metaphysical right, did not pass to the assignees under the commission. It was nothing but a right to exercise a particular invention. Now, the case of Chippendale v. Tomlinson clearly shews, that the assignees have no power to let out either the person or the talents of the bankrupt. Could not Koops have applied to monied men, and obtained to exercise this invention as their servant? and could the assignees in such case have claimed the fruits of his ingenuity? [Mr. Justice Chambre observed, that "the right to the patent is made assignable," and asked, "why then may it not be assigned under a commission of bankrupt?"] The right of assignment contemplated in the grant was a voluntary assignment, whereas the assignment under a commission is compulsory. Lastly, the assignment from Koops to the defendant, and consequently that of the defendant to the plaintiff, is authorised by the act of parliament stated in the case. The object of that act was to enable Koops to convey, and therefore necessarily establishes all conveyances made by him. In the deed by which Koops previously to the passing of the act of parliament assigned to the defendant, it is true that no mention was made of the bankruptcy of Koops; but the act of parliament, subsequent to that deed, having enabled the assigns of Koops to assign

over to others, is a legislative acknowledgment of the defendant's right to execute a good conveyance to such persons as he should think fit.

Mr. Serjeant Bayley for the plaintiff.—The cases cited respecting covenants do not apply to this case, in which the general covenant relied upon is of a different nature from the particular covenants in the same deed, and is independent of them. In the case of Browning v. Wright, the covenants were preceded by these introductory words, "for and notwithstanding any thing by him done to the contrary," which words were applicable as well to the covenant in dispute, as to that which preceded it. The learned Serjeant then proceeded to combat the remaining cases cited on the other side, and remarked, that in order to bring this case within the authority of those decisions, it must be made out, that the covenant now sued upon is inconsistent with the other covenants in the same deed. If, in fact, that deed had contained any other covenants inconsistent with the general covenant for title, the defendant would have set them out upon oyer, and have thus brought them before the court. The latter part of the covenant set out, by which the defendant declares that he has not forfeited his right, may, perhaps, have been unnecessary, after the former general stipulation, that he had good right to convey; but though unnecessary, it is not contradictory to the former part. It has also been urged upon the authority of La Roche v. Wakeman, that Koops had good title to convey, notwithstanding his bankruptcy; but that case only proves, that

an uncertificated bankrupt has a good title against a wrong-doer. In the case of Evans v. Martin, it was determined, that the assignees of a bankrupt may maintain an action for the value of goods acquired by an uncertificated bankrupt subsequent to his bankruptcy, and sold by him, without naming themselves assignees; Lord Mansfield observing, that the property of the goods was in the assignees, and that the sale by the bankrupt was a contract by him as their agent, and on their account. So, in this case, though the assignees suffered Koops to carry on the patent, they might have taken it to themselves. Other cases were then cited, which proceeded upon the same principle as that of La Roche v. Wakeman, admitting the right of the assignees to interfere, but allowing the bankrupt himself to maintain an action until such interference should take place. If the instrument executed in this case by the assignees is to be considered as an assignment to Koops, it was an assignment upon terms which have not been complied with; for he contracted to pay the remainder of the debts, which he had not done. With respect to the objection that the patent did not pass under the assignment, it is sufficient to observe, that all property, both real and personal, and choses in action belonging to a bankrupt, pass to the assignees. If the patent in question be devisable and assignable by the bankrupt, as it undoubtedly is, why may it not pass under the assignment executed by the commissioners to the assignees? Lastly, the act of parliament stated in the case gave no authority to the defendant to

assign, which he had not before the passing of that act, except as to the number of persons to whom he was permitted to assign. That act was passed *diverso intuitu;* the legislature not having in contemplation the question, whether the property belonged to the assignees or not, but only regarding the expediency of allowing the patent right to be divided into a greater number of shares. This appears from the preamble, which recites the very difficulty which the legislature intended to obviate.

After the argument the court took some time to consider the case, and on the last day of the term the opinion of the court was delivered by

Lord ALVANLEY, Chief Justice.—The question, in this case, arises upon a deed-poll, dated Jan. 5, 1802, by which the defendant gives and grants to the plaintiff a share in his patent-right. The deed is not stated at length upon the record, but we consider the case as if the whole deed were now before us, because the covenants contained in that deed, which are not set forth, are not at variance with the covenant upon which the breach is assigned. The covenant upon which the question immediately arises is, that the defendant had good right, full power, and absolute and lawful authority to convey; and that he had not by any means directly or indirectly forfeited any right or authority he ever had, or might have had, over the property in question. This action arises upon the first part of the covenant, and the breach assigned is, that the defendant had not good right, full power, and absolute and lawful authority to

convey. We are called upon to decide upon the true construction of this covenant. It has been contended upon the authority chiefly of Browning v. Wright, that this does not amount to an absolute covenant for good title, but must be confined to the acts of the party himself. We have looked with great attention into that case; and after the very able manner in which the principles which govern the construction of covenants were then laid down by Lord Eldon and the other judges, it is unnecessary for me to enter at any length into the subject. Almost every case which bears upon the point is there cited; and, indeed, I find more of them there stated than I expected, for I did not think that the courts had formerly been so liberal in the construction of covenants, as it appears that they have been. I have examined all these cases, but I do not think it necessary to state them; for we not only agree with the principles laid down in Browning v. Wright, but we think that the case might have been decided as it was upon the very words of the covenant, which was restrained to the acts of the party himself by the introductory words "notwithstanding any thing by him done to the contrary;" and so Lord Eldon thought, though he adds, that if such were not the construction of the covenant itself, yet being coupled with the other covenant which was so restrained, it must be construed in the same manner. The defendant having covenanted that "for and notwithstanding any thing by him done to the contrary," he was seised in fee, and that he had good right to convey, the latter part of the

covenant, coupled as it was with the former part by the words "and that," must necessarily be overridden by the introductory words "for and notwithstanding any thing by him done to the contrary;" and this appears to have been the opinion of the whole court. But taking the latter covenant not to be restrained in terms, they proceeded to consider the rules by which covenants of this description are to be construed. From all the cases upon this subject, it appears to be determined, that however general the words of a covenant may be if standing alone, yet if from other covenants in the same deed it is plainly and irresistibly to be inferred that the party could not have intended to use the words in the general sense which they import, the court will limit the operation of the general words. The question therefore always has been, whether such an irresistible inference does arise? For if such an inference does arise from concomitant covenants, they will control the general words of an independent covenant in the same deed. In Lord Eldon's judgment one case is mentioned which I think deserves some notice, because his lordship seemed to suppose that the judgment of the court proceeded upon the mere legal construction of the deed, without regard to any circumstances *dehors* the deed. The case to which I allude is Fielder *v.* Studley, which appears to me to be an extremely strong case in favour of the present plaintiff, if the general covenant which was restrained by the other special covenants be considered as an independent covenant. Lord Eldon

observes, that the court must have proceeded "on the ground of the intent of the parties appearing on the instrument; since that intent, and the consequent legal effect of the instrument, could only be collected from the instrument *itself*, and not from any thing *dehors*." It must be remembered, however, that the application there was made to the Court of Chancery upon equitable as well as legal grounds; for, on looking into the case, I find that the defendant's father, in 1657, had sold lands belonging to the dean and chapter of Sarum, which had been dissolved during the commonwealth. It was not very likely, therefore, that a party selling under these circumstances would covenant for any thing more than his own acts. It appearing that the general covenant was manifestly contrary to the true intent of the parties, application was made to the Court of Chancery to correct the mistake, in the same manner as applications are made to that court to correct mistakes in marriage articles where clauses are inserted contrary to the intent of the parties. The decision therefore did not merely proceed upon the construction of a legal instrument, but the circumstances intitled the party to have the covenant rectified, as having gone beyond the intention of the parties. But supposing that case to have been decided as a question at law, the question here is, whether the principle I have here stated, applied to this case, requires the court to restrain the general words of the covenant sued upon? If the inference be irresistible that the

parties could not intend to make a general covenant, we are bound to give the defendant the benefit of that inference. The property assigned is a share in a patent-right; and it could not be unknown to the defendant, that Koops, the original proprietor, had been a bankrupt, though possibly the plaintiff might be ignorant of that circumstance. I have looked anxiously through all the concomitant covenants, in order to ascertain whether they afforded any inference of an intention to restrain the covenant in question, but I find none. The deed, after reciting the manner in which the property came to Koops ten years before, and the assignment to Stevenson, contains a conveyance of his interest to the plaintiff; and then follows the warranty in question, which, instead of being framed in the usual and almost daily words, where parties intend to be bound by their own acts only, viz. "for and notwithstanding any act by him done to the contrary," omits them altogether; besides which, the defendant covenants that the assignee shall enjoy the property assigned in as ample a manner as the assignor. The omission of these words is almost of itself decisive. The attention of the purchaser is not called by any words to the intent of the vendor to confine his covenant to his own acts. The covenant that the defendant has paid all the calls is certainly personal; but the covenant for title is general: and the court ought not to indulge parties in leaving out words which are ordinarily introduced, and by which the real meaning of the

parties might be plainly understood. The argument on the part of the defendant arises from the latter part of the covenant in question. If the party meant to covenant for an absolute right to convey, why, it is asked, does he covenant that he has not forfeited such right? To this it may be answered, that the latter stipulation, though unnecessary, is not inconsistent with the former. The rule of construction adopted in Browning *v.* Wright has never been carried to such a length as to decide, that *because* some clauses are *introduced* into a deed which do not add to the security provided by other clauses, the security so provided is to be restrained. We are therefore of opinion, that the covenant for absolute right to convey is not restrained by the other parts of the deed. It is contended, however, that the defendant has conveyed a good title to the plaintiff; and, first, it is said, that admitting the interest in the patent-right to have passed under the assignment of the commissioners, yet the assignees have reconveyed to the bankrupt the whole of their interest therein by the deed of the 9th September 1801. It must be remembered, however, that nothing short of an actual conveyance by the assignees can sustain that argument, and that a mere release will not be sufficient; and it was therefore insisted that the deed amounted to a conveyance. But I have no hesitation in saying, that the deed alluded to was neither intended to convey, nor did it operate in law as a conveyance. By that deed the two persons who were the assignees of Koops, together

with his several other creditors parties thereto, in consideration of his having agreed to pay them 15s. in the pound, and to secure the debts of the foreign creditors after the same rate, did remise, release, and quit claim to him, all actions, suits, claims, and demands whatsoever: But it is to be observed that the persons who were assignees did not convey as such. Indeed, if they acted as assignees, why was it necessary that the other creditors should join? And they do not pretend to bind the other creditors who were not parties to the deed. This is the deed which is said to convey to Koops, as a purchaser, all the interest of the assignees, and to make him a new man. But the words are not sufficient for that purpose; it could not have been the intention of the parties. The assignees do not affect to convey for any persons not parties to the deed; and the instalments have not been paid according to the agreement. We are therefore clearly of opinion, that it is impossible to construe this deed to be such a conveyance as has been contended for on the part of the defendant. With respect to the supposed power of the assignees to make such a compromise with the bankrupt as that stated in the case, and the attempt to shew that it amounts to a sale of the property to him; it was not competent to assignees to make such compromise, unless the other creditors had consented; nor could the transaction be deemed a sale under the usual powers. Next it is contended that the nature of the property in this patent was such that it did not pass under the

assignment; and several cases were cited in support of this proposition. It is said, that although by the assignment every right and interest, and every right of action, as well as right of possession and possibility of interest, is taken out of the bankrupt, and vested in the assignees, yet that the fruits of a man's own invention do not pass. It is true that the schemes which a man may have in his own head before he obtains his certificate, or the fruits which he may make of such schemes, do not pass, nor could the assignees require him to assign them over, provided he does not carry them into effect until after he has obtained his certificate. But if he avail himself of his knowledge and skill, and thereby acquire a beneficial interest, which may be the subject of assignment, I cannot frame to myself an argument why that interest should not pass in the same manner as any other property acquired by his personal industry. Can there be any doubt, that if a bankrupt acquire a large sum of money, and lay it out in land, that the assignees may claim it? They cannot, indeed, take the profits of his daily labour. He must live. But if he accumulate any large sum, it cannot be denied that the assignees are at liberty to demand it; though, until they do so, it does not lie in the mouth of strangers to defeat an action at his suit in respect of such property by setting up his bankruptcy. We are therefore clearly of opinion, that the interest in the letters patent was an interest of such a nature as to be the subject of assignment by the commissioners.

Lastly, it is contended that the act of parliament stated in the case vested a legal interest in Koops, for that he must be taken against all the world to have that interest which the act of parliament recites to be vested in him, that act being a public act. But though the act be public, it is of a private nature: the only object of the proviso for making it a public act is, that it may be judicially taken notice of, instead of being specially pleaded, and to save the expense of proving an attested copy. But it never has been held, that an act of a private nature derives any additional weight or authority from such a proviso; it only affects Koops, and those claiming under him, and authorises him to do certain acts which by the letters patent he could not have done. It recites the letters patent, containing a clause which prevents him from assigning to more than five persons, and then enables him to assign to any number of persons not exceeding sixty. It is not possible then to consider this act as giving any title to Koops, which he had not at the time when it passed. Such has been the construction which has always been put upon acts of parliament of this nature. We are therefore of opinion, that no aid is to be derived to the defendant from that act of parliament.

Judgment for the plaintiff.

IN THE COURT OF KING'S BENCH.

Huddart v. *Grimshaw.*

23d Dec. 1803.

THIS was an action brought by Captain Huddart against the defendant, to recover damages for the violation of a patent, dated 25th April, 33 Geo. III. for a new mode or art of making great cables, and other cordage, so as to attain a greater degree of strength therein, by a more equal distribution of the strain upon the yarns.

Mr. Erskine, after stating to the jury that this cause would require a great deal of their attention, it being important as it relates to the public, and most important indeed as it respects the ingenious individual who is the plaintiff in the cause, proceeded to describe the common method of rope-making, and its imperfections, and the advantages of this invention, describing its different parts, and then went on with the following observations. There are legal considerations which a court of justice must not overlook, and all these must be regulated according to the justice of the claims of individuals. Many persons have formed different ideas; and certainly the minds of different persons, and some of the learned judges, have been very different as to the advantage to the public in different ages since the statute which gives these monopolies; some have thought that patents ought to be favoured, some that they ought to be most strictly regulated. This is not

the discovery of a mechanic art; it is the method of doing a thing which is to be carried into effect by machinery. And I cannot help bringing to his lordship's recollection a very celebrated cause, which has occupied more attention than any other upon the subject of patents in the courts of Westminster hall; I mean the famous case of Boulton v. Bull, in which the court of Common Pleas were divided in opinion; but upon the cause coming by writ of error before the superior tribunal, in which my lord now presides, it was given in favour of the patentee. I never read any thing more clear, more distinct, or more perfectly applicable to the matter now in hand, than that part of the judgment of Lord Chief Justice Eyre, given in the court of Common Pleas, which I will read to you, because it overlays in distinctness every thing that I can say upon this most material part of the case. The judges of the Common Pleas were there considering Mr. Watt's patent, which was not for making a fire-engine, but for a method of saving the consumption of fuel in fire-engines, which could not be done in the mere abstract. You cannot save fuel in the working of a fire-engine by talking about it, or thinking about it. A method is an invention, it cannot be the abstract. The way by which that method is carried into effect may be partly new and partly old: you might be obliged to do it by wheels or levers, or by combination of all the mechanic powers, of which no man can have a monopoly. We are to understand to-day, that if a man bored a hole through a board to look at a pretty woman, it

would be an *infringement of the patent*. I do not mean to say that a man shall not bore holes through a brass plate, in concentric circles, for another purpose, but he shall not do it for this purpose: Lord Chief Justice Eyre says this. He illustrates the case then at the bar by the case of Mr. David Hartley's invention for securing buildings from fire. "The effect," says that noble judge, "produced by Mr. David Hartley's invention for securing buildings from fire, is no substance or composition of things, it is a mere negative quality, the absence of fire: this effect is produced by a new method of disposing iron plates in buildings. In the nature of things, the patent could not be for the effect produced. I think it could not be for the making of plates of iron, which, when disposed in a particular manner, produced that effect, for these are things in common use; but the invention consisting in the method of disposing those plates of iron so as to produce their effect, and that effect being a useful and meritorious one, the patent seems to have been very properly granted to him for his method of securing buildings from fire." [Lord Ellenborough. "I suppose it will not now be disputed that a new combination of old materials, so as to produce a new effect, may be the subject of a patent."] Exactly so, my lord. I am not aware that it is necessary for me to consume a greater portion of your time, but I wish you to understand, when you hear the specification read of bobbins and spindles, that we are not assuming to be the inventors of bobbins and spindles; but

the method is that which constitutes our specification. The legislature says we will protect you, but you must tell us how you make them: we will give the inventor a monopoly, but he must register upon the records of the Court of Chancery what his invention is; and though by that means others will have an opportunity of doing it, they must not till the expiration of the patent. The learned counsel then went on to state the invasion of the patent, and call his evidence; in which it was proved that the defendant suffered no person, not even his own clerk, to see his manufactory; but from the construction of the rope produced, it could only be made upon Huddart's plan.

Mr. Gibbs, on behalf of the defendant, contended that enough appeared upon the evidence, after he should have added to it the patent granted to Mr. Belfour, to destroy the case which the plaintiff would establish. The action was a bill of discovery against the defendant, in order that he might be obliged to discover to the plaintiff by what means he was able to render as good, if not better, cordage into the market at a cheaper rate. We do *not* make our rope in the way in which Mr. Belfour made his; we do not make it in the way in which Mr. Huddart has procured a patent for making his; we do not make it in a way to be found in any of the specifications; but we make it in a way which they shall not know, and which they want to know to enable them to meet us in the market; and they try to do it by bringing Mr. Rennie, who states, that before this

patent, no rope so good as this was made; proving, from an inspection of the rope, that ours very much resembles those that would be made under this patent; and desires you to infer from thence, that it is impossible for any other man to come to a useful invention but Captain Huddart; and that that must be presumed to be made according to Huddart's patent, which is made as good as Huddart's. That is a sort of evidence upon which, I believe, no verdict ever was obtained for a plaintiff before; but they say, this is evidence for you to infer the fact, unless the contrary be proved by the defendant. I will not go that way to work; I will attack Mr. Huddart at once: I will shew that he has no title to support his patent out of the mouth of his own witness, who did not endeavour to deceive. His lordship will tell you, that in point of law, when a man takes out a patent he must communicate to the public the way in which he does it, neither wider nor narrower than his invention; and not only the public must be able to make the thing by his specification, but his specification must not state that as a part of his invention which was not so; the specification describing the invention must be sufficient to enable any workman of skill to produce the workmanship for which the patent is taken out. In the next place, it must not contain in it, as a part of the invention, any thing that is not new, and which the patentee has no right to obtain a patent for. I shall have no difficulty in shewing that this patent cannot be supported for a moment, for it does most unquestionably go to many things

which it is not pretended were the invention of Captain Huddart. You have heard us both speak of a patent granted to Mr. Belfour, which I now, for the first time, hear Mr. Huddart has bought of Mr. Belfour; that Mr. Huddart's patent can-not stand with Mr. Belfour's, is as clear as the sun. It is impossible to say that Mr. Huddart's patent is not taken out for a part of that to which Mr. Belfour's patent applies. Mr. Belfour's is to improve the manufacture of ropes and cordage, by making every yarn employed in the composition thereof bear its proper and equal proportion of the stress; Mr. Huddart's is a new mode or art of making great cables, and other cordage, so as to attain a greater degree of strength therein, by a more equal distribution of the strain upon the yarns. Now it appears that the attaining a more equal distribution of the strain upon the yarns, and the making each yarn bear its equal and proper proportion of the stress, is precisely the same thing; therefore the object of the two patents is the same. Mr. Gibbs then proceeded to compare the different parts of the two inventions, contending that if Mr. Belfour's patent was bad, he loses the advantage of it; but that does not give any other person a right to get a patent for it at any other time. As soon as it is recorded, it becomes *publici juris*, and it remains the property of the public, when it is relieved of the clog of his monopoly. If Mr. Huddart has taken out his patent for that which was before *publici juris*, for that which was before known to the world, Mr. Huddart's patent cannot be supported, however

more useful a thing his may be than Mr. Belfour's. The question is, whether Mr. Huddart has not taken out his patent for that which was comprised in Mr. Belfour's patent before; and if it was, Mr. Huddart's patent cannot stand, though it were better than Mr. Belfour's, because it was taken out larger than it ought to have been. Mr. Huddart scorns to build his inventions upon the ideas of other men: a patent may be taken out for an improvement; for instance, supposing Mr. Huddart's patent to be a good one, and supposing he could support every claim that he makes to the monopoly of that patent, I might still take out a patent for any improvement that I could make to his manufacture. I must pay him first for the use of his patent: I cannot use that without his consent; but having got that, I may have a patent for an improvement; there is no doubt about it. So might Mr. Huddart have proceeded with respect to Mr. Belfour's invention. If Mr. Huddart's patent be good for any thing at all, it must be supported in all its parts or not at all. After again stating that the object of this action was merely to discover the defendant's method of manufacturing, which was done in a room and not in a rope walk, as was the case with the plaintiff's method, in order to find out how it was they vended such rope to government at such a price, which the learned counsel said was the reason he did not produce that evidence which he could otherwise produce, he produced Mr. Belfour's patent and specification, saying, "if Mr. Huddart's specification applies to any thing known

before, in point of law his patent falls to the ground, and the present action cannot be supported."

The substance of the reply was, that Mr. Huddart claimed his patent for a new mode or art of making great cables and other cordage, so as to attain a greater degree of strength therein, by a more equal distribution of the strain upon the yarns. Mr. Belfour claims his patent for a similar thing, but he does not accomplish that similar thing; and so far from accomplishing it, he does not attempt it. Mr. Belfour says, his patent is to improve the manufacture of ropes and cordage, by making every yarn employed in the composition thereof bear its proper and equal proportion of the stress. Has he accomplished it? Has he aimed at the accomplishment of it in the same mode that Mr. Huddart has aimed at the accomplishment of it? If a person proposes an object and an end, and if he wholly fails in that object and that end, or proposes to attain it by means altogether different from those which I employ, am I prevented from taking out another patent to accomplish that which he has professed to accomplish, but in which he has wholly failed, in consequence of using methods wholly inadequate; but by pursuing different objects and different methods for the accomplishment of it, I succeed in that in which he has totally failed, as appears from the two machines. Bobbins and spindles are no part of either invention; they were in common use before in every machinery for the manufacture of cotton or any thing that is drawn out in a continuous line, if it is not done

by hand. Every operation that can be performed by machinery, by the rotary motion of wheels having different axes and different revolutions, has been known for centuries in the mechanical world. It is said we have made our specification larger than our invention. If it is meant that we have introduced many things into the specification that we did not invent, I admit it; but if it is meant that we consider as a part of our invention, that which belonged to the public before, or took from another man that which he took from the public, I deny it. It is not meant to say that Mr. Huddart invented a spindle and a bobbin, &c. when he mentions them in his specification. But it is said, why did he not say what was not his invention; why did he not say, *nota bene*, a spindle and a bobbin I do not claim as my invention, and so on with the other parts. There must be bobbins and screws, and all those sort of things, where the subject matter is to draw off that which is to be the subject of manufacture: but it has nothing to do with rope-making, and never was one of the *desiderata* for that work. The only thing to be complained of, is, that we have not said, all the way we go along, *nota bene*, this is no part of our invention; but has it any thing to do with rope-making? Mr. Belfour puts bobbins and spindles into his patent: we certainly did not think that destroyed it, or we should not have bought it. Can it be said that Mr. Belfour's bobbins and spindles taking off the yarn could be an invention? Certainly not, because it was known to all mankind. It was not

one of the *desiderata* in rope-making, that when the yarns were stretched out in the rope-yard they should be of equal tension, because we all know you may make them of what tension you please: if it is necessary to have any given degree of tension, or an equal degree of tension, you can do it by a screw; but the imperfection of the ropes is this, that they are turned altogether: there was no way of making them occupy relative situations in the strand, so that the strand did not work together or strain together, and that the rope, taking all the infirmities of the strand, could not be depended upon. These defects are supplied by the ingenious contrivance of the plaintiff. The invention of the plaintiff consists in bringing the threads together in concentric circles; but that alone will not do, they would fall into confusion, and be riding upon one another's backs; but by the use of the tube, they were to be kept each in its particular station: the strand is formed in the hollow of the tube, and they must emerge from it before they can form into any regularity; and by that means a rope was exhibited, the contrivance of philosophy upon the principles of mechanism. This is the gentleman who now claims a verdict. Has Mr. Belfour's machine done any thing like it? When Mr. Belfour in his own mind first imaged the machine, did he contemplate the same thing? He says in his patent he did; but did the experiment prove it? Mr. Erskine then commented upon the parts of Mr. Belfour's machine, and upon specimens of the rope produced by each ma-

chine; contending from the comparison, that he had a right to say that Captain Huddart is the author of an important invention. Mr. Erskine did not deny his learned friend's principles, but the fallacy consists in the misapplication. He denied that those things considered to be part of Mr. Belfour's invention had any thing more to do with it than Mr. Hartley's iron plates had any thing to do with his method of preventing fire in buildings, because iron plates had been used before. You cannot state any machinery without stating a great deal of machinery that is known already. You must mention every thing that is necessary for a common workman to put up that basis of machinery, which is to be the primary motion by which the machine is to be set agoing. Suppose I have discovered any curious and complicated machine, and I may set it in motion by a wind-mill, a water-mill, or by steam, I say I have found out a method by which it is accomplished. Then how is it to be accomplished? Why, take a steam engine, the copper must be of a certain diameter, the tubes must be of a certain size; but would any man suppose I had invented a steam-engine? You must spread so much canvas, you must have so and so. These are common parts of mechanism, understood by every body. Am I to be supposed to be claiming that because it is a part of the thing, and is the moving power which creates the basis of the manufacture? Certainly not, all this belonged to the public before: any man, therefore, may use spindles and bobbins, and draw off from them whatever manufacture he may wish, when he

describes upon the face of the instrument in what his invention consists. The second point for consideration is, whether we have a right to a verdict against the defendant, who in the simplicity of his character* has made the defence you have heard; who comes to the house of the plaintiff in the year 1799; was received as a friend; had information, and perhaps ocular inspection of the plaintiff's machine; had a kind of half promise; claims that promise in a letter to Mr. Huddart; he expects he will give him leave to do—what? that which he now says he does; that he who has a mode so much better than the plaintiffs, that he had shut his doors against us lest we should send our ropes to market at so much less a price; lest we should steal his method; that we should steal back again what is our own. We have exhibited what he does make; it is not better than ours: that cannot be better which is the same. It appears to be worse; it is not made with the same care and skill, though it is made in the same manner and fashion as the plaintiff's. My learned friend says, we have given no evidence of the invasion; that this is a bill of discovery to drive him to produce his invention that we may borrow it. Is there no evidence? Here is a rope which we have proved cannot be made by any other mode than ours: then that is an absolute conclusion, and if it is not so, why do they not enter into contrary proof? An artist might say, I think there are other ways in which it might be done; but still if he pirates

* Defendant was a quaker.

it, if it is not his own, but ours imitated, he is guilty, and must answer to us in damages. We have produced all the possible evidence that we could produce against a man who shuts his doors against us, and he calls no one to contradict the judgment of Mr. Rennie. If this man was doing right, why did he shut his doors not only to the world, but to his own servants, his own clerk and book-keeper? Is it no evidence against him, that he asks permission before he commences this work, to use our method? That after having made rope from the time of his beginning his trade, after 1793, the date of our patent, and up to the date of his letter; and after we had refused him, that he then, for the first time, does that which he never did before; he shuts up his doors? Will you attribute what he has done to the mere accident of two ingenious men hitting upon one thing? That he, in 1799, discovered what we had discovered in 1793? There is never a case but is possible: it might by possibility be done by other means; but is that the way in which you will give your verdict? more especially when a person shuts himself up in darkness, and will give no testimony, though he has it in his power. You may, with a safe conscience, find my patent invaded, when a defence so perfectly contemptible and ridiculous is set up. If any person can expect a verdict without testimony, to be sure my learned friend is intitled to yours. In describing our mode in the specification, as it was done by machinery, we were obliged to involve a great number of things that were perfectly well known,

but which constituted no part of our invention. Mr. Belfour's is a machine for other objects: we are the original inventors, and intitled to your verdict.

LORD ELLENBOROUGH.—Gentlemen of the jury, this is an action to recover damages for the violation of a patent, which the plaintiff has obtained, and which he says is a valid patent, entitling him for a limited period of time to the monopoly of an invention, which he states to be new, and beneficial to the public. Gentlemen, this is a species of property highly important, as it respects the interests of the individual, and with him also the interests of the public. That persons who are really the means of promoting any beneficial object, should be protected for the period which the law allows, and that they should have the benefit of the article so invented; and on the other hand, in case they are not the inventors, that they should not lock up from the public, for that limited period of time, that invention, which if they are not the inventors, they have no priority to, and which ought to lay open to the public. In inventions of this sort, and every other, through the medium of mechanism, there are some materials which are common, and cannot be supposed to be appropriated in the terms of any patent. There are common elementary materials to work with in machinery, but *it is the adoption of those materials, to the execution of any particular purpose, that constitutes the invention, and if the application of them be new; if the combination in its nature be essentially new; if it be productive of*

a new end, and beneficial to the public, it is that species of invention, which, protected by the king's patent, ought to continue to the person the sole right of vending it, but if prior to the time of his obtaining a patent, any part of that which is of the substance of the invention has been communicated to the public in the shape of a specification of any other patent, or is a part of the service of the country, so as to be a known thing, in that case he cannot claim the benefit of his patent; and in claiming the benefit of a patent, it is required that there shall be inrolled a specification, which shall convey to the public a corresponding advantage with that of the individual whose sole right is protected for that time, so that any person looking at a specification, who is skilled in the subject, may be able to accomplish the end; and if in stating the means necessary to the production of that end, he oversteps the right, and appropriates more than is his own, he cannot avail himself of the benefit of it. I don't mean if he states a bobbin which was in common use before, but if he states any particular thing before in common use, applied in a new manner to the production, and effecting a new end; that is part of the substance of the invention. And if he states that which of itself is not new, but old and known to the world, though it was unnecessary for him to do so, having done so, he has overstepped his right, and has included in his invention that which is not his invention; in that respect his patent would be void. It is for you, applying these observations to the present patent, of Mr. Belfour

and of this gentleman, to say whether this is a new invention, whether the springs are substantially a part of the invention, and if they be, whether they are new. It is likewise to be considered whether the tube is a new invention; and the next consideration, supposing you should be of opinion that it is a new invention, and old means adapted to the production of a new effect, whether the defendant has been guilty of an infraction of the patent; and I premise these observations for your better understanding the evidence.

The first piece of evidence is a letter, dated "Patent Ropery, near Sunderland, 21st August, 1799. Our Mr. Grimshaw has just got home, and has informed us of your friendship to him, for which please to accept our best thanks. He also informed us that you have a patent for improvements in rope-making, and that you were so obliging as to say that we might use your methods (at our ropery only) without premium, provided that the gentlemen concerned with you had no objections. As we are anxious to forward any improvements in the manufacturing of an article of so much importance to this maritime country, we take the liberty of requesting you will please to inform us whether we may consider ourselves at liberty to proceed in the adoption of your inventions." Now, to be sure, no argument arises upon the face of this letter, that they knew and admitted that the invention of Mr. Huddart was a new invention, unless they were perfectly cognizant of all its parts at that time. But that does not appear from this letter; it does

appear that this man had visited their manufactory, and after he got home, he wished to have the liberty of using their invention; that liberty is refused by a letter of the 29th. "Gentlemen, your letter of the 21st has been communicated by Captain Huddart, (who is now on a survey) to the other gentlemen in the concern. Apprehensive a grant to you might lead to an invasion of our patent from other quarters, in justice to ourselves, after the considerable expense that has been incurred, we feel ourselves under the necessity of refusing your request." These letters are in 1799. Now there is a letter since, so late as 15th July, 1800. "Gentlemen, after your application to Captain Huddart, for liberty to use his patent methods of making ropes, and our refusal to permit the same, it has greatly surprised us to receive information (as we have lately done) that you have introduced those methods of making ropes into your manufactory without our licence, and even against our consent; and that you use and vend ropes so manufactured in considerable quantities, in violation of the exclusive privileges granted by the said patent, and consequently to our great loss and injury. We should be sorry to be engaged in a litigation on this subject, especially with your house. It would give us great pleasure, if you could satisfy us that we were misinformed; but fearing that is not the case, and being resolved to protect our property in the most effectual and decisive manner; and to suffer no encroachment on, or violation of those rights which we constantly respect in others,

we think it proper to give you notice, that unless you henceforth desist from the use of Captain Huddart's patent methods above mentioned, and make us proper acknowledgments for what is past, we shall immediately cause the necessary proceedings to be instituted against you for our protection in future; and to obtain a compensation in damages for the injuries we have already sustained." This is a letter giving them notice, that necessary measures would be taken against them, to obtain a compensation in damages. In answer to this, there is a letter of the 23d July, in the same year. "Sir, we have received your letter of the 15th instant, and as we believe that we have not introduced into our manufactory any methods for making ropes in which you are entitled to an exclusive privilege, we conclude you are misinformed in that point; but being equally with yourselves desirous of avoiding litigation, if you will inform us the instances, or in what parts you suppose us to have infringed on your patent rights, we may perhaps be able to convince you that there is no foundation for the charge. At the same time, to shew you how little we are disposed to be litigious, we have for some time past remarked, that there are parts of Captain Huddart's specifications strictly within our prior patents, which we have refrained from noticing, because we would avoid contention as much as possible." Then there is another letter, of the 14th July, 1801. "Gentlemen, being informed that you carry on your manufactory of ropes in a secret manner, and as you refused me admission

when I called upon you at the ropery, and having seen some ropes that were made by you, I am convinced, by the inspection of those ropes, as well as by your secret manner of conducting your business, that you are making use of my patent method of registering the strands of cordage, as described in the specification of my patent, of the year 1793; and am therefore desirous that your manufactory should be inspected on my behalf, by my friend, Mr. John Rennie, engineer, whom I introduce for that purpose. Your answer and conduct on this occasion will enable me to determine in what light to consider you and your proceedings in this matter, and unless I shall hereafter be better satisfied with the fairness and rectitude of your transactions than I am at this time, I shall commence and carry on against you such proceedings in law or equity, or both, as counsel shall advise." That letter is no further material, than as it contains this complaint against them, and desiring to see their manufactory, which was refused.

The next piece of evidence is an advertisement in the Newcastle Courant. I do not know that it is necessary for me to go through all the particulars of this advertisement, in which they state the advantage of their ropes being two to one, or something of that sort.

The first witness called on the part of the plaintiff is Mr. Stoddart, book-keeper to the defendants, who has been in that situation better than six years. He says, from 1797 to 1800, he was acquainted with their manner of making

ropes; they then made ropes in the common way, in an open rope-walk; he is not acquainted with the manner in which they now make their first strand. "A rope is composed of three strands; I was advised with before in making their ropes in the common way. Although I live with them as before, I don't know in what mode their ropes are now made. I am not acquainted with the manner of making Mr. Huddart's ropes."

Upon cross-examination he says, up to 1800, the defendants made their strands in the common way, in a rope-walk. To be sure, no imputation lies upon them for not communicating to their own workmen so important a discovery, as that the business of a rope-walk should be carried on in so small a place as is represented. "A common rope-walk," he says, "must be the full length of the yarn; they make it now in an inclosed place, not the twentieth part of a rope-walk." Upon being re-examined, he says, he saw the strands after they were made, and in opening out the strands, he observed a difference between the ropes made by them and the common ropes. In those, he says, made by his masters, the yarns all bear an equal proportion of strain, which is not the case with common ropes.

Mr. John Rennie is then called; he says, he is an engineer by profession; he says, he is acquainted with the subject of rope-making; that by the old mode, the yarns for the strands are cut of the same length, they are stretched on the ground, previous to being twisted. When the twisting took place, some of the yarns took one

station in the strand, and some another; those nearest the outside, passing over a large space in the operation of twisting, were necessarily brought to a considerable degree of tension, while the yarns towards the centre of the strand become puckered up. The effect was, that when a strain was put upon the rope, the external yarns sustained the weight, and those towards the centre sustained no part of the weight; when the strain therefore was put upon the rope, the outside yarns having been brought to a great degree of tension, naturally gave way first; those in the next degree of tension gave way next, and so on till the centre yarns, which were originally puckered, came to bear the weight. The number of yarns being diminished, of course those in the centre were unable to sustain the weight. He says, the common rope gave way in the manner I have stated; in the wearing of a rope the outside yarns wear first, then the second set of yarns, and so on; a much less weight would break them in this state than would otherwise break them; and this continued, that is, the unequal strain continued, down to Mr. Huddart's patent. He says, "I have examined the patent and specification with attention; it appears to me to have provided a perfect remedy for this defect by a new method. The specification and drawing annexed to it will enable a man of science to understand the method, and how it should be carried into effect." He says, "I have attended to the manner of constructing strands upon Mr. Huddart's plan." He assumes that the yarns to be manufactured have

been usually put on bobbins; they are then passed singly througha plate, which is called a register plate, composed of holes formed in concentric circles; they are then passed through a cylindrical tube, which may be either solid or composed of two semicircular pieces; the tube is the most essential part of the invention: the yarns passing through the register plate are formed into one strand; by this tube being disposed in concentric circles, they take the same relative position in the tube which they had before in passing through the holes, and in that state of relative position, the strand is composed of concentric circles or shells of yarns, the outside shell being of a larger diameter; the second shell or layer of yarns, being of less diameter than the outside layer, are so much shorter; each layer diminishes gradually till they come to the centre, which consists of a single yarn, the length of the strand.

"I have examined some that have been so manufacturéd, and the strand being composed of compressible materials, if it were broke in the state in which it came from the registering machine, the centre yarn would break first, that next to the centre would break second, and the outside yarn would break last; the outside shell of yarns surrounding a considerable body of hemp when it is brought to a degree of tension, the outside yarns compress the body of them within, and by this compression the angle is diminished, and they become longer; the centre yarn being at its full length snaps first, then the next, and so on. In order to prevent this difficulty, Mr. Huddart has

contrived a mode of what he calls setting up or hardening; after the strand comes from the register he gives it an additional twist, and by this means the centre yarn becomes 1-18th part shorter; the outer yarns from the centre are set up proportionably to the centre, and by that means compressing the whole mass, each yarn is brought to a greater degree of tension than when it came from the registering machine, so that a weight being put upon the strand before it breaks, it lengthens as much as it had contracted before, and when it breaks the whole snaps together." He says the patent rope, upon an experiment he tried, bore a weight of 17 ton, 5 cwt. and 1 quarter, and that a rope made in the common way of the same materials bore only 8 ton, 13 cwt. 1 quarter, and 4lb.; and he says, the patent rope broke all at once, and the old-fashioned rope snapped on the outside first, then the next yarn, and so on to the centre. He says, that is a most important improvement. He says he should have no difficulty in constructing the necessary machinery for making a rope upon Mr. Huddart's plan by looking at the patent and the specification. That is material to shew that the specification is sufficiently explicit, to enable a person of skill in the subject, upon reading it, to accomplish the purpose it professes to execute*. Says, if this is made upon Mr. Huddart's construction, the yarn that is on the outside at first will be the

* Some rope produced as coming from defendant's manufactory.

outside throughout the whole length of the strand; and will be the longest yarn; the second shell will be the next longest, and so on to the centre, which will be the shortest. He says, I know of no other mode but Mr. Huddart's for producing this effect, and in proportion as that is deviated from, the strands will be worse: this exhibits to the eye that regular gradation of length in the different shells, which he should expect to find in Mr. Huddart's invention. The external yarn is two inches longer than the piece of strand; the second is somewhat shorter than the first, and taking a yarn out of the third, he says, that is half an inch shorter than the second; and taking a yarn out of the centre, he says, it is a little longer than the strand, owing to the setting up; and the result he draws, is, that he believes this to be made upon Mr. Huddart's method. And I should state that this is certainly what is called *prima facie* evidence of its having been made by that method, when one sees it agree in all its qualities; when it is produced with a rope actually made upon Mr. Huddart's plan, it is *prima facie* evidence, till the contrary is shewn, that it was made upon his method, and therefore as against him it should seem, supposing this patent in full force and a valid one, it is reasonable, fair evidence, in the absence of contrary evidence, to presume that it was made in that way. There is certainly great weight in the observation of the counsel—Am I to come forward and divulge my mode of making rope, from which I reap a great advantage? Whether it was necessary to have

gone that length in proof, does not appear; persons might have been called upon, who might not be privy to the making of the strands in the small room; however, whether it puts him to inconvenience or not, the question is, whether it is *prima facie*, probable, presumptive evidence, in the absence of evidence on the other side; and it is a competent ground for you, if you think the facts bear you out, to form that conclusion upon.

Then a letter is read, threatening to bring an action, and insisting upon seeing the manner in which the manufacture was carried on. The answer to that letter is received verbally. Mr. Rennie put it down in writing: he says, after delivering the letter to Mr. Grimshaw, I asked him to shew me those parts that he did not generally shew. He refused, because he did not shew them to others, and because there were several partners to be consulted. He says, I am certain, according to my judgment, that the specimen of the rope sold to Mr. Walker is made upon Mr. Huddart's principle. I know of no other mode but that mentioned in his specification, in which it can be done in the perfect manner that this is done; there might be another mode without the perforated plate, by which it might by chance be done; but with it, it will be done with certainty.

Upon his cross-examination, he says it would be a lucky hit, if such a rope was made without the perforated plate; it could not be done otherwise than by chance. He says he thinks this has been set up, or hardened up, according to Mr. Huddart's method, in page 9 of the specification.

He says he has not seen a model of the machine of 1793 that he recollects; and no model, to be sure, has been shewn us of the patent obtained in that year. The object of the patent is a more equal distribution of the strain upon the yarns: each yarn is wound round a separate bobbin. Now the object of this patent, and to be sure the objects of the two patents are substantially the same, both of Mr. Belfour and Mr. Huddart; but it does not follow, that because the ends are materially the same, it is thereon open to the public. It has happened to me in the same morning to give, as far as I was concerned, my consent to the granting of three different patents for the same thing; but the mode of attaining it were all different, and I thought I was entitled to receive them. He says the object of the patent was a more equal distribution of the strain upon the yarns; the bobbins are ranged in a frame at one end of the rope-yard, and at the other end is the winch that turns the bobbins; the rope-walk is longer than the strand. The desideratum in rope-making was to keep the yarns separate, and in a certain state of tension before they were taken up into the rope; the twist in the rope-walk commences at the winch; if the yarns were all kept in a state of tension, none of the bobbins would render more than is wanted at the twist; at the superfices more of the yarn will be rendered than the inner part. I suppose this model* is something like it, but the person who made it does

* A model produced in court on the part of the defendant.

not seem to have understood Mr. Huddart's patent. There is a range of bobbins; a spindle goes through the bobbin, and as they render the yarn, the bobbins revolve upon the spindles: it became necessary, in order to create an equal tension, that the revolution in the centre should be retarded by something, and this spring is adapted. You will attend to this description of the spring, which is contended on one side as a material part of the invention, and which made a part of Mr. Belfour's invention before. He says, this spring fastened to an arm of wood, by means of a screw and nails, or otherwise, the screw works in the square part of the spindle, by means of which the spring may be made stronger or weaker, as requisite; the other end of which resting upon the globular part of the head of the bobbin, framed for that purpose, to regulate the tension of the yarn. That is one of the modes Mr. Huddart points out: he says, without springs, or something equivalent, his mode would be defective. Therefore, according to him, he thinks springs to produce tension so necessary to Mr. Huddart's mode, that it would be ineffective without them. He says, in Mr. Huddart's specification, a part of his invention is a rail, which the yarns pass over to keep them clear; the next thing is the register, which is perforated with circular ranges of holes, and may be made of wood or metal; the tube must be of metal, made in two parts, longitudinally, of thin steel, of a spring temper. The spring in that model of Mr. Belfour's retards the revolution of the bobbins, as the spring in Mr.

Huddart's retards his. Mr. Belfour's separating machine is formed by upright rails, with cross bars: Mr. Huddart's is formed upon the same principle; the notches in the top minor keep the yarns separate, but for a different purpose from what Mr. Huddart's does. He says the spring-tube makes the best rope; he thinks the defendant's rope is not made with a spring, but with a solid tube. So that, he says, there is a difference with respect to the tube, that that which is produced as a violation of the plaintiff's invention was not done by a spring, but a solid tube; and the patent is here taken out for a spring tube, consisting of two parts; if, therefore, it was confined merely to the tube, according to the evidence of this man, it would be made by a different tube to that stated in Mr. Huddart's specification.

Upon being re-examined, he says, although a rope may be made without some part of Mr. Huddart's specification, I think the manufacture could not be carried on without the plates, the concentric circle of holes, with the same certainty as with. He says he know the top minor, and has made pieces of rope with it. I do not think the rope produced as coming from Grimshaw's manufactory could have been made with Captain Huddart's plate joined to the top minor; nor do I think the top minor would be of any use at all joined to the register. He says the top minor has no important tendency to keep the yarns in their stations, but rather throws them out of their stations. He says you may, by chance, by the top

minor make as good a rope as by the old mode. I have made experiments, and found that the old rope carried more by a fourth than Mr. Belfour's; but in other experiments, Mr. Belfour has approached very near the common mode. The larger the rope, the worse it is: in the distribution of the yarns by the cogs, they get twisted and thrown into confusion; if the tube was put on afterwards, it would make the confusion still greater. Then a rope made upon Mr. Belfour's plan was produced.

Thomas Thornthwaite says, this rope* was manufactured with the top minor: it was fairly manufactured by Mr. Belfour's specification. Now I doubt whether that was a fair trial of the experiment; for he says, we had bobbins such as those from which the yarn passed off with equal tension, but we had no springs to regulate the tension. How it could be a fair experiment, leaving that out, I cannot tell: it does not seem to me a fair trial of Mr. Belfour's mode; try it in all its parts, or the experiment is not fair.

Mr. Rennie is called up again, and he dissects the piece of rope: he takes an outside strand, and opens it; the yarn is sometimes inside and sometimes outside; he says that never would happen by Mr. Huddart's mode. He says, I consider the bobbin as a matter of course; it is of universal use in all manufacturies that consist of threads: the mere bobbin is like lead or iron, but the application of the bobbin with a spring to it appears

* Some rope produced in court by plaintiff.

to me to be a material part of an invention for making ropes. He then dissects a strand of Mr. Huddart's: the outside yarn keeps its place throughout, and is longer by six inches than the strand; the second shell is not so long as the other by about an inch and a half, and so on to the centre yarn, which is the same length with the strand.

His lordship then recapitulated the evidence that had been adduced as to the value and utility of Captain Huddart's mode of making ropes; and said, no doubt, by whomsoever it was effected, this improvement is a most important one in the manufacture of cordage; but it is material for your consideration, whether it be a new invention, and if it be a new invention, whether this person, in taking his patent, has embraced within it, as essential parts, any thing which was a part of a prior invention communicated to the public before, and to which therefore he had no right to any benefit.

On the part of the defendant, they call no witnesses, but they say this is not an original invention, and if it is, there is no proof that we have violated it. It is no matter that the two patents profess the same object; the end proposed in Mr. Belfour's invention is to improve the manufacture of ropes and cordage, by making every yarn, employed in the composition thereof, bear its proper and equal proportion of the stress. The description of the invention of Mr. Huddart is a new mode or art of making great cables and other cordage, so as to attain a greater degree of strength therein, by a more equal distribution of the strain

upon the yarns; the one is a more equal proportion of the stress, the other a more equal distribution of the strain.

As to the bobbins, they are not worth mentioning; the springs and the tube are the things in which it should seem the principal originality of the invention consists. It is contended that the springs are not an essential part of the invention: if they are inrolled as an essential part, whether they are so or not, it would certainly go to his patent, because no deceptive things are to be held out to the public; those that are material are to be held out as material; according to the evidence of Mr. Rennie, they are material. He considers that they are material to regulate the tension. Mr. Huddart points out that his mode would be defective without springs. I will read to you first Mr. Belfour's, and then Mr. Huddart's. Mr. Belfour states how the end is proposed to be answered: he says, I have introduced four springs into each reel, which springs are marked L, and should be made of iron or steel, about two inches and a half in length, one-fourth of an inch in breadth, and one-eighth of an inch thick in the middle, and smaller towards each end; two of these springs are fixed into each end of the barrel of the said reel in the inside; one end of each spring is fixed fast to the barrel of the reel, the other end is moveable, and is governed by a screw marked M, which, by being turned towards the right, closes the two ends, and thereby fixes the reel faster to the spindle; or being turned the other way, opens the two ends, thereby allowing

the reel to move more freely. According to the greater freedom of the motion of the wheel, or the retardation of the wheel, the greater or less tension is produced. Now Mr. Huddart's specification is this:—At K a spring is fixed to the wooden arm, by means of a screw and nails, or otherwise the screw works in the square part of the spindle, by means of which the spring may be made stronger or weaker, as requisite; the other end of which, resting upon the globular part of the head of the bobbin, formed for that purpose, to regulate the tension of the yarn in drawing it from the bobbin, whilst the spindle is turning in registering the strand. Here for a moment let us take our stand: the same end appears to be produced, according to my understanding, by the one and the other, to regulate the tension; now, if it is a spring to regulate the tension of the yarn, which is essential to be regulated, it does seem to me, but it is for your judgment to say whether it is a material part of the invention; if it be a material part of the invention, and relied upon as such, as it should seem it is by both, and if it is the same, then that which has been communicated by Mr. Belfour, Mr. Huddart cannot take the benefit of.

Then there is another matter, with respect to the tube. Mr. Belfour says various other methods may be substituted for the purpose of preventing the strand from twisting, until it has received that position the workman wishes, such as pieces of wood, with holes bored in them; small machines, divided in a similar manner, or some-

thing like to the separating machine before described; or by the external application of a ring or other circular instrument; or any other shape so as to press upon the strand, and prevent its receiving an improper twist, to serve the purpose or intention of the top minor; for unless the strand is regulated in the twist, and kept exactly in the position in which it is to remain, the good effects proposed by this invention will be in a great degree defeated; therefore it is not of any consequence in what manner it is so regulated, so long as that point is accomplished. Now what Mr. Huddart says upon it is this:—This disposition of the yarns is necessary previous to their passing through the cylindrical tube of metal, in which the strand is compressed and formed. He says the tube compressing the yarns, and confining the outer shell to its proper figure, which outer shell compresses the next, and so on to the centre, there cannot be any crossing of yarns, or change in situation: but the whole strand formed close and compact, and no more yarn required from the bobbins than is necessary, according to the situation of the shells, or their distance from the centre. Now the tube does seem to me, with submission to you, an important difference from the mere circle through which it passes, because it keeps it in a degree of confinement for a greater time, and more certainly obtains the end pointed out—in Mr. Belfour's specification, the same end is to be attained; and had the patent been taken for that to be done by a tube, which was before done by a ring

or circle, I should have thought the patent good, for that is a distinct substantive invention. It will be for you to consider whether that which is pointed out in Mr. Belfoúr's specification will be broke in upon by a tube, which keeps it in a state of confinement for a longer time, and attains the end with more certainty. It is for you to say, for that is the substance of the case, as to the invasion of the patent, whether any essential part of it was disclosed to the public before. If you think the same effect in substance is produced, and that the springs in Mr. Belfour's, by producing tension, obtains a material end in the making of ropes in the way proposed, and that it is in substance the same as in the other, this patent certainly must, upon principles of law, fall to the ground. If you think it is not the same, or if you think it is not material, though we have had the evidence of Mr. Rennie upon its materiality—if you think this patent has been obtained for a new invention, carried into effect by methods new, and not too large beyond the actual invention of the party, in that case the patent may be sustained; but if you think otherwise, in point of law or expediency, the patent cannot be sustained.

Verdict for the plaintiff—Damages one shilling.

IN THE COURT OF COMMON PLEAS.

Smith v. *Dickenson.*

S. C. 3 Bos & Pul. 630

10th Feb. 1804.

THIS was an action in assumpsit. The declaration stated that before the making of the promises, &c. the plaintiff had contrived various articles in the business of a sadler, which he fully conceived to be new and valuable improvements; and in particular he had before then invented a certain spring apparatus for girthing saddles, and at the time of making the promises, &c. the plaintiff was desirous of obtaining his Majesty's letters patent for the sole use and benefit of the said invention for a certain term, to be specified in the said letters patent, of which the defendant had notice. And whereas the defendant was desirous of being made acquainted with the nature of the said invention, in consideration of the promises, and also in consideration that the plaintiff would communicate the nature of the invention to the defendant, the defendant undertook that he would not avail himself or take any advantage of such communication under the penalty of £1000. It then averred that the plaintiff confiding in the defendant's promise, did communicate to him the nature of the said invention; but that the defendant not regarding, &c. but intending to injure the plaintiff wrongfully, &c. disclosed and made known the nature of the said in-

vention, and obtained his Majesty's letters patent for the sole use and benefit of the said invention for 14 years, as being the invention of him, the defendant, and thereby availed himself and took an undue advantage of the communication made to him as aforesaid; whereby the defendant became liable to pay £1000 according to his agreement, yet that the defendant had not paid, &c.

The second count was the same as the first, with the addition of an allegation that the plaintiff sustained special damage by being prevented from taking out letters patent in his own name, and thereby lost great profit.

Plea non assumpsit.

The cause was tried at the Guildhall Sittings after Michaelmas Term, 1803, before Chief Justice Lord Alvanley, when it was proved that the plaintiff having invented the spring apparatus mentioned in the declaration, the defendant called upon him, and expressed himself extremely desirous to be informed of the nature of the invention; that the plaintiff communicated the invention to the defendant, upon his signing the following agreement: "Thomas Smith, of No. 119, New Bond-street, sadler, having contrived various articles in the above branch which he fully conceives to be new and valuable improvements, Mr. Robert Dickenson, of No. 55, Long Acre, being desirous of being made acquainted with one of the above-mentioned improvements, which Mr. Dickenson fully comprehends, under the title of spring apparatus, to answer or produce the same effect as those for which Mr. Robert Dickenson

has already obtained the king's patent; he, Robert Dickenson, doth hereby promise and bind himself not to avail himself or take any advantage of such communication, under the penalty of breach of honour and £1000." That the defendant immediately on getting this information, entered a caveat against any person but himself taking out a patent for the above invention, and shortly after took out a patent for it in his own name, though it had been agreed between him and the plaintiff that they should jointly share the profits of the invention, but that the patent should be taken out in the name of the plaintiff; that the defendant being unable to make out a specification in order to maintain his patent, obtained another interview at a house in Soho-square with the plaintiff, at which it was agreed that they should be jointly concerned in the invention, the plaintiff being employed to make all the saddles; and that the patent which had been taken out in the name of the defendant should still continue in his name. That upon the faith of this agreement, the plaintiff assisted in making out the specification, which was duly inrolled. That the plaintiff shortly afterwards finding the defendant was using the patent for his own benefit solely, wrote to him upon the subject, and received from him the following answer. "Sir, I am unconscious of any contract at present between us, nor can Mr. N. or Mr. F. (two persons who had been at the interview when the specification was drawn out) help me to the recollection of any, although you refer me to them for that purpose. The two in-

ventions for which I have obtained patents are my own inventions. Prior to my giving you a paper not to practise any invention you might communicate, I had deposited a drawing in the hands of a friend, and had a workman actually employed in making the articles for which my last patent is obtained, and this drawing was deposited for the purpose of proving, should it be necessary, what my design and invention consisted of, prior to any communication with you, lest even if it should be the same, I might still go on to obtain my patent. How far your invention resembles mine is of no consequence—I went on with my own. Your communication had in it nothing new, therefore I do not consider myself as using your invention, but my own." Upon this case it was objected by the counsel for the defendant, that the gravamen laid in the declaration did not correspond with that which was in evidence before the jury; but his lordship refused to nonsuit the plaintiff, and the jury found a verdict for the plaintiff for £300, the defendant agreeing to assign the patent to the plaintiff for the remainder of the term at the defendant's own expense. The plaintiff was to be at liberty to enter a verdict for £1000 if the court should be of opinion that the sum of £1000 mentioned in the agreement was in the nature of liquidated damages, and not a penalty; and if the court should be of opinion that the defendant had not taken an undue advantage of the plaintiff a nonsuit was to be entered.

Accordingly a rule nisi for a nonsuit on the

one side, and for increasing the verdict on the other, having been obtained on a former day,

Serjeant Best now contended that the gravamen in the declaration was supported by the evidence; for although the plaintiff by his conduct and agreement, at the time when he assisted in making out the specification, had waved any remedy for the plaintiff's misconduct in fraudulently obtaining the patent in his own name, yet that he had only waved it upon the condition of the defendant's fulfilling the agreement which was entered into at that time; that the defendant having now renounced that agreement by his letter, the plaintiff's remedy revived for the defendant's original misconduct in obtaining the patent in his own name. He next insisted that the sum of £1000, stipulated by way of penalty, was in the nature of liquidated damages, and consequently the plaintiff was intitled to have the verdict entered for that amount.

But the court expressed themselves clearly of opinion that the word "penalty" used in the agreement, effectually prevented them from considering the sum mentioned as liquidated damages.

Serjeants Shepherd and Bayley on the other side urged that the plaintiff's action could not be maintained on this declaration, since it was evident that whatever injury he might originally have sustained by the defendant's conduct in taking out a patent, yet that having subsequently assented to that act of the defendant, he could not now make it the ground of an action, but ought to have declared upon the new agreement; and

that in fact the plaintiff could not sustain any damage by the mere act of the defendant in taking out the patent in his own name; for that without the plaintiff's subsequent assistance in making out the specification, the patent would have been of no avail.

LORD ALVANLEY, Chief Justice.—This is an action for the breach of an agreement; and the questions are, first, whether the evidence proved that the defendant took any undue advantage of the communication made to him by the plaintiff; and 2dly, whether the advantage taken by the defendant, supposing it to be an undue advantage, corresponds with the breach laid in the declaration? It appears that the defendant came to the plaintiff in order to obtain a knowledge of his invention, and was extremely anxious that some terms should be entered into between them; and at the same time he agreed not to take any undue advantage of the communication made. It was then understood that the patent was to be taken out in the name of the plaintiff. Let us see then what was the first use which the defendant made of his knowledge, there being at that time no contract in existence between them respecting any partition of profit in the invention. He immediately enters a caveat to prevent any other person but himself from taking out a patent. This was an improper use made of the discovery, upon which the plaintiff might have brought an action, though it is uncertain what damages he could have recovered. The defendant then obtains a patent in his own name, but being unable

to make out the specification, he tempts the plaintiff, under pretence of offering him certain advantages, to complete the discovery. This was only a continuation of the same fraud; for as soon as he has made out his specification from the information afforded him by the plaintiff, he refuses to execute any articles of partnership, alleging that he had obtained the patent upon a specification previously deposited in the hands of a friend. It is urged that the plaintiff agreed to release all breach of the first agreement not to take any undue advantage of the communication, upon the defendant entering into certain terms, and that the defendant is only guilty of a breach of those terms. Possibly those terms never were reduced into writing, and yet the plaintiff is called upon to wave his remedy on the first agreement, without any power of enforcing the second. It does appear to me, however, that although, had there been a formal release of the remedy under the first agreement, he must have been barred; yet as the patent was allowed to remain in the name of the defendant only, upon the performance of certain conditions, the performance of which has not been shewn, the plaintiff may resort to the breach of the first agreement, of which the defendant appears by the evidence to have been guilty. Indeed the defendant's letter to the plaintiff puts the question out of all doubt, for he there insists upon the invention as his own, and repudiates any subsequent agreement, and justifies taking out the patent in his own name as for an invention of his own. If a man give a bond

for the performance of covenants, and the covenants being broken, the obligee agrees not to put the bond in suit upon the undertaking of the obligor to do certain things, and then the obligor refuses to perform his undertaking, can it be said that the bond is gone? Certainly not. So in this case, the subsequent agreement was a conditional agreement, and as the conditions were not performed, the action may be maintained upon the original agreement.

Mr. Justice HEATH.—I think the agreement upon which the declaration is founded is a subsisting agreement; and that the defendant, by entering the caveat, and taking out the patent in his own name, committed a breach of that agreement, there can be no doubt. It is insisted that the plaintiff waved the breach of this agreement, and certainly he might have done so: but I think that his conduct has been very well explained; for it appears that the defendant, with respect to this second agreement, was practising a mere fraud upon the plaintiff, and amusing him by a sham treaty for a partnership which he never intended to carry into effect. It would be very hard to refer the plaintiff to the second agreement, of the terms of which there is no evidence, but only of a treaty for an agreement. It appears to me, therefore, that the first agreement was not waved by the treaty for the second agreement, which the plaintiff was induced to enter into by the fraud of the defendant.

Mr. Justice ROOKE.—The only question is, whether the plaintiff, by the strict rule of law, is

prevented from recovering for the breach of the first agreement; for there can be no doubt that the first agreement was broken. That fact was sufficiently proved by the defendant entering the caveat, and taking out the patent in his own name, immediately after the disclosure of the invention; and that breach appears to me to be both well alleged and proved. It is insisted, however, that the plaintiff must be nonsuited on the ground of the second agreement: but before the defendant is intitled to nonsuit the plaintiff on the ground of the second agreement, we must prove that agreement; whereas his own letter disavows all agreement with the plaintiff upon the subject of the patent, and insists upon his own right to the invention.

Rule discharged.

IN THE COURT OF COMMON PLEAS.

Taylor v. *Hare.*

S. C. 4 Bos & Pul. 2 Co.

20th May, 1805.

THIS was an action for money had and received, which came on to be tried before the Lord Chief Justice at the sittings after last Hilary Term, when a verdict was found for the plaintiff for £425, subject to the opinion of the court upon the following case.

On the 12th of September, 1791, the defendant took out a patent for the invention of an apparatus for preserving the essential oil of hops in brewing. By articles of agreement, dated 5th Nov. 1792 (which were set out at length at the end of the case), and made between the defendant of the one part, and the plaintiff and Freeman Hartford deceased, his late partner, of the other part, reciting the defendant's patent, and that it gave him the sole power, privilege, and authority of using, exercising, and vending his said invention for fourteen years, the defendant granted to the plaintiff and his said late partner the privilege of making, using, and exercising the said invention for the residue of the said term, and in consideration thereof, the plaintiff and his partner covenanted that they would secure to be paid to the defendant, during the said term, an annuity of £100, and would give their bond for that purpose, and a bond was accordingly given conditioned for the payment of the said annuity. The plaintiff and his partner used the apparatus (for the making and preparing of which they paid a distinct price) from the date of the agreement until the 25th March, 1797, and during all that time regularly paid the annuity to the defendant. The defendant was not the inventor of the invention for which he obtained his patent. The invention was not new as to the public use thereof in England, but it was the invention of one Thomas Sutton Wood, and had been publicly used by him and others before the defendant obtained his patent; but the patent had never been re-

pealed. The amount of the annuity which they had paid was £425. If the court should be of opinion that the plaintiff was intitled to recover back the money which was paid on the bond, the verdict was to stand; if of a contrary opinion, a nonsuit was to be entered.

Mr. Serjeant Bailey for the plaintiff.—To support the present action it is not necessary to prove that any imposition has been practised. If it appear that the plaintiff has received nothing in return for the money which he has paid, he is intitled to recover back his money in this form of action. He was induced to pay his money upon the supposition that the defendant had the power of communicating some privilege. But as it now appears that the defendant's invention was not new, and that the patent was therefore void, the consideration upon which the plaintiff paid his money has wholly failed, and the plaintiff has derived no benefit whatever. Where an estate is conveyed, the vendor professes to convey nothing but his title to that estate; but here the thing itself which was the subject of the agreement had no existence. It was the understanding of all parties that the defendant was intitled to a patent-right, but it now turns out that they were mistaken; the plaintiff therefore is intitled to recover the money which he has paid under a mistake. He had a right to make use of the invention without paying any thing for it. The defendant has no right to the annuity, and indeed he has already failed in an action on the bond in which the validity of the patent was put in issue.

Mr. Serjeant Cockell for the defendant was stopped by

Sir James Mansfield, Chief Justice.—It is not pretended that any action like the present has ever been known. In this case two persons, equally innocent, make a bargain about the use of a patent, the defendant supposing himself to be in possession of a valuable patent-right, and the plaintiff supposing the same thing. Under these circumstances the latter agrees to pay the former for the use of the invention, and he has the use of it; *non constat* what advantage he made of it; for any thing that appears, he may have made considerable profit. These persons may be considered in some measure as partners in the benefit of this invention. In consideration of a certain sum of money, the defendant permits the plaintiff to make use of this invention, which he would never have thought of using had not the privilege been transferred to him. How then can we say that the plaintiff ought to recover back all that he has paid? I think that there must be judgment for the defendant.

Mr. Justice Heath.—There never has been a case, and there never will be, in which a plaintiff having received benefit from a thing which has afterwards been recovered from him, has been allowed to maintain an action for the consideration originally paid. We cannot take an account here of the profits. It might as well be said that if a man lease land, and the lessee pay rent, and afterwards be evicted, that he shall recover back the rent though he has taken the fruits of the land.

Mr. Justice ROOKE declared himself to be of the same opinion.

Mr. Justice CHAMBRE.—The plaintiff has had the enjoyment of what he stipulated for, and in this action the court ought not to interfere, unless there be something *ex æquo et bono*, which shews that the defendant ought to refund. Here both parties have been mistaken; the defendant has thrown away his money in obtaining a patent for what was not his own invention: not so the plaintiff, for he has had the use of another person's invention for his money. In the case of Arkwright's patent, which was not overturned till very near the period at which it would have expired, very large sums of money had been paid; and, though something certainly was paid for the use of the machines, yet the main part was paid for the privilege of using the patent-right, but no money ever was recovered back which had been paid for the use of that patent. I am, therefore, of opinion, that judgment of nonsuit should be entered.

Judgment of nonsuit.

IN THE COURT OF KING'S BENCH.

Harmar against *Playne and another.*

S.C 11 East. R. 101

28 April, 1809.

THE following case was stated for the opinion of this court by the Lord Chancellor. By letters

patent, dated the 20th of March, 1787, the king granted to John Harmar, the plaintiff, for fourteen years, the sole privilege of making, using, and vending a certain machine by him invented, for raising a shag on all sorts of woollen cloths, and cropping or shearing them, which, together, come under the description of dressing woollen cloths, and also for cropping and shearing of fustians; with the usual proviso or condition for avoiding the patent, on failure of enrolling a specification. In pursuance of this proviso, Harmar duly enrolled a specification of the said invention, with drawings of the machine in the margin thereof. On the 29th of March, 1794, his majesty granted another patent to Harmar, whereby, after reciting that Harmar had obtained letters patent of the 20th of March, 1787, authorising him to make, use, and vend his invention of a machine for raising a shag on all sorts of woollen cloths, &c. for fourteen years; and further, that he had invented considerable improvements in the said machine, for which improvements in the said machine he prayed his majesty's letters patent for the exclusive enjoyment thereof for fourteen years, pursuant to the statute; the letters patent, therefore, granted to him the sole privilege and authority to make, use, and vend his said invention, and have the whole profit thereof. The letters patent also contained a proviso, that if Harmar should not particularly describe and ascertain the nature of the said invention, and in what manner the same was to be performed, by an instrument in writing under his hand and seal, and cause the

same to be enrolled in the court of Chancery within one calendar month next and immediately after the date of the said letters patent, then they should become void. In pursuance of this proviso, Harmar did, in due time, enrol a specification in Chancery, with drawings of the machine in the margin thereof; the introductory part of which specification is as follows: "To all to whom, &c. I, John Harmar, of Sheffield, send greeting. Whereas his majesty, by his letters patent, dated the 29th day of March, in the thirty-fourth year of his reign, hath granted to me his special licence, &c. that I, my executors, administrators, and assigns, at all times during the term of years therein expressed, should and lawfully might make, use, and vend the machine by me invented and found out, for raising a shag on all sorts of woollen cloths, &c., and that I should enjoy the whole profit, &c., of the said invention for fourteen years from the date of the said letters patent, according to the statute, &c. And whereas, in the said letters patent, there is a proviso or condition, that if I, the said John Harmar, should not particularly describe and ascertain the nature of the said invention, and in what manner the same is to be performed, by an instrument in writing under my hand and seal, and cause the same to be enrolled in the court of Chancery within one calendar month after the date of the said letters patent, that then the said letters patent, and all liberties, &c., thereby granted, should be void. Now, know ye, that in obedience to the said letters patent, and proviso therein contained, I, the said John Har-

mar, do, by these presents, particularly describe and ascertain the nature of the said invention, referring to the drawings in the margin of these presents, which I explain as follows." The specification then proceeds under different letters of the alphabet, corresponding with similar letters on the drawing, to set forth a full description of the whole of the machine; and the specification ends with these words, "And I, the said John Harmar, do hereby declare, that my said invention is intended to be worked in the manner hereinbefore particularly mentioned." It was admitted by the defendant, that the improvements for which the second patent was granted are included in the general description of the second or improved machine, as set forth in the specification of the second patent; and that the second specification does contain a full and proper description of the whole machine in its improved state. But the second specification does not, in any manner, point out or describe the improvements upon the former machine by any verbal description, or by any delineation or mark in the drawing; and which drawing is not a representation of the improvements alone, but of the whole machine in its improved state; nor are the improvements in any manner substantively and individually explained by the second specification; nor is the machine in the improved state contradistinguished from the state and condition of it under the former patent, by any explanation whatever, nor by any delineation or mark in the drawing. But what the former machine was, and what were the said

improvements thereupon, are ascertainable, and appear by referring to the first specification, and the drawings thereon, and comparing the second specification and the drawings thereon with the same. The defendants insisted, that the second specification was not a due performance of the condition of the second patent; and the question, therefore, for the opinion of the court was, whether the proviso or condition in the letters patent of the 29th of March, 1794, had been duly performed by the enrolment of the said specification thereof?

Mr. Holroyd, for the plaintiff, contended, that the condition had been duly performed. The patent, and the specification referring to it, are to be construed together as one instrument, as in Hornblower v. Boulton; and the second patent recites the first, and that the patentee had invented certain improvements in the former patent machine, for which improvements another patent was prayed, which the king grants. The first patent and specification being enrolled, the public must be taken to know their contents: or, at least, the second patent by referring to the first, directs the party to the source from whence that information may be obtained, in the manner required by law. The very nature of the second patent, which is for improvements in a machine for which a former patent had been granted, points to such former patent, and the specification annexed. There need not be an express reference: and by comparing the two patents and specifications together, the party seeking for in-

formation as to what he may lawfully make without the licence of the patentee, must necessarily see for what particular parts of the improved machine the second patent was granted; and the patentee was not bound to state in his second specification, that which he had before stated separately in his first, and which the subject was bound to know. A specification need not contain every thing in length relating to the subject matter, but may refer to other public instruments, or to general sources of knowledge, which every person of reasonable skill and information on the subject may fairly be presumed to know. There is a constant reference in these instruments to drawings which accompany them, and without which the description of the particular invention would not be intelligible.

Lord Chief Justice ELLENBOROUGH asked, whether it were meant to be contended that a specification might refer to such and such articles in Chambers's dictionary for a description of one part of a machine, and to certain other descriptions in other books for other parts and so on? which would lead to great inconvenience, and make the new invented parts described wholly unintelligible to those who were not furnished with those works—when the object of requiring a specification to be enrolled seemed to be to enable persons of reasonable intelligence and skill in the subject matter, to tell from the inspection of the specification itself, what the invention was for which the patent was granted, and how it was to be executed.

Mr. Holroyd, in continuation. The public must take notice, at their peril, of all patents on record, and the last of them to which the specification in question belongs refers to the other. No person can be misled by the specification of a patent for an improved machine, describing the whole machine so improved; it is even more convenient, than merely stating what the improvements are; which would be a literal compliance with the condition, but far less intelligible: for such a bare method of describing the new invention would require a much higher degree of knowledge and memory of the subject matter, and of every former patent, than this, which describes the whole combination of new and old parts, forming the entire improved machine. The patentee has only an exclusive right to the whole combination for which his patent is granted, and the use of particular parts only is no breach of his rights: the description, therefore, of the particular improvements, distinct from the parts in general use before, would be useless to all, and less intelligible to many. Patents were formerly considered as injurious monopolies, and were therefore construed by the courts with great strictness. But now, when a more liberal and just view of the subject prevails, they are properly considered as highly advantageous to the public, by holding out an encouragement to ingenious men to disclose their inventions; and Lord Eldon, when presiding in the court of Common Pleas, said, in a case of Cartwright v. Amatt, in Easter

term 1800, in that court, that they were to be considered as bargains between the inventors and the public, to be judged of on the principle of keeping good faith by making a fair disclosure of the invention, and to be construed as other bargains.

Lord Ellenborough, Chief Justice.—The difficulty which presses most is, whether this mode of making the specification be not calculated to mislead a person looking at it, and induce him to suppose, that the term for which the patent is granted may extend to preclude the imitation of other parts of the machine than those for which the new patent is granted; when he can only tell by comparing it with some other patent what are the new, and what are the old parts: and if this may be done by reference to one, why not by reference to many other patents, so as to render the investigation very complicated? It may not be necessary, indeed, in stating a specification of a patent for an improvement, to state precisely all the former known parts of the machine, and then to apply to those the improvement; but, on many occasions, it may be sufficient to refer generally to them. As in the instance of a common watch; it may be sufficient for the patentee to say, take a common watch, and add or alter such and such parts, describing them. And when Lord Mansfield said (in the case of Liardet v. Johnson) that the meaning of the specification was, that others might be taught to do the thing for which the patent was granted, it must be understood to enable persons of reasonably competent skill in such

matters to make it; for no sort of specification would probably enable a ploughman, utterly ignorant of the whole art, to make a watch.

Mr. Wetherell, for the defendant.—The proviso in the second patent is express, that the patentee shall particularly describe and ascertain the nature of the said invention, that is, the improvements, and in what manner the same was to be performed; if that condition be not performed, the patent is declared void. Now it is not pretended that the improvements of the machine, for which alone the second patent was granted, are particularly described and ascertained in the specification, but the whole machine, including indeed those improvements, is so described, without ascertaining the newly-invented parts. But the patent was not for the whole machine, but for a part only: so that no person, looking only to the second specification, or to that and the patent to which it appertained, could inform himself for what parts of the machine that patent was granted; and that knowledge can only be acquired by looking to both the patents and specifications. Unless the alteration of, or addition to, an old machine, be *bonâ fide* an improvement, and useful to the public, the crown cannot grant a patent for it; and therefore it should appear upon the face of the instrument itself what the improvement is. Mr. Justice Buller, in the case of the King v. Arkwright, lays down certain rules for the construction of patents, under the 3d and 4th of which the objections to this patent range. "3dly, If the specification be in any part of it

materially false or defective," the patent is void. "4thly, The patent must not be more extensive than the invention; therefore, if the invention consist in an addition or improvement only, and the patent be for the whole machine or manufacture, it is void." Now here the specification is materially defective, in not ascertaining how much of the whole machine described is the new invention: and though the plaintiff has not taken out this patent for the whole machine, yet, having obtained his patent for the improvement of the machine, he has not made a specification of that improvement, as he was bound by the condition of the grant to do; but has made a specification larger than the patent, upon the face of which the particular improvements cannot be ascertained. In Turner v. Winter it was held, that if the specification were ambiguous, or gave directions which tended to mislead the public, it avoided the patent. It is not enough, then, that persons of great skill and experience may be able to find out the invention from the specification; but it should be plainly stated, so that a person of reasonable knowledge and experience upon the subject may immediately be made acquainted with the invention. The specification ought to inform the public what the thing is for which the patent is granted, and how it is to be made, and not merely inform them where else that information is to be acquired; for that is not a compliance with the condition. No person applying to the specification of one patent is bound to know that another has been granted. If enquiry be neces-

sary to be made for facts *dehors* the instrument itself, it is difficult to say where the line is to be drawn: references may as well be made to dictionaries of arts and sciences, philosophical transactions, &c., as to other patents and specifications. The patentee is not to throw on the party enquiring the trouble and expense, and loss of time, of acquiring the knowledge of his invention, by investigation and comparison. The generality of the whole description may render it as ambiguous and difficult to be understood, as the too great generality of the particular terms in Turner v. Winter did. The public may well imagine from this specification, that the plaintiff had a patent for the whole machine, when in truth it was only for a part of it. It may be doubtful whether a direct reference to the former specification would have sufficed; but here there is no such reference: but the two instruments are endeavoured to be connected through the intervention of the second and first patents. If there were a succession of patents for several improvements, ending at different periods, it might be extremely difficult for a person to collect from specifications of this kind, the periods when the several inventions would be open to the public. But the true sense of the condition is to give the public direct and complete information of the manner of executing the invention, without further search or trouble.

Mr. Justice LE BLANC.—There lies the difficulty; for suppose the specification had merely described the improvements, such as the addition of a crank or a screw to such or such a part,

must not the party still have referred to the original specification, or at least have brought a full knowledge of it with him, before he could understand truly how to adapt the new parts described to the old machine?

Mr. Wetherell.—Admitting that there may be some difficulty in satisfying the object of the specification by a mere description of the new parts to be added to the old machine, the patentee would be bound to state so much of the original specification as would make his description of the improvement intelligible; and perhaps the better and safer way would be to state the whole, and then to mark by references the new parts: but in whatever way it be done, the public should be able to ascertain at once, without looking to any other instruments, which are the new parts for which the patent is granted; and no objection could be made to any surplusage of explanation, provided it was not given in a manner to confound the inquirer as to the new invention.

Mr. Holroyd in reply, said, that if references to other instruments were made in such a manner as to obscure the subject and confound the inquirer, that would avoid the patent: but so far as the public are interested in having a perspicuous description of the machine in its most improved state, it cannot be done more effectually than by describing the entire improved machine; and those who are interested in discriminating between the old and new parts can have no difficulty in doing so, by comparing the two specifications; the latter of which, through the medium

of the patent, having express reference to the former one; and every person being bound at his peril to notice these enrolments, and being liable to an action for infringing the patent, without having personal notice of it. Admitting, therefore, that a patentee cannot refer an inquirer to books or other writings, which he may or may not be able to obtain, or can only obtain by paying for it, or by the indulgence of another; yet here he is referred to a public source of information appropriated to this express purpose, which the patentee himself has afforded, and which the other has a right to have.

Mr. Justice BAYLEY.—Suppose the former patent and specification to be lost by accident; how is the public to know from the specification of the second patent how much of the whole improved machine they may use?

Mr. Holroyd.—The law presumes that all records will be properly preserved. The same difficulty, however, would occur, if a drawing annexed to the specification in question were lost; and indeed in the case put, there would be an advantage to the public in this mode of specification more than sufficient to counterbalance the loss of the particular information, as thereby the knowledge of the whole improved invention would be preserved. The greater difficulty would be thrown upon the patentee himself in shewing what the precise improvement was, in an action for the infringement of his patent: his claim of monopoly being confined to the whole combination described. As to the labour or difficulty of

comparing the second with the first specification, in order to find out the invention, some labour and difficulty of this sort must always occur where drawings are referred to, annexed to the specification; they must be read and compared together, and the party must bring his general scientific or mechanical knowledge, and perhaps other general information, to bear upon the subject. If the first specification had been actually recited in the second, there must have been the same labour of comparison as in this case: the only difference here, is, that the party must refer to another parchment or record.

Lord Ellenborough, Chief Justice.—I own I was disposed to think that it was a departure from the terms of the proviso for the patentee merely to tell the inquirer who came to consult the specification, how he might learn what the invention was, instead of giving him that information directly. But I feel impressed by the observation of my brother Le Blanc, that the trouble and labour of referring to and comparing the former specification with the latter, would be fully as great if the patentee only described in this the precise improvements upon the former machine. Reference must indeed often be necessarily made in these cases to matters of general science, or the party must carry a reasonable knowledge of the subject-matter with him, in order clearly to comprehend specifications of this nature, though fairly intended to be made. We will, however, consider the case and certify our opinion.

The court afterwards certified to the Lord

Chancellor, that they had heard the case argued by counsel, and were of opinion that the proviso or condition in the letters patent, bearing date the 29th March, 1794, had been performed by the enrolment of the specification thereof set forth in the case.

IN THE COURT OF KING'S BENCH.

Watson v. *Pears.*

6th December, 1809.

THIS was an action upon the case for the infringement of a patent, dated 10th May, 1808. The patent containing the usual proviso that a specification should be enrolled "within one calendar month next, and immediately after the date thereof;" which specification was enrolled on the 10th of June following.

Mr. Park, for the defendant, insisted that the patent was void; the specification not having been enrolled on or before the 9th of June, when one calendar month from the date of the patent expired. The month must begin to run from the 10th of May, and included the whole of that day. It therefore could not extend to the 10th of June, there being a clear impossibility of two days of the same number being comprehended in one calendar month.

Mr. Selwyn, for the plaintiff, relied upon the case of Thomas v. Popham, Dyer 218. b. The question arose there upon the statute of enrolments, 27 Hen. VIII. cap. 16. which enacts "that the enrolment shall be made within six months next after the date of the deed." The indenture in issue bore date 9th October, 1557, and was enrolled in Chancery on the 21st of March, 1558, which was the last day of the six months, reckoning twenty eight days to each month, and making the day of the date exclusive. The court held that the indenture was well enrolled, and that the words "next after the date of the deed" were exclusive of the day of the date.

Mr. Park, in reply, urged that in that case the court was bound if possible to support the validity of the deed against the grantor, who was a subject; but that the grant here being by the king, was liable to a different rule of construction, and that it had often been decided, that where a period was to be reckoned from a date, the day of date was inclusive.

Lord Ellenborough.—It used to be held that the words "from the date" includes the day, and "from the day of the date" excludes it. But since the case of Pugh v. Duke of Leeds, Cowp. 714, these formal distinctions have been done away; and the rule of good sense has been established, that such words shall be construed according to the meaning of the parties who use them. The case cited upon the statute of enrolments, I think is expressly in point. That shews that the day on which the patent bears date is

not to be reckoned. The month, therefore, only began on the 11th of May, and included the 10th of June, the day on which the specification was enrolled.

The defendant afterwards had a verdict on the merits of the case.

IN THE EXCHEQUER OF PLEAS.

Manton v. *Parker.*

6th July, 1814.

In this case Joseph Manton was plaintiff, and William Parker defendant, and the action was brought for the infringement of a patent granted to the plaintiff, dated 6th July, 43 Geo. III. for "a hammer on an improved construction for the locks of all kinds of fowling-pieces and small arms."

Mr. Dauncey, for the plaintiff, stated, that for the better encouragement of the arts, patents are granted to those who make discoveries that are likely to be useful to the public, and that Mr. Manton had obtained a patent for the discovery of a new principle to be applied to the locks and hammers of guns. The substance of the specification shewed the means of letting out the air from the barrel, and causing a communication between the powder in the pan and the powder

in the barrel, without at the same time letting out the powder. Mr. Manton discovered, that if the air-hole in the lock, which is described in the specification, should be made, the purpose would be answered, and consequently that it was an invention, attended with all the conveniences the exclusion of air could produce, and none of the inconveniences of the powder being driven out with it. If the thing was invented before, then undoubtedly Mr. Manton was not the first inventor; but there would be no difficulty in proving it to be Mr. Manton's invention, and that it had been adopted by the defendant. With respect to the proof of the preliminary formalities, there would be no doubt. It is necessary that there should be a specification of the invention, in other words; that the party should so describe that which he has invented as that any body who is skilful on the subject may be able to make the same thing; and that when the patent has expired, the world at large may have the benefit of the discovery. That has been done. It will be shewn by experienced gunsmiths, that they never knew or heard of such an invention anterior to this of the plaintiff's. The peculiar excellence of it they will speak to; and they will shew that no man of skill could be under any difficulty in making from the specification a similar article.

Mr. Scarlett, for the defendant, said, that all with which the jury had to do was the originality of the invention, and the adaptation of the means to the end; and further, whether the invention was of use to the public. The patent is

for the construction of a hammer upon a new principle. In order to find out what the construction is, you must look into his specification, and it consists of three parts: first, the part which is next the touch-hole, and is hollowed out, or perforated with a small hole, so as to let the air pass through, and not the powder; second, the seat of the hammer, which is grooved or hollowed out from the perforation, so as to let the air out of the pan, but not the powder. The learned counsel stopped here, and submitted as a clear proposition deduced from a number of cases, that if a man takes out a patent for an original invention, and he claims more in his specification than is original, or he has a right to, the patent is void for the whole; therefore, if any one of these specifications shall turn out not to be original; if the lip, the groove, or the hole, should either of them be his invention, but if there is one or either of them which is not his invention, in that case, as the specification gives reason to the public to suppose that he claims the whole, the patent is void, and he cannot maintain his action. Mr. Scarlett then went on with observations upon the evidence produced for the plaintiff, stating, that a groove communicating with the touch-hole existed before, and contended that the plaintiff ought to have limited his patent to the invention of what was new and unknown before. If hammers before existed in which grooves were made half way, he should have stated that he had carried them the remaining part of the way. He claims the groove as his original invention, and

upon that ground his patent is void. Although the groove may only have gone across the hammer-seat by accident, yet if a man in making a groove should by accident have carried it across to the open air, and should have sold the article in that state, so that the public were in possession of it, though it was not intended to have been so made, yet it cannot afterwards be claimed by another as an original invention. Invention is often the fruit of accident; and there are many cases which shew, that if an invention by one man is the result of accident, it is not another man's finding a use for it that shall give him a right in law to the exclusive advantage of it; therefore, if this was discovered or done by accident, the plaintiff could not take out a lawful patent for it as his original invention. The plaintiff says, his object is to make a hole large enough to admit the air, but not so large as to admit the powder; by which means the air is let through, and the powder kept in the touch-hole. The plaintiff's patent is to prevent the piece from hanging fire, by having a perforation to exclude the air. Now, if the hole is for the purpose of letting the air pass through, it follows that in a damp day it will admit moisture; and the effect of moisture upon powder would be to make the gun hang fire, or probably miss fire: but it will be proved, that almost the moment after Mr. Manton procured his patent, he found it essential to make the hole large enough for powder to pass as well as air. It was thereupon submitted, that if a man takes out a patent, professing that it is to do a certain thing,

and it is found by experience that it will not produce the effect designed, but that to make it of utility there must be a deviation from the specification, the patent is in that case wholly void. That rule was laid down in the case of Turner v. Winter, where all the doctrine upon the subject is to be found: it is there stated, that if a man takes out a patent for several things, some of which are original and some not, or if there is any thing which will not answer the end proposed, the patent cannot be sustained. Having gone through Mr. Manton's evidence, Mr. Scarlett then stated, that he should produce a man from Birmingham, a perfect stranger to the parties, who had never seen Mr. Manton's patent, but who had made hammers with perforated lips many years since. He had not any then remaining by him, as they did not answer, but from recollection made one which was produced in court, having the lip and the perforated groove in the seat of the hammer. The groove did not go to the extremity of the seat, but Mr. Manton does not take out his patent for a part, but for the whole; not for the lip only, but for all the three; the groove, the hole, and the lip. A lock will be produced upon the same principle, made by a country workman, in consequence of his being desired to represent the same article he had before sold. It approximates so close to this patent, that the conclusion is inevitable that the whole of this patent is nothing more than putting in practice that which has long been exploded; that which neither separately or combined has

been found to be of any use. Witnesses will be called to prove that they made locks of this description, and upon this principle; but not finding them answer, they were not brought into use. The groove in the hammer existed in all old fire-arms. It will be proved that there is no one particular in which this invention has any claim to originality; that locks upon the same principle were made years ago, and exploded years ago. Now it is not because a person chooses to revive a thing that is old and exploded, and takes out a patent for it, that such a patent can confer any right.

The witnesses on the part of the defendant were called to prove what had been stated by Mr. Scarlett, and amongst other things it was shewn by experiments made in court, that the powder passed through the perforated lip, by its own gravity, without the least difficulty.

Lord Chief Baron.—The powder passes through the same hole as the air. It seems to me, therefore, that the utility of this invention, and the purpose of this patent, wholly fail; for the purpose of the hole, as described in the specification, is to let the air pass through, and at the same time secure the powder from passing through: that of itself would be an answer to this action. Besides, on the other part of the case, the evidence is pretty strong.

Plaintiff nonsuited.

IN THE COURT OF COMMON PLEAS.

Joseph Manton v. *John Manton.*

20th June, 1815.

This was an action brought by Mr. Joseph Manton, under the direction of the court of Chancery, against his brother, Mr. John Manton. Its object was to complain of infringements upon two patents granted to the plaintiff; the first, dated the 6th of July, 1803, for "a hammer upon an improved construction, for the locks of all kinds of fowling-pieces and small arms," and the second, dated the 6th of September, 1806, for "an improvement in double-barrelled guns."

Mr. Serjeant Lens stated the plaintiff to be the first and sole inventor of this improvement upon the hammer, the effect of which was that of producing a better or more perfect way of loading fowling-pieces and small arms, without the danger of their hanging fire, and in such a way as to produce a certain explosion. It is a material object to have the powder in the barrel communicate as speedily as possible to the powder in the pan, for, if there is any disunion, the powder in the barrel will not take fire so instantaneously as if its communication was uninterrupted: the piece will either not go off at all, or it will hang fire; whatever, therefore, brings about such an unbroken

union must be a desirable object. In ordinary cases before this invention, when the wadding was rammed down there was always a quantity of compressed air within the barrel, which was forced out at the touch-hole. It was easy to let the air escape, but it was desirable that it should carry none of the powder with it, as that would make an actual discontinuance between the powder at the bottom of the barrel, and the powder in the pan. To remedy this defect, the invention of the plaintiff is very simple: it is, to have an aperture in the lip or cap that goes over the pan so small, that when the cap is down, the compressed air shall escape through the aperture, without discomposing the powder, but leaving the powder where it was. If the aperture is not very small, not only will the air be forced through, but the small grains of powder will be carried with it. It will be proved that the aperture is well adapted to produce the effect intended. This appears to be a very easy matter; it is difficult to conceive how it should not have been found out before. It often happens, that the merit of an improvement consists in a very small addition to the thing to which the improvement is applied. The aperture is very fine and minute, but it is sufficiently large to let the air escape, and yet small enough to prevent the powder from passing. The object is to have this smaller aperture precisely where the lip closes upon the touch-hole; and this invention has answered every purpose for which it was intended. It will be proved, that before Joseph Manton had his patent, there were

continual inconveniences from fire-arms not going off, or hanging fire; and that since this invention, there has been a more certain dependance upon the explosion taking place, and the piece neither missing nor hanging fire. The defendant, in imitating this invention, has not made the aperture precisely in the same line, but he has produced the same in an oblique line. When a man sets about to imitate the invention of another, he will not do it exactly in the same way. Instead of making the aperture through the pan, the defendant has made a small angle passing it obliquely. This is the nature of the infringement complained of. The question will be, whether this is a new invention, or whether it has existed from an antecedent time? In the latter case, the plaintiff can claim no merit; for that which was invented before never can become the subject of a patent. There may have been things something of this kind, but no such aperture as the one invented by the plaintiff has ever before been in use. There may have been hammers made with lips, but those lips were never perforated to produce the effect produced by this invention. With respect to the other patent, which gave to the plaintiff the merit of having invented an elevated top-piece for double-barrelled guns, it was observed, that if the point of view in a double-barrelled gun is carried on the same level, the person firing off the piece will send the shot in a line horizontal with the mouth of the barrel; the consequence will be, that if the object is at some distance, and the contents of the barrel are carried

in the same line of direction, the charge will probably go below the object aimed at: for, by the power of gravity, all heavy bodies incline downwards: therefore, when a gun is fired at any object beyond a certain distance, the ball or shot forms a curve, and has an inclination to sink nearer the earth. The shot will be carried in a straight line as long as the first impetus operates: but when it in the least degree ceases, the shot will, by the principle of gravity, sink below the object. It was therefore important to contrive a means by which the person taking his aim should be able to throw the shot higher than it would be carried by his own sight along a level plane. Now that is only to be effected by making the line of sight extend along an inclined plane: by the elevated top-piece, the point of sight is carried in a different line, extending somewhat above the object at which the aim is taken, which allows for the descent produced by the principle of gravity, and the shot is made to proceed in a more elevated line, so as at a certain distance to sink, and by that means meet the object sought to be struck. In common single-barrelled guns this effect was produced by the circumstance that the breech, being thicker, and consequently more elevated than the mouth of the barrel, formed for itself an inclined plane, and produced the same effect, which, in a double-barrelled gun, is produced by this elevated top. The thickness and consequent elevation of the breech in double-barrelled guns gave an additional weight, which was considered a great inconvenience. It therefore became desirable to

lessen the weight, which could only be done by making the breech of the same thickness as the muzzle; but the consequence was, that the line of direction was varied. In obviating this difficulty is the great merit of the present invention; for instead of having each barrel thick all round at the breech, the same effect is produced by what is called an elevated top-piece, or top-rib. Till Joseph Manton invented this, the inconveniency of using double-barrelled guns was universally felt. This invention the defendant has also imitated and sold, in defiance of the patent. The question will be, whether the defendant has infringed these patents? It will be shewn that he has infringed *both of them*; *that all the purposes* for which the patents were obtained have been attained by the inventions for which they were granted; and that before Joseph Manton introduced these inventions to the public, and obtained his patents for them, the same effects had never been produced by any similar methods.

Mr. Serjeant Best, for the defendant, said, it was not for him to dispute whether the principle upon which the plaintiff has made his guns was a good principle or not: whatever advantage there might be in those guns, he should prove that the principle was not new. It was not doubted but many persons might be called who never shot with such a gun before; but although many gentlemen have never seen these guns before, yet, if one is called who has, there will be an end of the patent. That will be the defence. Here are two distinct inquiries to which to direct the atten-

tion; one with respect to the gun-lock, the other with respect to the rib on the top of the gun. First, the gun-lock as exhibited in the plaintiff's specification: it will be shewn, from the evidence as it stands, that the patent cannot be sustained; but if that should not succeed, I have (says the learned Serjeant) a case behind, by which I shall prove, that this gun-lock is "as old as the Hills." It is important that a person who takes out a patent should not take it out to a larger extent than the invention warrants. A patent is the reward which the law gives to a person who is the inventor of any thing that was not known before, and the man ought not to ask for a reward beyond the extent of his merit. If there is any thing that was known before, he may adopt it, and make improvements upon it; but he has no right to call that exclusively his own, which is not entirely his own invention. Indeed there is scarcely any thing that is new, and therefore the subject of patents is usually some improvement in what was before known. A person taking out a patent is to state that which is new, distinguishing it from that which was known before; he is to claim his invention for so much as is his own, and no more; he has no right to any thing beyond what he adds to the stock of public knowledge. If he could claim more, he would be taking from the public, and appropriating to himself what the public had before a right to the enjoyment of; therefore, if he takes his patent out too large, the patent is void altogether. If, therefore, the plaintiff has taken

out his patent for too much, or has described it indistinctly, in either case his patent will be void. Now it is clear upon his own evidence, that he has taken out his patent for too much. It should be observed, that a condition upon which the patent is granted to him is, that he shall make a specification within a given time, which shall describe the extent of his invention, and so describe it, that any other person of ordinary skill may be able to avail himself of it. He, by his specification, not only claims the perforation, but he claims the larger hole called the cup. Is that new? One witness says, that he has made scores and scores of them. If a man claims an invention for a perforated lip, a lip being a thing well known before, and used before, he must state that he claims his patent for the perforation of a lip, whereas this is a claim for the lip itself; which, according to the plaintiff's own evidence, the public were in the habit of making before. He claims also the groove that runs across the seat of the hammer. There is the cup, then comes the perforation, and then the groove that communicates with the touch-hole. According to his statement, all this is new; and therefore if any part of it is old, he is not entitled to his patent. The perforation, his witnesses say, is new; but it will be proved that it is as old as any thing else. His witnesses say, the groove is old. Mr. Egg tried the grooves, and left them off: other witnesses speak of the groove as a thing well known. There is only the perforation that is new: the commencement of the groove at the lip is old;

the groove which passes from the perforation to the outer extremity is old. How is it possible that this patent can stand, even on their own evidence? for in the specification, the plaintiff insists that the whole is new; whereas it is only the communicating perforation which is new. It is therefore clear, on the face of this specification, that the patent cannot be supported, because he is claiming a patent greatly beyond any thing he has discovered. There is another thing: he must so describe it, that a workman may know how to make it. The size of the hole that is to let the air out but not the powder is not described. The groove is the most material part of the invention: it is that which is to carry into effect the whole. It is so described, that without the groove, the invention would be of no use. It appears that the perforation is the only thing which is new; but the specification claims the perforation, the cup, and the groove. The specification, therefore, is too large. If a man has an action brought against him for the invasion of a patent, it need not be shewn that he has invaded the whole of it. "If I have a clear undoubted right to a patent for a cup, a groove, and a perforation, if any man makes the cup, he infringes a part of my patent, and I may have an action against him; or if he makes the groove, I may have an action against him." The plaintiff, by obtaining this patent upon so large a scale, would have a right to maintain an action against a person for doing that which any of the public have been long entitled to do. [The Lord Chief Justice.—"No doubt

he must prove the novelty of every part of that to which his patent applies."] The learned Serjeant then went on to contend, that supposing the patent to be for that which was entirely new, yet that the defendant had not imitated the invention of the plaintiff. The plaintiff claims the seat of the hammer grooved or hollowed; the grooving or hollowing out we have not got: the two things are as different as possible; the grooving in the specification is to let the air out of the pan,—ours cannot let the air out of the pan, for the air never gets into the pan, it is carried off by another course: it would be a very difficult task to point out which of the two is best, but common sense says they are not the same. We have not touched upon their patent,—they drive the air through the pan, we send our air in a different course. Upon this ground there is an end of the case as to the lock. The other question will be easily disposed of when we come to the specification with respect to the rib; but the plaintiff has taken out his patent for an invention which he never invented. It will be proved that this pretended invention was used before Joseph Manton was born, or at least long before he ever thought of taking out this patent. Another principle to be attended to is, if you profess to combine those things in your patent, the use of which separately was known before, you must so state it in your specification; you must not lump the whole together; you must state the separate things, the uses of which are known separately, but the union of which has never been tried: that is the way in

which you should take out your patent. It will be shewn that every one of these things was in use before, and that the only merit to which the plaintiff can pretend is the having united them. The learned Serjeant then produced some locks which were ordered by the Lord Chancellor to be exhibited upon the trial of the issue directed by the Court of Chancery to decide the question between the parties, in which he shewed the cup, the lip, and a perforated lip with a communication to a sort of magazine, which he would prove had been in use many years, and that these kind of locks had been made commonly at Birmingham upwards of 30 years ago. The groove in the present case goes to the end of the hammer, while the groove in the other goes only half way. This makes an end of the question, because he has taken out his patent for the cup, the lip, and the perforated lip, all of which were before in possession of and used by the public. He has carried the groove the whole way, which before went half way; but where a man has taken out a patent for carrying a groove the whole way through the hammer to the extremity of the pan, the practice before having been to extend it half way, he cannot in such case maintain an action for the infringement of his patent. It will be proved that the cup, lip, and groove existed long before the plaintiff obtained this patent; that all he has done is productive of mischief and inconvenience, and that the lock is less perfect by carrying the groove through instead of stopping in the middle. There are two objects to be ob-

tained, one is to let out the air, and the other to keep out the damp; this lets out more air than is necessary, and it also lets in more damp than is necessary: it is therefore shewn that all these component parts are old, and that the plaintiff has obtained a patent as for a new invention without any pretence for it. It will be proved that whether the perforation is new or not, it is not important. Nothing is said in the specification about the cup; the only things therefore to be attended to are the perforation and the groove, and both of them are shewn to be known before this patent was taken out: what he has taken out his patent for is the perforation and the grooving, and it will be proved that they are old, and that all is old for which the plaintiff claims his patent. By law, if a thing is but once in use, except merely for the purpose of making an experiment, it is given to the public. It is an abuse of the prerogative to ask for a patent upon such a pretence. With respect to the other patent for the rib or top piece, the object is to make the person who uses the gun raise the muzzle; the object is attained in an ordinary gun by the breach being raised. For the purpose of looking at your object at a certain distance, so as to hit it by allowing for the falling of the shot, it is necessary to raise the muzzle: the mode of driving a sportsman to do this is to have the point of sight raised and carried along an inclined plane; this will be proved to be of no utility, or if it is of any use, that it is not new. It is in evidence that the only novelty which the plaintiff calls an invention consists in

having a solid piece: if a high breech and a low sight were in use, that is the whole of the principle. The principle of a rifle gun is exactly the same; but a gun made for Lord Berkeley twenty-six years ago, and made by the defendant, will be produced, which is precisely upon the same principle for which the plaintiff has taken out his patent: it makes no difference whether the inclined plane is grooved or flat. The plaintiff is not the inventor of this principle, neither is the defendant, though he made this gun twenty-six years ago, when the plaintiff was his apprentice. The antiquity of the principle will be proved, and other pieces upon the same principle made before the patent will be produced. As to the law upon this subject, the plaintiff declares in his specification that his invention is an elevated top-piece or top-rib for double-barrelled guns, which must be made high at the breech and tapering off to the muzzle. All the plaintiff has done is, that he has applied to a double-barrelled gun what had been before applied to a single-barrelled gun. If a man took out a patent for a particular shoe buckle, could the same principle be applied to a knee buckle, and a new patent be taken out for it? Clearly not. He says this elevated top-piece must be made high at the breech, but he does not say how high: now the thing should be described so that another man may know how to make it; there should have been some proportions stated, some scale given: as he has stated it, no man can understand it. He says the top-piece is to give the barrel elevation, to throw the centre

of the charge up to the object aimed at, at the distance required, and recommends it to be made so high at the breach that the centre of the charge will be thrown up to the object at the distance of forty yards; but if at a greater distance, the top-piece must be made still higher at the breech, to give more elevation. Is it possible that such a specification will do? if you want to kill at forty yards, you must make it so high; if you want to kill at sixty yards, you must make it still higher; but how much higher is not stated. What is the principle as to the difference of height between the breech and muzzle of the gun? that secret is not disclosed. In consequence of this defective specification, this patent, if the invention had been new, would have been void; but it will be proved that it is not in either case a new invention.

Mr. Serjeant Lens, in reply, said that the whole of the case on the part of the defendant could be answered by a few observations. The counsel for the defendant had said that he should prove that this was no new invention, but that it was "as old as the hills." If he had proved that, there would have been an end of the question; but he found his challenge too bold: according to his own statement, he had nothing like direct proof to offer; his mind then misgave him, and though he said he did not wish for the judgment of his lordship, he made use of observations which, if they had been well founded, would have certainly gone to a nonsuit. He stated that we could not stand in a court of justice, because by our patent

we claimed three entire things when we were only entitled to one; that we had carried our patent beyond what we had any title to do. If he had been satisfied that his evidence would prove this was not a new invention, he would merely have put in issue the question whether this was a new invention or not, without relying upon any supposed defects in the specification; however, as he has adopted this line of argument, it is necessary to notice it. He states that we have claimed three things when we are only entitled to one: now we do not claim the exclusive right of making grooves in hammers, they have existed long before our invention; we do not claim the exclusive right of making lips or hollowing out cups, they too have been of long existence; that which we claim is, that we have found out a way by combining and using these things which were before invented, with something that we have invented, of producing an effect which was never before attained. That which we claim is the mode of carrying off the air which before obstructed the ramming down the charge, and caused the piece to miss or hang fire, by introducing an aperture not sufficiently large to admit the powder through it, but so small as to let that quantity of air escape which ought to escape without the powder following it. By this invention the air passes through the groove in the seat of the hammer, and goes out at the small punctuation at the end. It is this in which we say our invention consists. In ordinary fire-arms when they make use of the bulkier hole which is for

the communication of the powder in the pan to the powder in the barrel, the effect is that in loading, the powder is forced through with the air; to obviate this difficulty we have recourse to the smaller aperture through the seat of the hammer, by which the air passes without the powder. If this is an old invention, why has the defendant been at the hazard of imitating it? Why not adopt the old mode? Why not have kept to the old form and shape? What occasion was there to assimilate his guns to ours? Why make them resemble ours if there was not some material difference between our invention and the old mode? He says all this was done long ago; that the old form was just as good; that the public have obtained nothing by the patent: then surely he comes into court with a very bad grace, when he comes endeavouring to imitate that invention which he so traduces. Whatever may be the utility of this aperture, ours is the merit of the invention. We have been the first who have adopted an aperture to carry off the air, but not large enough to carry the powder through or let the air come back in a humid state: the whole of their case goes to shew that this mode existed before our patent; but they have failed in their endeavour. If the principle existed without being known, that is no answer to our case; the attention of the public was never drawn to it till we took out our patent. As to the second patent, it is an invention, the effect of which is, to throw the shot higher: it is admitted that the specification might have been more philosophically expressed; it has been said

that it is calculated only for a distance of forty yards, and to leave you in ignorance suppose you wanted to kill at fifty or sixty yards; but it is applicable to both these distances, or to any intermediate distances: you may adopt the principle according as you want to apply it. The specification takes the line of distance at forty yards as the average distance, being neither very long nor very short; if you want to kill at sixty yards, you must have the elevation accordingly: the true application is to be learnt by experience, and the specification is so drawn that any man may easily apply the principle. If these elevated tops are proved to have existed in the same state, and that nothing has been done but to give them a more regular disposition, certainly the patent cannot be supported.

Lord Chief Justice GIBBS.—This action is brought against the defendant for having, as the plaintiff insists, violated two patents. Before I state the case, I will answer the question of my learned brother. He asks, why did the defendant, if he meant to rely on the old mode, vary from it and assimilate his mode to the plaintiff's? The answer, if he is right on the merits, is this: I did it because I had a right so to do, because the principle of the old fashion prevented this from being a new invention, and therefore I have a right to avail myself of all the improvements he has made. In order to support a right to the exclusive enjoyment of any invention, it is necessary that the party who takes out the patent should shew that the invention is new, that it was un-

known to the trade and to the world before, that it is not only new, but that it is useful to the public; and it is necessary likewise that he should shew that he has accurately explained the nature of his invention in his specification, separating that which is new from that which is old, so as to enable a person of tolerable skill to make the thing by means of his specification.

I stated that there are two patents which the plaintiff complains of being violated,—the one with regard to the lock, and the other with regard to the elevated top-piece; and I should state that if this was ever practised before Mr. Joseph Manton took out his patent, he cannot support his patent for it, and it appears to me to have been proved beyond all doubt that this mode of varying the sight by means of an inclined plane has existed long before Joseph Manton's patent. It has been proved that long ago numberless guns upon this principle were sent to the East Indies; and that some were used in this country. There is no doubt that the gun produced by Colonel Berkeley was made long before Joseph Manton's patent was taken out; and if it was, then it appears that the mode of making guns upon this principle was well known, and that he could have no right to take out a patent for it as his own invention. In truth it appears clear that guns upon this principle were made by John Manton the brother of Joseph Manton, while Joseph was an apprentice to him. I have no scruple in saying, that if that gun was in use before the patent was taken out,

Joseph Manton cannot support his patent for it as a new invention.

Then it remains to be considered whether the patent for the perforated lip and hammer can be supported: now it plainly appears that the lip was of an earlier date than Joseph Manton's patent. He does not pretend to have invented the lip, but he says that by the old mode a mischief prevailed which he has provided against, and that he has greatly improved the guns to which he has applied the invention, and they call witnesses to prove that this is a new and useful invention. The first witness, a man of considerable experience, had never seen any locks with the lips so perforated; *prima facie*, that is good evidence: but when the question is, whether this had existence previous to the patent, fifty witnesses proving that they never saw it before would be of no avail if one was called who had seen it and practised it; and if any one person has ever done the same thing, Joseph Manton cannot be entitled to his patent. It is admitted that John Manton has sold guns, which, if this patent can be supported, are in breach of it. The several gentlemen called as witnesses concur in saying, that after they applied this improvement of the perforated lip, the utility of which is that it lets out the air and not the powder, their guns went off easier, and never hung fire; and there is no contradiction to that part of the case: but the defendant insists that this invention, be it good or bad, useful or useless, is not new,—whatever may be its

merits or demerits, the defendant says the invention is not the invention of the plaintiff. One witness is called who says that there was a hole in the lip of a hammer (which was produced) when he lived with Mr. Smith a gunmaker, in 1802, and he swears that the hole was made in the lip for the purpose of preventing the obstruction in loading produced by the lip: now if that was so, it prevents that from being a new invention. He states that lips were made with this hole at the time he lived with Mr. Smith, and although it passed through the solid part of the pan, yet it would be sufficient to prevent the claim of Joseph Manton from being an original one, because it would be an invention the principle of which was well known. He says Mr. Smith told him the hole was for the purpose of letting the air out of the barrel, and it would do away with Joseph Manton's patent. I may as well state now that Mr. Smith has been called to give this witness a direct contradiction, and to prove that he never did make this hole with a view to letting the air out, but that it was merely made for fixing a screw: if it was intended to receive a screw, there would be a worm; he says there was a worm, but that it had been bored out. The man swears most positively that there never was any screw or worm, or female screw, belonging to it; he says it was to obviate the complaints with respect to the obstruction in loading. These two persons contradict each other in pretty direct terms. Smith states that he had no conversation with his man to the effect stated by him. Upon

his cross-examination, he says he has often declared that this was not Joseph Manton's invention, but he states that was only with a view of recommending his own merchandize. He swears that he did not tell Mr. Cumden that he had actually made a perforated lip for the purpose of making the air pass through thirteen years ago but Mr. Cumden is called to contradict him, so that I should think that a great deal of attention cannot be paid to the evidence of a man whose testimony is so deeply invaded as Smith's is; but upon this part of the case it is material we should attend to the evidence of Mr. Furtado: he says he purchased a gun of Mr. Smith with some new principle, which was a hole facing the touch-hole, for the purpose of the wadding going down easy; he says he purchased it on the representation of Mr. Smith that in other guns there was a difficulty in loading, which in this was removed by a hole facing the touch-hole. Now Mr. Smith must have represented to him that he was selling him a gun in which the mischief was actually removed by the very means by which this patent professes to obviate the inconvenience. He will not pretend to say whether it was in 1802 or 1803; but he sold it again, because it did not answer the purpose for which he purchased it. It appears that Smith did sell him a gun upon the principle of excluding the air by means of a hole facing the touch-hole, but the case does not rest there. They bring a witness who produces a lock upon the same model as the locks which he says he made twenty-five, twenty-six, or twenty-

seven years ago: he says he made it as nearly alike as he possibly could. You observe there is a lip, a hole, and a groove, and one of the former witnesses told you that the manner in which they made their pans before the plaintiff's patent was taken out, was by suffering the air to escape through a hole made for the purpose. If the evidence you have heard on the part of the defendant is correct, it follows that the principle of Joseph Manton's patent was made use of over and over again before his invention.

The witness tells you that he made a great many locks upon the principle of a perforated lip, and that he continued making them for three years together: he says that the hole and the groove were made for the issue of the air, so that the object of the plaintiff's patent and the means of that object were well known. He tells you that the principle was well known twenty-five years ago; that they felt the evil complained of, and prevented it by a perforated lip that is in substance the thing for which Joseph Manton claims the merit of his invention.

The only question for your decision is, whether the invention for which Joseph Manton has taken out his patent for the improved gun-lock is a new invention. Certainly on the part of the plaintiff they call witnesses who are experienced in the trade, who had never seen any thing of the kind, and that evidence launched their case; but on the part of the defendant, it appears to be clearly proved, that the principle was a well known principle. If any one man made these locks, and was

in possession of the secret of making them upon the same principle as Joseph Manton's locks, there would be an end of the patent. You find Mr. Furtado purchasing a lock of the same description, and you find a man making locks of the same kind twenty-seven years ago. If so, this patent which Joseph Manton has taken out cannot have been for a new invention. It is for you who have heard the evidence, to say whether he be or be not the inventor of this lip with the perforation. If you think it was not practised before his patent, then he is entitled to your verdict; if you think the principle was well known, and that this man at Birmingham made locks of the same description, and on the same principle, twenty-seven years ago, in that case the defendant will be entitled to your verdict.

Verdict for defendant.

IN THE COURT OF KING'S BENCH.

Lord Cochrane v. *Smethurst.*

S. C. 1 Starkie R. 199.

22d February, 1816.

THIS was an action brought under an order of the Lord Chancellor, to try the validity of a patent granted to the plaintiff, dated 3d March, 53 Geo. III. for "a method or methods of more completely lighting cities, towns, and villages," and an alleged infringement by the defendant; in

which letters patent was contained the usual proviso, that if the plaintiff should not particularly describe and ascertain the nature of his said invention, and in what manner the same was to be performed, by an instrument in writing under his hand and seal, and cause the same to be enrolled in Chancery within six months after the date of the patent, the same should be void. The plaintiff enrolled his specification on the 28th of August following. The declaration then states, that the plaintiff had from the date of the patent exercised the said invention to his great profit, yet the defendant had, without licence of the plaintiff, made and sold lamps in imitation of the invention of the plaintiff, and in breach of the said patent. There were other counts charging the defendant with the infringement in other terms. Damages laid at 30,000*l*. Defendant pleaded the general issue*.

* This matter had previously been before the court of Chancery, the plaintiff having filed his bill, charging the defendant with infringing his patent, and praying an injunction to restrain him from continuing to use any part of the said invention, and also praying an account of profits.

In support of the motion for an injunction, several affidavits were filed, which being answered on the part of the defendant, the motion came on before the Lord Chancellor, who, when the argument was closed, expressed some doubts whether the plaintiff was entitled to any benefit under his patent, from *something* apparent upon the specification; and he therefore took till the next day to give his judgment, and said he would in the interim read over the specification; and on the following day his lordship expressed his doubts still more strongly against the plaintiff upon the specification, but no accurate or positive idea could be collected as to the grounds of his difficulty; he merely

Mr. Attorney-General (Garrow) for the plaintiff, stated, that Lord Cochrane having invented some very important and useful improvements upon street lamps, and having formed the improvement complete in his own mind, had been advised to apply to defendant as being an eminent contractor for lighting lamps, to bring his improvements into public use: that he, after having got his pasteboard models and rough machinery, accompanied by his brother Colonel Cochrane, accordingly called upon defendant, in order that he might reduce it into correct form. That Lord Cochrane stated to the defendant, that he had made what he considered an important invention in increasing the intensity of light, and as he did not wish to take the general management of the business on himself, and defendant being an extensive contractor in that line, he had been recommended to him; and if defendant had no objections to sign a paper, declaring that he would not use or divulge the invention, he would communicate it to him. A paper was accordingly signed to the following effect: "I hereby promise not to practise or disclose any communications relative to a

said, "The plaintiff must bring his action, and if those before whom the cause is tried view the specification in the same light that I do, there will be an end of the question; and if the plaintiff fails, he must pay the costs. I do not think it necessary to say any thing further as to the difficulties which occur to me upon the specification, lest any observation of mine should prejudice the trial of the action." And his lordship ordered the defendant to keep an account, until the trial, of the profits made by sale or use of the lamps in question.

mode of improving lamps for lighting the streets, roads, bridges, &c. which shall be communicated to me by Lord Cochrane. James Smethurst, No. 53, Upper Berkeley-street, March 8th, 1813." The models were then produced. On their first production the defendant thought there would be a difficulty in drawing the air downwards, but Lord Cochrane representing that there was only one aperture for the admission of atmospheric air, and an exit pipe, the atmospheric air being heaviest would enter as the contaminated air escaped. After this explanation, Mr. Smethurst exclaimed, "This is new in all its parts; it is this principle, simplified and adapted to common purposes, which has so long been wanted." The first interview was demonstration of the novelty of plaintiff's invention. Lord Cochrane desired secrecy, wishing to obtain patents for Scotland and Ireland, and his English patent only having been completed: defendant then said that he would undertake to make the lamp himself, and it should be ready in a couple of days. When the plaintiff called at the time appointed, defendant said the lamp was not quite ready; he had entrusted it to his foreman, who was going on with it as fast as possible: whereupon the plaintiff expressed much surprise and fear of the invention being communicated, as the Scotch and Irish patents were not sealed: defendant said he was a trust-worthy, honest man, and there was no danger, as he had bound him in a penalty, by a written agreement, not to divulge it. When the trial was made between a common street lamp and

the lamp manufactured under the plaintiff's direction, no objection was made to its novelty, the only objection was to the increased consumption of oil. The Attorney-General then explained the principle of the construction of Lord Cochrane's lamps, stating that there must be a current of pure air, but a current of air was no part of Lord Cochrane's invention: the placing of flame between two currents of air was not new, it was the principle of Argand's lamp; but if Argand's lamp was put into a case without a regular supply of atmospheric air, it would not answer; the air being burnt and burnt again would become exhausted, and incapable of any longer feeding the flame. There must be a succession of pure air to feed the flame, which should not mix with the contaminated air: this was accomplished by Lord Cochrane's invention, by taking care that the foul air should not return to burn over and over again, by means of an air tube through the external part of the lamp, which conducts the air to the flame. Argand's chimney must be brought down close to the flame and surround it: in this invention it was different, the heated air ascends out of the glass vase, with no possibility of returning to it; it goes out like smoke from a chimney. The lighting the burner without introducing the torch into the lamp would not of itself have been thought worth a patent; but we are to be told this is not new, but has been made before, and made by Mr. Smethurst before. How then will the defendant explain his conversation with Lord Cochrane and

his brother? A great many of the things may be found detached, but shew them in combination. "If all mankind besides knew the improvement, and Mr. Smethurst were to prove by fifty persons that these two people, Mr. Smethurst and his man, knew it, I would not believe them, after what passed upon their first interview with Lord Cochrane and Colonel Cochrane." To support a patent in a court of law, it is necessary, first, that the invention should be new; secondly, the plaintiff must be the inventor; and thirdly, the invention must be so specified that the public may have the use of it after the privilege of the patent has expired: in all which points, it will be proved, that this patent can be supported. The most important part of this invention is the non absorbing cover. The parties have been in Chancery, and therefore we cannot fail to know something of the defence, but it would be inconvenient to anticipate it. It only remains that something should be said upon the subject of reflectors. We do not claim any merit in the return of light, but in the exclusion of the foul air from returning by the non absorbing cover, which forms what is called in the specification the line of exclusion.

Upon the patent and specification being put in and read, an objection was taken to the patent, which does not appear upon the declaration, because the reference to the *said invention* being connected with the introductory averment of invention and discovery, viz. "That the plaintiff,

before and at the time of granting the patent, had invented and discovered divers improvements upon lamps, and was thereupon the true and first inventor of a method or methods of more completely lighting cities, towns, and villages,* &c.;" and the patent is stated in the declaration to be for the "*said invention.*" An objection was also taken to the specification, as it extends to shiplights, convoy signals, theatres, churches, &c. being therefore larger than the patent, which is for "a method or methods of more completely lighting cities, towns, and villages," and also to the generality of the words, "*or otherwise* by preserving it in a state of purity."

Mr. Justice LE BLANC thought the cause had better proceed, but reserved to the defendant the benefit of the objections taken.

The plaintiff proceeded to call his witnesses in support of his case.

When plaintiff had closed his case, Mr. Justice LE BLANC inquired where there was any specification of the use of the line of exclusion, or a description of what it is?

Mr. Attorney-General contended that Lord Cochrane had not by his patent claimed too much, although he might have inserted too much in his specification.

Mr. Justice LE BLANC.—Under the general terms of the patent, must not it be taken with re-

* This introductory averment appears to have been introduced in order to cure the defect in the title which the plaintiff had given to his invention.

ference to the specification? and if the specification is too large, is not the patent so too? Bringing in a current of pure atmospheric air is not new.

Mr. Attorney-General.—But bringing in the current of atmospheric air and excluding all other air is new.

Mr. Justice LE BLANC.—I think this patent cannot be supported: it is in substance a patent for an improvement in street lamps, and should have been so taken.

Plaintiff nonsuited.

IN THE COURT OF COMMON PLEAS.

Bovill v. *Moore and others.*

1st March, 1816.

S. C. 2 Marshall. R. 211

THIS was an action brought by Mr. Bovill, assignee of a patent taken out by Mr. Brown, dated 24th April, 51 Geo. III. for "a machine or machines for the manufacture of bobbin lace or twist net, similar to and resembling the Buckinghamshire lace net and French lace net, as made by the hand with bobbins or pillows," against Messrs. Moore, Longmire, and Noble, lace manufacturers at Nottingham, for an infringement of the said patent.

Mr. Solicitor-General (Shepherd), on behalf of the plaintiff, stated the questions to be, first, whether the patent of the plaintiff was a good and valid pa-

tent in point of law; and secondly, if it be, whether the defendants have pirated that patent.

With respect to both questions there will be very little doubt, when, through the medium of the witnesses, the machinery comes to be understood. They will take the specification and drawings in their hands: they have seen the machinery, and will point out what are the combinations of this machinery; what are the effects that it produces; how it is a new combination, and how the defendants have imitated it.

The patent is taken out for a machine, or machines, for the manufacture of bobbin lace, or twist-net, (which is another phrase by which the commodity is described), similar to, and resembling the Buckinghamshire lace-net, and French lace-net, as made by the hand with pillows. In Buckinghamshire the women make this species of lace called bobbin lace, or twisted net, by the hand, upon the pillows; and the object of this machine is to make that through the medium of machinery which by them is made by the hand: the benefit derived from it is expedition; it also makes it much more perfect and better; but whether it makes it better than that made by hand would be no question in this cause, because the patent is for a machine, of the particular description specified, to produce the commodity which formerly was produced by hand.

The patent being for a machine, it is not necessary that every constituent part of that machine should be new—nay, it may not be necessary that any one of the constituent parts of the machine

taken singly and separately by itself should be new, but it is sufficient if the combination of the different parts and things that are used be new, and applied to a purpose to which it never was applied before; indeed it need not be put in that way, for it will appear that a combination, such as this, producing the effect this does in the manufacture of lace, never was put together for the production of any particular thing; almost all machines are composed of old parts; the beam, the lever, the roller, and so on, operating on a machine, are all old, and are perfectly well known; but if the combination be new and useful also, that will be sufficient, because the machine is composed by the combination of the different parts of it.

There have certainly been machines used in lace-making. There is a certain sort of machine used for point net-lace:—there is another sort of machine used for what they call warp net-lace, but those machines are by no means similar, but on the contrary totally dissimilar to the present; nor are they capable of making the species of lace which is the object of this, which is called the bobbin lace or the French net-lace.

There has been before this a machine invented by another person with the object of making even this sort of lace, but it will be proved to you by the witnesses, that the machine of Mr. Brown is not similar to that machine in the combination of its parts, and in the productions and the mode of producing the effect which this produces.

The commodity which is produced by this ma-

chine is made either in small widths, or it may be made according as the machine is made larger, and the different parts put together, in different breadths extremely wide, according as the machine is extended, and as the different warps are extended along the beam, and different parts of the machine are in operation or not in operation.

The mode by which this is produced is in the nature of weaving; though in fact the thing produced is what may be called a net mesh; the common netting is produced by a knot, this is not produced by a knot but by a twist: in order to make this mesh, one thread comes round the other, and then instead of being tied in a knot at the top as it is in netting, it is in a twist: one is twisted round the other and pressed down, and then by the tension of all the parts equally, and particularly by the tension of the selvage, the whole is kept together.

The mode of doing that is by twisting or weaving what are called the beam threads and bobbin threads; the bobbin thread is the warp thread, and the weft is what we have called the beam thread; the bobbin thread hangs down perpendicularly, the beam thread is put upon a sort of balloon, at the top, and being put perpendicularly, the bobbin thread passes through two of the beam threads, and when it has passed through the machine is so contrived as that it shall twist round it, and then it is through the medium of our machinery repassed, it changes its position and is repassed through the next thread; the consequence of that would be, that one thread twist-

ing round the other, it is then pressed down by the comb to the bottom, and forms a mesh exactly as a mesh would be formed by twisting the thing round the netting needle; when that operation is performed it passes again, and then in the same way makes another mesh, and as soon as the operation of the first row is performed, then the bobbin comes back again, and then it passes through the threads again, and so ascending higher and higher it makes the different rows of net.

The object to be produced by the machinery of the present plaintiff's, is that which has been stated, and it is constructed with that degree of accuracy that the bobbins always keep their places each to the other. In the production of a piece, there must be as many bobbins as there are threads, and if you extend a piece, whatever be the number of bobbins fixed on the jack; suppose any number of those put in a row, they all work and operate together backwards and forwards, always keeping their places relatively fixed each to the other.'

It has been attempted to be said by certain persons, that this is not accurately described in the specification: but a great number of scientific men, mechanics, and lace-makers also, will tell you, that they looking at the specification, and knowing, as every man must have a competent degree of knowledge to make a thing of the same nature, that they, looking at the specification, can with the greatest ease, considering all its combinations and its parts before they begin to do the

thing, make such a machine as Mr. Brown's; *they have examined the machine itself; they have* examined also the specification, and they will all tell you, that any man of common and ordinary skill in machine-making, looking at that specification, and deriving no information from any other thing but that specification, except that knowledge which an ordinary machine-maker must bring to the business, could construct that machine of Mr. Brown's. The defendant may perhaps be able to call witnesses to say—Well, but I could not: that would be no answer to my case; one man may say, I do not understand that specification so well as to be able to make the machine from it as I think I ought to do, but if another says, from that knowledge a man ought to have before he sets about any machine at all, in the construction of a machine of this sort, any man of competent skill can make it, and will feel no difficulty in making it; that would be sufficient to get rid of any objection of that sort.

With respect to any other objection to be set up as to this machine not being original in the combination of its parts, that will be left to be stated on the other side, for this reason, that I have not been able to see that other machine which this is supposed to be like, my witnesses have, and as far as I can understand, they are essentially different in the combination of their parts; I am informed that that other machine, which is, I think, Mr. Heathcote's machine, is not capable of performing the same thing, and certainly not in the same way: you will please to observe this;

I do not put my case as if this were a mere improvement of Mr. Heathcote's machine; for if a man takes out a patent and I using that machine, as the substratum of my machine, only invent a part, I should take out my patent only for the improvement I make upon the other; but however a man may have had another machine before, though lace may be produced by it, if my machine, by a different combination of parts, form together one new whole, then I do right in taking out my patent for a machine, for *qua* machine it is new.

To liken this to another case. Take the steam engine that was used prior to Messrs. Boulton and Watt's time, it was pretty nearly if not quite upon the same principle, except in that part in which the improvement was made by Messrs. Boulton and Watt, and for which they took out their patent; Messrs. Boulton and Watt leaving the old steam engine almost standing in the state in which it was, made a most extraordinary and wonderful improvement upon it, by introducing instantaneous condensation of the steam, so as to make the piston operate in a way it never did before; that was an improvement upon the steam engine, and they took out their patent for the method of lessening the consumption of fire and fuel in steam engines: the steam engine was the old steam engine, they did not state this as an improvement, but the patent was for a method of lessening the consumption of fire and fuel in steam engines; that case is mentioned for the purpose of stating, that my claim to this is not

for a method of producing some particular effect which the patent of Mr. Heathcote or any other person did not produce, though it produced all but that particular effect: that is not what I claim: I say this is a new machine: it is a new combination of parts producing a machine essentially different from any that was ever produced before, though the effect of the former, and the object of the present, are the same, that is, to produce lace upon the same principle as this. The women who work by hand produce lace; the machine they use, in fact, consists of the fingers, the pins, and the pillow. Mine is machinery to produce all that, and you will see in a moment the application of this; it might as well be said, you can have no patent for machinery, because lace is produced by hand. If they can prove that this is an imitation of theirs, that will avail them; but, I say it is a new combination of parts, effectually constituting a new machine.

It will be made out to your satisfaction, that this machine is new, and that it is perfectly well specified. It has been said that the drawings annexed to this specification as pointing out the parts, might have been better executed, more skilfully drawn. Does that drawing with the references comprised in the written specification, make it intelligible to the machine-maker and the workman who is to construct it and put it together, so that bringing to his aid and assistance that fair and competent skill in the art of mechanism which a man ought to possess upon the subject, he would be enabled to produce a machine from those instructions? because, if it be sufficient for that purpose—

Lord Chief Justice GIBBS.—Certainly, you need not trouble yourself upon that, there is no doubt of it; a rough plan drawn by a person who understands the subject with pen and ink, is better than the most beautiful drawing of a man who does not understand it.

Mr. Solicitor General.—I am obliged to his Lordship for his interference. I made the observation, because I know a great deal has passed in another place upon the subject of these drawings; as far as relates to the explanation of the mode in which this machine operates, I know I have left the statement extremely short; I am afraid to trust myself in the statement, lest I should blunder; but I will call those who can describe it best, namely, the men of skill and knowledge in this sort of subject. I shall call to you some of the first engineers scientifically, and one or two practical men, who have made some of the most extraordinary machinery in this country, and they will tell you that a common and ordinary workman would, from this specification, be able to make the machine, and that the specification is perfectly sufficient for the purpose for which it is designed.

One word about the piracy. This cause has arisen out of a bill in the Court of Chancery: the Lord Chancellor directed an action to be brought to try the question. The machine by which ours is pirated, being in the possession of the defendants, it might be difficult, and must be in many cases, to prove how they have pirated ours. The attention of the plaintiff was first drawn to the

imitation, by the production of the manufactured article itself, because those who are judges of this article could tell almost upon a view that this was made by Mr. Brown's machinery, or something like it. We have had great difficulty in getting at Mr. Moore's machinery, but we have witnesses who have had an opportunity of seeing and knowing how the defendants did use their machinery, for (for the purpose of better elucidating the case), witnesses have been sent down by order of the Lord Chancellor very recently, and the defendants have been compelled to shew their machinery: one of those witnesses, as good and ingenious an engineer as any man in this country, has been down to Nottingham, and seen this machine, and he will tell you, that notwithstanding some of the little invented deviations, which are very small indeed, substantially it is an imitation. If I make out that I am intitled to the patent, you will have no doubt at all with respect to the other point, that the defendants have imitated this machine.

Mr. Serjeant Copley, for the defendant, observed that the object in contest between these parties was of great importance to both of them, and also to the public, because the manufacture carried on by means of these machines, and machinery of a similar description, has become a very valuable article of commerce in this country.

Ingenious as the plaintiff's machine is, it must not be supposed for a moment, that that machine, taken together, is his sole invention; because every person who is acquainted with the mystery

of this manufacture knows that this machine is a machine of gradual improvement—that the minds of many ingenious men who have been concerned in enquiries of this kind, have, for forty or fifty years, been directed to the compilation of instruments of this nature, and though the principal parts of the machine may be referred to individuals, machines for the purpose of producing bobbin net have been in use for many years, and have been in the course of gradual improvement.

You have looked at this machinery, and it certainly does appear, upon the first examination, to be a machine of the most complicated description; but if you get rid of that which is necessary to set in motion the parts of the machine employed in the manufacture of the lace, it becomes a machine of the most simple construction, and a great deal of that to which our evidence is to be directed, will apply not to those parts of the machinery by which the ultimate machine is set in motion, but to that ultimate machine by which the lace is fabricated.

There is a frame with a number of threads in the first instance placed perpendicularly and parallel to each other—the lower extremities are fastened to a roller, the upper extremities are wound round small bobbins, called spoles, and by that name they will be distinguished from the other bobbins made of brass, and which answer another purpose: there are a number of parallel threads wound round spoles at the top, which supply the thread as it is worked off in the manufacture of the lace. The beam is turned round by that

which is coiled round it, and the lace is wound up on the roller—that is the position of one set of threads. Now the operation of making the lace is the simplest in the world: all you have to do is, to twist two sets of threads together, and after you have done that, to cross one set; there is another set of perpendicular threads which come up in an oblique direction, they are wound round small bobbins, which bobbins are wheels constructed in so neat a shape and form, that they can pass directly through those upright threads; the moment those threads are passed through the upright threads, they take a small motion to the left; the distance of that motion is precisely the interval between the upright threads, the consequence of which is, that each bobbin when it has passed through those upright threads and made this movement, is in a situation opposed to the interval next to that through which it before passed; it then returns through the threads again, and takes another motion to the right, resuming its former situation; by these four movements, the thread which is wound upon the brass bobbin, winds once round the upright thread; it has gone through the one side, and comes back to the other, and resumes its former position; but that is not enough, it must wind round it one half time more, for which purpose it again returns and goes to the left.

That makes two sides of half a mesh. The meshes consisting of hexagons: In order to form the upper side, the only thing necessary is to cross the upright threads; the beam threads are crossed

by each taking the place of its neighbour, so that there are two sides twisted, and a third which is crossed; but there is one other operation to form half a mesh: these twistings are extended from one end of the threads to the other, and it is necessary they should be racked down and held to the bottom of the machinery, and that is done by a motion that makes half a course, and in order to complete the mesh, the same is performed again, so that the movements are extremely simple, and they are common to all lace machinery of the kind, and those movements are effected in precisely the same way, and by the machinery described in this specification, and which, from the nature of the terms of the patent, the plaintiff has appropriated exclusively to himself.

Having described the general movements of this machine, I will now direct your attention to the ultimate parts by which this operation is performed. In the first place, at the top of the machine there is a row of dividers, which is an iron bar, with a number of points cast in lead at exactly an equal distance from each other, ranging through the whole of the top of the machine, and through which the threads pass. The object of the dividers is the keeping the beam threads at an equal distance from each other; above those dividers there are two bars with forks which project, taking the threads out of the dividers, carrying them just out of the points of the dividers, and then moving in contrary directions, they effect their object, and pass back again into the dividers.

Then we come to the twisting of the thread by means of the brass bobbins. Those brass bobbins are wheels with a small groove on the extremity, round which the thread is wound, those are fixed into small cases called carriages. The extremities of the carriages are fixed into the comb leads, a number of these are arranged upon a bar, and when the first operation has been performed, then this bar comes down and presses the work and holds it fast; these move till they get between the upright or beam threads, then they are met by similar machinery coming on the other side, and which takes hold of them; they are then pressed by another bar, and this bar which held them before is here thrown up: the consequence is, they are relieved from this side and taken to the opposite side; that is the movement by which they are carried from the upright threads, and the whole is performed. I am troubling you thus, because I shall satisfy you that this is old, that it is in Mr. Heathcote's machinery, and has been long in use in the town of Nottingham. There is another thing which is also very material. Immediately above the roller, there is a slit through which the lace passes—and it is necessary that these bobbins in their movements should describe the arc of a circle, because, if they went in a parallel motion, those threads which are oblique, as they approached the middle, would become loose; this is one of the motions which prevails in all instruments of this nature.

Having described what the nature of the machinery is by which this is set in motion, I will

now tell you what parts of this are old, and I will direct his Lordship's attention to the terms of this patent and this specification, and I think I shall satisfy his Lordship beyond a doubt, that this patent cannot be sustained. The patent is for an invention of "a machine or machines for the manufacture of bobbin lace or twist net, similar to, and resembling the Buckingham lace net and French lace net, as made by the hand with bobbins on pillows;" that is the object of the patent. It is a patent for a machine, and I do not dispute for a moment, that a new combination of old machinery may be the subject of a patent, but I will tell you what is necessary in that case—that when the party takes out his patent, he should call it a new description of old machinery, or an improvement of former machinery. It has been decided by high authority very lately, the act requiring he should give a specification of his invention, that when he comes to specify to what his patent goes, he must in that specification describe what is old and what is new, because, if he takes every part to himself by that specification of the terms of his patent, there is no individual who would be able to take any part of it, and the public have a right to know what he claims, and what he does not.

Now, let us look at the language of this specification. He says, "Now know ye, that in compliance with the said proviso, I the said John Brown do hereby describe and ascertain the nature of my said invention, and in what manner the same is to be performed and operate by the plans or drawings, and in the following descrip-

tion thereof, (that is to say) my invention consists, as represented by the drawings hereto annexed," —and then he goes on in his specification to describe all the simple parts of this machine, and all the combinations of this machine; then I say he has appropriated to himself more than he is entitled to, and that, therefore, this cannot be sustained.

It is said on the other side, every machine must be compounded of old parts, that there must be a lever and an axle, and so on, and that a person must use them to produce his combination; but the plaintiff describes all these as part of that in which his invention consists. Now, in adverting to this evidence, and that which I shall call on the part of the defendant, I shall satisfy you not only that the primary parts are old, but that complete combinations of it are old—that there are parts of this machine, without which, if they were taken away, the machine would not work, which parts are in themselves machines, and the subject of patents, and my objection is, that he has incorporated these without describing them as being old, and as such appropriated them to himself.

The witnesses called have told you the essence of this machine for manufacturing bobbin lace is the construction of the brass bobbins, which have a movement round the thread and wind the thread. I shall prove that to be old, to have been used by Mr. Heathcote, and a variety of other persons in manufactures of this description, and the only point in which the originality of this invention consists is, in making the bobbin threads cross,

instead of making the beam threads cross. In other respects it is similar to those which have been used in the town of Nottingham for a considerable time past.

But, besides the brass bobbins themselves, the manner in which they are actually fixed in the comb bars is old, the manner in which the comb bar is fixed is old—that they should move round the centre is all old. But there is also a material part with respect to the crossing of the threads, which I shall also prove to be old; the threads enter between the dividers, and then are taken out by forks—they cross in opposite directions—how is that done?—by a very complicated piece of machinery, which we describe as Dawson's wheels, because Dawson obtained a patent for them. What is contained in section 5, which is incorporated into the plaintiff's patent, has existed as attached to warp frames for a considerable time past, long antecedent to the date of this patent. It consists of an upper wheel, which is driven round in a particular manner, and by a particular contrivance, setting in motion two wheels, which have indentations and projections, which set in motion two bolts which act upon the fork bars, which fork bars project forwards for the purpose of taking the threads out of the dividers, which fork bars cross and throw them back upon the dividers. The whole of this, which would be itself the object of a patent, has existed for ten years at least before this patent, so that I am not saying that there are fundamental primary parts, if I may so call them, that are old, but that there are these complete combinations which are old.

It was but a few days ago an action was tried for pirating the patent for an umbrella. On adverting to the specification, it appeared that the plaintiff had described his invention as consisting of so and so, and so and so. The witness was asked what were new, and he described the parts, but because the specification did not distinguish the new from the old, the plaintiff could not have the benefit even of that which was new, and he was nonsuited. Every gentleman, from his own knowledge and his own recollection, would be competent to say what was new and what was old, but I am entitled the moment this patent expires, to go and set up this machine, and I ought to be in a condition by looking at this, to be able at once to make the machinery, and at once to distinguish that which is new from that which is old. Suppose a workman in London were to go to look at this machinery for the purpose of seeing how far he might carry contrivances of his own, without infringing this, I ask how does this give him information? he finds no distinction of the parts—he finds all described as the invention of the plaintiff, for he says, my invention consists in so and so, and the parts are put together so and so; all this is calculated to mislead the public, and to lead them to believe that he has a right much more extensive than he is entitled to, and this I apprehend will be a complete answer to this action. But let us look at the evidence as it at present stands upon this point.

Lord Chief Justice GIBBS.—Try it in this way. Supposing that which you say was old was new, and suppose that the present plaintiff were to

bring an action against a person for making a machine up to the extent to which you say it was old, could he recover upon this specification?

Mr. Serjeant Copley.—With that view I will direct your Lordship's attention to the second count of this declaration, to shew how they themselves have considered it.

This is the way in which they allege it in one count of their declaration,—" that the defendants did use and put in practice a part of the said invention in such letters patent mentioned, by then and there making and constructing divers, to wit, one hundred other machines for the making and manufacturing of bobbin lace or twist net of the said description and kind in the said letters patent mentioned, the said last-mentioned machines, then and there being of the same nature and kind, in part with the said machines so found out and invented by the said John Brown," so that we are charged with putting in practice this invention, by making a machine of the same nature and kind in part with that invented and found out by John Brown. He says I have a right to the whole of this machine; I make use of a part of this machine, but I say it is not his part, and he is not entitled to it.

If the principle I am now contending for does not meet with his Lordship's sanction, it is in vain for me to endeavour to press it upon the jury; but I contend, that though a man may take out a patent for a machine consisting of a new combination of old parts, when he comes to specify what the nature of his invention is, he must describe it

as a combination of old parts, or discriminate between the new and the old.

Lord Chief Justice GIBBS.—You are upon the question whether he has taken his patent for too much: if this be new, he has taken this to himself, and taken it as that of which he has an exclusive right, consequently, if you can shew he has not the exclusive right to it, then he has no right to it.

Mr. Serjeant Copley.—I am extremely glad, that what I say has the approbation of his Lordship; that is the view we took of the case before we came here, and when you come to advert to the evidence as it has been already given, and to the further evidence offered on the part of the defendant, you will entertain no doubt as to the application of the principle to these facts, for the essence of the invention is the construction or application of the brass bobbins, and that I shall prove is old.

Another very important part of the machinery is the dividers. I shall prove that they are old, and that they are used in all machines of this description. I have already stated to you, that the fork bar, which would itself be entitled to the appellation of a machine, is old, and has been used for the same purpose for which it is applied in this patent. I shall prove also a great many subordinate parts of this machine have been before used, and will leave it there, if indeed, after the evidence given upon these points, you should think any further evidence upon that part of the case necessary.

As to the specification, I am not one of those who think slight objections to a specification ought to prevail. If an ordinary workman can make a machine from it, that is what is considered sufficient; but we have many witnesses, men of skill and eminence, who will say that that defect, with respect to the making the selvage, is a radical defect, and that, though the remedy is obvious when once it is found out, it is very difficult for a person, reading this specification, to guard against those consequences, which would ruin the lace.

Lord Chief Justice GIBBS.—I am averse to interposing as you go on, but I think it sometimes clears the case. It has struck me, that even if the prosecution of the manufacture be assisted, by bending together two of the teeth of the dividers, or making one longer than the rest, if that appears to have been a subsequent discovery, it would not break in upon the validity of the patent, it would only shew, that the patentee has since found out the means of carrying on his own invention to better effect.

Mr. Serjeant Copley.—The way in which I stated it is this: if even the specification is vague, but a skilful workman can supply the defect, it is no objection to the patent; but if I make a machine precisely to the specification, and find it does not answer the object for which it is intended, then I say it is no answer to say it will produce that effect by a trifling alteration. No alteration, however trifling, can be made in the specification, though facts may be supplied. Now you have heard that at the extreme point of the breadth, the

machinery is precisely the same as in the middle part of the breadth, and it is obvious, therefore, that the same effect would be produced at the extremity as in the middle; the consequence of that would be, that the threads would be carried into the next breadths, for the operation of the weaving is to carry the threads diagonally: that would therefore carry the lace on, and entangle it with the next breadth; and certainly this is one of the objects to which the attention of persons has been for some time directed, namely, to make lace in breadths, and to make it with perfect selvages. A great deal of attention and money has been expended in those enquiries, and what occurs to us is, that at the time the patent was taken out, the mode of preventing it was not stated, that no person might have an opportunity of making a machine to interfere with the plaintiff's. There is not a single machine used by the plaintiff, in which this is not obviated by some contrivance or other. It may be said, this may be remedied by the hand, but that I conceive is no answer; this describes, not only the machine, but the mode of making the article, and therefore, if this is to be picked out by the hand of the workman, that should be described in that part which relates to the working of the machine. Much money has been expended by parties, for the purpose of getting rid of this difficulty, and we are strongly of opinion, from circumstances which I cannot state in evidence, that the concealment of the mode was intentional.

Now, as to the infringement. That our ma-

chine is similar to the plaintiff's I do not deny, but all the machines are similar to each other. The plaintiff has appropriated to himself several parts which belonged to others;—we may have taken something which exclusively belongs to this party, but I am not sure we have done so. The principal thing objected to us is, the spoles or bobbins at the top, which the evidence is, that we have copied; now it appears that our spoles are of a different description, and I shall call Mr. Millington, who went down to Nottingham with Mr. Bramah for the purpose of inspecting this machine, who will tell you that he does not think these machines are similar, that there are many radical differences, and that they are similar only in those circumstances which are common to all machines; but I think the question will not come to whether we have infringed their machine, but that the material question for your determination will be whether the patent as they have taken it out can be supported; and I think when I offer to you the strong body of evidence I shall, you will be clearly of opinion that it cannot, and that the combination of old parts in this new machine, not being referred to as such, but being appropriated to the plaintiff as his own invention in this specification; that is a vital defect, and sets aside this patent.

Lord Chief Justice GIBBS.—The first witness says, "I have never seen any machines which contain in whole, or in part, the two peculiar characters I have described, namely, the mode of obtaining the warp threads, and the mode of ob-

taining the diagonal threads." The warp threads carried on by the bobbins; and the beam threads carried diagonally; that is his statement of the peculiar characters of this machine.

Mr. Solicitor General, in reply.—I think I may say, that one of the questions which has been made in this cause is now pretty well out of the case; that is, whether the machine which has been made by the defendants is an imitation and a piracy, that is totally abstracted from the question whether my client is entitled to this patent or not; but Mr. Bramah, who went down to see this machinery of the defendants, told us, that in his opinion, though with some alteration in the mode of constructing the machine, it was an imitation and a piracy of ours, and I observed that Mr. Millington, who went down with him, has not in his evidence contradicted Mr. Bramah at all. Let this also be recollected, that on the part of the plaintiff, probably, but for the circumstance of Mr. Bramah's having authority and order to go down, we had been without any evidence at all to prove how and in what manner this machine of the defendant's was constructed, so as to shew, except upon the view of the article, that it was an imitation; but the defendant could want no witnesses; he could have had a host of witnesses to prove the dissimilarity, if they were dissimilar, because the machine is of his own construction, and has always been in his own possession; he knows who was the mechanic that constructed this machine for him, and that mechanic might have been called and have pointed out to you the essen-

tial differences there were between the machine used by Mr. Moore and that which I say has been invented by Mr. Brown, and for which, I contend, he has a right to maintain his patent. It is for that reason, I think I may take upon myself to say, that if the cause was to turn upon that question, whether the defendants had imitated the machine of Mr. Brown, the cause is out of court as far as relates to Mr. Moore.

Now, I have another observation to make, which is this: my machine, say they, has no novelty, no merits about it, but all the combinations were invented by others, and other machines had all the merit belonging to mine before it was invented. Then why did not Mr. Moore go on working Mr. Heathcote's machine, if he chose to pirate his patent, or working with his warp machine, using these which they call Dawson's wheels? If Mr. Moore had chosen to go on working with Mr. Heathcote's machine, or the warp machine, or any improvement of his own, my client would not have come here to complain. All machines for the manufacture of lace, if they do not trench upon existing patents, are open to all the world; all the world are at liberty to take all those things that are old, and to put them into a machine if they chose, and to combine those old parts with a new principle and a new application; for, let it be recollected, that that which I stand upon in my case, is this, not that the frame is new—not that the eccentric wheel is new—not even that the bobbin is new—but that out of a great many old things put together, my client has

combined what I call a new thing, that is, a machine upon a new principle, and producing to a certain degree new effects, though the combination of which that machine is formed is old, or the different things combined, I should rather say, are old.

My learned brother has attacked the patent on one or two grounds which I will state to you, before I come to state how this is a new machine, in as much as it is a new combination, on an essential principle in lace-making, which however has been used; yet this principle, supposing it to be new, says he, you have not specified, so that your specification will support your patent; for if a man makes a new invention, whether a new invention of old things, with a new combination, or a machine of which every thing is new, he must specify that, so that persons of competent skill may be able at the expiration of fourteen years, to make the thing of which he had the monopoly. Then on what ground does my learned friend attack our patent? Why, he says, you claim your patent for a machine, as if every thing of which it was composed were new. Now, I deny that proposition; I have claimed a patent for a new machine for the purpose of making Buckinghamshire lace, or that resembling it; my patent and my merit consists in putting these different things together which are old of themselves and standing singly, for the purpose of working in a manner totally different from that which ever was worked before in lace-making.

If my learned brother's doctrine be true with

respect to the specification, see what must be the consequence of it; a man never invents a machine of which all the parts are new, and did any man ever see any specification stating this is old, and that is old, and so on? In a specification for the improvement on a machine, I agree it must be so stated, and if my patent be good, which I think I may confidently say you will find it is, if whenever that fourteen years shall expire, any man shall invent not a new machine on a new principle, but a substantial and good improvement upon this machine of mine, that man who may take out such a patent then, must not specify as here, but he must take out his patent for an improvement upon that machine of Mr. Brown's, and put in his specification what are the additions and improvements he makes to that machine. But that is not the case here, for upon the very looking at the statement of the specification as referring to those most intelligent drawings, I say the patent when it is read presents to the mind, and the specification as referring to the drawings presents to the mind, that the principle of the patent is a machine composed, if you please, of old parts, but upon a new principle, to produce a new effect in the mode of working lace.

Now when I have heard it said by persons on the part of the defendant, that looking at that specification, they could not make the machine by it, I do not mean to say those persons tell you what is untrue or palpably false, or any thing like it: it is matter of opinion, but then we must take the extent of the capacity of those who tell you

that they can do it, and the extent of the capacity of those who tell you they could not; I must look to the resources of Mr. Galloway's great mind; and I say that not only he, but the other gentlemen we have called, are judges of the quantity of skill requisite to make a man a competent and fair workman, just as well as the workmen themselves, and they tell you, that there is no man who brings a fair and competent degree of skill to market, but would from that specification make it. Mr. Keir's evidence was extremely strong upon that subject, for he stated this, that he never saw any drawings in his life that afforded more information, or better means by which to make a machine.

Then let us see whom we have called next, Mr. Maudslay; he is not only a man of science and of skill, but he is a man who has been in the habit of constructing machines.

Lord Chief Justice GIBBS.—I think you have nothing to meet you upon this subject, except the question of the breadths; the other is most satisfactorily proved; with respect to the division of the breadths, that is a point in the case.

Mr. Solicitor General.—Then upon the subject of the division which has been pointed out, his lordship made an observation in the course of the cause, which struck me as very strong, as applicable to this case. I will suppose, there being no division in that specification, that Mr. Brown has, since that specification, devised means by which the thing may be divided: that would not belong this specification.

Lord Chief Justice GIBBS.—I threw that out principally that you might avail yourself of it; but I think the way of availing yourself of it, was to shew that you had, after your patent issued, made any one machine for your own use without bending the wires, or in some other mode producing this; I threw that out to you on purpose.

Mr. Solicitor General.—What I was about to state is this, we have not shewn that we have worked a machine without a specific division.

Lord Chief Justice GIBBS.—The way in which that turns upon you is this, that you knew a better way of doing this than you communicated to the public, and kept back that better way, in order that after you had got your patent, you might still have an advantage in the manufacture, that is the way in which it is put.

Mr. Solicitor General.—There are many cases in which that might be inferred, and whenever circumstances of suspicion arise, you would infer that it had been kept back; but you cannot suppose this to have been purposely kept back, when you take the evidence of Mr. Galloway and Mr. Keir, who said the division was not necessary to be stated, for that the workman's own knowledge, the skill of the operator, I think he said the knowledge and the common and ordinary skill of the man who was to set the machine in operation, would be sufficient to mark out to him that he must leave a certain space between the two, in order to prevent the entanglement, which, it is supposed, would take place. Now if that be so, the circumstance of that division not being men-

tioned in the specification, affords no argument at all, and no foundation for the observation, that it was omitted with any intention; it affords no inference that Mr. Brown left this out, for the purpose of giving an imperfect machine to the world; but on the contrary, that he did not think that it was absolutely essential to the working of this machine, for Mr. Galloway said this: "when I saw the specification, there being no division marked out, I thought it would produce an entanglement; but when I went and saw the thing worked, I was astonished to see that it did not produce that effect," that is to say, I was astonished to see that the mention of a division was not essential to the working of the thing. I admit he at the same time said this: "it would require more caution in the workman to avoid it; it might require more time to make the lace;" it might require the workman to work slower, to see that effect was not produced; but still, that is not one of the essential parts of the machine, or the combination of the machine, or a thing, the leaving out of which can be said to invalidate the patent; it may work without that stop which creates the division; then, if it may work without that stop which creates that division, why is it to be inferred that that was a part of his original conception, and that he kept back and avoided giving that to the public? It is impossible to conceive that a man would have put the whole of his machine in hazard and in danger; that he would have defeated the whole of the intention of that patent, by omitting to point out in his specifica-

tion, something which the common and ordinary prudence of every workman would necessarily guard against. It is very much like that objection put by my learned brother, which he seems in the latter part of the cause to have dropped: that the upright bar is in a curve, and that the specification does not describe the foot. The answer to that was this: why, no workman need have that pointed out to him, for he must know it was to rest upon something. So, I say, when a man considers the nature of the specification, it must necessarily occur to him, that there must be a division to prevent the entanglement, and that entanglement is prevented by that, which is one of the important parts of the invention, totally different from any thing used for that purpose before; namely, a planetary wheel, as Mr. Galloway called it, that is, God knows, old enough; but not that rotary roller or beam, which is part of this machine, for the express purpose of preventing that entanglement, which, without that, might probably have taken place. At the time Mr. Brown put that specification upon the record, he neither thought it necessary, nor do I know that it is essential, that there should be that stop; the thing is better with it I agree, but the not having it does not give a vital stab to this patent, or this specification, nor any thing like it, and that, I think, is the only part to which this objection is made.

There was another witness, who added very considerably to the testimony of Mr. Galloway and Mr. Keir, upon that subject, and that was

the foreman of the lace-maker, the man who is to set the machine in operation, and make it work; and he stated, that they did not even give instructions to the lace-man who was set to work the machine, because the common prudence and common consideration of any man who was set to work the machine, would supply the defect by his own understanding. Then I say the mention of this was not necessary, though the thing may be better with it; and though Mr. Brown might say, in order to prevent this, let us put something in here: and one of the witnesses proved, that sometimes there was one thing, and sometimes another put there, to make the division, because, certainly, it does to a certain degree save time, and prevent the same degree of caution being necessary; it quickens the course of the operation, and enables a man to work faster than he would do without it; but how does that furnish any ground for the inference, that there was the slightest intention in Mr. Brown's mind to keep back any thing that was essential to be described, or to be given to the public?

Now, if a man does intentionally subtract any thing material and important to be given to the public, certainly it would be a vital objection to his patent; but when you come to consider the different and minute parts there described, when there is such a complicated machine to describe, though producing so simple an operation as is performed by the ten fingers of an old woman, upon a pillow, in Buckinghamshire, it is a matter of astonishment, that something else did not hap-

pen to be omitted. I think that specification forms as strong a proof of a man's sitting down with the intention to give a description of every minute part, as any specification ever put upon the table of any court of justice.

Then comes the question, whether we are intitled to maintain our patent or not; because this is not a new combination, or because we have been pirating the patent of some other person. I know this, that if a person chooses to take out a patent for that which is not new, for which another has a patent, he cannot support it, whether that person brings an action or not; but it is most extraordinary, considering Mr. Heathcote's patent to have been taken out in 1809, and Mr. Brown's in 1811, that the first time the question comes to be discussed in a court of justice, whether Mr. Brown has adopted that which Mr. Heathcote had given to the world, should be an action which Mr. Brown has been obliged to bring, not against Mr. Heathcote, or any body interested under him, but against some person who has pirated *his patent*; *and that* Mr. Heathcote *has never* thought fit to bring any action into a court of justice; and yet I cannot believe that if Mr. Heathcote could make out that we had pirated his patent, he would be disposed to spare us; but there is a most essential and important difference between the two machines, and, as far as relates to the commodities produced, between the two commodities: you have had evidence of that from the commodity itself, to-day we have had samples produced of two breadths, the one from

Mr. Brown's machine, and the other from Mr. Heathcote's, and I take leave to say, that the one has perfect selvages, and the other has imperfect selvages, and no body could sell that lace, with those selvages, without either the seller or the buyer cutting off those selvages, for, I am sure, no woman would take that to put an edging to a lady's cap without cutting off the selvages. I do not know whether this was stated by Mr. Galloway, but if the lace is worked by the hand, it may be always so correct as to produce perfect selvages; but if the machine is not constructed so as to work perfectly, the selvages will not be equal to the other meshes in it, and they must be cut off. It may be said, what is the loss of cutting off one of these selvages? Very considerable both in the time it takes, and in respect of the commodity itself.

Now how is the difference produced? It is obvious, upon the very principle of my patent. By all the old modes of making lace by machines, the warp thread is that which is fixed from the beam; and by my mode of making it, the diagonal thread is that which is fixed from the beam, and the warp thread is that which goes through with the bobbin. It has two operations: it makes the selvages perfect, and it does more, it enables them to make pieces of a larger fabric, which in lace and all other commodities is of considerable consequence; for when the warp thread is fixed upon the beam, the diagonal threads being considerably longer than the others, you cannot make a piece of the same breadth, because you must

have a certain number of yards round your bobbins: and be so good, when we come to consider the testimony of witnesses, as to remember this, if Mr. Galloway is a judge, if Mr. Keir is a judge, and Mr. Turrell a judge of these things, they all tell you they consider it as an essential principle and a great improvement that the warp thread is enabled by this machine to be the actor, and the diagonal thread to be acted upon instead of the former mode.

Lord Chief Justice GIBBS.—I do not think you need waste yourself upon this part of the case, because I take it to be a part which has not been at all disputed, that when you get up to the time of crossing the threads, after that yours is an invention.

Mr. Solicitor General.—Then if that be so, and manifestly and obviously it is so, I consider that is the very thing which establishes my proposition.—If the diagonal thread was passed, in my machinery, through the bobbin, as in Heathcote's, and if after we had performed the operation of twisting, we had made an improvement upon the principle of Mr. Heathcote's, then, perhaps, our patent would not have been good, as being taken for a machine and not for an improvement; but this arises from the application of a new principle; the warp thread is not any longer to be the substratum. If Mr. Heathcote had adopted that, and after he had adopted it we had made an alteration in the after operation, that would have been another thing; but the after improvement which is produced is the consequence of the original

principle upon which our patent goes. Then, if that be so, I conceive that I do make out the proposition that this machine, though a combination of things, which, taken separately and distinctly, are old, yet is a combination upon a new principle, and I think we might have put it in our patent in this way. We might have said, ours is machinery, by which the warp thread is to be worked by bobbins through the diagonal thread instead of the mode heretofore adopted by working the diagonal thread through the warp thread; then how is that done? not by adding any thing to Mr. Heathcote's, but by combining the parts together as they are combined in our machine. It is not that we travel together to a certain stage, we set out on a different principle; so far we travel together, that a thread hung vertically is passed into a thread moved horizontally; but the principle is, that the horizontal thread is the warp thread, horizontal in passing through, though with a little curve; and that the vertical thread is the thing acted upon. If I am right in that, and if the witnesses are right in their judgment, I conceive I am entitled to your verdict.

Now with respect to one part of the case, there was one part of Mr. Galloway's evidence in which my learned friend, when cross-examining him, asked him, as if it was matter of opinion, and Mr. Galloway said, I am speaking to a matter of fact from my own observation. The question is this, are you not satisfied upon the judgment of Mr. Galloway, Mr. Keir, Mr. Turrell, Mr. Bramah, Mr. Maudslay, and the lace-maker himself?

I do not depend upon him as to the construction of the machines, but he has, of course, judgment as to the mode of producing lace; they tell you that though there are bobbins in Heathcote's, and bobbins in ours, the principle of combination is not the same; the roller at the bottom is in every common weaver's engine, and there must be all these things, though, perhaps, not operating in the same way as in this; but the main and substantial thing is this, that the warp thread is the agent, and the diagonal thread that acted upon, producing the same thing, but with this additional benefit, that it produces lace much more perfect than that made by Mr. Heathcote's, or any other machine.

I will now leave the case in your hands, subject to the directions you will receive from his lordship. Upon the whole, I apprehend I am clearly entitled to your verdict for the plaintiff.

Lord Chief Justice GIBBS.—This is an action brought by Mr. Bovill against Mr. Moore and others, for having infringed a privilege granted to Mr. Bovill for the sole use of a machine for making lace; and the questions are whether the patent, under which he claims the sole privilege of making this machine, be a legal one, conferring upon him that sole privilege, and whether the defendant has or has not pirated it. It is necessary for the plaintiff to shew that he is entitled to this sole privilege, and that the defendant has pirated it, and that he, the plaintiff, has conformed to all the conditions upon which this privilege was granted to him, if it was granted at

all, in order to entitle him to recover under this action.

The case is stated differently in the different parts of this record. It is stated that the defendant made a machine like the plaintiff's; it is stated that he sold machines like the plaintiff's; it is stated that he imitated the machine of the plaintiff; and it is stated that he imitated parts of the machine of the plaintiff.

They have produced the patent granted to the plaintiff for a machine for the manufacture of bobbin lace or twist net, similar to, and resembling the Buckinghamshire lace net, and French lace net as made by the hand with bobbins on pillows. It is for a machine of this description the plaintiff has obtained his patent. The patent which is granted to him contains a condition which if it be not performed, the patent becomes void, namely, that he shall, within a certain period, register a specification of his invention in the Court of Chancery, the object of which is that he, enjoying the privilege of this supposed invention of his for such a number of years as the legislature grants it to him, shall describe the mode of the manufacture, so as to enable any person to make it after his term is expired.

This specification contains an account of all which is stated to be invented by him, and he is bound to confine himself to that which is his invention; and if, in his specification, he has exceeded the limits of what he has invented, and of which he is entitled to the sole privilege, though in other respects there may be no objection to his

patent; that will overturn it, for he will not then have registered a specification of his invention,—it will be irregular in having exceeded the limits of that invention.

Having made these general observations, I will state to you in what manner he has introduced this in his specification, "Now know ye that in compliance with the said proviso, I, the said John Brown, do hereby describe and ascertain the nature of my said invention," which he has recited to be that which I have stated from the patent, "and in what manner the same is to be performed and operate by the plans or drawings hereto annexed, and in the following description thereof, (that is to say) my invention consists as represented by the drawings hereto annexed, and as hereinafter described." Whatever therefore is contained in the drawings annexed, is claimed by him as his invention, and if it be his invention he is entitled to maintain an action against any one who shall either practise the whole of this invention, or shall practise any part of that which he states in his specification to be his invention.

In point of law it is necessary that the plaintiff should prove that this is a new and useful invention, in order to entitle himself to the present action,—that I think he has satisfactorily done, and no resistance is made to his claim upon that ground.—It is not pretended that the invention as far as respects a certain part of the manufacture is not new, nor is it pretended that it is not useful.—I need not therefore leave it to you as

if there was any question on this part of the case.

Then the next question is, whether the specification would enable a workman of common skill to make the machine.—Upon the evidence adduced to you I think there is no doubt it would, for with the exception of some slight difficulties thrown in the way, I think the evidence is uniform, that a workman of common skill applying a great deal of attention to it (which so complicated a machine however described must require), and bringing a competent degree of skill would be able to make the machine; therefore I think you may discharge your minds from that consideration.

There is another consideration respecting the specification which is also a material one, and that is, whether the patentee has given a full specification of his invention, not only one that will enable a workman to construct a machine answering to the patent, but one that will enable a workman to construct a machine answerable to the patent to the extent most beneficial within the knowledge of the patentee at the time: for a patentee, who has invented a machine useful to the public, and can construct it in one way more extensive in its benefit than in another, and states in his specification only that mode which would be least beneficial, reserving to himself the more beneficial mode of practising it, although he will have so far answered the patent, as to describe in his specification a machine to which the patent extends; yet he will not have satisfied the law by commu-

nicating to the public the most beneficial mode he was then possessed of, for exercising the privilege granted to him.

In the present case, this I think appears clearly proved, that lace may be made in breadths without resorting to the means that certainly have been used, either of bending the teeth of the dividers or making the external tooth longer; and it is certainly clear that this specification does not point out to the artist, that he is either to bend those teeth or to make one longer than the rest; the effect of not doing that will only be, that there will be danger of the threads entangling, but still with a competent degree of attention in the workmen, although with some delay of the work, that entanglement may be avoided: or if not avoided, may at least be corrected as it occurs, so that the work may be performed, though in a less perfect degree, without this bending together of the teeth, or without the inserting teeth longer than the others. If Mr. Brown, since he obtained his patent, has discovered an improvement effected by bending the teeth or adding a longer tooth, he may apply that improvement, and his patent will not be affected by his using his own machine in that improved state; but if at the time when he obtained his patent he was apprized of this more beneficial mode of working, and did not by his specification communicate this more beneficial mode of working to the public, that will have been a fraudulent concealment from the public, and that will render his patent void. Now the evidence in the case stands thus, that there is

no machine of Mr. Brown's proved ever to have existed without this improvement, which is certainly a considerable improvement in it. I threw out this view of the case that it might be shewn, if it could, that Mr. Brown had used any of his machines without that improvement; no such evidence has been produced, and therefore I must take it that no machines have been used by Mr. Brown without that improvement. Now if, upon the whole of the evidence, you think this was industriously and studiously kept back from the public, that Mr. Brown might have an advantage over and above others that worked these machines, that will be a suppression that will avoid his patent; but if you think this was a matter which had not occurred to Mr. Brown at the time he invented this machine, and that it was an improvement afterwards; the validity of the patent will not be affected by it, though he will have added to his original merit of invention, the further merit of being able to use his own invention more beneficially than the patent points out.

Having disposed of that part of the case, and having stated to you, as I believe I have, that it is admitted on all hands, that the patent, if a valid one, has been infringed, having freed the case of those questions which arise in it; I come to that which is the most material, namely, whether the specification in this case be or be not a good one in respect to the extent of it.

I understand the case better now than I did in the outset, though I cannot say that I understand it in a way so satisfactory to myself as I could

wish. I collect, however, from the testimony of the plaintiff's witnesses, what they contend their invention to be, in what its novelty consists, and what are its merits; and, in order to state these, I would refer to the evidence of the first, and who is certainly not the least, perhaps I may say he is the most intelligent of their witnesses. He clears the case of all the preceding difficulties of it on all those points upon which I have already troubled you, and upon this question being asked, what the particular merits of this invention were, he says, "The advantage of this machine is that the twist can be performed by the agency of the bobbins which, if they came from the common beam, could not be performed, the diagonal threads come off a roller or beam which revolves round its axis to which the diagonal threads are fixed, and the roller so clothed with threads has a species of planetary motion by which the threads traverse right and left, the effect of which is to dispose of the diagonal threads over the whole breadth of the particular piece of lace." Now there he commences his description of the advantage, and he shews a piece containing two of the diagonal threads in black thread: in order to explain the manner in which they pass across, he says, "I never saw any machine that acted in this way before; I have never perceived any which contained, in whole or in part, the two characters which I have described; namely, the mode of obtaining the warp threads, and the mode of obtaining the diagonal threads. These effects are produced by a perfectly new mechanical opera-

tion. These two points constitute the originality of the machine in their combined character; that is, you see, making the feeding the warp threads, which are the upright threads in the bobbins, in the way in which they are fed, and contriving to carry the beam threads in the way in which they are manufactured. In these particulars, Mr. Galloway states that the novelty and the merit of the invention consist; and there is no doubt, as I stated to you before, that this is a beneficial invention for the public, and that in this respect it is new. But, although it is beneficial for the public, and may, in this respect, be new; yet if the plaintiff has in this specification asserted to himself a larger extent of invention than belongs to him—if he states himself to have invented that which was well known before,—then the specification will be bad, because that will affect to give him, through the means of this patent, a larger privilege than could legally be granted to him.

I have stated in what terms the specification runs. The defendant says, I do not dispute your specification, after the operation is brought to the point of crossing the threads, except in this respect, I say your cross bar and your fork are not new, and that therefore in claiming them you have claimed too much. With respect to the contrivance of applying the beam threads to the diagonal, that I admit to be new. I admit that may be an excellency, and I admit that your specification for that part of your machine is a perfect one; and if you had expressed yourself in this way, if you had stated that you had invented an improve-

ment of the existing machine, and that it followed that period of the process I have been describing, I would not have quarrelled with it; but I insist that all that precedes that part of the operation was old, and had been practised before: and the defendant calls several witnesses to shew, that under the warp machine, and under Heathcote's machine, all that precedes in this operation had been previously practised by the same means; that is to say, in substance, by the same means as it is described in the specification of Mr. Brown, and actually practised by Mr. Brown.—I say by the same means in substance, (it will be the same in substance if the principle be the same in effect,) though the form of the machine be different.

I remember that that was the expedient used by a man in Cornwall, who endeavoured to pirate the steam-engine. He produced an engine, which, on the first view of it, had not the least resemblance to Boulton and Watt's:—where you looked for the head, you found the feet, and where you looked for the feet, you found the head; but it turned out that he had taken the principle of Boulton and Watt's—it acted as well one way as the other; but if you set it upright, it was exactly Boulton and Watt's engine. So here, I make the observation, because I observe it is stated that one acts upwards, and the other downwards, one commences from the bottom and produces the lace by an upward operation, the other acts from above and produces it by an operation downwards; but

that, if the principle be the same, must be considered as the same in point of invention.

The defendant has called several witnesses to shew that these early parts of the invention were in use before the time when Mr. Brown's patent was granted.

The first whom he has called is Mr. Isaac Hawkins; and he says he has considered Heathcote's specification with great attention; he says, the bobbins in Heathcote's are placed in carriages, and passed through the perpendicular threads. Heathcote's bobbin travels round a perpendicular thread to form the twist, and then two move diagonally in opposite directions to form the cross. In Brown's, the bobbin travels round the perpendicular thread to make the twist, and then two of the perpendicular threads are made to cross each other to form the mesh, then these two perpendicular threads become diagonal; in both, the bobbins go round the perpendicular threads. Now, up to this point, the operation of the two machines is similar. The cross bar of the lace, he says, is differently formed: there Brown's machine varies from Heathcote's; the bobbins in both machines move in a curve—Heathcote's under, and Brown's over. This is necessary to give an uniformity of tightness to the thread of the bobbin. There is in Brown's a centre bar, and in Heathcote's a point bar to keep the work down to its proper dimension.—The motions of these are very similar.

Being questioned upon this on his cross exa-

mination, he says, the distinguishing difference between the two machines is, that in Heathcote's the diagonal thread proceeds from the bobbins; in Brown's, it proceeds from the beam threads: the crossing, he says, is obtained by a different system, and that is material. And so you see he said in his examination in chief. Up to the crossing, he says, the operation of the two machines is perfectly similar; at the crossing they vary, and Brown's then assumes an operation which does not belong to Heathcote's.

Then the next witness is Mr. Silvester, who says that Heathcote's machine has bobbins very similar to this, only rather larger; that they are used alike in both as to the operation of twisting; that Heathcote's machine was in use two years before this patent; and he says upon looking at Brown's, he thought Brown's, as far as it went, an imitation of Heathcote's; the impression upon his mind was, that Brown in constructing his machine, had at least, to a certain extent, imitated Heathcote's machine: he says it is made to work downwards instead of upwards.—Both go on rollers.

Mr. Millington is a civil engineer and philosophical lecturer in London, and he gives you a more full account of this than I think the preceding witnesses have. I should state to you that the plaintiff's specification is divided into different sections; there are six sections, and he gives an account in each section of the component parts that form so much of the machinery as is described in that section. And there is one section, No. 5,

to the whole of which the model produced on the part of the defendant, according to the witnesses, applies. Mr. Millington, having first said that he had studied the plaintiff's specification and seen the model made according to it, says, "I also saw several of the plaintiff's machines; six or eight cursorily, and one I examined minutely. I saw also a common warp lace-frame in use at Nottingham, and also a point net-frame. This, of which I now see a model, (which, by the admission of all parties, forms the whole of section 5, in the specification of the plaintiff), forms part of the warp net machine."—So that all those parts, and the combinations of them, which are combined in section 5, of the specification, are found in the warp net machine, which existed long before. This witness says also, that there were point bars in the warp net machine, constructed nearly like the plaintiff's.

They are put in motion by a spindle and arms, and a crank in the warp frames. It is moved by a spindle and a kind of swivel bar hanging upon pivots: this is essential to the warp engine; they are both applied to the same purpose, that of carrying up the stitch and holding it in its situation. I have seen Heathcote's specification; the general movement of bobbins in it is the same in principle as in the plaintiff's. I agree in this with the last witness. Heathcote's, I think, in this respect is better; the bobbins are constructed alike; the threads are a little different; there is no difference in principle, only in form, in the facility of laying hold; in the machine shewn to the jury,

the bobbins do not agree with the specified form of the bobbins, but they approximate more to Heathcote's, and do not agree with the drawing to the specification; they are placed in combs in both cases, and in both they are unlocked in the same way. The locking is more perfect in Heathcote's; in both they move in a circle. In Heathcote's there is a point bar to raise up the work; there the machines are very similar, that is, Heathcote's and Brown's; and therefore it is possible that when he spoke of the point bar before, he was speaking of Heathcote's. "I should say Brown's was an imitation of Heathcote's, if he had seen it; two men may make the same thing, each without knowing what the other has done, but if I had known that he had seen Heathcote's, I should certainly say, that made last was in imitation of the first. The spoles are an improvement, they fall into a subsequent part of the operation; the construction and movement of the bobbins is an essential part of the machine: in that respect the two are alike as to the twisting; till they come up to the crossing of the threads, the machines resemble each other; after that a different manipulation takes place." I am glad the gentleman used so particular a word, because that fixes it in one's mind. He added, "the combination of principles of which this model which I hold in my hand is composed, is to be found in the warp machine; a machine which, ended with this, would be an useful one, though of course not so useful as those which contain further improvements."

Then Mr. John Farey, a civil engineer, says, "I think Brown's machine has combinations which are in Heathcote's, and which produce an effect upon the lace. I have examined Heathcote's and seen it at work; there are bobbins used; in that respect the operation is the same in Brown's; up to the crossing then it becomes different; there is great merit in the former part."

Upon cross-examination he says, "You can hardly make a new combination without embracing old combinations. I have seen Dawson's wheels in the warp machines; it is introduced into Brown's, but Brown's goes further. Brown's machine has some combinations which were in Heathcote's, and which produce an effect upon the lace; there is this difference, that the diagonal threads come from two different quarters."

Then the next witness is Mr. Thomas Brookes, who says, "I have been employed some years in making lace; I have observed the bobbins in Brown's specification; I knew them used in the lace manufactory three or four years before Brown's patent. I know what is called the gibbet; that also was used in the warp frames. I know the drivers, which drive the wheels which we call cloggers, and the wheels and cross bar; they have been used in the warp machine which I have known fifteen years; they produce the same effect as in Brown's machine: Brown's machine could not do without them. I use a machine for the manufacture of this species of lace, which I formed before Mr. Brown took out his patent."

Then the next witness is John Tarrett, who speaks

to the forks and the dividers being used in lace machinery two and thirty years ago. Morris had a patent for them in 1782; and the witness says he was his servant. The forks take the threads out of the dividers.

Now, gentlemen, the objections made to this specification, upon this part of the case, are, that it goes further than it ought; that it states more to be the invention of Mr. Brown than really was so; and I think I may state generally to you, that they say that all that precedes the crossing of the threads is old, whereas he has stated it as a part of his invention; and besides that, they state that the forks and the dividers, which he has stated as a part of his invention, are equally old. I think, with respect to the principle, if there existed at the time Mr. Brown took out his patent, engines for the making of lace, of which his was only an improvement, then his patent ought to have been only for an improvement; and certainly, even if he could have supported his patent for an engine, his specification ought to have pointed out those parts only which were of his invention as those to which his privilege applied; and if you shall be of opinion that he has in his specification stated more than he is intitled to, by the proof in the case, as what was his invention, then in my opinion the specification will be bad.

Now the answer that the plaintiffs have endeavoured to give to that objection is this: they say there is nothing in the world that is absolutely new; you may refer it all to first principles: the wheels are well known, and yet you

may state them in your specification as one of the means by which you effect your purpose; levers are well known, but yet you may state them in the same way: that certainly is so. They go on to say, their invention consists not in this or that particular part of which their machine is composed as being new, but in the conformation of all the parts of it, the novelty consisting in that conformation; and if the new conformation of all those parts was of the plaintiff's invention, then, although every one of the parts was old, they would be intitled to a patent for a machine composed by that new conformation of the whole; but if you find that another person had combined all those parts up to a given point, and that Mr. Brown took up his combination at that point, and went on combining beyond that, if the subsequent combinations alone were his invention, the former combinations he will have no right to. Those combinations could not exist before, unless there had existed an engine in which they were found; and if there existed before this time an engine in which they were found, it is for you to say, whether this which Mr. Brown has invented is any more than an improvement of that engine, or whether it is the invention of a new engine. If Mr. Brown has only invented an improvement of the old engine, be it Heathcote's, or be it any one or two engines which existed before, then his specification, by which he claims the whole to himself, will be bad. If, on the other hand, you think that he has invented an engine which consists of

a perfectly new conformation of parts, although all the parts were used before, yet he will be intitled to support his patent for a new machine.

Now I wish to have what I state upon this subject observed by the counsel on both sides, that they may be aware how I put it. If a conformation of those parts existed before; if a combination of a certain number of these parts existed up to a given point before, and Mr. Brown's invention sprung from that point, and added other combinations to it, then I think his specification, stating the whole machine as his invention, is bad. If, on the other hand, you think he has the merit of inventing the combination of all the parts from the beginning, then I think his specification is good, and that he is intitled to your verdict. I have said nothing upon the fork bars and dividers, because precisely the same question arises out of them, only not so strong for the defendant; therefore, I think the case would be encumbered only by my saying any thing upon the subject.

The Counsel will take a note of the manner in which I have left the case to you; and you will say first, whether you think there is any fraudulent concealment in the specification; and next, if there was not, whether you think he has in his specification described an invention, as I have stated to you, to a greater extent than the proof goes to establish.

A Juryman.—It might be inadvertent, and not fraudulent.

Lord Chief Justice GIBBS.—Certainly; and if

it was inadvertent, if he actually knew, and meant to practise that mode, and inadvertently did not state the whole in his specification, he must answer for his inadvertence; but it might be a subsequent discovery.

Verdict for the defendant.

Lord Chief Justice GIBBS.—Gentlemen, I will just ask you this; do you find that the combination of the parts up to the crossing of the threads is not new?

Foreman of the Jury.—Yes, my Lord.

A Juryman.—The threads then taking a new direction, and certainly the most valuable part to the plaintiff is a new invention; but we are of opinion it is nothing more than an improvement.

PRACTICAL OBSERVATIONS,

RESULTING FROM

THE FOREGOING CASES.

From these cases we may be led briefly to consider what is and what is not the subject of a patent, and who is the first inventor; what is that previous use of any thing which will vitiate a patent; what is the description required in the specification; and lastly, to state some matters connected with patents not coming under either of those heads; and in pursuing those points, that proper authorities may be given for what is hereafter laid down, we shall as much as possible avoid using any language of our own, but shall chiefly make use of the language of the learned judges, referring to the cases in which they have made the observations hereafter stated.

First, as to what is the subject of the patent. The sixth section of the statute of 21 Jac. for restraining monopolies, provides that any declaration contained in the said act "shall not extend to any letters patent 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 inventor or inventors of such manufactures, which others at the time of making such letters patent and grants shall not use, so as also they be not contrary to the law, nor mischievous to the state, by raising prices of commodities at home, or hurt of trade, or generally inconvenient."

The chief design of this act evidently was to restrain the prerogative of the crown in respect to monopolies which had before been carried to a very mischievous extent, but reserving a power for the salutary exercise of such prerogative in the case of new and beneficial inventions.

Prior to this statute, the courts had been very much embarrassed with a great variety of cases upon royal grants of monopolies, which had been mostly determined to be invalid, either as being against the common or statute law, or both; but this act, declaratory of the law upon the subject, has since rendered the matter more certain.

We will begin with the words of the proviso, and shew in the first place what have been held to be "new manufactures."

The word manufacture is of extensive signification: it applies not only to things made, but to the practice of making, to principles carried into practice in a new manner, to new results of principles carried into practice. Under things made, we may class new compositions of things, such as manufactures in the most ordinary sense of the word: all mechanical inventions, whether made to produce old or new effects, for a new

piece of mechanism is certainly a thing made. Under the practice of making, we may class all new artificial manners of operating with the hand, or with instruments in common use, new processes in any art producing effects useful to the public *. New methods of manufacturing articles in common use, where the whole merit and effect produced are the saving of time and expense, and thereby lowering the price of the article, may be said to be new manufactures, in one of the common acceptations of the word, and agreeable to the spirit and meaning of the act †.

If a patentee claims a monopoly for an engine or machine, composed of material parts, which are to produce the effect described, and the mode of producing this is so described as to enable mechanics to produce it, it is a patent for a manufacture, which is something made by the hands of man, and the patent is good. No technical words being necessary to explain the subject of a patent ‡.

A new combination of old materials so as to produce a new effect, is the subject of a patent §. In inventions, through the medium of mechanism, there are some materials which are common, and cannot be supposed to be appropriated in the terms of any patent. There are common elementary materials to work with in machinery, but it is the adoption of those materials to the

* Sir James Eyre, in Boulton v. Bull, p. 207.

† *Ibid.* p. 210.

‡ Lord Kenyon, in Hornblower v. Boulton, p. 225.

§ Lord Ellenborough, in Huddart v. Grimshaw, p. 267.

execution of any particular purpose that constitutes the invention; and if the application of them be new; if the combination in its nature be essentially new; if it be productive of a new end, and beneficial to the public, it is that species of invention, which, protected by the king's patent, ought to continue to the person the sole right of vending it*. If he states any particular thing before in common use, applied in a new manner to the production of, and effecting a new end, that is part of the substance of the invention †.

It is no objection to mechanical or chemical discoveries, that the articles of which they are composed were known and in use before, provided the compound article is new; but the patent must be for the compound article, and not for all the articles or ingredients of which it is made ‡. A man took out a patent for water tabbies; suppose painted floor-cloths to be produced on the same principle, they are distinct substances, calculated for different purposes, and were each unknown to the world before; therefore, a patent for one would be no objection to a patent for the other §.

In the case Morris *v.* Branson ||, an objection was taken that it was not a new invention, but only an addition to an old machine. Lord Mansfield said, that objection would go to repeal al-

* Lord Ellenborough, in Huddart *v.* Grimshaw, p. 278.

† Ibid. p. 279.

‡ Mr. Justice Buller, in Boulton *v.* Bull, p. 199.

§ Ibid. p. 200.

|| Cited by Mr. Justice Buller, in Boulton *v.* Bull, p. 202.

most every patent that ever was granted. The verdict in that case was for the plaintiff, and was acquiesced in; and although his lordship said he had paid great attention to the point, and mentioned it to all the judges, he did not state what was their opinion, or give any direct opinion himself, yet it may be safely collected, that he thought the patent good, and since that time it has been the generally received opinion that a patent for an addition is good, but it must be for the addition only, and not for the old machine too. If a patent be confined to the invention of a particular part, it gives no right to the whole engine, or to any thing beyond the invention itself; the public have a right to purchase that *improvement by itself, without being incumbered* with other things *.

In Jessop's case † his patent was avoided because it was taken for the whole watch, when the invention consisted of only one movement. A person has a right to purchase the new movement and work it up in watches made by themselves.

When the effect produced is some new substance or composition of things, the patent ought *to be for such new substance or composition*, without regard to the mechanism or process by which it has been produced. When the effect produced is no substance or composition of things, the patent can only be for the mechanism or for the process ‡.

* Mr. Justice Buller, in Boulton *v.* Bull, p. 203.

† Cited by Mr. Justice Buller, in Boulton *v.* Bull p. 203.

‡ Sir James Eyre, in Boulton v. Bull, p. 208.

If the machinery be not new, but only conducted by the skill of the inventor, so as to produce a new effect, the patent cannot be for the machinery *.

If the prosecution of a manufacture be assisted (as in a lace machine) by bending together two of the teeth of the dividers, or making one longer than the rest, if it appears to have been a *subsequent discovery* it will not break in upon the validity of a patent, it will only shew that the patentee has since found out the means of carrying on his own invention to better effect †; but if at the time when he obtained his patent he was apprized of this more beneficial mode of working, and did not by his specification communicate this more beneficial mode of working to the public, that will have been a fraudulent concealment from the public, and will render the patent void ‡.

A patent can only be for the additional improvement described in the specification, and the patentee cannot claim the sole manufacture of the whole engine §. It signifies nothing whether the patent be for the engine or for the method of making it, if that method be sufficiently described in the specification ‖.

In Williams *v.* Brodie ** it was held that if a new invention which is the ground of a patent is the addition of a new application to an old ma-

* Sir James Eyre, in Boulton *v.* Bull, p. 210.

† Sir Vicary Gibbs, in Bovill *v.* Moore, p. 381.

‡ Ibid. p. 401.

§ Mr. Justice Grose, in Hornblower *v.* Boulton, p. 233.

‖ Ibid. p. 236.

** Cited by Mr. Bearcroft, in the King *v.* Arkwright, p. 97.

chine, it should be so described in the patent; but in the case of Harmar v. Playne*, a patent for improvements upon a former machine was *held good, although the specification described* the whole machine without distinguishing the improvements from the parts of the old machine, or referring to the former specification otherwise than as the second patent recited the first.

A patent for an improvement upon a thing, or for the thing improved, is in substance the same†.

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, that will be sufficient to support a patent; but whether it must be for the new addition only, or for the whole machine, is another question‡. If in a carding machine, the carding cylinder was before used covered all over, and a patent be taken for a cylinder covered in stripes, and it operates as well and answers the same purpose without stripes, suppose stripes never to have been used before, that is not such an invention as will support a patent§.

If the novelty of an invention consists in the new conformation of its parts, and the new conformation of all those parts is of the patentee's invention, then, although every one of the parts was old, he would be intitled to a patent for a machine composed by that new conformation of

* Page 324.

† Mr. Justice Heath, in Boulton v. Bull, p. 191.

‡ Mr. Justice Buller, in The King v. Arkwright, p. 128, 129.

§ Ibid. p. 137.

the whole; but if another person had combined all those parts up to a given point, and the patentee took up his combination at that point, and went on combining beyond that, if the subsequent combinations alone were his invention, the former combinations he will have no right to*.

If he has only invented an improvement of the old engine, or of any one or two engines which existed before, then his specification by which he claims the whole to himself will be bad. If on the other hand he has invented an engine which consists of a perfectly new conformation of parts, although all the parts were used before, yet he will be intitled to support his patent for a new machine†.

In order to support a right to the exclusive enjoyment of any invention, it is necessary that the party who takes out the patent should shew that the invention is new, that it is not only new but useful, and that he has accurately explained the nature of his invention in his specification, separating that which is new from that which is old, so as to enable a person of tolerable skill to make the thing by his specification‡.

It is no matter that two patents profess the same object. If springs are not an essential part of the invention, and they are specified as an essential part, it would certainly affect the patent. If the spring should be a material part of the invention, and relied upon as such in two patents,

* Sir Vicary Gibbs, in Bovill v. Moore, p. 412.

† Ibid. 412, 413.

‡ Sir Vicary Gibbs, in Manton v. Manton, p. 348, 349.

and if it is the same, the latter patentee cannot take the benefit of it*. If a patent be taken for that to be done by a tube which was before done by a ring or circle, the patent would be good, for that is a substantive invention†.

In point of law it is necessary that a plaintiff should prove his invention to be new and useful, in order to intitle himself to an action‡.

A patent taken out for "a method of more completely lighting cities, towns, and villages," when the specification described improvements upon street lamps, was held to be taken out too large; it was in substance a patent for an improvement in street lamps, and should have been so taken§.

The subject of a patent ought to be specified, and ought to be that which is vendible, otherwise it cannot be a manufacture‖.

Next as to "new manufactures within this realm." It has been held that if an invention be new in England, a patent may be granted for it, though the thing was practised beyond the sea before**.

Having shewn what is the subject of a patent, it now becomes necessary to cite some authorities shewing what is not the subject of a patent.

* Lord Ellenborough, in Huddart v. Grimshaw, p. 294, 295, 296.

† Ibid. 297, 298.

‡ Sir Vicary Gibbs, in Bovill v. Moore, p. 399.

§ Mr. Justice Le Blanc, in Lord Cochrane v. Smethurst, p. 361.

‖ Mr. Justice Heath, in Boulton v. Bull, p. 191.

** Edgeberry v. Stephens, p. 36.

A *principle* cannot be a ground for a patent, because it is the first ground and rule for arts and sciences, or, in other words, the elements and rudiments of them: a patent must be for some new production from those elements, and not for the elements themselves*.

If a *principle* alone be the foundation of a patent, it cannot possibly stand, though the invention may be a great improvement, yet the patent must be void *ab initio*†.

A patent must be for a vendible matter, and not for a *principle*. The organization of a machine may be the subject of a patent, but *principles* cannot. A patent for the application of a *principle*, must be as bad as a patent for the *principle* itself. 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‡.

There can be no patent for a mere *principle*; but for a *principle* so far embodied and connected with corporeal substances, as to be in a condition to act and to produce effects, there may be a patent§.

But if a patentee sets forth his invention intelligibly, his specification should be supported, though he professes only to set forth the *principle*. The term "principle" is equivocal; it may denote either the radical elementary truths of a

* Mr. Justice Buller, in Boulton v. Bull, p. 196.
† Ibid. p. 197.
‡ Mr. Justice Heath, in Boulton v. Bull, p. 192, 193.
§ Sir James Eyre, in Boulton v. Bull, p. 212.

science, or those consequential axioms which are founded on radical truths, but which are used as fundamental truths by those who do not find it expedient to have recourse to first principles*.

If a mechanical improvement is intelligibly specified, whether the patentee calls it a *principle*, invention, or method, or by whatever other appellation, the court are not bound to consider his terms, but the real nature of his improvement, and the description he has given of it, and may protect him without violating any rule of law†.

A patent cannot be granted for a mere *principle*; yet if the thing is to be made or done by a manufacture, and the mode of making that manufacture is described, it then becomes an effect, by whatever name it may be called, not a patent for a mere *principle*, but for a manufacture, for the thing so made, and not for the *principle* upon which it is made‡.

It appears, therefore, from these authorities, that there cannot be a patent for a mere philosophical *principle*, neither organized nor capable of being so; but that a patent for a machine improved by a philosophical *principle*, though the machine existed before, is good.

The grant of a *method* is not good because uncertain; the specification of a method or of the application of a principle is equally so§.

The *method* or *mode* of doing a thing are the

* Mr. Justice Rooke, in Boulton v. Bull, p. 186.

† Ibid. p. 187.

‡ Mr. Justice Grose, in Hornblower v. Boulton, p. 234, 235.

§ Mr. Justice Heath, in Boulton v. Bull, p. 193.

same, a patent cannot be supported for a *method* only, without having carried it into effect, and produced some new substance. Unless a patent can be supported for a manufacture, it cannot be supported at all*. *A method* of doing a thing, without the thing being done, or actually reduced into practice, is not a good foundation for a patent; when the thing is done or produced, then it becomes the *manufacture*, and is the proper subject for a patent†.

In words the privilege granted is to exercise a *method* of making or doing any thing, yet if that thing is to be made or done by a *manufacture*, and the mode of making that manufacture is described in the specification, it then becomes an effect, by whatever name it may be called‡.

Patents for a *method* or art of doing particular things have been so numerous, that *method* may be considered as a common expression in instruments of this kind; it would therefore be extremely injurious to the interests of patentees, to allow this verbal objection to prevail§.

Mr. Hartley's invention for securing buildings from fire is no substance or composition of things, it is a mere negative quality, the absence of fire: the effect is produced by a new method of disposing iron plates in buildings, the patent therefore could not be for the effect produced, nor for making the plates of iron, which, when disposed

* Mr. Justice Buller, in Boulton v. Bull, p. 198.

† Ibid. p. 199.

‡ Mr. Justice Grose, in Hornblower v. Boulton, p. 235.

§ Mr. Justice Rooke, in Boulton v. Bull, p. 185.

in a particular manner, produce the effect, for those are things in common use; but for the *method* of disposing those plates of iron so as to produce the effect, and that effect being a useful and meritorious one, the patent was very properly granted to him for his *method* of securing buildings from fire. Plates of iron are the means employed, but he did not invent those means; the invention wholly consisted in the new *method* of using, or rather disposing of a thing in common use, which every man may make*.

It appears therefore that if a patentee denominate his discovery "a method," when in fact the thing invented is something substantial, or a new and useful effect, produced by a new application of means before in use, the verbal inaccuracy will not vitiate the grant.

If a man by science devise the means of making a *double use of a thing known before*, he could not have a patent for it†.

We come now to consider who have been held to be "the true and first inventors of such manufactures," and here the plain and ordinary sense of the words seems pretty clearly to explain their meaning; it was however held in the case of Edgeberry and Stephens, p. 36, that any person in this country being in possession of a foreign discovery, and introducing it here, is intitled to a patent, as "if the manufactures be new here, it is within the statute, and whether learned by travel

* Sir James Eyre, in Boulton v. Bull, p. 208, 209.

† Mr. Justice Buller, in Boulton v. Bull, p. 197.

or study, it is the same thing;" and that decision is at this day acted upon to a very great extent, as many patents are granted to persons resident in this country, for inventions communicated to them from abroad, it being only considered necessary under the words of the statute, that they should be new within this realm.

This construction of the act is of great importance, as it is very material to the improvement of the trade and manufactures of this country, that all possible encouragement should be given to the introduction of useful discoveries from every part of the world; and if it had been determined otherwise, it would involve the patentee in very great difficulties, and make it next to impossible for him to support his patent against an infringement, as he would be required to prove the novelty of his invention, if that were disputed, and his opponent might bring evidence from distant parts of the globe to resist the proof.

If an inventor has published his invention before he has taken out his patent, so that the public be in possession of the discovery, he cannot support his patent, although in fact he is the first and true inventor thereof; because the statute requires, not only that they should be "new manufactures within this realm," but adds, "which others at the time of making such letters, patents, and grants, shall not use."(a)

It is also required by the statute that such grants be not contrary to law, nor mischievous to the state by raising prices of commodities at home, or hurt of trade or generally inconvenient.

(a) Wood v Zimmer. Holt Nisi P. Rep. 58

A patent is held to be contrary to law if the patentee is not the *sole* inventor, as in Tennant's case, tried before Lord Ellenborough, 23d December, 1802. Mr. Tennant brought his action for an infringement of his patent for a bleaching liquor; several witnesses were called in support of the patent, who proved the great utility of the invention, and the general ignorance of the bleachers with respect to such bleaching liquor, until after the date of Mr. Tennant's patent. On the other side, a bleacher near Nottingham deposed, that he had used the same means of preparing his bleaching liquor for five or six years anterior to the date of the patent. He also stated that he had kept his method a secret from all but his two partners, and two servants concerned in preparing it. A chemist at Glasgow deposed, that having had frequent conversations with Mr. Tennant on the means of improving bleaching liquor, he had in one of them suggested to Mr. Tennant that he would probably attain his end by keeping the lime-water constantly agitated. Mr. Tennant afterwards informed the witness that this method had succeeded. These conversations took place in 1796, and Mr. Tennant obtained his patent in 1798. Lord Ellenborough declared this to be a scandalous patent, equally unfounded in law and justice. The plaintiff was nonsuited on two grounds, first, that the process had been used five or six years prior to the date of the patent, and therefore was not a new invention; and secondly, that a chemist had 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.

This invention being known before the patent to five different persons, it might perhaps also have been considered as both hurtful to trade and mischievous to the state; hurtful to trade, as confining the use of an article to one person for fourteen years, which was before known to five who might, during that time, have disseminated it to the various persons engaged in that trade, if not prevented by the patent; and injurious to the state, as by granting the exclusive benefit of a thing already used by or known to the public, the patentee could not pay for his privilege in the coin required by the patent, namely, a disclosure of a *new* invention, having nothing to give as a consideration for his monopoly.

A patent is also contrary to law if the subject of it is not *new* within this realm; if *used by others* at the time of granting the patent; if it is mischievous to the state by raising the price of commodities at home; if it is hurtful to trade; or in any other way generally inconvenient, as such patent would be in opposition to the proviso in the statute of 21 Jac.

In the case The King v. Arkwright, p. 79, one of the issues to be tried was, that the patent was prejudicial and inconvenient to his Majesty's subjects in general; but it was held by Mr. Justice Buller that this was merely a consequential issue; it stated no fact which could be tried by a jury, on which the defendant could come prepared to

answer, and he therefore refused to hear any evidence on that part of the case.

The next thing proposed is to shew what is that *previous use* of any thing which will vitiate a patent.

A patent, since the introduction of the proviso for inrolling a specification, is in the nature of a bargain or agreement between the king and the subject, that if the latter will put the public in possession of a beneficial invention found out or introduced into the kingdom by him, he shall have the exclusive benefit of it for fourteen years; but if the public are already in possession of the discovery, the patentee can make no such compensation for the privilege he obtains, and therefore (as mentioned under the last head) if any person has used an article for which a patent is obtained previously to the date of the patent, although he had kept it a secret from all but his two partners and two servants concerned in preparing it; Lord Ellenborough held it such a previous use as to direct a nonsuit upon that ground; but it must have been known to more than one, as in Dollond's case* it was held that the discovery having been made before by Dr. Hall, who had confined it to his closet, and the *public* were not acquainted with it, that was *not* such a use as would affect the patent; Mr. Dollond was therefore considered as the inventor, and his patent was established.

So in the case of Edgeberry v. Stephens, the

* Cited by Mr. Justice Buller, in Boulton v. Bull, p. 199.

thing being practised beyond the sea, however long it may have been so used there, is *not* such a use as will vitiate a patent granted to the person first introducing it into this country.

Having shortly stated what is the previous use of a thing which will vitiate a patent, it may be proper to shew for what other causes a patent may be set aside, and by what means.

A writ of *scire facias* to repeal letters patent lies in three cases: first, when the king doth grant by several letters patent one and the self same thing to several persons, the first patentee may have a *scire facias* to repeal the second, because it is granted to the prejudice of the first, and the king of right is to permit him, upon petition, to use his name for the repeal of it.

Secondly, when the king doth grant a thing upon a false suggestion, he, by his prerogative, may by *scire facias* repeal his own grant. A patent may be said to be obtained upon a false suggestion, if it is to the prejudice of the crown or the community, or hurtful to trade by raising the price of the commodity, or in any other way contrary to the terms of the statute of 21 Jac.

And thirdly, when the letters patent express a grant which, by the law of the land, the king cannot make. This may be either against the common law, the statute law, or both, by interfering with the industry of the people, or granting the sole use of any known trade or art, and various other ways which it is not necessary here to enumerate.

A *scire facias* should be founded upon some

record, and therefore to repeal a patent it ought to be in Chancery, where the patent is recorded. The record of the proceedings upon the writ is made up in that court and sent to a court of law to be tried.

But it should be observed that it is not every mistake in a grant which will vitiate a patent, as will be seen by the following general rules laid down by Chief Justice Lee*.

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

2dly, 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.

3dly, 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.

4thly, When the king grants *ex certa scientia et mero motu*, those words occasion the grant to be taken in the most liberal and beneficial sense according to the king's intent and meaning expressed in his grant.

5thly, 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 and take place.

We now come to treat upon a very important part of the subject, and one upon which most of

* Buller's Nisi Prius, p. 75.

the cases have chiefly turned, and which consequently requires the greatest attention in order to support a patent, namely, what is the description required in the specification.

It was said by Lord Eldon, in Cartwright v. Amatt, that patents are to be considered as bargains between the inventors and the public, to be judged of on the principle of good faith, by making a fair disclosure of the invention, and to be construed as other bargains.

It is clearly settled as law, that a man to entitle himself to the benefit of a patent 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: if the specification be in any part materially false or defective, the patent cannot be supported; but if the specification be such that mechanical men of common understanding can comprehend it, to make the thing by it, it is sufficient; but it must be such that they may be able to make the thing by the specification, without any new inventions or additions of their own*. A specification is insufficient if a man of ingenuity be required to supply its defects. If sensible men that know something of the business, and mechanics in general, cannot by the specification make the thing invented, it is not so described as to support the patent†.

The clearness of the specification must be according to the subject matter of the invention; it

* Mr. Justice Buller, in The King v. Arkwright, p. 106.

† Ibid. p. 128.

is addressed to persons in the profession, having skill in the subject, not to men of ignorance, and if it is understood by those whose business leads them to be conversant in such subjects, it is intelligible*.

If it appears that a mechanic could not from the specification make an engine with equal effect, or if it required expense and experiments before it could be done, either of those facts would avoid the patent†.

But if the specification be such as to enable artists to adopt the invention, and make the manufacture, it is sufficient; the specification is to be considered as part of the patent. The benefit to the public is from the specification disclosing to the world how others may make and use the same manufacture. To learn what the patent is, you may read the specification and consider it as incorporated with the patent‡. The patent is nothing without the specification; whether the patent call the manufacture by its name, or style it an invention, a mode, a method, or in any other manner, it signifies nothing, for the specification describing the thing must be resorted to, and may fairly be deemed a part of the patent itself§.

It is incumbent on the patentee to give a specification of the invention in the clearest and

* Lord Loughborough, in Arkwright v. Nightingale, p. 56.

† Mr. Justice Buller, in Boulton v. Bull, p. 194.

‡ Mr. Justice Grose, in Hornblower v. Boulton, p. 228, 229, 230.

§ Ibid. p. 235.

most unequivocal terms of which the subject is capable; and if it appear that there is any unnecessary ambiguity in the specification, or any thing which tends to mislead the public, the patent is void*. Also if the process as directed by the specification does not produce that which the patent professes to do, the patent is void. 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 a thing could only be made with two or three ingredients specified, and the patentee has inserted others which will not answer the purpose, that will avoid the patent. So if he makes the article with cheaper materials than those 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; 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

* Mr. Justice Ashhurst, in Turner v. Winter, p. 151.

† Ibid. p. 152.

‡ Mr. Justice Buller, in Turner v. Winter, p. 154, 155.

was held to be insufficient, and the patent was avoided*.

If a concealment in a specification is not fraudulent but merely inadvertent, if the patentee actually knew and meant to practise that mode, and inadvertently did not state the whole in his specification, he must answer for his inadvertence†.

A patent had been granted for a new manufacture of lace, the specification went generally to the invention of mixing silk and cotton thread upon the frame; it was proved that silk and cotton thread had been mixed upon the same frame prior *to the patent, although too coarse for lace.* The patent not being for any particular mode of mixing, but for making lace of silk and cotton thread mixed, and it having been proved and admitted that silk and cotton thread were before mixed on the same frame in some mode or other, the patent was declared void‡.

Three objections were taken to a specification: first, that after directing lead should be calcined, it directed another ingredient (minium) to be taken, which would not answer the purpose, neither was it said that the minium should be calcined or fused, but if it had reference to the preceding words, then it should be calcined, which would not produce the effect, fusion being necessary. Secondly, that fossil salt was impro-

* Liardet v. Johnson, cited by Mr. Justice Buller in Turner v. Winter, p. 155.

† Sir Vicary Gibbs, in Bovill v. Moore, p. 414.

‡ Mr. Justice Buller, in The King v. Else, p. 145.

perly mentioned, there being many kinds of fossil salt, only one of which (sal gem) would answer the purpose, because it must be a marine salt. And thirdly, 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 could not be produced at all. If either of these objections are well founded, it will avoid the patent*.

If a man states in his specification that which is not new, though it was unnecessary for him to do so, he has overstepped his right, and has included that which is not his invention; in that respect his patent is void†. If he embraces within his invention, as essential parts, any thing which was a part of a prior invention communicated to the public, he has no right to such benefit: no deceptive things are to be held out to the public, those that are material are to be held out as material‡.

A patentee is bound to confine himself to that which is his invention, and if in the specification he has exceeded the limits of what he has invented, and of which he is intitled to the sole privilege, though in other respects there may be no objection to his patent, that will overturn it, for he will not then have registered a specification of his invention; it will be irregular, in having exceeded the limits of that invention§.

* Mr. Justice Buller, in Turner v. Winter, p. 148, 149.

† Lord Ellenborough, in Huddart v. Grimshaw, p. 279.

‡ Ibid. p. 294, 295.

§ Sir Vicary Gibbs, in Bovill v. Moore, p. 398.

Although an invention be new and beneficial to the public, yet if the plaintiff has in his specification asserted to himself a larger extent of invention than belongs to him; if he states himself to have invented that which was well known before, then the specification will be bad, because that will affect to give him, through the means of the patent, a larger privilege than could legally be granted to him*.

If there existed at the time of taking out a patent engines of which the subject of the patent was only an improvement, then the patent ought to have been only for the improvement; and if the patent could have been supported for an engine, the specification ought to have pointed out those parts only which were the new invention as those to which the privilege applied†.

If any material alteration be made from what was before in use, it ought to be specified. If articles are put into a specification merely to puzzle, or which are not useful for the purpose of the patent, the patent is void; for it is not that fair, full, and true discovery which the public have a right to demand‡.

A patent, the object of which was described in the specification to be a perforation in the hammer of a gun-lock for the purpose of letting the air from the barrel pass through, and at the same time secure the powder from passing through, if

* Sir Vicary Gibbs, in Bovill v. Moore, p. 404.

† Ibid. p. 411.

‡ Mr. Justice Buller, in The King v. Arkwright, p. 118.

the perforation permits the powder to pass through with the air, cannot be supported*.

It is not necessary to set forth a model or drawing, provided the patentee so describes the invention as to enable artists to adopt it when his monopoly expires. Had a drawing or model been made, and any man copied the improvement and made a machine in a different form, no doubt this would have been an infringement of the patent, because the mechanical improvement would have been introduced into the machine, though the form was varied; the mechanical improvement, and not the form of the machine, is the object of the patent†.

Articles of a specification which denote intention only, and do not state the thing to which it is to be applied, will not entitle a patentee to maintain an action for a breach of those articles; for he cannot anticipate the protection before he is entitled to it by practical accomplishment‡.

Another consideration respecting the specification, which is also a material one, is whether the patentee has given a full specification of his invention, not only one that will enable a workman to construct a machine answering to the patent, but one that will enable a workman to construct a machine answerable to the patent to the extent most beneficial within the knowledge of the patentee at the time; for a patentee who has invented a machine useful to the public, and can

* Lord Chief Baron Thomson, in Manton v. Parker, p. 332.

† Mr. Justice Rooke, in Boulton v. Bull, p. 187.

‡ Ibid. p. 187, 188.

construct it in one way more extensive in its benefit than in another, and states in his specification only that mode which would be least beneficial, reserving to himself the more beneficial mode of practising it, although he will have so far answered the patent as to describe in his specification a machine to which the patent extends, yet he will not have satisfied the law by communicating to the public the most beneficial mode he was then possessed of, for exercising the privilege granted to him*.

It now becomes necessary to state some other matters connected with patents and the rights of patentees, which could not properly be introduced under either of the foregoing heads.

Whenever 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 in the manner specified: slight evidence on his part is sufficient, and it is then incumbent on the defendant to falsify the specification†.

A patentee, in an action brought by him for infringing his patent, must prove the novelty of every part of that to which his patent applies‡.

In the case Hayne v. Maltby, p. 156, the plaintiffs having a patent machine, covenanted with the defendant that he should use one in the manner described in the specification; in consideration of which he covenanted that he would not

* Sir Vicary Gibbs, in Bovill v. Moore, p. 400.

† Mr. Justice Buller, in Turner v. Winter, p. 153.

‡ Sir Vicary Gibbs, in Manton v. Manton, p. 340, 341.

use any other. In an action upon the covenant, it was held that the defendant was not estopped by his covenant from pleading in bar to the action, that the invention was not new, or that the patentee was not the inventor, but that he might thus shew that the patent was void, and consequently that he had received no consideration.

But in the case Oldham v. Langmead*, where the patentee had conveyed his interest in a patent to the plaintiff, and yet in violation of his contract had afterwards infringed the plaintiff's right; and in his defence attempted to deny his having had any title to convey, stating it not to be a new invention, Lord Kenyon was of opinion that he was by his own oath and deed estopped from making that defence.

An act of parliament having passed for extending the term of a patent for a machine, when in fact the patent was for a process, it was held by Sir James Eyre† that there was nothing technical in the composition or language of an act of parliament, and that it must be expounded not according to the letter but the intent.

An act of parliament enabling a patentee to assign his patent to a greater number of persons than five (to which number it is expressly limited by the patent), and declared to be a public act, does not enable the patentee to make a better title than he could before the act‡.

Upon a motion to change the venue in an ac-

* Cited by Mr. Wigley, in Hayne v. Maltby, p. 157.

† Boulton v. Bull, p. 218.

‡ Hesse v. Stevenson.

tion for an infringement of a patent from Middlesex to Northumberland, it was refused, because the patent, which is the substratum of the action, is tested at Westminster*.

A patentee having assigned his patent while a suit was depending, reserving the legal estate in the same until the suit should be determined, and covenanting upon the determination of the suit to execute a further assignment, and that until such assignment, the assignee should stand legally possessed of the same; the assignee upon an action brought by him, was nonsuited, upon the ground that no such further assignment had been made; but upon moving for a new trial, it was held by the court that the legal estate vested without further assignment†.

If the assignees of an uncertificated bankrupt, in their own name, executed a deed with other creditors, whereby they release him from all actions, claims, &c. and such deed be not signed by all the creditors, the assignees are not barred from claiming as assignees, the benefit of a patent afterwards obtained. A patent obtained by an uncertificated bankrupt is affected by the previous assignment of the commissioners, and vests in the assignees‡.

If the assignor of shares in a patent covenants that he has good right to convey, and that he has not, by any means, forfeited any right he ever had over the same; the generality of the former words are not constrained by the latter§.

* Cameron v. Gray.

† Cartwright v. Amatt.

‡ Hesse v. Stevenson.

§ Hesse v. Stevenson.

A person having discovered an improvement upon saddles, communicated his invention to another, who, previously to the communication, undertook by a written agreement not to take any undue advantage of such communication, under the penalty of £1000. He afterwards obtained a patent for this invention in his own name, which the inventor agreed should remain upon certain terms, but which terms the patentee before the action denied, and claimed the improvement as his own invention. In an action to recover the penalty, it was held that such sum could not be considered in the nature of liquidated damages*.

This case fully shews the necessity of keeping inventions as secret as possible until the patent has actually passed the great seal; for although the defendant was not able to support the patent taken out by him, but agreed at his own expense to assign it to the plaintiff for the remainder of the term, yet the real inventor would have lost the reward of his ingenuity, and the invention would have been laid open to the public at large, had it not been for an expensive and troublesome lawsuit.

It however frequently happens that useful discoveries are made by persons whose circumstances in life will not allow them to bear the expense of obtaining a patent without the assistance of others, who naturally and reasonably expect to be satisfied of the utility and probable success of the invention before they hazard a large sum of

* Smith v. Dickenson, p. 299.

money upon a blind speculation; it therefore appears advisable that any agreement between such parties, previously to the disclosure of the invention, should mention a sum, not as a penalty, but with an express declaration that such sum should be considered as liquidated damages, in case of any improper use being made of the discovery, either by bringing it into use before the passing of the patent, or otherwise.

Another instance of the danger an inventor is under of losing the benefit of his invention, by letting it in any way transpire before he has the great seal, may be mentioned, although in this instance it did not succeed. A person had invented an improvement upon spectacles, and as his patent was in a state of forwardness, he had not been sufficiently cautious in keeping the invention to himself, so that another person in the same trade had acquired a knowledge of it, and hastily got a pair made upon the same construction, and exposed them in his window; fortunately, however, the inventor happened to pass the shop, and perceiving them, employed a friend to go and purchase them, in which he succeeded, and his patent passed the great seal the next day, before there was time to get any more made, by which his patent was rendered secure, and most probably a tedious and harassing lawsuit avoided.

As a further confirmation of the necessity of secrecy, we shall only add, that we recollect having heard Lord Eldon, when Chief Justice of the Court of Common Pleas, upon a trial for infring-

ing a patent, say, that during the many years he was first Solicitor-General, and afterwards Attorney-General, so many instances of piracy of inventions had come to his knowledge, that if he was an inventor, he would not disclose his invention to his own brother, until his right was secured by the great seal.

It would therefore be prudent in such cases as machinery, which the inventor, not being perhaps a workman, is unable to construct with his own hands, to employ different workmen to construct detached parts, who are not likely to have any communication with each other, and to be careful not to let them know the connexion or application of the several parts, or the use intended to be made of them.

A person having obtained a patent for an invention, of which he supposed himself the inventor, agreed to let another use it upon payment of a certain annual sum, secured by bond, which sum was paid for several years, when the latter discovering that the former was not the inventor, but that it was in public use before the patent was obtained, brought an action to recover back the amount of the annuity paid, but it was held that he could not recover, as both parties had made the contract in ignorance, and without any fraud*.

An objection was taken that a specification was not enrolled in due time; but it was held by Lord Ellenborough that the day of the date of the pa-

* Taylor v. Hare.

tent is excluded, and therefore if a patent is dated 10th May, and requires the specification to be enrolled within one calendar month next and immediately after the date of the patent, and the specification is enrolled on the 10th June, it is enrolled in due time*.

It now only remains that we should say a few words upon the nature and effect of a caveat, which during our practice we have frequently found to be very much misunderstood. It has been thought by many inventors that upon entering a caveat they secured the right to themselves of obtaining a patent, notwithstanding the invention might be brought into use prior to their having done so; in short, that it was a kind of minor patent, giving them every privilege for one year which the patent itself would do for fourteen, or that it would operate as a proof of their being the first and true inventors, and that upon their afterwards obtaining a patent they would be able to maintain it against any person who, in the mean time, might have made use of the invention: in order to obviate such erroneous ideas, it is necessary to explain the nature and effect of a caveat.

A caveat is merely a desire that if any person should apply for a patent for any particular invention, notice of such application should be given to the party. This caveat is usually entered at the offices of the Attorney and Solicitor-General, and upon an application to either of

* Watson v. Pears.

them for his report upon a petition to the king for a patent for any discovery of the same nature as that described in the caveat, notice is given to the person who has taken this precaution, which gives him an opportunity, if he thinks the inventions interfere with each other, of opposing the application. If it is meant to oppose, the Attorney or Solicitor-General before he makes his report will give a separate audience to each party, and examine the nature of the two inventions, and according to his opinion of their similarity will make his report or not: if he is of opinion that there is a material coincidence, he will not report in favour of the application; but if otherwise, he makes his report, and the patent proceeds in its regular course. If however the party entering the caveat is not satisfied with the decision of the Attorney or Solicitor-General, he has another opportunity of opposing by entering a caveat at the great seal, when the Lord Chancellor will himself give a similar audience and examine the pretensions of the parties. This practice is not often recurred to, as it is attended with much expense, and the Chancellor usually orders all costs to be paid by the party opposing if he does not succeed, as he is averse to the caveat in so late a stage of the business after great part of the expense of the patent has been incurred.

The caveat remains upon the books for one year, and may be renewed from year to year as long as may be considered requisite.

If it is thought necessary to enter a caveat, it is proper to use general expressions rather than to

express the precise invention, as by that means the inventor would receive notice of any application for a patent connected with the subject of the invention mentioned in the caveat, which might not be the case if the particular invention or improvement should be exactly identified. Another reason for general expressions is to guard against the opposite party obtaining a knowledge of the invention, as he might be able to affect the validity of the patent by publishing the invention before the patent is sealed, which would have the effect of throwing the invention open to the public. But it will sometimes happen that two ingenious persons may, without any improper communication, make a discovery of a similar invention, in which case upon the similarity of the invention appearing to the Attorney or Solicitor General, it is usually recommended that the parties should unite interests, and take out a patent in their joint names, which seems to be the most prudent plan for both parties, as priority of invention would be of no avail if the other party should be inclined to publish the invention so as to affect the patent. We cannot however too much reprobate a practice which has of late grown into use by some speculative persons of keeping a list of caveats upon general principles entered in the books without any idea of obtaining patents themselves, but with the sole view of being acquainted with every improvement that is going on, whereby they gain an opportunity of coming to a compromise with the real inventors,

and sometimes have obtained large sums of money from them to withdraw their opposition.

With respect to the description or title of the invention, we would observe, that the utmost consideration should be given before the inventor swears to the invention, as the title given in the affidavit and petition cannot afterwards be altered, it is therefore necessary that it should be sufficiently clear to identify the invention, and yet so general as to admit of some degree of latitude in the specification; but the greatest care should be taken that it does not comprehend more than is really the invention of the applicant, as it will be seen by some of the cases reported in this work, that patents have been set aside upon the ground of claiming too much.

But the rock upon which most patents have perished when brought into a court of law is a defective specification, and therefore it is adviseable, particularly in cases of complicated and extensive machinery, or any invention founded upon scientific principles, that the patentee should not depend too much upon his own judgment in drawing up that instrument, but that he should consult men of known and acknowledged science and ability in the particular branch to which the invention relates, who will perhaps not only be assistant towards the elucidation and proper description of the particular invention, but from their general knowledge will be able to point out parts of what the patentee thinks himself to be the inventor which have been previously in use, and

which if claimed by him might have the effect of vitiating his patent if ever it should have the misfortune to undergo the ordeal of a court. The patentee may do this without hazard of an infringement upon his patent or any improper use being made of the communication, as the grant having passed the great seal has secured the right to him beyond the danger of imitation.

An additional reason why those skilled in such subjects should be consulted appears to be, that advantage is likely to result from taking the opinion of men who had nothing to do with the invention, as they must necessarily be more likely to give a particular and exact description of an invention than the inventor himself, who from having intimately considered and reflected upon all the parts before it could be brought to maturity, has become so familiar with the whole as to imagine that it was equally clear to others, and that a skilful person might be able to carry the invention into effect by means of such a description as would leave much to be supplied by his own ingenuity and contrivance, which should carefully be avoided.

The foregoing cases and the few imperfect observations here offered to the public will, it is hoped, have the effect of drawing the attention of patentees more particularly to the law of the subject, and enabling them, by knowing what defects have heretofore had the effect of rendering patents void, to make their specifications more clear and explicit than in former times, whereby patents may become more certain, and ingenious persons

be induced to promote useful improvements in the arts and manufactures of the country by being acquainted with the means of making the tenure of a patent more stable and solid than of late years it has been found to be; an event much to be desired for the sake of those who devote their time and labour, and are very often at great expense in bringing to perfection things important and advantageous to the trade and commerce of the kingdom.

THE END.

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