AN

ESSAY

ON THE

LAW OF PATENTS

FOR

NEW INVENTIONS.

BY THOMAS GREEN FESSENDEN,
COUNSELLOR AT LAW.

"As the West Indies had never been discovered without the discovery of the Mariner's Needle, so it cannot seem strange, if Science be no farther developed, if the Art itself of Invention and Discovery be passed over."

BACON.

THE SECOND EDITION.

BOSTON:
PUBLISHED BY CHARLES EWER,
NO. 51 CORNHILL.

1822.

US
945
FES

DISTRICT OF MASSACHUSETTS, TO WIT :

District Clerk's Office.

BE it remembered, that on the fifteenth day of November, A. D. 1821, in the forty-sixth year of the Independence of the United States of America, THOMAS GREEN FESSENDEN of the said District, has deposited in this Office the Title of a Book, the Right whereof he claims as Author, in the words following, *to wit :*

An Essay on the Law of Patents for New Inventions. By THOMAS GREEN FESSENDEN, Counsellor at Law. "As the West Indies had never been discovered without the discovery of the Mariner's Needle, so it cannot seem strange, if Science be no farther developed, if the art itself of Invention and Discovery be passed over." BACON. Second edition.

In conformity to the Act of Congress of the United States, entitled, "An Act for the encouragement of learning, by securing the copies of maps, charts and books, to the authors and proprietors of such copies, during the times therein mentioned :" and also to an act entitled, "An Act supplementary to an Act, entitled, an Act for the encouragement of learning, by securing the copies of maps, charts and books, to the authors and proprietors of such copies during the times therein mentioned : and extending the benefits thereof to the arts of designing, engraving, and etching historical, and other prints."

JOHN W. DAVIS,

Clerk of the District of Massachusetts.

Printed by John Cotton, jr.

TO THE

HON. JOSEPH STORY,

ONE OF THE

ASSOCIATE JUDGES OF THE UNITED STATES,

TO WHOSE LEARNED AND LUMINOUS DECISIONS THE AUTHOR IS IN-
DEBTED FOR A GREAT AND VALUABLE PART OF THE

PRESENT EDITION OF HIS TREATISE,

THIS ESSAY ON THE LAW OF PATENTS,

IS RESPECTFULLY INSCRIBED,

BY HIS MUCH OBLIGED AND VERY GRATEFUL SERVANT,

THOMAS GREEN FESSENDEN.

INTRODUCTION.

THE investigations which led to the following essay, were commenced in consequence of the author's having occasion to turn his attention to the subject, without any design of publication. He was, however, induced to place the result of his inquiries before the public, in consequence of his having ascertained that the Law of Patents for New Inventions had received but little attention—much less, in his opinion, than was due to so important a branch of jurisprudence. It was, therefore, hoped that an essay on this topic, though but imperfectly executed, might be recommended as well by its *novelty* as by *its utility*.

The course of the author's inquiries, requisite to complete this essay, led him to observe that those persons to whom mankind have been indebted for the most useful discoveries, inventions, and improvements, in the arts, have but rarely met with that reward, either of fame or profit, which their ingenuity has mer-

ited. Yet to men of this description must be attributed the origin not only of the comforts, ornaments, and luxuries of life, but even of those necessaries, the want of which would convert the human race into hordes of wandering, naked, and houseless savages, much more miserable and defenceless than the brute inhabitants of the wilderness.

The writer has seen, with regret, not only that the lower orders in society, for the most part, entertain absurd and unreasonable prejudices against the person who invents, patronises, or adopts, a useful improvement in the arts, but, in some instances, legal men, of great and deserved eminence, have shown dispositions hostile to patentees of new and useful inventions, claiming the only reward for their labors and ingenuity, which they can, in most instances, hope for from the laws of society.*

In Great-Britain, however, the prejudices which formerly subsisted against patents for new and useful inventions seem to have subsided, and the government, the courts of law, and the more enlightened parts of the community, appear to be actuated by that sound and liberal policy, which is alone calculated to call forth and secure to the use of the public the exertions

*It may be said that perpetuities, monopolies, and patents of concealment, were born under an unfortunate constellation, for as soon as they have been brought in question,' judgment has always been given against them, and none at any time given for them; and all of them have two inseparable qualities, viz.: to be troublesome and fruitless."—*Buller's Nisi Prius, p.* 76.

of genius: they appear to entertain the opinion of an elegant writer, who thus expresses his sentiments on this subject. "Next to a conviction of the moral and political importance of domestic trade, the best means of improving it should engage our attention. There is certainly no department of public service more useful than the patronage of that mechanical ingenuity, by whose inventions and improvements the necessity for animal labor is diminished. No prejudice can be more absurd and mischievous than that which has been frequently objected to improvements in mechanism, on the ground of their tendency to abridge the employments of the more laborious parts of society. Among the principal advantages resulting from the civil association of mankind, we may surely class the opportunity afforded individuals of dedicating their talents to the benefit of the public, and the power of the latter to bestow adequate remuneration for the time and ability so employed.

"In return for such disbursements from the common stock, the personal convenience and profit of every member of the community, are more than proportionally increased.

"A solicitude to reduce animal labor, within moderate and reasonable limits, is not merely recommended on the score of political economy, but as one of the most amiable features of civilization, multitudes of our fellow creatures are thereby rescued from the deplorable ignorance that generally accompanies the lot

of manual drudgery, and being thus advanced a rank higher in the human species, may become eligible to many employments in which the understanding has a share, and which so greatly abound in a wealthy and civilized country.*

Another British writer, whose work may be styled the text book of statesmen, thus complains of the deleterious effects on society and civilization, which arise from the drudgery incident to the manipulations of extensive manufactories, which may be greatly alleviated, and in some instances, almost annihilated, by labor-saving machinery. "In the progress of the division of labor, the employment of the greater part of those who live by labor, that is of the great body of the people, comes to be confined to a few very simple operations; frequently to one or two. But the understandings of the greater part of men are necessarily formed by their ordinary employments. The man whose whole life is spent in performing a few simple operations, of which the effects too, are perhaps, always the same, or very nearly the same, has no occasion to exert his understanding, or to exercise his invention in finding out expedients for removing difficulties, which never occur. He naturally loses, therefore, the habit of such exercise, and becomes as stupid and ignorant as it is possible for a human creature to become. The torpor of his mind renders him not only incapable of relishing or bearing a part in any rational conversation,

* Balmanno's Introduction to Jones' Law of Bailments.

but of conceiving any generous, noble, or tender sentiment, and consequently of forming any just judgment of many, even of the ordinary duties of private life. Of the great and extensive interests of his country, he is altogether incapable of judging; and unless very particular pains have been taken to render him otherwise, he is equally incapable of defending his country in war.*

The ancients paid divine honours to the inventors, patrons, and improvers of those arts, which have a tendency to ameliorate the condition of mankind. Most of their deities were mortals, who had no better claim to an apotheosis than what originated in their having distinguished themselves by their ingenuity and industry in those arts, which too many of our modern patricians deem beneath the notice of any but persons destined to fill the lowest ranks in society. Bacchus was a successful cultivator of the vine; Apollo, Minerva, Ceres, Vulcan, &c. were personages famous for inventions and improvements in agriculture, and other useful and ornamental arts. Virgil assigns the highest place in the Elysian fields to those who improved human life by the invention of arts;

"Inventas qui vitam excoluere per artes."

In Egypt the priests maintained their ascendency over the common people, by blending useful knowledge with the grossest superstition. They were conversant with celestial motions, and were supposed, by the populace to have some influence in causing those heavenly

* Smith's Wealth of Nations.

phenomena, which their science enabled them to predict.* The Egyptians should seem to have been masters of many useful arts, which have been lost and buried in the rubbish of time. No mechanical powers, by any mode of application with which the moderns are acquainted, could have enabled them to rear those stupendous monuments of useless ingenuity, and ill directed industry, which have bid defiance to the ravages of time, and seem destined to endure till the dissolution of the "great globe itself, and all which it inherits."

"In Greece," says an elegant historian, "tradition mentions the original production of the olive, the first culture of the vine, and even the first sowing of corn. The first use of mills for grinding corn is also recorded. The knowledge of the cultivation and use of the olive, of the preparation of a lasting food from milk, by converting it into cheese, and the domestication of bees for their honey and wax, was said to have been brought from Africa by Aristœus: and so important was the information to the wild tribes of hunters, who first occupied Greece, that Aristœus had the fame of being

* Something similar has been observed by modern travellers. When Mr. Bruce arrived at Chendi, he found the people "much alarmed at a phenomenon, which, though it occurs every four years, had by some strange inadvertency, never been observed even in this serene sky. The planet Venus appeared shining with an undiminished light all the day. The people flocked to me from all quarters to know what it meant, and when they saw my telescope and quadrant, could not be persuaded but that the star had become visible by some correspondence with me, and for my use." *Bruce's Travels*, Vol. iv. p. 531. In China the prediction of eclipses still continues a powerful engine of government. *Staunton's Embassy*, Vol. ii. p. 93.

the son of Apollo, the god of science; the herdsmen and rustic nymphs, among whom he had been educated, were raised, in idea, to beings above human condition, and he was reported to have been himself immortal. The goddess of arts, Minerva, according to the oldest Athenian author from whom any thing remains to us, though reputed the peculiar patroness of Athens, was born in Africa, but deified by the gratitude of Greece."*

The patronage of Pericles, combined with other favoring circumstances, gave Athens a pre-eminence in the arts, which made the inhabitants of a diminutive, and naturally barren territory, the masters of Greece, the terror and admiration of cotemporary nations, and caused her to be hailed as the arbitress of taste by all succeeding ages. The whole population of that petty but powerful republic, in the height of its splendor, scarcely amounted to thirty thousand families of free subjects. Yet Athens reached a degree of perfection in the fine arts, which all succeeding ages have attempted to imitate, but never have been able to equal. This excellence was the consequence of the patronage afforded to artists by a great man, who at that time presided over the destinies of the republic. "Pericles," says the Abbe Millot, "gave life to the whole, and the Athenians for a couple of ages, continued to produce the most elegant master pieces. Architecture erected those superb monuments, whose delicate proportions

* Mitford's History of Greece.

enchant the eyes, while the enormous Egyptian masses can only serve to strike with astonishment."

"Before the time of Pericles," continues the same author, "sculpture had produced nothing but clumsy shapeless figures. The Grecian statues, like those of the Egyptians, had their arms hanging down, adhering close to the body, with the legs and feet joined to one another, without gesture, attitude or elegance." Phidias, Mycon, Polyctetus, Lysippus, and Praxitiles, flourished as sculptors. Polygnotus,* Apollodorus, Zeuxis, Pamphilus, Timanthes, and Apelles became immortal for their skill in painting, and the labors of these artists, together with the eulogies of the historian, the orator, and the poet, were at once the incentive and the reward of those astonishing feats of valor and displays of patriotism, which have excited the admiration of all succeeding ages.

Among the successors of Alexander the Great, we find Demetrius, the son of Antigonus, a commander, celebrated as a warrior, and no less renowned for his mathematical and mechanical science. "He had an inventive genius; and it may be justly said that curiosity and a fine turn of mind for the sciences were inseparable from him. He never employed his natural industry in frivolous and insignificant amusements, like

* Polygnotus received the thanks of the council of the Amphyctyons, in a public decree, which entitled him to have his expences defrayed wherever he travelled, for having painted *gratis* the story of the Trojan wars in one of the Porticos at Athens.

many other kings, some of whom valued themselves for their expertness in playing on instruments, others in painting, and some on their dexterity in the turner's art, with a hundred qualities of private men, but not of a prince. His application to the mechanical arts had something great and truly royal in it; his gallies with five benches of oars, were the admiration of his enemies, who beheld them sailing along the coasts; and his engines called helepoles were a surprising spectacle to those whom he besieged. They were exceedingly useful to him in the war with Rhodes."*

But the triumph of intellect, and of mathematical and mechanical knowledge over even well directed and disciplined, (or what is synonymous, Roman) valour was never more strikingly exemplified than in the celebrated siege of Syracuse. In that ever memorable instance the genius of one man baffled and held at bay for a long time the most formidable power the world ever saw, and would in all human probability have finally defeated and disgraced irreparably, the world's masters, had not treachery supplied the want of force to the conquerors. The siege of Syracuse affords so striking an exemplification of the power of mind over matter, and the importance of inventive and mechanical genius to a kingdom or commonwealth, that we cannot withstand the temptation of giving, in this place, an extract from Plutarch, descriptive of that event.

* Rollin.

"When the Romans attacked them (the Syracusans) both by sea and land, they were struck dumb with terror, imagining they could not possibly resist such numerous forces and so furious an assault. But Archimedes soon began to play his engines, and they shot against the land forces all sorts of missive weapons, and stones of an enormous size, with so incredible noise and rapidity that nothing could stand before them; they overturned and crushed whatever came in their way, and spread terrible disorder through the ranks. On the side next the sea were erected vast machines, putting forth on a sudden, over the walls, huge beams with the necessary tackle, which, striking with a prodigious force on the enemy's gallies, sunk them at once; while other ships hoisted up at the prows by iron grapples, or hooks like the beaks of cranes, and set on end on the stern, were plunged to the bottom of the sea; and others again, by ropes and grapples, were drawn towards the shore, and after being whirled about and dashed against the rocks that projected below the walls, were broken to pieces, and the crews perished. Very often a ship lifted high above the sea, suspended and twirling in the air, presented a most dreadful spectacle. There it swung till the men were thrown out by the violence of the motion, and then it split against the walls, or sunk on the engine's letting go its hold. As for the machine, which Marcellus brought forward upon eight gallies, and which was called *Sambuca*, on account of its likeness to the musical instrument of that name, whilst it was at a considerable dis-

tance from the walls, Archimedes discharged a stone of ten talents weight, and after that a second and a third, all which striking upon it with an amazing noise and force, shattered and totally disjointed it.

"Marcellus, in this distress, drew off his gallies as fast as possible, and sent orders to the land forces to retreat likewise. He then called a council of war, in which it was resolved to come close to the walls, if it was possible, next morning before day. For Archimedes' engines they thought, being very strong, and intended to act at a considerable distance, would then discharge themselves over their heads; and if they were pointed at them when they were so near, they would have no effect. But for this Archimedes had long been prepared, having by him engines fitted to all distances, with suitable weapons and shorter beams. Besides, he had caused holes to be made in the walls, in which he placed *scorpions*, that did not carry far, but could be very fast discharged; and by these the enemy was galled without knowing whence the weapons came.

"When, therefore, the Romans were got close to the walls, undiscovered, as they thought, they were welcomed with a shower of darts, and huge pieces of rocks which fell as it were perpendicularly on their heads; for the engines played from every quarter of the walls. This obliged them to retire; and when they were at some distance, other shafts were shot at them in their retreats, from the larger machines, which

made terrible havoc among them, as well as greatly damaged their shipping, without any possibility of their annoying the Syracusans in their turn. For Archimedes had placed most of his engines under cover of the walls, so that the Romans, being infinitely distressed by an invisible enemy seemed to fight against the gods.

"Marcellus, however, got off, and laughed at his own artillery-men and engineers. Why do we not leave off contending, said he, with this mathematical Briareus who, sitting on the shore, and acting as it were but in jest, has shamefully baffled our naval assault; and in striking us with such a multitude of bolts at once, exceeds as it were the hundred handed giants in the fable? And in truth, all the rest of the Syracusans were no more than the bodies in the batteries of Archimedes, while he himself was the informing soul. All other weapons lay idle and unemployed; his were the only offensive and defensive arms in the city. At length the Romans were so terrified, that if they saw but a rope or stick put over the walls, they cried out that Archimedes was levelling some machine at them, and turned their backs and fled. Marcellus, seeing this, gave up all thoughts of proceeding by assault, and leaving the matter to time, turned the seige into a blockade."

Here we cannot but lament that prejudice which prevented this great man from devoting more of his time and talents to such branches of mathematical and

mechanical science, as would afford results of immediate practical utility. The speculations in which he most delighted, seem to have been too sublime for common understandings, and too subtle to afford any substantial benefit to the bulk of mankind. "He had," says Plutarch "such a depth of understanding, such a dignity of sentiment, and so copious a fund of mathematical knowledge, that though in the invention of his machines, he gained the reputation of a man of divine, rather than human knowledge, yet he did not vouchsafe to leave any account of them in writing. For he considered all attention to *mechanics*, and every art that ministers to common uses, as mean and sordid, and placed his whole delight in those intellectual speculations, which, without any relation to the necessities of life, have an intrinsic excellence, arising from truth and demonstration only."

Surely nothing can be more preposterous than to entertain an opinion that those arts, which minister to common uses are mean and sordid; yet this opinion has been more or less prevalent in every age, among those whose birth, talents, fortune, or education have placed them above the necessity of obtaining a livelihood by the practice of those arts, which minister to the necessities and comforts of life, and has, perhaps, retarded the progress of improvement in such arts more than the ravages of time, or the devastations of war.

The Romans, though originally a horde of barbarians, little more civilized than the rudest tribes of our American aborigines, yet, with the acquisition of power,

acquired a knowledge of the arts from the more polished nations they subdued, which they communicated to other nations, who were obliged to submit to their dominion. Having desolated Europe, they set themselves to civilize it, and, as a consolation for the loss of liberty, communicated their arts, sciences, language and manners to their new subjects. Under their auspices, agriculture was encouraged, population increased, the ruined cities were rebuilt, new towns were founded, an appearance of prosperity succeeded, and repaired in some measure the ravages of war.* Such, however, were the defects in the polity of the Romans, and such, perhaps, as were inevitably incident to an empire of such extent, and composed of such discordant materials, that the whole fabric soon became loose and disjointed; and when assaulted by the hardy and intrepid tribes of the north, was prostrated in the dust, and the arts and sciences, together with even the remembrance of many of the inventions and improvements of the philosophers, mathematicians, and mechanicians, of antiquity, perished from the face of the earth.

When the inundation of northern barbarians had in some measure subsided, and a remnant of the human race in Europe had recovered some degree of comparative tranquillity, many circumstances conspired to render the progress of civilization and improvement in the arts extremely slow, and for a while almost imperceptible. The barbarous nations, says an elegant writer,

* Robertson's Charles V.

were not only illiterate, but regarded literature with contempt. They found the inhabitants of all the provinces of the empire sunk in effeminacy, and averse to war.—Such a character was the object of scorn to a high spirited and gallant race of men. This degeneracy of manners, illiterate barbarians imputed to the love of learning. Even after they had settled in the countries which they had conquered, they would not suffer their children to be instructed in any science, "for," said they, "instruction in the sciences tends to corrupt, enervate and depress the mind; and he who has been accustomed to tremble under the rod of a pedagogue, will never look on a sword or spear with an undaunted eye." Any employment in agriculture, or the useful arts, was thought by these wild and ferocious conquerors too menial for freemen. They disdained to cultivate the earth or touch a plough; and even their chiefs lived in a sort of pompous indigence, destitute of those comforts and conveniences which, in more modern times, are not often denied to the meanest laborer.*

* Observe the accommodation of the most common artificer, or day-laborer, in a civilized and thriving country, and you will perceive that the number of people, of whose industry a part, though but a small part, has been employed in procuring him accommodation, exceeds all computation. The woollen coat, for example, as coarse and rough as it may appear, is the produce of the joint labor of a great number of workmen. The shepherd, the sorter of wool, the wool-comber, or carder, the dyer, the scribbler, the spinner, the weaver, the fuller, the dresser, with many others, must all join their different arts in order to complete even this homely production. How many merchants and carriers, besides, must have been employed in transporting the materials from some of those workmen to others, who often live

In the dawn, which succeeded the dark ages, literature, science, and the arts were first patronized in Italy, by the Medici; and under the auspices of Lorenzo de Medici, the Italian Pericles, whose name alone suggests an idea of all that is elegant in literature, and consummate in science and arts, they rose to an incredible degree of perfection. "Whilst the study of polite literature was emerging from its state of reptile torpor, the other sciences felt the effects of the same invigorating beam; and the city of Florence, like a sheltered garden in the opening spring, re-echoed with the earliest sounds of returning animation. The Platonic Academy existed in full splendor, and served as a common bond to unite, at stated intervals, those who had signalized themselves by scientific, or literary

in a very distant part of the country. How much commerce and navigation in particular, how many ship-builders, sailors, sail-makers, rope-makers, must have been employed in order to bring together the different drugs made use of by the dyer, which often come from the remotest corners of the world. What a variety of labor is necessary in order to produce the tools of the meanest workman. To say nothing of such complicated machines, as the ship of the sailor, the mill of the fuller, or even the loom of the weaver, let us consider only what a variety of labour is requisite to form that very simple machine the shears, with which the shepherd clips the wool. The miner, the builder of the furnace, the mill-wright, the forger, the smith, must all of them join their different arts in order to produce them."* The writer declares that "the accommodation of an European prince does not always so much exceed that of an industrious and frugal peasant, as the accommodation of the latter exceeds that of many an African King, the absolute master of the lives and liberties of ten thousand naked savages."

* Smith's Wealth of Nations.

pursuits. The absurd pretensions to judicial astrology were fully examined, and openly exposed; and observation and experiment were at length substituted in the place of conjecture, and of fraud. Paolo Toscanelli had already erected his celebrated gnomon.* Lorenzo da Valpajez constructed for Lorenzo de Medici, a clock, or piece of mechanism, which not only marked the hour of the day, but the motions of the sun, and the planets, the eclipses, the signs of the zodiac, and the whole revolutions of the heavens."

The art of printing, invented towards the close of the fourteenth century, is said to be of German origin, and is generally attributed to Dr. Faustus, although authors have not agreed to what nation or individual the honour of this invention belongs. This art, however, was fostered and brought to a high degree of perfection under the auspices of Lorenzo de Medici; and though the plant might not have been a native of Italy, it found in that country a congenial soil, in which it flourished in high luxuriance. The art of copper-plate engraving, and the revival of that of engraving on gems and stones, are likewise numbered among the happy results of the munificence of the Medici.

* This gnomon, which has justly been denominated the noblest astronomical instrument in the world, was erected by Toscanelli, about the year 1460, for the purpose of determining the solstices, and thereby ascertaining the feasts of the Romish church. It is fixed in the cupola of the church of St. Maria del fiore, at the height of 277 Parisian feet. A small orifice transmits from that distance the rays of the sun to a marble flag, placed in the floor of the church.—*Roscoe's Life of Lorenzo de Medici, vol. ii. chap. 7.*

In England, the prejudices which formerly existed throughout Europe, against commerce and the useful arts, have, as before observed, in a great degree subsided. In that country we find their first noblemen, emulous of improvements in agriculture, and the useful arts. Societies have been founded in various parts of the kingdom for their patronage, whose transactions are periodically published, and premiums and honorary medals are awarded, with a liberal hand, to those whose inventions and discoveries, give promise of public utility. Many English noblemen, and men of affluence and high standing in society, have obtained letters patent for new inventions, or become interested in patents obtained by others.

To English liberality in encouraging and rewarding the authors of new inventions, may, in a great measure, be attributed the flourishing state of British agriculture, navigation and manufactures. A more contracted policy would have prevented the developement of those resources, which have rendered her able, single-handed, to oppose with success, a power which had nearly overwhelmed continental Europe, and threatened to extend its empire over the habitable globe.

It would far surpass the limits of this introduction to give even a sketch of the important inventions and improvements in the arts, which have so greatly promoted the prosperity of Great Britain. We will, how-

ever, briefly advert to some of those, which appear not the least worthy of notice.*

Under the patronage of Mr. Alderman Boydell, a new and very considerable article of manufacture and commerce, was established, consisting of *engraved prints.* Foreign prints had been so greatly superior to British, that great quantities had been imported. Alderman Boydell, although the person principally concerned in their importation, with a liberality, and public spirit, worthy of a Pericles, or a Lorenzo de Medici, sought after, encouraged and rewarded British artists, with the well founded idea that under the influence of suitable patronage, they might equal, if not excel the engravers of other countries. The result surpassed his expectations, and the exports of British engravings in a few years, became immense, extending from Madrid to Moscow.

Mr. Josiah Wedgwood introduced a great number of improvements in the potter's art, and the Queen, to encourage the artist, gave the product of his manufactory the name of Queen's ware. Of the immense

* It is hoped that the length of this introduction will be pardoned by critics, and prove not altogether unacceptable to artists, and others for whom it is designed. The subject of the Essay, which composes the bulk of the book is dry, abstruse, and metaphysical, and we have attempted to render the introduction amusing, perhaps instructive to some readers, who might think the Essay itself so destitute of entertainment as not to reward a perusal.

importance of this manufactory, some estimate may be formed from the following extract from Anderson's History of Commerce.

"Though the manufacturing part alone gives bread to fifteen or twenty thousand people, he (the inventor and proprietor) looks upon this as a small object, when compared with the many others which are put in motion by it, viz. the immense quantity of land carriage it creates throughout England, both in its raw materials, and finished goods; the great number of people employed in the extensive collieries for its use; the still greater number employed in raising and preparing the raw materials in several distant parts of the kingdom; the coasting vessels, the river and canal navigation, and the re-conveyance of the finished goods to the different parts of the Island."

Although this manufacture was so flourishing, yet at the time the above description was given, it was considered still in its infancy. This, however, was altogether the effect of the inventive genius of the proprietor, and the encouragement, which the policy and the laws of England afford to the authors of new and useful inventions.

But the most valuable present that the arts of life have ever received from the philosopher, and the most curious object, which human ingenuity has yet offered to his contemplation, is the steam engine.

The mariner's compass, the telescope, gun-powder, and many other most useful servants to the wants and weakness of man were the productions of chance, and we do not exactly know to whom we are indebted for them; but the steam engine was, in the very beginning the result of reflection, and the product of ingenuity. Every improvement it has received has likewise been the effect of philosophical study. It has now become almost as necessary to the very existence of many important manufactures, as air to animal life. The steam engine presents us a most indefatigable drudge, whose strength knows no bounds, and to the utility of whose labours no limits can be assigned.*

Next in importance to the steam engine, may, perhaps, be ranked the invention of cotton spinning, generally attributed to Sir Richard Arkwright. This ingenious man constructed a machine, by which, with the power afforded by one large water-wheel, above 4000 threads of cotton were spun at once; and of these the finest muslins were manufactured. Cotton spinning, by the assistance of machinery is now introduced into the United States to a great extent, and has enriched many individuals, embarked in the manufacture, as well as benefited the public to a very great amount.

In France, Germany, and other nations of continental Europe, useful science and the arts, have been per-

* Encyclopedia Britannica.

secuted by bigots, and too frequently sacrificed at the shrine of superstition. The immortal Galileo fell a victim to popish intolerance. The edict of Nantz, equally cruel, unjust, and impolitic, forced thousands of ingenious and industrious mechanics to seek refuge in England, and gave rise to some of the most flourishing manufactures in Great Britain.

The leaders of the French revolution appeared to act according to the axiom "knowledge is power," and the rapid and astonishing success of the "terrible republic," and still more formidable monarchy which succeeded under Buonaparte, may in a great measure be attributed to the patronage given to military science, and to new inventions in the art of war. "A man," says an excellent historian of the French Revolution, "who would have been obliged to dance attendance half his life-time after the minister of war, or of the marine, only to receive the honour of an audience, where he was more likely to be treated with contempt, than to be encouraged, could now make himself certain of a candid hearing, and a fair trial; and the vices of a government, which produced such advantages, he very naturally overlooked, and became zealous in their cause."*

From the preceding imperfect sketches of the history of the arts, it appears that they have flourished in proportion to the patronage bestowed on artists;

* Playfair's History of the French Revolution.

and that, wherever they have flourished, they have exalted the character, increased the resources, and added to the power of a nation. When fostered by a Pericles, a Lorenzo de Medici, or a Colbert, the arts have sprung up as it were by enchantment, like the wizard palaces of romance, and the most arid deserts of barbarism have suddenly bloomed like Palmyra in the wilderness.

In the United States, useful inventions have still stronger claims on public patronage than in older and more populous countries. In Great Britain, any important improvements in manufactures have frequently a temporary effect apparently injurious to very many of the poorer classes, by depriving them of the manipulations superseded, or curtailed by such improvements. Thus it has been said to be impracticable, in many parts of that country, to erect machinery for sawing timber by water or steam, on account of the opposition of those, who have been accustomed to obtain their sole support from the laborious process of sawing timber by hand. Machinery for spinning cotton, on improved plans, is reported to have been burned by those who had been accustomed to derive a support by processes, which were abridged, or rendered useless, by such machinery. But, in the United States, such is the demand for labour, the plenty of provisions, and the spareness of population in proportion to the extent of teritory, that the inconveniences experienced in

Europe cannot occur in so serious a shape as to form any valid objection to useful inventions for the purpose of lessening animal labor.

Notwithstanding these circumstances, and the state of society in the United States, would seem extremely favorable to the introduction of useful inventions, we were informed by one of the most distinguished of the American artists, whose own inventions have proved of great and extensive utility, that "the ingenious inventors of useful improvements in this country, are still left to struggle, not only with the taunting sarcasms and embarrassing opposition of those, who, wise in their own conceit, apparently take delight in condemning and opposing projects, until they are brought successfully into operation; but with heavy losses, and oftentimes ruin, even if the attempt succeeds. Nine tenths of the exclusive rights granted, will injure the inventor for the first fourteen years in this country; especially if the patent be taken out before the improvement is in full operation; and if not till then, some pilfering genius may attempt, surreptitiously, to take out a patent for the principles of the invention before the true inventor, and occasion him the heavy expense of a law-suit, before his right can be established." The same ingenious man, after pointing out certain principles, which might lead to the discovery of a variety of useful and important inventions, complains that "the expense of the experiments, necessary to bring these principles into operation, would be too great.

No prudent man will risk the attempt, until the prospects of a sufficient reward brighten. We unite in a belief, that fate has ordained that ingenious men shall never be rich; not considering that the injustice and impolicy of governments have passed the decree. Who would get rich, if the property he acquired by his industry, was to become common as soon as he gained it? What prudent man will spend his thoughts, time, labour and money, for property no better secured to him? Ingenuity makes none poor; on the contrary, it has made many rich, whose prudence directed them to the pursuit of permanent property. To ingenuity, we owe all our superiority over savage nations. England has made herself more rich and powerful than other nations, by her liberal policy of securing to ingenious men, an exclusive right to their inventions, so long as to afford them an opportunity of being amply rewarded.*

Notwithstanding, however, the impediments and discouraging circumstances, which, according to the worthy artist above quoted, are opposed to the efforts of American ingenuity, it appears that the native genius of our countrymen has surpassed every obstacle opposed to its splendid display in devising numerous inventions, some of which are of great and acknowledged utility. The cotton gin, invented by Eli Whitney, Esq.

* Evans' Tract on the Steam Engine. The laws of the United States, however, are more favourable to inventors than those of England, and we believe our courts are not less inclined to protect the rights of patentees.

gave a new staple to several of the southern states, and is said to have more than doubled the value of their lands under cultivation. Improvements in flour-mills, by Oliver Evans, threshing-machines, spinning-machines, machines for nail-making, for weaving, for impelling boats by steam, for dressing and spinning flax and hemp, for making cards, for splitting leather, for ruling paper, for pulverising dye woods, for making earthern and stone pipes for aqueducts, improvements in manufacturing morocco leather, the substitution of steel plates for copper in engraving, various processes for facilitating the excavation of canals, invented and carried into effect by those concerned in forming the Grand Western Canal; a work, which for grandeur of design, industry and skill displayed in its execution, and the utility of its results, has no rival on this side of the Atlantic; together with a great number of others, evince the ingenuity of Americans, and have greatly increased the power and resources of the United Empire.

It has been the absurd and infatuated policy of some of the most ancient nations of the eastern world, to oppose modern improvements in science and arts, as useless or injurious innovations. The consequence has been, that their science has gone but little beyond first principles; their arts have been confined to simple processes, and they have, long since, stopped in their progress to improvement, at a point far short of attainable perfection. The Chinese adhere with tenacious

formality to processes, whose inconveniences are sanctioned by time; and in India the arts have made but little progress since the days of Alexander, in consequence of a superstitious dread of novelty. Americans will not imitate those examples, when they reflect that improvements in the arts, if fostered by that liberal encouragement, which true policy dictates; will proceed with an accelerated motion to a degree of perfection, now almost inconceivable. Every improvement opens a door to farther and more important improvements; and every step in our progress, facilitates further advances, by furnishing new means, instruments, and a knowledge of intermediate processes, which may lead to results, surpassing the anticipations of the most sanguine. The field of invention and discovery is inexhaustible; and the fruits of our researches beyond all price.* "Men of genius," says an elegant writer, "are the most productive of all classes of mankind. Their inventions not only fix and realize themselves in some subject, and for some time, but they direct the mode of storing and setting in motion future industry; and instead of perishing in the performance, they are renovated in every renewed action

* "Sir Isaac Newton and Dr. Bentley met accidentally in London, and on Sir Isaac's inquiring what *philosophical pursuits* were carrying on at Cambridge, the Doctor replied, "none;" for when you go a hunting, Sir Isaac, you kill all the game; you have left us nothing to pursue." "Not so," said the philosopher; "you may start a variety of game in every bush, if you will but take the trouble to beat for it." "And so in truth it is," observes bishop Watson; "every object in nature affords occasion for philosophical experiment." *Pursuits of Literature.*

of a similar nature, and endure forever; shortening the labors, and multiplying the comforts of mankind."

It is true, that many novelties attempted to be introduced, are not improvements; and sometimes patents are solicited for *new* inventions as *old* as the days of *Tubal Cain.* But the abuse of a privilege, is no argument against the privilege itself; and if the law upon this subject is generally well understood, pseudo-inventions, and pretended discoveries, will not often be palmed upon the public; and those who deal in impositions of that kind, will soon meet the common lot of dishonesty in the loss of property and reputation.

In a moral, as well as a political point of view, the author of a new and useful invention, has the best of all possible titles to a monopoly of the first fruits of his ingenuity. The invention is the work of his hands, and the offspring of his intellect; and after he is allowed a temporary monopoly, becomes, at the expiration of the patent, a valuable donation to society. In the United States, so long as they retain their freedom, the public can be the only efficient patrons of men of inventive faculties; and the patronage of the public can be obtained in no way so effectually, as by securing to the inventor an exclusive right for a term of years, to his invention.* We have no Pericles, Lo-

* It is the dictate of sound policy, that a nation, by stimulating encouragements, draw forth *all* the useful products of inventive genius, while the possessor is alive. Reward is the only engine in the hands of the public, whereby they *can* draw forth the powers of genius; and if it be bestowed

renzo de Medici, nor Colbert, possessing wealth and influence sufficient to enable them to give adequate rewards to the inventors of improvements in the arts. It is therefore of the highest importance that the law, which is intended to secure to useful ingenuity its only appropriate, and adequate remuneration, should be destitute of that ambiguity, which would render it rather an instrument of oppression than a barrier of right.

In the plan and execution of this treatise, the author has aimed rather at perspicuity than elegance. "Other productions of the human genius may be allowed to derive their charms from the beauty of metaphor, and the grandeur of general expression; but the utility and praise of a municipal code, will depend on the dry simplicity, and scrupulous detail, with which it is adapted to the purposes of public security and social confidence."* The author's wish has been, to render the work useful to those men of inventive powers, who are unacquainted with the niceties of legal distinctions, and to render them less liable to suffer by the wiles

liberally, the inventor will be enabled to make experiments upon the sketches lying upon paper in his desk; and on those, which are in embryo upon his memory, from some of which it is probable valuable results may be drawn. He should therefore, be furnished with the means of bestowing his undivided attention upon them, during the vigour of life and intellect; which he may now be wasting under the pressure of pecuniary embarrassments." *Remarks on the Rights of Inventors, by a Committee of the Massachusetts Association, for the encouragement of useful inventions.*

* Balmanno's Introduction to Jones' Law of Bailments.

of unprincipled and rapacious speculators, who so frequently defraud patantees of those emoluments, which were intended to excite and reward their exertions, to meliorate the lot of humanity.

The author has been indebted to a number of gentlemen of the bar in Boston and elsewhere, for many useful hints and emendations, furnished on submitting the manuscript to their inspection. The remarks in the Appendix, on the policy of granting patents for imported inventions, together with extracts from the Patent Law of France, are from the pen of a French gentleman, resident in Boston. The forms which immediately succeed the statutes, in the Appendix, it is believed, may be safely relied on, as they have been submitted to the inspection, and have met the approbation of gentlemen eminent for their legal science.

ADVERTISEMENT

TO THE SECOND EDITION.

The first edition of this work being nearly exhausted, and many important cases relating to Patent Rights having occurred since its publication, the author has been induced to revise and correct his Essay, and to incorporate therein the substance of all the late decisions, connected with the subject, of which he has been able to obtain accurate reports. He has re-written the whole of his production, and bestowed upon it such corrections and additions as the new lights, derived from the above mentioned, and various other sources, have enabled him to exhibit. His manuscript, thus improved, has been submitted to the inspection of several gentlemen of great and deserved eminence for juridical science; and the author is happy in being able to state, that it has met with their approbation. To one of the gentlemen alluded to, who, in a high official capacity, has been very instrumental in systematizing and establishing the principles of Patent Law, the author is indebted for the solution of some points, which had appeared doubtful, and suggestions of improvements, which have been adopted, and the value of the book is thus materially enhanced.

ESSAY

ON THE

LAW OF PATENTS.

THE privileges allowed to inventors and discoverers of new and useful arts in the United States, are founded upon statutes. Of these, there are two, which are now in force; the one entitled, "An act to promote the progress of useful arts; and to repeal the acts heretofore made for that purpose;" bearing date February 21st, 1793: and the other, entitled, "An act to extend the privilege of obtaining patents for useful discoveries, and inventions, to certain persons therein mentioned; and to enlarge and define the penalties for violating the rights of patentees;" dated April 17, 1800.*

In prosecuting my inquiries into the subject of this essay, I shall attempt

1st. To shew wherein these statutes coincide with, and are elucidated by, foreign laws and decisions; enacted and decided for the

* These statutes are given at large in the Appendix.

same, or similar purposes ;† and to give such decisions in the Courts of the United States, as I may deem of importance in determining the law of the land, on the subject of patent monopolies: and 2ndly, To give a synthetical view of the Law of Patents for New Inventions; together with such rules as may appear best calculated to prevent, as far as possible, future disputes on this subject.

In order to shew the coincidence between our own statutes, and the laws of Great Britain relative to patents for new inventions; we shall give Lord Coke's definition of *Monopoly*, in its most general legal acceptation; together with an extract from the statute law of Great Britain, which is the foundation of patent monopolies for new inventions. I shall then, proceed to examine, consecutively, our own

† To those who may object that the privileges given to patentees in the United States, being derived solely from our *own* statutes; the laws and decisions of foreign nations, on this subject, have no validity in the United States: I would reply in the sentiments, and nearly the words of Sir William Jones; expressed in his excellent treatise on the Law of Bailments:—In questions of law, no cause can be assigned why we should not shorten our labours, by resorting, occasionally, to the wisdom of foreign jurists, many of whom were the most sagacious of men. What is good sense in one age, or country, must, all circumstances remaining, be good sense in another; and pure, unsophisticated reason, is the same in Italy, England, and the United States; in the mind of a Papinian, a Blackstone, a Washington, or a Marshall.

statutes, which authorize such monopolies; adverting to such decisions in British and American courts of Justice, as may have a tendency to explain and determine their meaning and legal effect.

A monopoly is described by Lord Coke, to be "an institution or allowance by the king, by his grant, commission or otherwise, to any person, or persons, bodies corporate or politic, 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 they had before, or hindered in their lawful trade.

And therefore, all grants of this kind, relating to any known trade, are made void by the common law; as being against the freedom of trade, discouraging labour and industry; restraining persons from getting an honest livelihood, by a lawful employment; and putting it in the power of particular persons, to set whatever price they please on a commodity; all which are manifest inconveniences to the public.*

By the 21 Jac. 1. c. 3, it is enacted, (Sec. 1.) "that all monopolies, and all commissions,

* 3. Bacon's Abridgment, 626.

"grants, licences, charters, and letters patent
"to any person or persons, bodies politic or
"corporate, whatsoever, of or for the sole
"buying, selling, making, working, or using any
"thing, within the realm, or walls; or of any
"other monopolies; and all proclamations, ex-
"hibitions, restraints, warrants of assistance;
"and all other matters whatsoever, any way
"tending to the instituting, strengthening, fur-
"thering or countenancing of the same, or any
"of them; are altogether contrary to the laws
"of the realm; and so are, and shall be, utter-
"ly void, and of none effect; and in no wise to
"be put in execution."

But it is provided by Sec. 6, of the same statute, that "no declaration in the statute
"mentioned, shall extend to any letters patent
"and grants of privileges, for 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, 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 mis-
"chievous to the state, by raising prices of
"commodities at home, or hurt of trade, or
"generally inconvenient: the said fourteen
"years to be accounted from the date of the

"first letters patent, or grant of such privi-
"leges; but that the same should be of such
"force, as they should be if the said act had
"never been made, and of none other."*
This proviso and the decisions of Courts of justice thereon constitute the whole of the English law upon the subject of patents for new inventions.

The first section of the patent law of the United States, of February 21, 1793, declares "that when any person, or persons, being a "citizen, or citizens, of the United States, shall "allege that he or they have invented any "new and useful art, machine, manufacture, "or composition of matter, or any new and "useful improvement, on any art, machine, man-"ufacture, or composition of matter, not known "or used before the application, and shall pre-"sent a petition to the Secretary of State, sig-"nifying a desire of obtaining an exclusive "property in the same, and praying that a "patent may be granted therefor, it shall and "may be lawful for the said Secretary of "State to cause letters patent to be made "out in the name of the United States, bear-"ing test by the President of the United "States, reciting the allegations and sugges-"tions of the said petition, and giving a short

* 3. Bac. Aln. 628.

"description of the said invention, or discove-
"ry, and thereupon granting to such petition-
"er, or petitioners, his, her, or their heirs,
"administrators, or asssigns, for a term not
"exceeding fourteen years, the full and exclu-
"sive right and liberty of making, construct-
"ing, using, and vending to others to be used,
"the said invention, or discovery, which let-
"ters patent shall be delivered to the Attor-
"ney General of the United States, to be ex-
"amined, who within fifteen days after such
"delivery, if he finds the same conformable
"to this act, shall certify accordingly at the
"foot thereof, and return the same to the Sec-
"retary of State, who shall present the letters,
"thus certified, to be signed, and shall cause
"the seal of the United States to be thereto
"affixed, and the same shall be good and
"available to the grantee, or grantees, by
"force of this act, and shall be recorded in
"a book to be kept for that purpose, in the
"office of the Secretary of State, and deliv-
"ered to the patentee or his order."

I shall now proceed to examine the several parts of this section, according to the order in which they are presented in the statute.

It is enacted, "that when any person, or per-
"sons, being a citizen, or citizens, of the United

States," &c. The privileges limited by this clause to a citizen, or citizens of the United States, are extended by the Act of April 17, 1800, which declares "that all and singular "the rights and privileges, given, intended, "or provided to citizens of the United States "respecting patents for new inventions, dis- "coveries and improvements, by the Act en- "titled, An Act to promote the progress of "useful arts, and to repeal the Act hereto- "fore made for that purpose, shall be and "hereby are extended, and given to all aliens, "who, at the time of petitioning in the man- "ner prescribed by said Act, shall have re- "sided for two years within the United States, "which privileges shall be obtained, used, "and enjoyed in as full and ample manner, "and under the same conditions, limitations and "restrictions, as by the said Act is provided "and directed in the case of citizens of the "United States."

The English law has no restrictions, which confine the right of petitioning for, and obtaining letters patent to British subjects; and it is every day's practice to grant patents for new inventions to Americans and other foreigners.*

* Edgebury *vs.* Stevens. Salkeld, 447.

The act of April 17th, 1800, (Sec. 2.) authorizes the legal representatives of a deceased inventor, in certain cases therein described, to obtain a patent.

According to the first section of the act of February 21, 1793, "any person or *persons*," &c. shall be entitled to the privileges stipulated in said act; and the following remarks of Mr. Justice *Story*, expressed in the case of *Barret* and al. *vs. Hall*, and al.† are applicable to this part of the statute. A joint patent may well be granted upon a joint invention. There is no difficulty in supposing in point of fact, that a complicated invention may be the gradual result of the combined mental operations of two persons acting together, *pari passu*, in the invention. And if this be true, then as neither of them could justly claim to be the sole inventor in such a case, it must follow, that the invention is joint; and that they are jointly entitled to a patent. And so are the express words of the patent act; which declares, that if any person or persons shall allege that he or they have invented, &c. a patent shall be granted to him or them for the invention.

† Mason, 472.

A joint patent cannot be sustained upon a sole invention of either of the patentees, for the patent act gives no right to a patent, except to the inventor; and requires an oath from the party, who claims a patent, that he is the true inventor.

A joint patent for an invention, is utterly inconsistent with several patents for the same invention by the same patentees. For it is impossible, that any person can be, at the same time, the joint and the sole inventor of the same invention. If, therefore, each of the joint patentees obtain a several patent for the same invention, as his own exclusive invention; and afterwards, without surrendering the first patent, they obtain a joint patent for the same, as a joint invention; either the former sole patents are void, or the joint patent is void. For, besides the apparent inconsistency of the patents, if all could be sustained, then a recovery upon the joint patent would be no bar to a suit upon the several patents; and the parties might obtain a double recompense for the same infringement. There is an additional reason, which deserves great consideration; and that is, that if sole and joint patents could be sustained by the same parties for the same invention, they

might be successively taken out; so that the term of the exclusive right, might be prolonged for a great length of time; instead of being limited to fourteen years. I am, therefore, clearly of opinion, that a grant of a subsequent patent for an invention, is an estoppel to the patentee, to set up any prior grants for the same invention; which is inconsistent with the terms of the last grant. And I have very great doubts, whether, when a patent is once granted to any person for an invention, he can legally acquire any right under a subsequent patent for the same invention; unless his first patent be repealed for some original defect; so that it might truly be said to be a void patent.

In the next place, if several patents are taken out by several patentees for a several invention, and the same patentees afterwards take out a joint patent for the same, as a joint invention; the parties are not absolutely estopped by the former patents, from asserting the invention to be joint: but the former patents are very strong evidence against the joint invention. The reason of this doctrine, is, not that estoppels are odious in the law, but that a party may innocently mistake as to the extent of his own claims: and though a

sole and joint invention, by the same persons of the same thing, cannot exist in fact; yet a party may suppose that he has invented, what in truth has been partly suggested by another mind.

In the present case, each of the plaintiff's (*Barrett* and *Stearns*) obtained, in the year 1809, a several patent for the present invention, as his sole invention; and the patent, on which this action is brought, is a joint patent granted in 1818. In this view, the doctrine already stated, directly applies in the case.

The invention or discovery for which a patent can be sustained, must be "*new.*"

By decisions in British Courts, it appears that "a manufacture, *newly brought* into the kingdom from beyond sea, though not *new there*, is allowed by the statute of James; and whether it be learned by travel, or by study, it is the same thing.* These decisions were founded, as it should seem, upon the express letter of the statute; which allows a patent, not for any new manufacture, generally, but "for any new manufacture *within this realm.*" In the United States, the inventor, if an alien resident, is required to make oath or affirma-

* Salkeld, 447. Hawkin's, 223.

tion, that the invention, art, or discovery, for which a patent is solicited, hath not, to the best of his or her knowledge, or belief, been known in this or any foreign country. And by the 6th section of the Patent Act, if the thing secured by patent was not originally discovered by the patentee, but had been in use, or had been described in some public work, anterior to the supposed discovery of the patentee; the patent, in an action on the case, shall be declared void.*

In Great Britain, if a patent be granted in case of a new invention, the king cannot grant a second patent, for the charter is granted as an encouragement to invention and industry, and to secure the patentee in the profits for a reasonable time; but when that is expired, the public is to have the benefit of the discovery.†

In Great Britain, however, the term of the patent monopoly may be extended by a private act of Parliament; and in the United States, the same thing may be effected by act of Congress.

According to some English decisions, the publisher of an invention, or discovery, is

* 1. Sec. Patent Act of April 17, 1800.

† 10. Mod. 110.

entitled to a patent, whether he happen to be the original inventor or not. It is contended that it is the publisher, who confers the benefit upon Society; not the man who hoards it up in his own breast: for where one person had discovered a new method of making refracting telescopes, but never having made it public, another had obtained a patent for it, the patent was deemed valid. This was Dolland's case, as stated by Buller J. in Boulton, and Watt *vs.* Ball, and Hornblower, 2. H. Black. 470. See likewise 3. Mod. 77.

The original inventor of a machine, who has reduced his invention to practice, is entitled to a priority of patent right; although subsequently the same machine may have been invented by another person. This point was discussed in an action, *John Woodcock* vs. *David Parker*, and another.*

This was an action on the case for a violation of a patent right of the plaintiff for splitting leather. The cause was tried before *Story J.* in the absence of the District Judge. The plaintiff, at the trial, produced his letters patent, dated 8th May, 1809, securing to him the patent right of a machine for splitting

* 1 Gal. 438.

leather. The defendants admitted the use of a similar machine; but contended that the machine was the invention of one *Samuel Parker*, (under whom they claimed) who had obtained his original letters patent for the same invention, dated 9th July, 1808; and letters patent for certain improvements therein, dated the 26th of April, 1809. One of the questions between the parties was, whether Woodcock, or Parker was the first inventor of the machine in controversy, and entitled to the patent.

Story J. in summing up the cause, directed the jury as follows: The first inventor is entitled to the benefit of his invention; if he reduce it to practice, and obtain a patent therefor; and a subsequent inventor cannot, by obtaining a patent therefor, oust the first inventor of his right; or maintain an action against him for the use of his own invention. In the present case, as the defendants claim their right to use the machine in controversy, by a good derivative title from *Samuel Parker*, if the jury are satisfied that the said Parker was the first and original inventor of the machine, the plaintiff cannot, under all the circumstances, maintain his action; notwithstanding, he may have been a subsequent inventor, without any knowledge of the prior

existence of the machine, or communication with the first inventor. It is not necessary to consider, whether, if the first inventor should wholly abandon his invention, and never reduce it to practice, so as to produce useful effects; a second inventor might not be entitled to the benefit of the statute patent: because here there is not the slightest evidence of such abandonment. *Parker* is proved to have put his machine is operation: it produced useful effects; and he followed up his invention, by obtaining a patent from the department of state.

It is likewise asserted by *Story J.* in the case of *Odiorne* vs. *Winkley*, that "The original inventor of a machine, is exclusively entitled to a patent for it. If another person invent an improvement on such machine, he can entitle himself to a patent for such improvement only; and does not thereby acquire a right to patent and use the original machine: and if he does procure a patent for the whole of such a machine, with the improvement, and not for the improvement only; his patent is too broad, and therefore void."*

The following decision, goes far to secure the right of the original inventor, in certain

* 13. Gal. 53.

cases; to inventions known and used, even before application for a patent.†

Evans brought an action on the case against *Weiss*, for a violation of the plaintiff's patent right, which came up on the following case agreed.

The plaintiff, being the inventor of the improvements in the manufacture of flour, hereafter mentioned, and the patent right for the same, heretofore obtained, having been declared by the Court void in the action of Evans against Chambers; and the time for which the said patent was granted having also run out, an act of Congress, entitled "An act for the relief of Oliver Evans," was passed on the 21st of January, 1808, notice whereof was given to the defendant in February last.

On the 7th of May, 1802, during the continuance of the former patent, the defendant purchased of the plaintiff a right to use the

† There is a difference between our statute and that of Great Britain on this subject. In England, if the invention has been put *in use before the patent is obtained*, it is void. But our act does not, like the English statute, refer to the time of the *grant of letters patent*, but to the time of the *invention*. See 6th Section. The terms of the first section, ought to be construed with reference, and in subordination to the 6thsection.

said improvement at his mill on Wissahicon creek, in Philadelphia county, in this district, for one wheel and pair of stones; but prior to the passing of said act of Congress, he had applied and used, and continued to apply and use the same improvements for two wheels, and two pair of stones, in the same mill. The questions submitted are, whether the defendant is liable for damages for the use of the said improvements in application to this second wheel and pair of stones, since the act of the 22d of Januay, 1808, and whether, if so, he is liable before notice from the plaintiff. If the opinions of the court be in favor of the plaintiff, judgment to be entered generally, and amount to be afterwards adjusted by the attornies.

Judge Washington delivered the opinion of the Court, as follows: It is contended by the plaintiff that the defendant is liable for using the plaintiffs improvements in application to the second wheel and pair of stones, since the 22d day of Jan. 1808, or at all events, since the time when the defendant received notice of the plaintiff's patent; because the proviso in the act passed the 21st January, 1808, for the relief of Oliver Evans, extends only to cases of improvements erected for use,

or used *prior* to the passing of said law, and does not protect the defendant from damages, for using, after issuing of the patent under this law, an improvement erected prior thereto.

On the other side, it is insisted that such a construction would render this an *ex post facto* law, and consequently repugnant to the constitution. To avoid which, it should be so construed as to connect with the use of the improvement the erection of it subsequent to the grant of the patent.

Although the court at the last term, and upon the first argument, felt strongly inclined to give the construction contended for by the defendant; yet, upon further reflection, we are satisfied that we should do a violence to the words, which no rule of construction should warrant.

The words of that proviso are, "that no person who shall have used the said improvement, or have erected the same for use before the issuing of the said patent, shall be liable to damage therefor." That is, shall be liable for having erected, or for having used the improvement at any time

prior to the patent, but with respect to the use of it after the issuing of the patent, no protection whatever is afforded against the claim for damages under this law.

The next inquiry is, does the general law give to the plaintiff a right of recovering against a person who erected a machine prior to the issuing of the patent to the first inventor of it, and who afterwards made use of the same.

The act of the 17th of April 1800, which as to *this point is the only law in force*, declares, that "if any person, without permission from the inventor, shall make, devise, use, *or* sell, the thing, whereof the exclusive right is secured to the patentee, he shall pay three times the damage sustained by the patentee, to be ascertained by a jury." Now, whatever doubts might have existed as to the meaning of the words "devise *and* use," in the 5th section of the act, of the 21st of February, 1793, thus connecting the using with the devising of the improvement, there can be none under the third section of the act of 1800, which repeals the whole of the 5th section of the old law.

It is plain that the *using* of an improvement invented by another, and secured by

patents, is of itself an offence, no matter at what time such improvement was devised or made, whether the word "devise," which has been a good deal criticised, is synonymous with *make* as one of the plaintiff's council seemed to think, or means to invent, a mere act of the mind, a construction, which whether it be to make or *contrive*, to *plan*, *form* or *design*, it is unnecessary in this case to decide, because the charge against the defendant is the *using* of the plaintiff's improvement unconnected with the making and devising it.

But it is objected to this construction, that it would render the law *ex post facto* in its operation, in respect to one who has erected his improvement prior to the granting of the patent of the plaintiff.

It must be confessed that cases of great hardship may occur, if after a man shall have gone to the expense of erecting a machine for which the inventor has not then, and never may obtain a patent, he shall be prevented from using it by the grant of a subsequent patent, and its relation back to the patentee's prior invention. But the law, in this case cannot be termed *ex post facto*, or even retrospective in its operation, because the general law declares before hand that the right to the

patent belongs to him who is the first inventor, even before the patent is granted; and therefore, any person, who, knowing that another is the first inventor, yet doubting whether that other will ever apply for a patent, proceeds to construct a machine, of which it may afterwards appear that he is not the first inventor, acts at his peril, and with full knowledge of the law, that by relation back to the first invention, a subsequent patent may cut him out of the machine thus erected.

Not only may individuals be injured by a liberal construction of the words in the law, but the public may suffer, if an obstinate or negligent inventor should decline obtaining a patent, and at the same time keep others at arm's length, so as to prevent them from profiting by the invention for a length of time; during which the fourteen years are not running on. But these hardships must rest with Congress to correct. It is beyond our power to apply a remedy. No such hardships exist in the present case, where the defendant erected the improvement with a knowledge not only that the plaintiff was the first inventor, but had absolutely obtained a patent, although it was afterwards declared invalid.

The circumstances of this case render it unnecessary to give an opinion as to the right of a first inventor, after a patent obtained, to recover against one, who, believing himself the first inventor, constructs a machine or improvement, upon the principles of his new invention, or uses the same, after such patent is issued.*

Since the time of this decision it has been determined by Mr. Justice STORY as follows:

The statute declares it a good defence to an action for the infringement of the patent right, that the thing secured by the patent was not originally discovered by the patentee, but had been in use, or had been described in some public work anterior to the supposed discovery of the patentee. The first inventor who has put his invention in practice, and he only, is entitled to a patent. Every subsequent patentee, although an original inventor, may be defeated of his patent right upon proof of of such prior invention's being put into use. The law in such case cannot give the whole patent right to each inventor, even if each be equally entitled to the merit of being an origi-

* This point, however, was decided in favor of the original inventor in the case of Woodcock *vs.* Parker, cited *into* p. 47 of this work. See likewise the next following case.

nal and independent inventor; and it therefore adopts the maxim, *qui prior est in tempore, potior est in jure.* And to the present defendant it is perfectly indifferent, whether the first inventor has taken out a patent, or has dedicated the invention to the public, or not, for he may stand upon the defence that the plaintiff is not the first inventor, who put the invention in use.

It has been argued by the plaintiff, that the defence set up by the statute does not apply, except in cases, where the invention, or (as the statute expresses it) the thing originally discovered, has been before generally known and in general use, among persons engaged in the art or profession, to which it properly belongs. But I do not so understand the statute. To entitle a person to a patent as a first inventor, it is certainly not necessary for him to establish, that he has put his invention into general use, or that he has made it generally known to artizans engaged in the same business; and yet, upon the argument we are considering, unless it were so generally known and in use, he would be defeated by a patentee, who was a subsequent independent inventor.

The intent of the statute was to guard against defeating patents, by the setting up of a prior invention, which had never been reduced to practice. If it were the mere speculation of a philosopher or a mechanician, which had never been tried by the test of experience, and never put into actual operation by him, the law would not deprive a subsequent inventor, who had employed his labour and his talents in putting it into practice, of the reward due to his ingenuity and enterprise. But if the first inventor reduce his theory to practice, and put his machine or other invention into use, the law never could intend, that the greater or less use, in which it might be, or the more or less widely the knowledge of its existence might circulate, should constitute the criterion, by which to decide upon the validity of any subsequent patent for the same invention. I hold it, therefore, to be the true interpretation of this part of the statute, that any patent *may* be defeated by shewing, that the thing secured by the patent, had been discovered and put in actual use, prior to the discovery of the patentee, however limited the use or the knowledge of the prior discovery might have been.*

* Bedford *vs.* Hunt. 1 Mason, 305

The principles enforced by Mr. Justice Story, in the above case, are recognised in the case of Evans *vs.* Eaton; 3. Wheaton, 513—514, where Mr. Chief Justice Marshal observed, that without a critical inquiry into the accuracy, with which the term invention or discovery may be applied to any other than the first inventor, the court considers this question as completely decided by the 6th section of the general patent act. That declares that if the thing was not *originally* discovered by the patentee, but had been in use, or had been described in some public work, anterior to the supposed discovery of the patentee, judgment shall be rendered for the defendant, and the patent declared void.

Admitting the words "*originally* discovered," to be explained or limited by the subsequent words, still if the thing had been in use, or had been described in a public work, anterior to the supposed discovery, the patent is void. It may be that the patentee had no knowledge of this previous use, or previous description; still his patent is void: the law supposes he may have known it.

An invention which can entitle a man to a patent, must be "*useful*," as well as "*new*." But by "useful" is meant, not an invention in

all cases superior to the modes now in use for the same purpose, but "useful" in contradistinction to frivolous and mischievous inventions. This point was determined in the case of Francis C. Lowell *vs.* Winslow Lewis.*

This was an action on the case for the infringement of a patent right. In the year 1813, Mr. *Jacob Perkins* obtained a patent for a new and useful invention in the construction of pumps; and afterwards assigned his interest therein to the plaintiff. The defendant became the assignee of a similar patent, taken out in 1817, by a Mr. James Baker; and it was for the constructing and vending pumps under this second patent, that the action was brought. The principal object of both the inventions, was, by dispensing with the box used in the common pumps, to obtain a larger water way. To effect this, Perkins so constructed the valves of his pump, that they completely filled the area of the shaft, and fell upon its sides, in the same manner, as by the old construction, they did upon the box; thus leaving the whole of the area, excepting that occupied by the valves themselves, for a water way. The valves were

* 1 Mason's Rep. 182.

of a triangular shape, and adapted only to a pump of a square form. This pump seemed to be principally useful, when it was desirable to throw up large quantities of water in a short space of time, and a number of hands could be put to the working of it.

The valves of *Baker's* pump were fitted to a round shaft, and occupied, like the other, the whole of its area: but instead of resting upon the sides of the shaft, were supported by a brass rim, which prevented the friction against the sides of the shaft consequent upon the other construction, and to obviate which Perkins since obtaining his patent had adopted a check bolt. It appeared that Baker's invention required fewer hands to work it, and could be applied to the common house pump.

STORY J. in summoning up the cause to the jury stated as follows :—To entitle the plaintiff to a verdict, he must establish that his machine is a new and useful invention; and of these facts his patent is to be considered merely *prima facie* evidence of a very slight nature. He must, in the first place establish it to be a useful invention; for the law will not allow the plaintiff to recover, if the invention be of a *mischievious or injurious tenden-*

cy. The defendant, however, has asserted a much more broad and sweeping doctrine; and one which I feel myself called upon to negative in the most explicit manner. He contends that it is necessary for the plaintiff to prove, that his invention is of general utility; so that in fact, for the ordinary purposes of life, it must supersede the pumps in common use; in short, that it must be for the public, a better pump than the common pump; and that unless the plaintiff can establish this position, the law will not give him the benefit of a patent, even though in some peculiar cases his invention might be applied with advantage. I do not so understand the law. The patent act uses the phrase "*useul invention*" merely incidentally; it occurs only in the first section, and there it seems merely descriptive of the subject matter of the application, or of the conviction of the applicant. The language is "when any person or persons shall allege that he or they have invented any new and useful art, machine," &c. he or they may, on pursuing the directions of the act, obtain a patent. Neither the oath, required by the second section, not the special matter of defence allowed to be given in evidence by the sixth section of the act, contains any such qualification or reference to general utility, to establish the validity of the patent. Nor is it

alluded to in the tenth section as a cause for which the patent may be vacated. To be sure, all the matters of defence or of objection to the patent are not enumerated in these sections ;* but if such an one as that now contended for had been intended, it is scarcely possible to account for its omission. In my judgment the argument is utterly without foundation. All that the law requires is, that the invention should not be frivolous or injurious to the well being, good policy or sound morals of society. The word "*useful*," therefore, is incorporated into the act in contradistinction to mischievous or immoral. For instance, a new invention to poison people, or to promote debauchery, or to facilitate private assasination, is not a patentable invention. But if the invention steers wide of these objections, whether it be more or less useful, is a circumstance very material to the interest of the patentee; but of no importance to the public. If it be not extensively useful, it will silently sink into contempt and disregard. There is no pretence that Mr. *Perkins'* pump, is a mischievous invention; and if it has been used injuriously to the patentee, by the defendant, it certainly does not lie in his mouth to contest its general utility. Indeed,

* *Whittemore* vs. *Cutler*, 1 *Gallis.* 429, 435.

the defendant asserts that Baker's pump is useful in a very eminent degree; and if it be substantially the same as *Perkins'*, there is an end of the objection: if it be not substantially the same, then the plaintiff must fail in his action. So that in either view, the abstract question, seems hardly of any importance in this cause.

And, in the case of Bedford *vs.* Hunt, 1. Mason, 303, Mr. Justice Story observes, that no person is entitled to a patent under the act of Congress, unless he has invented some new and useful art, machine, manufacture, or composition of matter, not known or used before.

By useful invention, in the statute, is meant such a one as may be applied to some beneficial use in society; in contradistinction to an invention, which is injurious to the morals, the health, or the good order of society. It is not necessary to establish, that the invention is of such general utility, as to supersede all other inventions now in practice to accomplish the same purpose. It is sufficient, that it has no noxious or mischievous tendency; that it may be applied to practical uses; and that so far as it is applied, it is salutary. If its practical utility be very limited, it will follow, that it will be of little or no profit to the

inventor; and if it be trifling, it will sink into utter neglect. The law, however, does not look to the degree of utility; it simply requires, that it shall be capable of use; and that the use is such as sound morals and policy do not discountenance or prohibit.

I shall now proceed more immediately to the subject, or essence of the *thing* or *matter* for which monopolies can be legally granted, by letters patent. The statute of 21 *Jac.* before cited, allows the grant of letters patent for "the sole working or making of any manner of *new manufactures*, to the true and first inventor." The statutes of the United States, allow a similar monopoly to the person or persons, who shall allege that he or they have invented any *new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement on any art, machine, manufacture, or composition of matter,*" &c. These clauses may be said to be the pivots, on which turns the whole law of patents for new inventions, in Great Britain, and the United States. They are descriptive of the *kind of property*, which may be obtained by patents for new inventions; while the other regulations in the law of both countries, point out the methods by which the title to

this species of property may be ascertained, and secured; and the persons to whom such titles may be granted. The words, "any manner of new manufactures" in the statute of *Jac.* I. as understood and explained in British Courts of Justice, are co-extensive in signification with the words "new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement on any art, machine, manufacture, or composition of matter," made use of in our statute. British authorities, therefore, so far as circumstances are similar, and the reason of the cases remains the same, will be pertinent for determining what kinds of new invented things may be the legal subjects of patent monopolies.

The famous cases of Boulton and Watt *vs.* Bull, and Hornblower and Maberly *vs.* Boulton and Watt, are the most prominent, interesting and important, as respects the kinds of invention, discovery or improvement, which may be secured by patent to the inventor; and afford many rules and observations, which ought not to be omitted in the present essay. The patent on which the action of Boulton and Watt *vs.* Bull was commenced, was for a new *invented method* of using an old engine in a more beneficial manner than heretofore, by

the mechanical employment of certain principles. The case is reported in 2 Hen. Black. 463, as follows:

Boulton and Watt, *vs.* Bull.

This was an action on the case for infringing a patent, by which the plaintiff was secured in "the sole benefit and advantage of making, using, and exercising, and vending, a *certain invention* of him, the said plaintiff; being a *method* by him *invented*, of lessening the consumption of steam and fuel in fire engines:" which patent was, by a private act of Parliament, (15 Geo. 3. c. 61.) continued to the plaintiff for twenty-five years. The general issue being pleaded, the cause came on to be tried after the sitting of Trinity Term, 1793; when a case was reserved for the opinion of the court; which stated, that by letters patent of 5th January, 1769, the king granted to the plaintiff Watt, who had duly assigned two thirds of the patent right to the plaintiff Boulton, that he might for fourteen years, make, use, exercise and vend, *his new invented method* of lessening the consumption of steam and fuel in fire-engines, under the usual condition of enrolling a specification:— That Watt, by his specification, declared, that *his new invented method of lessening the consumption of steam, and consequently fuel, in*

fire-engines, consisted of certain principles: setting them forth particularly; by which it appeared that the object of the patentee, was to condense the steam, without cooling the cylinder or steam vessel; and that the means adopted to effectuate this, were in substance, to enclose the cylinder or steam vessel, in a case of wood, or any other material, 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 steam, to enter or touch it during that time.* The case

* The specification was as follows. "My method of lessening the consumption of steam, and consequently of fuel, in fire-engines, consists in 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 enclosing 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, or any other substance colder than steam, to enter or touch it during that time.

"*Secondly*, In engines that are to be worked wholly or partially by the condensation of steam, the steam is to be condensed in vessels distinct from the steam vessels or cylinders, although occasionally communicating with them: those vessels I call condensers; and while the engines are working, these condensers ought at least to be kept as cold as the air in the neighbourhood of the engines, by the application of water or other cold bodies.

then, described the old engine; and stated that the plaintiff's was a *new* and *an useful invention;* and that the specification was 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. And the questions for the opinion of the court were, 1st. whether the

"*Thirdly*, Whatever air, or other elastic vapor, 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 engine may be wrought by the force of steam only, by discharging the steam into the open air, when it has done its office.

"*Fifthly*, When 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 means hereafter 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 reaction of the valves, successively to give circular motion to the wheel; the valves opening in the direction in which the weights are pressed, but not in the contrary; as the steam vessel moves round, it is supplied with

said patent was good in law, and continued by the act of Parliament above mentioned? 2dly, whether the specification was sufficient to support the above patent? On the part of the defendant, it was argued on three grounds: 1st. on the patent itself. 2ndly, upon the act of Parliament. 3dly, upon the act and patent taken together. 1st. upon the patent itself, it was objected, that it was for a formed instrument, or machine, and as such void; because it was admitted that there was *no specification* descriptive of any formed instrument whatever; nor any drawing or model; but that supposing it to be a patent for mere principles, (as the specification stated the invention to consist of principles,) it was neither originally good in law, nor continued

steam from the boiler, and that which has performed its office, may 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 engine air and steam tight; I employ oils, wax, resinous bodies, fat of animals, quicksilver, and other metals in their fluid state.

To the above specification, this memorandum was added by Watt; 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 vessel having an open communication with it.

by the act 15 Geo. 3 c. 61. Not good in law, because it did not fall within the construction of the statute, 21 Jac. 1. c. 3. against monopolies; which, in excepting letters patent, speaks of them as patents for the sole working or *making*, of any manner of *new manufactures;* which is descriptive either of the practice of making a thing by art, or of the thing when made; and that therefore, for a mere principle, without having carried it into effect, and produced some new-found matter or substance, a patent cannot be good: that the patent was not continued by the act 15 Geo. 3. c. 61.* it was shown that

* The act was entitled "An act for vesting in J. Watt, his executors, &c. the sole use and property of steam engines, commonly called fire engines, of his invention;" described in the said act for a limited time.

It recited that the king had, by letters patent, 5 Jan. 9. Geo. 3. granted to *Watt*, his executors, &c. 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, for fourteen years, &c." on condition that he should enrol a specification, &c. that Watt had accordingly enrolled a specification of the said engine, (which specification was then set forth as above.) It farther recited that *Watt* had employed many years, and a considerable part of his fortune, in making experiments upon steam and steam engines, commonly called fire engines, with a view to improve them; by which several considerable advantages over the common steam engines, are acquired; but on account of the many difficulties which arise in the execution of such large and complex machines, and of the long time requisite to make the necessary trials; he could not complete his intention before the end of the year 1774; when he finished some large engines as specimens of his con-

the title of the act was for vesting in the plaintiff Watt, the sole property of certain *steam engines, called fire engines, of his invention;* which, after reciting and taking notice among other things, that the king had, by his letters patent, granted to Watt the sole benefit and advantage of *making*, *constructing*, and selling *the engines*, therein before particularly described; shall be vested in Watt for twenty-five years. It was therefore contended, that if the patent was really for princi-

struction, which had succeeded so as to demonstrate the utility of the invention; and in order to manufacture these engines with accuracy, and so that they might be sold at a moderate price, a considerable sum of money must be previously expended in erecting mills, and other apparatus; and that several years and repeated proofs would be required, before any considerable part of the public could be convinced of the utility of the invention, and of their interest to adopt the same: the whole term granted by the letters, might probably elapse, before Watt could receive an advantage adequate to his labour and invention; and then it enacted, that from and after passing of the act, the sole privilege and advantage of *making*, *constructing*, and *selling the said engines*, herein before particularly described, within the kingdom of Great Britain, and his Majesty's colonies and plantations abroad; should be, and were thereby vested in Watt, his executors, administrators; and assigns, for and during the term of twenty-five years; and it prohibited any other person's making, using, and putting into practice the said invention; or counterfeiting, or imitating the same; or making any addition to, or subtraction from it, without Watt's licence, &c. with a proviso, that the act should not extend to prevent any person's making any fire or steam engine, or any contrivance relating to the same, which was not the invention of Watt; or which had been publicly used before.

ples, it was not continued by the act; or supposing it to be well continued, as being described according to its import, it would not be within the protection of the statute against monopolies, for the foregoing reasons. 2ndly, upon the act itself it was argued, that the recital that the king had granted a patent for *making and vending certain engines*, was false: and it had been adjudged, that if a private act of parliament, like the present, be founded upon a false recital, the act is void. 3dly, that if the subject was viewed as arising from the patent and act, taken together, the arguments respecting these instruments, separately, applied more strongly, inasmuch as if the act was to be considered as explanatory of the patent, or as a part of it; there could not be a doubt but that it meant to grant a monopoly for a formed engine or machine. That *upon the whole of the case, it appeared either that the patent was for an entire formed machine, when it ought to have been for an improvement only; and in which case, the specification did not correspond with it: or it was for mere principles, which according to the statute of* 21 Jac. 1. c. 3. *against monopolies, could not be the subject of a patent.* The case was very elaborately argued on both sides; and after full consideration, the judges gave their respective opinions.

Rooke J. The 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 doth 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 these 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. If they will bear this interpretation, then I think the 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 numer-

ous, that *method* may be considered as a common expression in instruments of this kind. It would therefore be extremely injurious to the interest of the 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 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 what he has really done. If he had proposed to set forth a full specification of his improvement, 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 it forth 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 elementory 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 formed, 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. The specification 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 effect 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 on 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. 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 practi-

cal effect at the time of granting the patent: this the defendant has infringed. 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 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 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, the want of a drawing or a model did not occasion 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 want of a drawing? especially, when they have added that the specification is 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, 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.

*Heath, J.**—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, inasmuch as his 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 monoply of a *method*? If method and machinery had 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 his 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,

* The opinion of Judges Heath and Butler in this cause are controverted, in the case of Hornblower and Maberly against Boulton and Watt, cited hereafter.

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 obtained 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 21 Jac. 1. 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 privileges 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.* Watt then falls within the scope of this 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 visible 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 *new* species of *manufacture*; and the novelty of the language, is sufficient to excite alarm. It has been urged that the other patents have been litigated and established: for instance, Dolland's, which was for a refracting telescope. I consider that as subsequently 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 the 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 is in truth, for a vendible substance. To pursue this train of reasoning still farther; 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 already entitled to a patent. Would the patent have been good applied to all machinery, or to the machine which he had discovered? the patent decides the question. *It must be for the vendible matter, and not for 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 position 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 argued by the patentee, that he could not specify all the cases in 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 principles 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 the 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 statute. The grant of a method is not good, because it is uncertain: the specification of a method, or the application of a principle is equally so, for the reasons I have alleged.

Buller J. It was expressly admitted in the argument, that there was no new particulars in the mechanism; that it was not a machine or instrument which the plaintiff had invented; that mechanism was not pretended to be invented in any of its parts; that this engine consists 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 wise grounds, and to touch upon the idea of maintaining a patent for an idea or principle; though I think it was admitted, that a patent could not

be sustained for an idea or 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 arguments, which have been introduced, were very much calculated to keep clear of difficulties, which it was foreseen might be introduced into the case; as 1st, That unless the principle can be supported as the ground of the patent, there may be some danger of confirming the defendants objection to it:—2ndly, 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 3dly, 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 or improvement only. Perhaps it may be convenient and judicious to keep those 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 or 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 on the same principle; the principle was known before; and therefore if the principle alone be the foundation of the patent, though the addition may be a great improvement, as it certainly is, yet the patent must be void, *ab initio;* but then it was said, that though an idea, or a principle alone would not support the patent, yet that an idea reduced into practice, or a practical application of a principle, was a good foundation for a patent, and was the present case. The mere application or mode of using a thing, was admitted not to be a sufficient ground: for on the court putting the question, whether if a man by science, were to de-

vise the means of making a double use of a thing, known of before, he could have a patent for that? it was rightly and candidly admitted that 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 inquire, what is meant by a principle reduced to 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 *Jac.* 1. c. 3. All monopolies, except those 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 manufactures*: and whether the manufacture be with, or without principle; produced by accident or 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 that verbal criticisms ought not to avail; but that principle in the patent, and *engine* in the act of Parliament, mean, and are the same thing. Be-

sides, the declaration is founded on a right to an 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, 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 of a patent. Dolland's patent was for object-glasses; and the specification properly stated the method of making those glasses. And as I mentioned in the course of the argument, the point contested in that case was, whether *Dolland* 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 Dolland'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 in-

vention 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 place 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 prepare Dr. James' fever powder, and an ingenious physician should find out that it was a specific cure for a consumption, if given in particular quantities? I think it must be conceived that such a patent would be void; and yet the use of the medicine would be new, and the effect of it as materially different from what is known, as life is from death. So in the case of the late discovery, which as far as experience has hitherto gone, is said to have proved efficacious, that of the medicinal properties of arsenic in curing agues, could a patent be supported for the sole use of arsenic in aguish complaints? The medicine is not new, and any patent for it, would be void. The case of water-tabbies, which has been often mentioned in West-

minster Hall, may afford some illustration of this subject. That 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 oils 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 oils or colours, no man could have had a patent for any distinct manufacture 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, 1st. 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 a patent for the whole machine, and not for the improvement alone. As to the first, the fact which

the plaintiff's counsel were forced repeatedly to admit, 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 decided.* For of late times, whenever the point has arisen, the inclination of the court has been in favour of the patent or the improvement; and the parties have acquiesced, when the objection might have been brought directly before the court. "In Morris *vs.* Branson, which was tried at the session after Easter term, 1776, the question was whether a patent for making oilet holes or net work, in silk, thread, cotton, or worsted, and which was done only by an addition to the old stocking frame was valid? Lord *Mansfield* said that he had paid great attention to it and mentioned it to all the Judges. And that if the general point of law, viz. that there can be no patent for an addition only was with the defendant, it was open on the record, and he might move in arrest of judgment; but that the objection would go to repeal almost every patent that ever was granted."* There

* The United States' law of February 21, 1793 expressly grants the right of obtaining a patent for a "new and useful *improvement* on any art, machine, manufacture, or composition of matter," and decisions in England allow of patents for the same purpose.

was a verdict for the plaintiff, with 500l. damages, and no motion was made in arrest of Judgment. Though his lordship did not mention what were the opinions of the judges, or give any direct opinion himself, yet we may safely collect that he thought, on great consideration, that the patent was good; and though the objection was taken at the trial it was not afterwards generally persisted in: since that time it has been the generally received opinion in Westminster-Hall that a patent for an addition only was good: but it must be for the addition only and not for the old machine too. In Jessop's case for an improvement in watches, 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 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 encumbered with other things. A fire engine, of any considerable size will cost about

1200*l.* and suppose the alteration made by the plaintiff, with a fair allowance of profit, would cost 50*l.* 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 plaintiff, 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 improvement 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 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.

Eyre, Ch. J. Patent rights are no where that I can find, accurately discussed in our books; we must therefore resort to the statute, 21 Jac. 1. c. 3. we 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, "have letters patent, and grants of privileges of the sole working or making of any manner of *new manufactures*, within this realm, to the first and true inventor, or inventors of such *manufactures*, with this qualification; so they be not contrary to the law, nor mischievous to the state," in these three respects; first, "by raising the prices of commodities at home:" secondly, "by being hurtful to trade;" or thirdly, "by being generally inconvenient." According to the letter of the statute, the saving goes only to the *sole working and making; the sole buying 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.

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 making, or working, 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' patent had been for his *method* of preparing his powders, instead of *the powders themselves*, this patent would have been objectionable on the same ground. When

the effect produced, is no substance, or compostion of things, the patent can only be for the mechanism, if new mechanism is used; or for the process, if it be a new mode of operating, with or without, old mechanism, by which the effect is produced. To illustrate this, the effect produced by 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. The effect is produced by a new method of disposing of 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, produced the effects; for these things are in common use. But the invention consisting in *the method of disposing these plates of iron*, so as to produce their effect, and their effect, being an 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 doubts, 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 sub-

ject a little farther. In Mr. Hartley's method, plates of iron are the means which he employs; but he did not invent these means, the invention wholly consisted in the *new manner of using*, or I would rather say of *disposing of 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 labour 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 plain 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 Hart-

ley'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 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 manufactures 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 to such improvements, is in itself deserving of encouragement; and, in my apprehension it is strictly agreeable to the spirit and meaning of the statute of Jac. 1, that it should be encouraged: and yet the validity of these patents, in point of law must rest upon the same foundation with that of 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 ques-

tion upon a patent, no new substance, but an old one, produced advantageously to the public. It cannot be for the mechanism, for there is no 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, 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 overrate 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 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 maufactures, are many of them inventions of great merit; many of them, probably, merely 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 have come; that our mines cannot be worked without them; that they are essentially necessary to the carrying on many of our principal manufactures; that these engines are worked at an enormous expense in coals, which, in some parts of the kingdom, can with difficulty be procured 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 specification describes; though it *miscals 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;* he has taken the 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 more largely on 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 am I warranted to conclude, that this patent was in its original creation good. I will next consider the specification, before I proceed to the consideration arising upon the statute for contin-

uing this patent. The specification has reference to the patent, and not to the statute; 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 for 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 the manner of working the fire engines, so as to produce the effects expressed in the patent; and whether the only objection to this 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, the 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 without 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, could 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 this question, was directed to conduct the steam, which was to be condensed, from the cylinder into a 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 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 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 in a crucible, and should be melted in a crucible; but it would hardly be 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 objections 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 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 on 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 that is to be lessened.

Some weighty observations have been made upon parts of this specification; but these parts appear to me not properly to relate to the method described in the patent: they are rather intimations of new projects of im-

provement in fire engines; and some of them, I am very ready to confess, either very loosely described, or not accurately conceived. I do not undertake to pronounce which, but one or the other is pretty clear. They are the fourth and fifth articles: the first, second, and third, 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 shown 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 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 declaration, is applied to the patent as it originally stood; not as it now stands, continued by 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 very wisely overlooked. Supposing then the difficulties 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 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 to the intent: 2 Roll. Abr. 113. Plowd. 350, 363. This doctrine has been carried into effect by cases. Though a corporation be mismamed in an act of Parliament, if it appears that the corporation was intended, it is sufficient: 10 Co. 576. 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 *secundum valorem terræ*, for so was the intent: Plowd. 10, 57. We all know that an act of Parliament may be extended in 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 advice of Parliament, is in that situation, in respect of which he was 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 fuel 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 the 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 the 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 principles advanced in this case, by judges Rooke and Eyre, were corroborated by the unanimous opinions of the judges of the King's bench, in the case of Hornblower and Maberly, against Boulton and Watt, in Error 8. T. R. 95. 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, 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. The court delivered their opinions *seriatim*, as follows.

8 Durn. and East. 95.

Lord *Kenyon*, Ch. J. 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 the 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 founded in fact, it would be decisive; but I do not think that it is so; as Lord Hardwicke said upon another occasion, there is no magic in words. The questions here are, whether, by looking at the patent as explained by the specification, it does not appear to be a patent for a new manufacture: and whether the specification is not sufficient to enable a mechanic to make the thing described? The jury have not, indeed, answer-

* See the case of Boulton and Watt *vs.* Bull, quoted last above.

ed those questions in the affirmative, in terms; but they have impliedly done so, by finding a general verdict for the defendant 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, so far as we have to treat of it, is exhausted. I have great respect for the contrary opinions that are given in the Common Pleas; and probably if I had been called upon on a sudden to determine upon this case, I should have been at a loss to decide. But having now heard every thing that can be said on the subject, I have no doubt in saying this is a patent for a manufacture, which I understand to be something made by the hands of man.

Ashurst J. 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 allegations in the declaration were proved; one of which was, that the in-

ventor 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.

Grose J. This is an action for violating that right supposed to have been given originally for 14 years, by the patent in 1769, and contended to be continued to *James Watt*, his representatives and assigns, for 25 years, by the statute in 1774, The statute recites the patent, the benefit of which is now determined by the flux of time; and therefore the action can only be sustained on the continuance of the 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 the 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 re-

served to the king is, "that any declaration before mentioned shall not extend to letters patent, and grants of privileges for the term of fourteen years or under, to be made for the sole *working or making* of any manner of *new manufactures* within the realm, to the true and first inventor or inventors of such manufactures, which others at the time of making such letters patent shall not use; so as also they be not contrary to the law, nor mischievous to the state, by raising the prices of commodities at home, or hurt of trade, or generally inconvenient." The questions then upon this patent are, whether it be a patent for the sole working or making 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 his invention, and in what manner the same was to be performed, by an instrument under his hand and seal, and cause the same to be enrolled in the Court of Chancery. On which another question arises, namely, whether the specification enrolled be sufficient. The aim of the legislature is obvious; on the one hand it was to encourage ingenious artificers, and able and studious men to invent and bring forward for

the use of the public new manufactures, the produce of their 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 fourteen years 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 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 invention, 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 will enable artists to adopt the invention, and make the manufac-

ture, 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 in the court of Chancery: that fact was necessary to be proved to entitle the plaintiffs to a verdict, and by the verdict 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 plaintiff in error, first, that it is a patent for a mere *principle*, and not 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 *new 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 these propositions, that under the statute of James, there cannot be a patent for a new 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 pa-

tent for a new 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 in these 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 that 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 new principle, but for working and making a new manufacture, within the words 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 a part of the patent. The ground on which I have felt myself at liberty so to do 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 the information, and by the condition of the letters patent, without the specification the patentee is not entitled to this monopoly. Providing therefore by the patent, that there must be a specification, and there being necessarily one in consequence of the 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 in the patent.

Now the patent recites, that Mr. Watt had invented a method of lessening the consumption of fuel and steam in fire-engines; it grants to him the sole use and exercise of that invention, upon condition that he would disclose the nature of the invention, and in what manner the same was 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 principle of keeping the steam-vessel the whole time the engine is at work, as hot as the steam that is in it: this is to be done by the manufacture of a case of wood or some other material that transmits heat slowly, and by

surrounding it with steam, or other heated bodies, and suffering neither water or any other substance colder than steam, to touch it. Secondly, he points out a mode of condensing the steam by vessels to be used distinct 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 neighborhood 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 on the piston in given cases. Fifthly he directs how steam vessels should be formed where rotatory motions, or motions round an axis, are required, namely, with weights and valves; and directs how, in such case, the steam-vessel shall be supplied with steam, and how that which has done its office shall be discharged. And he also states a method by which the engine shall be worked by the alternate contraction and expansion of the steam. This method, however, if not effected or accompanied by a manufacture, I should hardly consider within the statute of James. But it seems to me that in this specification he does describe a new manufacture, by which his principle is realized, that is by which his

steam-vessel is kept as hot as the steam, during the time the engine is at work by which means the consumption of steam and fuel is lessened. Thus he specifies the particular parts requisite to produce the effect intended, and states the manner how they are to be applied. He describes the case of wood in which the steam vessel is to be inclosed, the engines that are to be worked wholly or partially, by condensation of steam, the vessels that he denominates condensers, and the steam vessels where rotatory matters 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 that 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 invention proceeds, and shews in the specification the manufacture, by means of which these principles are to take effect, which effect is to be the lessening of the consumption of steam and fuel, by keeping the steam-vessel of one uniform

temperature 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 materials 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 additions, *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 methods 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 the *invention of 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 the 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 Driscott's case: 3 Ins. 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 case, in the Court of Common Pleas, in answer to this passage; and to the case of Morris *vs.* 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 shows that it is not well founded. The statute, 15 Geo. 3. (I observe,) secures to the patentee

the privilege of constructing and selling the engines in words: on which account, it has been observed, 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 in 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 these 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 shows 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 to think, however, 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 in making or doing any thing, yet if that thing is to be done by any 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. Where then is the mischief to the public; or how, in this case, is the intention of the legislature defeated? They intend that after the 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 can gain information: therefore, whether the patent call the manufacture by its own name, or style it an invention, a mode, or method, or in any other manner, it signifies nothing; for the specification, describing the thing as required by the patent, must be resorted to, and may be fairly 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 ingenuity, and the author enjoys 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 I ought to feel upon a subject with which I do not profess to be much conversant, my opinion is, that the judgment of the court ought to be affirmed.

Laurence J. Two objections have been made by the plaintiffs in error; 1st, that this is not an invention for any formed or organized machine, instrument, or manufacture, but of mere principles only: 2ndly, 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 consid-

er whether or not mere abstract principles are the subject of a patent, I should feel great difficulty in deciding what 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 of 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 he had 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 principles, that is, constituent and 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 obtain-

ed 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 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, and worked 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 working the whole engine, so altered and improved: for such 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 steam in fire engines. His patent supposes the existence of such engines; and his contrivance,

method, or engine, is for lessening the consumption of fuel in such fire-existing engines, and for nothing else. In the argument, the engine to diminish the consumption of steam, was confounded with that which it 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 it in that sense, and the legislature so understood, it is evident from the word "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 steam as occasion requires, from the cylinder to the condensing vessel; to keep the cylinder hot by means distinctly described, and to extract by pumps the vapour which may impede the work. Therefore, it seems to me that he has given distinct directions for the purpose. Whether those directions were or were not sufficient is not now a question for our decision; it was a question for the determination of the jury; and they have decided it.

Whitney *vs.* Carter.

At a Circuit Court of the United States, for the district of Georgia was tried the case of Eli Whitney *vs.* Isaiah Carter, for infringing a right vested by patent for a new and useful *improvement in the mode of ginning* cotton. The plaintiff supported his declaration, by proving the patent, model and specification, and proving the use of the machine in question by the defendant. He also introduced the testimony of several witnesses, residing in New-Haven, to prove the origin and progress of his invention.

The defendant rested his defence on two grounds. First, That the machine was not originally invented by Whitney. Second, that

the specification does not contain the whole truth relative to the discovery.

General Mitchel, of counsel for the defendant, produced a model, which was intended to represent a machine used in Great Britain, for cleaning cotton, denominated the "Teazer or Devil." A witness was produced, who testified that he had seen in England, about seventeen years ago, a machine for separating cotton from the seed, which resembled in principle, the model now exhibited by the defendant.

Another witness testified, that he had seen a machine in Ireland, upon the same principle; which was used for separating the motes from the cotton, before going to the carding machine.

By the machine of which a model was exhibited, the cotton is applied in the first instance to the rollers, made of iron, revolving inversely. By these rollers, the fibres are separated from the seeds, and protracted within the sweep of certain straight pieces of wire, revolving on a cylinder, which tear and loosen the cotton as they revolve. It was contended by the defendant's counsel, that this model conforms in principle, to Mr. Whit-

ney's machine; and that the evidence given in support of it, established the presumption, that he must have derived the plan of his machine from a similar one, used in the manufactures in Great Britain.

In support of the second ground of defence, evidence was produced to show that Mr. Whitney now uses, and that the defendant also uses teeth, formed of circular plates, instead of teeth made of wire. And it was contended that this was a departure from the specification, and an improvement on the original discovery, which destroys the merit of that discovery, and the validity of the plaintiff's patent. It was also contended that the plaintiff had concealed the best means of producing the effect contemplated.

Mr. Noel, of counsel for the plaintiff, in opposition to the first ground of defence, stated two points: 1st, That if the principle be the same, yet the plaintiff's application of the principle being new, and for a distinct purpose, has all the merit of an original invention. 2ndly, That the principle of Mr. Whitney's machine is entirely different from that exhibited by the defendant. He defined the term principle, as applied to the mechanic arts, to mean the elements and rudiments of those

arts; or in other words, the first grounds and rule for them. That for a mere principle, a patent cannot be obtained. That neither the elements, nor the manner of combining them, nor even the effect produced, can be the subject of a patent; and that it can only be obtained for the application of this effect to some new and useful purpose.

To prove this position, several examples were stated of important inventions, for which patents had been obtained, which had resulted from principles in common use; and an argument of a celebrated judge at Westminster Hall was cited; in which it was asserted "that two thirds or three fourths of all patents granted since the statute passed, are for methods of operating and manufacturing, producing no new substances, and employing no new machinery; and he adds in the significant words of Lord Mansfield, "a patent must be for a method detached from all physical existence whatever."*

The second point was principally relied on: to wit, That the principle of Mr. Whitney's machine, is distinct from that produced by the defendant, and new in its origin.

* See *ante* p. 99.

It consists of teeth, or sharp metallic points, of a particular form and shape; and its application is, to separate cotton from the seed: whereas, the principle of that model exhibited by the defendant, and of every other machine before invented, and used for the same or a similar purpose, consists of two small rollers, made of wood or iron. In illustration of this point, the plaintiff's council cited the following extracts from the opinion of the court, delivered by Judge Johnson, in December term, 1807, in the case of Whitney and others *vs.* Fort, upon a bill of injunction.

"To support the originality of the invention, the complainants have produced a variety of depositions of witnesses, examined under commission, whose examinations expressly prove the origin, progress, and completion of the machine by Whitney, one of the co-partners. Persons who were made privy to his first discovery, testify to the several experiments which he made in their presence, before he ventured to expose his invention to the scrutiny of the public eye. But it is not necessary to resort to such testimony to maintain this point. The jealousy of the artist to maintain that reputation which his ingenuity has justly acquired, urged him to take unnecessary pains on this subject.

"There are circumstances within the knowledge of all mankind, which prove the originality of this invention more satisfactorily to the mind, than the direct testimony of a host of witnesses. The cotton plant has furnished clothing to mankind before the age of Herodotus. The green seed is a species much more productive than the black, and by nature adapted to a much greater variety of climate; but by reason of the strong adherence of the fibre to the seed, without the aid of some more powerful machine for separating it, than any formerly known among us, the cultivation of it could never have been made an object. The machine, of which Mr. Whitney claims the invention, so facilitates the preparation of this species for use, that the cultivation of it, has suddenly become an object of infinitely greater importance than that of the other species ever can be. Is it then to be imagined that if this machine had been before discovered, the use of it would ever have been lost, or could have been confined to any tract of country left unexplored by commercial enterprise? But it is unnecessary to remark further on this subject. A number of years have elapsed since Mr. Whitney took out a patent; and no one has produced, or pretended to prove the existence of a machine of similar construction or use.

With regard to the utility of this discovery, the court would deem it a waste of time to dwell long on this topic. Is there a man who hears us, who has not experienced its utility? The whole interior of the southern states was languishing, and its inhabitants emigrating, for want of some objects to engage their attention, and employ their industry, when the invention of this machine at once opened views to them which set the whole country in active motion. From childhood to age, it has presented us a lucrative employment. Individuals who were depressed with poverty, and sunk in idleness, have suddenly risen to wealth and respectability.—Our debts have been paid off; our capitals increased; and our lands have trebled in value. We cannot express the weight of obligation which the country owes to this invention; the extent of it cannot now be seen; some faint presentiment may be formed from the reflection that cotton is rapidly supplanting wool, flax, silk, and even furs, in manufactures, and may one day profitably supply the want of specie in our East-India trade. Our sister states also participate in the benefits of this invention: for besides affording the raw materials for their manufactories, the bulkiness and quality of the article afford a valuable employment for their shipping.

The second objection relied on by the defendant was, "that the specification does not contain the whole truth respecting the discovery." To this it was answered, that by the testimony it appears Mr. Whitney, in the original construction of his machine, contemplated each mode of making the teeth, and doubted which mode was best adapted to the purpose. If the alteration, which forms the basis of this objection, has the merit of an improvement, how far does it extend? An improvement, not in the principle, nor in the operation of the machine, but in making one of its component parts: merely in forming the same thing to produce the same effect by means somewhat different. In the case above cited, Judge Johnson remarked on this point as follows:—

A Mr. Holmes has cut teeth in plates of iron and passed them over the cylinder. This is certainly a meritorious improvement in the mechanical process of constructing this machine. But at last, what does it amount to except a more convenient mode of making the same thing? Every characteristic of Mr. Whitney's machine is preserved. The counsel for Whitney admitted that an improvement in a particular part of the machine, would entitle the inventor to a patent for that

specific part, but not for the whole machine, as in the case of Boulton *vs.* Bull, where a patent was granted for an invention to lessen the quantity of fuel in the use of a certain steam engine. It was decided "that the patent was valid for the improvement; but that it gave no title to the machine itself."

It was also stated, that by experiments made on the plaintiff's model, in the face of the court and jury, and by testimony produced, it was apparent, no improvement had resulted from this alteration; that no beneficial change, or amendment in the principle, had taken place; nor had the effect been aided or facilitated. In the charge of the court to the jury, Judge Stevens remarked, that the case cited, Whitney and others, *vs.* Fort, was decided without any evidence on the part of the defendant: that from the testimony now produced, his opinion is, that the plaintiff must have received his first impressions from a machine previously in use on a similar principle; and that an improvement had been made as to the teeth, by which the merit of Mr. Whitney's invention was diminished.—For these reasons, Judge Stevens had some doubts whether the plaintiff ought to recover.

Judge Johnson remarked, that after hearing the evidence which had been relied on by

the defendant, he remained content with the opinion which he had given in the case of Whitney against Fort; and that he was also as fully satisfied with the charge he was about to give, as any he had delivered. That as to the origin of this invention, the plaintiff's title remained unimpeached by any evidence which has been adduced in this cause. He agreed with the plaintiff's counsel, that the legal title to a patent consists not in a principle merely, but in an application of a principle, whether previously in existence or not, to some new and useful purpose. And he was also of opinion, that the principle of Mr. Whitney's machine was entirely new; that it originated with himself, and that it had no resemblance to that of the model exhibited by the defendant.

He considered the defendant's second objection equally unsupported, and referred to the sixth section of the patent law of the United States, by which it is required that the concealment alleged (in order to defeat the patentee's recovery) must appear to have been made for the purpose of deceiving the public. That Mr. Whitney, in the original formation of this machine could have no motive for such concealment, and that in making use of wire in preference to any other mode,

he appears to have acted according to the dictates of his judgment, the error related to a point, not affecting the merits of his invention, or the validity of his patent. Verdict for the plaintiff. Damages 1500 dollars.

A patent can in no case be for an effect only, but for an effect produced in a given manner, or by a peculiar operation. For instance, no patent can be obtained for the admeasurement of time, or the expansive operations of steam; but only for a new mode or new application of machinery, to produce these effects; and therefore, if new effects are produced by an old machine in its unaltered state, I apprehend that no patent can be legally supported; for it is a patent for an effect only.

On the other hand, if *well known effects* are produced by machinery in all its combinations *entirely new*, a patent may be claimed for the whole machine. So if the principles of the machine are new, either to produce a new or an old effect, the inventor may well entitle himself to the exclusive right of the whole machine.*

A patentee in his specification sums up the principle on which his invention consists; but

* Whittemore *vs* Cutter, 1 Gal. 486.

if this principle is not new, the patent cannot be supported although it appear that the application of the principle, as described in the specification is new. This was decided in the case of Rex *vs.* Cutler, 1 Starkie's Rep. 354.

This was a *scire facias* brought to repeal letters patent, which had been granted for an invention claimed by the defendant.

The material question arising on the pleadings was whether the invention was new. It appeared upon the defendant's specification that the invention consisted in a new mode of feeding the fire in a grate, by a supply of fuel from below, instead of from above, in the usual way. The coals intended to be consumed in the course of the day, were to be deposited in a chamber beneath the grate, so placed, that at first the higher surface of the chamber was to be on a level with the lower surface of the grate. The fire being afterwards lighted in the grate, as the coals in the grate were gradually consumed, their place was to be supplied by winding up the coals from the chamber by means of a rack and pinion. The coals, as long as they remained in the box, were unignited, the air being excluded from below, and did not become

ignited, until, by being wound up into the grate, they had been brought into contact with the coals previously ignited, and exposed to the access of the air.

The defendant, in his specification, had summed up the amount of his claim; stating, "my invention consists in this, that the fuel necessary for supplying the fire shall be introduced at the lower part of the grate, in a perpendicular or in an oblique direction: as to the manner of performing it, it is set forth in the annexed descriptions and drawings."

In order to disprove the novelty of this invention, evidence was given that Mr. *Marriott*, a manufacturer of grates and stoves, had, in the year 1812, made a model (which was produced) of a grate, and its appendages for cooking. The grate, which was of considerable length, was furnished with a door; when this door was open the grate in no respect differed from an ordinary one, but when the door was shut no part of the grate was visible, except a few of the highest bars, and the whole of the grate, having been filled with coals, and the coals within the bar above the door having been lighted, the coals in the lower part of the grate were carried up, for the purpose of supplying the consumption

above by means of a rack and pinion, at the discretion of the cook. The principle of this grate, it was contended, was precisely the same with that for which the patent was claimed: the lower part of the grate, when the door was shut, being in effect a closed chamber, to which the air had no access, and the coals being gradually wound up from this chamber so as to afford a supply to the fire above. *Marriott* stated that he had also applied the same principle to a common grate, long before the date of the patent.

Another manufacturer of the name of *Coombe* exhibited a grate for cooking, nearly on the same construction. The grate was supplied with two doors, one above the other; when both were shut, the air was supplied by a ventilator from below; when the lower door was shut, and also the ventilator, and higher door thrown open, the closed part of the grate supplied the place of a chamber, from which the coals were wound up by a rack and pinion, in order to supply the fire above, as it was wanted for culinary purposes.

It was contended for the defendant, that the invention went beyond that exhibited in these grates, in the latter there was no fresh introduction of fuel into the grates, so as to

give a perpetual supply, there was nothing more than a means of contracting or compressing coals already within the grate, which could not be done without diminishing the size of the grate itself. According to the defendant's construction, on the contrary, the chamber was independent of the grate, placed below it, and the fuel was gradually wound up from the chamber, without at all contracting the size of the grate itself. It was also contended that there were some minor advantages, which the patent grate possessed over those which had been exhibited in evidence.

Lord *Ellenborough* was of opinion that the principle on which the two grates were constructed was identical with that described in the terms of the specification, which was for a mode of supplying fuel from below, and there was nothing predicated in the specification of raising the fuel from below the grate, it was merely for elevating fuel from below, and that the defendant had confined himself, by thus summing up the extent of his invention to the benefit of this principle.—Verdict for the Crown.

A patent may be sustained not only for "any new and useful art, machine, manufacture or composition of matter;" but likewise

for "any new and useful *improvement* on any art, machine, manufacture, or composition of matter."

But the patent must not be more extensive than the invention, therefore if the invention consists in an addition, or improvement only, and the patent is for the whole machine, it is void. Bull. N. P. 76.

In the case of Lowell *vs.* Lewis quoted in part *ante* p. 60, *Story, Justice*, observed that the patentee is bound to describe, in full and exact terms, in what his invention consists; and if it be an improvement only upon an existing machine, he should, distinguish what is new and what is old in his specification, so that it may clearly appear for what the patent is granted. The reason of this principle of law will be manifest upon the slightest examination. A patent is grantable only for a new and useful invention; and unless it be distinctly stated in what that invention specifically consists, it is impossible to say whether it ought to be patented or not; and it is equally difficult to know, whether the public infringe upon or violate the exclusive right secured by the patent. The patentee is clearly not entitled to include in his patent the exclusive use of any machinery already known; and if he does, his patent will be broader than his 1 Mas. 182.

invention, and consequently void. If therefore the description in the patent mixes up the old with the new, and does not distinctly ascertain, for which in particular the patent is claimed it must be void; since if it covers the whole it covers too much, and if not intended to cover the whole it is impossible for the Court to say what, in particular, is covered as the new invention. The language of the patent act itself is decisive on this point. It requires (§ 3) that the inventor shall deliver a written description of his invention "in such full, clear and exact terms, as to distinguish the same from all other things before known; and in the case of any machine, he shall fully explain the principles and the several modes, in which he has contemplated the application of that principle, or character, by which it may be distinguished from other inventions."

It is, however, sufficient, if what is claimed as new appear with reasonable certainty on the face of the patent, either expressly or by necessary implication. But it ought to appear with reasonable certainty, for it is not to be left to minute references and conjectures, from what was previously known or unknown; since the question is not, what was before known, but what the patentee claims

as new; and he may in fact claim as new and patentable, what has been long used by the public. Whether the invention itself be thus specifically described with reasonable certainty, is a question of law upon the construction of the terms of the patent, of which the specification is a part. I. Mason 187. II. Gal. 53.

With regard to what constitutes the identity, or diversity of two machines the following observations by *Story* Justice, in the case of *Odiorne* vs. *Winkley*, are pertinent: II. Gal. 54.

It is often a point of intrinsic difficulty to decide, whether one machine operates upon the same principles as another. In the present improved state of mechanics, the same elements of motion and the same powers must be employed in almost all machines. The lever, the wheel, and the screw, are powers well known; and if no person could be entitled to a patent, who used them in his machine, it would be in vain to seek for a patent. The material question, therefore, is not whether the same elements of motion, or the same component parts, are used, but, whether the given effect is produced substantially by the same mode of operation, and the same combination of powers in both machines. Mere colourable differences, or slight improvements,

cannot shake the right of the original inventor. To illustrate these positions; suppose a watch was first invented by a person, so as to mark the hours only, and another person added to the work to mark the minutes, and a third the seconds; each of them using the same combinations and mode of operations to mark the hours as the first. In such a case the inventor of the second hand could not have entitled himself to a patent embracing the inventions of the other parties. Each inventor would undoubtedly be entitled to his own invention, and no more.

A patent may well be for a new combination of machines, whether the machine be old or new. But one patent cannot, at the same time, include an exclusive right in the combination, and in each of the machines; and it is no infringement of a patent for the combination, to use either of the machines separately.

In the case of *Barrett* and al. vs. *Hall*, (1 Mason 474) it is affirmed by Mr. Justice Story, that a patent may be for a new combination of machines, to produce certain effects; and this, whether the machines constituting the combination, be new or old. But in such case, the patent being for the combination only, it is no infringement of the patent to use

any of the machines separately, if the whole combination be not used; for in such a case the thing patented is not the separate machines, but the combination; and the statute gives no remedy, except for a violation of the thing patented. This was the doctrine of Mr. Justice *Washington*, in his most able opinion in *Evans* vs. *Eaton*; and it has not in the slightest degree been shaken in the Supreme Court.* I hesitate not one moment in adopting it, as established on solid foundations. It has indeed been said, that where there is a patent for the whole of a machine, whoever imitates it, either in whole or in part, is subject to an action at the suit of the patentee.† But supposing this doctrine to be true in any case, and under any qualifications, (which may well be doubted) it can only apply where the whole machine is entirely new; and cannot apply where the patent is limited, by its very terms, to the combination of several machines.

Further. A patent under the general patent act, cannot embrace various distinct improvements or inventions; but in such case, the party must take out separate patents. If the patentee has invented certain improv-

* Evans vs. Eaton. 3 Wheaton's R. 454, 476, 508.

† Bovil vs. Moore, 2 Marsh. R. 211.

ed machines, which are capable of a distinct operation; and has also invented a combination of these machines, to produce a connected result, the same patent cannot at once be for the combination, and for each of the improved machines; for the inventions are as distinct as if the subjects were entirely different. A very significant doubt has been expressed on this subject by the Supreme Court; and I am persuaded, that the doubt can never be successfully removed.*

A patent for an improved machine, must show in what the improvement precisely consists; and the patent be limited to those improvements. If not specified, the patent is void for ambiguity: if broader than the improvement, it is void on other grounds.

Mr. Justice *Story*, in the case *Barrett* and al. vs. *Hall*, and al. 1 *Mason R.* 475, observes, if a patent be for an improved machine, or for an improvement of a machine, (for I follow Mr. Justice *Heath*,† and the Supreme Court,‡ in thinking that the meaning of the terms is substantially the same,) then the patent must state in what the improvement spe-

* *Evans* vs. *Eaton*, 3 *Wheaton's* R. 454, 506.

† *Boulton* vs. *Bull*, 2 *H. Bl.* 463, 482.

‡ *Evans* vs. *Eaton*, 3 *Wheaton's* R. 454.

cifically consists; and it must be limited to such improvement. If, therefore, the terms be so obscure or doubtful, that the Court cannot say what is the particular improvement, which the patentee claims, and to what it is limited, the patent is void for ambiguity.* And if it covers more than the improvement, it is void for another reason, that it is broader than the invention.

Further. Where a combination of machinery already exists up to a certain point, and the patentee makes an addition or improvement to the machinery, he must confine his patent to the improvement: for if he takes a patent for the whole machine as improved, not distinguishing between the new and the old, nor limiting his patent to the improvement, it is void; because, as so claimed, it is not his invention.†

Further. If an invention consist in a new combination of *machinery*, or *in improvements* upon an old machine, to produce an old effect, the patent should be for the combined machinery, or improvements on the old machine; and not for a mere mode or device for pro-

* *Mc Farlane* vs. *Price*, 1 *Starkie's* R. 199.

† *Bovill* vs. *Moore*, 2 *Marsh* R. 211.

ducing such effects, detached from the machinery. This appears to have been the doctrine of all the judges in *Boulton* vs. *Bull*;* and was illustrated by several of the cases there put. And in a recent case, where a patent was obtained for "an improved mode of lighting cities," it was held, that it was not supported by a specification, describing an improved street lamp; and that the patent ought to have been for an improved street lamp.† So where the patent was for a new invented manufacture of lace, called French, otherwise ground lace; "and the specification went generally to the invention of mixing silk and cotton thread upon the frame, it being proved, that, prior to the patent, silk and cotton thread had been used together, and intermixed upon the same frame; the court held the patent bad, since the plaintiff claimed the exclusive liberty of making lace, composed of silk and cotton thread mixed, and not of any particular mode of mixing it; and the evidence proved that it had been mixed before."‡ This doctrine may not be of as extensive consequence under our patent act, where the specification forms a part of the patent, and controls its generality as in *Eng-*

* 2 H. Bl. 462.

† *Cochrane* vs. *Smilhurst*, 1 *Starkie*, R. 206.

‡ The *King* vs. *Else*, 11 East. R. 109.

land, where the specification is separated from it; but it distinctly shews the necessity of an exact description, so that the patent may conform to the invention.

Where the patent is for several improvements in a machine, and each improvement is summed up in the patent as the invention of the patentee, he is bound by his summary, and if any one of the improvements is proved not to be new, his patent is void. And

When several improvements in a machine are distinctly claimed in a patent, an action lies for the piracy of the improvements, although the defendants have not used the whole improvements.

These points were decided in the case of *Paul Moody* vs. *Jonathan Fisk* and another, in the Circuit Court of the United States, held in Boston, October, 1820. The action was brought for an infringement of certain patent rights granted to the plaintiff. There were two counts in two distinct patents in the declaration, but the first was the only one relied on at the trial, being a patent for "an improvement in the Double Speeder for roping cotton." &c, The cause was tried on the general issue. The patent was dated the

Paul Moody vs. Jon. Fisk.

third of April, 1819, and the specification annexed to it contained a very minute description of the Double Speeder, as improved by the plaintiff under distinct articles.

The defence at the trial turned mainly on two points; 1st, That the machines used by the defendants were not identical with those of the plaintiff—2d, That part of the improvements claimed by the plaintiffs were known before, and so the patent was broader than the invention, and void. The counsel for the defendants contended—1st, That the position of the rollers was not new—2d, That the plaintiff had no right to the two upper cones, they not being his invention, and as to the machinery connected with them, it was not used by the defendants—3d, That the method of moving the belt of the lower cone, &c. and the mechanism connected with it, was not used by the defendants—4th, That the methods of communicating motion from the driver cone to the arbors or axis of the perpetual or endless screw, and perpendicular rack, were not used by the defendants.

The proof in the cause being very strong that the position of the rollers was not new, two questions arose—1st, whether the plaintiff was concluded by the summing up in his

patent from contending that the position of the rollers was not a substantial part of his invention, or was not, *per se* patentable—2d, If not so precluded, and if the patent was not void, whether the defendants were not liable in this action if they used any one of the plaintiff's improvements, although the proof should be satisfactory that they did not use *all* the improvements.

Story J. Upon the last point there has hitherto been considerable difficulty on my mind. But after a good deal of reflection on it, I have come to the result, that when the plaintiff claims, as in this case, several distinct and independent improvements in the same machine, and procures a patent for them in the aggregate, he is entitled to recover against any person, who shall use any one of the improvements so patented, notwithstanding there has been no violation of the other improvements. In such a case, the patent goes for the whole of the improvements, and if each be new, will be claimed distinctly in the patent, as such, there does not seem any good reason why the party who pirates any part of the invention should not be liable in damages. Take the case of a copy right. It has never been supposed that in order to maintain an action, the whole

book should be pirated. It has been adjudged sufficient if a considerable part of the book be pirated, so that such part be that of which the plaintiff is truly and substantially the author.* To be sure a *mere extract would not* be piracy, but if the substance of the book be taken, or so large a part of it as makes it a substitute for the original, and materially injures the literary property of the author, it is thought to be actionable.†

There is no doubt that by the law of England, a party who pirates any part of the invention of the patentee is liable in damages, notwithstanding he has not violated the whole. I say pirate any part of the *invention*, for any person may lawfully use any machinery combined with the patentee's invention, which he does not claim as new, or which, if so claimed has been previously known and used. This is the doctrine in Bovill *vs* Moore,‡ which was an action for the violation of a patent for a machine for the manufacture of bobbin lace, or twist net, similar to and resembling the Buckinghamshire lace, and French lace net, as made by the hand with bobbins on pillows. Lord Chief Justice

* Carey *vs.* Longman, I East. R. 358, and cases cited.
† Raworth *vs.* Wilks, I Camp. R. 94.
‡ 2d Marsh. R. 211, and Davies on Patents, 301.

Gibbs there said, "We must consider what the patent purposes to give the patentee, and what privileges he would possess under the patent. Now the patentee is entitled to the sole use of this *machine*, and whoever imitates it, either in whole or *in part* is subject to an action at the suit of the patentee." The defendant had used the invention *in part*, but he obtained a verdict on the ground that the plaintiff had not invented the whole machine, but had only made improvements in it; the combination having existed up to a certain point before, therefore his patent was void, as covering more than his invention. It may be that the decisions have turned upon the peculiar language of the English patents, for in all the precedents which I have seen, the patent gives the exclusive right of the whole invention, and prohibits all other persons, "directly and indirectly to make, use, and put in practice the said invention, or *any part of the same*.* But as no such intimation is given by the reporter, I incline to believe that the doctrine stands upon the general principle of law, that he who has the exclusive right to the whole of a thing, has the same right to all the parts, which the general right legally includes, that

* See forms in Collier on Patents, 54 and 57, and Davies on Patents, 27, 30.

is, in cases like the present, to all the parts which he has invented.

The principal difficulty that arises in the application of the doctrine, and that may, in most cases, be removed by considering the nature and extent of the patent, or rather of the thing invented and patented. When the patent goes for the whole of a machine as a new invention, and the machine is in its structure substantially new; any person who pirates a part of the machine, substantially new in its structure, deprives the inventor, so far of his exclusive right in his invention, and may in a great measure destroy the value of the patent. When the patent is for several distinct improvements in an existing machine, or for an improved machine, incorporating several distinct improvements, which are clearly specified there, if a person pirates one of the improvements, he violates the exclusive right of the patentee, for the patent is as broad as the invention, and the invention covers all the improvements; and it is a wrong done to the patentee to deprive him of his exclusive right in any of his improvements. Where a patent is for a new *combination* of existing machinery or machines, and does not specify or claim any improvements or inventions except the combination, unless that combination be

substantially violated, the patentee is not entitled to any remedy, although parts of the machinery be used by another, because the patent by its terms stands upon the combination only. In such a case, proof that the machines, or any part of their structure, existed before, forms no objection to the patent unless the *combination* has existed before, for the reason that the invention is limited to the combination. And yet, if the combination itself be not wholly new, but up to a certain point has existed before, and the patentee claims the whole combination as new instead of his own improvement only, as by taking out a patent for the whole machine, doubtless his patent is void, for it exceeds his invention. But if there are different and distinct improvements, constituting parts of the combination, which are specified as such in the patent specification, and any one of them be pirated, the same rule would seem to apply as in the cases where part of an invention is pirated, for the patent then shews that the invention is not limited to the mere combination, but including the particular improvements. It is often a serious difficulty from the obscure language of the specification, to ascertain what is the nature and extent of the invention claimed by the patentee. Whether his patent be valid or not must materially depend upon the accu-

racy and distinctness with which the invention is stated. But in all cases where the patentee claims any thing as his own invention in his specification, courts of law cannot reject the claim, and if included in the patent, and found not to be new, the patent is void, however small and unimportant such asserted invention may be. This leads me to the first point made at the bar, as to which it appears to me clear, both upon principles and authority, that when a man in his specification states and sums up the particulars of his invention, and his patent covers them, he is confined to such summary, and he cannot, afterwards, be permitted to sustain his patent by shewing that some part, which he claims in his summing up as his invention, though not in fact his invention, is of slight value or importance in his patent.* His patent covers it, and if it be not new, the patent must be void. Here the plaintiff claims a particular position of machinery as his invention, and it clearly appears in evidence that the position is not new. It has existed before, not in machines exactly like the present, but in machines, applied to analogous purposes, viz. in machines for roping cotton, and ap-

* Rex *vs.* Cutler, 1 Starkie's R. 355. Davies on Patents 398, 404. Bovill *vs.* Moore, S. C. Marsh. R. 211.

plied for the same purpose as the plaintiff applies them. Without doubt, he supposed that he was the first inventor, but that was his mistake, and will not help the case.—The objection is therefore fatal.

I wish it to be understood in this opinion, that though several distinct improvements in one machine may be united in one patent, it does not follow that several improvements in two different machines, having distinct and independent operations, can be so included, much less that the same patent may be for a combination of different machines, and for distinct improvements in each.

The plaintiff upon this intimation agreed to take a verdict against him, declaring his patent void, that he might obtain a new patent. Verdict for the Defendants.

An invention, to be a proper subject for a patent, must be "not known or used before the application." In Great Britain it has been thought necessary that every operation, connected with the invention for which a patent is proposed, should be kept a profound secret, till after the letters patent are obtained. It appears to have been generally supposed, in that country, that if an invention or

discovery ceased to be a secret, the inventor lost his right to a patent, for the thing invented or discovered. In consequence of this supposition, experiments for testing the practicability of running carriages by steam, &c. have been made in the night. And in the case of *Wood and others* vs. *Zimmer and others*,* it was stated by *Gibbs, C. J.* that to entitle a man to a patent, the invention must be new to the world. The public sale of that which is afterwards made the subject of a patent, though sold by the inventor only, makes the patent void. In England the patent is void, if the invention is used before *granting the patent.* In the United States the patent is void if the thing for which it is granted is in use before the *supposed invention.*

The patentee must not only be the inventor, but the sole and first inventor of the thing which is the subject of his patent. This will appear from the following report of Tenant's case.

Mr. Tenant brought his action for an infringement of his patent for a bleaching liquor; several witnesses were called in sup-

* Davies' Law of Patents, 129. S.C. Holt N.P. 58

port of the patent, who proved the great utility of the invention, and the general ignorance of the bleacher with respect to such bleaching liquor, until after the date of Mr. Tenant's patent. On the other side, a bleacher near Nottingham deposed that he had used the same means for preparing his 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 chymist at Glasgow deposed, that having had frequent conversations with Mr. Tenant on the means of improving bleaching liquor, he had, in one of them, suggested to Mr. Tenant that he would probably attain his end by keeping the lime-water constantly agitated. Mr. Tenant afterwards informed the witness that this method had succeeded. These conversations took place in 1796, and Mr. Tenant 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 the chymist had suggested to Mr. Tenant the agitation of the lime water, which was indispensable in the process.

and therefore 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, ave 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 would not pay for his privilege in the coin required by the patent, namely, a disclosure of a *new* invention, having othing to give as a consideration for his monopoly.

The United States Statute of Feb. 21st, 1793 next points out the *mode of proceedidg* necessary to be adopted by the patentee, in order to obtain a patent. The inventor of any new and useful art, &c. "Shall present a "petition to the Secretary of State, signifying "a desire of obtaining an exclusive property "in the same, and praying that a patent may "be granted therefor," and, "it shall and may

"be lawful for the said Secretary of State to
"cause letters patent to be made out in the
"name of the United States, bearing test by
"the President of the United States, reciting
"the allegations and suggestions of the said
"petition, and giving a short description of
"the said invention or discovery, and there-
"upon granting to such petitioner, or petition-
"ers, his, her, or their heirs, administrators, or
"assigns, for a term not exceeding fourteen
"years, the full and exclusive right and liber-
"ty of making, constructing, using, and vend-
"ing to others to be used, the said invention
"or discovery, which letters patent shall be
"delivered to the Attorney General of the
"United States, to be examined, who, within
"fifteen days after such delivery, if he finds
"the same conformable to this act, shall cer-
"tify accordingly, at the foot thereof, and re-
"turn the same to the Secretary of State,
"who shall present the letters patent, thus
"certified, to be signed, and shall cause the
"seal of the United States to be thereto af-
"fixed; and the same shall be good and avail-
"able to the grantee or grantees, by force of
"this act; and shall be recorded in a book, to
"be kept for that purpose, in the office of the
"Secretary of State, and delivered to the
"patentee, or his order."

A brief account of the mode of proceeding to obtain letters patent in Great-Britain may perhaps be acceptable, especially as information on this subject is often a desideratum with American inventors, who propose to obtain a patent monopoly in that country, and its colonies.

Grants, or letters patent must first pass by bill, which is prepared by the Attorney or Solicitor General, in consequence of a warrant from the crown; and are then signed, that is superscribed at the top with the king's own sign manual, and sealed with his privy signet, which is always in custody of the principal Secretary of State; and then, sometimes, it passes immediately under the great seal, in which case the patent is subscribed in these words: "*per ipsum regem*"—by the king himself. Otherwise, the course is to carry an extract of the bill to the keeper of the privy seal, who makes out a writ, or warrant, thereupon to the chancery, so that the sign manual is the warrant to the privy seal, and the privy seal is the warrant to the great seal; and, in this last case, the patent is subscribed, "*per breve de privato sigillo*"—by writ of privy seal.

In the letters patent which are granted for new inventions, the improvements or inventions are first stated; the prayer of the petitioner to have the exclusive benefit for himself, or his assigns, for fourteen years, is next given; and this prayer is declared to be complied with according to the statute. After commanding all subjects not to interfere with the patent right, and issuing a mandate to all officers not to molest the patentee in the exercise of it, the letters patent declare the patent to be void, if it appear that the grant is contrary to law, or prejudicial to the subject; or if the thing invented have been in use before the date of the grant; or if the patentee be not the inventor; or if it interfere with prior letters patent; or if the patent be transferred to more than five persons, or to any who act as a corporate body; or, finally, if the nature of the invention be not described, or the description be not enrolled within one calendar month after the date of the letters patent. The letters patent conclude with a declaration that they shall be construed in the most beneficial sense for the patentee.

It is frequently for the convenience or interest of a person who has invented or improv-

ed a machine, &c. to delay taking out a patent for it; in this case he may enter a *caveat*. A *caveat* will protect his invention, or improvement for the space of one year, after which if he have not brought his contrivance to maturity, he may renew it again for an equal period, and so on for any successive number of years. The caveat must be delivered at the chambers of the Attorney and Solicitor General; and if an application be made for a patent for an invention of the same nature, notice is given to the person who has entered the caveat: if he requires it, the Attorney General gives a separate audience to each of the rival inventors, and makes his report to the king, according to his opinion of the priority of invention. A petition to the king, stating the nature of the invention, and praying letters patent, accompanied by an oath taken before a master in chancery, that the invention is new, are the steps preparatory to taking out a patent. Separate patents must be taken out for England, Scotland, and Ireland; but in a patent for England, the patentee may, on the payment of a small additional sum, have the colonies and plantations abroad included. The petition and oath are referred by the Secretary of State for the home department, to the Attorney General, and on his report, recommending letters patent, his ma-

jesty issues his warrant, in consequence of which the bill is made out, which is the grant of his majesty, and of this the patent is a transcript.

The second section of the act of Feb. 21, 1793, is as follows. "Provided always, and be it further enacted, that any person, who shall have discovered an improvement in the "principle of any machine, or in the process "of any composition of matter, which shall "have been patented, and shall have obtain-"ed a patent for such improvement, he shall "not be at liberty to make, use or vend the "original discovery, nor shall the first invent-"or be at liberty to use the improvement. "And it is hereby further enacted and de-"clared, that simply changing the form or "the proportions of any machine, or compo-"sition of matter, in any degree shall not be "deemed a discovery."

M'Farlane *vs*, Price.

In the specification of a patent for an *improved* instrument, it is essential to point out precisely what is new, and what is old; and it is not sufficient to give a general description of the instrument, without making such distinction, although a plate is annexed containing a detached and separate representation of the parts in which the improvement

consists. This principle was decided in the case of Macfarlane *vs.* Price 1 Starkie's Rep. 199.

This was an action upon the case for infringing a patent. The patent was described, generally, as a patent for certain improvements in the making of umbrellas and parasols. The specification professed to set out the improvements as specified in certain descriptions and drawings, annexed.

The subjoined description contained a minute detail of the construction of umbrellas and parasols, partly including the usual mode of stretching the silk of the umbrella by means of metallic stretchers or rods, attached to a tube, moveable along the stem, and also certain improvements which consisted chiefly in the insertion of the stretchers, which were knobbed at the end, in sockets formed in the whalebone, instead of attaching them to the whalebone in the usual way, by means of forked ligaments, which came in contact with the silk. The advantage of which was, that by the specified mode, the bone being interposed between the stretchers and the silk, the stretcher did not wear the silk in stretching the umbrella, as it was apt to do in umbrellas of the old construction, where the

stretcher came in contact with the silk. Some other advantages of minor importance were also stated, and drawings were given of the umbrellas and parasols in their improved state. Throughout the whole specification no distinction was made between what was new and what was old.

The Attorney General for the plaintiff, contended that the specification was sufficient, since one of the annexed drawings contained a representation of the particular invention, which had been pirated and was confined to the exhibition of the insertion of the knobbed stretchers in the whalebone sockets, from which an artist would be able to construct an umbrella on the improved plan.

Lord *Ellenborough*. The patentee in his specification ought to inform the person, who consults it, what is new, and what is old. He should say, my improvement consists in this, describing it by words if he can, or if not, by reference to figures. But here the improvement is neither described by words, nor by figures, and it would not be in the wit of man, unless he were previously acquainted with the construction of the instrument, to say what was new and what was old. The specification states that the improved instrument is

made in the manner following; this is not true, since the description comprises that which is old, as well as that which is new. Then it is said that the patentee may put in aid the figures, but how can it be collected from the whole of these in what the improvement consists. A person ought to be warned by the specification against the use of the particular invention, but it would exceed the wit of man to discover from what he is warned in a case like this. Plaintiff nonsuited.

Section 3 enacts, that "Every inventor, "before he can receive a patent, shall swear "or affirm that he does verily believe that "he is the true inventor or discoverer of the "art, machine, or improvement, for which he "solicits a patent, 'which oath or affirmation "may be made before any person authorised "to administer oaths.'" &c.

Whittemore vs. Cutter.

In the case of Whittemore *vs.* Cutter, (1 Gal. 429.) *Story J.* observes—"Another objection to the direction of the Court is that the oath taken by the inventor not being conformable to the statute, formed no objection to the recovery in this action. The statute requires that the patentee should swear "that he is the true inventor or discoverer of the art, machine or improvement." The oath taken by

Whittemore was, that he was the true "*inventor* or *improver* of the machine." The taking the oath was but a prerequisite to the granting the patent, and in no degree essential to its validity. It might as well have been contended that the patent was void, unless the thirty dollars required by the 11th Section of the act had been previously paid.

It is further enacted in the third Section, that the inventor "shall deliver a written "description of his invention; and of the "manner of using, or process of compounding "the same in such full, clear and exact terms, "as to distinguish the same from all other "things before known, and to enable any per-"son, skilled in the art or science of which it "is a branch, or with which it is most near-"ly connected, to make, compound and use "the same. And in the case of any machine, "he shall fully explain the principles, and the "several modes in which he has contemplat-"ed the application of that principle, or cha-"racter, by which it may be distinguished "from other inventions; and he shall accom-"pany the whole with drawings aud written "references, where the nature of the case "admits of drawing, or with specimens of the "ingredients, and of the composition of mat-"ter, sufficient in quantity, for the purpose of

"experiment, where the invention is of a "composition of matter; which description, "signed by himself, and attested by two wit- "nesses, shall be filed in the office of the Sec- "retary of State, and certified copies thereof "shall be competent evidence, in all courts, "where any matter or thing, touching such "patent right shall come in question. And "such inventor shall moreover, deliver a mo- "del of his machine, provided the Secretary "shall deem such model to be necessary."

The operation of the part of the section last quoted is modified and controlled by the sixth section of the same act in such a manner, that it has been decided "that no defect or concealment in any specification is sufficient to avoid a patent, unless it be *with intent to deceive the public.*" This decision took place in the case of *Whittemore* vs. *Cutter*, 1. Gal. 429.

Whittemore vs. Cutter.

This was an action for the violation of a patent right in a machine for the making of cotton and wool cards. A verdict having been returned against the defendant, he moved for a new trial upon several grounds, one of which was to the direction of the Judge respecting the specification, which was as follows: "That if the jury should be satisfied

that the specification and drawings filed by the patentee, in the office of the Secretary of State, were not made in such full, clear, and exact terms and manner as to distinguish the same from all other things before known, and to enable any person skilled in the art or science, of which it is a branch, or with which it is most nearly connected, to make and use the same, this would not be sufficient to defeat the right of the plaintiff, to recover in this action, unless the jury were also satisfied that the specification and drawing were thus materially defective and obscure, *by design*, and the concealment made for the purpose of deceiving the public. In this respect, our law differed from that of England. That if the specification and drawings were thus materially defective, it afforded a presumption of a designed concealment, which the jury were to judge of. That in deciding as to the materiality of the deficiencies in the specification and drawings, it was not sufficient evidence to disprove the materiality, that by studiously examining such specification and drawings, a man of extraordinary genius might be able to construct the machine by inventing parts, and by trying experiments. The object of the law was, to prevent the expenditure of time and money in trying experiments, and to obtain such exact directions.

that if properly followed, a man of reasonable skill in the particular branch of the art or science might construct the machine, and if, from the deficiencies, it was impracticable for such a man to construct it, the deficiencies were material." In order fully to understand the objections to this direction, it is necessary to advert to the third section of the act of 1793, which specifies the requisites to be complied with in procuring a patent, and the sixth section of the same act, which states certain defences, of which the defendant may avail himself to defeat the action and to avoid the patent. The third section, among other things, requires the party applying for a patent to deliver a written description of his invention, and of the manner of using, or process of compounding the same, in such full, clear, and exact terms, as to distinguish the same from all other things before known, and to enable any person skilled in the art or science, of which it is a branch, or with which it is most intimately connected, to make compound, and use the same; and, in the case of any machine, he shall fully explain the principle, and the several modes in which he has contemplated the application of that principle, or character, by which it may be distinguished from other inventions. The sixth section provides, among other things, that the

defendant may give in his defence, that the specification filed by the plaintiff does not contain the whole truth relative to his discovery, or that it contains more than is necessary to produce the described effect, *which concealment, or addition, shall fully appear to have been made for the purpose of deceiving the public.*

It is very clear that the sixth section does not enumerate all the defences of which the defendant may legally avail himself; for he may clearly give in evidence that he never did the act attributed to him, that the patentee is an alien not entitled under the act, or that he has a license or authority from the patentee. It is therefore argued, that if the specification be materially defective, or obscurely or so loosely worded, that a skilful workman in that particular art could not construct the machine, it is a good defence against the action, although no intentional deception has been practised. And this is, beyond all question, the doctrine of the common law; and it is founded on good reason; for the monopoly is granted upon the express condition that the party shall make a full and explicit disclosure, so as to enable the public, at the expiration of his patent, to make and use the invention or improvement in as ample and

beneficial a manner as the patentee himself. If, therefore, it be so obscure, loose, and imperfect that this cannot be done, it is defrauding the public of all the consideration upon which the monopoly is granted.* And the motive of the party, whether innocent or otherwise, becomes immaterial, because the public mischief remains the same.

It is said that the law is the same in the *United States*, notwithstanding the wording of the sixth section, for there is a great distinction between a concealment of material parts, and a defective and ambiguous description of all the parts; and that in the latter case, although there may be no intentional concealment, yet the patent may be avoided for uncertainty as to the subject matter of it. There is considerable force in this distinction at first view; and yet, upon more close examination, it will be difficult to support it. What is a defective description but a concealment of some parts necessary to be known in order to present a complete view of the mechanism? In the present case, the material defects were stated, among other things, to consist of a want of a specific description of the dimensions of the component parts, and of the

* Buller, N. P. 77. Turner v. Winter 1 T. R. 62

shapes and positions of the various knobs.—Were these a concealment of material parts, or a defective and ambiguous disclosure of them? Could the legislature have intended to pronounce that the concealment of a material spring should not, unless made with a design to deceive the public, avoid the patent, and yet that an obscure description of the same spring should at all events avoid it? It would be somewhat hazardous to attempt to sustain such a proposition.

It was probably with a view to guard the public against the injury arising from defective specifications, that the statute requires the letters patent to be examined by the Attorney General, and certified to be in conformity to the law, before the great seal is affixed to them. In point of practice, this must unavoidably be a very insufficient security, and the policy of the provision that changed the common law may be very doubtful. This, however, is a consideration proper before another tribunal. We must administer the law as we find it. And without going more at large into this point, we think that the manifest intention of the legislature was not to allow any defect or concealment in a specification, to avoid the patent, unless it arose from an intention to deceive the public.

In the case of *Lowell* vs. *Lewis*, 1. Mason, 189, *J. Story* observes that: "By the common law, if any thing material to the construction of the thing invented be omitted or concealed in the specification, or more be inserted or added than is necessary to produce the required effect, the patent is void. This doctrine of the common law our patent act has (whether wisely, admits of serious doubts) materially altered; for it does not avoid the patent in such case, "unless the concealment or addition shall fully appear to have been made for the purpose of deceiving the public." (Sect. 6.) Yet certainly the public may be as seriously injured by a materially defective specification resulting from mere accident, as if it resulted from a fraudulent design. Our law, however, is as I have stated; and the question here is, and it is a question of fact, whether the specification be so clear and full, that a pump-maker of ordinary skill, could, from the terms of the specification, be able to construct one upon the plan of Mr. *Perkins*. The principal objection to the specification in this case is, that it does not describe the check bolt, or the form, or use, or the size of the leather, or the mode of forming the edge and fixing it upon the valve, or the exact position or elevation of the valve. (Here the Judge read the specification, and

commented on the evidence applicable to the objections; and left it to the jury to say, upon the facts, whether the specification was materially defective, and if so, whether it was by design to deceive the public.)

With regard to the requisites according to British law to make a valid specification the following decisions are in point.

This was an action on the case brought against the defendant for infringing on 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 *Buller, J.* at the last 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 were 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 abovementioned 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

Turner *vs* Winter, 1 Term Rep. 202.

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 into a good white, and the salt decomposed; if not, the trituration must be repeated with a 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 repeated 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 chymist 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 on 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 of persons who had made the colour by help of the specification, after trying some experiments. In trying these experiments, minium had been used 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 in the specification. The 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, be-

cause 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 sal* 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. J. Buller, after stating the facts, observed that at the trial, these 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.

Erskine and Pigot showed 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 it is incumbent on the defendant, if he objects to the specification, to show that it is defective, and that persons acquainted with the subject could not, by the assistance of the specification effect the thing intended. The consider-

ation which the patentee gives for the monopoly, is the benefit which the public are to derive from his invention, after the patent is expired: and that benefit is secured to them by means of a specification of the invention. But it is not necessary that the 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 has expired.

The first objection which has been raised against the sufficiency of the 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 afterwards 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.

Bearcroft, in support of the rule was stopped by the Court.

Ashurst, J. I think that as every patent is calculated to give a monopoly to the patentee, it is so far against the principles of law, and would be a reason against it, were it not for the advantages which the public de-

rive 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 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 further investigation of the subject. Three objections have been made to this specification. The first is, that in the specification the public are directed to "take any quantity of lead and calcine it, or minium or red lead;" from whence it is inferred that *calcining* is only to be applied to *lead*. I confess, if the objection had rested here, I should have entertained some doubt. The next objection is, that in the subsequent materials to be added, the public are directed "to add half the weight of 'sea salt,' or 'sal gem,' or 'fossil salt, or any marine salt." Now "fossil salt" is a generic term, including "sal gem," as well as other species of "fossil salt." And I understand that "sal gem" is the only one which can be applied to this pur-

pose; so that throwing in fossil salt can only be calculated to mislead the public. Those words could not have been added with any good view; they 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 is 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 the same process. Therefore, if the process as directed by the specification, does not produce that which the patent professes to do, the patent itself 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.

Buller, J. Many cases upon patents have arisen in 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. Wherever 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 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 present plaintiff has made a fair discovery. I do not agree with the counsel, who have argued against the rule, in saying it was not neccessary for the plaintiff to give any evidence to show 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 show what his invention was, unless the other side admits 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 is disputed he must show 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 show 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 show 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 from it 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 from 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 shown by what degree of heat the fusion was to be produced. Now it does not mention 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 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 that 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 witnesses said, was, that following the specification the experiment only produced a white substance like lead.

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

It has been decided in the Court of King's Bench, that one having obtained a patent for a certain manufacturing machine of which he duly enrolled a specification, afterwards obtained another patent for certain *improvements in the said machine*, in which the grant of the former patent was recited: and the latter patent contained the usual condition

that it should be void if the patentee did not within one mouth enrol a specification *particularly describing and ascertaining the nature of said invention, and in what manner the same was to be performed,* a specification containing a full description of *the whole machine* so improved, but not distinguishing the new improved parts from the old parts, or referring to the former specification, otherwise than as the second patent recited the first, was a performance of that condition. The following is the report of the case, which was stated for the opinion of the court by the Lord Chancellor.*

By letters patent of the 20th of March, 1787, the king granted to *John Harmar* (the plaintiff) for 14 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 condition or provision for avoiding the patent on failure of enrolling a specification. In pursuance of this proviso, *Harmar* duly enrolled a specification of the said inven-

* Harmar *vs.* Playne and another, II. East. 101.

tion, with drawings of the same 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 on 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 14 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 *Harman* should not particularly 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 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 spe-

cification in Chancery, with drawings of the machine in the margin thereof; the introductory part of which specification is as follows: "To all, &c. I, *John Harmar*, of *Sheffield*, "send greeting. Whereas his majesty, by his "letters patent, dated the 29th of March, in "the 34th year of his reign, hath granted to "me especial license, and sole privilege, &c. "that I, my executors, &c. and assigns, at all "times during the term of years therein ex- "pressed, 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 cloth, &c. (as before) within *Eng-* "*land*, &c.; and that I should enjoy the whole "profit, and benefit, &c. of 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, "*John Harmar*, should not *particularly describe* "*and ascertain the nature of the said invention,* "*and in what manner the same is to be perform-* "*ed*, by an instrument in writing under my "hand and seal, and cause the same to be en- "rolled in Chancery, within one calendar "month next after the date of said letters "patent, then the said letters patent, &c. "should become void—Now, know you that, "in obedience to the said letters patent, and

"proviso, &c. I, *John Harmar*, do by these "presents particularly describe and ascertain "the nature of the said invention, referring to "the drawings in the margin of these pre-"sents, 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, *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 defendants 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.

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* vs. *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 be-

ing 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 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 information as to what he may lawfully make without the license 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 at length relating to the subject matter, but may refer to other public instruments, or to the 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 *Ellenborough, C. J.* asked whether it were meant to be contended that a specification might refer to such and such articles in *Chamber'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 their 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.) The public must take notice at their peril of all patents on record, and the last of them to which the specification 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 *Elden*, when presiding in *C. B.* said in the case of *Cartright* vs. *Arnott*, 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*, *C. J.*—The difficulty that 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 these the improvements; 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* 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.

* *Liardet* vs. *Johnson*, sittings at *Westminster*, after *Hilary*, 1778, *Bull.* Ni. Pri. (76.)

Wetherell, contra.—The proviso in the second patent is express that the patentee shall "*particularly describe and ascertain* the nature of the *said invention*, (*i e.* the *improvements*,) and in what manner *the same* was to be performed," &c.: 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 *bona 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*,

* Vide *Bull.* N. P. (77.) pl. 4. Rule the fourth.

in the case of *The King* vs. *Arkright*,* lays down certain rules for the construction of patents, under the third and fourth of which the objections to the 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 specifica-

* Sitting at *Westminster*, after *Trinity*, 1785. *ib.*

† For this latter is cited (among other cases, in which it was so ruled by Lord *Mansfield*,) the case of the *King* vs. *Else*, sittings at Westminster *Michaelmas*, 1785, cor. *Buller, J.* The patent there was for a new invented manufacture of lace, called French, otherwise, Ground Lace. The specification went generally to the mixing of silk and cotton thread on the frame. On the part of the prosecutor it was clearly shown 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 its coarseness, and that the defendant alone had invented the method of intermingling them so as to unite strength with fineness. But per *Buller, J.* 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 accordingly.

tion 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 improvement cannot be ascertained. In *Turner* vs. *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 was 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

* 1, Term Rep. 602.

patent is bound to know that another has been granted. If inquiry be necessary 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 inquiring 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* vs. *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 is no such reference, but the two instruments are endeavoured to be connected through the invention 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. (*Le Blanc J.* 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 fully how to adapt the new parts described to the old machine?) 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 instrument, 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 enquirer as to the new invention.

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 the 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 and 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. (*Bayley, J.* 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?) 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 the sort must always occur where drawings are referred to in the annexed 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 differ-

ence here is, that the party must refer to another parchment on record.

Lord *Ellenborough, C. J.* 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 the 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 intended to be fairly made. We will, however, consider of the case, and certify our opinions.

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 of the letters patent, bearing date the 29th of March, 1794, had

been performed by the enrolment of the specification thereof set forth in the case.

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.

This principle was decided in the case of Lord Cochran *vs.* Smethhurst. This was an action brought in the Court of King's Bench 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 relative to enrolling the specification in Chancery within six months, from the date of the patent, and the specification was enrolled within the term prescribed. The declaration states, that the plaintiff had from the date of the patent exercised the said invention to his great profit, yet the defendant had without license of the plaintiff, made and sold lamps in

Cochran *vs.* Smethurst.

imitation of the invention of the plaintiff. Defendant pleaded the general issue.

The Attorney-General explained the principle of the construction of Lord Cochran's lamps, stating that there must be a current of pure air, but a current of air was no part of Lord Cochran's invention: the placing of flame betwen 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.

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, namely, "That the plaintiff, before and at the time of granting the patent, had invented and discovered divers improvements upon lamps, and was therefore 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 ship lights, 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.

* 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.

When the plaintiff had closed his case, Mr. Justice Le Blanc enquired 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 Cochran had not by his patent claimed too much, although he might have inserted too much in the specification.

Mr. Justice Le Blanc.—Under the general terms of the patent, must it not be taken with reference 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 pure 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.

The following case contains some principles which shew the necessity of accuracy in the

specification, and of limiting its claims precisely to the real invention of the patentee.

Bovill, *vs.* Moore and others.*

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

On the part of the defendant, it was contended by Mr. Sergeant Copley that the machine, taken together, was not the plaintiff's sole invention; because every person who is acquainted with the mystery of this manu-

* Davies on Patents, 361.

facture knows that machine is a machine of gradual improvement; that the minds of many ingenious men who have been concerned in inquiries 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.

Lord Chief Justice Gibbs charged the jury as follows :—This is an action brought by Mr. Bovill, against Mr. Moore and others, for having infringed a privilege granted to Mr. Brown 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 show 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 imitated the machine of the plaintiff; it is stated that he sold machines like the plaintiff's; 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 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 said provi-so, 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 operated, by the plans or drawings hereto annexed 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 the 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 answerable 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 communicating 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 these teeth, or to make one longer than the rest; the effect of not doing that will only be that there will be some danger of the threads entangling, but still, with a competent degree of attention in the workmen, although with some delay in 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 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 apprised 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 renderhis 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 shown, 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 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 the original merit of the 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 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 this, 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 coming 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 shows 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 operation. 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 manufactured. In these particulars, Mr. Galleway 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 to the public, and may, in this respect, be new; 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 his patent, a larger privilege than could be legally 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 your specification for that part of your machine may be a perfect

one; and if you had expressed yourself in this way, if you had stated that you had invented an improvement 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 had been practised before; and the defendant calls several witnesses to show that under the warp machine, and under Heathcote's machine, all that precedes in this operation had been previously pratised 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 objections made to this specification 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 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 these 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 entitled 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 that there is nothing in the world that is absolutely new; you may refer it all to first principles: the which 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 entitled 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 combination 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 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 entitled 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 certain 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 this specification is good, and that he is entitled to your verdict. I have said nothing about the fork, bars and dividers, because precisely the same question arises out of them, only not so strong for the defendant; therefore, I think that 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 spe-

cification, 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.

A rule to set aside the verdict in the foregoing cause was moved for in the Court of Common Pleas, but was refused.—*See II. Marshall's Rep.* 211.

The case of Rex *vs.* Metcalf, II. Starkie's Rep. is likewise in point to show the accuracy requisite in order to make a valid specification of a patent.

Rex *vs.* Metcalf. This was a *scire facias*, brought to repeal a patent obtained by the defendant for the

manufacture of hair brushes, which were described as *tapering brushes.*

It appeared from the specification that the mode of manufacturing the patent brushes differed from the common mode chiefly in this respect, that the specification directed that the hairs or bristles were to be taken of the length of an inch and a quarter, and before their insertion in the holes in the stock, were to be mixed up together, so that when they were collected and drawn through the holes, and secured by a brass wire, the bristles would be of unequal lengths, whereas, according to the usual mode the bristles were to be inserted in the stock, so as to be as nearly as possible of the same length, and were afterwards cut down so as to be of the same length.

Lord *Ellenborough.* Tapering means gradually converging to a point. According to the specification the bristles would be of unequal length; but there would be no tapering to a point which the description assumes.

Scarlett, for the defendant, stated that by compressing the bristles in each tuft of hairs, the effect would be to make them converge

to a point, and he suggested that the brushes were known by this description in the trade.

Lord *Ellenborough*. If the word tapering, be used in its general sense, the description is defective; there is no converging to a point. If the term has had a different meaning annexed to it by the usage of trade, it may be received in its perverted sense. At present, however, I cannot hold out any prospect that this difficulty, arising from the grammatical construction can be removed.

After some further evidence had been gone into, which did not remove the difficulty, Lord Ellenborough advised the jury to find that it was not a *tapering*, but only an unequal brush.

Verdict for the Crown.

Sec. 4. regulates the mode of assigning patent rights, and enacts, "That it shall "be lawful for any inventor, his executor, or "administrator, to assign the title and inte- "rest in the said invention at any time, and the "assignee having recorded the said assignment "in the office of the Secretary of State, shall "thereafter stand in the place of the original "inventor, both as to right and responsibility, "and so the assignees of assigns to any degree."

On this clause, we have the following decision obligingly furnished by a gentleman of the bar in Vermont.

Supreme Court of the United States, February term, 1810.

John Tyler, et al. vs. *Gilbert Tuel.**

This was an action of the case brought originally in the Circuit Court for the District of Vermont, October Term, 1804, by the plaintiffs as assignees of Benjamin Tyler, the original patentee, for a violation of the patent set forth in the record.

There are two counts in the declaration. The first recites the substance of the statutes authorising the issuing of patents, the facts which were supposed necessary to entitle the patentee to a patent for his supposed invention, and the patent and specifications themselves *verbatim*.

The patent is for an improvement in building mills, and is dated Feb. 20, 1800.

The assignment is set forth in the first count in the following words:—"And the

* This case is more briefly reported, 6 Cranch's Rep. 324.

plaintiffs further say, that the said Benjamin Tyler, afterwards, to wit, at the said Claremont, on the fifteenth day of May, in the year last aforesaid, by his certain deed of that date by him signed, sealed, and to the plaintiffs then and there delivered by the said Benjamin, and ready to be shown to the Court, did, in consideration of the sum of six thousand dollars, to him before that time by the plaintiffs paid, grant, bargain, sell, assign and set over to the plaintiffs, their executors, administrators and assigns, *all the right, title and privilege*, in, unto, and over the said improvement in the said patent described, and thereby vested in the said Benjamin in any part of the United States, *excepting in the counties of Chittenden, Addison, Rutland* and *Windham*, in the State of Vermont.

The second count states concisely the same facts as the first, omitting the recital of the statutes and the patent at large.

The assignment in this count is stated as follows: "And that the said Benjamin Tyler afterwards, and before the expiration of said fourteen years, to wit, at said Claremont, on the 15th day of May, in the year last aforesaid by his certain deed of that date by him then and there signed, sealed, and to the

plaintiffs delivered, assigned to the plaintiffs the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said improvement, in and throughout the United States, *excepting in the counties of Chittenden, Addison, Rutland,* and *Windham,* in the State of Vermont, as fully and amply as by said letters patent the said *Benjamin Tyler* was thereto entitled, and *all his title and interest* in and unto said improvement, excepting as aforesaid."

The defendant pleaded the general issue with liberty under the statute to give special matter in evidence. The action came to be tried at Rutland, October Term of the Circuit Court, 1807, when a general verdict was found by the jury for the plaintiffs, damages assessed at thirty dollars.

The record then set forth a motion in arrest of judgment filed by the defendant's counsel, stating among other reasons "that it is not alleged in the plaintiff's declaration, that the said patent mentioned therein, was assigned to the plaintiffs according to law. Whereupon, on the discussion of which motion last aforesaid, by the defendant's counsel in arrest of judgment, it became a question whether the plaintiffs by their own showing,

are legal assignees to maintain this action?" On which question the judges were opposed in opinion.

The cause was removed into this court under the 6th sect. of the Act of Congress, vol. 6, p. 89.

Counsel for the Defendant.

The question presented by the record for the opinion of the Court is, whether the plaintiffs, *as assignees*, are entitled to maintain this action.

It is contended in behalf of the defendant, that an assignee cannot maintain an action for the invasion of a patent right, *in his own name*, unless he is assignee in the technical sense of the word, unless he holds the *whole* interest in the invention.

The patent not being a common law instrument, can only be assigned in the manner authorised by the statute.

It is made assignable by the fourth section of the statute of 1793, as is found in vol. 2, page 202, in the following words:

"And be it further enacted, that it shall be lawful for any inventor, his executor, or administrator, *to assign the title and intent in the said invention* at any time, and the assignee, having recorded the said assignment in the office of the Secretary of State, shall thereafter *stand in the place of the original inventor*, both as to RIGHT and RESPONSIBILITY, and so the assignee of assignees to any degree."

The plaintiffs are not assignees of the whole interest in the invention; it appears from both counts in the declaration, that the whole interest was not conveyed; there being an exception of four counties in the State of Vermont reserved to the patentee.

The statute appears too plain to require or admit of reasoning on the subject. The word "to assign," used on this occasion is a technical term, and is understood to mean, to transfer the whole interest in the thing assigned, and is so used throughout the statute. See sec. 1, page 200, sec. 5, page 203, sec. 10, page 206.

"To assign the *title and interest* in the invention," not a *part* of the title and a part of the interest in the invention.

"And the assignee shall thereafter *stand in the place of the original inventor* both as to RIGHT and RESPONSIBILITY." If the "*title and interest*" in a patent can be so secured as to enable one purchaser to maintain an action in his own name, for an invasion of such part of the interest as he may have purchased, they may be subdivided without limitation, and instead of an entire thing, which may pass by assignment, the interest in a patent would become like matter divisible *ad infinitum*. It is not perceived how a person, claiming such an interest, could stand in the place of the original inventor, either as to right or responsibility. If such person should bring a suit for an invasion of his part of the interest, and a verdict should be found against him upon any of the grounds mentioned in the sixth section of the act, would the judgment repeal a part of the patent, or the whole of it: and if the whole, would not such a construction present opportunities to those who were slightly interested in the invention, fraudulently to defeat the rights of others, who were not parties to the suit? Such construction would greatly increase the number of suits.

By the 10th sect. an assignee is liable to be cited before the Judge of the District Court where he resides, and for certain causes to

have his patent vacated, but there are such assignees, claiming partial interest in every district. Which of those assignees is to be thus cited, and before what District Judge? Or is it necessary that each purchaser be cited in his turn, to answer for his individual interest?

Such are the absurdities to which any construction of the statute, by which this action can be supported, does inevitably lead; while that for which we contend, presents a plain and practical course, by which the intention of the statute would be effectuated, and the rights of all parties preserved; it is, that every purchaser holding less than the whole interest, pursues his remedies in the name of the original patentee.

Counsel for the Plaintiffs.

The objection in arrest of judgment is merely technical, and will not be favoured by the Court. It is, presumable, as a verdict has been given for the plaintiffs, that the equity of the case is with them; the Court will therefore sustain the verdict, if they can do so by the rules of law.

1st. The first objection is to the regularity of the proceedings, the cause is not properly

before this Court. In case of an equal division in the opinion of the Court, the judgment passes of course. The court below should not therefore have certified the record to this Court; but should have pronounced judgment in favour of the plaintiffs.

2d. By the words of the assignment of the patent, the whole legal estate passed to the assignees. It is a rule of law, that if there are contradictory words in a deed, the first being words of grant shall control the subsequent contradictory words; not so in the case of a will. A grant was made of all the underwood on a certain piece of land, excepting the underwood of the same land: it was holden that the exception was void, and that the grant was good for all the underwood. In this case the words in the assignment are very extensive: they are "*all right, title, and privilege, in, unto, and over the said improvement;*" the exception being contradictory to these is void, and does not stand in the way of the grant made by words so extensive. The result is, that the case comes within the law relied upon by the defendant's counsel, and that therefore the plaintiffs are entitled to judgment.

Defendant's Counsel in Reply.

With respect to the first point made by the counsel for the plaintiffs, it is doubted whether the law is as has been stated: the rule is applicable to interlocutory judgments; but will it extend to those that are definitive? It is however immaterial to inquire whether any judgment could have been rendered in the court below. The statute authorising the removal does not place the question upon such grounds. From the peculiar organization of the Circuit Court, consisting of two Judges, only, a division of opinion was to be apprehended. By the rule of law relied on by the plaintiff's counsel the opinion of the District Judge might frequently decide a cause against the opinion of the presiding Judge, and against what he might know to be the practice of this court. It was therefore provided by the statute under which this cause was removed, "That whenever *any question* shall occur before the Circuit Court, upon which the *opinions of the Judges shall be opposed*, the point upon which the disagreement shall happen, shall, during the same term, upon the request of either party, or of their counsel, be stated under the direction of the Judges, and certified under the seal of the Court to the Supreme Court, at their next session to be held

thereafter, and shall by said Court be finally decided." It is immaterial, therefore, whether the question be such that no judgment could be rendered, or not, the statute extends to all cases wherein the opinion of the judges shall be opposed.

2d. With respect to the second point, in deeds as well as in wills, the intention of the parties is to be carried into effect, if it can be done consistent with the rules of law. In this case, nothing can be clearer than the intention of the parties, it was to transfer the whole right to the invention, except the four counties mentioned in the assignment, and there is no rule of law which interferes with the justice of the case. The cases cited in behalf of the plaintiff do not apply. In those cases the exception was as large as the grant, one was a complete contradiction of the other, they could not both stand together, the grant or the exception must be void. But in this case the exception contains mere words of description and the whole may well stand together. The plaintiffs therefore are not proprietors of the whole invention, and are not entitled to judgment.

By the Court, the judgment must be arrested.

The Attorney General for the plaintiffs.
J. H. Hubbard for defendant.

If the patentee has sold out a moiety of his patent right, a joint action lies, by himself and his assignee, for a violation of it.

This point was decided in the case of *Whittemore* vs. *Cutter*, 1 Gal. 429. This was an action for the violation of a patent right in a machine for the making of cotton and wool cards. A verdict having been returned against the defendant he moved for a new trial upon several grounds; one of which was to the mode of commencing the action, as will appear from the following extract from the opinion of the Court as delivered by Mr. Justice *Story*.

The first objection is founded on the incompetency of the plaintiffs to maintain the present action; one of the plaintiffs being the original patentee, and the other an assignee of a moiety of the patent right, deriving his title under the patentee. It is contended that no action will lie in this Court for an infringement of a patent right in favour of an assignee, unless he be the assignee of the *whole title and interest*. And the language of the 4th Sec. of the act of the 21st of Feb.

1793, ch. 11, and the case of *Tyler, et al.* vs. *Tuel*, are relied on in support of the position.

It is true that a party relying on an action given by a statute must bring himself within the provisions of the statute. But where, as in the present case, the law is remedial, it should receive a liberal construction, to effectuate the intentions of the legislature. Upon the very rigid construction which is assumed by the defendant's counsel, an action could not be maintained, where a joint patent should be obtained by two persons, and one of them should assign his whole interest. The action could not be brought by the patentees, because one would have parted with his whole interest; nor jointly by the patentee and the assignee, for it would then be open to the very difficulty which is pressed upon us in this case; nor by either party separately, for it would be splitting the cause of action. Other cases might be put in which the parties would be wholly without remedy. We are well satisfied, however, that the direction given at the trial on this point was correct. The statute gives to the assignee all the right and responsibility, which the original inventor had in the undivided portion of the patent, which is conveyed; and an action may be well maintained by all the parties who at the time of

the infringement are the holders of the whole title and interest. The case of *Tyler et al.* vs. *Thal*, is clearly distinguishable. In the first place, it was brought by persons who did not purport to have the whole patent right in themselves. In the next place, there was, technically speaking, no assignment of the patent right. The instrument could only operate as a covenant, or license, for the exclusive use of the patent right in certain local districts. But a patent right itself is unsusceptible of local subdivision. Nor is the present case within any of the mischiefs which were pressed on the court in that case. The language of the 4th section does not seem to have contemplated the case of joint inventors; yet there can be no doubt that, being within the reason of the clause, they must be held within its purview. If either should die, can there be a question that the executor or administrator might well maintain an action jointly with the survivor for an infringement? And in what substantial respect can an assignee in law be considered as distinguishable from an assignee in fact? Upon the most mature reflection, we are satisfied that this objection cannot prevail upon the footing of the statute; and if urged at common law, the case of *Boulton* and *Watt* vs. *Bull*, where the action was brought by the inventor and his as-

signee of two thirds of the patent right, would afford a complete answer.

Sec. 5 is repealed by the 4th section of the patent act of April 17, 1800.

Sec. 6 provides "That the defendant in "such action," to wit, an action on the case founded on this act, "shall be permitted to "plead the general issue, and give this act, "and any special matter of which notice in "writing may have been given to the plain- "tiff, or his attorney, thirty days before trial, "in evidence tending to prove that the speci- "fication filed by the plaintiff does not con- "tain the whole truth relative to the discove- "ry, or that it contains more than is necessa- "ry to produce the described effect, which "concealment or addition shall fully appear to "have been made for the purpose of deceiv- "ing the public, or that the thing thus secur- "ed by patent was not originally discovered "by the patentee, but had been in use, or "had been described in some public work, "anterior to the supposed discovery of the "patentee, or that he had surreptitiously ob- "tained a patent for the discovery of anoth- "er person; in either of which cases, judg- "ment shall be rendered for the defendant,

"with costs, and the patent shall be declared "void."

The following important decision is founded in part on this section.

Supreme Court of the United States, February term, 1818.

Evans, *vs.* Eaton.*

Error to the Circuit Court for the district of Pennsylvania.

This was an action brought by the plaintiff in error against the defendant in error, for an alleged infringement of the plaintiff's patent right to the use of his improved *hopper-boy*, one of the several machines discovered, invented, improved, and applied by him to the art of manufacturing flour and meal, which patent was granted on the 22d of January, 1808. The defendant pleaded the general issue, and gave the notice hereafter stated. The verdict was rendered, and judgment given thereupon for the defendant in the court below; on which the cause was brought by writ of error to this court.

* III. Wheaton, 554.

At the trial in the court below, the plaintiff gave in evidence, the several acts of Congress entitled respectively, "An act to promote the progress of useful arts, and to repeal the acts heretofore made for that purpose;" "An act to extend the privilege of obtaining patents for useful discoveries and inventions to certain persons therein mentioned, and to enlarge and define penalties for violating the rights of patentees;" and "An act for the relief of Oliver Evans;" the said Oliver's petition to the Secretary of State for a patent, and the patent thereupon granted to the said Oliver, dated the 22d day of January, in the year 1808; and further gave in evidence that an agent for the plaintiff wrote a note to the defendant, in answer to which he called on the agent at Chambersburg, at the house of Jacob Snyder, on the 9th of August, 1813: there were a number of millers present: the defendant then told the agent that he had got Mr. Evans' Book, a plate in the Millwright's Guide, and if the agent would take forty dollars, the defendant would give it him: the defendant said that his hopper-boy was taken from a plate in Mr. Evans' book: he said he would give no more, alleging that the hundred dollars the agent asked was too much; that the stream on which his mill was, was a small head of Cono-

gocheage. The agent then declared, that if the defendant would not pay him by Monday morning, he would commence a suit in the Circuit Court.

The plaintiff further gives in evidence, that another agent for the plaintiff was in the defendant's mill on the second of November, 1814, and saw a hopper-boy there, on the principles and construction of the plaintiff's hopperboy. This witness had heard that a right was obtained under Pennsylvania; but did not know of any rights under Pennsylvania sold by the plaintiff; and did not know that it was erected in any mill after the patent under Pennsylvania. The defendant's hopperboy had an upright shaft, with a leading arm, in the first place, and a large arm inserted with flights, and leading lines, and sweepers; a little board for the purpose of sweeping the meal in the bolting hoppers, and spreading it over the floor; a balance weight to cause the arms to play up and down lightly over the meal. The leading arms were about five feet long, and seemed to be in proportion, the arm about fourteen, and the length of the sweep about 9 inches. And the defendant, having previously given the plaintiff written notice that upon the trial of the cause, the defendant would give in evidence,

under the general issue, the following special matter, to wit: "1st. That the improved hopper-boy, for which, *inter alea*, the plaintiff in his declaration alleges he has obtained a patent, was not originally discovered by the patentee, but had been in use anterior to the supposed discovery of the patentee, in sundry places, to wit: at the mill of George Tug and John Hollingsworth, in Dauphin county, Pennsylvania; at Christian Stauffer's mill, in Warwick township, Lancaster county, Pennsylvania; at Jacob Stauffer's mill, in the same county; at Richard Downing's mill, in Chester county, Pennsylvania; at Buffington's mill, on the Brandywine; at Daniel Huston's mill, in Lancaster county, Pennsylvania: at Henry Stauffer's mill, in York county, Pennsylvania; and at Dihl's mill, in the same county, or at some of the said places, and also at sundry other places in the said State of Pennsylvania, the State of Maryland, and elsewhere in the United States. 2d. That the patent given to the plaintiff, as he alleges in his declaration, is more extensive than his discovery or invention, for that certain parts of the machine in said patent, called an *improved hopper-boy*, and which the plaintiff claims as his invention and discovery, to wit, the upright shaft, arms and flights, and sweeps, or some of them, and those parts by which the meal is spread, turn-

ed, and gathered at one operation, and also several other parts, were not originally invented and discovered by him, but were in use prior to his said supposed invention or discovery, to wit, at the places above-mentioned, or some of them. 3d. That the said patent is also more extensive than the plaintiff's invention or discovery; for that the application of the power that moves the mill or other principal machine to the hopperboy, is not an original invention or discovery of the plaintiff, but was in use anterior to his said supposed invention or discovery, to wit, at the places above-mentioned, or some of them. 4th. That the said patent is void because it purports to give him an exclusive property in an improvement in the art of manufacturing meal, by means of a certain machine, termed an improved hopper-boy, of which the said plaintiff is not the original inventor or discoverer; parts of the machine in the description thereof referred to by the patent, having been in use anterior to the plaintiff's said supposed discovery, to wit, at the places above-mentioned, or some of them; and the said patent and description therein referred to, contains no statement, specification, or description, by which those parts, so used as aforesaid, may be distinguished from those of

which the said plaintiff may have been the inventor or discoverer, protesting at the same time that he has not been the inventor or discoverer of any of the parts of the said machine. 5th. That the improved elevator described in the declaration, or referred to therein, was not originally discovered by the plaintiff, but was anterior to his said supposed discovery or invention, described in certain public works, or books, to wit, in *Shaw's Travels*; in the first volume of the *Universal History*; in the first volume of *Mormer's Husbandry*; in *Ferguson's Mechanics*; in *Bossuet's Historie des Mathematiques*; in *Wolf's Cours des Mathematiques*; in *Desagulier's Experimental Philosophy*; and in *Proney's Architecture Hydraulique*, or some of them. 6th. That the said patent is more extensive than the invention or discovery of the plaintiff, because certain parts of the machine called an improved elevator, were, anterior to the plaintiff's said supposed invention or discovery, described in certain public works, or books, to wit, the works or books above-mentioned, or some of them; and that the said patent is void, because it neither contains, nor refers to any specification or description by which the parts so before described in the said public works may be distinguished from those parts of which the plaintiff may be the inventor

or discoverer, protesting, at the same time, that he has not been the inventor or discoverer of any of the parts of the said machine;" gave in evidence the existence of hopperboys prior to the plaintiff's alleged discovery, at sundry mills in the State of Pennsylvania, mentioned in the said notice; and further offered to give in evidence the existence of hopperboys prior to the plaintiff's alleged discovery, at sundry other mills in the State of Pennsylvania, not mentioned in the said notice; and the counsel for the plaintiff objected to the admission of any evidence of the existence of hopperboys in the said mills not mentioned in the said notice. But the Court decided that such evidence was competent and legal. To which decision the counsel for the plaintiff excepted. The plaintiff, after the above evidence had been laid before the jury, offered further to give in evidence that certain of the persons mentioned in the defendant's notice, as having hopperboys in their mills, and also certain of the persons not mentioned in the said notice, but of whom it had been shown by the defendant that they had hopperboys in their mills, had, since the plaintiff's patent, paid the plaintiff for licence to use his improved hopperboy in the said mills respectively. But the counsel for the defendant objected to such evidence as incompetent

and illegal, and the Court refused to permit the same to be laid before the Jury. To which decision the plaintiff's counsel excepted.

The Court below charged the Jury that the patent contained no grant of a right to the several machines, but was confined to the improvement in the art of manufacturing flour by means of those machines; and that the plaintiff's claim must therefore be confined to the right granted, such as it was. That it had been contended that the schedule was part of the patent, and contained a claim to the invention of the peculiar properties and principles of the hopper-boy, as well as the other machines. But the court was of opinion that the schedule is to be considered as a part of the patent, so far as it is descriptive of the machines, but no farther; and even if this claim had been contained in the body of the patent, it would have conferred no right which was not granted by that instrument.

The court further proceeded to instruct the jury that the law authorized the President to grant a patent for the exclusive right to make, construct, use, and vend to be used, any new and useful art, machine, manufacture, or composition of matter, or any new and useful im-

provement in any art, machine, &c. not known or used before the application. As to what constitutes an improvement, it is declared that it must be in the principles of the machine, and that a mere change in the form or proportions of any machine shall not be deemed a discovery. Previously to obtaining the patent, the applicant is required to swear, or affirm, that he verily believes that he is the true inventor or discoverer of the art, machine, or improvement, for which he solicits a patent; and he must also deliver a written description of his invention, and of the manner of using it, so clearly and exactly as to distinguish the same from all other things before known, and to enable others, skilled in the art, to construct and use the same. That from this short analysis of the law, the following rules might be deduced. 1st. That a patent may be for a new and useful art; but it must be practical; it must be applicable and referable to something by which it may be proved to be useful; a mere abstract principle cannot be appropriated by patent. 2d. The discovery must not only be useful, but *new*; it must not have been known or used before, in any part of the world. It was contended by the plaintiff's counsel, that the title of the patentee cannot be impeached; unless it be shown that he *knew* of a prior dis-

covery of the same art, machine, &c.; and that *true* and *original* are synonymous terms in the intention of the legislature. But as it was not pretended that those terms meant the same thing in common parlance, neither was it the intention of the legislature to use them as such. The first section of the law, referring to the allegations of the application for a patent, speaks of the discovery as something "not known or used before the application;" and in the 6th section, it is declared, that the defendant may give in evidence that the thing secured by the patent was not *originally* discovered by the patentee, but had been in use, or had been described in some public work anterior to the *supposed* discovery. 3d. If the discovery be of an improvement only, it must be an improvement in the principle of a machine, art, or manufacture, before known or used; if only in the form or proportion, it has not the merit of a discovery which can entitle the party to a patent. 4th. The grant can only be for the discovery as recited and described in the patent and specification. If the grantee is not the original discoverer of the art, machine, &c. for which the grant is made, the whole is void. Consequently, if the patent be for the whole of the machine, and the discovery were of an improvement, the patent is void. 5th.

A machine or an improvement may be new, and the proper subject of a patent, though the parts of it were known and in use. The combination, therefore, of old machines to produce a new and useful result, is a discovery for which a patent may be granted.

The above principles would apply to most of the questions that had been discussed. It was strongly insisted upon by the defendant's counsel, that this patent is broader than the discovery; the evidence proving that in relation to the hopperboy, for the using of which this suit is brought, the plaintiff can pretend to no discovery beyond that of an improvement in a machine known and used before the alleged discovery of the plaintiff. This argument proceeded upon the supposition that the plaintiff had obtained a patent for the hopperboy, which was entirely a mistake.—The patent was "for an improvement in the art of manufacturing flour," by means of a hopperboy and four other machines described in the specification, and not for either of the machines so combined and used. That the plaintiff is the original discoverer of this improvement, was contested by no person, and, therefore, it could not with truth be alleged that the patent is broader than the discovery, or that the plaintiff could not support

an action on this patent against any person who should use the whole discovery.

But could he recover against a person who had made or used one of the machines, which in part constitute the discovery? The plaintiff insisted that he could, because having a right to the whole, he is necessarily entitled to the parts of which that whole is composed. Would it be seriously contended that a person might acquire a right to the exclusive use of a machine, because when used in combination with others, a new and useful result is produced, which he could not have acquired independent of that combination? If he could, then if A. were proved to be the original inventor of the hopperboy; B. of the elevator; and so on, as to the other machines, and either had obtained patents for their respective discoveries, or chose to abandon them to the public, the plaintiff, although it was obvious he could not have obtained separate patents for these machines, might, nevertheless, deprive the original inventors, in the first instance, and the public in the latter, of their acknowledged right to use those discoveries, by obtaining a patent for an improvement consisting in a combination of these machines to produce a new result.

The Court further charged the Jury, that it was not quite clear that this action could be maintained, although it was proved beyond all controversy, that the plaintiff was the original inventor of this machine. The patent was the foundation of the action, and the gist of the action was, the violation of a right which that instrument had conferred. But the exclusive right of the hopperboy was not granted by this patent, although this particular machine institutes a part of the improvement of which the plaintiff is the original inventor, and it is for this improvement, and this only that the grant is made. If the grant, then, was not of this particular machine, could it be sufficient for the plaintiff to prove in this action that he was the original inventor of it?

Again; could the plaintiff have obtained a separate patent for the hopperboy, in case he were the original inventor of it, without first swearing, or affirming that he was the true inventor of that machine? Certainly not. Has the plaintiff then taken, or could he have taken such an oath in this case? Most assuredly he could not; because the prescribed form of the oath is that he is the inventor of the art, machine, or manufacture, for which he solicits a patent. But since the patent which he solicited was not for the hopper-

boy, but for an improvement in the manufacture of flour, he might, with safety, have taken the oath prescribed by law, although he knew at the time he was not the true inventor of the hopperboy; and thus it would happen that he would indirectly obtain the benefit of a patent right to the particular machine, which he could not directly have obtained, without doing what it must be admitted in the case, he had not done.

But this w[illegible] not all. If the law had provided for fair and original discoverers a remedy when their rights are invaded by others, it had likewise provided corresponding protection to others, where he has not the merit. What judgment could the District Court have rendered on a *scire facias* to repeal this patent, if it appeared that the plaintiff [illegible]as not the inventor of the hopperboy? Certainly not that which the law has prescribed, viz. the repeal of the patent; because it would be monstrous to vacate the whole patent for an invention of which the patentee was the acknowledged inventor, because he was not the inventor of one of the constituent parts of the invention, for which no grant is made. But the Court would have no alternative, but to give such a judgment, or in effect to dismiss the *scire facias*; and if the latter, then

the plaintiff would have beneficially the exclusive right to a machine, which could not be impeached in the way prescribed by law, although it should be demonstrated that he was not either the true or the original inventor of it. And supposing the jury should be of opinion and so find that the plaintiff was not the original inventor of this machine, would not the Court be prevented from declaring the patent void, under the provisions of the 6th section of the law, for the reason assigned why the district court could not render judgment upon a *scire facias*? Indeed, it might well be doubted whether the defence now made by the defendant could be supported at all in this action, (if this action could be maintained,) inasmuch as the defendant cannot allege in the words of the 6th section, *that the thing secured by patent*, was not originally discovered by the patentee, since, in point of fact, the thing patented was originally discovered by the patentee, although the hopperboy may not have been so discovered. But if this defence could not be made, did not that circumstance afford a strong argument against this action? If the plaintiff was not the inventor of the parts, he had no right to complain that they were used by others, if not in a way to infringe his right to their combined effect. If he was the original in-

ventor of the parts which constitute the whole discovery, or any of them, he might have obtained a separate patent for each machine of which he was the original inventor.

Upon the whole, although the Court gave no positive opinion upon this question, they stated that it was not to be concluded that this action could be supported, even if it were proved that the plaintiff was the original inventor of the hopperboy. But if an action would lie upon this patent for the violation of the plaintiff's right to the hopperboy, still the plaintiff could not recover, if it had been shown to the satisfaction of the jury that he was not the original inventor of that machine.

It appeared by the testimony of the defendant's witnesses that Stauffer's hopperboy was in use many years before the alleged discovery of the plaintiff; that the two machines differed from each other very little in form, in principle, or in effect. They were both worked by the same power which works the mill; and they both stir, mix, cool, dry, and conduct the flour to the bolting chest. Whether the flights and sweepers in the plaintiff's hopperboy were preferable to the slips attached to the under part of the arm in Stauffer's; or whether, upon the whole,

the former is a more perfect agent in the manufacture of flour than the latter, were questions which the court would not undertake to decide; because, unless the plaintiff was the original inventor of the hopperboy, although he had obtained a separate patent for it, he could not recover in this action, however useful the improvement might be, which he had made in that machine. If the plaintiff had obtained a patent for his hopperboy, it would have been void, provided the jury should be of opinion, upon the evidence, that his discovery did not extend to the whole machine, but merely to an improvement on the principle of an old one, and if this should be their opinion in the present case, the plaintiff could not recover.

It had been contended by the plaintiff's counsel, that the defendant, having offered to take a licence from the plaintiff, if he would consent to reduce the price of it to forty dollars, he was not at liberty to deny that the plaintiff is the original inventor of this machine. This argument had no weight in it, not merely because the offer was rejected by the plaintiff's agent, and was, therefore, as if it had not been made; but because the law prevents the plaintiff from recovering, if it appear on the trial that he was not the ori-

ginal inventor. If the offer amounted to an acknowledgment that the plaintiff was the original inventor, (and further it could not go) this might be used as evidence of that fact, but it would not entitle the plaintiff to a verdict, if the fact proved to be otherwise.

The plaintiff's counsel had also strongly insisted, that under the equity of the tenth section of the law, the defence set up in this case ought not to be allowed after three years from the date of the patent. This argument might, perhaps, with some propriety be addressed to the Legislature, but was improperly urged to the Court. The law had declared, that in an action of this kind, the defendant may plead the general issue, and give in evidence that the plaintiff was not the original inventor of the machine for which the patent was granted. The Legislature has not thought proper to limit this defence in any manner; and the Court could not do it.

But what seemed to be conclusive of this point was, that the argument would tend to defeat altogether the provision of the sixth section, which authorises this defence to be made; for if it could not be set up after three years from the date of the patent, it would be in the power of the patentee to avoid it

altogether, by forbearing to bring suits until after the expiration of that period. And thus, although the law has carefully provided two modes of vacating a patent improperly granted, the patentee, though not the original inventor, and however surreptitiously he may have obtained his patent, may secure his title to the exclusive use of another's invention, if he can for three years avoid an inquiry into the validity of his title.

The last point was that Stauffer's invention was abandoned, and consequently, might be appropriated by the plaintiff. But if Stauffer was the original inventor of the hopperboy, and chose not to take a patent for it, it became public property by his abandonment; nor could any other person obtain a patent for it because no other person could be the original inventor.

To this charge the plaintiff's counsel excepted.

This case was argued by Mr. C. J. Ingersoll and Mr. Harper for the plaintiff, and Mr. Hopkinson and Mr Sargent for the defendant.

Mr. Chief Justice Marshall delivered the opinion of the Court.

In this case exceptions were taken in the Circuit Court, by the counsel for the plaintiff in error,

1st. To the opinion of the Court, in admitting testimony offered by the defendant in that Court.

2d. To its opinion in rejecting testimony offered by the plaintiff in that court.

3d. To the charge delivered by the Judge to the Jury.

Under the 6th section of the act for the promotion of useful arts, and to repeal the act heretofore made for that purpose, the defendant pleaded the general issue, and gave notice that he would prove at the trial, that the improved hopperboy, for the use of which without licence, this suit was instituted, had been used previous to the alleged invention of the said Evans, in several places, (which were specified in the notice,) or in some of them, "and also at sundry other places in Pennsylvania, Maryland and elsewhere in the United States." Having given evidence as to some of the places specified in the notice, the defendant offered evidence as to some other places not specified. This evidence was ob-

jected to by the plaintiff, but admitted by the Court; to which admission the plaintiff's counsel excepted.

The sixth section of the act appears to have been drawn on the idea that the defendant would not be at liberty to contest the validity of the patent on the general issue. It therefore intends to relieve the defendant from the difficulties of pleading, when it allows him to give in evidence matter which does affect the patent. But the notice is directed for the security of the plaintiff, and to protect him against that surprise to which he might be exposed, from an unfair use of this privilege. Reasoning merely on the words directing this notice, it might be difficult to define, with absolute precision, what it ought to include, and what it might omit. There are, however, circumstances in the act which might have some influence on this point. It has been already observed, that the notice is substituted for a special plea; it is further to be observed, that it is a substitute to which the defendant is not obliged to resort. The notice is to be given only when it is intended to offer the special matter in evidence on the general issue. The defendant is not obliged to pursue this course. He may still plead specially, and then the plea is the only notice

which the plaintiff can claim. If, then, the defendant may give in evidence on a special plea the prior use of the machine at places not specified in his plea, it would seem to follow that he may give in evidence its use at places not specified in his notice. It is not believed that a plea would be defective, which did not state the mills in which the machinery alleged to be previously used was placed.

But there is still another view of this subject which deserves to be considered. The section which directs this notice, also directs, that if the special matter stated in the section be proved, "Judgment shall be rendered for the defendant, with costs, and the patent shall be declared void." The notice might be intended not only for the information of the plaintiff, but for the purpose of spreading on the record the cause for which the patent was avoided. This object is accomplished by a notice, which specifies the particular matter to be proved. The ordinary powers of the court are sufficient to prevent, and will undoubtedly be so exercised as to permit the patentee from being injured by the surprise.

This testimony having been admitted, the plaintiff offered to prove that the persons, of

whose prior use of the improved hopperboy the defendant had given testimony, had paid the plaintiff for licenses to use his improved hopperboy in their mills since his patent. This testimony was rejected by the Court, on the motion of the defendant, and to this opinion of the court, also, the plaintiff excepted.

The testimony offered by the plaintiff was entitled to very little weight, but ought not to have been absolutely rejected. Connected with other testimony, and under some circumstances, even the opinion of a party may be worth something. It is, therefore, in such a case as this, deemed more safe to permit it to go to the jury, subject, as all testimony is, to the animadversion of the Court, than entirely to exclude it.

We come next to consider the charge delivered to the jury.

The errors alleged in this charge may be considered under two heads:

1st. In construing the patent to be solely for the general result produced by the combination of all the machinery, and not for the

several improved machines, as well as the general result.

2d. That the jury must find for the defendant, if they should be of opinion that the hopperboy was in use prior to the invention of the improvement therein by Oliver Evans.

The construction of the patent must certainly depend on the words of the instrument. but where, as in this case, the words are ambiguous, there may be circumstances which ought to have great influence in expounding them. The intention of the parties, if that intention can be collected from sources, which the principles of law permit us to explore, are entitled to great consideration. But before we proceed to this investigation, it may not be improper to notice the extent of the authority under which this grant was issued.

The authority of the executive to make this grant is derived from the general patent law, and from the act for the relief of Oliver Evans. On the general patent law alone, a doubt might well arise, whether improvements on different machines could regularly be comprehended in the same patent, so as to give a right to the exclusive use of the sev-

eral machines separately, as well as a right to the exclusive use of those machines in combination. And if such a patent would be irregular, it would certainly furnish an argument of no inconsiderable weight against the construction. But the "act for the relief of Oliver Evans" entirely removes this doubt. That act authorises the Secretary of State to issue a patent, granting to the said Oliver Evans the full and exclusive right, in his invention, discovery and improvements in the art of manufacturing flour, and in the several machines which he has invented, discovered, improved, and applied to that purpose.

Of the authority, then, to make this patent coextensive with the construction for which the plaintiff's counsel contends, there can be no doubt.

The next object of inquiry is, the intention of the parties, so far as it may be collected from sources to which it is allowable to resort.

The parties are the government acting by its agents, and Oliver Evans.

The intention of the government may be collected from the "act for the relief of Oli-

ver Evans." That act not only confers the authority to issue the grant, but expresses the intention of the legislature respecting its extent. It may be fairly inferred from it, that the legislature intended the patent to include both the general result, and the particular improved machines, if such should be the wish of the applicant. That the executive officer intended to make the patent co-extensive with the application of Oliver Evans, and with the special act, is to be inferred from the reference to both in the patent itself. If, therefore, it shall be satisfactorily shown from his application to have been the intention of Oliver Evans to obtain a patent including both objects, that must be presumed to have been also the intention of the grantor.

The first evidence of the intention of Oliver Evans is furnished by the act for his relief. The fair presumption is, that it conforms to his wishes; at least, that it does not transcend them.

The second is his petition to the Secretary of State, which speaks of his having discovered certain useful improvements, and prays a patent for them agreeably to the act of Congress, entitled "An act for the relief of

Oliver Evans." This application is for a patent co-extensive with the act.

This intention is further manifested by his specification. It is not to be denied that a part of this specification would indicate an intention to consider the combined operation of all his machinery as a single improvement, for which he solicits a patent. But the whole taken together will not admit of this exposition. The several machines are described with that distinctness, which would be used by a person intending to take a patent for each. In his number 4, which contains the specification of the drill, he asserts his claim, in terms, to the principles, and to all the machines he had specified, and adds, "they may all be united and combined in one flour mill, to produce my improvement in the art of manufacturing flour complete, or they may be used separately for any of the purposes specified and allotted to them, or to produce my improvement in part, according to the circumstances of the case."

Being entitled by law to a patent for all and each of his discoveries; considering himself, as he avers in his specification and affirmation, as the inventor of each of these improvements; understanding, as he declares

35

he did, that they might be used together so as to produce his improvement complete, or separately, so as to produce it in part; nothing can be more improbable, than that Oliver Evans intended to obtain a patent solely for their combined operation. His affirmation which is annexed to his specification confirms this reasoning. To the declaration that he is the inventor of these improvements, he adds, "for which he solicits a patent."

With this conviction of the intention with which it was framed, the instrument is to be examined.

The patent begins with a recital that Oliver Evans had alleged himself to be the inventor of a new and useful improvement in the art of manufacturing flour, &c. by the means of several machines, for a description of which reference is made to his specification.

It will not be denied, that if the allegation of Oliver Evans was necessarily to be understood as conforming to this recital, if our knowledge of it was to be derived entirely from this source, the fair construction would be that his application was singly for the exclusive right to that improvement, which was

produced by the combined operation of his machinery. But, in construing these terms, the court is not confined to their most obvious import. The allegation made by Oliver Evans, and here intended to be recited, is in his petition to the Secretary of State. That petition is embodied in and becomes a part of the patent. It explains itself and controls the words of reference to it. His allegation is not "that he has invented a new and useful improvement," but that he has discovered certain useful improvements. The words used by the department of state in reciting this allegation, must then be expounded by the allegation itself, which is made a part of the patent.

The recital proceeds, "which improvement has not been known, &c. These words refer clearly to the improvement first mentioned and alleged in the petition of Oliver Evans, and are, of course, to be controlled in like manner with the antecedent words, by that petition. This part of the recital is concluded by adding that Oliver Evans has affirmed that he does verily believe himself to be the true inventor or discoverer of the said improvement.

But the affirmation of Oliver Evans like his petition, is embodied in the grant and must of course expound the recital of it. That affirmation is that he does verily believe himself to be the true and original inventor of the *improvements* contained in his specification.

In every instance, then, in which the word improvement is used in the singular number throughout the part of the recital of this patent, it is used in reference to a paper contained in the body of the patent, which corrects the term, and shows it to be inaccurate.

The patent, still, by way of recital, proceeds to add, "and agreeably to an act of Congress, entitled 'an act for the relief of Oliver Evans,' which authorizes the Secretary of State to secure to him, by patent, the exclusive right to the use of such *improvement* in the art of manufacturing flour and meal, and in the several machines which he has discovered, improved and applied to that purpose; he has paid into the treasury, &c. and presented a petition to the Secretary of State, signifying a desire of obtaining an exclusive property in the said *improvement*, and praying that a patent may be granted for that purpose.

To what do the words "said improvement" relate? The answer which has been given at the bar is entirely correct. To the improvement mentioned in the statute, and in the petition, to both of which direct reference is made. But in the statute, and in the petition the word used is, "*improvements*," in the plural. The patent, therefore, obviously fixed to the word improvement, in the singular, the same sense in which the plural is employed, both in the statute and in the petition. We are compelled from the whole context so to construe the word in every place in which it is used in the recital, because it is constantly employed with express reference to the act of Congress, or to some document embodied in the patent, in each of which the plural is used.

When, then, the words "said improvement" are used as a term of grant, they refer to the words of the recital, which have been already noticed, and must be construed in the same sense. This construction is rendered the more necessary by the subsequent words, which refer for a description of the improvement to the schedule. It also derives some weight from the words "according to law," which are annexed to the words of grant. These words can refer only to the general

patent law, and to the "act for the relief of Oliver Evans." These acts, taken together, seem to require that the patent should conform to the specification, affirmation, and petition of the applicant.

It would seem as if the claim of O'ver Evans was rested at the Circuit Court, on the principle that a grant for an improvement by the combined operation of all the machinery, necessarily included a right to the distinct operation of each part, inasmuch as the whole comprehends all its parts. After very properly rejecting this idea, the Judge appears to have considered the department of State, and the patentee, as having proceeded upon it in making out this patent. He supposed the intention to be, to convey the exclusive right in the parts, as well as in the whole, by a grant of the whole; but as the means used are in law incompetent to produce the effect, he construed the grant according to his opinion of its legal operation.

There is great reason in this view of the case, and this Court has not discarded it without hesitation. But as the grant, with the various documents which form a part of it, would be contradictory to itself; as these apparent contradictions are all reconciled by

considering the word "improvement" to be in the plural instead of the singular number; as it is apparent that this construction gives to the grant its full effect, and that the opposite construction would essentially defeat it, this Court has, after much consideration and doubt, determined to adopt it as the second exposition of the instrument.

The second error alleged in the charge is in directing the Jury to find for the defendant, if they should be of opinion that the hopperboy was in use prior to the improvement alleged to be made thereon by Oliver Evans.

This part of the charge seems to be founded on the opinion, that if the patent is to be considered as a grant of the exclusive use of distinct improvements, it is a grant for the hopperboy itself, and not for an improvement on the hopperboy.

The counsel for the plaintiff contends, that this part of the charge is erroneous, because, by the "act for the relief of Oliver Evans," Congress has itself decided that he is the inventor of the machines for which he solicited a patent, and has not left that point open to judicial inquiry.

This Court is not of that opinion. Without inquiry whether Congress, in the exercise of its power "to secure for limited times, to authors and inventors, the exclusive right to their respective writings and discoveries," may decide the fact that an individual is an author or inventor, the Court can never presume Congress to have decided that question in a general act the words of which do not render such a construction unavoidable. The words of this act do not require this construction. They do not grant to Oliver Evans the exclusive right to use certain specified machines; but the exclusive right to use his invention, discovery, and improvements; leaving the question of invention and improvement open to investigation, under the general patent law.

The plaintiff has also contended, that it is not necessary for the patentee to show himself to be the first inventor or discoverer. That the law is satisfied by his having invented a machine, although it may have been previousiy discovered by some other person.

Without a critical inquiry into the accuracy with which the term invention or discovery may be applied to any other than the first inventor, the Court considers this question as

completely decided by the sixth section of the general patent act. That declares that if the thing was not *originally* discovered by the patentee, but had been in use, or had been described in a public work anterior to the supposed discovery of the patentee, judgment shall be rendered for the defendant, and the patent declared void.

Admitting the words, "*originally* discovered," to be explained or limited by the subsequent words; still, if the thing had been in use, or had been described in a public work, anterior to the supposed discovery, the patent is void. It may be that the patentee had no knowledge of this previous use or previous description; still his patent is void; the law supposes he may have known it; and the charge of the judge, which must be taken as applicable to the testimony, goes no farther than the law.

The real inquiry is, does the patent of Oliver Evans comprehend more than he has discovered? If it is for the whole hopperboy, the jury has found that this machine was in previous use. If it embraces only his improvement, then the verdict must be set aside.

The difficulties which embarrass this inquiry are not less than those which were involved in the first point. Ambiguities are still to be explained, and contradictions to be reconciled.

The patent itself, construed without reference to the schedule, and other documents to which it refers, and which are incorporated in it, would be a grant of a single improvement; but construed with those documents, it has been determined to be a grant of the several improvements which he has made in the machines enumerated in his specification. But the grant is confined to improvements. There is no expression in it which extends to the whole of any one of the machines which are enumerated in his specification or petition. This difficulty grows out of the complexity and ambiguity of the specification and petition. His schedule states his first principle to be the operation of his machinery on the meal from its being ground until it is bolted. He adds "this principle I apply by various machines, which I have invented, constructed, and adapted to the purposes hereafter specified."

His second principle is the application of the power that moves the mill to his machinery.

The application of these principles, he says, to manufacturing flour, is what he claims as his invention or improvement in the art.

He asserts himself to be the inventor of the machines, and claims the application of these principles, to the improvement of the power of manufacturing flour, and other purposes, as his invention and improvement in the art.

The schedule next proceeds to describe the different machines as improved, so as to include in the description the whole machine, without distinguishing his improvement from the machine as it existed previous thereto; and in his fourth number, he says, "I claim the exclusive right to the principles, and to all the machines above specified, and for all the uses and purposes specified, as not having been heretofore known or used before I discovered them."

If the opinion of the Court were to be formed on the schedule alone, it would be difficult to deny that the application of Oliver Evans extended to all the machines it describes. But the schedule is to be considered in connection with the other documents incorporated in the patent.

The affirmation which is annexed to it avers, that he is the inventor, not of the machines, but of the improvements herein above specified.

In his petition, he states himself to have discovered certain useful improvements, applicable to the art of manufacturing flour, and prays a patent for the same; that is, for his improvements, agreeably to the act of Congress, entitled "an act for the relief of Oliver Evans." After stating the principles as in his schedule, he adds "the machinery consists of an improved elevator, an improved conveyer, an improved hopperboy, an improved drill, and an improved kiln-dryer."

Although, in his specification he claims a right to the whole machine, in his petition he only asks a patent for the improvements in the machine. The distinction between a machine, and an improvement on a machine, or an improved machine, is too clear for them to be confounded with each other.

The act of Congress, agreeably to which Evans petitions for a patent, authorizes the Secretary of State to issue one, for his improvements in the art of manufacturing flour, "and in the several machines which he has

invented, discovered, improved, and applied to that purpose."

In conformity with this act, this schedule, and this petition, the Secretary of State issues his patent, which in its terms, embraces only improvements. Taking the whole together, the Court is of opinion, that the patent is to be construed as a grant of the general result of the whole machinery, and of the improvement in each machine. Great doubt existed whether the words of the grant, which are expressed to be for an *improvement* or *improvements* only, should be understood as purporting to be a patent only for improvements; or should be so far controled by the specification and petition, as to be considered as a grant for the machine as improved, or in the words of the schedule and petition, for an "improved elevator, an improved conveyer, an improved hopperboy, an improved drill, and an improved kiln dryer." The majority of the Court came at length to the opinion, that there is no substantial difference, as they are used in this grant, whether the words grant a patent for an improvement on a machine, or a patent for an improved machine; since the machine itself, without the improvement, would not be an improved machine. Although I did not concur in this opinion, I

can perceive no inconvenience from the construction.

It is, then, the opinion of this Court, that Oliver Evans may claim, under his patent, the exclusive use of his inventions and improvements in the art of manufacturing flour and meal, and in the several machines which he has invented, and in his improvements or machines previously discovered.

In all cases where his claim is for an improvement on a machine, it will be incumbent on him to show the extent of his improvement, so that a person understanding the subject may comprehend distinctly in what it consists.

Some doubts have been entertained respecting the jurisdiction of the Courts of the United States, as both the plaintiff and defendant are citizens of the same State. The 5th section of the act to promote the progress of useful arts, which gives to every patentee a right to sue in a Circuit Court of the United States, in case his rights be violated, is repealed by the 3d section of the act of 1800, ch. 179, (xxv.) which gives the action in the Circuit Court of the United States, where a patent is granted "pursuant" to that act, or

to the act for the promotion of useful arts. This patent, it has been said, is granted, not in pursuance of either of these acts, but in pursuance of the act "for the relief of Oliver Evans." But this Court is of opinion that the act for the relief of Oliver Evans is engrafted on the general act for the promotion of useful arts, and that the patent is issued in pursuance of both, The jurisdiction of the Court is therefore sustained.

As the charge delivered in the Circuit Court to the Jury differs in some respects from this opinion, the judgment rendered in that Court is reversed, and annulled, and the cause remanded to the Circuit Court, with directions to award a *venire facias de novo*, and to proceed therein according to law.

Judgment reversed.

The making of a patented machine for use, and with a design to use it for profit, in violation of the patent right, is of itself a breach of the patent right for which an action lies.

The following are the observations of Mr. *Justice Story*, on this point.* The 1st sect.

* Whittemore *vs.* Cutter, I. Gal. 432.

of the act of 1793 expressly gives the patentee, &c." the full and exclusive right and liberty of making, constructing, using, and vending to others to be used," the invention or discovery. The 5th section of the same act gives an action against any person who "shall make, devise, and use *or* sell" the same.—From some doubt, whether the language of the section did not couple the making and *using* together to constitute an offence, so that making without using, or using without making, was not an infringement, the legislature saw fit to repeal that section; and by the 3d section, of 17th April, 1800, Ch. 25, gave the action against any person who should "make, devise, use or sell" the invention.—We are not called upon to examine the correctness of the original doubt, but the very change in the structure of the sentence affords a strong presumption that the legislature intended to make every one of the enumerated acts a substantive ground of action.

It is argued, however, that the words are to be construed distributively, and that "making" is meant to be applied to the case of a *composition* of matter, and not to the case of a machine. That it is clear that the use of certain compositions, (as patented pills,) could not be an infringement, and unless making

were so, there could be no remedy in such cases. We cannot feel the force of this distinction. The word "making" is equally as applicable to machines as to compositions of matter; and we see no difficulty in holding that the using or vending of a patented composition is a violation of the right of the proprietor.

"It is farther argued, that the making of a machine cannot be an offence, because no action lies, except for *actual damage*, and there can be no actual damages, or even a rule of damages, for an infringement by making a machine. We are, however, of opinion that where the law gives an action for a particular act, the doing of that act imports of itself some damage to the party. Every violation of a right imports some damage, and if none other be proved, the law allows a nominal damage.

In the trial of *Whittemore, et al.* vs. *William T. Cutter*,* it was further observed by Mr. Justice STORY, as follows:—

The counsel for the plaintiffs have argued, that although there is no evidence of actual

*I Gal. 483.

damage, the jury ought to give damages either to the full value of the expense of making the machine, or of the price at which such a machine might be sold. But neither of these estimates can form a rule for damages for the illegal making of the machine.—As to the expense of making the machine, it is obvious that it is an expense altogether incurred by the defendant, and is not a loss sustained by the plaintiffs. The latter neither found the materials nor the labor. How, then, can it be an actual damage sustained by them? As to the price for which such a machine would sell, it is open to the same, and to this farther objection; that the *price* is compounded of the value of the materials and the workmanship, and also of the *right of user* of the machine. Now, admitting that the plaintiffs recover in this action, there can be no pretence that these by a legal right will pass to the defendant to use the machine made by him. Every future use will be an infringement of the plaintiff's patent, and, therefore, if the plaintiffs could in this suit recover such price, they not only would recover for materials and labor, which they never furnished, and for a right of user which never passed from them, but also for that which might lawfully be the subject of another action, viz. the future user of the defendant's machine; so

that there might be a double recovery for the same supposed injury.

At the former trial, the court were pressed with the difficulty of finding any rule to estimate the plaintiff's damages, when none were actually proved by the making of the machine; and I still adhere to the decision then made, that in such case the plaintiffs can recover nominal damages only.

In an action on a patent right the jury are to find single damages, and the court will treble them. This point was decided in the same case last above quoted.—*1. Gal.* 482.

In an action for a violation of a patent right, the plaintiff can recover for *actual damages* only, and not for a vindictive recompense.

By the terms "actual damages," in the statute, are meant such damages as the plaintiffs can actually prove, and have in fact sustained, as contradistinguished to mere imaginary or exemplary damages, which in personal torts are sometimes given. The statute is highly penal, and the legislature meant to limit the single damage to the real injury done, as in other cases of violation of personal property, or of incorporeal rights. In

mere personal torts, as assaults and batteries, defamation of character, &c. the law has, in proper cases, allowed the party to recover not merely for any actual injury, but for the mental anxiety, the public degradation and wounded sensibility, which honourable men feel at violations of the sacredness of their persons or characters. But the reason of the law does not apply to the mere infringement of an incorporeal right, such as a patent, and the legislature meant to confine the damage to such a sum as would compensate the party for his actual loss.

If the jury are of opinion that an user of the machine is actually proved in this case, the rule of damages should be the value of the use of such a machine, during the time of the illegal user.

If the jury are of opinion that a making of the machine only is proved, as there is no evidence in the case to shew any actual damages by the making, they ought to give nominal damages to the plaintiffs. For where the law has given a right, and a remedy for the violation of it, such violation of itself imports damage; and, in the absence of all other evidence, the law presumes a nominal damage to the party.

The jury may, if they see fit, in a case for infringing a patent, give the plaintiff as part of his actual damages such expense for counsel fees, &c. as have necessarily occurred in vindicating the plaintiff's right by a suit and which are not taxable in the bill of costs.

Bost. Man. Co. *vs.* Jno. Fisk *et al.*

In the case of Boston Manufacturing Company *vs.* Jonathan Fisk and another, decided in the Circuit Court of the United States, October term, 1820, a question of law arose at the trial whether the jury might include in their damages, if their verdict was for the plaintiffs, counsel fees, and other necessary expenses incurred at the trial, which were not within the taxable cost.

Story, J.—In one of the earliest cases which came before me, after my advancement to the bench, this very question arose, and at the trial I decided that counsel fees, and other necessary expenses, not included in the taxable costs, were proper to be allowed by the jury, if they saw fit, as part of the actual damages of the plaintiff within the contemplation of the Patent Act—But, upon a motion for a new trial, the Circuit Court felt itself constrained by the authority of Archambal *vs.* Wiseman, III. Doll. 306, very much against its own judgment, to declare the con-

trary doctrine.* Since that period, I have not been able upon inquiry to learn that any of my brethren held to so rigid a rule, or have felt themselves bound to limit the discretion of the jury to an allowance of items of this nature. Nor can I now deem Archambal *vs.* Wiseman an authority on which one ought to repose in a case of this sort, without very serious doubt. The case appears to have been decided on this point without much argument, and is very imperfectly reported. It was a libel filed by the Spanish Consul for restoration of a Spanish vessel, captured by an armed French vessel on the high seas. The District Court dismissed the libel, and awarded damages for the delay, &c. to the *captors*.—The Circuit Court affirmed the decree, and it was afterwards on error affirmed by the Supreme Court, but a charge of 1600 dollars for counsel fees appearing on the record to have been allowed as part of the damages, the Supreme Court disallowed this item, declaring the general practice of the United States to be in opposition to it, and if that practice were not strictly correct in principle, it ought to be respected until changed by statute.

* Whitman *vs.* Cutter. I. Gallison's Rep. 428.

The Court in the remarks imputed to them by the Reporter must have referred only to the general practice in the Courts of common law in the United States not to tax counsel fees in the bill of costs, a practice, of the propriety of which as a general rule, no doubt could be entertained, and in the case then before them the Court may very properly have disallowed the charge for reasons applicable to the particular predicament of that case. In any other view, it would be impossible to reconcile the case of Archambal *vs.* Wiseman with the general doctrine of Admiralty Courts, or with the more recent and well established practice of the Supreme Court, in cases of marine torts and prize. I feel myself bound, therefore, to declare, that as the authority of Archambal *vs.* Wiseman is shaken, so far as it can be considered as containing any general doctrine, governing cases of this nature—I return to what was originally considered the true doctrine, and that is, that the jury are at liberty, if they see fit to allow the plaintiff as a part of his "actual damage" any expenditures for counsel fees, or other charges, which were necessarily incurred to vindicate the rights derived under his patent, and are not taxable in the bill of costs.

The sale of the *materials* of a patented machine by a sheriff, on an execution against the owner, is not such a sale as subjects the sheriff to an action for an infringement of the patent right.

This was decided in an action on the case of *John P. Sawin et al.* vs. *John Guild.*— I. Gal. 485.

Story, J. delivered the opinion of the Court.

This is an action on the case for the infringement of a patent right of the plaintiff's, obtained in Feb. 1811, for a machine for cutting brad nails. From the statement of facts agreed by the parties, it appears that the defendant is a deputy sheriff of the county of *Norfolk*, and having an execution in his hands against the plaintiffs for the sum of $ 567, 27, debt and costs, by virtue of his office, seized and sold, on said execution, the *materials* of three of said patented machines, which were at the time complete and fit for operation, and belonged to the plaintiffs. The purchaser, at the sheriff's sale, has not, at any time since, put either of the said machines in operation; and the whole infringement of the patent consists in the seizure and sale by the

defendant as aforesaid. The question submitted to the Court is, whether the complete material of which a patented machine is composed, can, while such machine is in operation by its legal owner, be seized and sold on an execution against him.

The plaintiffs contended that it cannot be so seized and sold, and they rely on the language of the third section of the act of the 17th of April, 1800, ch. 89, which declares that if "any person, without the consent of the patentee, his or her executors, &c. first obtained in writing shall make, devise, use or sell the thing, whereof the exclusive right is secured to the said patentee, such a person so offending shall forfeit," &c.

It is a sound rule of law, that every statute is to have a reasonable construction, and its language is not to be interpreted so as to introduce public mischiefs, or manifest incongruities, unless the conclusion be unavoidable. If the plaintiffs are right in their construction of the section above stated, it is practicable for a party to lock up his whole property, however great, from the grasp of his creditors, by investing it in profitable patented machines. This would undoubtedly be a great public mischief, and against the whole policy of the law, as to

the levy of personal property in execution. And upon the same construction, this consequence would follow, that every part of the materials of the machine might, when separated, be seized in execution, and yet the whole could not be when united, for the exemption from seizure is claimed, only when the whole is combined and in actual operation under the patent.

We should not incline to adopt such a construction, unless we could give no other reasonable meaning to the statute. By the laws of *Massachusetts*, property like this is not exempted from seizure in execution; and an officer who neglected to seize, would expose himself to an action for damages, unless some statute of the *United States* should contain a clear exception. No such express exception can be found; and it is inferred to exist only by the supposition that the officer would, by *the sale*, make himself a wrong doer, within the clause of the statute above recited. But within the very words of that clause, it would be no offence to *seize* the machine in execution. The whole offence must consist in a *sale*. It would therefore follow that the officer might lawfully seize; and if so, it would be somewhat strange, if he could not proceed

to do those acts, which alone by law could make his seizure effectual.

This court has already had occasion to consider the clause in question. And upon mature deliberation it has held that *the making* of a patented machine, to be an offence within the purview of it, must be the making with an intent to use for profit, and not for the mere purpose of philosophical experiment, nor to ascertain the verity and exactness of the specification.* In other words, that the making must be with an intent to infringe the patent right, and deprive the owner of the lawful rewards of his discovery.

In the present case, we think that the sale of a patented machine, within the prohibition of the same clause, must be a sale not of the materials of a machine, either separate or combined, but of a complete machine, with the right express or implied of using the same in the manner secured by the patent. It must be a tortuous sale, not for the purpose merely of depriving the owner of the materials, but of the use and benefit of his patent.

There is no pretence in the case before us that the officer had either sold or guaranteed

* Whittemore *vs.* Cutter, 1. Gal. 429.

a right to use the machine in the manner pointed out in the patent right. He sold the *materials* as such, to be applied by the purchaser as he should by law have a right to apply them. The purchaser must therefore act at his own peril, but in no respect can the officer be responsible for his conduct.

By Section 7, it is enacted that exclusive rights granted by states prior to the adoption of the Federal Contitution shall be relinquished by the party soliciting a patent under this act, and his having obtained such patent shall be sufficient evidence of such relinquishment.

Section 8, directs how applications, pending under the former laws "to promote the progress of the useful arts," shall be proceeded with under this act. These sections have become obsolete.

Section 9, directs that "in case of interfering applications, the same shall be submitted "to the arbitration of three persons, one of "whom shall be chosen by each of the applicants and the third person shall be appointed by the Secretary of State: And the decision or award of such arbitrators, delivered "to the Secretary of State, in writing, and subscribed by them, or any two of them, shall

"be final, as far as respects the granting of "the patent: And if either of the applicants "shall refuse, or fail to choose an arbitrator, "the patent shall issue to the opposite par- "ty. And where there shall be more than "two interfering applications, and the parties "applying shall not all unite in appointing "three arbitrators, it shall be in the power of "the Secretary of State to appoint three ar- "bitrators for the purpose."

In the case of *Stearns* vs. *Barrett*, 1. Mason, 174, Mr. Justice *Story* observed, "The first objection taken to the opinion of the Court below, is, in substance, that the Court ought to have directed the jury, that the refusal of the defendant to submit his claim to arbitration, under the circumstances detailed in the evidence (which brought it within the 9th section of the patent act) and subsequently obtaining a patent, after the plaintiff had obtained his, was conclusive evidence, that the patent of the defendant was obtained surreptitiously or upon false suggestions; whereas the Court held, that these facts were not *per se* conclusive to establish this point. In my judgment, there was no error in this opinion of the Court. If an arbitration had been actually perfected between the parties under the 9th Section, the award or decision of the

arbitrators would have been final between the parties only so far as respecting the granting of the patent. It would not have concluded the parties from showing, in the present suit, that it was obtained upon false suggestions. It would not have concluded them, in an action for an infringement of the patent, from asserting any defence allowed by the 6th section of the patent act. The sole object of such an award is, to ascertain who is *prima facie* entitled to the patent; but when once obtained, the patent is liable to be repealed or destroyed by precisely the same process, as if it had issued without objection. If the award itself could not have been conclusive, a *fortiori*, a refusal to join in an arbitration under the statute cannot be so.

Section 10, directs the mode of repealing patents surreptitiously obtained, as follows:
"Upon oath or affirmation being made, before
"the Judge of the District Court, where the
"patentee, his executors, administrators, or as-
"signs reside, that any patent which shall be-
"issued in pursuance of this act, was obtained
"surreptitiously, or upon false suggestions,
"and motion made to the said court within
"three years after issuing the said patent,
"but not afterwards, it shall and may be law-
"ful for the Judge of the said District Court,

"if the matter alleged shall appear to him to
"be sufficient, to grant a rule, that the paten-
"tee, or his executor, administrator or assign
"show cause why process should not issue
"against him to repeal such patent: And if
"sufficient cause shall not be shown to the
"contrary, the rule shall be made absolute,
"and thereupon the said Judge shall order
"process to be issued against such patentee,
"or his executors, administrators or assigns,
"with costs of suit. And in case no sufficient
"cause shall be shown to the contrary, or it
"shall appear that the patentee was not the
"true inventor or discoverer, judgment shall
"be rendered by such Court for the repeal
"of such patent; and if the party at whose
"complaint the process issued, shall have
"judgment given against him, he shall pay all
"such costs as the defendant shall be put to
"in defending the suit, to be taxed by the
"Court, and recovered by due course of law."

It has been decided, in the case of *Abner Stearns* vs. *William Barrett*,* that the proceedings under the section last quoted, are in the nature of a *scire facias* at the common law to repeal a patent; and that upon such suit error lies to the Circuit Court.

* I. Mason 153.

This was a proceeding in the District Court under this Section to repeal a patent right, granted to the defendant, upon the allegation, that it was obtained surreptitiously and upon false suggestion. Upon a motion supported by affidavit, a rule to show cause why process should not issue to repeal the letters patent was granted; upon the return of which the District Court, after hearing the parties, made the rule absolute; and process was ordered by the Court to issue against the defendant, to show cause *why the letters patent should not be repealed;* and it was further ordered that the applicant should file his allegations with due specifications. A further allegation with specifications was accordingly filed, by way of amendment of the original complaint, and thereupon the said process duly issued. The original affidavit alleged, that the letters patent were obtained surreptitiously and upon false suggestion; and that the plaintiff was the true and original inventor of the machines in controversy.

The amended complaint alleged, that the machines described in the letters patent to the defendant, "were not invented by him but by another." And after specifying, under a videlicit, the particulars of the invention, and alleging that they were not invented

by the defendant concluded by alleging that the same machines in all respects in which they are new, are and were the invention of another; and were known and secured by patent previously to the complainant's, as in and by his specification, or affidavit, originally filed, to which this is an amendment and addition is alleged." Upon the return of the process, the defendant duly appeared and filed the following plea and answer:—"And now the defendant, said *Barret*, comes and defends, &c. when, &c. and for cause, why the said letters patent should not be repealed, saith that his letters patent were not upon false suggestion or surreptitiously obtained, in manner and form as set forth in the writ of said *Stearns*; but that the said new and useful improvement for which his said letters patent issued, as in said complaint is set forth, was invented by him, the said *Barrett*, in manner and form as he, in his former answer to the first complaint of said *Stearns*, hath alleged, and, thereof, he puts himself upon the country." And the plaintiff puts himself as to this issue upon the country likewise."

The issue so joined by the parties was tried by a jury, who returned the following verdict:—"The jury agree that the plaintiff and defendant were both concerned in the inven-

tion of the reel, or machine, for dying all kinds of woven and silk goods, and a frame for finishing the same. They find that the plaintiff has not supported his allegations, and therefore find a verdict for the defendant." Upon this verdict a judgment was rendered by the Court, by the consent of the parties, for the defendant. At the trial a bill of exceptions was taken by the plaintiff to the charge of the court. The bill of exceptions stated at large and in *hæc verba*, the testimony of all the witnesses on each side, and all the other evidence introduced by the parties. It then stated the points insisted upon by the counsel, and then the charge of the Court upon these points, &c. The report then states the points made by the counsel in the court below, the supposed misdirection of the Judge of the District Court, and the points made by the counsel in the present case, which will, perhaps, be sufficiently apparent in the decision of the Court; which was as follows:—

Story, J.—The first question is, whether this Court has appellate jurisdiction from a judgment, rendered by the District Court in proceedings under the tenth section of the patent act.

Before considering this question, it will be necessary to settle the true nature and character of the proceeding itself. It is not easy to give a construction to the tenth section of the act that is entirely free from difficulties. It provides in substance that upon oath or affirmation being made before the Judge of the District Court, that any patent was obtained surreptitiously, or upon false suggestion, and motion made to the said Court within three years after issuing the patent, it shall be lawful for said judge, if the matter alleged shall appear to him sufficient, to grant a rule that the patentee or the executors, &c. *shew cause* why process should not issue against him to repeal such patent, and if sufficient cause shall not be shown to the contrary, the rule shall be made absolute; and, thereupon, the said judge shall order process to be issued against such patentee, or his executor, &c. with costs of suit. And in case no sufficient cause shall be shown to the contrary, or it shall appear the patentee was not the true inventor or discoverer, judgment shall be rendered by such Court for the repeal of such patent. And if the party, at whose complaint the process is sued, shall have judgment given against him, he shall pay all such costs as the defendant shall be put to in defending

the suit, to be taxed against him by the Court and recovered in due course of law.

The proceeding is evidently of a peculiar nature. It begins by a rule to shew cause, which is commonly called a rule *nisi*, and if no sufficient cause be shown to the contrary, the rule is to be made absolute. For what purpose is it to be made absolute? Clearly, as the act declares, that process may issue against the patentee to repeal the patent; and the section proceeds to direct, that such process shall be issued against the patentee, with costs of suit. If the section had stopped here, there could have been little room for doubt; and it would probably have been judicially held, that the hearing upon the rule was decisive and final between the parties; and that if the rule was made absolute, the patent would be in effect repealed; and the issuing of the process would be in the nature of an execution to enforce or make known the judgment of the Court. The proceedings would, in this view, bear a strong analogy to the summary proceedings under the statute of 17 Geo. III. Ch. 25. to set aside an annuity and cancel the bond, or rather assurance, granting the same.* In aid of this construc-

* I. *Tid Pr.* 436, 4th *edit.*

tion of the tenth section of the patent act, it is material to observe that by its terms, the process is to be issued to repeal the patent, and not to shew cause why it should not be repealed; and the process is also to enforce a payment of the "costs of suit," which seems to suppose that the suit is then concluded.

But it has been supposed that the subsequent clauses of the tenth section contemplate the process to be issued as merely interlocutory process, to bring the party into Court to shew cause why the patent should not be repealed; and that upon the pleadings upon such process, the merits of the application are to be discussed and decided. And the clause that, "in case no sufficient cause shall be shown to the contrary, or if it shall appear that the patentee was not the true inventor or discoverer, judgment shall be rendered by such Court for the repeal of such patent" is supposed particularly to apply to those ulterior proceedings. In fact the process is thus deemed, to all intents and purposes, a *scire facias* at the common law to repeal a patent.

There is certainly great force in the argument in support of this view of the process, although some difference must be admitted to

exist between it and a *scire facias* at the common law to repeal a patent. In the first place, a *scire facias* is a judicial process, issuing from some record already enrolled in the Court. It either issues out of Chancery, where the patent itself is recorded, or from some other Court where a forfeiture or some other cause of repeal appears by office or other matter of record in the same Court.* And the patent itself, or an inquisition, which finds a patent and a cause of forfeiture, is a sufficient record to authorize the issuing of the *scire facias*.† In this respect the process from the District Court is different.—That Court is not the depository of the records of patents; but they are recorded in the office of the Secretary of State; and if the present argument be right, the process is not founded upon any judgment of the Court, ascertaining a forfeiture or ground of repeal.—In the next place, a *scire facias* is a process altogether confined to the crown, with the exception of the single case where two patents have issued for the same thing; in which case the prior patentee may maintain

* The *King* vs. *Butler*, III. Lev. 220. S. C. II. Vint. 344—IV. Ins. 72—II. Saun. Rep. 72 p. 9 in note—I. Tidd Prac. 4 edit. 966.

† Lev. 220—Com. Dig. Patent 7, 7—Dy. 197, &c.

a *scire facias* to repeal the second patent.* But under our patent act, any person, whether a patentee or not, may apply for the repeal. There are other differences which it is not now necessary to enumerate.

After considerable hesitation, I have come to the conclusion, that the proceedings on the rule *nisi* are not conclusive; and that the process to be awarded upon making the rule absolute, is not a final process, but a judicial writ in the nature of a *scire facias* at the common law. In this view, the preliminary proceedings are analagous to those on a rule for an information in the nature of a *quo warranto* under the English statutes.† Upon this construction all the words of the statute have a natural connexion and a distinct meaning, referring to the progressive order of the proceedings. The process is called in the statute a process to repeal the patent, merely as a description of its nature and use; and not because it necessarily and absolutely, *per se* repeals the patent; in the same manner as a *scire facias* at common law, though in fact always a process to shew cause is generally

* Dy. 198 6—II. Saund. 72, 8, note—Com. Dig. Pat. F. 2. F. 3. but see 6 Mod. 229.

† See *Rex* vs. *Dawes*, IV. Burr. R. 2022—*Rex* vs. *Dawes*. IV. Burr. R. 2120—*Rex* vs. *Piacorth*. 4. 7. R. 634.

denominated a *scire facias* to repeal a patent.* Nor does the addition of the words in the statute, "with the costs of suit," at all impugn this construction; for the process is then to shew cause, why the patent should not be repealed with costs of suit. In confirmation of this construction, it may be remembered that in the correspondent section of the patent act of 10th of April, 1790, Ch. 7, the clause as to the costs of suit is omitted; which clearly shows that these words ought not to change the ordinary construction of the context. The subsequent language of the section that "in case no sufficient cause shall be shown to the contrary, or if it shall appear that the patentee was not the true inventor or discoverer, judgment shall be rendered by such Court for the repeal of such patent," manifestly contemplates some proceedings after the process is issued, by which certain facts may be judicially determined, which are to be the proper foundation of a judgment. It is also of very considerable weight that this has been, as far as we can obtain information, the practical exposition of the statute. It is consonant to the rules of the common law, which have

* Dyer R. 179 *b*. 198 *a*.—Lilly's Entr. 411. 2—Saund. R. 72, p. note.

generally been consulted and followed in all our laws and proceedings, to which they bear any relation; and it preserves the trial by jury, which the judicial act* declares shall be the mode of trial of all issues of fact in the District Court, in all causes except civil causes of admiralty and maritime jurisdiction. Whether a more convenient, as well as a more effectual remedy might not have been obtained by a bill in equity, to set aside a patent for fraud or imposition, it is not the province of a judicial tribunal to decide.†

It being then ascertained that this is a proceeding in the nature of a *scire facias*, at the common law, the next inquiry is, whether this Court has appellate jurisdiction from the judgment rendered therein by the District Court.

If this point were to be decided by a mere reference to the common law, no difficulty could arise; for, upon a judgment on a *scire facias*, it is very clear that error lies.‡ But the appellate jurisdiction of the Circuit Court, depends altogether upon the positive provisions of our own statutes. It is not a Court ori-

* Act 24, Sept. 1789, ch. 20, 69.

† See Attor. Gen. *vs.* Vernon, &c. I. Vern. R. 277, 370.

‡ Tidd Pr. 966, 1028—Com. Dig. Pleader 3. B. 7.

ginating in the common law, whose jurisdiction is to be ascertained by immemorial usage.—The judicial act of 1789, ch. 20 and 22, gives appellate jurisdiction to this Court from all final decrees of the District Court in causes of admiralty and maritime jurisdiction, when the matter in dispute exceeds 300 dollars; and from all final decrees and judgments, "in civil actions," where the matter in dispute exceeds 50 dollars. The act of 3d March, 1803, ch. 93, § 2, allows an appeal to this Court from all final judgments or decrees of the District Court, when the matter in dispute exceeds 50 dollars. Whether this last statute applies to any but causes of admiralty and maritime jurisdiction is questionable,* and need not now be considered; for this process comes completely within the description of a "civil action." A *scire facias* is a judicial writ; and yet it is held to be an action because the defendant may appear and plead thereto,† and for precisely the same reason this process must be deemed an action; and it is clearly a civil, as contradistinguished from a criminal action. A writ of error, therefore, well lies, if the matter in dispute exceeds the

* United States *vs.* Wonson. I. Gallis. R. 5, 11.

† Co. Litt. 290, 6, 291, *a*.—Pulteney *vs.* Tonson, 2 W. Bl. 1227. Guy *vs.* Jones, II. Wils. 251. Fenner *vs.* Evans, I. T. R. 267. Winter *vs.* Kutchman, II. T. R. 45—II. Tidd Pr. 966, 4 edit.

stipulated value. It is conceded by the counsel on both sides that the patent right is of a far greater value; and as it judicially appears upon the record, that each of the parties claims the invention as his own, each has a matter of controversy sufficient in value to sustain the jurisdiction. It is not necessary to decide whether if the plaintiff had been a mere stranger, claiming no title to the invention, he could have brought a writ of error from the judgment of the District Court.—The difficulty in such a case would have been how to estimate the value which the plaintiff could have in the controversy. On this point no opinion is intended to be given.

The appellate jurisdiction in this Court being established, we may now pass to the consideration of the other questions arising in the cause.

It is deeply to be regretted that the proceedings were from accidental causes conducted in so inartificial and irregular a manner by the parties in the Court below. The *scire facias* does not express in the pointed and distinct terms of the statute the causes for which the patent is sought to be repealed. It ought to have contained a direct allegation or suggestion, that the patent was obtained surrep-

titiously, or upon false suggestion, and have called upon the defendant, for that cause, and for that cause only, to shew cause why the patent should not be repealed. Whereas, the *scire facias*, after reciting, (and, in my judgment, very unnecessarily) the whole proceedings prior to the making of the rule absolute, proceeds to state at large in a new allegation, a specification of the particulars in which the plaintiff denied the machine in controversy to be the invention of the defendant, and claimed it to be the invention of another; (meaning, as the context shews, of the plaintiff himself,) and then calls upon the defendant to shew cause, why the letters patent, for the cause aforesaid, should not be repealed. From the manner, therefore, in which this new allegation is inserted in the *scire facias*, it is uncertain whether the defendant is to answer to that only, (and it does not contain a syllable as to the patent's having been obtained surreptitiously or upon false suggestion,) or whether the statements in the original affidavit are now included in the charge.

This specification was very properly ordered by the Court: but it was in the nature of a bill of particulars, to assist the defendant

at the trial, and by no means a regular part of the *scire facias*. It is very probable that this informality occasioned the embarrassment of the subsequent pleadings, in which it is not very easy to discern at once the precise point which the parties meant to put in issue; whether that the patent was obtained surreptitiously, or upon false suggestion; or that the improvement for which the patent issued, was the invention of the defendant; and this again, probably, misled the jury in shaping their verdict.

In my judgment, the plea must be considered, substantially, as putting in issue the only point that, on the *scire facias*, could be material, viz.: whether the patent was obtained surreptitiously, or upon false suggestion; and, of course, that the residue of the plea is mere surplusage. The material inquiry then is, whether the jury have, in direct terms, or by necessary legal intendment returned a verdict upon this issue.

Many auth rities have been cited to shew the power of Courts of law to amend verdicts which are defective so as to conform to the real intentions of the jury. It is unnecessary to examine the nature or limits of this doctrine; for no amendment was made in this

verdict by the District Judge; and a refusal to amend a verdict is not the subject of a writ of error. It is a mere exercise of discretion by the Court below; and it does not even appear upon this record, that any application was made to the Court for that purpose.

The verdict is, therefore, to be taken as it stands upon the record, with all its imperfections on its head. It is clear that, in terms, it does not find the issue joined by the parties; if, however, the Court can collect the point in issue out of the verdict, it will be sufficient.* The plaintiff contends that the fact found by the jury, that the machine was the joint invention of the plaintiff and the defendant, is decisive in his favour, and, by inference, includes the point in issue; and that the subsequent finding for the defendant is repugnant to this fact, and therefore ought to be rejected. On the other hand, the defendant contends that the general finding is for the defendant; and the special fact found is not repugnant to it, and may, therefore, be rejected as a surplusage. If there be a material repugnancy in the verdict, it is not competent for the Court to reject either part of the

* Hob. 54—Com. Dig. Pleader, S. 18, S. 26—Hawks *vs.* Crafton, II. Burn R. 696.

finding; for it is utterly impossible for the Court to decide, which is the truth of the case; and, if it were otherwise, there is no authority to substitute its own opinion for that of the jury. In such case, the repugnancy will be fatal. A verdict which finds two inconsistent material facts is void, and cannot be a foundation for a legal judgment.* On the other hand, a general verdict, (as this must be deemed to be) which finds the point in issue by way of argument or inference is void, even as it is said though the argument or inference be necessary.† It follows, therefore, that in no event can the verdict be adjudged in favour of the plaintiff. It is either a verdict which finds the substance of the issue for the defendant, or it is void for repugnancy, uncertainty, or insufficiency.

There are many authorities, in the books, respecting this subject, some of which are not easily reconcileable with sound sense, or with legal principles. From the mass of cases, however, some rules may be extracted, which commend themselves to the judgment of all of us. If, for instance, the jury find the point in issue, and also another matter out of the

* Com. Dig. Pleader, S. 23.

† Rowe vs. Huntington, Vaug. R. 66, 75—Com. Dig. Pleader, S. 22.

issue, the latter finding is void, and may be rejected as surplusage.* But it is otherwise, if the matter so found be contained in the issue; for then, if it be material, and contradictory, it cannot be rejected as surplusage. So if the point on which the verdict is given be so uncertain that it cannot be clearly ascertained whether the jury meant to find the issue or not, it cannot be helped by intendment, and a *fortiori*, if it be repugnant to other facts already expressly found.†

Let us now apply these principles to the present verdict. From the terms in which the verdict is expressed it seems to be an argumentative finding for the defendant. The jury find that the plaintiff has not supported his allegations, and, therefore, find for the defendant. What were those allegations? That the patent was obtained surreptitiously and upon false suggestion, as stated in the original affidavit? Or that the machine in controversy was the sole invention of the plaintiff as stated in his amended allegations? The terms of the verdict more correctly apply to the latter, than to the former; and there is this additional reason for this construction, that the fact specially found, is, in this view,

* Com. Dig. Pleader, S. 18, S. 28.

† Com. Dig. Pleader, S. 2, S. 23.

consistent with the general finding. For as the jury find that the plaintiff and defendant were both concerned in the invention, then the allegation of the plaintiff, that it was his sole invention, was not supported. In this view of the verdict, it is void; either because it is merely argumentative, and uncertain, or, more properly, because it does not find the real point in issue between the parties.

On the other hand, if the verdict be supposed to refer to the real issue between the parties, it is to be considered if it be not necessarily repugnant. By the patent act no person could entitle himself to a patent for any machine, unless he was the true inventor of it, and would make oath to that fact before competent authority. By the expression in the statute "true inventor," is undoubtedly meant the sole and exclusive inventor; for if the machine were the joint invention of several persons, neither of them could claim to be the true inventor, having an exclusive title to the patent; but the interest would be a joint or common interest in the whole. In such a case, therefore, if a party were to obtain a patent for the invention, having sworn that he was the true inventor, he would in the language of the act,

obtain it "upon false suggestion, and as such false suggestion would be a surprize and fraud upon the government, it might well also be declared to be obtained surreptitiously." In the present case, the defendant obtained his patent, claiming it to be his own exclusive invention, and asserting the fact upon his oath. The jury have found "that that the plaintiff and defendant were both concerned in the invention." It is said by the defendant's counsel that this is not a finding that the plaintiff and defendant were jointly concerned in the invention." I confess that this seems to me an over refinement, and an exercise of legal astuteness, too ingenious, and too subtle to be applied to the language of verdicts. When the jury declare, that both were concerned in the invention, the natural meaning of the words is, that the invention was the result of their joint and not of their several and independent labours. However complicated the machine may be, the invention itself is not susceptible of division. If the plaintiff and defendant separately and independently invented several parts of the machine, capable of a distinct use, then those parts might be considered as separate inventions, for which each inventor might, perhaps, be entitled to a separate patent. But the present patent claims the invention, as a

whole; and the jury find that in this invention they were both concerned, which I cannot understand in any other sense, than as verifying the invention to be a joint, simultaneous production of the genius and labour of both parties. The special fact, so found is necessarily repugnant to any general verdict in favour of the defendant, upon the real issue between the parties; it is a fact, consistently with which no such verdict could be given. It is also a direct contradiction of the allegation in the plea of the defendant, that the improvement was invented by him; and if that allegation be considered as part of the issue, the finding is so far against the defendant. In either view, the verdict is repugnant in a material point, and consequently void.

In any way, therefore, of considering the verdict, it cannot, in my judgment, be supported. And I will add, that when a verdict is not expressed substantially in the terms of the issue, the case ought to be extremely clear, that should induce a Court to make it the ground of a final judgment. For this defect in the verdict, the judgment of the District Court must be reversed, and a new trial had at the bar of this Court.

There are several points, however, made upon the bill of exceptions, which have been fully argued, and as they may be important in the future trial of this cause, I am willing to declare my present opinion respecting them. Before entering into the merits of them, I cannot forbear to remark upon the inaccuracy with which the bill of exceptions has been framed. It contains not a statement of facts, but of the testimony introduced to prove the facts on each side in *hæc verba;* and the counsel for the plaintiff then insisted that the matter so produced and given in evidence, on the part of the plaintiff, were sufficient, and ought to be admitted and allowed as decisive evidence, that the defendant surreptitiously obtained his patent, and that he was not the inventor of all the essential parts of the machine in controversy. There is no rule of law which would have authorized the Court to give such direction to the Jury, for the matters so produced are not distinctly stated, but are mere opinions of fact to be ascertained by the Jury.* The bill of exceptions should either have stated the facts, and not merely the evidence of the facts, and prayed the opinion of the court thereon; or, if the evidence was doubtful, it might have stated,

* Smith *vs.* Carrington. IV. Cranch, 62.

that evidence was given to prove certain facts, and then have prayed the opinion of the Court thereon if the jury should so find the facts. In England, where the facts are doubtful, I believe it is more usual in practice to insert these facts in the bill of exceptions, as settled by the jury, and then to allege the opinion of the Court as an absolute one upon the trial.

The learned Judge then proceeded to give his opinion relative to the refusal of the defendant to submit his claim to arbitration, for which see *ante* page 300 of this work; and then continued as follows:

Another objection is, that the Court held that the burthen of proof to maintain the issue lay upon the plaintiff; and that it was incumbent on him to prove, that the defendant was not the true inventor of the machine in controversy; whereas it is contended that the burthen of proof lay on the defendant, and the plaintiff was not bound to prove a negative. In my judgment there was no error in the opinion of the Court upon this point. By the very form of the pleadings the affirmative rested on the plaintiff. He was bound to prove that the patent was obtained surreptitiously or upon false suggestion.

This is an affirmative proposition; and to have called upon the defendant to prove the contrary would have thrown upon him the burthen of the proof of a negative proposition. In respect to the point who was the inventor, the possession of the patent was *prima facie* evidence for the defendant at least upon this process; and the proof that another was the inventor, was not the proof of a negative proposition. And at all events, the trial being in substance upon the general issue, the plaintiff could entitle himself to a verdict only by the strength of his own proof, and not by the weakness of that of his adversary.

Upon the whole, these exceptions must be overruled; but for the defect of the verdict, a *veniri facias de nove* must be awarded.

Judgment reversed.

The following extract from Saunder's Reports explains the English mode of proceeding in order to obtain the repeal of letters patent.

4. Ins. 88. Dy. 197. b 198, a 2. Roll.

With respect to a *scire facias* to repeal letters patent. If the king by his letters patent grants the same thing to two persons, the

first patentee may have a *scire facias* to repeal the second patent. But the second patentee cannot bring a *scire facias*, though the better right should be in him. So if the King's grant be founded upon a fraud, or a false suggestion, he may have a *scire facias* to repeal it. As if the patent recites another to have an office, who had in truth forfeited it, and grants it when it shall happen to be vacant after the death, surrender, &c. of that other, but no *scire facias* can be sued out in this case until the King's Attorney General grants his fiat to take it out. So if the king grants any thing which by law he cannot grant, he *jure regio*, for the advancement of justice and right, may have a *scire facias* to repeal his own letters patent. But if the patent be void in itself, it is said that *non concusset* may be pleaded to it without a *scire facias* to repeal the patent.

Abr. 191 (u) pl. 2. Dy. 276. b. 277 a.

IV. Inst. 88. II. Roll. Abr. 191. T.

T. 197. 6.

IV. In. 88.

Dy. 1776. 198 a 210. 211.

Where a patent is granted to the prejudice of another, he may have a *scire facias* to repeal it at the king's suit; as if a market, fair, &c. be granted to the annoyance and prejudice of an ancient market or fair of another. And in this case the king of right is to permit the person prejudiced by the patent upon his petition, to use his name for the repeal of it, in a *scire facias* at the king's suit.

Dy. 276 b III. Liv. 220. Rex vs. Sir Oliver Butler. S. 62. Vint. 344.

to prevent a multiplicity of actions upon the case, which will be notwithstanding such patent. And indeed it has been holden, that the person prejudiced by the patent, may, upon the enrolment of it in Chancery, have a *scire facias* to repeal it as well as the king.

II. Vint. 344. VI. Mod. 229. Brewster *vs.* Weld.

A *scire facias* for repealing a patent may be sued in the petty bag in Chancery, for it is in record there. So it may be in the king's bench. If the writ alleges matter by the words, "whereas we are given to understand and be informed," it is well enough, for they are sufficient to put the party to answer.

III. Liv. 222.

Judgment on a *scire facias* to repeal a patent may be by confession or by default, if the defendant be returned warned, or upon two *nihils*. So the defendant may demur to a *scire facias* if the matter alleged be not sufficient to repeal the patent.

Dy. 1776. 198 a 2. Roll. Abr. 192 x pls. III. Liv. 221. Rex *vs.* Sir Oliver Butler.

The judgment in a *scire facias* for repealing a patent is, "that the said letters patent of our said lord, the king, be revoked, cancelled, vacated, annulled, void, and invalid, and be altogether had and held for nothing, and also that the enrolment thereof be cancelled, quashed, and annulled. See the form of *scire*

facias to repeal a patent. Lett. Ent. 411.—See the form of the memorial to his majesty for a *scire facias*, and his majesty's warrant to the Attorney General to sue it out, the Attorney General's fiat, and the writ of *scire facias* thereon. II. Rich. Prac. 6. P. 391. 398.*

Williams' edition of Saunder's Reports.

Sec. 11. enacts that "Every inventor, be-
"fore he presents his petition to the Secreta-
"ry of State, signifying his desire of obtain-
"ing a patent, shall pay into the treasury thir-
"ty dollars, for which he shall take duplicate
"receipts; one of which receipts he shall de-
"liver to the Secretary of State, when he
"presents his petition: and the money thus
"paid shall be in full for the sundry services
"to be performed in the office of the Secre-
"tary of State, consequent on such petition,
"and shall pass to the account of clerk-hire
"in that office, *provided, nevertheless,* That
"for every copy, which may be required at
"the said office, of any paper respecting any
"patent, that has been granted, the person
"obtaining such copy, shall pay at the rate of

* *Quere*—Whether in case of a repeal of letters patent by the 10th section, or the 6th section of the Patent Act, information of such repeal ought not to be transmitted to the Patent Office?

"twenty cents, for every copy sheet of one "hundred words, and for every copy of a "drawing, the party obtaining the same shall "pay two dollars; of which payments an ac- "count shall be rendered, annually, to the "treasury of the United States, and they shall "also pass to the account of clerk-hire, in the "office of the Secretary of State."

In Great Britain, we are informed, that the requisite fees to be paid at the different offices, in order to obtain a patent, amount to from 100 to 120 pounds sterling; which secures the monopoly for England, Wales, and the town of Berwick upon Tweed; and an additional clause, with further fees, secures the patent right for the colonies.

Sec. 12, repeals the act passed April 10, 1790, with provisos now become obsolete.

Act of April 17, 1800. (*Vol. V. p.* 88.)

The first section of this act extends the privilege of petitioning for and obtaining patent rights, limited by the former statute to citizens of the United States, to aliens, who have resided two years within the United States. "All and singular the rights and "privileges given, intended or provided to

" citizens of the United States, respecting pa-
" tents for new inventions, discoveries, and im-
" provements, by the act entitled, ' An act to
" ' promote the progress of useful arts, and to
" ' repeal the act heretofore made for that
" ' purpose,' shall be, and hereby are extend-
" ed, and given to all aliens, who, at the time
" of petitioning, in the manner prescribed by
" the said act, shall have resided for two
" years within the United States, which privi-
" leges shall be obtained, used, and enjoyed,
" by such persons in as full and ample man-
" ner, and under the same conditions, limita-
" tions and restrictions, as by the said act is
" provided and directed in the case of citi-
" zens of the United States, *provided, always,*
" That every person petitioning for a patent
" for any invention, art, or discovery, pursu-
" ant to this act, shall make oath or affirma-
" tion before some person duly authorized to
" administer oaths, before such patent shall
" be granted, that such invention, art or dis-
" covery hath not to the best of his or her
" knowledge, or belief, been known or used,
" either in this or any foreign country; and
" that every patent which shall be obtained
" pursuant to this act, for any invention, art,
" or discovery, which it shall afterwards ap-
" pear had been known or used previous to

"such application for a patent, shall be ut-
"terly void."*

Sect. 2, authorizes the legal representatives of a deceased inventor to obtain a patent for the invention of the deceased, and directs the mode of proceeding therein.

"Where any person hath made, or shall have
"made, any new invention, discovery, or im-
"provement, on account of which a patent
"might, by virtue of the above mentioned act
"be granted to such persons, and shall die be-
"fore any patent shall be granted therefor,
"the right of applying for, and obtaining such
"patent, shall devolve on the legal represent-
"atives of such person in trust for the heirs
"at law of the deceased, in case he shall have
"died intestate; but if otherwise, then in
"trust for his devisees, in as full and ample a
"manner, and under the same conditions, lim-
"itations and restrictions, as the same was
"held, or might have been claimed or enjoy-
"ed by such person, in his or her life time;
"and when application for a patent shall be
"made by such legal representatives, the oath
"or affirmation, provided in the 3d section of
"the before mentioned act, shall be so varied
"as to be applicable to them."

* See page 41.

"Sec. 3. When any patent shall be, or "shall have been granted pursuant to this, "or the above mentioned act, and any person "without the consent of the patentee, his or "her executors, administrators, or assigns, "first obtained in writing, shall make, devise, "use or sell the thing whereof the exclusive "right is secured to the said patentee, by "such patent, such person so offending shall "forfeit and pay to the said patentee, his ex- "ecutors, administrators, or assigns, a sum "equal to three times the actual damage, sus- "tained by such patentee, his executors, ad- "ministrators, or assigns, from, or by reason "of such offence, which sum shall, and may "be received, by action on the case, founded "on this and the above mentioned act, in the "Circuit Court of the United States, having "jurisdiction thereof."

If a person carries on a patented manufacture in a private manner, without licence, and against the prohibition of the patentee, it shall be taken as *prima facie* evidence that he is infringing the patent, and judgment will be given against him. This was decided in the following case, which we take from the Repertory of Arts.

King's Bench, Guildhall, Dec. 22, 1803, *before Lord Ellenborough and a Special Jury.*

Huddart *vs.* Grimshaw.*

This was an action brought by the plaintiff for infringement on his patent for "a new mode or art of making great cables and other cordage, so as to attain a greater degree of strength thereon by a more equal distribution of the strain upon the yarns."

The plaintiff obtained his patent in 1793. The defendant, Mr. Grimshaw, visited him in 1799. On this occasion he requested the plaintiff to permit him, and his partner to *adopt his method of rope making at their great ropery only, without premium.* To this request, the plaintiff without consulting his partners, returned an answer containing a positive refusal.

From that time it was proved, that the defendant carried on his manufacture in a private manner, shutting up his work place, and suffering none to enter it, excepting persons in whom he could confide; and, as it was alleged, practising a part of the plaintiff's invention.

* S. C. Davies on Patents, 265.

In support of the plaintiff's case, several witnesses were examined.

Mr. Gibbs, for the defendant, asserted, that this action was brought as a bill of discovery in order to find out by what means the defendant was enabled to manufacture ropes, equal in quality to the plaintiff's, and bring them to market at a cheaper rate. If he could only make this discovery, the plaintiff was unconcerned about the fate of the present action. He would, however, be disappointed, said the learned counsel, for his client would not let him into the secret. There was no proof, he contended, that the defendant had infringed on the plaintiff's patent, and that the former was not obliged to discover how, and in what manner, he was enabled to make as good cordage as the plaintiff. He then argued that the plaintiff had in his specification, described certain parts of the machinery as his own invention, though they had actually been before invented by a Mr. Balfour, who had obtained a patent for the same. The defendant's patent could not therefore be valid. In point of law, a person must take out a patent neither wider nor narrower than his invention; the specification must be sufficient to enable a workman of ordinary skill to perform the thing

described. And he contended that the plaintiff could not maintain his patent, because it is wider than his invention.

The defendant called no witnesses.

Lord Ellenborough, after stating the principal points of the law relative to the case, recapitulated the evidence, and observed that there was certainly *prima facie* evidence that the defendant had made use of part of the plaintiff's invention, but he left it to the jury to consider whether or not it was an infringement of the plaintiff's patent.

The jury, without retiring, returned a verdict for the plaintiff.

If the patent is void, the patentee cannot enforce the performance of a covenant for the observance of the exclusive right entered into by another in contemplation of its being good. This point was decided in the case of *Hayne et al.* vs. *Maltby*,* whichwas an action of covenant, and the declaration was on articles of agreement, which after reciting that the plaintiffs were assignees of a patent for an engine or machine to be fixed to a common stocking frame, for making a sort of net

* I. Term Reports, 438.

or open work called point-net, contained a covenant, whereby the defendant, in consideration of being permitted by the plaintiff to use one stocking frame, with the patent engine annexed thereto in a particular way, covenanted that he would not use any of the patent engines, or any engines resembling the same, except that allowed by the articles of agreement. The declaration then averred enjoyment by the defendant, without interruption by the plaintiffs, and assigned two breaches, one for using other patent engines besides the one allowed by the plaintiffs, the other for using engines resembling the patent machines. To this there were several pleas; the three last of which only are material here, viz. the third plea was, that the patentee did not enrol the specification; the fourth that the invention was not a new invention; the fifth that the invention was not discovered by the patentee. The plaintiff demurred to the third, fourth and fifth 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.

By *Lord Kenyon, Ch. J.* 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, show 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 this 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 cheat-

ed and imposed upon. In the case of landlord and tenant, the tenant is not at all events estopped to deny the landlord's title. The estoppel only exists during the continuation of his acceptation. And if he be ousted by a title paramount, he may plead it.

Ashurst J. This is a good plea; and the defendant is not estopped from disclosing any of the matters contained in it. In the case of landlord and tenant, as long as the latter enjoys the estate, he shall not be permitted to deny his landlord's title, for he has a meritorious consideration; but when it is applied to a person having a superior title he may plead it. 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 is no invention of his. The only right conferred on the defendant by his agreement was that of using this machine, which was no more than that which he, in common with every other subject has, without any grants from the plaintiffs.

Buller J. The plaintiffs had no exclusive right, and therefore the defendant has not the consideration for which he entered into that covenant. The case of landlord and tenant is not unlike this, for the facts in this

case disclosed by the plea are equal 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 show that he does not enjoy that which was the consideration for his covenant to pay the rent, notwithstanding he was bound by that covenant.

Grose J. declared himself of the same opinion.

The patentee, after an assignment of his interest, cannot himself set up that the patent is void: for where an action was brought against a patentee, who had conveyed his interest in a patent to the plaintiff, and yet in violation of the assignment infringed the plaintiff's right; the defence set up was that it was not a new invention. But Lord Kenyon was of opinion that the defendant was estopped from his own deed from making that defence.*

A promissory note given in consideration of the assignment of a patent right, which had been fraudulently obtained, was held void, although certain materials had been furnished, and certain instructions given by the promisee

* Oldham *vs.* Langmead. Cited III. Term Rep. 439, 441.

to the promisor in the art described in the patent.

This principle was decided in the Supreme Court of Massachusetts, in the case of *Judah Bliss et al.* vs. *Joel Negui.** In this case, *Sedgwick, J.* gave the opinion of the Court to the following effect.

The demand of the plaintiffs is resisted on the ground that there was no valid and sufficient consideration for the promise expressed in the note for which the action was brought.

On the 13th December, 1803, one *John Sibley* obtained from the government of the United States a patent for the term of fourteen years, for the exclusive right of making and vending what is therein called a new and useful improvement in painting rooms, ornamenting ceiling, &c.

After several mesne assignments, one was made to *Judah Bliss* and *John Rice*, the present plaintiffs of the right of using and vending within special limits the art described in the letters patent; and on the day on which the note was made, *Bliss* and *Rice* assigned to

* VIII. Tyng's Rep. 4.

the defendant the right of using and vending within the limits assigned them the same art. At the time of the last assignment, none of these previous thereto had been recorded in the office of the Secretary of State, as required by act of Congress. In consideration of the assignment this note and another of the same amount were made.

The art for which the letters patent were obtained was not the invention of Sibley, the patentee, but on the contrary had long before the issuing of the patent been publicly known and practised, as well in this country as in England; and this was known to the patentee, at the time letters patent issued. The letters patent were then obtained by fraud and false swearing, and were utterly void. The consequence is, that the patentee obtained nothing by his patent, and of course nothing was conveyed by the subsequent assignments. The assignor lost nothing, nor did the assignee acquire any thing. And besides, *Bliss* and *Rice*, at the time of their assignment to the defendant, knew that they had not acquired a complete and valid title; for they had not procured their assignment to be recorded.

As then the assignment to the defendant was merely void, and conveyed nothing, there can be no pretence that it is a sufficient consideration to render valid in law the note which was given. Nor did the counsel for the plaintiffs insist that the assignment was in itself a sufficient consideration; but he argued that the deed of assignment to the defendants contained a covenant, on which an action can be supported; and that a cause of action is a sufficient consideration to maintain an action on the note.

It is evident that if the principle relied upon could apply in this case, the only consequence would be to authorize the plaintiffs to recover, as a ground for the defendants to recover against them, in an action of covenant on the deed; and the reasoning must be very strong and apparent, which would authorize such a judgment.

But we are well satisfied that the words will not admit of such a construction. The words principally relied on are, that "whereas *Sibley* did obtain from the government of the United States of America letters patent, securing to said *Sibley* the exclusive right and liberty of making, using," &c. These words are used only by way of preamble, and do not

assume any express obligation or undertaking; nor indeed do they contain any direct affirmation; the other words of *recital*, which are expressed in the deed, and which can by any possibility be considered as expressing covenants, are those which state the several assignments, which have been made; and whether such assignments have, or have not been made, is wholly unimportant, because they would undoubtedly be wholly ineffectual.

But there is one express covenant. *Rice* and *Bliss* covenant with the defendant that they would warrant and defend to him, his heirs and assigns what was the subject of the assignment against the claims of any other person. The subject of this assignment was "all the right and privilege" conveyed to them as derived from the letters patent, granted to *Sibley*. Now it has been already shown that there was nothing conveyed to *Sibley* by the letters patent, and consequently there was nothing which could be beneficial for the defendant for the covenant to operate upon.

As to the principal question in this case. the case of *Hayne et al.* vs. *Maltby** goes much farther than is necessary to determine

* See *ante* page.

this: there A asserting that he had a right to a patent machine, covenanted with B that he might use it in a particular manner, inconsideration whereof B covenanted that he would not use it in any other. In an action brought by A upon that covenant, it was determined that B was not estopped by the covenant from pleading in bar to that action that the invention was not new, or that A was not the inventor: *but that he might show that the patent was void.*

But there is another ground on which the plaintiff's counsel rested his right to recover, either the whole amount of the note, or at least so much as was the value of the samples, paints, and labour, which were furnished by the plaintiffs to the defendant.

It is true, that if a promise be made on two considerations, and one of them be invalid or void, and the other be good, and lawful, the promise is binding. It is also true, that if a promise be made on two considerations, and the one be fraudulent, unlawful, or immoral, and the other good the promise is void. It does not appear to me that this belongs to either class of these cases. It does not appear that the samples, paints, and labour furnished by the plaintiffs were in any degree

valuable or useful to the defendant, but as subservient to the art, which was pretended to be conveyed by the assignment. The whole was one compound connected subject, the adjuncts of which were tainted by the principal substance. We are, therefore, of opinion, that the defendant is, upon the whole of the matter, entitled to judgment.

If two persons make a bargain about the use of a patent, supposed by both parties to be valuable, and to belong to one of the parties, and money is paid as a consideration for the use of said patent, it cannot be recovered back in an action of assumpsit, if the invention is afterwards found not to belong to the party who sold it, but the use of the patent has been profitable to the assignee or vendee.

This was decided in the case of *Taylor* vs. *Hare*, in the Court of Common Pleas, London, 20th May, 1805, which case is thus reported in Davies' Collection of Patent Cases, page 307.

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*l.* subject to the opinion of the Court upon the following case.

On the 12th 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 November, 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 *Truman 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 the 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 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*l.* 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 aparatus (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 repealed. The amount of the annuity which they had paid was 425*l*. If the Court should be of opinion that the plaintiff was entitled 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. *Sergeant 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 entitled to recover back his money in the 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 argument, had no existence. It was the understanding of all parties that the defendant was entitled to a patent-right, but it now turns out that they were mistaken; the plaintiff is therefore entitled 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. *Sergeant 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 made 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's 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 shows 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 man'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 non-suit should be entered.——*Judgment of non-suit.*

The following case may serve to shew the expediency of an inventor's keeping his invention a secret till his patent is obtained.

Smith vs. *Dickinson.**

Assumpsit.—The declaration stated, that before the making of the promises, &c. the

* Davies' Collection of Patent cases, 209.

plaintiff had contrived various articles in the business of a saddler, 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 premises, 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 advantage of such communication, under the penalty of 1000*l*. 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 invention, and obtained his majesty's letters patent for the the sole use and benefit of the said invention, for the term of fourteen 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*l.* 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 a great profit.

Plea non assumpsit.

The cause was tried at *Guildhall* sittings, after *Michaelmas* Term, before Lord ALVANLEY, Ch. J. 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*, saddler, having contrived various articles in the above branch, he fully conceives to be new and valuable improvements, Mr. *Robert Dickinson*, of No. 55, *Long-Acre*, being desir-

ous of being made acquainted with the above mentioned improvements, which Mr. *D.* fully comprehends under the title of spring apparatus, to answer or produce the same effect as those for which Mr. *Robert Dickinson* has already obtained the King's patent, he, *Robert Dickinson*, 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*l.*" 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 enrolled. That the plaintiff shortly after 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 not conscious 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 inventions for which I have obtained patents, are my own inventions. Prior to my giving you a paper not to practice 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 article 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 from you, lest even if it should be the same, I might still go on to obtain my patent. How far your invention resembled 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 non-suit the plaintiff, and the jury found a verdict for the plaintiff for 3000*l.* if the Court should be of opinion that the sum of 1000*l.* 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 non-suit was to be entered.

Accordingly a rule *nisi* for a non-suit on the one side, and for increasing the verdict on the other, having been obtained on a former day,

Best, Sergeant, now contended, that the *gravamen* in the declaration was supported by the evidence; for that although the plaintiff by his conduct and his agreement at the time when he assisted in making out the specification had waived any remedy for the defendant's misconduct in fraudulently obtaining the patent in his own name, yet that he had only waived 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 his letter, the plaintiff's remedy revived for the defendant's original misc duct in obtaining the patent in his own name. He next insisted that the sum of 1000*l.* stipulated by way of penalty was in the nature of liquidated damages; and, consequently, the plaintiff was entitled 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.

Shepherd and *Bayley*, Sergeants, *contra* urged that the plaintiff's action could not be maintained on this declaration, since it is 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 the 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 damages 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, Ch. J. 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 secondly, whether the advantage taken by the defendant, supposing it to be 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 between them respecting any participation 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 damage he could have

received. The defendant then obtains a patent in his own name, but being unable to make out a 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 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's entering into certain terms, and that the defendant is only guilty of a breach of these terms. Possibly these terms were never reduced to writing, and yet the plaintiff is called upon to waive his remedy on the first agreement, without any power of enforcing the second. It does appear to me, however, that although, if there had 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 shown, 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 having taken out the patent in his own name as for an invention of his own. If a man gives a bond for the performance of covenants, and the covenant 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 obligee 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.

Heath, J. I think the agreement upon which the declaration is founded a subsisting agreement: and that the defendant by entering a *caveat*, and taking out the patent in his own name committed a breach of the agreement, there can be no doubt. It is insisted that the plaintiff waived 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 waived by the treaty for the second agreement, which the plaintiff was induced to enter into by the fraud of the defendant.

Brook, J. 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 his entering a *caveat*, and taking out a 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 entitled to nonsuit the plaintiff on the ground of the second agreement he 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 of invention.——*Rule discharged.*

It remains now, according to the plan proposed in the commencement of this Essay, to give a synthetical view of the Law of Patents for New Inventions, together with such rules as may appear best calculated to prevent, as far as possible future disputes, on the subject. In attempting this it may be expedient to give an abridged sketch of the matter contained in the preceding work, referring, by figures in the margin, to the antecedent pages, in which the axioms here expressed are more particularly, and at large explained.

1. Patents for new inventions give a species of monopoly, which would be illegal at common law, and both in America and Great
37, 38, 39. Britain are founded on statutes.

2. Patents for new inventions in the United States can be legally obtained by none but native citizens, or their legal representatives, and aliens, who at the time of petitioning for such patent shall have resided two years in the United States. The British laws have no restrictions which confine the right of

petitioning for and obtaining such patents to British subjects; and it is a common practice to grant patents to Americans, and other foreigners 40, 41.

3. A joint patent may be granted for a joint invention, but a joint patent cannot be sustained for a sole invention of either of the patentees. 42, 43.

4. A joint patent for an invention is inconsistent with several patents for the same invention by the same patentees. 43.

5. If several patents are taken out by several patentees, for a several invention, and the same patentees afterwards take out a joint patent for the same, as a joint invention, the parties are not absolutely estopped by the former patents from asserting the invention to be joint: but the former patents are very strong evidence against the joint invention. 44.

6. The invention, or discovery for which a patent can be maintained must be "new." In Great Britain a manufacture *newly brought* into the kingdom from beyond sea, though not *new there*, may be the subject of a patent. In the United States, the inventor, if an alien resident, is required to make oath or affirma-

tion, that the invention, art or discovery, for which a patent is solicited hath not, to the best of his or her knowledge, or belief been known or used, either in this or any foreign country. And by the 6th Section of the patent Act, if the thing, secured by patent, was not originally discovered by the patentee, had been in use, or had been described in some public work anterior to the supposed
45, 46. discovery of the patentee, the patent, in an action on the case, shall be declared void.

7. The original inventor of a machine, who has reduced his invention to practice, is entitled to a priority of patent right, although, subsequently, the same machine may have
47, 48, 49, 58, 59. been invented by another person.

8. In the United States, the original inventor has a right to his invention, which attaches prior to his application for a patent; and a patent obtained after an invention has been
50 to 56. in use may relate back to the time of the invention.

9. The speculation of a philosopher, or mechanician, which has never been put into actual operation will not deprive a subsequent inventor of his patent monopoly. But if the first inventor has reduced his theory to

practice and put his invention into use, its greater or less use, or the more or less widely the knowledge of its existence might circulate, forms no criterion to decide upon the validity of any subsequent patent for the same invention. 58.

10. An invention which can entitle a man to a patent must be "useful" as well as "new." But by "useful" is meant not an invention in all respects superior to the modes now in use for the same purpose, but "useful" in contradistinction to frivolous and mischievous inventions. 59 to 65.

11. The words "any manner of new manufactures," in the statute of Jac. 1, as understood, and explained in British Courts of Justice, are coextensive in signification with the words "new and useful art, machine, manufacture or composition of matter, or any new and useful improvement in any art, machine, or manufacture," made use of in our statute. British authorities therefore, so far as circumstances are similar, and the reason of the cases remains the same, are pertinent for determining what kind of new invented things may be the subjects of patent monopolies. 65, 66.

12. A new invented method of lessening the consumption of steam and fuel in fire en-

gines is tantamount to fire engines of a newly
74. invented construction.

13. The mechanical improvement, and not the form of a machine is the object of a patent, and if the mechanical improvement is intelligibly specified, of which the 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
77. given of it.

14. Manufactures, which according to the proviso in the statute, 21 Jac. 1, can be the subject of patents, are reducible to two classes. The first class includes machinery, the second substances, such as medicines, formed by chemical or other processes, where the visible substance is the thing produced, and that which operates preserves no permanent
81, form. In the first class the machine ·d in the second the substance produced is the subject of the patent.

15. 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. 81.

16. 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 used before, provided the compound article, which is the object of the invention, is new. But the patent must be for the specific compound, and not for all the articles, or ingredients, of which it is made. 88. 89.

17. A patent may be maintained for a new and useful improvement in any art, machine, manufacture or composition of matter: but it must be for the improvement, or addition only. The public have a right to purchase the improvement by itself without its being encumbered with other things. 144. 145. 92.

18. The word *manufacture* is of extensive signification, and 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, 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. 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 making or working 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. When the effect produced is no new substance or composition of things, the patent can only be for the mechanism, if new mechanism is used,
95. 96. or for the process if it be a new mode of operating with or without old mechanism, by which the effect is produced.

19. 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 manu-
98. factures according to the spirit and meaning of the act.

20. A patent, in certain circumstances, may be good for a method, detached from all physical existence whatever. 99.

21. There can be no patent for a mere principle, or elementary truth, 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 occupation, there may be a patent. 101.

22. Redundancy in a specification does not destroy a patent. 106

23. An act of Parliament continuing a patent for a machine, when the patent was for a process, is nevertheless valid. 107. 108.

24. 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 terms being necessary to explain the subject of a patent. 112.

25. If a specification is such as to enable artists to adopt the invention, and make the
115. 116. manufacture, it is sufficient.

26. The patent and specification may be considered as so connected together as to make a part of each other, and to learn what
118. a patent is, one may read the specification, and consider it as incorporated with the patent.

27. Engine and method may signify the same thing, and be the subject of a patent.—
127. Engine may also mean device or contrivance.

28. According to the patent law of the United States, any concealment or addition in a specification to a patent will not avoid it,
139 174. 177 to 181. unless it shall fully appear that such concealment or addition was made for the purpose of deceiving the public.

29. A patent can, in no case, be for an effect only, but for an effect produced in a given manner, or by a peculiar operation. For instance, no patent can be procured for the admeasurement of time, or for the expansive operations of steam; but only for a new mode or new application of machinery to produce
140. these effects.

30. If the principle of an invention is not new, the patent cannot be supported, although its application is new. 140. 141.

31. A patentee is bound to describe, in full and exact terms in what his invention consists; and if it be an improvement only upon an existing machine, he should distinguish what is new, and what is old in his specification, so that it may clearly appear for what the patent is granted. 145.

32. It is, however, sufficient, if what is claimed as new appears with reasonable certainty on the face of the patent, either expressly, or by necessary implication. But it ought to appear with reasonable certainty for it is not to be left to minute references, and conjectures from what was previously known or unknown; since the question is not what was before known, but what the patentee claims *as new*; and he may in fact claim what has long been used by the public. Whether the invention be thus specifically described is a question of law upon the construction of the terms of the patent, of which, in the United States, the specification is part. 146. 147.

33. Mere colourable differences, or slight improvements, cannot shake the right of the

original inventor. If a watch was first invented by a person, so as to mark the hours only, and another person added the work to mark the minutes, and a third the seconds; each of them using the same combinations, and mode of operations to mark the hours as the first. In such case the inventor of the second hand could not have entitled himself to a patent, embracing the inventions of the other parties.

147. 148. Each inventor would be entitled to his own invention and no more.

34. A patent may well be for a new combination of machines, whether the machines be old or new. But one patent cannot, at the same time, include an exclusive right in the combination, and in each of the machines; and it is no infringement of a patent for the

148. 149. combination to use either of the machines separately.

35. A patent, under the general patent act, cannot embrace various distinct improvements or inventions in different machines; but in such case the party must take out separate patents. If the patentee has invented certain improved machines, which are capable of a distinct operation; and also has invented a combination of those machines to produce a connected result, the same patent cannot at

once be for the combination, and for each of the improved machines; for the inventions are as distinct as if the subjects were entirely different. But several distinct improvements in one machine, may be united in one patent. 149. 150.

36. A patent for an improved machine must shew in what the improvement precisely consists; and the patent be limited to those improvements. If not duly specified, the patent is void for ambiguity; if broader than the improvement it is void on other grounds. 150.

37. Where a combination of machinery already exists up to a certain point, and the patentee makes an addition, or improvement, to the machinery, he must confine his patent to the improvement; for if he takes a patent for the whole machine, as improved, not distinguishing between the new and old, nor limiting his patent to the improvement, it is void, because, as so claimed, it is not his invention. 151.

38. If an invention consists in a new combination of machinery, or in improvements upon an old machine to produce old effects, the patent should be for the combined machinery or improvements on the old machine, and not for a mere mode or device for pro- 151. 152

ducing such effects, detached from the machinery.

39. When a patent is for several improvements in a machine, and each improvement is summed up in the patent as the invention of the patentee, he is bound by his summary,
153. to 161. and if any one of his improvements is not new, his patent is void.

40. When several improvements in a machine are distinctly claimed in a patent, an action lies for the piracy of the improvements,
153. although the defendants have not used the whole improvements.

41. In Great Britain, if an invention is in any way known before the patent obtained,
161. 162. the inventor loses his right to his patent.

42. The public sale of that which is afterwards made the subject of a patent, though sold by the inventor, only makes the patent
162. void, according to British law.

43. The patentee must not only be the inventor, but the sole and first inventor of the
162. thing, which is the subject of a patent.

44. An inventor of any new and useful art, &c. in order to obtain a patent in the United

States, must present a petition to the Secretary of State, who may cause letters patent to be made out, and submitted to the Attorney General, who shall certify, and return them to the Secretary of State, if conformable to law, to be signed, recorded, &c. 164. 165.

45. In Great Britain, grants, or letters patent, first pass by bill, prepared by the Attorney, or Solicitor General, in consequence of a warrant from the crown, to which is affixed the King's sign manual, sealed with his privy signet. The improvements, or inventions, are first stated, the prayer of the petitioner follows. The letters patent declare the patent to be void, if it appear that the grant is contrary to law, or prejudicial to the subject; or if the thing invented has been in use before the date of the grant; or if the patentee be not the inventor; or if it interfere with prior letters patent; or if the patent be transferred to more than five persons, or to any who act as a corporate body; or if the invention be not duly described, &c. 166. 167.

46. A caveat, in Great Britain, will protect an invention or improvement for the space of one year, after which, if the invention be not brought to maturity, it may be renewed for 168.

an equal period, and so on, for a succession of years.

47. Separate patents must be taken out for England, Scotland, and Ireland; but in a patent for England, the patentee may, by
168. paying a small additional sum, have the colonies and plantations abroad included.

A patent may be maintained for an improvement in the principle of any machine, process, &c. but merely changing the form or proportion of any machine, &c. shall not be deemed a discovery; and the inventor of an improvement on any existing patented ma-
169. chine, &c. shall not be entitled under his patent to use the original machine, &c.

49. In the specification of a patent for an improved instrument, it is essential to point out precisely what is new and what is old, and it is not sufficient to give a general description of the instrument without making such distinction, although a plate is annexed, containing a detached and separate repre-
169. sentation of the parts in which the improvement consists.

50. Every inventor, before he can receive a patent, shall swear, or affirm, that he is the

true inventor or discoverer of the art, machine or improvement, &c. for which he solicits a patent. But the taking of the oath is but a prerequisite to the granting of the patent, and no ways essential to its validity. 172, 173.

51. Every inventor, in applying for a patent, shall deliver a written description of his invention, &c. in such terms as to distinguish the same from all other things before known, and to enable any person skilled in the art or science of which it is a branch, or with which it is most nearly connected, to make, compound and use the same, &c. But no defect or concealment in any specification is sufficient to avoid a patent, by the United States' law, unless it be with intention to deceive the publick, *vide* axiom 28. British law is different in this particular, *vide* axiom 62. 173 to 181.

52. According to English law, it is 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 appears that there is any unnecessary ambiguity, which has a tendency to mislead the public, the patent is void. The terms of the specification should express the invention in so clear and explicit a manner

that a man of science may be able to pro-
181 to 193. duce the thing intended, without the necessity of experiments.

53. Wherever a patentee brings an action on a patent, if the novelty, or effect of the invention is disputed, he must show 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 incum-
190, 191. bent on the defendant to falsify the specification.

54. If a patentee makes the articles for which a patent is granted with cheaper materials than those, which he has enumerated, although the latter will answer the purpose equally as well, the patent is void, because he does not put the public in possession of his
191. invention, nor enable them to derive the same benefit from it which he himself does.

55. One having obtained a patent for a certain manufacturing machine, afterwards obtained another patent for *certain improvements in the said machine*, in which the grant of the former patent was recited; a specification, containing a full description of the whole machine, so improved, but not distinguishing be-

tween the new improved parts, and the old parts in referring to the former specification, otherwise than as the second patent recited the first, was held to be good in law. 193 to 211

56. A person having invented a machine or frame for the manufacturing of lace by a new method, took out a patent for a new invented manufacture of lace, called French, otherwise ground lace. But it was held to be insufficient, because the patent claimed the exclusive liberty of making lace composed of silk and cotton thread mixed; not of any particular mode of mixing it: and it had been already proved and admitted that silk and cotton thread, were before mixed on the same frame for lace in some mode or other. 204.

57. 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 an improvement in street lamps, and should have been so taken. 211.

58. If a patentee, in his specification exceed 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 ob-

jection to his patent, that will overturn it, for
217. he will not then have registered a specification of his invention.

59. 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, 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
219, 220. most beneficial mode he was then possessed of, of exercising the privilege granted to him.

60. If an inventor, after having obtained his patent discovers an improvement, he may apply that improvement, and his patent will not be affected by using his own improved machine in that improved state; but if at the time when he obtained his patent, he was apprised of a 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, and will render his patent void.

61. If an inventor invents an engine, which consists of a perfectly new conformation of parts, although all the parts were used before, yet he will be entitled to support his patent for a new machine. 228.

62. By British law, if a concealment in a specification is not fraudulent, but only inadvertent; if the patentee actually knew, and meant to practice according to a mode not disclosed in his specification, and inadvertently did not state the whole in that instrument, he must answer for that inadvertence. The U. S. law is otherwise, see axiom 51. 229, 230.

63. Patentees may assign their rights, and the assignee shall stand in the place of the original inventor. 232.

64. An assignee of a part of a patent right, excepting certain places, is considered as merely holding a licence to make and vend the thing invented, and is not an assignee, entitled under the act, to bring a suit in his own name. 233 to 243

65. But where the patentee has assigned an undivided moiety of his patent right, the action for an infringement of the right, should

243 to 246 be in the joint names of the patentee and assignee.

66. Under the 6th section of the patent law of 1793, the defendant pleaded the general issue, and gave notice that he would prove at the trial, that the machine for the use of which without licence, the suit was brought, had been used previous to the alleged invention of the plaintiff, in several places which were specified in the notices, or some of them. The defendant having given evidence as to some of the places specified, and afforded evidence as to some other places not specified, it was held that this evidence was admissible. But the powers of a court, in such a case are sufficient, and will be exer-

266 to 269 cised to prevent the patentee from being injured by surprise.

67. Testimony on the part of the plaintiff, that the persons, of whose prior use of the machine the defendant had given evidence, had paid for licences to use the machine since the patent, ought not to be absolutely reject-

269. ed, though entitled to very little weight.

68. It is a question not judicially determined, whether Congress can constitutionally decide the fact, that a particular individual is

an author or inventor of a certain writing or invention, so as to preclude judicial inquiry into the originality of the authorship, or invention. 280.

69. The making a patented machine for use, and with design to use it for profit, in violation of the patent right, is of itself a breach of the patent right for which an action lies. 287 to 291

70. But where no actual damages are proved, in consequence of making a patented machine, nominal damages alone should be given. 291.

71. In an action on a patent right the jury are to find single damages, and the court will treble them. 291.

72. In an action for a violation of a patent right, the plaintiff can recover for actual damages only, and not for a vindictive recompense. 291, 292.

73. If an user of a machine alone is proved, the rule of damages should be the value of the use of such machine. 292.

74. The jury may, if they see fit, in a case for infringing a patent, give the plaintiff as

part of his actual damages, such expenses for counsel fees, &c. as have been necessarily incurred in vindicating the plaintiff's right by a
293 to 296 suit, and which are not taxable in the bill of costs.

75. The sale of the materials of a patented machine, by a sheriff, on an execution against the owner, is not such a sale as subjects
296 to 300 the sheriff to an action for an infringement of the patent right.

76. In case of interfering applications, they shall be submitted to the arbitration of three persons, one of whom shall be chosen by each of the arbitrators, and the third by the Secretary of State, whose award shall be final as respects granting the patent; and if either of the applicants refuse to choose an
300, 301. arbitrator, the patent shall issue to the opposite party.

77. But an award of the above description is not conclusive in other respects than as to the mere issuing of the patent. It decides
351, 302. nothing as to the right of invention, or other claims of either party.

78. Upon oath or affirmation being made before the Judge of the District Court of the

district, where the patentee, his executors &c. reside that any patent was obtained surreptitiously, or upon false suggestion, the District Judge may, if the matter appear sufficient, at anytime, within three years after the issuing of the patent, grant a rule to the patentee, his executors &c. to shew cause why process should not issue against him to repeal the patent; and if sufficient cause be not shewn the rule shall be made absolute; and the judge shall order process to issue against such patentee, &c. with costs of suit, and if no sufficient cause shall be shewn to the contrary, or it shall appear that the patentee was not the true inventor, or discoverer, judgment shall be rendered by the court for the repeal of the patent: and if the plaintiff fails in his complaint, the *defendant* shall recover his costs. It has been decided that proceedings on the rule to shew cause are summary; and that when the rule is made absolute, it is not that the patent be repealed, but only that process issue to try the validity of the patent, in the suggestions stated in the complaint. That this process is in the nature of a *scire facias* at common law, to repeal patents, and the issues of fact, if any, are to be tried, not by the court, but by a jury: that the judgment in this process is in the nature of a judgment on a *scire facias*, at common law, after which a

writ of error lies, as in other cases to the Circuit Court, where there is matter of error apparent on the record by bill of exceptions or otherwise.

303 to 317.

79. On trial under the general issue, under the 10th section of the patent act, the burthen of proof that the patent was obtained surreptitiously, or upon false suggestions, lies on the plaintiff. The possession of the patent is *prima facie* evidence that the defendant is the inventor; and the trial being in substance upon the general issue, the plaintiff can entitle himself to a verdict only by the strength of his own proof, and not by the weakness of that of his adversary-

325. 326.

80. In Great Britain, if the the king, by his letters patent grants the same thing to two persons, the first patentee may have a *scire facias* to repeal the second patent. But the second patentee cannot bring a *scire facias*, though the better right should be in him. So if the king's grant be founded on a fraud, or a false suggestion, he may have a *scire facias* to repeal it.

326. 327.

81. Thirty dollars must be paid into the treasury previous to obtaining a patent in the United States. In England, the cost of ob-

329. 330.

taining a patent is from 100 to 120 pounds sterling. 329. 330.

82. Aliens, who have resided two years in the United States are allowed to obtain patents under the act of April 17, 1800, on their making oath or affirmation that the invention has not to the best knowledge and belief of the applicant, been known or used in this or any country. 330. 331.

83. The legal representatives of a deceased inventor may obtain a patent for the invention of the deceased. 332.

84. A person making, devising, using or selling the invention of a patentee, without his or her consent, or that of his or her executors, &c. obtained in writing, shall forfeit a sum equal to three times the actual damages, sustained by the patentee. *Vide axiom* 71. 333.

85. If a person carries on a patented manufacture in a private manner, without the license, and against the prohibition of the patentee, it shall be taken as *prima facie* evidence that he is infringing the patent, and judgment will be given against him. 333 to 336.

86. If a patent is void, the patentee cannot enforce the performance of a covenant for

336 to 340. the exclusive right entered into by another in contemplation of its being good.

87. The patentee, after an assignment of his interest, cannot himself set up that his patent is void: for where an action was brought against a patentee, who had conveyed his interest in a patent to the plaintiff, and yet in violation of the assignment infringed the plaintiffs right; the defence set up was that it was not a new invention But Lord Kenyon was
340. of opinion that the defendant was estopped by his own deed from making that defence.

88. A promissory note, given in consideration of the assignment of a patent right, which had been frandulently obtained, was held void, although certain materials had been furnished, and certain instructions given by the
340 to 346. promisee to the promissor, in the art describ-ed in the patent.

89. If two persons make a bargain about the use of a patent, supposed by both parties to be valuable, and to belong to one of the parties, and money is paid as a consideration for the use of said patent, it cannot be recov-ed back in an action of assumpsit, if the inven-
346. 351. tion is afterwards found not to belong to the

party who sold it but the use of the patent has been profitable to the assignee or vendee.

90. A person having discovered an improvement upon saddles, communicated his invention to another person, who previously to the communication, undertook, by a written agreement not to take any undue advantage of such communication, under the penalty of £1000. The latter afterwards obtained a patent for the invention in his own name, which the inventor agreed should remain on certain terms, but which 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 sums could not be considered in the nature of liquidated damages, and that the latter agreement did not vacate or annul the former. 351.

APPENDIX.

APPENDIX.

An Act to promote the progress of Useful Arts; and to repeal the act heretofore made for that purpose.

SECTION. 1. BE *it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled,* That when any person or persons, being a citizen or citizens of the United States, shall allege that he or they have invented any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement on any art, machine, manufacture, or composition of matter, not known or used before the application, and shall present a petition to the Secretary of State, signifying a desire of obtaining an exclusive property in the same, and praying that a patent may be granted therefor, it shall and may be lawful for the said Secretary of State to cause letters patent to be made out in the name of the United States, bearing teste by the President of the United States, reciting the allegations and suggestions of the said petition, and giving a short description of the said invention or discovery, and thereupon granting to such petitioner, or petitioners, his, her, or their heirs, administrators, or assigns, for a term not exceeding fourteen years, the full and exclusive right and liberty of making, constructing, using, and vending to others to be

Letters patent how and by whom made out.

To bear teste by the President, and

be examined by the Attorney General.

used, the said invention or discovery, which letters patent shall be delivered to the Attorney General of the United States, to be examined; who within fifteen days after such delivery, if he finds the same conformable to this act, shall certify accordingly, at the foot thereof, and return the same to the Secretary of State, who shall present the letters patent thus certified, to be signed, and shall cause the seal of the United States to be thereto affixed: and the same shall be good and available to the grantee or grantees, by force of this act, and shall be recorded in a book, to be kept for that purpose, in the office of the Secretary of State, and delivered to the patentee or his order.

The liberty of using an improvement defined.

SECT. 2. *Provided always, and be it further enacted,* That any person, who shall have discovered an improvement in the principle of any machine, or in the process of any composition of matter, which shall have been patented, and shall have obtained a patent for such improvement, he shall not be at liberty to make, use, or vend the original discovery, nor shall the first inventor be at liberty to use the improvement: And it is hereby enacted and declared, that simply changing the form or the proportions of any machine, or composition of matter, in any degree, shall not be deemed a discovery.

How to proceed to obtain letters patent.

SECT. 3. *And be it further enacted,* That every inventor, before he can receive a patent, shall swear or affirm, that he does verily believe, that he is the true inventor or discoverer of the art, machine, or improvement, for which he solicits a patent, which oath or affirmation may be made before any person authorized to administer oaths, and shall deliver a written description of his invention, and of the manner of using, or process of compounding the same, in such full, clear, and exact terms, as to distinguish the same from all other things

before known, and to enable any person skilled in the art or science, of which it is a branch, or with which it is most nearly connected, to make, compound, and use the same. And in the case of any machine, he shall fully explain the principle, and the several modes, in which he has contemplated the application of that principle or character, by which it may be distinguished from other inventions; and he shall accompany the whole with drawings and written references, where the nature of the case admits of drawings, or with specimens of the ingredients, and of the composition of matter, sufficient in quantity for the purpose of experiment, where the invention is of a composition of matter; which description, signed by himself and attested by two witnesses, shall be filed in the office of the Secretary of State, and certified copies thereof shall be competent evidence, in all courts, where any matter or thing, touching such patent right, shall come in question. And such inventor shall, moreover, deliver a model of his machine, provided the Secretary shall deem such model to be necessary.

Inventors may assign their titles.

SECT. 4. *And be it further enacted*, That it shall be lawful for any inventor, his executor or administrator to assign the title and interest in the said invention, at any time, and the assignee having recorded the said assignment, in the office of the Secretary of State, shall thereafter stand in the place of the original inventor, both as to right and responsibility, and so the assignees of assigns, to any degree.

Forfeiture on using patent inventions without leave.

SECT. 5. *And be it further enacted*, That if any person shall make, devise, and use, or sell the thing so invented, the exclusive right of which shall, as aforesaid, have been secured to any person by patent, without the consent of the patentee, his executors, administrators, or assigns, first obtained in writing, every per-

son, so offending, shall forfeit and pay to the patentee, a sum, that shall be at least equal to three times the price, for which the patentee has usually sold or licensed to other persons the use of the said invention;

How recovered.

which may be recovered in an action on the case founded on this act, in the Circuit Court of the United States, or any other Court having competent jurisdiction.

How defendants may give this act in evidence,

SECT. 6. *Provided always, and be it further enacted,* That the defendant in such action shall be permitted to plead the general issue, and give this act and any special matter, of which notice in writing may have been given to the plaintiff or his attorney, thirty days before trial, in evidence, tending to prove, that the specification, filed by the plaintiff, does not contain the whole truth relative to his discovery, or that it contains more than is necessary to produce the described effect, which concealment or addition shall fully appear to have been made, for the purpose of deceiving the public, or that the thing, thus secured by patent, was not originally discovered by the patentee, but had been in use, or had been described in some public work, anterior to the supposed discovery of the patentee, or that he had surreptitiously obtained a patent for the discovery of another person: in either of which cases,

and judgment shall be given.

judgment shall be rendered for the defendant, with costs, and the patent shall be declared void.

State rights to inventions when to be deemed void,

SECT. 7. *And be it further enacted,* That where any State, before its adoption of the present form of government, shall have granted an exclusive right to any invention, the party, claiming that right, shall not be capable of obtaining an exclusive right under this act, but on relinquishing his right under such particular State; and of such relinquishment, his obtaining an exclusive right under this act shall be sufficient evidence.

How applications depending under former law shall be prosecuted under this act.

SECT. 8. *And be it further enacted*, That the persons, whose applications for patents were, at the time of passing this act, depending before the Secretary of State, Secretary at War, and Attorney General, according to the act, passed the second session of the first Congress, entitled, "An act to promote the progress of useful arts," on complying with the conditions of this act, and paying the fees herein required, may pursue their respective claims to a patent under the same.

Proceedings to be had on interfering applications.

SECT. 9. *And be it further enacted*, That in case of interfering applications, the same shall be submitted to the arbitration of three persons, one of whom shall be chosen by each of the applicants, and the third person shall be appointed by the Secretary of State; and the decision or award of such arbitrators, delivered to the Secretary of State, in writing, and subscribed by them, or any two of them, shall be final, as far as respects the granting of the patent: And if either of the applicants shall refuse, or fail to choose an arbitrator, the patent shall issue to the opposite party. And where there shall be more than two interfering applications, and the parties applying shall not all unite in appointing three arbitrators, it shall be in the power of the Secretary of State to appoint three arbitrators for the purpose.

And against persons surreptitiously obtaining patents.

SECT. 10. *And be it further enacted*, That upon oath or affirmation being made, before the Judge of the District Court, where the patentee, his executors, administrators, or assigns, reside, that any patent, which shall be issued in pursuance of this act, was obtained surreptitiously, or upon false suggestion, and motion made to the said court, within three years after issuing the said patent, but not afterwards, it shall and may be lawful for the Judge of the said District Court, if the matter alleged shall appear to him to be sufficient, to grant a rule, that the patentee, or his executor, adminis-

trator, or assign shew cause, why process should not issue against him to repeal such patent. And if sufficient cause shall not be shewn to the contrary, the rule shall be made absolute, and thereupon the said Judge shall order process to be issued against such patentee, or his executors, administrators, or assigns, with costs of suit. And in case no sufficient cause shall be shewn to the contrary, or if it shall appear that the patentee was not the true inventor or discoverer, judgment shall be rendered by such court for the repeal of such patent; and if the party, at whose complaint the process issued, shall have judgment given against him, he shall pay all such costs, as the defendant shall be put to, in defending the suit, to be taxed by the Court, and recovered in due course of law.

Inventor before presenting petition to pay thirty dollars into the treasury.

SECT. 11. *And be it further enacted*, That every inventor, before he presents his petition to the Secretary of State, signifying his desire of obtaining a patent, shall pay into the Treasury thirty dollars, for which he shall take duplicate receipts; one of which receipts he shall deliver to the Secretary of State, when he presents his petition: and the money, thus paid, shall be in full for the sundry services, to be performed in the office of the Secretary of State, consequent on such petition, and shall pass to the account of clerk-hire in that office.

Copying fees.

Provided, nevertheless, That for every copy, which may be required at the said office, of any paper respecting any patent, that has been granted, the person, obtaining such copy, shall pay at the rate of twenty cents for every copy-sheet of one hundred words; and for every copy of a drawing, the party obtaining the same shall pay two dollars: of which payments, an account shall be rendered, annually, to the Treasury of the United States, and they shall also pass to the account of clerk-hire in the office of the Secretary of State.

Former act repealed.

SECT. 12. *And be it further enacted*, That the act, passed the tenth day of April, in the year one thousand seven hundred and ninety, entitled, "An act to promote the progress of useful arts," be, and the same is hereby repealed. *Provided always*, That nothing contained in this act, shall be construed to invalidate any patent, that may have been granted under the authority of the said act; and all patentees under the said act, their executors, administrators, and assigns, shall be considered within the purview of this act, in respect to the violation of their rights: provided such violations shall be committed after the passing of this act.

JONATHAN TRUMBULL,
Speaker of the House of Representatives.

JOHN ADAMS, *Vice President of the United States, and President of the Senate.*

Approved, February 21, 1793.

GEORGE WASHINGTON,
President of the United States.

An Act to extend the privilege of obtaining patents for useful discoveries and inventions to certain persons therein mentioned, and to enlarge and define the penalties for violating the rights of patentees.

SECTION 1. *Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled*, That all and singular the rights and privileges given, intended, or provided to citizens of the United States, respecting patents for new inventions, discoveries, and improvements, by the act, enti-

Persons having resided two years within the U. S. entitled to the benefit of the former act.

tled, "An act to promote the progress of useful arts, and to repeal the act heretofore made for that purpose," shall be, and hereby are extended and given to all aliens, who at the time of petitioning, in the manner prescribed by the said act, shall have resided for two years within the United States, which privileges shall be obtained, used, and enjoyed, by such persons, in as full and ample manner, and under the same conditions, limitations, and restrictions, as by the said act is provided and directed in the case of citizens of the United States. *Provided always*, That every person petitioning for a patent for any invention, art, or discovery, pursuant to this act, shall make oath or affirmation, before some person duly authorized to administer oaths, before such patent shall be granted, that such invention, art, or discovery, hath not, to the best of his or her knowledge or belief, been known or used, either in this or any foreign country; and that every patent, which shall be obtained pursuant to this act, for any invention, art, or discovery, which it shall afterwards appear had been known or used previous to such application for a patent, shall be utterly void.

Oath to be taken by such resident.

The legal representatives of a deceased inventor may obtain a patent.

SECT. 2. *And be it further enacted*, That where any person hath made, or shall have made, any new invention, discovery, or improvement, on account of which a patent might, by virtue of this or the above-mentioned act, be granted to such person as shall die before any patent shall be granted therefor, the right of applying for and obtaining such patent, shall devolve on the legal representatives of such person, in trust for the heirs at law of the deceased, in case he shall have died intestate; but if otherwise, then in trust for his devisees, in as full and ample manner, and under the same conditions, limitations, and restrictions, as the same was held or might have been claimed or enjoyed by such person in his or her life time; and when application for a pa-

tent shall be made by such legal representatives, the oath or affirmation, provided in the third section of the before-mentioned act, shall be so varied as to be applicable to them.

Damages for breach of patent-right.

SECT. 3. *And be it further enacted*, That where any patent shall be, or shall have been granted, pursuant to this or the above-mentioned act, and any person, without the consent of the patentee, his or her executors, administrators, or assigns, first obtained in writing, shall make, devise, use, or sell, the thing whereof the exclusive right is secured to the said patentee by such patent, such person, so offending, shall forfeit and pay to the said patentee, his executors, administrators, or assigns, a sum equal to three times the actual damage sustained by such patentee, his executors, administrators, or assigns, from, or by reason of such offence, which sum shall, and may be recovered, by action on the case, founded on this and the above-mentioned act, in the Circuit Court of the United States, having jurisdiction thereof.

Repeal of part of the former act.

SECT. 4. *And be it further enacted*, That the fifth section of the above-mentioned act, entitled, "An act to promote the progress of useful arts, and to repeal the act heretofore made for that purpose," shall be, and hereby is repealed.

THEODORE SEDGWICK,
Speaker of the House of Representatives.

THOMAS JEFFERSON, *Vice President of the United States, and President of the Senate.*

Approved, April 17, *A. D.* 1800.

JOHN ADAMS, *President of the United States.*

Extract from an Act to extend the Jurisdiction of the Circuit Courts of the United States to cases arising under the Law relating to Patents.

Passed February 15th, 1819.

SECTION 1. The Circuit Courts of the United States shall have original cognizance, as well in equity as at law, of all actions, suits, controversies, and cases, arising under any law of the United States, granting or confirming to authors or inventors the exclusive right to their respective writings, inventions and discoveries; and upon any bill in equity, filed by any party aggrieved in any such cases, shall have authority to grant injunctions, according to the course and principles of courts of equity, to prevent the violation of the rights of any authors or inventors, secured to them by any of the laws of the United States, on such terms and conditions as the said courts may deem fit and reasonable. *Provided, however*, that from all judgments and decrees of any Circuit Courts, rendered in the premises, a writ of error or appeal, as the case may require, shall lie to the Supreme Court of the United States, in the same manner, and under the same circumstances, as is now provided by law in other judgments and decrees of such Circuit Courts.

Form of Petition, &c. for a Patent.

To the Hon. J. A. Esq. Secretary of State of the United States of America.

The petition of A. B. of B. in the County of S. and State of M. gentleman, humbly showeth,

That he has invented, constructed, made and applied to use a new and useful improvement in the mode of making, or manufacturing [here say what] by machinery at one operation [or] called the [insert the name of thing invented.] *Vide specification below.*

Your petitioner is therefore desirous of obtaining an exclusive property in his said improvement, and humbly prays that Letters Patent, duly executed according to law, may be granted him therefor. As in duty bound will ever pray,

Your most obedient and very
humble servant,
A. B.

B. August 25, 1810.

To all persons to whom these presents shall come, A. B. of B. in the County of S. and State of M. gentleman, sends greeting. Be it known, that I the said A. B. have invented, constructed, made, and applied to use a new and useful improvement [&c. as above] called [here insert the name, &c.] specified in the words following, viz. This improvement in [here specify the improvement definitely.]

In testimony that the above is a true specification of my said improvement as above described, I have hereto set my hand and seal, the twenty-fifth day of
in the year of our Lord, &c. in presence of

{C. D.}
{E. F.}

A. B. (seal.)

S. ss. B. August 25, A. D. 1810. Then personally appeared the above named A. B. and made oath that he

does verily believe that he is the true inventor, or discoverer of his said improvement, as by him above specified.*

Sufficient testimony was also produced to prove that said A. B. is a citizen of the United States of America.

Before me

S. G.

Justice of the Peace for said County.

Form of Letters Patent.

The United States of America.

To all to whom these Letters Patent shall come:

WHEREAS A. B. a citizen of the State of M. in the United States, hath alleged that he has invented a new and useful improvement, being [here is inserted the technical name, or a short description of the nature of the invention] which improvement has not been known or used before his application; has made oath that he does verily believe that he is the true inventor or discoverer of the said improvement has paid into the treasury of the United States the sum of thirty dollars, delivered a receipt for the sum, and presented a petition to the Secretary of State, signifying a desire of obtaining an exclusive property in the said improvement, and praying that a patent may be granted for that purpose: THESE ARE THEREFORE to grant to the said A. B. his heirs, administrators or assigns the full and

* Note. If an alien, add——and that the same has not, to his best knowledge or belief, been before known or used in this or any foreign country—and also say, that he has resided more than two years last past in America, &c.

exclusive right and liberty of making, constructing, using, and vending to others to be used, the said improvement, a description whereof is given in the words of the said himself, in the schedule hereto annexed, and is made a part of these presents.

In testimony whereof, I have caused these letters to be made patent, and the seal of the United States is hereunto affixed.

(L. S.) Given under my hand, at the City of Washington, this day of in the year of our Lord, one thousand eight hundred and and the Independence of the United States of America the

By the President, J. M.

J. A. Secretary of State.

City of Washington.....to wit:

I DO HEREBY CERTIFY, that the following Letters Patent were delivered to me on the day of in the year of our Lord, one thousand eight hundred and to be examined; that I have examined the same, and find them conformable to law. And I do hereby return the same to the Secretary of State within fifteen days from the date aforesaid, to wit on this day of in the year aforesaid.

C. A. R. Atty. Gen. of the United States.

To these Letters Patent is annexed the following:

The schedule referred to in these Letters Patent, and making part of the same, containing a description in the words of the said A. B. himself of his [here is recited the specification, with the inventor's signature and that of the witnesses to the specification.]

Declaration in an Action on the Case for infringing a Patent.

To answer unto of in a plea of trespass on the case; for that whereas the plaintiff before, and at the time of making the letters patent, as hereinafter mentioned, was the true and original inventor of a new and useful invention [or improvement] of [here insert the technical name or term, by which the art, machine, manufacture, or composition of matter, or improvement on such art, machine, manufacture or composition of matter is known and distinguished in the patent] viz. at aforesaid, and thereupon, heretofore, viz. on [here insert the date of the patent] upon the application of the plaintiff, the Secretary of State of the United States caused letters patent to be issued in the name of the United States, bearing date at Washington, the day last aforesaid, under the seal of the United States, and duly tested, according to the form of the statute in such case made and provided; wherein and whereby was granted to the plaintiff, his heirs, administrators and assigns, for the term of fourteen years from the said [here insert the date of the patent] the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said new and useful invention [or improvement] agreeably to the statute of the United States made and passed on the twenty-first day of February in the year of our Lord one thousand seven hundred and ninety-three, entitled "An act to promote the progress of useful arts, and to repeal the act heretofore made for that purpose," and the statute of the United States, passed on the seventeenth day of April in the year of our Lord one thousand eight hundred, entitled "An act to extend the privilege of obtaining patents for useful discoveries and inven-

tions to certain persons therein mentioned, and to enlarge and define the penalties for violating the rights of patentees," as by the said letters patent, here in court to be produced, (reference being had thereunto for a specification of the aforesaid invention) [or improvement] will more fully appear. And the plaintiff further says, that he the said plaintiff did always, from the time of the making and granting of said letters patent, as aforesaid, exercise, use and enjoy the right, privilege and liberty aforesaid, to wit at aforesaid, and has exercised, used and enjoyed the same right and liberty to the day of the purchase of this writ, by himself and his servants and deputies, to his great profit and advantage, viz. at said Yet the defendant, well knowing the premises, but contriving, and wrongfully and injuriously intending to injure the plaintiff, and to deprive him of the profits, benefits and advantages, which he might and otherwise would have derived and acquired from the exclusive making, using and vending the aforesaid new and useful invention [or improvement] after the making of said letters patent, and within the term of years in the said letters patent mentioned, viz. at aforesaid, on the day of and at divers other days and times, and every day between that day and the day of the purchase of this writ, did make, devise [or, having previously made or caused to be made, did use or sell] the said new and useful invention [or improvement] unlawfully, and unjustly, without the permission or licence in writing, but against the will of the plaintiff, in breach of the aforesaid letters patent, and in violation and infringement of the right, privilege and liberty, so as aforesaid granted to the plaintiff, and contrary to the form and effect of the statute aforesaid, in such case made and provided. Whereby the plaintiff hath been, and is greatly injured, and deprived of great profits, which otherwise he might and would have derived and

acquired from the said new and useful invention [or improvement] and by reason of the defendant's making, using [or vending] the same as aforesaid, without licence as aforesaid, the plaintiff says he has sustained actual damage, viz. the sum of dollars, whereby, and by force of the statutes of the United States aforesaid, an action hath accrued to the plaintiff to recover the sum of dollars, being three times the actual damage sustained by the plaintiff as aforesaid. Yet the defendant, though often requested by the plaintiff, has never paid the same, but hath refused and still doth refuse to pay the said sum, to the plaintiff's damage, &c.

Form of a Complaint for the repeal of a Patent.

To the Hon. Judge of the District Court of the United States, for the District of

A. B. of in said District, humbly complains, and gives your Honour to be informed, that a patent was granted on the [here insert the date of the patent] in pursuance of an act of the Congress of the United States, passed the 21st day of February, 1793, entitled, "An act to promote the progress of useful arts; and to repeal the act heretofore made for that purpose," and an act of said Congress, passed the 17th day of April, 1800, entitled "An act to extend the privilege of obtaining patents for useful discoveries and inventions to certain persons therein mentioned, and to enlarge and define the penalties for violating the rights of patentees," to one C. D. of in said District, granting to said C. D. the exclusive right, liberty and privilege of making, constructing and using, and vending to others to be used a certain invention [or improvement] [here insert the technical name, or term by which the in-

vention or improvement is known and distinguished in the patent] a copy whereof, and of the schedule or specification thereto annexed, is hereunto appended, as part of this complaint; and your complainant upon oath complains, and gives your Honour to be informed, that the said patent was obtained by the said C. D. surreptitiously, and upon false suggestion, in this, that the said C. D. was not the true inventor, or discoverer of the said invention [or improvement] for which said patent was to him granted as aforesaid, but that the said invention [or improvement] was known and used before the pretended invention [or improvement] of the said C. D. and before the application of the said C. D. for his said patent, and before the granting of said patent, and that some other person or persons was or were the true and original inventor or inventors of the same, or of a material part thereof. Wherefore your complainant prays that a rule may be granted against the said C. D. to shew cause why process should not issue against him to repeal said patent, and that such further proceedings may be had against the said C. D. as to law and right appertain for the final repeal of the patent aforesaid, and for costs of suit. And your complainant, as in duty bound, will ever pray.

A. B.

Form of a Rule of Court founded on the foregoing Complaint.

——— District, ss. The complaint, of which the foregoing is a copy, was duly sworn to before the United States' District Judge, for the District of on the day of A. D. And it was thereupon ordered by said Judge, that a rule issue to the said C. D. to appear before the said Judge, at

[either a special, or ordinary session of the District Court] at the United States' Court Room in in said District, on the day of at o'clock, A. M. [or P. M.] then and there to shew cause, if any he have, why process should not issue against him to repeal the said patent. This rule to be served on the said C. D. by the Marshal of said District, or his Deputy days at least before the said day of

Attest,

E. F. Clerk of District Court.

Scire Facias for the Repeal of Letters Patent.

Whereas, upon the application of A. B. of the President of the United States did, on the day of in the year of our Lord grant and issue to the said A. B. certain letters patent, in due form of law, to vest in him, his heirs and assigns, the exclusive right and privilege of making, constructing, using and vending to others to be used, a certain new and useful invention [or improvement] being [here insert the technical name or term by which the invention or improvement is distinguished in the patent:] And whereas one C. D. on the day of in the year of our Lord before the Hon. the Judge of the District Court of the District of where the said patentee resides, did make oath that the patent aforesaid was obtained surreptitiously, or upon false suggestion, and thereupon moved the said Hon. Judge of said District Court, viz. at a session of said Court, begun and holden at within and for the District of aforesaid, on the day of in the year of our Lord for a rule upon the said A. B. to

shew cause why process should not issue against him for the repeal of said patent: And whereas the said A. B. thereafterwards appeared to shew cause in the premises—and thereafter, viz. at a District Court begun and held at within and for the District aforesaid, on the day of in the year of the said A. B. and the said C. D. having been fully heard by the Judge of the said Court, the said rule was made absolute, and thereupon the said Judge then and there ordered further process to be issued against the said A. B. the patentee as aforesaid, to appear at the then next session of the said Court, and then and there shew cause, if any he might have, why his patent aforesaid should not be repealed: And whereas we have been given to understand, as aforesaid, that the said C. D. doth allege that the said patent, so as aforesaid granted, was obtained by said A. B. surreptitiously, and upon false suggestion: Now we command you, to the end that justice may be done, that you make known to the said A. B. that he be before the Judge of said District Court, to be holden at aforesaid, within and for the District aforesaid, on the day of next, then and there to shew cause, if any he have, why the said letters patent granted to him, the said A. B. as aforesaid, should not, for the cause aforesaid, be repealed, and further to do and receive those things which the said Court shall consider in this behalf.

For the following communications respecting the French Patent Laws, we are indebted to a foreign gentleman, residing in Boston.

FRENCH PATENT LAWS.

The name of Lewis the XIV. will ever be dear to the lovers of the fine arts. Under him improvements of every kind flourished; and at one time his power had risen to a height, which threatened Europe with slavery. But with so much greatness of character was unfortunately mixed the blindness of religious enthusiasm which led him to proclaim the edict of Nantz; and thus to contribute much to the decline of his own empire, and to the rise of his most powerful rival. Industry, driven from France, took refuge in the congenial soil of Britain; where it was fostered with a care which has been amply repaid: for here we may trace one of the prominent causes of the present grandeur of the British Empire.

Under the two immediate successors of Lewis, a party in the French court, either through ignorance or through the insinuating persuasion of the British ministry, was ever and effectually, though secretly, opposed to the advancements of French manufactories. Nothing was thought elegant or fashionable at court, unless it was English: and the court manners, gradually descending from one class of society to another, guided the whole body of the inhabitants of France, and until 1790, inventors of new discoveries were generally obliged to keep their discoveries a secret, so as to secure to themselves a small part of the benefit to which they were entitled. Hence the slow progress of the French in many branches of industry.

When the Revolution first broke out, the great body of the French people took side against the court, and more particularly against the foreign influence which had too long directed its proceedings. Soon, however, the opinion and the mass of the people were counted for nothing. One set of men at Paris overpowered another, and seemed to take pleasure in destroying almost every thing which its predecessor had reared. Still one aim seemed to be common to all—the glory of the nation and its greatness. This seemed to be an object which the government must desire, or in which it must cede to the impulse of the people; and to advance that object, nothing appeared more important than to surpass the nations of the continent, but more especially Great Britain, in all the sciences and in all the arts. It is to these feelings that we are to attribute the constancy of revolutionary France in adhering to the law in favour of new inventions, which was enacted at a very early period of the revolution. The English decisions were taken as the basis of this law, and only a few modifications were introduced. Its leading traits are as follows:

Considering that every new idea, the manifestation or developement of which may be useful to society, appertains first to him who has conceived it, &c. the National Assembly decrees as follows:

Every discovery or new invention in every species of industry is the property of its author. Consequently the law guarantees to him the full and entire enjoyment of it for 5, 10, or 15 years, at his own option, and according to the fees he pays. A patent may be prolonged by the Legislative body.

Every means of adding, to whatsoever manufacture it may be, some new species of improvement, shall be considered as an invention.

Whoever first brings to France a foreign discovery shall enjoy the same advantages as if he were the inventor.

Whoever wishes to obtain a property as above, or patent, shall deposit in the hands of government the drawings, models, and descriptions which may serve to give an accurate idea of it.

For objects of general utility, but too easily imitated to form a subject of speculation, and in all cases, when the inventor shall prefer treating directly with the government, he may address himself to the Legislature, to communicate his discovery, demonstrate its advantages, and solicit a reward.

The duration of patents for imported discoveries shall not extend beyond the term fixed for the privilege of the original inventor, in his own country.

Every citizen shall be at liberty to consult the descriptions filed; except when the inventor, having judged that reasons of policy or commerce require secrecy, has obtained a particular decree for such secrecy.

In case of infringement, the patentee shall recover the damage he may sustain, and a penalty for the benefit of the poor, not to exceed 3,000*f.* (or $550) and double in case of a second offence.

The proprietor of a patent may form establishments, all over France, and authorize other persons to do the same. He may also sell his patent, as if it were personal estate. The purchaser shall stand in lieu and place of the patentee: but the assignment must be recorded, under pain of nullity.

At the expiration of every patent, its description shall be published, and the use of the discovery become common, unless the Legislature has ordered the description to be kept secret.

The description of the discovery shall also be published, and its use shall become common, if the patent be annulled, which shall take place only in the following cases:

1st, If the inventor has concealed the true means by which he obtains the desired effect.

2dly, If the inventor be convicted of having used in his manufacture secret means, which he has not detailed in his description, or of which he has not made his declaration, to be added to his description.

3dly, If the patent be for a discovery already published.

4thly, If the inventor shall not, within two years, either have put his discovery in activity, or have justified his inaction.

5thly, If the inventor obtains a patent in a foreign country after having obtained one in France.

These grounds of nullity are independent of that arising from a bad description: for it is of course that unless the description be accurate, for either the whole or part of the discovery, the patent does not secure it. The patent secures nothing more than what it says it secures, viz. the discovery as described by the patentee.

"Every inventor shall be at liberty to make changes in his original description, by paying a trifling tax."

The inventor of any improvement upon a discovery already patented, shall be entitled to a patent for the improvement; but shall thereby acquire no right, under any pretence, to the original discovery: neither shall the original inventor be entitled to use the improvement. Changes of form, or proportion, or ornaments of any kind, shall not be deemed improvements.

So far goes *the original law*, and it has since been enacted, that to every patent should be annexed the following declaration: "The government, in granting a "patent without previous examination, do not mean to "guarantee in any way, either the priority or the merit "or the success of the invention."

It is the practice of the government, to annex this remark to any patent, when issued. They also cause the description to be examined at the patent office. If they suppose it interferes with a prior discovery, they give notice of it to the applicant: but if he still insists upon his demand, they grant the patent and annex to it a detailed account of the supposed interference.

It may be remarked, that the tedious and complex formalities to be fulfilled in obtaining a patent, are a

great obstacle to the utility of the law; that the influence of men in power is great on the subject of patents, as well as in other respects.

FRENCH LAWS.

Loi du 7 Janvier.

Article 1. Toute découverte ou nouvelle invention, dans tous les genres d' industrie, est la propriété de son auteur; en conséquence la Loi lui en guarantit la pleine et entière jouissance, suivant le Mode, et pour le tems qui seront ci-après determinés.

Art. 2. Tout moyen d' ajouter à quelque fabrication que ci puisse être un nouveau genre de perfection sera regardé comme une invention.

Art. 3. *Quiconque apportera le prémier en France, une découverte étrangère jouira des mêmes avantages que s'il en était l' inventeur.*

Art. 8. Les Patentes seront donneés pour 5, 10, au 15 anneés au choix de l' inventeur; mais ce dernier terme ne pourra jamais étre prolongé sans un décret particulier.

Art. 11. Il sera libre à tout Citoyen domicilie d' aller consulter au Secrètartât de son Départment le Catalogue des inventions. *Il sera libre de même à tout Citoyen domicillé de consulter au dépôt général établi à cet éffet, les spécifications des defferents patentes actuellement en exercise;* cependant les descriptions ne seront point communiqueés dans le cas où l' inventeur

ayant jugé que des raisons politiques ou commerciales exigent le secrèt se serait presenté au Corps législatif pour lui exposer ses motifs, et en aurait obtenu un décret particulier sur cet object.

ART. 16. 4. *Tout inventeur qui dans l' espace de deux, ans à compler de la date de sa patente n aura point mis sa découverte en activite et qui n' aura point justifié les causes de son in action, sera dechu de sa Patente.*

TRANSLATION.

Law of the 7th January, 1810.

ARTICLE 1. Every discovery or new invention, in every species of industry, is the property of its author; consequently the law guarantees to him the full and entire enjoyment of it, according to the mode and for the term hereinafter expressed.

ART. 2. Every means of adding, to whatsoever manufacture it may be, a new mode of perfection, shall be considered as an invention.

ART. 3. *Whoever first brings to France a foreign discovery shall enjoy the same privileges as if he were the inventor.*

ART. 8. The patents shall be given for 5, 10, or 15 years, at the option of the inventor; but this last term shall never be prolonged without a particular act of the Legislature.

ART. 11. Every domiciliated citizen shall have liberty to consult at the Secretary's office of his Department the catalogue of new inventions. *He shall also be at liberty to consult at the general depcsit, established for that purpose, the specifications of the several patents actually in use;* the descriptions however shall not be communicated in case the inventor, having judged that commercial or political reasons require secrecy, has presented himself to the Legislature to develop to them his motives, and has obtained a particular act on the subject.

ART. 16. 4. *Every inventor who, within two years from the date of his patent, shall not have put his discovery in activity, and who shall not have justified the reasons of his inactivity, shall forfeit his patent.*

SINCE the body of this work was printed, we have seen a report of a case decided in King's Bench, Trinity Term, 1821, in which it was adjudged that a patent for improvements in the construction of ships' anchors, windlasses and chain-cables, cannot be supported, unless there is novelty in each invention; and therefore, where it turned out that there was no novelty in the construction of the anchors, it was held that the patent was wholly void.

Branton vs. Hawkes & al. 4 *Barn. & Ald.* 541.

INDEX.

A.

AFFIDAVIT for the repeal of a patent, proceedings on 302 & seq.
ALIENS may obtain patents for new inventions, under certain restrictions 41, 330, 331
ALTERATION of the parts of a machine not the foundation for a patent 137
APPENDIX 393
ARBITRATION, directed in case of interfering applications for patents 300
refusing to submit to, not conclusive against the party who refuses 301
ASSIGNEE of a patent cannot maintain an action thereon, in his own name, unless he possess a share in the whole right . . . . 233 to 243
after an assignment of his interest, cannot himself set up that his patent is void . 340
ASSIGNMENT of a patent, mode of regulated . . . 232
when the consideration of a promissory note, and the patent fraudulently obtained, the note was held void, &c. . . 340 to 346

C.

CAVEAT, what, and how obtained 168
CIRCUIT COURT of the United States has appellate jurisdiction in a process to repeal a patent 313, 314

COMBINATION of old machines, to produce a new and useful result, is a discovery, for which a patent may be sustained 257
COMPLAINT for the repeal of a patent, form of . . . 408
CONCEALMENT in a specification, according to the law of the United States, will not destroy a patent, unless it be for the purpose of defrauding the public 169, 174
in Great Britain, is fatal to a patent, whether it be fraudulent or inadvertent . 229, 230
COPY-RIGHT, in order to maintain an action on, it is not necessary that the whole book should be pirated 155, 156

D.

DAMAGE presumed in case of making or using a patented machine without license 292
found by jury, to be trebled by the Court, . . 291
counsel fees, and other necessary expenses, included in 293

I.

IMPROVEMENTS in any art, &c. patent may be sustained for . . . . 39, 67 to 130, 144
using of, when invented by another, an offence 53, 54
specification of should distinguish what is new from what is old, 145, 146, 149, 169 to 172
several, distinct in one machine, may be united, but not several improvements in different machines 149, 161
INFRINGEMENT of a patent, pirating any part of an invention is an infringement . . . 155 to 161
carrying on a patented manufacture in a private manner, without license, is *prima facie* evidence of . . . 333 & seq.

INVENTION, a patent may be sustained for in the United States, though known and used before the application for a patent, if not known before the time of its supposed discovery . . . 50
in Great Britain, if known at the time of the application, patent cannot be sustained . 161, 162
must be useful, in contradistinction to immoral or mischievous 63, 64
if it consist of a new conformation of parts, though all the parts were previously known, it may support a patent 143, 228
INVENTOR, original, of a machine, entitled to a priority of right, though subsequently the same machine may have been invented by another . 47, 56
has a right to his invention, even before his patent is granted 55
must be sole and first inventor . 162 to 164

J.

JOINT PATENT may be granted for a joint invention . . 42
cannot be sustained for a sole invention of either of the patentees 43
is inconsistent with several patents for the same invention by the same patentees . . 43

M.

MACHINE, consisting of a perfectly new conformation of parts, though all the parts were known before, will support a patent 228
MAKING a patent machine for use, with a design to use it, is a breach of the patent right . 287 to 291
MATERIALS of a patent machine, sale of by Sheriff lawful . 296
METHOD, a new invented, patent may be maintained for 74, 75
detached from all physical existence, may be the ground of a patent 99, 133
may mean the same thing with engine . 127, 129

O.

OATH of inventor to a new machine prescribed . . 172
its omission does not destroy the patent . . . 173

P.

PATENT is prima facie evidence of a new and useful invention 61, 325, 326
cannot be for an effect only 140
cannot be maintained for merely a new application of an old principle 141
must not be more extensive than the invention . 145
may be for a new combination of machines, but one patent cannot at the same time include an exclusive right in the combination, and in each of the machines 148, 149
for several improvements in a machine, and each improvement summed up as the invention of the patentee, he is bound by his summary . . 153
if for a new combination, and does not claim any invention, except the combination, unless the combination is violated, patentee is not entitled to a remedy 158, 159, 258
mode of proceeding to obtain in the U. States 162 to 166
mode of proceeding to obtain in Great Britain 166 to 169
when an action is brought upon, if the novelty and effect of the invention is disputed, patentee must shew in what it consists 190
mode of proceeding to obtain a repeal of . 307 & seq.
when void, patentee cannot enforce the performance of a covenant for the observance of an exclusive right under 336
PRINCIPLE, not alone the foundation of a patent . . 101
may mean constituent parts 127

R.

REPRESENTATIVES, legal, of a deceased inventor, may obtain a patent 42, 332

S.

SCIRE FACIAS for the repeal of letters patent under the 10th section of the patent act . . . 307 & seq.
English mode of proceeding with respect to . . . . . 326 & seq.
SPECIFICATION of patents should be clear and explicit . 173
no defect or concealment in is sufficient to avoid a patent, unless it be with intent to deceive the public . . . 174, 177 to 181
requisites for, according to British law 381 & seq.
Synthetical View of the Law of Patents 362 to 389

V.

VERDICT of a jury, principles respecting . . 317 to 320

TABLE OF CASES

REPORTED AND CITED.

A.

Archambal vs. Wiseman 295

B.

Barrett & al. vs. Hall & al. 42, 148, 150
Bedford vs. Hunt 56, 64
Bliss vs. Negus 341
Boston Manufacturing Company vs. Jonathan Fisk . 293
Boulton & Watt vs. Bull & Hornblower . . . 67
Bovil vs. Moore and others 215

C.

Cartwright vs. Arnott 201
Cochran vs. Emethhurst 211

D.

Dolland vs. Hall 88, 95

E.

Evans vs. Weiss 50
Evans vs. Eaton 247

H.

Harmar vs. Playne 194
Hayne vs. Maltby 336
Hornblower & Maberly vs. Boulton & Watt . . . 110
Huddert vs. Grimshaw 334

K.

King vs. Else 204

L.

Liardet vs. Johnson 202
Lowell vs. Lewis 60, 145, 180

M.

M' Farlane vs. Price 169
Moody vs. Fisk 153
Morris vs. Branson 91

O.

Odiorne vs. Winkley 49, 147

R.

Rex vs. Cutler 141
Rex vs. Metcalf 230

S.

Sawin & al. vs. Guild 296
Smith vs. Dickenson 351
Stearns vs. Barrett 301, 303

T.

Taylor vs. Hare 346
Turner vs. Winter 181
Tyler & al. vs. Tuel 233

W.

Whitney vs. Carter 130
Whittemore vs. Cutter 172, 174, 243, 287, 239, 291
Wood & others vs. Zimmer & others 162
Woodcock vs. Parker 47

ERRATA.

Page 38, line 6 from top, *for* Walls, *read* Wales.
Page 39, bottom line, *for* Alu, *read* Abr.
Page 47, line 12 from top, *for* Ball *read* Bull.
Page 49, line 11 from top, *for* is, *read* in. Bottom line of same page, *for* 13, *read* 1.
Page 61, line 20 from top, *for* summoning, *read* summing.
Page 62, line 27 from top, *for* not, *read* nor.
Page 79, line 3 from bottom, *for* Butler, *read* Buller.
Page 129, line 3 from top, *for* fire-existing, *read* pre-existing.
Page 206, line 8 from bottom, *for* invention, *read* intervention.
Page 237, line 4 from top, *for* intent, *read* interest.
Page 250, line 4 from top, *for* alea, *read* alia.
Page 268, line 4 from bottom, *for* permit, *read* prevent.
Page 326, line 19 from top, *for* nove, *read* novo.
Page 327, line 19 from top, *for* concus, *read* conces.
Page 329, line 2 from top, *for* Lett *read* Lill.
Page 341, line 6 from top, *for* Negui, *read* Negus. Bottom line, *after* 4 *insert* 6.