
Hogg et al. v. Emerson.

ORDER.

On consideration of the motion made in this case by Mr. Stanton, on a prior day of the present term, to wit, on Friday the 28th ultimo, it is now here ordered by the court, that said motion be, and the same is hereby, overruled.

PETER HOGG AND CORNELIUS H. DELAMATER, PLAINTIFFS
IN ERROR, v. JOHN B. EMERSON.

The decision of this court in the case of *Hogg et al. v. Emerson*, 6 How., 437, reviewed and affirmed.

The specification of Emerson's patent "for certain improvements in the steam-engine and in the mode of propelling therewith either vessels on the water or carriages on the land," constituted a part of the patent, and must be construed with it. Anterior to 1836, the law did not imperatively require that the specification be made a part of the patent, but the inventor had a right to advise the Commissioner of Patents to make the specification a part of the patent, and it was peculiarly proper that he should comply with the request.

This court again decides that the patent is sufficiently clear and certain, and does not cover more ground than one patent may cover. Only one is necessary for two kindred and auxiliary inventions.

The drawings which accompany the specification may be referred to for illustration. Within what time drawings ought to have been replaced, after the destruction of the Patent-Office by fire, so as to avoid the imputation of negligence or of a design to mislead the public, was a question which was properly left to the jury.

The principles stated, within whose operation a jury can properly act in assessing damages against the maker of a patented machine.¹

THIS case was brought up from the Circuit Court of the United States for the Southern District of New York.

It was reported in 6 How., 437, and at the conclusion of the report of that case is the following note:—

"NOTE.—After the delivery of this opinion, the counsel for the plaintiffs in error suggested that other questions were made below, which they desired to be considered, and therefore moved for another *certiorari* to bring them up. This was allowed, and judgment suspended till the next term."

Another *certiorari* was issued, which brought up the entire record. The case, as now to be reported, consists of three records, in parts. Instead of republishing those parts already

¹ See also *Burke v. Partridge*, 58 N. H., 351.

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reported, they will only be referred to; and if the reader is desirous to investigate the case thoroughly, he must read this report in conjunction with that in 6 Howard.

*588] *On the 8th of March, 1834, John B. Emerson obtained a patent for a new and useful improvement in the steam-engine, which is set forth, together with the schedule, in 6 Howard, 437 *et seq.*

At April term, 1844, he brought an action of trespass on the case against Hogg and Delamater for an infringement of his patent right. The declaration is inserted *in extenso* in 6 Howard. The defendants filed the general issue plea, and gave the following notices.

“Circuit Court of the United States of America, for the Southern District of New York, in the Second Circuit.

“PETER HOGG & CORNELIUS DELAMATER v. JOHN B. EMERSON.

“SIR,—You will please to take notice that, on the trial of the above-entitled cause, without waiving the right to require the plaintiff to make out all facts essential to support and prove his declaration and cause, and without admitting any part thereof, the defendants will, under the plea of the general issue aforesaid, give in evidence, prove, and insist upon the following special matter, of which notice is hereby given, pursuant to the statute, in addition to such other defence as they are by law entitled to make.

“I. That the patent granted to John B. Emerson, bearing date the 8th day of March, 1834, under which the said plaintiff claims, is void for the following, among other reasons:—

“1. Because, although it is, in and by the schedule annexed to the said patent, recited that the said John B. Emerson had alleged that he had invented a new and useful improvement in the steam-engine, and in the mode of propelling therewith either vessels on the water or carriages on the land; and it is claimed that, in and by the said patent, the exclusive right and liberty of making, using, and vending to others to be used, the said improvement, was granted to the said John B. Emerson, his heirs, executors, administrators, or assigns, for the term of fourteen years from and after the date of the said patent; yet the said patentee did not (according to law) deliver, with his application for the said patent, or at any other time, to any of the officers who were to consider his application, a written description of his said improvement or invention, and of the manner of using the same, in such full,

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clear, and exact terms, as to distinguish the same from all other things before known, and to enable any person skilled in mechanics to make and use the said invention; and that the improvements claimed by the said John B. Emerson are not in the said patent, or in the schedule thereto annexed, described in *such full, clear, and exact terms as to [*589 distinguish the same from all other things before known, or to enable any person skilled in mechanics to make or use the said improvements; and that the said John B. Emerson did not deliver, with his said application for the said patent, or at any other time, to any of the officers who were to consider his application, a full explanation of his said improvements, and the several modes in which he had contemplated the application of the principle by which they could be distinguished from other inventions, and he did not accompany his application with drawings and written reference, as required by law.

“2. Because the said patent is granted for an improvement in the steam-engine; and in the schedule annexed to the said patent the said John B. Emerson has claimed as his invention different and distinct improvements, to wit, in the steam-engine and in the paddle-wheel, either of which may be used singly and separately for the purpose indicated in said schedule. And although the said John B. Emerson, in the schedule annexed to the said patent, does not claim the invention of spiral paddle-wheels, but claims merely the invention of an improvement in spiral paddle-wheels already essayed, yet he has not, in the said schedule annexed to the said patent, described in what his said improvement in the said spiral paddle-wheels consists; so that any person skilled in mechanics can know wherein the paddle-wheels mentioned in the said schedule differ from spiral paddle-wheels before known and used; and because no distinction or discrimination is made between the parts and portions of the said propelling-wheel of which the said John B. Emerson may be the inventor or discoverer; the said defendants protesting at the same time that the said John B. Emerson has not been the inventor or discoverer of any part or portion of the alleged improvements.

“3. Because the thing patented as set forth in the said patent is different from the things claimed as the invention of the patentee in the schedule annexed to the patent. The thing patented is a new and useful improvement in the steam-engine; but in the schedules annexed to the said patent, the thing claimed by the said patentee as his inventions is not only the alleged improvement in the steam-engine, but also the spiral propelling-wheel, and the application of the revolv-

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ing vertical shaft to the turning of a capstan on the deck of a vessel, while the specification indicates only an improvement in the spiral paddle-wheel, without describing the same in such full, clear, and exact terms as to distinguish the same from all other things before known, or to enable any person skilled in mechanics to make or use the said improvement.

*590] **4.** Because the drawings of his alleged invention, as deposited in the Patent-Office, do not agree with each other, nor with the specification to his letters patent annexed, and render it altogether doubtful and uncertain what his alleged invention truly and really was.

II. And the said defendants will further give in evidence, and prove on the trial of the issue aforesaid, that the machine for propelling boats alleged to have been made by them, in violation of the right of the plaintiff in this case, was made, if made at all, under certain letters patent heretofore granted by the United States to one John Ericsson, to wit, on the 1st day of February, in the year 1838.

III. And the said defendants will further give in evidence, and prove on the trial of the issue aforesaid, that there was at no time on file, or deposited in the Patent-Office, whilst they were engaged in making machines under the said John Ericsson's patent, any specifications or drawings deposited by the said John B. Emerson, from which any person skilled in mechanics could construct a machine similar to the machines they have constructed under the patent of the said John Ericsson.

IV. And the said defendants will further give in evidence, and prove on the trial of the issue aforesaid, that the specification to the letters patent of the said John B. Emerson annexed contained no description of the inventions and improvements now alleged and pretended to be covered by his said letters patent, and claimed to be included therein.

V. And the said defendants will further give in evidence, and prove on the trial of the issue aforesaid, that the said John B. Emerson was not the original inventor or discoverer of any part or parts of the propelling-wheel described in his said letters patent, or of any improvement in any part or parts of the said machine.

VI. And the said defendants will further give in evidence, on the trial of the issue aforesaid, a printed description of a certain propelling-wheel, invented by Archibald Robinson, of London, which said description was published in one or more public works, and particularly in the seventh volume of the London Journal of Arts and Sciences, edited by W. Newton, and published in London in the year 1831, and extensively

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known to mechanics and engineers in the United States; tending to prove that the plaintiff was not the original and first inventor or discoverer of the thing patented, or of a substantial and material part thereof claimed as new, but that it had been described as aforesaid, in public works, before the supposed discovery thereof by the plaintiff.

**VII. And the said defendants will further give in evidence, on the trial of the issue aforesaid, the printed description of certain improvements in machinery for propelling steam-vessels, invented by Jacob Perkins, of London, as early as the year 1829, which said description was published in a public work, printed in London, in the year 1831, to wit, in the seventh volume of the London Journal of Arts and Sciences, edited by W. Newton, a well-known scientific journal, published in London in the year aforesaid. And the said defendants will further give in evidence a plate, number nine in the said volume, containing an engraved delineation of the said invention; all tending to prove that the plaintiff was not the original and true inventor or discoverer of the thing patented, or of a substantial and material part thereof claimed as new, but that it had been described as aforesaid, in a public work, before the supposed discovery thereof by the plaintiff.

“VIII. And the said defendants will further give in evidence, on the trial of the issue aforesaid, a printed description of a certain mode of propelling boats in the water by the application of sculling-wheels, or screw propelling-wheels, invented by Benjamin M. Smith, which said description was published in the year 1830, in the sixth volume of the new series of the Franklin Institute, a scientific journal published in the city of Philadelphia, in the State of Pennsylvania, tending to prove that the plaintiff was not the original and true inventor or discoverer of the thing patented, or of a substantial and material part thereof claimed as new, but that it had been described as aforesaid in a public work before the supposed discovery thereof by the plaintiff.

“IX. And the said defendants will further give in evidence, and prove on the trial of the issue aforesaid, that the said machine, alleged in the plaintiff's writ in this cause to have been made by the said defendants, does not in any of its parts resemble the machine described in the schedule annexed to the letters patent granted to the said plaintiff.

“X. And the said defendants will further give in evidence, and prove on the trial of the issue aforesaid, that the said John B. Emerson, if he was really the inventor of the im-

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provements now alleged, pretended, and claimed by him, voluntarily abandoned the same to the public.

“ XI. And the said defendants will further give in evidence, and prove on the trial of the issue aforesaid, that they have never made, used, or sold the machine patented by the said John B. Emerson, or any part thereof, nor any imitation of the said machine, nor of any part thereof.

“ XII. And the said defendants will further give in evidence, *and prove on the trial of the issue aforesaid, [592] that the description and specification filed by the said plaintiff do not contain the whole truth relative to this invention or discovery.

“ Dated New York, October 26th, 1844.

“ Yours, &c., P. A. HANFORD,
Attorney for Defendants.

“ To PETER CLARK, Esq., *Attorney for Plaintiff.*”

“ Circuit Court of the United States of America for the Southern District of New York, in the Second Circuit.

“ PETER HOGG & CORNELIUS DELAMATER v. JOHN B. EMERSON.

“ SIR,—You will please to take notice that, on the trial of the above-entitled cause, the defendants, in addition to the various matters set forth in the notice heretofore given in this cause, under date of the 26th of October, 1844, will, under the plea of the general issue, prove and insist upon the following special matter, of which notice is hereby given pursuant to statute.

“ The said defendants will give in evidence, on the trial of the issue aforesaid, the letters patent granted to John Ericsson by the English Government in 1836, and the letters patent granted him by the government of the United States in the years 1838 and 1840.

“ The said defendants will also give in evidence copies of letters patent granted by the United States government to Josiah Copley, for a spiral propeller, under date of May 22, 1830; and to John L. Sullivan, under date of March 24, 1817, for a submarine propeller; and to Edward P. Fitzpatrick, under date of November 23, 1835, for a screw for propelling boats; and to James Widdifield, under date of October 11, 1815, for propelling boats by screw wheel; and to John L. Smith, under date of September 18, 1835, for propelling boats by screw wheel; and to Henry W. Wheatley, under date of December 30, 1818, for propelling boats by

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screw power; and to Jesse Ong, on the 22d of May, 1837, for propelling paddle-wheels.

“The said defendants will also give in evidence the digest of patents issued by the United States, published under the superintendence of the Commissioner of Patents in 1840, and more particularly pages 219, 220, 221, 222, 223, 224, 225, of the same.

“The said defendants will also give in evidence a description of certain improvements in propelling vessels, communicated by Charles Cummerow of London, and published in Newton’s London Journal, second series, eighth volume, page 144; which volume the said defendants will give in evidence.

*“The said defendants will also give in evidence a description of certain improvements in the construction and adaptation of a revolving spiral paddle, for propelling boats and other vessels, patented by the British government to Bennet Woodcroft of Manchester, in the county palatine of Lancaster, printed and published in Newton’s Journal, third series, first volume, page 349; which volume the said defendants will give in evidence. [*593]

“The said defendants will also give in evidence the seventh volume of the Repertory of Patent Inventions, for 1837, published in London, and the copy, printed at page 172 of the same, of certain letters patent granted to F. P. Smith for an improved propeller.

“The said defendants will also give in evidence certain letters patent, issued by the government of the United States to Francis P. Smith, for an improved propeller, bearing date the 12th day of November, 1841.

“The said defendants will also give in evidence, that the alleged invention of the said plaintiff, or so much thereof as the said plaintiff may allege or claim that the said defendants have infringed, was invented, known, and used before the same was patented or invented by the said plaintiff. And the said defendants will prove the said prior use and knowledge of the said alleged improvement or invention, and where the same had been used by Dr. Thomas P. Jones, who resides in the city of Washington, in the District of Columbia.

“The said defendants will also give in evidence the sixth volume of the Journal of the Franklin Institute, new series, page 149, where is contained an account of the spiral propeller above referred to, patented to Josiah Copley, and the fifth volume of the same, new series, page 136, where is contained a notice of the propeller patented to Benjamin P. Smith.

“The said defendants will also give in evidence certain

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letters patent granted to John S. Trott of Boston, by the government of the United States, under date of June 2d, 1818, for propelling wheels for boats by animal power.

“ Dated New York, October 27th, 1845.

“ Yours, &c.,

F. A. HANFORD,

Attorney for Defendants.

“ To PETER CLARK, ESQ., *Attorney for Plaintiff.*”

In May, 1847, the cause came on for trial. Both plaintiff and defendant examined many witnesses; the substance of the testimony on the part of the defendants is stated in the argumentative opening of their counsel in this court, which is copied in order to show their view of the evidence. After it was closed, the counsel for the defendants made the following prayers to the court to instruct the jury.

*594] “ 1. That the claim of the plaintiff, as set forth in his specification annexed to his letters patent, embraces the entire spiral paddle-wheel. The claim is therefore too broad upon the face of it, and the letters patent are void upon this ground, and the defendants are entitled to a verdict.

“ 2. That if the court should depart from the language of the patentee, in which he has made his claim, for the purpose of giving to that claim a limitation which may not be too broad, it could not clearly, or with any reasonable certainty, or without resorting to conjecture, be determined by the court what the claim was; and the patent is therefore void for ambiguity, and the defendants are entitled to a verdict.

“ 3. That the patent is void upon its face for this, that, purporting to be a patent for an improvement, and specifying that the invention is of an improved spiral paddle-wheel, differing essentially from any which have been heretofore essayed, without pointing out in what the difference consists, or in any manner whatever indicating the improvement by distinguishing it from the previously essayed spiral wheels, it is wanting in an essential prerequisite to the validity of letters patent for an improvement.

“ 4. That the patent is void upon its face for this, that it embraces several distinct and separate inventions as improvements in several distinct and independent machines, susceptible of independent operation, not necessarily connected with each other in producing the result aimed at in the invention, and the subject-matter of separate and independent patents.

“ 5. That, inasmuch as it appears conclusively by the deposition of Arthur L. McIntyre, the officer in the Patent-Office of the United States who has the care and custody of the

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drawings therein filed, that on the 12th day of February, 1844, the plaintiff filed a drawing, sworn to by him as a correct delineation of his invention, which drawing had been on file since the 5th day of May, 1841, when it was there deposited by the plaintiff unattested; that said drawing became a part of the record of the plaintiff's patent, and that the said record was then complete; and the rights and privileges of the plaintiff, under the act of Congress of March 3d, 1837, were exhausted by the filing of said attested drawing, and therefore said drawing was the one which (if any) should have been introduced in evidence as the recorded delineation of the invention, and the second drawing subsequently filed and introduced in evidence should be disregarded by the jury.

“6. Though inasmuch as it appears conclusively by the deposition of Arthur L. McIntyre, as before stated, that on the 12th day of February, 1844, the plaintiff filed a drawing, *sworn to by himself as a correct delineation of his invention, which drawing had been on file since the 5th day of May, 1841, when it was there deposited by the plaintiff, unattested, that said drawing became a part of the record of plaintiff's patent, and that as against these defendants, who, by legal presumption, were notified of the nature and character of the invention of said first drawing, he is now estopped from asserting that the same is not a true delineation of his invention, either by the testimony of witnesses, or by the introduction of a second and different drawing.

“7. That the rule of law which declares the drawings for patentee to be part of his patent, and that they may be referred to for the purpose of helping out the specification, should be limited to those cases in which the drawings are either annexed to or referred to in the specification; and that even in such case the drawings cannot be resorted to for the purpose of adding to, or in any manner enlarging, the claim as set forth in the specification.

“8. That, if the second drawing which has been exhibited in evidence is to be regarded as a part of the plaintiff's patent, and to be referred to to help out the specification, there must be a conformity between them. If they are substantially at variance, and incongruous, and inconsistent with each other, it is a fatal defect in the patent, which alone is sufficient to prevent the recovery of the plaintiff.

“9. That if, from the testimony, the jury believe that the placing of the paddles obliquely upon the rim of the wheel, sworn to by John S. Trott as having been done by him in 1818, was substantially the same in principle as placing them spirally upon said rim, the defendants are entitled to a verdict.

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“10. That the plaintiff must satisfy the jury, (to sustain the only judicial construction of which the patent admits,) that he is the first and original inventor of the spiral form of the propelling float; and if from the evidence in relation to the patent and wheel of Benjamin M. Smith, in 1829,—of Ebenezer Beard, in and of the spiral float used by John Stevens, in 1805,—they believe that this spiral form was not new in the plaintiff, but was known and used before his patent, that upon this ground the defendants are entitled to a verdict.

“That if the jury believe from the specification of the plaintiff and the testimony, that he designed to express his improvement to consist in the trough form given to the propelling plates by bending them along the centre, so that the sides of the plates shall be at right angles, or nearly so, to each other, and that this trough form, thus produced previous to giving the plate the spiral curve longitudinally, is to be considered as of *the essence of plaintiff's invention, *596] then the defendants have not infringed upon his rights, and are entitled to a verdict.

“12. That if the jury believe, from the specification and the testimony, that neither a cylindrical band nor the twisted spokes were described by the plaintiff as constituting a part of the paddle-wheel by him patented, the same cannot be added as a component part of his invention by their insertion in a drawing filed ten years after the issuing of his letters patent.

“13. That from the silence in the specification, both as to the hoop or cylindrical band and twisted spoke, notwithstanding their delineation in the drawing, the jury must infer one of two things; either that the plaintiff did not invent, and therefore did not describe them, or that they were (as his witness Allaire in substance testified) not the subject-matter of invention at the time at all, being old and well-known parts of the machine described.

“14. That unless the jury believe from the testimony that the plaintiff, before the issuing of his letters patent, actually reduced his alleged invention to practice, the patent is void, and the defendants are entitled to a verdict.

“15. That if, from the testimony, the jury believe that Captain Ericsson actually reduced the propelling wheel to practice, such as were constructed by the defendants, before the same were reduced to practice by the plaintiff, the defendants are entitled to a verdict.

“16. That the exclusive rights of a patentee are to make as well as to use, and vend to others to be used, and that the rule of damages, as against the manufacturer who has invaded

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the exclusive right to make it, are the profits which he has derived, or which the plaintiff might have derived from such making, because it is the sum which by his invasion he has prevented the patentee from obtaining.

“17. That if from the evidence the jury are satisfied that no propelling-wheels were made by the defendants between the 27th of March, 1844, the date of the alleged completion of the record of the plaintiff’s patent, under the act of March 3d, 1837, and the commencement of this suit in April following, upon this ground the defendants are entitled to a verdict.

“18. That the invention of the plaintiff, as described in his specification, as illustrated by his drawing, cannot be regarded as a combination of the several parts of the wheel; as a combination the invention is not brought out in the specification or drawings, and such a view of the case is entirely inadmissible.”

But the court refused to instruct the jury according to the prayers of the defendants, and charged them as follows.

*(That part of the charge which was brought up by the record in 6 Howard is there printed; but the ^[*597] *certiorari* having brought up the residue, it is now printed entire.)

“The court, in charging the jury, submitted to them, as a question of fact, whether the drawings made by Dr. Jones, in 1844, of the paddle-wheel of the plaintiff, were substantially in conformity with the drawing filed and model deposited in the Patent-Office in 1834; that if this fact was found in the affirmative, it was not seriously disputed but that the wheel of Ericsson was similar to one constructed from the specification and drawing of the plaintiff when taken together.

“The court further charged, that if the jury found the above question in the negative, then it would become necessary for them to inquire whether the specification, without the aid of the drawing, was sufficient to enable a mechanic of ordinary skill to construct the plaintiff’s wheel; such a one as could be constructed with the aid of it.

“The court further charged, that the claim of the plaintiff was for an improvement upon the spiral paddle-wheel or propeller; that, by a new arrangement of the parts of the wheel, he had been enabled to effect a new and improved application and use of the same in the propulsion of vessels; that the ground upon which the claim is founded was this: it is the getting rid of nearly all the resisting surface of the wheels of Stevens, Smith, and others, by placing the spiral paddles or propelling surfaces on the ends of arms, instead of carry-

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ing the paddles themselves in a continued surface to the hub or shaft. It is claimed that a great portion of the old blade not only did not aid in the propulsion, but actually impaired its efficiency, and also that the improved wheel is made stronger.

“It was made a question, on the former trial, whether the plaintiff did not claim, or intend to claim, the entire wheel; but we understand it to be for an improvement upon the spiral paddle-wheel, claimed to be new and useful in the arrangement of its parts, and more effective by fixing the spiral paddles upon the extremity of the arms at a distance from the shaft.

“The court further, in charging the jury, submitted to them the question, whether the plaintiff was the first and original inventor of the improvement, referring them to the evidence upon this branch of the case.

“The court further instructed the jury, that the description of the invention was sufficient, and that the objection that the patent embraced several distinct discoveries was untenable.

“That the filing of imperfect drawings of his wheel in 1841 did not preclude the plaintiff from filing a corrected one in 1844, and that the drawing could be referred to in aid of the ^{*598]} specification, though not annexed to the patent, or referred to in the specification; if it was filed with the application in the Patent-Office at the time of the taking out of the patent, it is then a part of the record.

“That if the drawing and specification were so contradictory that a mechanic of ordinary skill could not construct the wheel, the patent was void. But if the latter was ambiguous, obscure, or doubtful, the drawing might be referred to to remove the difficulty.

“That the omission or neglect of the patentee to bring his improvement into public use did not forfeit his right to the invention, and that the fact of Eriesson’s propeller having been brought into public use first did not give his patent priority, if the plaintiff was the first and original inventor.

“We do not understand that the original inventor and patentee, in order to enable him to maintain an action for an infringement, must prove that he put his patent in use by actually building a boat, and running her with a propeller; it is sufficient, if he shows by his experiments, model, and descriptions, that his improvement is useful.

“On the question of damages, the court instructed the jury, that the settled rule was to give the actual damages that the plaintiff had sustained. And it was apprehended, as applied

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to the case before them, that that would be the sum the patentee was entitled to for the right to make his propeller to be used in the several vessels built by the defendants, and in which Ericsson's propeller had been placed by them.

"That the damages were not necessarily confined to the making of the wheels between March, 1844, when the drawings were restored to the Patent-Office, and the bringing of the suit. Such a limitation assumes that there can be no infringement of the patent after the destruction of the records in 1836, until they are restored to the Patent-Office, and that during the intermediate time the rights of the patentee might be violated with impunity. We do not assent to this view.

"In the first place, the act of Congress providing for the restoration was not passed until the 3d of March, 1837; and in the second place, in addition to this, a considerable period of time must necessarily elapse before the act would be generally known; and then a still further period before copies of the drawings and models could be procured. Patentees were not responsible for the fire, nor did it work a forfeiture of their rights.

"The ground for the restriction claimed is, that the community have no means of ascertaining, but by a resort to the records of the Patent-Office, whether the construction of a *particular machine or instrument would be a violation [*599] of the rights of others, and the infringement might be innocently committed.

"But, if the embarrassment happened without the fault of the patentee, he is not responsible for it; nor is the reason applicable to the case of a patent that has been published, and the invention known to the public. The specification in this case had been published. It is true, if it did not sufficiently describe the improvement without the aid of the drawing, this fact would not help the plaintiff.

"If there were unreasonable delay and neglect in restoring the records, and in the mean time a defendant had innocently made the patented article, a fair ground would be laid for a mitigation of the rule of damages, if not for withholding them altogether; and the court left the question of fact, as to reasonable diligence of the patentee or not, in this respect, and also all questions of fact involved in the points of the case for the defendants, to the jury."

The counsel for the defendants, having taken an exception to all that part of the charge which was inconsistent with their prayers, brought the case up to this court.

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It was argued by *Mr. John O. Sargent*, from a brief filed by himself and *Mr. Johnson*, for the plaintiffs in error, and by *Mr. Gillet*, for the defendant in error.

The counsel for the plaintiffs in error stated the case as follows.

On the 8th of March, 1834, John B. Emerson obtained letters patent of the United States for certain improvements in the steam-engine. In December, 1836, the copy of the letters in the Patent-Office, with the drawing and the model, was destroyed by fire. In 1837, Congress passed an act, calling upon inventors, whose models and drawings and letters had been destroyed, to replace them. (5 Stat. at Large, 191.) In 1841, Emerson recorded his letters anew, and filed an unattested drawing. In 1844, February 12, he completed his record by swearing to said drawing, and filing it in the Patent-Office. In March, 1844, he visited Washington, and, on consultation with Dr. Jones, prepared a new drawing, and swore to it, and filed it. In the month of May, he commenced a suit against Hogg and Delamater for making the Ericsson propeller.

In the year 1835, the instrument known as the Ericsson propeller was in operation in London. In 1838, it was patented in the United States. From 1839 to 1844, it was made by manufacturers in New York and elsewhere, without hinderance or molestation, till the suit was commenced against Hogg and Delamater. This instrument is a cylindrical band, ^{*600]} supporting ^{*a series of spiral planes, and sustained on} the shaft by two or more twisted spokes. The spokes and the band constitute its peculiar and patentable features.

John B. Emerson's specification contains no allusion to a cylindrical band or twisted spoke. His drawing, filed in March, 1844, adopts and adds these features. The only evidence tending to show that they were contemplated by him at any time is a model said to have been made in 1837, two years after Ericsson's propeller was in operation in London. This model contains three hoops, and nine or more spiral arms. From this model of 1837, and information of the patentee, Dr. Jones made the drawing of 1844.

Hogg and Delamater were iron-founders in the city of New York. They made no propellers to use, and used none; they merely manufactured them to order. They had no interest whatever in the patent right of Captain Ericsson. No evidence appears in the case, tending to show any such interest.

It is not pretended that J. B. Emerson ever, at any time, reduced his wheel to practice, until the year 1843, when he

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made an experiment with it in the harbor of New Orleans. All that we know of it, therefore, prior to the year 1837, is derived from the drawing made from the model of 1837, or the statement of the patentee himself, and the formal oath that this drawing was a correct delineation of his invention.

The attempt, therefore, to incorporate the spiral spoke, and the cylindrical band or hoop, into Mr. J. B. Emerson's patent, rests exclusively upon his own allegation, which is unsupported entirely by the specification. Emerson's own witnesses admit that there is no mention of these features in the specification, and Dr. Jones, Keller, Birkbeck, Dunham, Belknap, Bartol, Cunningham, Mapes, Cox, and Kemp swear distinctly that the specification, in this respect, contradicts the drawing. It is not denied that the absence of these would destroy every point of resemblance between Emerson's wheel and Ericsson's propeller.

It was distinctly proved by John S. Trott and Nathan Rice, that the entire wheel of Ericsson, except the spiral twist of the propelling blade and the spiral twist of the arm, was in use in 1818, and then patented by Trott. Evidence was also offered tending to show that Trott's wheel, with the oblique float, operated on the same principle with Ericsson's wheel with the spiral float.

It was distinctly proved, that spiral wheels, with arms, employed at the stern, and submerged, were successfully in use long before J. B. Emerson obtained a patent.

The trough form which is so distinctly dwelt upon in *Emerson's specifications, and which in fact constitutes the only feature described and relied upon, does not exist in the Ericsson propeller. The latter instrument employs only spiral planes, which had been in use half a century.

In 1847, a verdict was rendered in the cause against the defendants below, and judgment taken thereon, on which a writ of error was allowed under the seventeenth section of the patent act, restricted to certain questions made at the trial, and upon certain conditions; among which were those of submitting the case on written arguments, within a limited time, and of paying the amount of the judgment into court. The cause was argued according to those conditions, and the court gave an opinion in the case, in which they decided substantially, that the plaintiffs here were entitled to stand before this court like all other suitors, and that the writ, if granted, must be on the whole case.

Judgment was therefore suspended, on plaintiffs' suggestion.

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tion of a diminution of the record, and a *certiorari* issued, by which the case is now brought before the court.

Points.

I. The defendant in error has no patent for an improved spiral paddle-wheel.

American Authorities:—Phillips on Pat., 224, and cases; Curtis, 127, 208; *Sullivan v. Redfield*, Paine, 442; *Shaw v. Cooper*, 7 Pet., 292, 315; *Evans v. Chambers*, 2 Wash. C. C., 125; *Barrett v. Hall*, 1 Mason, 476; *Whittemore v. Cutter*, 1 Gall., 437; *Evans v. Eaton*, Pet. C. C., 340, 341; *Kneiss v. Schuylkill Bank*, 4 Wash. C. C., 9; *Cutting et al. v. Myers*, 4 Wash. C. C., 220; 1 Stat. at L., 319, §§ 1, 3.

English Authorities:—Godson on Pat., 108, 113, and cases; *Neilson v. Harford*, 1 Webs. Pat. Cas., 312 and arg.; *Rex v. Wheeler*, 2 Barn. & Ald., 350; s. c., 3 Meriv., 629; *Glegg's Patent*, 1 Webs. Pat. Cas., 117; *Russell v. Cowley*, Id., 470; *Househill v. Neilson*, Id., 679; Webster on Patents, p. 65; Hindmarch, 41, 42, 509, 510, 511; Godson, 170.

II. If the defendant's patent is for the combination of instruments described in the specification, there is no pretence that the combination has been infringed; if for several improved machines, it cannot be supported in law. *Evans v. Eaton*, 3 Wheat., 454; *Barrett v. Hall*, 1 Mason, 447; *Moody v. Fiske*, 2 Mason, 112; *Wyeth v. Stone*, 1 Story, 290.

III. The claim of the specification is too broad, and the patent therefore void; and the patent does not distinguish the improvement from other inventions.

English Authorities:—*McFarlane v. Price*, 1 Stark., 199; *602] *In re Nickels*, Hindmarch on Patents, 186; *Hill v. Thompson* 3 Meriv., 622; s. c., 8 Taunt., 325; *Williams v. Brodie*, Davis's Pat. Cas., 96, 97; *Manton v. Manton*, Davis's Pat. Cas., 349; *Minter v. Wells*, 1 Webs., 130.

American Authorities:—*Dixon v. Moyer*, 4 Wash. C. C., 69; *Evans v. Hettick*, 3 Wash. C. C., 425; *Lowell v. Lewis*, 1 Mason, 189; *Ames v. Howard*, 1 Sumn., 482; *Evans v. Eaton*, 3 Wheat., 454; *Woodcock v. Parker*, 1 Gall., 438; *Whittemore v. Cutter*, 1 Gall., 478; *Odiorne v. Winkley*, 2 Gall., 51; *Barrett v. Hall*, 1 Mason, 447; *Sullivan v. Redfield*, Paine, 441; *Evans v. Eaton*, 7 Wheat., 408; *Isaacs v. Cooper*, 4 Wash. C. C., 261; *Cross v. Huntly*, 13 Wend. (N. Y.), 385; *Head v. Stevens*, 19 Id., 411; *Kneiss v. Schuylkill Bank*, 4 Wash. C. C., 9; *Morris v. Jenkins et al.*, 3 McLean, 250; *Peterson v. Woodler*, Id., 248.

IV. The drawing, filed March 27, 1844, was not legal evi-

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dence of the defendant's patented invention, because there was a drawing filed by the patentee on the 12th of February previous, which was, by the second section of the act of 1837, with his letters patent, the only legal evidence of his invention, as patented, that could be offered in any judicial court of the United States.

V. The patentee, after an alleged correction of his letters patent by filing the second drawing, could not in law avail himself of that correction to cover causes of action that had previously accrued; and in the absence of proof of any subsequent infringements the plaintiffs here were entitled to a verdict below. *In re Nickels*, Turn. & P., 44; s. c., 1 Webs., 659; Hindmarch on Patents (Eng. ed.), 216 *et seq.*; *Wyeth v. Stone*, 1 Story, 290; *Woodworth v. Hall*, 1 Wood. & M., 248, 389.

VI. The defendants below, having sought to establish by the testimony of Jones, Keller, Birkbeck, Dunham, Belknap, Bartol, Stillman, Cunningham, Mapes, Cox, and Kemp, the nonconformity of Emerson's specification of 1834 to the drawing filed in 1844, and having disputed, at every step, that Ericsson's propeller, or any thing like it, could be made by taking the two together, were entitled to the instructions sought by their eighth prayer; and the various instructions of the court on the subject of the drawing amounted distinctly to a denial of that prayer.

VII. The original letters patent were produced in evidence. There was no drawing annexed, referred to in them, or accompanying them. No case has gone so far as to say that any other drawing shall be permitted to enlarge or add to the specification. *Curtis on Patents*, 123, 125, 173, 174, and cases there cited; *Brooks v. Bicknell*, 3 McLean, 250, 261.

*VIII. The wheel patented by John S. Trott, in 1818, having been proved to be identical with that made by Ericsson, with the single exception of the spiral curvature to the arms and the paddles, the ninth prayer of the defendants below should have been allowed. [*603]

IX. The court erred in rejecting a portion of C. M. Keller's deposition.

X. The court erred in admitting testimony as to the patent fee paid to Captain Ericsson, as a measure of damages against the manufacturers.

XI. The court erred in refusing the sixteenth prayer, on the subject of damages; and in instructing the jury, as matter of law, that the actual damages sustained by Mr. Emerson, by the manufacture of the Ericsson propeller, was the sum the patentee was entitled to for the right to make his

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propeller to be used in the several vessels built by the defendants, and in which the Ericsson propeller had been placed by them. The defendants were the manufacturers, built no vessels, used no propellers, sold no propellers, but were merely employed to make. The actual damage, by the invasion of the right to make, was the maker's profit, and not the patentee's fee. *Curtis on Pat.*, 292, 293, 294, 295, and cases there cited; *Bryce v. Dorr*, 3 *McLean*, 582; *Whittemore v. Cutter*, 1 *Gall.*, 429; *Earle v. Sawyer*, 4 *Mason*, 1, 12.

XII. Whether or not there was reason for withholding damages altogether was a question for the court, and should not have been left to the jury, where there was no dispute about the facts, as in the case presented by the record. *Bend v. Hoyt*, 13 *Pet.*, 263; *Ellis v. Paige*, 1 *Pick. (Mass.)*, 43; s. c., 2 *Id.*, 71; *Livingston & Gilchrist v. Maryland Ins. Co.*, 7 *Cranch*, 506; *Gilbert v. Moody*, 17 *Wend. (N. Y.)*, 354; *Oliver v. Maryland Ins. Co.*, 7 *Cranch*, 495; *Reynolds v. Ocean Ins. Co.*, 22 *Pick. (Mass.)*, 191.

XIV. Whoever first perfects a machine is entitled to the patent, and is the real inventor, although others may previously have had the idea, and made some experiments towards putting it in practice. He is the inventor, and is entitled to the patent, who first brings a machine to perfection, and renders it capable of useful operation. *Washburn v. Gould*, 3 *Story*, 133.

Of *Mr. Gillet's* argument for the defendant in error, the reporter has no notes.

Mr. Justice WOODBURY delivered the opinion of the court.

This is the same case which has been before us on a former occasion, as reported in 6 *How.*, 437.

The decision there announced on the points presented by *604] ^{*that record was accompanied by a ruling that, in writs} of error in patent cases, all the questions of law which arose at the trial might be brought up, and not, as there, only such as the court below should deem reasonable. Thereupon the counsel for the plaintiffs in error moved a *certiorari* to transfer here such other questions as had not been before brought up and decided.

This *certiorari* and a subsequent one having been allowed, the same counsel proceeded to argue the questions appearing on the whole record, as well those on which an opinion had already been pronounced, as the new questions arising on the additional parts of the record.

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This was objected to by the defendants in error, but permitted by the court, on the ground, that a division among them existed before, and that two, if not three, members of the court were now present, who were not when the former opinion was agreed to. On this state of things, having heard the whole case fully reargued, the first inquiry is, if any of the points before settled appear to have been ruled erroneously, either on the record as it then stood, or on it including the new matter since brought up.

It is very manifest that this matter does not relate to any of the former points, and consequently does not impair, or in any way affect them, or our decision before given upon them.

In the next place, has the new argument, or the further consideration of the case, presented any thing which justifies a change of views on what was then settled. We think not.

Without repeating the whole reasoning and precedents stated in 6 Howard, in support of the former views of the court, we shall only submit a few further explanations concerning some of them.

On the leading question, whether the invention is sufficiently described in the letters patent, it may be sufficient to add, that this depends on what must be considered as a part of those letters.

The letters in this case were taken out in 1834, under the act of 1793, and the law did not then require the patentee or the commissioner to make the specification a part of the letters patent, as it does by the act of 1836. But the inventor still had a right, if he pleased, for greater fulness and clearness, not only to file a specification as such, and as the law directed, but to advise the Patent-Office also to incorporate it into the letters as a part of them by express terms of reference. This it would be peculiarly proper for the officers of the government to do, as the language of the specification is the language of the inventor, and describes the invention in his own way, and, it is to be *presumed, in the best way; where- [*605 as the language of the letters is that of the Commissioner of Patents or the President, who signs them, and, if standing alone, might by mistake or accident not fully describe the invention. Here, then, in order to avoid any such untoward result, they did expressly incorporate the whole specification into the patent as "a part" of it, besides referring to it for "a description" of the improvement.

This the officers had a right to do, as grantors in deeds have a right to refer to other deeds or papers, and annex or incorporate them as a part of the instrument of conveyance. See cases cited in 6 Howard.

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A similar course is often pursued in policies of insurance by the makers of them, and in other contracts, as well as in declarations on accounts annexed. That such a course, too, is prudent, and to be encouraged in the case of patents, is shown by Congress in the act of 1836, imperatively requiring it to be done thereafter.

The specification, being, therefore, in this case, voluntarily annexed, and made, in express terms, a part of the patent, though before the law required it to be done, it still became a portion of the patent by general principles, as clearly as it does since by the words of the law. It follows, also, that, being thus adopted and recognized as "a part" of the patent itself, if the improvement is there described with due fulness and certainty, it is so described in the patent itself.

But it is manifest that it is thus described there. In the very first lines it is set out, not only as "an improvement in the steam-engine," but "in the mode of propelling therewith either vessels on the water or carriages on the land." These together constitute a full and satisfactory description of the whole. It is an "improvement in the steam-engine," not in generating steam, but in applying it; and, after describing minutely the application of it for propelling carriages on land, it proceeds to point out, "when used for steamboats," how it is to be connected with "an improved spiral paddle-wheel."

After all this, no one, it is believed, could justly contend that the patent itself was defective, or likely to mislead in describing the improvement which the patentee claims to have invented.

Referring to the former opinion in this case for other reasons and decisions in support of this view, we proceed to the next objection. It is, that the improvement thus described is for more than one invention, and that one set of letters patent for more than one invention is not tolerated by law.

But grant that such is the result when two or more inventions are entirely separate and independent,—though this is ^{*doubtful on principle,—yet it is well settled in the} *606] cases formerly cited, that a patent for more than one invention is not void, if they are connected in their design and operation. This last is clearly the case here. They all here relate to the propelling of carriages and vessels by steam, and only differ, as they must on water, from what they are on land; a paddle-wheel being necessary on the former, and not on the latter, and one being used on the former which is likewise claimed to be an improved one. All are a part of one combination when used on the water, and differing only as the parts must when used to propel in a different element.

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In *Wyeth et al. v. Stone et al.*, 1 Story, 288, in order to render different letters patent necessary, it is said, the inventions must be "wholly independent of each other, and distinct inventions for unconnected objects"; as one to spin cotton and "another to make paper."

Again, if one set of letters patent is permissible for one combination consisting of many parts, as is the daily practice, surely one will amply suffice for two or three portions of that combination.

The next point before decided was, that the description was sufficiently clear and certain. Under the instructions of the court, the jury found that it was clear enough to be understood by ordinary mechanics, and that machines and wheels could readily be made from it, considering the specification as a whole, and adverting to the drawings on file. This is all which the law requires in respect to clearness, and it does not appear necessary to add any thing to what is cited and stated in the former opinion in support of the instructions given below on this point.

The court did right, too, in holding to the propriety of looking to the whole specification, and also to the drawings, for explanation of any thing obscure. The drawings, then, being proper to be referred to in illustration of the specification, they could be restored when burnt, and if appearing in some respects erroneous, they could be corrected. That this last was done, and done well, was distinctly shown by Doctor Jones, a skilful draughtsman and expert. It would be unreasonable to prevent or refuse the correction of such errors, so as not to mislead nor cause contradictions; because, after all, it is the specification which governs, and the drawings merely illustrate. It is true that it would not be proper to leave the drawings so long, not restored nor corrected, as to evince neglect or a design to mislead the public; and the jury were allowed to decide what was a reasonable time for this purpose, under the circumstances of the case, and the duties *imposed by law on the patentee. This being a point in part of law and in part of fact, it was [*607 properly submitted to the jury, and their finding must stand, unless it is shown, as has not been done, that illegal instructions were given to them concerning it, or that proper legal directions were omitted. See analogous cases, *Chitty on Bills*, 336, 379; 9 East, 347; 1 Campb., 246; *Johnson v. Sutton*, 1 T. R., 514; 2 Barn. & Ad., 857, 858.

In respect to another objection, of the claim being too broad, that was fully answered in the former opinion, and so was the objection, that damages could not be recovered after

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the fire, and before the restoration of the specification and drawings.

Certain new points are also presented on the new matter brought here by the *certiorari*. Among them, no one seems specially relied on, which is not involved in those already considered, except the instructions on the rule for settling the whole damages. It is true, that the verdict appears large in amount. But if too large, and the jury were properly instructed on the subject, the fault is theirs rather than the court's, and cannot be corrected here.

It is not, however, clear that it is too large, as it does not appear to have exceeded, and, indeed, it rather falls short of, the price paid for a license to make an improvement like this to be used in so many vessels. It is the making and selling to be used, and not the selling or buying or making alone, for which full damages are usually given. (10 Wheat., 350; Curt. Pat., 256, 3 n.; 3 McLean, 427.) The court, therefore, being called on to lay down some general rule, very properly informed the jury that such price might be a suitable guide, and it is the customary one followed for making and selling patent stoves, lasts, spokes, &c., and seems once to have been treated by law as the chief guide in all patent cases; as the act of 1791, § 5, (1 Stat. at L., 322,) gave three times its amount when one either made for sale or used a patented machine.

But that law being repealed, and the damages now left open for each case, the judge correctly added, that a fair ground existed for a mitigation below that amount, if the maker of the machine appeared in truth to be ignorant of the existence of the patent right, and did not intend any infringement. That would not, however, furnish a reason, as was insisted by the plaintiffs in error, for allowing no damages when making the machine *to be used*, and not, as in some cases, merely for a model, or for fancy, or philosophical illustration. (*Whittemore v. Cutter*, 1 Gall., 429; *Jones v. Pearce*, 1 Webs. Pat. Cas., 125; 3 McLean, 583.) The intent not to injure, also, never **exonerates*, as is con-

**608]* tended, in these cases, from all damages for the actual injury or encroachment, though it may mitigate them. (*Bryce v. Dorr*, 3 McLean, 583.) The further general suggestion by the judge, to give only the actual damages, was well calculated to prevent any thing vindictive or in excess, and justified the jury to go still lower than they did, if appearing just to them, and as has sometimes been done in this class of cases. (See *Lowell v. Lewis*, 1 Mason, 182; 1 Gall., 420.

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That, however, was a matter of discretion for the jury, under all the circumstances, and not a question of law for the court.

Nor will the consequence of damages so large as the present seem harsh, if thereby any further recovery should be prevented for using or selling as well as making the machine, but which point is not decided by us now, because not raised on the record. It may be added, however, in this connection, that the defendants are certainly relieved now from one consequence by way of damages or penalty which once existed, and which was to forfeit the materials of the machine to the patentee. (See section 4th in act of April 10th, 1790, 1 Stat. at L., 111.) It must be a very extreme case, too, where a judgment below should be reversed on account of damages like these in actions *ex delicto*, and when the instructions suggested to the jury the true general rule and the leading ground for mitigation, as well as against excess, and when, if appearing to be clearly excessive under all circumstances, a new trial could have been moved and had on that account in the Circuit Court.

Judgment below affirmed.

Mr. Chief Justice TANEY, Mr. Justice CATRON, Mr. Justice DANIEL, and Mr. Justice GRIER dissented.

Mr. Justice CATRON.

To the opinion just delivered I dissent. I think the letters patent are for a single improvement on the steam-engine, and that the schedule has added two distinct inventions in addition; the one on the paddle to a wheel propelling machinery or a vessel of any kind in the water; and the second in applying the power of the shaft to turning a capstan by means of a cogwheel. These two claims are entirely independent of the improvement claimed in the letters patent actually granted; this is for inventing a piston and shaft which turn a wheel without employing a crank. And as this controversy depends on a supposed infringement of the improved paddle (which, in my judgment, is not covered by the letters), I therefore think that the suit cannot be maintained on the face of the letters.

*Secondly, if these three distinct improvements had been claimed and granted in the letters, and described in the schedule, then the patent would be void, as I think, because no more than one invention, distinct and disconnected from others, can be granted in the same letters. Such is the construction that has been given to the legislation of

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Congress at the Patent-Office, and is supposed by me to be the correct one. If three independent inventions can be patented and monopolized together, so any number may be; by this means, the grant may cover many fictitious claims, with some valid ones, which latter will stand protected; so that little or no risk will be run by obtaining a grant for that which is not new; and by this mode of proceeding at the Patent-Office, fictitious claims may cover and assume to monopolize the ordinary implements now in use on the farm and in the workshop, and, yet more than is now the case, harass the public with fictitious and ill-founded claims to make and sell exclusively things in daily and extensive use. Although the claim may be fictitious, still this does not protect the public from harassment, as usually men using cheap implements cannot afford to litigate in the United States courts. It would be far better to allow the claim, unjust as it is, and pay the patentee his fraudulent demand, than incur the expense of a suit, which the patentee or his assignee may well afford to prosecute.

ORDER.

This cause came on to be heard on the transcript of the record from the Circuit Court of the United States for the Southern District of New York, and was argued by counsel. On consideration whereof, it is now here ordered and adjudged by this court, that the judgment of the said Circuit Court in this cause be, and the same is hereby, affirmed, with costs, and damages at the rate of six per centum per annum.

THE UNITED STATES, APPELLANTS, *v.* THE MAYOR, ALDERMEN, AND INHABITANTS OF THE CITIES OF PHILADELPHIA AND NEW ORLEANS.

The decision of this court in the *United States v. Reynes* (9 How., 127), again affirmed, to wit, that under the acts of Congress of May 26, 1824 (4 Stat. at L., 52), and June 17, 1844 (5 Stat. at L., 676), the courts of the United States have no power to decide upon complete or perfect titles to land.¹ The contract made between the Baron de Bastrop and the Spanish government did not vest a perfect title in Bastrop, and therefore this court can exercise jurisdiction over the claim.²

¹ S. P. *United States v. Constant*, 12 *Ius*, Id., 31; *Same v. Same*, Id., 36; *How.*, 437; *Same v. Pillerin*, 13 *Id.*, 9; *Same v. Ducros*, Id., 38.
Same v. McCullagh, *Id.*, 216; *Same v. D'Auterive*, 15 *Id.*, 14; *Same v. Rose-* *663.