

8FED.CAS.—54

Case No. 4,559.

EVANS v. EATON.

{Pet. C. C. 322;¹ 1 Robb, Pat. Cas. 68.}

Circuit Court, D. Pennsylvania.

Oct. Term, 1816.²

PATENTS—EXCLUSIVE CHARACTER OF
GRANT—EXPIRATION—CONSTRUCTION—PRACTICABILITY OF
INVENTION—NOVELTY—PATENTABLE IMPROVEMENT—NEW
COMBINATIONS—ABANDONMENT—CONSTITUTIONAL LAW—VIOLATION
OF CONTRACT—OBLIGATIONS BY CONGRESS—EVIDENCE—NOTICE OF
SPECIAL MATTER—EXAMINATION OF WITNESS CALLED IN REBUTTAL.

1. A grant by the legislature of a state, of an exclusive privilege in an invention for a limited time, does not imply an irrevocable contract with the people, that at the expiration of the period the invention shall become their property. The state may revive the grant, or refuse it, and in the latter case, at the end of the period, the invention may be used by any one.

{Cited in *Wilson v. Rousseau*, Case No. 17,832; *Jordan v. Dobson*, Id. 7,519; *Knox v. Lee*, 12 Wall. (79 U. S.) 671.}

2. There is nothing in the constitution of the United States, which forbids congress to pass laws violating the obligation of contracts, although such a power is denied to the states.

{Cited in *Knox v. Lee*, 12 Wall. (79 U. S.) 671; *Buckner v. Street*, Case No. 2,098; *Re Smith*, Id. 12,986; *Brooke v. McCracken*, Id. 1,932; *Re Smith*, Id. 12,996.}

3. In the notice of special matter, to be given in evidence by the defendant, certain mills were mentioned, where a machine, of which the plaintiff claimed to be the inventor, was in use prior to the date of the alleged discovery of the plaintiff. It is competent to the defendant to give evidence of the use of the machine in other mills, than those mentioned in the notice of special matter.

{See note at end of case.}

4. If a witness is sworn on his voir dire, no other evidence to prove him incompetent can be given. But if, in any part of his examination it should afterwards appear that the witness was incompetent, his testimony will be set aside by the court.

5. The court will not permit the plaintiff to put a question to a witness, called by him to rebut the defendant's testimony, which is not intended to contradict or discredit the defendant's witnesses, and which question is not rendered necessary by evidence given by the defendant.

6. Although counsel profess that the object of testimony which is offered by them is to discredit one of the witnesses of the opposite party, yet if the court consider the testimony cannot have that effect, they will not permit it to be given.

7. The patent granted to Oliver Evans, contains no grant of a right to the several machines, but is confined to the improvements in the art of manufacturing flour by those machines; although the act of congress, authorising the grant of the patent, authorised the issuing of a patent for the several machines, as well as for the entire improvement.

8. The schedule annexed to letters patent, is part of the patent, so far as it is a description of the machine, but no further.

9. Summary of the provisions of the patent laws.

EVANS v. EATON.

10. A patent may be for a new and useful art; but it must be practical, and it must be explicable, and referrible to something which may prove it to be useful.

11. The discovery must not only be useful, but new, and it must not have been known and used before in any part of the world; and the title of the patentee to an invention may be impeached, although he was ignorant at the time he received the letters patent, that the invention had been in use before his discovery.

{Cited in *Brooks v. Bicknell*, Case No. 1,944.}

12. If the discovery be of an improvement only, it must be an improvement in the principles of a machine, art, or manufacture before known or used; if the form or proportions are improved, it is not a discovery.

{Cited in *Smith v. Pearce*, Case No. 13,089.}

13. The grant of an exclusive privilege by the patent, can only be for the discovery recited and described in the patent and specification.

14. If the patentee is the discoverer of an improvement, and the patent is for the whole machine, it is void.

{Cited in *Whitney v. Emmett*, Case No. 17,585.}

{See, contra, *Goodyear v. Mathews*, Case No. 5,576.}

15. A machine or an improvement, may be new and entitled to a patent, although parts of it were before known and used.

{Cited in *Whitney v. Emmett*, Case No. 17,585.}

16. The combination of old machines to produce a new and useful result, is a discovery for which a patent may be granted.

17. A recovery cannot be had by the patentee of the discovery of a useful combination of known machines, in an action against any one who may use one of the known machines of which the combination is formed.

18. *Quere.* If in an action for the violation of a patent for a new and useful improvement by the combination of machines, the plaintiff can recover against one who has used one of the machines, employed in such combination, although he may have been the inventor of the machine used by the defendant. In such a case, the inventor should take out a patent for each machine of which he may have been the discoverer, and he should institute an action for the violation of his rights under such a patent.

19. An offer to the patentee of an invention, to take from him a license to use his alleged discovery, does not take away the right of the person who made the offer to deny afterwards that the patentee was the original inventor.

20. There is no limitation of the period in which, when the general issue is pleaded to an action on a patent, the defendant may give in evidence that the patentee is not the original inventor.

21. If the original inventor of a machine abandons the use of it and does not take out a patent for it, no other person can entitle himself to a patent for the machine.

Action for a violation of the plaintiff's patent right to his improvement in the art of manufacturing flour, &c.

The declaration contains a number of counts, charging a breach of the whole patent, and also charging the defendant with having made and used each particular machine, by means of which this manufacture

is performed and which are particularly described in the schedule.³

To this declaration the general issue was pleaded, and notice of the special matter of defence intended to be relied on at the trial, was given to the plaintiff. The material defence stated in the notice was, that the plaintiff is not the original inventor of the hopper-boy described in the schedule, but that the same had been used in certain mills, which are named, and in sundry others which are not enumerated, long before the pretended discovery of the plaintiff.⁴

The plaintiff gave in evidence, an act of the legislature of Pennsylvania, dated the 29th of March, 1787, granting to the plaintiff the exclusive privilege of making, using, and vending to be used, his invention of the art of manufacturing flour, for fourteen years. Also the patent upon which this action is brought, dated the 22d of January, 1808. It recites the allegation of the plaintiff, that he had invented a new and useful improvement in the art of manufacturing flour and meal, by means of certain machines, which he terms an improved elevator, an improved

EVANS v. EATON.

conveyor, an improved hopperboy, an improved drill, and an improved kiln-drier, which machines are moved by the same power that moves the mill, or other principal machinery; and in their operation, subdivide any granulated or pulverized substance, elevate and carry the same from place to place, in small and separate parcels; spread, stir, turn, and gather them, by regular and constant motion, so as to subject them to artificial heat, and the air to dry and cool when necessary. It then recites the material parts of the act of congress, passed on the 21st of January, 1808 [6 Stat. 70], "for the relief of Oliver Evans," and concludes by granting "to the said Evans for fourteen years, the full and 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 Oliver Evans himself, in the annexed schedule, and is made a part of these presents."

The schedule describes the principles of the machine in the manner, but more fully than they are stated in the patent, and also the principles, the form and use of each particular machine; and claims as his invention, the peculiar properties or principles which each machine possesses; and in particular as to the hopperboy, the spreading, turning and gathering the meal, at one operation, and the rising and lowering of its arms by its motion, to accommodate itself to the quantity of meal it has to operate upon.

The plaintiff gave evidence, to prove his discovery to have been as early as the year 1783, and to have been brought into use, in the year 1785. He also proved it to be a highly useful invention, in the saving of manual labour, increasing the quantity and improving the quality of the flour. He also proved that the defendant had in use in his mill, a hopperboy, constructed precisely like the plaintiff's. That he had offered to take out a license from the plaintiff, but refused to pay the sum demanded. The plaintiff having closed his evidence, a motion was made to nonsuit the plaintiff. It was contended, that after the expiration of the plaintiff's privilege granted to him by this state, the right to his invention became vested in the people of the state, by an implied contract with the government; and that therefore congress could not, consistently with the constitution of the United States, grant to the plaintiff an exclusive right to the invention.

BY THE COURT. Neither the premises upon which this motion is founded, nor the conclusion can be admitted. It is not true that the grant of an exclusive privilege to an

invention for a limited time, implies a binding and irrevocable contract with the people, that at the expiration of the period the invention shall become their property. The state has a perfect right to renew the grant at the end of the period or to refuse to do so; and in the latter case, it is a matter of course that the invention may be used by any person who chooses to do so. In like manner may congress renew a patent right or decline to do so. But even if the premises were true, still there is nothing in the constitution of the United States which forbids congress to pass laws violating the obligation of contracts, although such a power is denied to the states individually.

The defendant produced a number of witnesses who described a machine called Stouffer's machine or hopperboy, which had been in use in many mills from the year 1764. The construction of this machine is an upright shaft, sometimes round but most commonly square, passing through a board somewhat in the form of an S, with strips of wood nailed on the lower side for the purpose of moving, stirring, mixing and delivering the flour into the hopper-chest; this machine is moved by the bolting gears. The witnesses stated, that the action of this machine cools and dries the flour sufficiently to be packed from the bolting chest. Some of the witnesses were of opinion that this machine does not cool the flour as well as the plaintiff's, even independent of the elevators; many witnesses, however, expressed a different opinion.

The plaintiff objected to the defendant giving any evidence to prove that this machine was used in mills, other than those particularly named in the notice. This objection was overruled, for the reasons stated in the case of *Evans v. Kremer* [Case No. 4,565]. (To this opinion an exception was taken.) A question also arose, whether, when a witness is sworn on his voir dire, any evidence can be given to prove him to be incompetent, except such as arises from his own acknowledgments. The court decided that it could not. But if it should in any subsequent stage of the examination, appear, by other evidence, that he is not a competent witness, the court will set him aside. The plaintiff's counsel asked one of their own witnesses, called to rebut the evidence given by the defendant, whether John, Peter and Jacob Stouffer, who it had been proved, had the Stouffer hopperboy in their mills, had taken out licenses under the plaintiff. This was objected to, and the objection was decided by the court to be well taken; it not being stated that the question was intended to contradict or discredit any of the defendant's witnesses; nor that it was rendered necessary by any evidence given by the defendant. If the license was purchased by those persons, it neither directly, nor by fair inference, proves

EVANS v. EATON.

any thing in relation to the matter in controversy. (This opinion was excepted to.) The plaintiff offered to prove that the father of Mr. Rine, one of the defendant's witnesses, had taken a license from the plaintiff, for the purpose, as the counsel stated, to discredit the witness.

BY THE COURT. Although the counsel proposes to offer this evidence to discredit one of the defendant's witnesses, yet as it is obvious that it cannot in the most remote degree have this effect, it is improper to give it (Motion overruled.)

It was contended by the plaintiff's counsel, First That an art as well as a machine may constitute a patentable interest; so likewise the application of a new principle to an old machine, to produce a new result, or a combination of old machines to produce a new result in an old art; even a principle may be patented, if it be applied to any useful purpose. 8 Term R. 95; 2 H. Bl. 463; Fessen. Pat. 231; *Whittemore v. Cutter* [Case No. 17,601]. Second. The plaintiff having a patent for the whole improvement, composed of sundry machines, has a right to all and each of the machines, and may maintain an action against any person who makes or uses them separately. The act for the relief of Oliver Evans, authorises a patent to be made to him for the whole and for each machine, and the plaintiff, in his schedule, which is part of the patent, claims an exclusive right to each. Third. It is not necessary that the plaintiff should be the first discoverer, if he was a real bona fide discoverer, without knowing that a similar discovery had previously been made; this is clearly the meaning of the word "true" in the tenth section, with which the word "original" in the sixth section is synonymous. The word first is used in the statute of James, and was no doubt dropped intentionally by congress. Fourth. Though the plaintiff should not be the original discoverer; yet, after the defendant's offer to take a license under him, it does not lie in his mouth to make that defence. Fifth. As the tenth section limits the bringing of a scire facias to three years, under the equity of that section, no person should be permitted, after three years, to set up the defence

mentioned in the sixth section. Sixth. Admit Stouffer's machine to be similar in principle to the plaintiff's, still, as he never obtained a patent for it, it was thereby abandoned and might be patented by the plaintiff. *Whittemore v. Cutter* [supra].

Upon the evidence, it was contended, that the two machines differ in form, in principle, and in effect. On the other side it was argued, that this patent is broader than the discovery, it not being possible for the plaintiff to contend that he has any merit beyond that of an improvement. If the discovery amount to any thing, it is to that, and consequently the patent could only be for an improvement, whereas this is for the whole machine, under the name of an improved hopperboy. But though called an improved hopperboy, it is not so described in the specification, nor is it stated in what the improvement consists, which is necessary to the validity of the patent. *Whittemore v. Cutter* [supra]. Upon the evidence it was contended, that Stouffer's hopperboy is older and was in use a great many years before the plaintiff's discovery; that it is the same in form, in principle and effect; performs all its functions as well, and in the same manner.

WASHINGTON, Circuit Justice (charging jury). The plaintiff derives his title to the patent in question, under the private act of congress, passed for the relief of Oliver Evans, on the 21st of January, 1808. His action however, is founded on his patent, and I should not notice the above act, if the plaintiff's counsel had not relied upon it, to prove that the plaintiff is entitled to an exclusive property, not only in the entire improvement, but in the several machines, which are employed to produce the specified results. It would certainly seem that congress intended this, and why the patent is not as broad as the law, I cannot conjecture, unless it was apprehended that some difficulty might occur in the construction of the patent, in relation to these machines, had it pursued the words of the law. But be this as it may, it is certain that the patent contains no grant of a right to the several machines, but is confined to the improvement

EVANS v. EATON.

in the art of manufacturing flour by means of those machines, and therefore the plaintiff can claim no right which is not included in the patent. It has been stated that the schedule is part of the patent, and that this contains a claim of the invention of the peculiar properties and principles of the hopperboy. Without noticing the extraordinary nature of such a claim, it is granted that the schedule is to be considered as a part of the patent, so far as it is descriptive of the machines, but no further; and even if this claim had been stated in the body of the patent, it would have have conferred no right which that instrument does not grant.

I now proceed to state such parts of the law concerning patent rights (2 Laws [Bior. & D.] 348 [1 Stat. 318]) as may be necessary for deciding the questions which have been made in this cause. It authorises 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 improvement 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 principle of the machine, and that a mere change in the form or proportions of any machine, shall not be deemed a discovery. Previous 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 clear and exact 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.

From this short analysis of the law, the following rules may be deduced:

First. That a patent may be for a new and useful art; but it must be practical, it must be applicable and referable to something which may prove it to be useful. A mere abstract principle is unsusceptible of appropriation by patent. The intention of congress is very obvious, from the language of this law. The applicant for a patent must show

how the principle is to be used and applied to some useful purpose. The granting words of the patent are still more explicit; they are, "to make, construct, use, and vend to be used."

Second. The discovery must be not only useful, but new; it must not have been known or used before in any part of the world. It is contended by the plaintiff's counsel, that the title of the patentee cannot be impeached, unless it is shown that he knew of a prior discovery of the same art, machine, &c. and that true and original are synonymous, in the intention of the legislature. As it is not pretended that true and original mean the same thing in common parlance, I proceed to enquire whether the legislature intended to use them as such. As to this, there can scarcely be two opposed opinions. The first section, referring to the allegations of the applicant for a patent, speaks of the discovery as something not known or used before the application. And in the sixth section it is declared, that the defendant may give in evidence that 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. Now, if original does not mean first, the preceding expressions in the first and sixth sections, most certainly do.

Third. 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 in use. If only in the form or proportions, it has not the merit of a discovery which can entitle the party to a patent.

Fourth. 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 or machine for which the grant is made, the whole is void. If, therefore, the patent be for the whole of a machine, and the discovery was only of an improvement, the patent is void.

Fifth. A machine, or an improvement may be new, and the proper subject of a patent, although, the parts of it were before 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 will apply to most of the questions which have been discussed in this cause. It was strongly insisted upon by the defendant's counsel, that the patent in this case is broader than the discovery; the evidence having clearly proved 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 in use many years before the alleged discovery of the plaintiff. This argument proceeds upon the supposition that the plaintiff has obtained a patent for the hopperboy, which is entirely a mistake. It is 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 other of the machines so combined and used. That the plaintiff is the original discoverer of this improvement is contested by no person; and therefore it cannot 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, can he recover against a person who has made or used one of the machines, which in part constitutes the discovery? The plaintiff insists that he may, because, having a right to the whole, he is consequently entitled to the parts of which that whole is composed. This may be good logic, but I must be permitted to question the soundness of the conclusion in point of law. For, will it be seriously contended that a person may 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 can, 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 had either obtained patents for their respective discoveries, or chose to abandon them to the public, the plaintiff, although it is obvious he could not have obtained separate patents for those machines, might nevertheless deprive the original inventors in the first instance, and the public in the other, of their acknowledged right to use those discoveries, by obtaining a patent for an improvement which consists in a combination of those machines to produce a new result. An argument which leads to a consequence so glaringly unjust, if not absurd, cannot possibly be a sound one. It would not be more unreasonable to contend, that if the plaintiff were the patentee of the hopperboy, which consists of a shaft, an arm, &c. he might bring an action against any person who, in the manufacturing of flour, should make use of a shaft or any other of the component parts of his hopperboy.

I presume, therefore, that the plaintiff's counsel could not mean to contend for this right, except in a case where the patentee was the original discoverer of the particular machine or part, for which his suit is brought; and if so, we are still brought to the question whether, in point of fact, the plaintiff was the original discoverer of this machine, called the hopperboy. But before I proceed to consider that question, I would ask whether it

is quite clear that this action can be maintained, although it were proved beyond all controversy that the plaintiff was the original inventor of this machine? And this inquiry is made, not with a view to decide the question, because it was not discussed at all at the bar, but for the purpose of preventing a conclusion being drawn from the silence of the court, that we considered the action would lie. I will merely suggest some of the difficulties with which, upon a superficial view of the question, we are forcibly struck.

The patent is the foundation of the action, and the gist of the action is the violation of a right which the patent has granted. But is the exclusive right to fee hopperboy granted by this patent? It certainly is not, although this machine constitutes a part of the improvement of which the plaintiff was the original discoverer, and it is for that improvement, and that only, for which the grant is made. If the grant then, is not of this particular machine, can it be sufficient for the plaintiff to prove that he was the original discoverer of it, to entitle him to a recovery? Again, could the plaintiff have obtained a separate patent for the hopperboy, in case he was the original inventor of it, without first swearing or affirming that he was the true inventor of that machine? But has he, or could he have taken such an oath in this case? Most assuredly 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. Now, as the patent which he solicited was not for the hopperboy, but for an improvement in the manufacture of flour, he might with safety take that oath, although he knew at the time that he was not the true inventor of the hopperboy; and thus it would happen, that he would indirectly obtain the full benefit of a patent right to this machine, which he could not have directly obtained, without doing what it must be admitted in this case he has not done. But this is not all. If the law has provided for fair and original discoverers a remedy where their rights are invaded by others, it has provided likewise correspondent protection to others, where they have not this merit. Now, let me ask, what judgment the district court could render, if upon a scire facias to repeal this patent, it had appeared, incontestably, that the plaintiff was not the true original discoverer of the hopperboy? Certainly not that which the law has prescribed, viz. for 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 discovery for which no grant was made. But the court would be compelled, either to do this, or to dismiss the *scire facias*; and if the latter, then the plaintiff would in effect have the exclusive right to a machine which could not be impeached in the way prescribed by law, although he should himself acknowledge that he was not the true and original inventor of it, and that he knew he was not so at the time he applied for his patent. Still further: suppose this jury should 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 sixth section of the law, for the reasons assigned why the district court could not render that judgment upon a *scire facias*? Nay, it may well be doubted whether the defence now set up by the defendant can be made at all in this action, inasmuch as the defendant cannot allege in the words of the sixth section, that "the thing secured by patent was not originally discovered by the patentee," because, in point of fact, the thing patented was originally discovered by the patentee, although the hopperboy may not have been. But if this defence cannot be made, does not that circumstance afford a strong argument against this action?

But, it has been asked by the plaintiff's counsel, can it be right that the plaintiff should be deprived of the benefit of his discovery by the mere omission of the defendant to use one or more of the machines which compose the entirety of his discovery? To this question the answer is obvious. If the plaintiff is not the inventor of the parts, he has no right to complain that they are used, if not in a way to infringe his right to their combined use. If he is the original inventor of the different machines constituting the whole discovery, or any of them, he might have obtained a separate patent for those of which he was the original inventor; in which case, the objections stated, would not have been in his way.

Upon the whole, although we give no positive opinion on this point, we think it at least admits of a serious doubt whether this action can be maintained. But if an action will lie upon this patent, against the defendant for having used the hopperboy, still the plaintiff cannot recover, if it has been shown to the satisfaction of the jury, that he was not the original discoverer of that machine. It appears by the testimony of the defendant's witnesses, that Stouffer's hopperboy was in use many years before the alleged discovery of the plaintiff's. That the two machines differ from each other very little in form, in principle, or in effect. They are 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 are preferable to the cleats used in Stouffer's; or whether, upon the whole, the former is a more perfect agent in the manufactory of flour, than the latter, are questions which the court will not undertake to decide. Because, unless the plaintiff is the original inventor of the hopperboy, he cannot, although he had obtained a separate patent for it, recover in this action however useful the improvements

may be which he has made in this 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 does not extend to the whole machine, but merely to an improvement in the principle of an old one. And if this should be their opinion in the present case, the plaintiff cannot recover.

There remain to be decided, some points of law which were discussed at the bar.

First. It was contended by the plaintiff's counsel, that the defendant having offered to take a license from the plaintiff, if he would have consented to reduce the price of it to forty dollars, he is not now at liberty to deny that the plaintiff is the original inventor of this machine. This argument has no weight in it; not merely because the offer was rejected, and is therefore as if it had not been made, but because the law prevents the plaintiff from recovering, if it appear that he was not the original inventor. If the offer amounted to an acknowledgment that the plaintiff was the original inventor, (and further it could not go) this may be used as evidence of that fact; but it would not entitle the plaintiff to a verdict, if the fact is proved to be otherwise.

Second. The counsel for the plaintiff have strongly insisted that upon 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 plaintiff's patent. This argument might, with some propriety perhaps be addressed to the legislature, but is improperly urged in this place. The law has declared, that, in actions 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 shall this court do it? But, what seems to be conclusive upon this point, is, that the argument would tend to defeat altogether the provisions of the sixth section, which authorise 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 a 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 for vacating a patent improvidently granted, the patentee, though not the original

EVANS v. EATON.

inventor, and however surreptitiously he may have obtained his patent, may secure his title to the exclusive use of the invention of another, if he can for three years avoid an enquiry into the validity of that title.

Third. The last point is, that Stouffer's invention was abandoned, and consequently might be appropriated by the plaintiff. The premises may be admitted but not the conclusion. If Stouffer was the original inventor of the hopperboy and chose not to obtain a patent for it, it became public property by his abandonment. He could maintain no action against any person for using it, nor could any other person obtain a patent for it, because he would not be the original inventor. Verdict for defendant.

A writ of error was taken out by the supreme court, and the decision of that court in this case, will be found in 3 Wheat. [16 U. S.] 454.

[NOTE. For other cases involving this patent, see note to Evans v. Hettick, Case No. 4,562.]

[This case was taken to the supreme court on writ of error, and the judgment was there reversed, and the case remanded to the circuit court for further proceedings. In the opinion of the court Mr. Chief Justice Marshall held that the defendant, having given notice of special matter consisting in the alleged use of the improved hopperboy at various times and places prior to the alleged invention, could give evidence as to other places not specified in the notice. The court also held that the testimony offered by the plaintiff to prove that the persons whose prior use of the hopperboy had been alleged had paid the plaintiff for license, since his patent should not have been rejected, but should have been permitted to go to the jury, although it was entitled to very little weight. In relation to the construction of the patent, it was held that the patent was for the invention, discovery, and improvement in the art of manufacturing flour, and in the several machines applicable to that purpose. Evans v. Eaton, 3 Wheat. (16 U. S.) 454.]

¹ [Reported by Richard Peters, Jr., Esq.]

² [Reversed in 3 Wheat. (16 U. S.) 454.]

³ To James Madison, Esq. Secretary of State: The petition of Oliver Evans, of the city of Philadelphia, a citizen of the United States, respectfully sheweth,
That your petitioner having discovered certain useful improvements, applicable to various purposes, but particularly to the art of manufacturing flour and meal, prays a patent for the same, agreeably to the act of congress, entitled, "An act for the relief of Oliver Evans."
The principles of these improvements consist,
1. In the subdivision of the grain, or any granulated or pulverized, substance; in elevating and conveying them from place to place in small separate parcels; in spreading, stirring, turning and gathering them by regular and constant motion, so as to subject them to artificial heat, the full action of the air to cool and dry the same when necessary, to avoid

danger from fermentation, and to prevent insects from depositing their eggs during the operation of the manufacture.

2. In the application of the power which moves the mill, or other principal machine, to work any machinery which may be used to apply the said principles, or to perform the said operations by constant motion and continued rotation, to save expense and labour.

The machinery by him already invented, and used for applying the above principles, consists of an improved elevator, an improved conveyor, an improved hopperboy, an improved drill, and an improved kiln-drier. For a particular explanation of the principles, and a description and application of the machines which he has so invented and discovered, he refers to the specifications and drawings hereunto annexed; and he is ready, if the secretary of state shall deem it necessary, to deliver models of the said machines.

Oliver Evans.

Description.

Of the several machines invented by Oliver Evans, and used in his improvement on the process of the art of manufacturing flour or meal from grain, and which are mentioned in his specification as applicable to other purposes.

No. I.—The Elevator.

Plate vi. Fig. 1. AB. represents an elevator for raising grain for the granary O, and conducting it by spouts into a number of different garnerers as may be necessary, where a mill grinds separate parcels for toll or pay. The upper pulley being set in motion, and the little gate A drawn, the buckets fill as they pass under the lower, and empty as they pass over the upper pulley, and discharge into the moveable spout B, to be by it directed to any of the different garnerers.

Fig. 2. Part of the strap and bucket, showing how they are attached.

A, a bucket of sheet iron, formed from the plate 8, which is doubled up and riveted at the corners, and riveted to the strap.

B, a bucket made of tough wood, say willow, from the form 9, being bent at right angles at e c, one side and bottom covered with leather, and fastened to the strap by a small strap of leather, passing through the main strap, and tacked to its sides.

C, a lesser bucket of wood, bottomed with leather, the strap forming one side of it.

D, a lesser bucket of sheet iron, formed from the plate 11, and riveted to the strap which forms one side of the bucket.

Fig. 6. The form of a gudgeon for the lower pulley.

7. The form of the gudgeons of the shaft of the upper pulley.

12. The form of the buckle for tightening the elevator strap.

Fig. 17, Plate vii. represents an elevator, applied to raise grain into a granary, from a wharf, &c. by a horse.

16. represents an elevator raising the meal in a grist-mill.

18, represents an elevator wrought by a man.

Plate viii. 35, 39, represents an elevator raising grain from the hold of a ship.

33, 34, represents an elevator raising meal from three pair of stones, in a flour-mill, with all the improvements complete.

Plate ix. Fig. 1, CD represents an elevator raising grain from a waggon. E represents the moveable spout, and manner of fixing it, so as to direct the grain into the different apartments.

Plate x. 2, 3, and 11, 12, represents elevators, applied to raise rice in a mill for hulling and cleaning rice.

The straps of elevators are best made of white harness leather.

No. II.—The Conveyor.

Plate vi. Fig. 3, represents a conveyor for conveying meal from the millstones into the elevator, stirring it to cool at the same operation, showing how the (Sights are set across the spiral line, to change from the principle of an endless screw, to that of a number of ploughs, which answer better for the purpose of moving meal, showing also the lifting flights set broadside foremost, and the manner of connecting it to the lower pulley of the elevator which turns it.

Fig. 4. The gudgeon of the lower pulley of the elevator connected to the socket of the conveyor.

5. An end view of the socket, and the band which fastens it to the conveyor.

Plate viii. 37, 36,—4 represents a conveyor for conveying grain from a ship to the elevator 4—5, with a joint at 36, to let it rise and lower with the tide.

44—45. A conveyor for conveying grain to different garners from an elevator.

31—32. A conveyor for conveying tail flour to the meal elevator, or the coarse flour to the eye of the stone.

Plate ix. Fig. 11, represents a conveyor for conveying the meal from two pair of stones, to the elevator connected to the pulley, which turns them both.

Plate x. 2—11, represents conveyors applied to convey rice, in a rice mill, from a boat or waggon to the elevator, or from the fan to an elevator.

No. III.—The Hopperboy.

Plate vii. Fig. 12, represents a hopperboy complete for performing all the operations specified, except that only one arm is shown.

AB, the upright shaft; CED, the arms, with flights and sweeps.

E, the sweeper to fill the bolting hoppers HH. CFE, the brace, or stay, for steadying the arms.

P, the pulley, and W, the weight, that is to balance the arms, to make them play lightly on the meal, and rise or fall, as the quantity increases or diminishes.

ML, the leader. N, the hitch stick, which can be moved along the leading line, to shorten

or lengthen it.

Fig. 13. SSS, the arms turned bottom up, showing the flights and sweepers complete at one end, and the lines on the other end show the mode for laying out for the flights, so as to have the right inclination and distance, according to the circle described by each, and so that the flights of one end may track between those of the other. The sweepers and the flights at each end of the arms are put on with a thumb screw, so that they may be moved, and so that these flights may be reversed, to drive meal outwards from the centre, and at the same time trail it round the whole circle: this is of use sometimes, when we wish to bolt one quantity which we have under the hopperboy, without bolting that which we are grinding, and yet to spread that which we are grinding, to dry and cool, laying round the hopperboy, convenient to be shovelled under it, as soon as we wish to bolt it.

Fig. 15. The form of the pivot for the bottom of the upright shaft.

14. The plate put on the bottom of the shaft to rest on the shoulder of the pivot; this plate is to prevent the arm from descending so low as to touch the floor.

Plate viii. Fig. 25, represents a hopperboy attending two bolts in a mill, with all the improvements complete.

Plate ix. The hopperboy is shown over QQ. Fig. 4 is the arm turned upside down, to show the flights and sweepers.

No. IV.—The Drill.

Plate vi. Fig. 1. HG represents a drill conveying grain from the different garners to the elevator, in a mill for grinding parcels for toll or pay.

Plate vii. Fig. 16. Bd, a drill, conveying meal from the stones in a grist mill, to the elevator. The strap of this machine may be made broad, and the substance to be moved may be dropped on its upper surface, to be carried and dropped over the pulley, at the other end: in this case it requires one bucket like those of the elevator, to bring up any that may spill off the strap.

For full and complete directions for proportioning all the parts, constructing, and using the above described machines, see the book which I have published for that express purpose, entitled, "The Young Millright and Miller's Guide." See plate viii. representing a mill, with three pair of millstones, with all the improvements complete, except the kiln-drier.

No. V.—The Kiln-Drier.

Plate ix. Fig. 2. A, the stove, which may be constructed simply of six plates, and inclosed by a brick wall, lined with a mortar composed of pulverized charcoal and clay. B, the pipe for carrying off the smoke. CC, the air-pipes, connecting the space between the stove and wall, with the conveyer. DD, the pipes for the heated air to escape.

The air is admitted at the air-hole below, regulated by a register, as experience shall teach to be best, so as not to destroy the principle which causes the flour to ferment easily, and

EVANS v. EATON.

rise in the process of baking. The conveyors must be covered close; the meal admitted by small holes as it falls from the millstones.

Oliver Evans.

Witness: Samuel H. Smith. Jo. Gales, Junr.

The United States of America.

To all to whom these Letters Patent shall come:

Whereas Oliver Evans—of the city of Philadelphia, a citizen of the United States, hath alleged, that he hath invented a new and useful improvement in the art of manufacturing flour and meal, by means of certain machines, which he terms an improved elevator, an improved conveyor, an improved hopperboy, an improved drill, and an improved kiln-drier: which machines are moved by the same power that moves the mill or other principal machinery, and in their operation, subdivide any granulated or pulverized substance, elevate and carry the same from place to place, in small and separate parcels, spread, stir, turn, and gather them by regular and constant motion, so as to subject them to artificial heat, and the air to dry and cool when necessary: a more particular and full description, in the words of the inventor, is hereby annexed in a schedule; which improvement has not been known or used before his application—has affirmed, that he does verily believe, that he is the true inventor or discoverer of the said improvement, and, agreeably to the 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 of the United States, the sum of thirty dollars, delivered a receipt for the same, 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, according to law, to the said Oliver Evans, his heirs, administrators, or assigns, for the term of fourteen years, from the twenty-second day of January, 1808, the full and exclusive right and liberty of making, using, and vending to others to be used, the said improvement, a description whereof is given in the words of the said Oliver Evans 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 to be hereunto affixed.

Given under my hand, at the city of Washington, this twenty-second day of January, in the year of our Lord, one thousand eight hundred and eight and of the independence of the United States of America, the thirty-second.

(Seal.) Th: Jefferson.

By the President.

James Madison, Secretary of State.

City of Washington, to wit: I do hereby certify, that the foregoing letters patent were delivered to me on the twenty-second day of January, in the year of our Lord, one thousand eight hundred and eight, 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, with in fifteen days from the date aforesaid, to wit: on this twenty-second day of January, in the year aforesaid.

C. A. Rodney,

Attorney-General of the United States.

The Schedule.

Referred to in these letters patent, and making part of the same, containing a description, in the words of the said Oliver Evans, of his improvements in the art of manufacturing flour and meal.

My first principle is to elevate the meal as fast as it is ground in small separate parcels, in continued succession and rotation, to fall on the cooling floor, to spread, stir, turn, and expose it to the action of the air, as much as possible, and to keep it in constant and continual motion, from the time it is ground until it be bolted: this I do to give the air full action, to extract the superfluous moisture from the meal, while the heat generated by the friction of grinding, will repel and throw it off, and the more effectually dry and cool the meal, fit for bolting in the course of the operation, and save time and expense to the miller. Also to avoid all danger from fermentation, by its laying warm in large quantities as is usual; and to prevent insects from depositing their eggs, which may breed the worms often found in good flour. And further to complete the principle, so as to dry the meal more effectually, and to cause the flour to keep sweet a longer space of time, I mean to increase the heat of the meal as it falls ground from the millstones, by application of heated air, that is to say, to kiln-dry the meal as it is ground, instead of kiln-drying the grain as usual. The flour will be fairer and better than if made from kiln-dried grain, the skin of which is made so brittle that it pulverizes and mixes with the flour. This principle I apply by various machines which I have invented, constructed, and adapted to the purposes hereafter specified, numbered 1, 2, 3, 4, 5.

My second principle is to apply the power that moves the mill or other principal machine to work my machinery, and by them to perform various operations which have always heretofore been performed by manual force, and thus greatly to lessen the expense and labour of attending mills and other work.

The application of those principles, including that of kiln-drying the meal, during the process of the manufacture, or otherwise to the improvement of the process of manufacturing flour, and for other purposes, is what I claim as my invention and improvement in the art, as not having been known or used before my discovery, knowing well that the principles once applied by one set of machinery, to produce the desired effect, others may

EVANS v. EATON.

be contrived and variously constructed, and adapted to produce like effects in the application of the principles, but perhaps none to produce the desired effect more completely, than those which I have invented and adapted to the purposes, and which are hereinafter specified.

No. 1. The Elevator. Its use is to elevate any grain, granulated or pulverized substances. Its use in the manufacture of flour or meal is to elevate the meal from the millstones in small separate parcels, and to let it fall through the air on the cooling floor as fast as it is ground. It consists of an endless strap, rope, or chain, with a number of small buckets attached thereto, set to revolve round two pulleys, one at the lowest, and the other at the highest point between which the substance is to be raised. These buckets fill as they turn under the lower, and empty themselves as they turn over the upper pulley. The whole is inclosed by cases of boards to prevent waste.

No. 2. The Conveyor. Its use is to convey any grain, granulated or pulverized substances, in a horizontal, ascending, or (descending direction. Its use in the process of the art of manufacturing flour, is to convey the meal from the millstones, as it is ground, to the elevator, to be raised, and to keep the meal in constant motion, exposing it to the action of the air; also in some cases to convey the meal from the elevator to the bolting hopper, and to cool and dry it fit for bolting, instead of the hopperboy, No. 3; also to mix the flour after it is bolted; also to convey the grain from one machine to another, and in this operation to rub the impurities off the grain. It consists of an endless screw, set to revolve in a tube, or section of a tube, receiving the substance to be moved at one end, and delivering it at the other end; but for the purpose of conveying flour or meal, I construct it as follows: instead of making it a continued spiral, which forms the endless screw, I set small boards, called flights, at an angle crossing the spiral line; these flights operate like so many ploughs following each other, moving the meal from one end of the tube to the other with a continued motion, turning and exposing it to the action of the air to be cooled and dried. Sometimes I set some of the flights to move broadside foremost, to lift the meal from one side to fall on the other, to expose it to the air more effectually.

No. 3. The Hopperboy. Its use is to spread any grain, granulated or pulverized substances, over a floor or even surface, to stir it and expose it to the air to dry and cool it, when necessary, and at the same time to gather it from the circumference of the circle it describes, to or near the centre, or to spread it from the centre to the circumference, and leave it in the place where we wish it to be delivered, when sufficiently operated on. Its use in the process of manufacturing flour is to spread the meal as fast as it falls from the elevator over the cooling floor, on the area of a circle of from eight to sixteen feet more or less in diameter, according to the work of the mill, to stir and turn it continually, and to expose it to the action of the air to be dried and cooled, and to gather it into the bolting hoppers, and to attend the same regularly. It consists of an upright shaft made round at

the lower end, about two thirds of its length, and set to revolve on a pivot in the centre of the cooling floor; through this shaft, say five feet from the floor, is put a piece called the leader, and the lower end of the shaft passes very loosely through a round hole in the centre of another piece called the arms, say from eight to sixteen feet in length, this last piece revolving horizontally, describes the circle of the cooling floor, and is lead round by a cord the two ends of which are attached to the two ends of the arms, and passing through a hole at each end of the leader, so that the cord will reeve to pull each end of the arms equally. The weight of the arms is nearly balanced by a weight hung to a cord, which is attached to the arms, and passes over a pulley near to the upper end of the upright shaft, to cause the arms to play lightly, pressing with only part of their weight on the meal that may be under it. The foremost edges of the arms are sloped upwards, to cause them to rise over and keep on the surface of the meal as the quantity increases; and if it be used separately and unconnected with the elevator, the meal may be thrown with shovels within its reach, while in motion, and it will spread it level, and rise over it until the heap be four feet high or more, which it will gather into the hoppers, always taking from the surface, after turning it to the air a great number of times. The underside of these arms are set with little inclining boards called flights, about four inches apart next the centre, and gradually closing to about two inches next the extremities, the flights of the one arm to track between those of the other, they operate like ploughs, and at every revolution of the machine, they give the meal two turns towards the centre of the circle, near to which are generally the bolting hoppers. At each extremity of the arms, there is a little board attached to the hindmost edge of the arm to move side foremost; these are called sweepers; their use is to receive the meal as it falls from the elevator, and trail it round the circle described by the arms, that the flights may gather it towards the centre from every part of the circle; without these, this machine would not spread the meal over the whole area of the circle described by the arms. Other sweepers are attached to that part of the arms which passes over the bolting hoppers, to sweep the meal into them. But if the bolting hoppers be near a wall and not in the centre of the cooling floor, then in this case the extremity of the arms are made to pass over them, and the meal from the elevator let fall near the centre of the machine, and the flights are reversed to turn the meal from the centre towards the circumference, and the sweepers will sweep it into the hoppers. Thus this machine receives the meal as it falls from the elevator on the cooling floor, spreads it over the floor, turns it twice over at every revolution, stirs and keeps it in continual motion, and gathers it at the same operation into the bolting hoppers, and attends them regularly. If the bolting reels are stopped, this machine spreads the meal and rises over it, receiving under it from one, two, to three hundred bushels of meal, until the bolts are set in motion again, when it gathers the meal into the hoppers, and as the heap diminishes, it follows it down until all is bolted. I claim as my invention, the pecu-

liar properties or principles which this machine possesses, viz. the spreading, turning, and gathering the meal at one operation, and the rising and lowering of its arms by its motion, to accommodate itself to any quantity of meal it has to operate on.

No. 4. The Drill. Its use is to move any grain, granulated or pulverized substance, from one place to another: it consists, like the elevator, of an endless strap, rope, or chain, &c. with little rakes instead of buckets, (the whole cased with boards to prevent waste) revolving round two pulleys or rollers. Its use in the process of the manufacture of flour, is to draw or rake the grain or meal from one part of the mill to another. It receives it at one pulley, and delivers it at the other, in a horizontal, ascending or descending direction, and in some cases may be more conveniently applied for that purpose than the conveyor. 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. They may all be united and combined in one flour mill, to produce my improvement on the art of manufacturing flour complete, or they may each be used separately for any of the purposes specified and allotted to them, or to produce my improvement in part, according to the circumstance of the case.

No. 5. The Kiln-Drier. To kiln-dry the meal after it is ground, and during the operation of the process of manufacturing flour, I take a close stove of any common form, and enclose it with a wall made of the best nonconductor of heat, leaving a small space between the stove and the wall, to admit air to be heated in its passage through this space. I set this stove below the conveyor that conveys the meal from the millstones as ground, into the elevator, and I connect the space between the stove and the wall, to the conveyor tube by a pipe entering near the elevator, and I cover the conveyor close, and set a tube to rise from the end of the conveyor tube near the millstones, for the heated air to ascend and escape as up a chimney. I make fire in the stove, and admit air at the bottom of the space between it and the wall round it, to be heated and pass along the conveyor tube, meeting the meal which will be heated by the hot air, and the superfluous moisture will be more powerfully repelled and thrown off, and the meal will be dried and cooled as it passes through the operation of the elevator and hopperboy. The flour will be fairer than if the grain had been kiln-dried, and it will keep longer sweet than flour not kiln-dried. I set all my machines in motion by the common means of cog and round tooth, and pinion straps, ropes, or chains, well known to every millwright.

Arrangement and connexion of the several machines, so as to apply my principles to produce my improvements complete.

I fix a spout through the wall of the mill for the grain to be emptied into from the waggoner's bag, to run into a box hung at the end of a scale-beam, to weigh a waggon load at a draught. From this box it descends into the grain elevator, which raises it to a granary over the cleaning machines, and as it passes through them, it may be directed into the

same elevator to ascend to be cleaned a second time, and then descends into a granary, over the hopper of the millstones to supply them regularly, and as ground it falls from the several pair of millstones into the conveyors, where it is dried by the heated air of the kiln-drier, and is conveyed into the meal elevator, to be raised and dropped on the cooling floor, within reach of the hopperboy, which receives and spreads it over the whole area of the circle which it describes, stirring and turning it continually, and gathering it into the bolting hoppers which it attends regularly. That part of the flour which is not sufficiently bolted by the first operation, is conveyed by a conveyor or drill, into the elevator, to ascend with the meal to be bolted over again, and that part of the meal which has not been sufficiently ground at the first operation, is conveyed by a conveyor or drill, and let run into the eye of the millstone to be ground over.

Thus the whole of the operations which used to be performed by manual labour, is, from the time the wheat is emptied from the waggoner's bag, or from the ship's measure, until it enters the bolts, and the manufacture be completed in the most perfect manner, performed by the machinery moved by the power which moves the mill, and this machinery keeps the meal in constant motion during the whole process, drying and cooling it more completely, avoiding all danger from fermentation, and preventing insects from depositing their eggs, and performing all the operations of grinding and bolting to much greater perfection, making the greatest possible quantity of the best quality of flour out of the grain, saving much time and labour and expense to the miller, and preventing much from being wasted, by the motion of the machines being so slow as to cause none of the flour to rise in form of dust, and be carried away by the air, and the cases of the machines being made close, prevents any from being lost. Oliver Evans.

Witnesses: Samuel H. Smith.

Jo. Gales, Jun.

Washington County, District of Columbia, viz. This 4th day of November, 1807, personally appeared before me, a justice of the peace in and for said county, Oliver Evans, who, being duly affirmed according to law, declares that he is a citizen of the United States, and that his usual place of residence is in the city of Philadelphia, and that he verily believes that he is the true and original inventor of the improvements herein above specified, for which he solicits a patent. Oliver Evans.

Affirmed before me,

Sam. H. Smith.

⁴ Evans v. Eaton.

Sir: Please to take notice, that upon the trial of these causes respectively, the respective defendants will give in evidence, under the general issue, the following special matters, viz:

1. That the improved hopperboy, per which inter alia, the plaintiff in his declaration al-

leges, that 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, viz. at the mill of George Pry and Jehu Hollingsworth, in Dauphin county, Pennsylvania, at Christian Stouffer's mill, in Warwick township, Lancaster county, Pennsylvania, at Jacob Stouffers mill in the same county, at Richard Downing's mill in Chester county. Pennsylvania, at Buffington's mill on the Brandywine, at Darnel Hutton's mill in Lancaster county, Pennsylvania, at Henry Stouffer's mill in York county, Pennsylvania at Diehl's mill in the same county, or at some of the said places; and also in sundry other places in the said state of Pennsylvania, the state of Maryland, and elsewhere in the United States.

2. 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 the said patent, called an improved hopperboy, and which the plaintiff claims as his invention or discovery, viz. the upright shaft, arms, and flights, and sweeps, or some of them, and those parts by which the meal is spread, turned, and gathered, at one operation; and also several other parts were not originally invented or discovered by him, but were in use prior to his said supposed invention or discovery, viz. at the places above mentioned or some of them.

3. 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 by the plaintiff, but was in use anterior to his said supposed invention or discovery, viz. at the places above mentioned, or at some of them.

4. That the said patent is void, because it purports to give him the exclusive property, in an improvement in the art of manufacturing meal, by means of a certain machine, termed an improved hopperboy, 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 the use anterior to the plaintiff's said supposed discovery, viz. 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 these 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.

5. 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, viz. in Shaw's Travels, in the first volume of the Universal History, in the first volume of Mortimer's Husbandry, in Ferguson's Mechanics, in Vitruvius, in Bossue's Histoire des Mathematiques, in Wolfs Cours de Mathematiques, in Desagulier's Experimental Philosophy, and in Promey's Architec-

ture Hydraulique, or in some of them.

6. 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 plaintiffs said supposed invention or discovery, described in certain public works or books, viz. 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 (or books,) 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.

I am, respectfully, your obedient servant,

Hor. Binney, for Defendant.

C. J. Ingersoll, for plaintiff.

March 8, 1816.