rules of law applicable to the aforegoing facts, the change, if any, made in the invention aforesaid by the composition formed by the application of any of the other different kinds of foreign substances did not materially vary the identity of them, but must be considered as a mere substitute; and therefore the issue tried as between these parties was essentially that formed under the first original declaration of interference and the appeal virtually by a patentee.

For the foregoing reasons, and upon the authority of the decision in the case of Pomeroy *v.* Connison, decided by Judge Cranch in the year 1842, (*ante* p. 40,) to which I particularly refer, my opinion is that I have no jurisdiction of the appeal of Bowen, Assignee of Kingsley, *v.* Herriet, and shall, with this opinion, return the papers, specimens, &c., to the Patent Office.

W. P. N. Fitzgerald, for the appellant.

Chas. M. Keller, for the appellee.

JOHN E. BURROWS, APPELLANT,

vs.

SAMUEL WETHERILL, APPELLEE. INTERFERENCE.

SAMUEL F. JONES

vs.

SAME. INTERFERENCE. (TWO CASES.)

PATENTABILITY OF ISSUE—PRACTICE OF THE OFFICE—PRESUMPTIONS THEREFROM NOT CONCLUSIVE.—The fact that it is the uniform practice of the Office never to raise the issue of interference until after the patentability of an invention, which is supposed to be a previous and preliminary point, has been favorably settled in the mind of the Commissioner, does not raise a presumption of patentability which is conclusive in the further proceedings in the case.

Syllabus.

SM—SM.—The judge upon appeal has jurisdiction of the question of patentability of the invention, and may reverse the decision of the Commissioner on this point.

PREREQUISITES TO A PATENT—APPLICATION DULY FILED—REDUCTION TO PRACTICE.—Where an inventor has complied with the provisions of the law by duly filing an application clearly showing and describing the nature and operation of the invention by specification and drawings verified by oath, he has reduced the principle of the invention to practice for the purpose of obtaining a patent; and if the invention is patentable, he is entitled to the grant of a patent therefor.

OPERATIVENESS OF INVENTION—EVIDENCE THEREOF—SUCCESSFUL USE BY OTHERS.—It is essential that the improvement (in case of a machine), as described in the specification, shall, as a matter of fact, be capable of operating in the manner described; and it will be sufficient evidence of this fact if it shall appear in the course of testimony taken in an interference proceeding that the invention has been successful in the hands of others, although the applicant himself, having a mistaken idea of the capacity of the machine, has failed to obtain successful results.

INVENTION—PRINCIPLE THEREOF—INADEQUATE DEVICES FOR CARRYING INTO EFFECT.—The most important part of an invention may consist in the conception of the original idea, in the discovery of the principle in science, or of the law of Nature, stated in the patent, and little or no pains may have been taken in working out the best manner of practically applying that principle to the purpose set forth in the patent. Still, if the principle is stated to be applicable to any special purpose, so as to produce any result previously known in the way and for the purpose described, the patent is good.

INVENTION OF MACHINE—IMPROVED METHOD OF USING THE SAME.—Where a person has devised a new machine—as a furnace for manufacturing white oxide of zinc—but, having adopted an erroneous plan for using the same—mixing the ore and fuel in improper proportions—has failed to produce good results, another person with a full knowledge of this fact, who shall then discover and apply the proper method of using the machine, is not entitled to a patent for such machine. It would be giving to him the whole invention for the merit of discovering a subordinate part of the same.

SM—SM—COMPARATIVE UTILITY—CAPABLE OF USE.—If an inventor by the dint of his own genius and discovery has found out a new and appropriate manner of operating an old machine to produce a new result he is entitled to a patent therefor, but he is not entitled to claim the machine itself. Where the invention is a machine or substantial thing, which has been completed so as to be capable of use, it is not essential to the validity of the claim that the success of the means made use of should be complete, or that the thing invented should supersede anything else used for the same

purpose. The law looks only to the fact that the invention is capable of use.

(Before MORSELL, J., District of Columbia, June, 1854.)

STATEMENT OF THE CASE.

The patent issued to John E. Burrows, No. 13,416, August 14th, 1855. (For diagram, see Patent Office Report, 1855, vol. 2, page 101.)

MORSELL, J.

The application of Burrows is dated the 20th of October, 1852, and states that he has invented a certain new and useful furnace for manufacturing white oxide of zinc from the ores of zinc and franklinite. In his accompanying specification he describes particularly the nature of his invention and the furnace for the manufacturing thereof and the mode of operation, and then says: "What I claim, therefore, is the manufacture of white oxide of zinc from ores of zinc or franklinite, prepared substantially as above set forth, by means of a furnace having perforated grate-bars and air-chambers underneath them, in which hot or cold blasts of air are forced to unite with the ignited mass of fuel in a diffused state, by passing through the perforations of the grate-bars to liberate the zinc in the form of vapor, in manner of construction and mode of operation substantially as set forth."

On the 29th of April, 1853, an interference was declared between said Burrows and said Samuel Wetherill. Wetherill's application for a patent was filed on the 20th of December, 1852. His petition is dated the 4th of November, 1852, and states that he had invented an improvement in the process of producing white oxide of zinc and in the furnace therefor. And he gives a description thereof in his accompanying specification. He states the object of his invention to be "mainly to economize fuel and the cost of repairs and renewing the mufflers or retorts and working of all, or nearly all, the zinc." He states that the nature of his invention, in the process of working the ores of zinc for producing the white oxide, consists in the direct application of fire to the ore, in combination with a blast of atmospheric air; that his

invention also consists in constructing the furnace for the application of his improved process of working the ores of zinc for the production of the white oxide of zinc by the direct action of fire, by making the bottom of said furnace of perforated plates or bars, the said perforations being sufficiently small to prevent the ore and coal from dropping through, and sufficiently numerous to diffuse the blast of air from any appropriate blower through the entire charge of ore and coal, the said perforated bottom being combined with an aperture in the rear governed by a damper, to permit the escape of smoke and gasses in the beginning of the process, and with an aperture in the roof, also governed by a suitable damper, and leading to the chamber for the collection of the white oxide of zinc. He states his claim for the process and the furnace with a perforated bottom substantially as just stated. Upon a trial of the issue between these two parties, and on consideration of the evidence of the parties, respectively, laid before the Commissioner on the 5th day of April, 1853, he states his decision in these words: "For reasons stated in the opinion this day filed, it is hereby decided that Burrows and Wetherill are joint inventors, and that neither is entitled to a patent separately; that there is no interference in the claims of the two parties so far as those claims are founded on the inventions of the respective claimants, but that a joint patent should be granted if a proper application be made."

The reasons given by the Commissioner were: First, that Burrows used the same sort of furnace which he had before seen in use in burning iron pyrites, and that Wetherill's furnace is the same substantially as Burrows'—that therefore neither of them are entitled to a patent for anything further than for a process of making white oxide of zinc; second, that Burrows was the first to attempt to make white oxide of zinc in that furnace direct from the ore; third, that his first experiments were directed to effecting that object without intermingling coal with the ore, and that such was the state of his experiments at the time of the agreement with Jones on March 18th, 1851; fourth, that he afterwards mixed coal with the ore, but that this was not successful, as the whole slagged; fifth, that there is no evidence that Burrows has ever to this day been fairly successful in his experiments in this respect; sixth, that Wetherill was present at the experiments of Burrows,

and got his ideas from that source, but that he has perfected the process so as to make the experiment successful and valuable.

The Commissioner adds: "Burrows is not entitled to a patent for two reasons: First, the application being for a patent for a process, he has not shown the precise process pursued, so that any person could make the zinc paint from his directions; and secondly, he has not shown that he has ever been successful to this day. There are equally great objections to granting a patent to Wetherill. He only carried out the experiments which he had seen Burrows making, and prosecuted them to final success."

At this stage of the proceeding the other party, (Samuel T. Jones,) on the 12th day of August, 1853, presented his application for a patent, which the Commissioner decided interfered with the applications of Burrows and of Wetherill, and the day of hearing appointed, and the parties were all allowed further to examine witnesses and produce their testimony. On the 14th of December, 1853, the said cases were tried and determined upon the proofs, when the following decision was made: "Interference between Burrows, Wetherill, and Jones. After a careful examination of the testimony and arguments of counsel, priority of invention is hereby awarded to Samuel Wetherill. A patent will therefore be allowed him unless an appeal is taken from this decision within thirty days from this date, and notice will be sent to the parties accordingly."

Samuel T. Jones' petition to be allowed to file his caveat on the subject of separating zinc in the form of white oxide by the direct action of heat either in a blast or draft furnace, along with fuel, is dated the 15th of July, 1848, and was filed on the day of , 184 . His application for a patent is dated on the 2d day of August, 1853, for the invention of certain new and useful improvements in the roasting and reduction of ores of zinc and other ores or substances containing gaseous or volatile matter. In describing the nature of his invention he says: "My invention relates to the more economical and effectual extraction of the volatile matters from the ore or other substance by means of its direct contact or admixture with the fuel, by whose combustion its reduction is effected. It consists in roasting said ore or substance in contact or admixed with the fuel, and, when necessary, with the flux also, upon a broad or extended grate-bottom or other hearth of such

construction as to admit a diffused draft of atmospheric air through the whole mass, whereby a perfect combustion of the fuel is effected, and a greater amount than is usual of the heat generated by the said combustion is rendered available for the reduction of the ore or substance by reason of such heat being diffused throughout the entire quantity. My invention relates, furthermore, to the construction of the grate or hearth upon which the roasting of the ore or substance is effected. It is obvious that upon a grate of ordinary construction there might be much danger of the loss of a portion of the ore or substance by its running or escaping between the grate-bars. To obviate this, I have constructed the grate or hearth of one or more series of bars or slabs of suitable material, so arranged that the several bars or slabs overlap and underlap each other in such a way that the passages for the draft are lateral, and thus do not readily allow either the fuel or the ore or substance to drop through."

Then follows a full description of the apparatus and mode of operation, and what he claims as his invention, which is the same in substance as already stated.

From these decisions the said Jones and Burrows have respectively appealed, and have duly filed their respective reasons of appeal.

Burrows has filed twenty-four reasons, which I think in substance are—

1 and 2. That the Commissioner had not jurisdiction to decide the matter of abandonment.

3, 4, 5, 6, and 7 are generally that the Commissioner erred in those points in which he decided unfavorably to Burrows as to the invention and discovery.

8, 9, and 10. That Burrows had failed in his experiment to show patentability both as to evidence and law.

11, 12, 13, and 14. In deciding that Wetherill was entitled to a patent for any part of his claim, either upon principles of law or upon the evidence.

15, 16, 18, and 20. For reversing his first decision, because there were no new facts or circumstances to warrant it; that Burrows' invention was proved to be prior in date to that of Wetherill's, being as early as the spring of 1851. He was proved to

be the first inventor of apparatus and process to produce white oxide of zinc.

19. That Wetherill derived his knowledge of his invention from seeing Burrows' experiments.

21 and 22. That the declarations of Wetherill were not evidence, or, if so, did not prove the abandonment.

23 and 24. Generally, that the decision was contrary to the law and evidence; that Wetherill added nothing to the invention.

The reasons filed by Samuel T. Jones are—

1, 2, 3, and 4 are general, because a patent has not been awarded to him, and that the decision is contrary to law and evidence.

5 and 6. That his counsel in 1848 fully and clearly described his invention, and which he sustained by proof to have been in 1848; and that in 1849 a written description was made of his discovery, substantially in all respects as described in the several applications in the above matter.

7. That although the evidence on the part of Jones was clear and uncontradicted, that he first used said furnace for making oxide of zinc by placing the ore directly in contact with the fuel, and mingling the ore and fuel in the furnace, yet his prior right to the discovery is rejected.

8. Because the evidence does not show that Wetherill invented or discovered any part of the method claimed, but had merely taken that of Jones and put it into practice.

9 is general.

10. Because the Commissioner decides that non-use by Jones of his discovery was an abandonment, which affects his right to a patent.

The Commissioner's reasons for his final decision between all the parties is dated the 14th of December, 1853, the substance of which I will endeavor to state. He recites that as between Burrows and Wetherill, the case upon the evidence then submitted to him had been considered, and the decision and reasons of that decision stated; that as between them some new facts and circumstances have been brought out which would aid in fixing priority; that the same difficulty as to Burrows still existed as did on the former trial; that he had never shown that

he had ever been successful, and no course was pointed out in the testimony by which the causes of his want of success could be now avoided; and no sufficient directions can now be gotten from Burrows' testimony for successfully making white oxide of zinc; and that he (Burrows) has now left the country. He recites the circumstances which stood in the way of awarding a patent to Wetherill on the former occasion, as the fact sworn to by Pepper, that he (Wetherill) had offered Burrows the expenses if the latter would take the proper steps for securing a patent and give him (Wetherill) one-eighth part of the interest therein. This amounted to an admission of Wetherill that Burrows had then carried his discoveries very nearly, if not quite, to the point of patentability. The Commissioner says: "But I am now of the opinion that Burrows had not carried his invention to the point of patentability. In the first place, his experiments were founded in error; in the second place, the fact that a second opportunity was given to him (Burrows) to supply the defects of his former testimony without any favorable result adds to the presumption against him; while the fact of his being in California or Australia renders it probable that he has abandoned his supposed discovery; finally, it appears from the testimony of Isaac W. Barnum that Wetherill had stated that Burrows could not succeed, and that when he was satisfied, and abandoned his undertaking, he (Wetherill) would make something out of it. These statements, being called out by the counsel for Burrows, were legal, and admissible in evidence as against Burrows. His experiments, therefore, will not stand in the way of Wetherill's patent, they having failed; and in that view of the case Wetherill might avail himself rightfully of the result of such experiments even if those experiments first suggested to him (Wetherill) the very discovery which he afterwards made."

With respect to Jones, the Commissioner says: "There is no doubt of Jones having first used a furnace similar to that finally adopted by Wetherill for the purpose of making oxide of zinc directly from the ore. His original purpose was not to make zinc paint, but to facilitate the manufacture of the metallic zinc itself." He refers to Jones' communication to the Office. The Commissioner further says: "After a careful examination of the testimony, there does not seem any good reason to conclude that he

can fairly be considered as having made the substantial discovery which is the subject-matter of the present controversy. True, he may in some instances have succeeded in obtaining the white oxide of zinc in an imperfect state directly from the ore by means of a furnace very similar to that finally used by Wetherill; but still he was not successful. He never discovered the precise mode or process by which the reduction of the ores should take place without the slagging, which is wholly incompatible with any idea of success. The testimony clearly shows that Jones regarded the experiment as a failure, and this after he had ceased experimenting on that subject. The furnaces after many trials were abandoned, and other modes of managing the zinc ores were adopted. Although Jones, therefore, approached very near this discovery, I see no reason to conclude that he ever fairly attained it, and I am therefore compelled to conclude that Wetherill was the prior inventor within the fair meaning of the law."

The Commissioner has laid before me the original papers and evidence in the cases, together with the grounds of his decisions; and the respective parties have submitted their cases to me on their arguments in writing, in considering which, the case of the interference between Burrows and Wetherill will be first examined.

That the controversy may be better understood, it will be proper to state the real issue between these two parties; and as the parties must be confined to that which is contained within their specifications, they must be looked to in the outset of this investigation.

As it has already been stated, Burrows claims to have invented a new and useful improvement in furnaces for the manufacture of white oxide of zinc from ores of zinc and franklinite, the nature of which invention consists in combining with a furnace made of brick, iron, or other suitable material a series of perforated grate-bars, and an air-chamber underneath having a force air-pipe inserted in one side of it for the purpose of forcing a blast of air into the closed air-chamber to support the combustion of the carbonaceous material mixed with the ores of zinc on the perforated grate-bars, in consequence of the air being more evenly diffused throughout the ores by passing through the perforations of the grate-bars.

On the part of the appellant (Burrows), his counsel suppose

that, according to his said specification, his claim is to be considered as for the perforated bottom to be used in connection with the other parts contained in his description, and not as for a particular process, and that that only is new and patentable; that everything else in the claims of either of the parties was substantially known before. They refer to the testimony in the cause for the proof of the fact.

On the part of the appellee, his counsel denies the position, as stated by the counsel for the appellant, "that the perforated bottom in a furnace is new for the process of reducing oxide of ore by direct contact with the fuel in the abstract, and that it is not patentable, but it only becomes patentable when coupled with the mode of application, which brings into action the multitude of small jets of air, producing a multitude of reducing flames acting upon the ore properly admixed with coal, and in a charge so proportioned to the blast supplied as to effect, first, the ignition of the fire; second, the decomposition of the ore by combining its oxygen with the carbon of the fire; and third, the recombination of the zinc from the ore by the excess of air supplied by the blast; that the admission of the appellant's counsel that the perforated bottom is new is sufficient to establish the novelty of the entire process; not that the novelty is simply in the perforated bottom, but that in the absence of the perforated bottom the process could not have practical existence." This is what is claimed for the invention of the appellee. It does not, therefore, deny, but admits, that the perforated bottom is an essential part of the invention of the process in question, and also, it may be observed, that many of the incidents in the *modus operandi* of Burrows' invention, as stated in his specification, are substantially the same. How far the exceptions, with respect to the proportions of coal and ore in the charge, &c., are material will be hereafter considered.

The patentability of the supposed invention of Burrows, as he claims it, is the point (on the merits) which will be first considered; before doing which I will notice that it has been stated as the practice of the Office heretofore never to raise the issue of interference, as in this case, until after the patentability, which was supposed to be the previous and preliminary point, was favorably

settled in the mind of the Commissioner. I do not suppose, however, that there is anything conclusive in this.

It has also been objected on this occasion that the judge on this issue has no jurisdiction to consider the patentability of the invention in opposition to the decision of the Commissioner. This question has been repeatedly decided otherwise, and therefore must be so considered settled.

The subject is the manufacture of the white oxide of zinc from the ores of zinc—from the native red oxide or franklinite—by an improvement which effects a great saving in the articles of fuel and ore. According to what I have been enabled to gather from the reasons given by the Commissioner for his decisions, he appears to have labored under a misapprehension in supposing Burrows' claim was for a process. It has already been stated what Burrows' counsel contend it really is, and also what it appears to be from the specification.

The questions involved in the issue seem to be, first, Does the evidence show that Burrows was the first and original inventor of the perforated grate-bar or plate-bottom, as before stated? There seems to be no dispute as to the time—that it was in the spring of 1851. He laid before the Commissioner the testimony of several witnesses. His principal witness was William Pepper. He was objected to as an interested witness, but the objection does not appear to have been sustained, and there can be no question, therefore, of that kind before me. I will endeavor to state the amount of his testimony.

[A resumé of the depositions follows.]

From the aforegoing statement, there appears to be a considerable conflict in the testimony relating to the two principal facts upon which the parties have rested their claims: First, as to the inventor of the improved construction of the furnace by the perforated grate-bars; second, as to the mode or process of operation. On this last point I am satisfied from the proof that Burrows originally expected and designed that by means of this new contrivance or change in the apparatus (the perforated grate-bar) he would be able to effect a great saving of fuel and ore in the production of the white oxide of zinc by the combustion of the ore itself, and with only the partial aid of fuel, and that such an idea was fallacious; that the result of his experimental operations were

very imperfect, and, on the other hand, that the process and operations of Mr. Wetherill were attended with the most perfect and complete success.

On the first point of the evidence, as above stated, there is more difficulty, although from the relation in which many of the witnesses stood it is probable they might have felt in some measure unduly biased; yet their general character for veracity was unimpeached, and they appear to have been sufficiently intelligent to have understood the subject about which they testified. What, then, were their opportunities of knowing, and other circumstances, to enable me to say on which side is the preponderancy? To none of the witnesses on the side of Mr. Wetherill did Burrows originally communicate his principle or plan. It is doubtful whether any of them ever particularly examined the interior of the furnace so as to be able to say precisely what was the construction of the grate. This, I think, may be inferred from what was said by Mr. Bartlett, the principal witness on that side. On the side of Burrows, Pepper, his principal witness, on request for that purpose, waited on him, and received from him a full communication of the original idea or principle, and assisted in drawing a diagram or diagrams and constructing a furnace for the embodiment of his invention, which I understand is substantially the same as that described in his specification. This certainly is a powerful circumstance in corroborating and giving weight to what he has said. Further, the proposition from Mr. Wetherill, who had seen the experiments of Burrows, to defray the expense in making application for a patent if he (Burrows) would give him the one-eighth of an interest therein, and also from the remarks made by him to several of the witnesses, that he could make something of it, it may be fairly inferred that he knew what the invention was, and wished to become a part owner thereof. This testimony also is strengthened by some of the other witnesses on the part of Burrows. The time also is stated to be in the spring of 1851 as the date of the invention, and that of Mr. Wetherill's some time afterwards.

I feel, therefore, bound to conclude from the evidence as between these two parties that Burrows must be considered the prior inventor of the improved perforated grate-bars in the fur-

nace for the manufacture of the white oxide of zinc, as particularly described in his specification.

Is it a patentable invention as so described? To be so it must appear to be within the provisions of the act of 1836, section 2. The first part of the section is a general provision for the discovery or invention of any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement on any art, machine, manufacture, or composition of matter not known or used by others, but requires a specification in writing thereof, and of the manner and process of making, constructing, using, and compounding the same in such full, clear, and exact terms, avoiding unnecessary prolixity, as to enable any person skilled in the art or science to which it appertains or with which it is most nearly connected, to make, construct, and use the same; and in case of any machine, further, the inventor shall fully explain the principle and the several modes in which he has contemplated the application of that principle or character by which it may be distinguished from other inventions; and shall particularly specify and point out the part, improvement, or combination which he claims as his own invention or discovery; and shall also file drawings and models, the whole to be upon the oath of the party.

These provisions of the statute seem to have been strictly complied with, as before stated. The petition was accompanied with a specification, on the oath of the party, setting forth the particular improvement in the furnace, its *modus operandi* in the particular combination and application to that manufacture, and the great saving thereby effected in the fuel and ore. This, then, according to the well-settled rule of law, was reducing the principle of invention to practice; and if new and useful, and the first, would be sufficient to authorize the granting of a patent therefor.

I suppose, however, that it was essential in fact that the improvement as described in the specification was capable in its operation to produce the said manufacture, and that if the appellant must be confined as to the evidence of such sufficiency to the experimental operations made by him, as stated in the testimony, that he has not shown that said invention was patentable. But I cannot think that there is any such conclusiveness in the rule, but that it was fully competent to offer any other evidence

of the successful operation of his invention. I think the invention was complete as soon as it was capable of successful operation. I cannot perceive a good reason why, if Wetherill might use as an indispensable part of his invention of a successful process the perforated grate-bars claimed by Burrows as his invention, Burrows might not avail himself of Wetherill's successful process as evidence of its being fully capable of the production of said manufacture. Writers on patent law say the main merit, the most important part of the invention, may consist in the conception of the original idea in the discovery of the principle in science or of the law of Nature stated in the patent; and little or no pains may have been taken in working out the best manner and mode of the application of the principle to the purpose set forth in the patent; but still, if the principle is stated to be applicable to any special purpose, so as to produce any result previously unknown in the way and for the purpose described, the patent is good.

In this connection, also, I will state a part of the opinion of the court as stated by Chief Justice Taney in the case of Gayler *et al. v.* Wilder. He says: "We do not understand the Circuit Court to have said that the omission of Conner to try the value of his safe by proper test would deprive it of its priority, nor his omission to bring it into public use. He might have omitted both, and also abandoned its use, and been ignorant of the extent of its value; yet if it was the same with Fitzgerald's, the latter would not upon such grounds be entitled to a patent, provided Conner's safe and its mode of construction were still in the memory of Conner before they were recalled by Fitzgerald's patent."

And if such evidence may still be resorted to by Burrows, notwithstanding his unsuccessful experiments, then the adaptation of the improved furnace by Burrows, and its entire sufficiency, is fully made out in the proof.

And now more particularly as to the prior right of Mr. Wetherill, as decided in his favor by the Commissioner. He says in the reasons for his first opinion that although Burrows had set forth the mode, yet, that while he was pursuing that very course, his efforts were unsuccessful from the slagging of the ore. This he says was doubtless owing to the fact that the proportions of

ore and coal were not correctly ascertained, or from some other defect in the mode of operation. With respect to Wetherill, he says: "There are equally great objections to granting a patent to Wetherill; he only carried out the experiments which he had seen Burrows making, and prosecuted them to final success. In fact, there is strictly no interference in the two discoveries, as shown by the testimony. Burrows began what Wetherill completed; where the first left off the latter commenced; neither made the invention complete; both together have devised and carried out the entire process."

In his reasons for his second opinion he says, among other things, that the same objection to Burrows' claim still existed, and that Burrows had left the country; that he was then of the opinion that Burrows had not carried his invention to the point of patentability. In the first place, his experiments were founded in error; and although he who unexpectedly makes a discovery, stating the principle, is just as much entitled to a patent as though he had been guided by calculations founded on the most unerring principles of science, yet, if groping in the dark he fails to find that which he seeks, even although he should stumble over it, his contiguity to the object of his search is not to be regarded in the same light as though all his movements had been guided by intelligence, and his failure to obtain complete success was attributable to other causes than want of knowledge.

The Commissioner says in the second place that he had not supplied the defects of his former testimony; and his being in California or Australia, rendered it probable that he had abandoned his supposed discovery. And, finally, he refers to the testimony of Isaac Barnum and others, of the declarations of Wetherill, to the same point of abandonment.

The Commissioner proceeds: "If, then, Burrows failed to make a patentable invention, no matter how near he came to it, and no matter what was the cause of his failure, his experiments will not stand in the way of Wetherill's patent; and it matters not, in this view of the case, whether Wetherill availed himself of the result of the experiments made by Burrows, nor even whether those experiments first suggested to him (Wetherill) the very discovery which he afterwards made. He who finally really makes the actual discovery is entitled to the patent."

Opinion of the court.

In the view I am about to take of this branch of the case, it will not be necessary again to state the principles which I have supposed would show that Burrows' invention must be considered as complete, notwithstanding his unsuccessful experiments; and that as to abandonment, in the sense which it is to be taken in this connection, it has no application. The proposition which is contended for by Wetherill's counsel, and sanctioned by the decision of the Commissioner, and which is vital to his claim, is that, although Burrows had brought his invention almost to the point of patentability, and that Wetherill knew of such—his imperfect invention and of his experiments which failed—and that he abandoned them, that he (Wetherill) had a right to perfect said invention as an essential part of his (Wetherill's) invented process for the purpose of said manufacture, and to have a patent therefor. The principle of this proposition I think would be unjust in this case. It would be giving to Wetherill for the merit of discovering a subordinate part of the invention the value of the whole, though the original idea or principle and embodiment thereof was certainly with Burrows. If Wetherill, by the dint of his own genius and discovery, has found out a new and appropriate process which can be profitably used in this manufacture, let him have a patent for it; but, in the language of an eminent patent-law judge, "he has no right whatever to take (if I may say so) a leaf out of his neighbor's book; he must be content to rest upon his own skill." I do not desire that this important principle should be considered as resting on my authority alone. It is the same that is established by the decision in the case of Minter *v.* Mower, 6 Adol. & Ell. Rep., 735. That case was for an infringement, and submitted upon the facts to the jury. The words of the jury are: "We are of opinion that Brown was the inventor of the machine, and found out the principle but not the practical purpose to which it is now applied; we think that Minter, the plaintiff, made that discovery." The judge says: "Now, it was perfectly clear upon the evidence that this description applies to Brown's chair, though that was incumbered with some additional machinery. The specification, therefore, claimed more than the plaintiff had invented."

Again: "His claim is not for an improvement upon Brown's leverage, but for a leverage so described that the description comprehended Brown's. We are therefore of opinion that the

patent cannot be sustained." I think that it is probable that the error which has been fallen into on this point of the case has arisen from an undue weight which may have been given to the English decisions, particularly that of Galloway *v.* Bladen, Webs. Pat. Cas., 521–526, in which Sir N. C. Tindall, C. J., states in effect that if the original inventor rested in experiment only, and had not attained the object for which the patent was taken out, mere experiment, afterwards supposed by the parties to be fruitless, and abandoned because they had not brought it to a complete result, that will not prevent a more successful competitor who may avail himself, as far as his predecessors have gone, of their discoveries, and add the last link of improvement in bringing it to perfection. Now, I do not think this case applicable, because the thing itself in the case now before me was the improvement by the perforated grate-bars. If so, it was complete, so as to be capable of use; and being the case of a machine, the law as stated in the books is, that it is not essential to the validity of the claim that the success of the means made use of should be complete, or that the thing invented should supersede anything else used for the same purpose, because the law looks only to the fact that the invention is capable of the use.

Again, if it is supposed that that decision, and the other decisions on that point, mean that such would be the right of the successful competitor, whether he did or did not know of the part which his predecessor had invented, I am satisfied our statute of 1836, before alluded to, will not authorize any such construction. The applicant is required to make oath or affirmation that he does verily believe that he is the original and first inventor, and that he does not know or believe that the same was ever before known. How could he swear so if he knew that his predecessor had brought a part of the invention which he claims almost to the point of patentability? The court, in the case of Gayler *et al. v.* Wilder, before alluded to by me, say: "If Fitzgerald made his discovery by his own efforts, without any knowledge of Conner, he invented an improvement that was then new and at that time unknown." Judge Patterson, also, in the case of Strutt, (Jones *v.* Pearce, Webs. Pat. Cas., 123,) in his charge to the jury, says: "If you are of opinion that Mr. Strutt's was an experiment, and that he found it did not answer, and ceased to use it altogether, and abandoned it as useless, and nobody followed it up, and that

the plaintiff's invention, which came afterwards, was his own invention, and remedied the defects, if I may say so, although he knew nothing of Mr. Strutt's wheel, he remedied the defects of Mr. Strutt's wheel, then there is no reason for saying the plaintiff's patent is not good. It depends entirely upon what is your opinion upon the evidence with respect to that."

Gibbs, Ch. J., in the case of Brown, in his charge to the jury, says: "Now, I wish to have what I state upon this subject observed by the counsel on both sides, that they may be aware how I put it. If a combination of those parts existed before; if a combination of a certain number of these parts existed up to a given point before, and Mr. Brown's invention sprung from that point, and added other combinations to it, then I think the specification stating the whole machine as his invention is bad. If, on the other hand, you think he has the merit of inventing the combination of all the parts from the beginning, then I think the specification is good, and that he is entitled to your verdict."

This, therefore, is the conclusion to which I feel myself obliged to come—that as between Burrows and Wetherill the priority of invention ought to be awarded to Burrows, and that Wetherill is not entitled to a patent upon his present application; and I do accordingly so decide and determine.

As between Burrows and Jones, there having been no decision by the Commissioner, there is, of course, no such case before me on appeal.

GEORGE A. WHIPPLE, APPELLANT,

vs.

JAMES RENTON, APPELLEE. INTERFERENCE.

INTERFERENCE—APPEAL BY PATENTEE DISMISSED.—An appeal in an interference by a patentee from a decision of the Commissioner, not referring or rejecting, but granting, the application, dismissed for want of jurisdiction or authority.

Pomeroy *v.* Connison (*ante*, p. 40) cited and approved.

(Before MORSELL, J., District of Columbia, September, 1854.)