

by the first claim he describes the layers of spirals as something to be separated, without specifically setting out the means of separation. It is possible, and perhaps probable, that the second claim might be construed as covering not only nonconducting material placed between the spiral layers, but such other means as might occur to the skilled mechanic as useful for that purpose, but it does not, it seems to us, necessarily follow that the inventor is bound to rely upon such scope as would probably result from construction. He may, for the purpose of describing the extent of his claims, not only state the general principles and requisite features of the invention in one claim, but the general principles and requisite features in another claim, supplementing this with a more particular description of the details involved in the contemplated structure. We do not consider the claims identical, and, therefore, one or the other superfluous, but view the first claim as broader than the second in the respect which we have stated, and not inconsistent therewith. Holding these views, both claims are sustained as valid, and with such result we are not called upon to consider the question raised by the sixth assignment of error.

The remaining question is that of infringement, and as to this we agree with the conclusion of the circuit court. The decree of the circuit court will be modified so as to stand in favor of the complainant below on the first claim of the patent in suit as well as on the second claim, and the case is remanded to that court for further proceedings accordingly. Costs in this court are decreed in favor of the Consolidated Car-Heating Company.

WHEATON v. KENDALL.

(Circuit Court, N. D. California. January 31, 1898.)

No. 11,781.

1. PATENTS—INTERFERENCE PROCEEDINGS—EQUITY SUIT.

In an equity suit brought under Rev. St. § 4915, by a defeated contestant in interference proceedings, to determine his right to a patent, the court has power to decide the question of priority without any exceptions or limitations; and, when the decision of the patent office is based rather on questions of law than any distinct finding of priority, the court will make an independent examination of the testimony, and reach its own conclusions.

2. SAME—INVENTION.

The conception of an invention consists in the complete performance of the mental part of the inventive act,—the formation in the mind of the inventor of a definite and permanent idea of the complete and operative invention as it is thereafter to be applied in practice. If anything remains to be created or devised in order to enable the machine to perform its functions in the manner proposed, the conception is not complete, so as to show a true idea of the means.

3. SAME—REDUCTION TO PRACTICE.

One is not entitled to a patent until he has performed a complete inventive act, by conceiving a complete and finished idea of means, and then reducing it to practice in some art, machine, manufacture, composition of matter, or design.

4. SAME—INTERFERENCE—PRIORITY—BURDEN OF PROOF.

A patent is prima facie evidence that the patentee was the first and original inventor of the thing patented; but if it be clearly shown that, prior to his application, another had perfected a full and complete conception of the invention, and had also reduced it to practice, the burden is then shifted upon the patentee to satisfy the court that at a still earlier date he had a full conception of the invention, and had reduced it to practice.

5. SAME—CAN-HEADING MACHINES.

On the evidence, *held*, that M. A. Wheaton was the first and original inventor of the can-heading machine covered by letters patent No. 450,624, issued April 21, 1891, to Charles B. Kendall, and is entitled to a patent therefor.

This was a suit in equity by Milton A. Wheaton against Charles B. Kendall, and was brought, under Rev. St. § 4915, to determine the question of priority of invention, after a decision against the complainant on interference proceedings in the patent office.

I. M. Kalloch and M. A. Wheaton (in pro. per.) for complainant.
N. A. Acker, for respondent.

HAWLEY, District Judge. This action was brought under section 4915 of the Revised Statutes, which reads as follows:

"Whenever a patent on application is refused, either by the commissioner of patents or by the supreme court of the District of Columbia upon appeal from the commissioner, the applicant may have remedy by bill in equity; and the court having cognizance thereof, on notice to adverse parties and other due proceedings had, may adjudge that such applicant is entitled, according to law, to receive a patent for his invention, as specified in his claim, or for any part thereof, as the facts in the case may appear. And such adjudication, if it be in favor of the right of the applicant, shall authorize the commissioner to issue such patent on the applicant filing in the patent-office a copy of the adjudication, and otherwise complying with the requirements of law."

The commissioner of patents on March 9, 1892, declared an interference between Charles B. Kendall's letters patent, No. 450,624, granted April 21, 1891, and the application of Milton A. Wheaton, for an improved can-heading machine, filed July 28, 1891. The real issue in this case is whether Kendall or Wheaton was the first and original inventor of the invention covered by the issue in interference in the patent office. This issue is defined as follows:

"Invention. In a can-heading machine, the combination, with oppositely rotating mechanisms, of the header and retaining jaws secured thereto and rotating therewith, said header and retaining jaws adapted to move from their axial line during rotation of the heading mechanisms, for the purpose of perfect registering with each other, and holding of heads and bodies during the operation of heading, substantially as and for the purpose set forth."

The respective parties filed their preliminary statements as required by the rules of the patent office. Kendall's statement is:

"That he conceived the invention set forth in the declaration of interference some time during the summer of the year 1887; that he made rough sketches of different features of the invention during said summer, and thereafter; that during the summer 1887 and year 1888 he explained the invention to different parties; that he never made a working model of his invention; that working drawings of the invention were made during the summer of 1891; that he has in his possession sketches of invention made during the month of January or February, 1889; and that he never embodied the invention in a full-sized machine."

Wheaton's is:

"That he conceived the invention set forth in the declaration of interference during or about the month of June, 1889, and made rough sketches of portions of the inventions during the said month, and the month of July following, and also explained the invention to others during or about the month of June, or the early part of July, 1889. In the latter part of July, or beginning of August, 1889, he commenced the manufacture of an experimental machine embodying the invention set forth in the declaration of interference, and for the purpose of perfecting the mechanical details by which it was operated. This machine was completed on the 16th day of October, 1889, and a great many cans were headed upon the machine. After this machine was completed, and the mechanical details were determined upon, deponent commenced to build another machine, which was begun either the latter part of October or the beginning of November, 1889. Deponent worked diligently upon said machine until the month of June, 1890, when it was finished and ready to set to work. On the 21st day of June, 1890, at the invitation of deponent, Charles B. Kendall, the other party to the present interference, visited the machine, and examined it, and had its details all explained to him. This machine has been used in two different canning factories, with satisfactory results. It worked in the first of these establishments for several months, and in the second establishment it worked until said establishment was burned, during the year 1891. On the day previous to the fire in which the machine was destroyed, it headed over 25,000 cans. No model was ever made of the machine, except the experimental machine previously described, and no drawings, previous to that time, except the rough sketches mentioned."

After taking all the testimony offered by the respective parties, W. W. Orrick, the acting examiner of interferences, on November 15, 1892, decided the issue in Kendall's favor. From that decision Wheaton took an appeal to the board of examiners in chief. This board consisted of H. H. Bates, R. S. B. Clarke, and S. W. Stocking. The two former affirmed the decision of the examiner of interferences. The latter, in a lengthy and carefully prepared opinion, expressed his views to the effect that the decision should be reversed. Wheaton then took an appeal to the commissioner of patents, W. E. Simonds, who decided in Kendall's favor. Wheaton thereafter, in due time, commenced this action, under the provisions of section 4915, above quoted. By stipulation of the parties, the evidence that was produced in the patent office was put in evidence in this case. Wheaton offered some additional testimony tending to rebut or impeach some portions of the testimony of Kendall before the patent office. Kendall rested his case upon the testimony taken in the interference proceedings in the patent office.

The respondent Kendall claims that the issue raised is one of fact, pure and simple, and that this issue having been disposed of by the patent department adversely to Wheaton, and there not having been any material evidence offered to change the issue of fact there heard and determined, it is the duty of this court to adopt and follow the rulings of the patent department; that, under the authorities, every reasonable doubt as to the facts found upon conflicting evidence must be solved in favor of the rulings of that department; and that all presumptions are in favor of the correctness of its conclusions. In other words, his contention is that this court cannot reverse the rulings of the patent office upon a review of the same testimony presented before the patent office, unless it clearly appears from the evidence,

beyond any reasonable doubt, that the conclusions reached by such officers were erroneous. In support of this contention, counsel cite and rely upon the following cases: *Morgan v. Daniels*, 153 U. S. 120, 124, 14 Sup. Ct. 772; *Standard Cartridge Co. v. Peters Cartridge Co.*, 69 Fed. 408; *Id.*, 23 C. C. A. 367, 77 Fed. 630.

In *Morgan v. Daniels* the circuit court, in a proceeding brought under the provisions of section 4915, reversed the decision in the patent office, from which ruling the losing party took an appeal. Mr. Justice Brewer, in writing the opinion of the court, deemed it proper to announce a definite rule which should control the courts in the determination of such cases. Speaking of the general character of this class of cases, he said:

"But this is something more than an appeal. It is an application to the court to set aside the action of one of the executive departments of the government. The one charged with the administration of the patent system had finished its investigations and made its determination with respect to the question of priority of invention. That determination gave to the defendant the exclusive rights of a patentee. A new proceeding is instituted in the courts,—a proceeding to set aside the conclusions reached by the administrative department, and to give to the plaintiff the rights there awarded to the defendant. It is something in the nature of a suit to set aside a judgment, and, as such, is not to be sustained by a mere preponderance of evidence. *Butler v. Shaw*, 21 Fed. 321, 327. It is a controversy between two individuals over a question of fact which has once been settled by a special tribunal, intrusted with full power in the premises. As such, it might be well argued, were it not for the terms of this statute, that the decision of the patent office was a finality upon every matter of fact. * * * Upon principle and authority, therefore, it must be laid down as a rule that where the question decided in the patent office is one between contesting parties, as to priority of invention, the decision there made must be accepted as controlling upon that question of fact in any subsequent suit between the same parties, unless the contrary is established by testimony which in character and amount carries thorough conviction. Tested by that rule, the solution of this controversy is not difficult. Indeed, the variety of opinion expressed by the different officers who have examined this testimony is persuasive that the question of priority is doubtful; and, if doubtful, the decision of the patent office must control."

After announcing this rule, the court proceeded to discuss the testimony, and, at the close of the discussion, said:

"It is enough to say that the testimony, as a whole, is not of a character or sufficient to produce a clear conviction that the patent office made a mistake in awarding priority of invention to the defendant; and because of that fact, and because of the rule that controls suits of this kind in the courts, we reverse the judgment and remand the case, with instructions to dismiss the bill."

The other decisions cited by respondent follow the rule announced in *Morgan v. Daniels*, but in all the cases the testimony is elaborately reviewed.

It is earnestly contended by complainant that the decisions in the patent office, while adverse to him, were not based upon any finding of fact that Kendall was the first inventor, and that the decisions were based upon erroneous interpretations of the patent law. In the complaint in this suit it is alleged, among other things:

"That there was no testimony taken in said interference proceedings which proved, or which tended to prove, that the said respondent, Kendall, was either the first or any inventor of said combination, but that the testimony taken in the behalf of both your orator and said Kendall fully proved that your orator

was the original and first inventor of said combination; and your orator also avers that, in the making of their several decisions, neither the said primary examiner in charge of said interference, nor the said board of examiners in chief, nor the said commissioner of patents, decided that the said respondent, Charles B. Kendall, was either the first, or original, or any, inventor of said combination, nor that your orator was not the original and first inventor thereof, nor that said combination was not a patentable invention, but still they, and each of them, refused to grant your orator a patent therefor."

The evidence shows that Kendall came to California in the latter part of the year 1888, bringing with him certain patents which covered mechanism for the manufacture of tin. After his arrival he assisted in organizing an automatic can company, for the purpose of utilizing his patents and the inventions. One of these patents was issued to Angell & Kendall on a can-heading machine, which was claimed by Norton Bros., of Chicago, to infringe upon certain patents owned by them. Mr. Kendall and Gen. Hart, on behalf of the Automatic Can Company, employed the complainant, Wheaton, who was an attorney at law with special practice in patent cases, to examine the Norton patents and the Angell & Kendall can-heading machine, and furnish them with a written opinion as to whether Angell & Kendall's patented machine did infringe upon any of the claims of the Norton patents. Wheaton submitted to them a written opinion upon this subject January 29, 1889. It appears from the evidence that several conversations were had between these parties as to the probabilities of inventing a machine that would not infringe the Norton patents, in the event of an adverse decision to them in the courts, and suggestions were made with reference to the construction of a continuous working can-heading machine. The testimony of the complainant and the respondent is in direct conflict upon this point. Kendall testified that he suggested and disclosed this idea to Wheaton. Wheaton just as positively testified that he disclosed the idea and suggested the same to Kendall. On June 21, 1890, Wheaton completed a continuously operating can-heading machine; and on that day, or about that time, at Wheaton's request, Mr. Kendall and the witness Bell, who is a mechanical engineer, visited the place where the machine was being operated. On September 20, 1890, Kendall filed his application for a patent in the United States patent office, and obtained his patent April 21, 1891. An examination of the decisions in the patent office shows that they were rendered in favor of Kendall principally upon the ground of the relations existing between the parties of client and attorney, and based upon the assumption that Wheaton had taken advantage of Kendall's suggestions, and enlarged upon his idea, and succeeded in completing a perfect machine. In the decision of the majority of the examiners in chief, it is said:

"Wheaton's machine is largely sui generis, and patentable to him without conflict. Wheaton's only error is as to what extent he has consciously or unconsciously made use of ideas imbibed from Kendall, while receiving from him the whole art of can-making machinery, as he learned it before contributing to it himself."

The commissioner based his opinion exclusively upon the ground of the relations existing between the parties, of client and attorney.

There is not in either of the decisions any clear-cut finding of fact that Kendall, upon the evidence, was the first inventor. All of the decisions proceed upon the theory that Kendall first had some crude ideas, which he had never completed, and that he made some suggestions to Wheaton upon the subject.

The decisions in the patent office are not final. The statute (section 4915) gives to a court of equity the power to decide between interfering patents, without any exceptions or limitation. *Machine Co. v. Crane*, 1 Ban. & A. 494, Fed. Cas. No. 14,388; *Glue Co. v. Brooks*, 19 Fed. 426; *Hubel v. Tucker*, 24 Fed. 701; *Bernardin v. Northall*, 77 Fed. 849, 851.

In *Minneapolis Harvester Works v. McCormick Harvesting Mach. Co.*, 28 Fed. 565, Nelson, J., said:

"While acquiescence in the decision of the patent office in an interference case might, under some circumstances, raise a presumption of the validity of the patent, and prima facie entitle the complainant to protection by injunction, it is far from *res adjudicata*. No court is bound by the decision of the patent office granting a patent, when immediate steps are taken to test its validity in an action instituted for that purpose; and in an interference case, when the issue is decided, the rights of the defeated party are not prejudiced if he avails himself of the law which virtually transfers the controversy to the courts."

This court proceeds, not as an appellate tribunal, but as a court of original jurisdiction. In *re Squire*, 3 Ban. & A. 133, Fed. Cas. No. 13,269; *Butler v. Shaw*, 21 Fed. 321, 327; *Walk. Pat. § 134*. As the case is presented to this court, it calls for an independent examination of the evidence touching the real question of fact, as to who was the first inventor of the invention specified in the issue mentioned in the interference proceedings. In order to properly determine this question of fact, it is first essential to arrive at a correct understanding as to what is necessary to be established in order to constitute the conception of an invention. From an examination of the authorities upon this subject, it may safely be said that the conception of an invention consists in the complete performance of the mental part of the inventive act. It is the formation in the mind of the inventor of a definite and permanent idea of the complete and operative invention as it is thereafter to be applied in practice. If anything remains to be created or devised in order to enable the machine or instrument to perform its functions in the manner proposed by the inventor, his conception of the invention is not finished, nor has he brought into existence any true idea of the means. As is said in section 378, 1 Rob. Pat.:

"Where the shape, size, material, or location of its various parts, or the nature or arrangement of its component operations, are necessary to its practical accomplishment of the purpose for which it is designed, each of these must be fully developed in, and apprehended by, the mind of the inventor, in a condition adapted to immediate embodiment in the concrete art or instrument."

In *Mergenthaler v. Scudder*, 81 O. G. (No. 8) 1417, this subject is elaborately discussed, and numerous authorities are there cited.

There is another principle, interwoven with the conception, that should not be overlooked; and that is that, before any one is entitled to a patent upon the ground that he is the original discoverer

or inventor, it must appear that he "has first perfected and adapted the invention to actual use." *Whiteley v. Swayne*, 7 Wall. 685. In *Rob. Pat. § 364*, the author says:

"No one can be an inventor until he has performed a complete inventive act; that is, until he has conceived an idea of means, and reduced it to practice in some art, machine, manufacture, composition of matter, or design."

Again, in section 391, the author adds:

"It does not constitute a part of his inventive act, nor can it serve him as a demonstration that his own idea of means is capable of practical application in the arts. He must have finished his inventive work, and have complied with every legal requirement as fully as if no other laborer but himself were in the field, or he cannot yet be regarded as entitled to the recompense of an inventor."

In *Coffin v. Ogden*, 18 Wall. 120, 124, the court, after stating that the invention or discovery must have been complete, and capable of producing the result sought to be accomplished, said:

"If the thing were embryotic or inchoate, if it rested in speculation or experiment, if the process pursued for its development had failed to reach the point of consummation, it cannot avail to defeat a patent founded upon a discovery or invention which was completed, while in the other case there was only progress, however near that progress may have approximated to the end in view. The law requires, not conjecture, but certainty. If the question relate to a machine, the conception must have been clothed in substantial form, which demonstrates at once its practical efficacy and utility."

See, also, *Whittlesey v. Ames*, 13 Fed. 893, 898; *Goodyear v. Day*, 2 Wall. Jr. 283, 289, Fed. Cas. No. 5,569; *Jones v. Van Kirk*, 2 Fish. Pat. Cas. 586, Fed. Cas. No. 7,500; *Singer v. Walmsley*, 1 Fish. Pat. Cas. 558, Fed. Cas. No. 12,900; *La Baw v. Hawkins*, 1 Ban. & A. 428, Fed. Cas. No. 7,960.

There was no controversy in the patent office as to the fact that *Wheaton's* machine contained the combination and invention which was the subject of the issue in the interference proceedings. It was found as a fact, and is clearly established by the testimony, beyond any reasonable doubt, that *Wheaton* not only had a full and complete conception of the invention, but also had reduced the same to practice, as early as June 21, 1890. While *Kendall's* patent is prima facie evidence that he was the first and original inventor, this presumption is met and overcome by the proofs. *Wheaton's* machine was perfected, and in working and successful operation, several months prior to *Kendall's* application for a patent. These undisputed facts changed the burden of proof required by law from *Wheaton* to *Kendall*, and imposed upon *Kendall* the obligation to satisfy the mind of the court that prior to June 21, 1890, he had a full conception of the invention, and had reduced it to practice. In *Thayer v. Hart*, 20 Fed. 693, the court held that, where the defendant in an infringement suit proves that he invented the patented device before the date of the plaintiff's application, the burden is transferred to the plaintiff to satisfy the court beyond a reasonable doubt that he first conceived the invention. In the course of the opinion, Judge Coxe said:

"The evidence of prior invention is usually entirely within the control of the party asserting it, and so wide is the opportunity for deception, artifice, or mistake, that the authorities are almost unanimous in holding that it must be estab-

lished by proof clear, positive, and unequivocal. Nothing must be left to speculation or conjecture;" and cited several authorities in support of this position.

In *American Sulphite Pulp Co. v. Howland Falls Pulp Co.*, 70 Fed. 986, 993, Putnam, Circuit Judge, speaking of the burden and character of proof required, said:

"In *Andrews v. Hovey*, 124 U. S. 694, 8 Sup. Ct. 676, the supreme court said: 'Patents are often granted with a view to leaving open, to be decided by the courts, questions which the patent office does not deem it proper to adjudicate against the applicant by withholding the patent.' If there is anything of practical value left of this statement, it must be considered as trimmed down to extreme narrowness by the extension in *Morgan v. Daniels*, 153 U. S. 120, 14 Sup. Ct. 772, of the rule announced in *Cantrell v. Wallick*, 117 U. S. 689, 6 Sup. Ct. 970, that not only does the burden of proof rest on the party who sets up the defense of prior use, but that 'every reasonable doubt should be resolved against him.' However, we think that there are other decisions of that court which relieve us from discussing the application to this case of the rule of proof thus stated. Wenzel's invention was admittedly made known, not wholly, but sufficiently, to the patentee, before his application was filed. Under these circumstances, the burden seems to be thrown on the complainant to establish prior invention by 'full, unequivocal, and convincing' evidence. *Manufacturing Co. v. Sprague*, 123 U. S. 249, 264, 8 Sup. Ct. 122. This was the practical rule applied in *Thayer v. Hart*, 20 Fed. 693. The ease with which interested ingenuity dresses up matters occurring after the fact renders it necessary that this strict rule be applied, both to the defense of anticipation, and to the rebuttal in behalf of a patentee, under the circumstances of this case, where substantial information was communicated to him between the alleged time of invention and the time of filing his application."

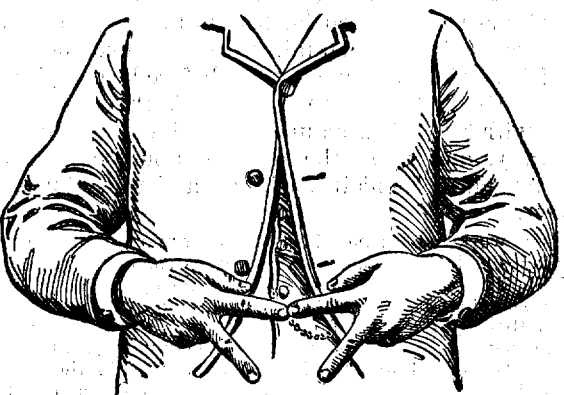
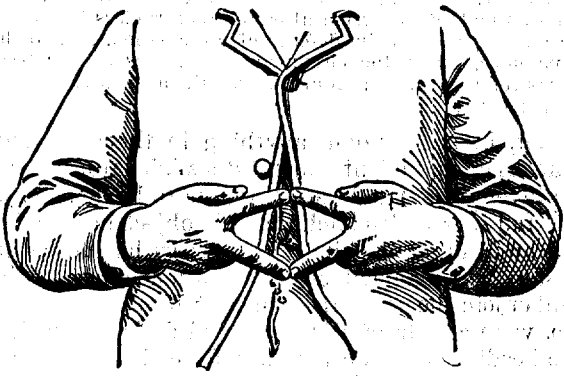
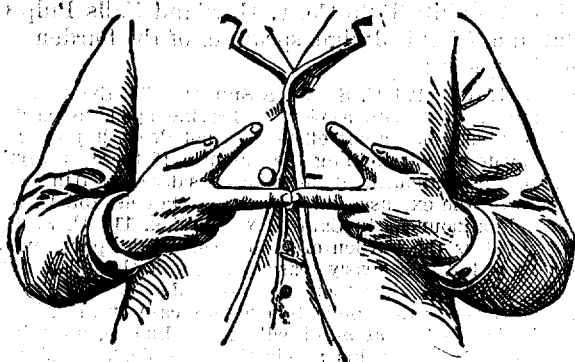
There is not, in my opinion, anything in the testimony as to the relation of attorney and client which estops Wheaton from claiming to be the prior inventor. He does not appear to have acted in bad faith. He testified, and it is undisputed, that his object in working upon and producing a can-heading machine was to assist his clients and aid them in avoiding any infringement of Norton's machines, in the event the courts should enjoin the use of the Angell & Kendall can header. King, Morse & Co. were clients of Wheaton, and desired him, if possible, to invent a can-heading machine that would not infringe the Norton patents. He acted openly in the matter, and is entitled to a reward for his labor, if it be true, as he claims, that he is in fact the prior inventor of the issue presented in the interference proceedings.

I am of opinion that the crucial test as to the priority of invention should be determined by ascertaining from the evidence what Kendall had accomplished prior to June 21, 1890, before he examined Wheaton's machine. Mr. Kendall, in his testimony, said that after January, 1889, he conversed with Mr. Wheaton upon the principles of can-heading machines generally, and upon the objectionable features of both the Norton and Angell & Kendall machines, and told him (to quote from his testimony):

"That I was at work upon a new idea of a continuous motion can-heading machine, and that I should build such a machine as soon as I was financially able to do so. I explained to him, in the main, the operation of this continuous motion header, showing that I could perfect this motion by oppositely operating mechanisms,—either by the use of oppositely rotating disks or clamping jaws upon the periphery or by endless belts with clamping jaws thereto attached, or by both. I also stated to him (I am not sure as to the precise date, any more than that it was before I ever heard of his building a machine) that there were several ways in which I could accomplish this result. I illustrated to him

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this invention by the use of my hands, as shown in the exhibits marked Kendall's 1, 2, and 3 [photos], as I had done to other people. I took him to the factory of the King-Morse Canning Company, and showed him the can-heading machine which was then on exhibition there. I showed him its operation. I pointed out the disadvantages of the stop motion machine, and further called his attention to the superiority of a continuous motion machine."

Kendall went East in February, 1889, returning to California in May, 1889, and in October, 1889, again went East. Upon his first trip East, he testified:

That he explained to Coupal Brothers, in Boston, and to Mr. Schaake, who had been in the can-making business several years, "my continuous motion can-heading machine, as I had invented it; explaining to them at different times the movements of this invention; stating to them and Mr. Schaake that I could use oppositely operating disks or jaws, attached and so arranged that it could receive can heads and bodies; could put the head upon them, and discharge a completed can, without the necessity of any stop. Mr. Schaake and Coupal Brothers made offhand sketches at different times of the special movements which I described to them, and which I stated were necessary in order to successfully carry out this operation. I stated to them that I could also use endless belts, or that I could use a revolving disk, or an endless belt with adjustable jaws attached to each, or that I could make the whole header operate upon a shaft." That he also had many conversations with Mr. Bell, a mechanical engineer of the San Francisco Tool Company, and with Mr. Rosenthal, draftsman, concerning can-making machinery in general. That he pointed out and explained to them his new idea of a continuous motion can-heading machine, with oppositely operating mechanism, and illustrated his invention, as he had done to others, by the use of his hands and forearms.

Mr. Schaake, upon his cross-examination, testified as to his conversation in Boston with Mr. Kendall as follows:

"Q. Please tell, in your own language, what Mr. Kendall did describe to you in Boston, as to a new machine, in April, 1889. A. It was a machine for heading cans. He described with his hands to me, to take a can in from the top by two revolving disks or jaws. These disks to revolve towards each other; heading the can and revolving; discharging it as it passed the center. These disks to have several heads on them. Q. Did he at that time make any drawings of such a machine? A. He drew a few offhand sketches. * * * In the sketches that he made in Boston there was two disks or jaws, and those jaws, and how those jaws were to be connected at that time, I do not remember. Q. How were the jaws connected with the disks in the sketches which he drew? A. The sketches did not show how the jaws were to be connected. Q. Did these sketches show any connection between the jaws and the disks, or not? A. That I do not remember now. He made a sketch of two jaws, and remarked when he made those jaws that those jaws must move. From those sketches I thought, from my own idea, that they would work from the jaws fastened right onto the disks. I made a sketch to that effect, with the jaws fastened onto the disk. When I explained it to him, he told me that that would not work, and gave me the reasons."

This witness also answered, in reply to questions concerning the general devices which he thought might at some time be put into a machine, that:

"From the sketches that he made at that time, any man with any idea of machinery—can-making machinery—could have built a heading machine from the sketches and explanations that he gave at that time."

There were no tracks described in the sketches. There were no plungers in any of the sketches which Kendall made. The sketches did not show how the cans were to be connected with the disks. No detailed devices were sketched. He never sketched an entire machine.

After all these sketches had been made, and late in the fall of 1889, Mr. Kendall had three new machines constructed for the Automatic Can Company, like the Angell & Kendall machines, and they were finished about January 1, 1890. Mr. Bell testified that Mr. Kendall was the first man who described to him a can-heading machine with opposite rotating wheels.

"He spoke to me about getting up a machine to have either oppositely rotating wheels, or a machine with opposite disks for heading a can. There were two ways he could do this heading of a can, and have it continuous motion. The main object, he told me, was to get continuous motion. The first time he spoke to me about it was in the month of September, 1889. At any rate, it was a few days before he went East. At that time I do not know that he illustrated it to me in any way. * * * He explained that he would have loose heading jaws on those oppositely revolving disks, so that they would pass over the center, and head the cans. I do not remember, now, the conversation. There was talk enough at the time to decide how it could be done. I do not recollect the exact language."

This witness could not testify that Kendall made any sketches before July 1, 1890, which was after he had seen Wheaton's machine. There is nothing in Bell's testimony which indicates that Kendall had communicated to him any idea of the means of uniting the jaws on the revolving disks. The means finally adopted by Kendall were never suggested to him. It is true that this witness testified that, from the description and sketches furnished by Kendall, he could have built a can-heading machine containing the issue specified in the interference proceedings, by supplying the elements necessary to effect the motion desired. In other words, although no idea of the means for imparting the motion had been given to him by Kendall, yet he believed he could invent them. Upon his cross-examination he testified in answer to questions as follows:

"Q. How could you have made an operative machine from the description he gave you, if some of the necessary parts were not in this description? Understand, the question refers to making a machine by following his description alone, and without adding anything to those descriptions. A. It would have been impossible, if you had only used just exactly what Mr. Kendall sketched. But Mr. Kendall could have taken those sketches to an ordinary draftsman, who would have carried them out. But, of course, Mr. Kendall did not show all the machine in his sketches. Q. Then the draftsman would be obliged to add the parts that Mr. Kendall left out, to make an operative machine? A. Yes; but Mr. Kendall did not intend that his knowledge should end at that time, because, if he intended— (Interruption.) Q. The question is not what he would have done, but whether he showed to you a sketch, or described an operative machine, prior to 1891. A. No sir; he did not show me sketches of the machine. His sketches were of the jaws and the disks. Q. And he gave you no description of the means by which the heads were to be forced forward upon the can bodies during the continuous rotation of those disks, did he? A. I do not think he made any particular comment upon that."

A thorough examination of all the testimony clearly shows that prior to June 21, 1890, Kendall had not completed the invention, in any form; he had not made, or attempted to make, any model of his machine, in any form, nor completed any sketch of it. It is a significant fact that, while Kendall testified that he had made sketches prior to seeing Wheaton's machine, he declined to introduce the sketches thus made before the officers of the patent department, as appears from the evidence, as follows:

"Q. Can you produce any sketch now that you made of that machine at any time prior to the 21st day of June, 1890? A. I can. Q. Who has got them? A. I have them here. Q. Why did you not put them in evidence in your direct examination? A. Under advice of my counsel, I left them out."

On July 1, 1890, after he had seen Wheaton's machine in operation, he set Rosenthal, who was a skilled mechanical draftsman, at work on the drawings of his machine. There is nothing in the testimony of any of the witnesses that Kendall had, before he saw Wheaton's machine, any conception of means further than two oppositely rotary disks, having affixed to them, in some unknown and unexplained manner, half clamps, whereby can bodies and can heads might be continuously received, clamped, and discharged. The means for making the half jaws or clamps, moving laterally to the disks, so as to make them register to receive and hold during heading, and to discharge after heading, had not been conceived by him. In addition to that, there was still needed the combination of these half jaws on the disks in couples, so as to be moved to and from each other to unite the bodies and heads. Of that construction Kendall disclosed no conception. And after that there must have been a means for moving one set of clamps towards the other, arranged and related to the new clamps, and of them he does not appear to have had any conception. Kendall disclosed only two mechanisms,—oppositely rotating disks and jaws. He disclosed what he wanted those two things to do; but he did not disclose any way of mounting them laterally to each other, so that they would do the elementary things he wanted done, namely, receiving a can or can header, holding the can or can head for a time, then discharging the can or can header. I am of opinion, after a careful examination of all the evidence, and the principles of law applicable thereto, that Wheaton was the first to conceive, and the first to reduce to practice, the invention of the issue. This conclusion "is established by testimony which, in character and amount, carries thorough conviction." Let a decree be drawn in Wheaton's favor, in accordance with the views expressed in this opinion.

BESSE v. HECHT et al.

(District Court, E. D. New York. March 3, 1898.)

GENERAL AVERAGE—SERVICES FOR GENERAL BENEFIT.

Where the managing owner makes a journey to reach his vessel in a port of distress, going in good faith, and induced in part by an honest feeling that his presence is necessary to protect the common interest, he will be entitled to compensation to the extent that his time was devoted to matters of common interest, and not to his own interest as owner.

This was a libel by William H. Besse against Isaac Hecht and others.

Wing, Shoudy & Putnam, for libelant.

Butler, Stillman & Hubbard, for respondents.

THOMAS, District Judge. The Belle of Oregon, of which the libelant owned $\frac{10}{64}$, Matthews, the captain, $\frac{1}{64}$, and sundry other