

Harding & Harding, for complainant.  
Philip T. Dodge and Joshua Pusey, for defendant.

DALLAS, Circuit Judge. This is a suit brought by the Johnson Company, a corporation of the state of Kentucky, and having a rolling mill and plant at Johnstown, Pa., against Pennsylvania Steel Company, a Pennsylvania corporation, having a rolling mill and plant at Steelton, Pa., for infringement of the second claim of letters patent No. 303,036, dated August 5, 1884, granted to Arthur J. Moxham, and by him assigned to the complainant.

The claim involved reads as follows:

"(2) A set of rolls for rolling metal blooms or ples into girder shapes, provided with a dummy pass or grooves, having spaces, as at E and D, substantially of the contour indicated in Fig. 2, the desired shape of metal in the space E being imparted by elongation, but in the space D mainly by displacement independently of elongation, all substantially as described and for the purposes set forth."

The learned counsel of the complainant have ingeniously argued "that rolling is a combination of the entering piece and the pass into which it is entered," and that "the true scope of the claim under consideration, to be effective, like all rolling actions, consists in the combination of a piece having certain characteristics, and a pass adapted to act upon that piece in a particular manner." The plaintiff's case rests upon the assumption that the claim should be construed in accordance with the theory thus suggested, but I find it impossible to acquiesce in this. It is strenuously insisted by the defendant that its pass does not act upon the piece in the "particular manner" in which the plaintiff's pass acts upon it; but, waiving this question, it is, at least, clear that the defendant's pass is not "substantially of the contour indicated in Fig. 2" of the patent, and I have no doubt that to the pass so specified the claim in suit should be restricted. To give to the language by which the action of the pass is described the effect of burdening this great industry with a monopoly covering any pass whatever by means whereof the peculiar desired shape may be imparted to the metal, "mainly by displacement independently of elongation," would be to construe the patent as for the mechanical operation or function of the device, and this, too, in contravention of the plain terms of the claim, by which a particular structure is specifically designated.

The bill is dismissed.

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MAST, FOOS & CO. et al. v. IOWA WINDMILL & PUMP CO.

(Circuit Court, N. D. Iowa, Cedar Rapids Division. May 13, 1895.)

1. PATENTS—REISSUES—BROADENING OF CLAIMS.

A reissue which broadens the original claims can only be had when mistake or inadvertency is shown whereby the original patent failed to cover what it was then intended should be covered, and when the application for a reissue is made within a reasonable time; and, where the application is delayed for nearly three years, it is too late.

2. SAME—ANTICIPATION—PRIOR USE.

The fact that another than the patentee first conceived the idea of his invention, and reduced it to a successful experimental form, does not

amount to anticipation where the experiment was then abandoned and was not made the basis for an application for a patent, and there was no attempt to manufacture and sell the article.

3. SAME—PUMPS.

The Bean original and reissued patents, No. 175,588 and No. 8,631, respectively, analyzed and construed, and the first four claims of the reissue found to be broader than the claims of the original patent; *held*, therefore, that such reissue claims are void, because the application for the reissue was delayed for nearly three years, and because no mistake was shown in procuring the original.

4. SAME.

The Martin patent, No. 339,445, and the Hooker patent, No. 259,394, for improvements in pumps, *held* valid and infringed; the first as to claims 1 and 3, and the second as to claim 1.

This was a bill by Mast, Foos & Co. and William B. Hooker against the Iowa Windmill & Pump Company for alleged infringement of certain patents relating to improvements in pumps.

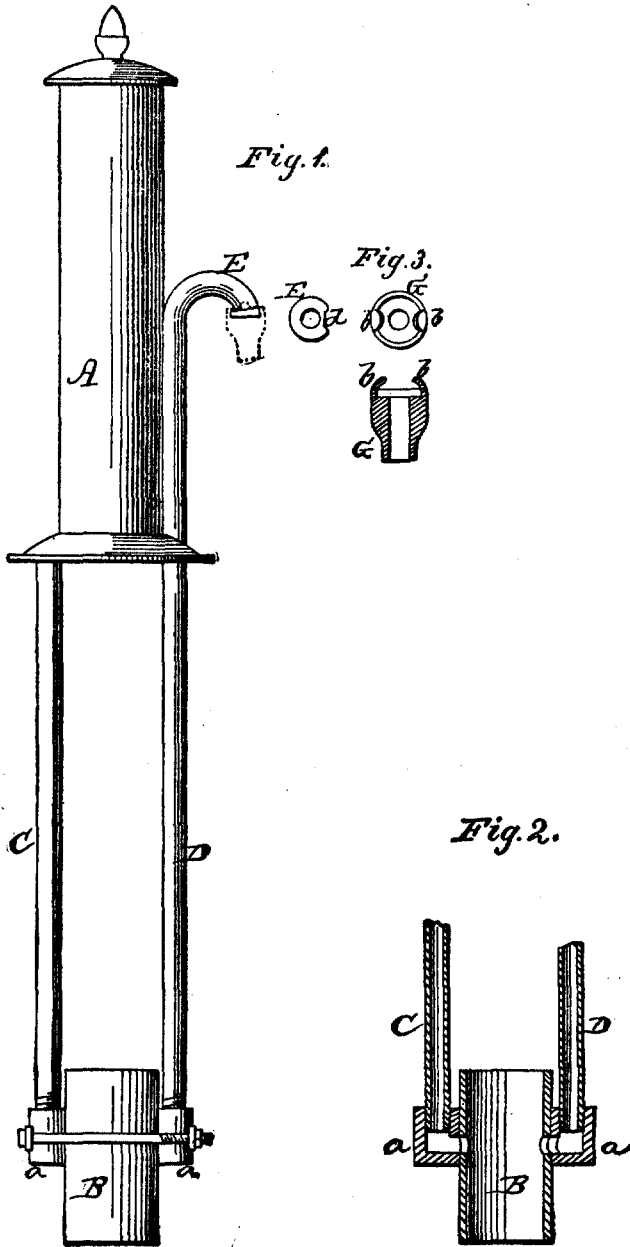
H. A. Toulmin and Lysander Hill, for complainants.

R. S. Taylor and C. H. Worden, for defendant.

SHIRAS, District Judge. The bill charges an infringement by the defendant of the first, second, third, and fourth claims of a patent reissued to Roscoe Bean, under date of March 25, 1879, and numbered 8,631, the original patent being No. 175,588, and dated April 4, 1876; also, of the first and third claims of patent No. 339,445, issued to Samuel W. Martin, under date of April 6, 1886, and of the first claim of patent No. 259,394, issued to William B. Hooker, under date of June 13, 1882,—it being averred that the complainants are the owners, by proper conveyances, from the patentees of the rights secured by the named patents, all of which are for improvements in the mode of constructing pumps.

The first defense pleaded to the Bean reissued patent No. 8,631 is the invalidity or illegality of the reissue upon the ground that the reissue broadens the terms of the original patent in a material matter, and as it was not applied for until nearly three years after the issuance of the original, and as the latter patent was not inoperative or invalid by reason of a defective or insufficient specification or by reason of the patentee claiming as his own invention or discovery more than he had a right to claim as new, and as there are no special circumstances disclosed excusing the delay in applying for the reissue, it must be held that the purpose of the reissue was to broaden the claim, and, consequently, the reissue must be held, *pro tanto*, to be invalid. As already stated, the original patent to Roscoe Bean was issued April 4, 1876, and it has therefore expired by limitation, although not until after this suit was brought, the bill herein having been filed in 1891. No case involving the validity of the reissue has been brought to trial, and hence the question is *res nova*. It will probably aid in the presentation of the questions involved to set forth in parallel columns the material portions of the specifications in the original and reissued patents, together with a copy of the drawing attached to both patents.

Drawing attached to Bean patent.



## Original.

The nature of my invention consists in the construction and novel arrangement of a pump stock, connected with the cylinder by two tubes, one forming an air chamber and the other the discharge pipe, said tubes opening into the cylinder directly opposite each other, as will be hereinafter more fully set forth.

A represents an ordinary pump or pump stock as used above ground. B is the pump cylinder, connected to the pump, A, by means of two tubes, C and D. The lower ends of these tubes are screwed into pieces, a, a, between which the cylinder, B, is placed, and the parts there firmly bolted together. The pieces or elbows, a, a, open into the cylinder on opposite sides thereof, and in the same horizontal plane. The tube, C, is closed at its upper end, and forms, not only a support for the pump, but also the air chamber. This air chamber, being in the form of a tube, has a direct action on the water, and also has greater power for forcing water as well as to give it a more steady action. The pipe, D, extends up along the pump stock, A, and forms the discharge pipe as well as the second support for the pump cylinder. By this mode of connecting the pump stock and cylinder, a substantial support is formed for the cylinder, and it is very simple and readily put together. By these means, also, the cylinder is placed down in the well below the freezing point; and in cisterns or where the cylinder is submerged it will not fill up with water, and at the same time connects and supports the cylinder, however deep the well may be.

By having two holes in the cylinder, one for discharge and one for air chamber, it gives a place for the air chamber to have a direct action on the water while in use, giving it an even, steady stream, and a direct discharge for the water, independent of the air chamber.

Having thus fully described my invention, what I claim as new, and desire to secure by letters patent, is:

1. The combination of the pump stock, A, and cylinder, B, with the pipe, C, forming the air chamber, as well as the supporter between the pump and cylinder, substantially as herein set forth.

2. The combination of the pump stock, A, and cylinder, B, with the tubular air chamber, C, and discharge pipe, D, forming connection between the pump and cylinder, substantially as herein set forth.

3. The cylinder, B, having the air chamber and discharge pipe opening into

## Reissue.

The nature of my invention relates to force pumps; and it consists in a tubular air chamber attached to the pump stock or platform flange, and connecting to and opening into the cylinder or chamber, and forming also a support for the same.

My invention further consists in a supporting tubular air chamber and discharge pipe attached to the pump stock or flange plate, and connecting with and opening into a cylinder or chamber; also, in the combination of parts, as will be hereinafter more fully set forth and pointed out in the claims.

A represents an ordinary pump stock connected to the platform flange or flange plate, A'. B is the pump cylinder, connected to the pump stock, A, or flange, A', by means of two tubes, C and D. The lower ends of these tubes connect with the cylinder, B, and open into the same, or into a chamber, a, interposed in any suitable manner, the object being simply to form a connection between said cylinder and the tubes.

The tube, C, is closed at its upper end, and forms, not only a support for the pump, but also the air chamber. This air chamber, being in the form of a tube, has a direct action on the water, and has also greater power for forcing water, as well as to give it a more steady action.

The pipe, D, extends a suitable distance above the flange, A', and forms the discharge pipe as well as the second support for the pump cylinder.

By this mode of connecting the pump stock or flange with the cylinder or chamber a substantial support is formed, which is very simple and readily put together. By these means, also, the cylinder may be placed down in the well below the freezing point; and in cisterns or where the cylinder is submerged it will not fill up with water, and at the same time connects and supports the cylinder, however deep the well may be.

By having two openings, one for the discharge and one for the air chamber, it gives a place for the air to have a direct action on the water while in use, giving it an even, steady stream, and a direct discharge for the water, independent of the air chamber.

Having thus fully described my invention, what I claim as new, and desire to secure by letters patent, is:

1. A supporting tubular air chamber attached to pump stock or platform flange, connecting to and opening into a cylinder or chamber.

2. A supporting tubular air chamber and discharge pipe attached to pump stock or flange plate, connecting to and opening into a cylinder or chamber.

3. In a pump, a tubular air chamber, forming a support for the lower part of the pump, and connecting the same with the upper part, substantially as herein set forth.

the same on opposite sides, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing, I have hereunto set my hand this 15th day of July, 1875.

Roscoe Bean.

Witnesses:

Wm. A. Skinkle.  
Monroe Alleman.

4. In a pump, a tubular air chamber and a discharge tube, forming supports for the lower part of the pump, and connecting the same with the upper part, substantially as herein set forth.

5. The cylinder, B, having the air chamber and discharge pipe opening into the same on opposite sides, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing, I have hereunto set my hand this 21st day of February, 1879.

Roscoe Bean.

Witnesses:

John Bean,  
T. W. Tolchard.

Thus we find that in the original application it is expressly declared that the nature of the invention consists in the construction and novel arrangement of the pump stock, the cylinder or pump proper, the air chamber, and discharge pipe. The first and second claims in the patent cover the combination of the pump stock, the cylinder, the tubular air chamber, and the discharge pipe, and it clearly appears in the specification that the patented combination expressly provided for the immediate connection of the tubes forming the air chamber and the discharge pipe with the cylinder, being connected therewith through elbows opening into opposite sides thereof and in the same horizontal plane. In the testimony of James W. Lee, an expert witness called by the complainants, is found the following exposition of the merits of the Bean patent:

"In this patent, the pump stock is located as usual, and so is the spout and other parts pertinent to the pump; the pump barrel is located as far down as is desired; the discharge pipe leads up from the barrel to the spout, and is attached to the pump stock, and forms a water way and also a support for the barrel, but the piston rod does not pass through the discharge pipe at all, but passes up entirely independent of the discharge pipe, the discharge pipe being connected with the barrel to one side of the center, so as to not interfere with or be interfered with by the piston rod. There is no air chamber on the pump stock, as usual. A second pipe, closed at its top, is firmly connected to the pump stock, and goes down parallel with the discharge pipe, and connects with the barrel again at one side of the center of the barrel, so as to have nothing to do with the piston rod. This second pipe forms the air chamber, and it also forms one supporting leg extending from the pump stock to the barrel. It is not only an air chamber, but it is a good one and properly placed. It is long, as long as the distance between stock and barrel, and that is the proper form for an air chamber, so that the water, acting in its lower end, acts like a piston in a cylinder pressing upward on the elastic air within it. And it is properly located, for its lower end is in communication with the pump, right where the shocking force of the 'water ram' originates. In the old construction, it was put way up on top of a column of water, and the distance between the barrel and the air chamber always equaled the distance between the barrel and the stock. In the Bean patent, the distance between the barrel and the air chamber is zero. It will, therefore, be readily understood that in the Bean construction the pump barrel finds a support in the air chamber; that it finds an additional support in the discharge pipe; that the tubular air chamber, by its peculiar disposition, is peculiarly efficient as an air chamber, independent of its office as a support for the barrel; and that the discharge pipe and air chamber connect with the pump barrel at opposite sides, leaving the central or piston rod point unobstructed."

It is entirely clear that, in the original patent, Bean did not seek to patent as his invention a tubular air chamber. The patent is for a combination which includes as one of its elements a tubular air chamber, also serving as a support or connection between the cylinder and pump stock, but it does not cover or protect a tubular air chamber, except as part of the combination. Thus a pump constructed with a tubular air chamber, not serving, however, as a support to the pump, would not infringe the claims of the patent. In the testimony of the witness Lee, as above quoted, it is said that the chief merits of the combination consist in the air chamber acting as a support, and also in the position of the air chamber, whereby the distance between the air chamber and the barrel being reduced to zero, the elastic force of the air in the chamber acts directly at the pump, where the shocking force of the water originates. It is apparent that, as complainant's expert understands or construes the Bean combination, it requires the placing the pump cylinder between the lower ends of the tubes forming the air chamber and the discharge pipe, and this accords exactly with the description in the original application and with the drawing attached to the patent. Thus it is made clear that the combination described in the first claim of the original patent embraces four elements, to wit, the pump stock, the cylinder or pump proper, a support connecting the pump stock and cylinder, and an air chamber. All of these elements were old. Bean was not the original inventor of any one of these elements. In the second claim of the original patent there are likewise embraced the four elements found in the first, but the means of support between the pump and stock is made to include the discharge pipe. The novelty in the combination consists in making one pipe serve the double purpose of an efficient air chamber and a support between the pump stock and cylinder, and the combination is made effectual by bringing the several parts together and uniting them in the mode described in the patent. According to the express statements found in the specifications of the original patent, three beneficial results are obtained from the patented combination: First. A simple yet substantial support for the cylinder, formed by placing the same between the lower ends of the tubular air chamber and the discharge pipe, and firmly bolting the same together. Second. An efficient air chamber, resulting from the lower end of the air chamber being connected with the cylinder through an opening therein opposite to the discharge opening, thus bringing the air chamber into close contact with and giving it direct action upon the water in the pump cylinder. And, third, a direct discharge of the water, independent of the air chamber. These beneficial results were sought to be accomplished under the original Bean patent by a combination wherein the cylinder was fastened between the lower ends of two tubes forming the air chamber and discharge pipe, and which were fastened to the pump stock by bringing the lower end of the tubular air chamber into direct connection with the pump cylinder, and by having the discharge pipe connected with the cylinder through an opening therein opposite to the opening between the air chamber

and cylinder, and this is the combination which is described and claimed in the application upon which the original patent was issued.

On behalf of complainants, it is contended that the invention covered by the original patent belongs to the class known as generic or primary patents, and should therefore be construed broadly and liberally, according to the rule laid down in *Winans v. Denmead*, 15 How. 330; *Electric Co. v. LaRue*, 139 U. S. 606, 11 Sup. Ct. 670; *Sewing Mach. Co. v. Lancaster*, 129 U. S. 263, 9 Sup. Ct. 299; and other cases based thereon. Any valid patent, no matter how narrow in scope, is nevertheless entitled to a fair construction, so as to give the inventor the benefit of all his invention that can reasonably be brought within the claims of the patent, but the rule contended for, under the authorities above cited, is properly applicable to those inventions which originate new and useful results, and I do not deem the Bean patent to be included in this category, and yet the patent is nevertheless to be fairly construed; but, giving the language used in claims Nos. 1 and 2 all the latitude reasonably applicable thereto, I can reach no other conclusion than that these claims cover a combination of the pump stock and cylinder with a supporting tubular pipe acting as an air chamber, and a discharge pipe also acting as a supporter to the cylinder, the mode of combination being to connect the lower ends of the tubes to the opposite sides of the cylinder and the upper portions to the pump stock or flange. The patent does not seek to cover the invention of a tubular air chamber per se. As already said, every element found in the combination, aside from the mere form or position of the parts, was old and well known at the date of the filing of the application for the patent in question. Pump stocks and cylinders were old; air chambers were well known. Connections between the pump stock and cylinder had been in use since pumps were first made, and the use of a pipe as a connection between the stock and cylinder was old; as well as using a pipe, not only as a support or connection, but as a discharge pipe also, thus putting a connecting or supporting pipe to a double use. It seems to me, therefore, that the position of the several elements described in the first and second claims of this patent enter into the combination, and in fact wholly, or at least largely, give it the usefulness relied on as supporting its patentable character.

It is said in the specifications that:

"By this mode of connecting the pump stock and cylinder, a substantial support is formed for the cylinder, and it is very simply and readily put together."

The mode of connecting the stock and cylinder thus referred to is by means of two tubes, between the lower ends of which the cylinder is placed, and the parts are firmly bolted together, and the upper portions are fastened to the pump stock. It is further said in the specification that:

"By having two holes in the cylinder, one for discharge and one for air chamber, it gives a place for the air chamber to have a direct action on the water while in use, giving it an even, steady stream, and a direct discharge for the water, independent of the air chamber."

Thus it is made plain that the purpose was to connect the air chamber directly to the cylinder, so as to have a direct action on the water in the cylinder, and also to have a direct discharge for the water, independent of the air chamber. This direct action of the air in the air chamber upon the water in the cylinder, and the direct discharge of the water through a discharge pipe, independent of the air chamber, were secured by connecting the air chamber to an opening on one side of the cylinder and the discharge pipe to an opening in the opposite side of the cylinder, and by keeping the pipe forming the air chamber wholly unconnected with the discharge pipe. By means of the combinations thus formed, Bean was enabled to furnish a better mode of connecting the pump stock and cylinder, and also a more efficient form of air chamber; but the means pointed out by him of accomplishing these ends, as set forth in his original application, consist of the form or mode of combining old elements, and this is the construction which must be placed upon the first and second claims of the original patent.

Turning now to the reissue, it appears that the first and second claims of the original patent are replaced by the first, second, third, and fourth claims of the reissue, wherein the invention is declared to be a supporting tubular air chamber, connected at the lower end with a cylinder or chamber. Practically, these claims cover any form wherein a supporting tubular air chamber is interposed between the pump stock and the pump cylinder, no matter how far separated it may be from the latter. The interpolation of the word "chamber" in the description and claims makes provision for entirely separating the ends of the air chamber and discharge pipe from the cylinder, and the reissue covers, therefore, pumps wherein the tubular air chamber and discharge pipe, instead of opening into the cylinder at opposite sides, open into a T, from which a single tube extends down to the cylinder. In pumps thus constructed would be found a tubular air chamber, opening into a chamber connected with the pump stock and aiding in supporting the structure, thus meeting the requirements of the first and third claims of the reissue, and by adding a discharge pipe the requirements of the second claim would be fulfilled. Pumps thus constructed would certainly show a wide departure from the combinations described in the first and second claims of the original patent. There would not be found therein the simple and substantial support for the cylinder formed by placing the same between the lower ends of the air chamber and the discharge pipe, and firmly bolting them together, as described in the original patent; the air chamber and discharge pipe would not open into the cylinder directly opposite each other. The cylinder would not have two holes therein, one for discharge and one for the air chamber, thus giving the air of the chamber direct action upon the water in the cylinder, as described in the original patent; nor would there be provided a direct discharge for the water, independent of the air chamber, because the pipe or tube extending from the T into which the air chamber and discharge pipe open would not afford a discharge pipe wholly independent of the air chamber, nor would the distance be-



tween the lower end of the air chamber and the pump cylinder be reduced to zero, which, according to the testimony of complainants' expert witness, is one of the valuable features of the Bean invention. In fact, the difference existing between the original and reissued patents is shown by comparing the statements in the two patents of the nature of the invention claimed. In the original it is said:

"The nature of my invention consists in the construction and novel arrangement of a pump stock, connected with the cylinder by two tubes, one forming an air chamber and the other the discharge pipe, said tubes opening into the cylinder directly opposite each other, as will be hereinafter more fully set forth."

Whereas in the reissue it is said:

"The nature of my invention relates to force pumps, and it consists in a tubular air chamber attached to the pump stock or platform flange, and connecting to and opening into the cylinder or chamber, and forming also a support for the same. My invention consists further in a supporting tubular air chamber and discharge pipe, attached to the pump stock or flange plate, and connecting with and opening into a cylinder or chamber; also, in the combination of the parts, as will be hereinafter more fully set forth, and pointed out in the claims."

In the original application the invention claimed was the novel arrangement and combination of the parts, which consisted in having the tubes forming the air chamber and discharge pipe open directly into the cylinder at opposite points, and by firmly bolting the parts together, and then connecting the upper ends of the tubes to the pump stock, the double purpose of affording a steady support to the pump cylinder and of furnishing an efficient air chamber acting directly on the water in the cylinder was accomplished. In the reissue the main feature claimed is a supporting tubular air chamber. In the reissue the form of the combination of the parts is not of the essence of the claimed invention, but the purpose is to cover a supporting tubular air chamber, and thus to bring within the scope of the patent all pumps which include in their structure a tubular air chamber giving support to any of the parts, for, under the first and second claims of the reissue, it is not requisite that the air chamber should be the support of the pump cylinder. These considerations make it apparent that the purpose of the reissue was to patent the conception of a supporting tubular air chamber, and to thus bring within the patent forms of pumps which would not be within the terms of the combination covered by the original patent, and it must, therefore, be held that the reissue broadens the claims found in the original patent.

It may be urged, and strong support to the contention would be found in the evidence, that the reissue patent does not in fact cover more than Bean is justly entitled to lay claim to as an inventor. If the reissue had been promptly applied for on the ground that the original patent, through mistake or inadvertence, did not contain claims broad enough to protect the invention to its full extent, it might be held valid. The difficulty lies, not only in the length of time which was allowed to elapse before the reissue was applied for, but in the failure to show that any mistake existed in the original

application. It is now settled that when a reissue is sought for the purpose of enlarging or broadening the claims of an existing patent, the application must be made within a reasonable time. *Miller v. Brass Co.*, 104 U. S. 350; *Mahn v. Harwood*, 112 U. S. 354, 5 Sup. Ct. 174, and 6 Sup. Ct. 451. Not only so, but it must also be shown that there was a mistake, inadvertently committed, whereby the original patent failed to cover what it was then intended should be covered by the patent then applied for. *Mahn v. Harwood*, supra; *Coon v. Wilson*, 113 U. S. 268-277, 5 Sup. Ct. 537; *Corbin Cabinet Lock Co. v. Eagle Lock Co.*, 150 U. S. 38, 14 Sup. Ct. 28; *Topliff v. Topliff*, 145 U. S. 156-170, 12 Sup. Ct. 825; *Huber v. Manufacturing Co.*, 148 U. S. 270, 13 Sup. Ct. 603; *Dunham v. Manufacturing Co.*, 154 U. S. 103, 14 Sup. Ct. 986. Under the doctrine of these cases, the first, second, third, and fourth claims of the reissue must be held void, because they clearly broaden the first and second claims of the original patent, and it appears that there was not any mistake or omission in the original application, and because, further, the reissue was not applied for within a reasonable time, nearly three years intervening between the issuance of the original patent and the filing of the application for the reissue.

In a supplemental brief, filed by counsel for complainants since the oral agreement in the case was had, it is contended that the averments of the bill are sufficient to bring before the court the question of the infringement of the fifth claim of the reissue, which corresponds to the third claim in the original patent. Before entering upon the hearing of the case, complainants asked leave to file an amendment to the bill, covering the fifth claim. The court stated that leave would be granted to file the amendment, but the defendants, if they desired it, would be granted time to meet by evidence and argument any new questions thus presented. Thereupon complainants withdrew the application for leave to amend, and it was expressly stated and understood that the case would proceed upon the theory that the bill charged only an infringement of the four first-named claims of the reissue, and it would not be fair, either to the defendant or the court, to now insist that the fifth claim was in issue in the case.

The view reached upon the question of the validity of the four claims of the reissue, being adverse thereto, obviates all need for considering the other defenses pleaded, although the same have been very fully and carefully presented and discussed by the counsel in the case. The conclusion is that so far as the bill is based upon the patent reissued to Roscoe Bean, under date of March 25, 1879, the same is dismissed upon the merits. As already stated, the bill charged an infringement of the first and third claims of patent No. 339,445, issued to Samuel W. Martin, under date of April 6, 1886, and of the first claim of patent No. 259,394, issued to Wm. D. Hooker, under date of June 13, 1882. These patents are so closely related in their subject-matter that they can be considered together. The first claim of the Hooker patent covers a cap or discharge chamber, from the rim of which depends an outer supporting cylinder, connected with the bucket barrel, and containing an inner cylinder,

within which the plunger operates, both cylinders being attached to the cap or discharge chamber, with a space between them which forms the water way, the cap having also three sockets therein, the central one being used for the pump rod and the other two receiving the ends of the discharge pipes through which the water passes into a common air chamber. This arrangement of the parts gives compactness thereto, and its usefulness consists in so uniting the parts that the structure can be used in a well of a diameter sufficient to receive the rim of the discharge chamber, which was screwed upon the outside of the outer cylinder. The Martin patent was an improvement in the same direction, the plan adopted being to reduce the size of the cap by screwing it to the inside of the main cylinder, so as to make the outer portion of the cap flush with the outer portion of the cylinder, and thus enabling the structure to be used in wells of small diameter. Had this been the only difference between the modes adopted by Hooker and Martin, the mere change in the form of uniting the cap and cylinder would not have shown a patentable invention. In fact, however, if in the Hooker structure the cap should be screwed into the end of the cylinder, it would prevent in whole, or nearly so, the flow of the water from the water way into the cap space, thus destroying the value of the combination. To obviate this difficulty, Martin did not connect the inner cylinder directly to the cap, as is the form in the Hooker patent, but he connected it to a tube of smaller diameter, interposed between the top of the inner cylinder and the cap, thus leaving a water space free and unobstructed for the upward passage of the water. In the brief of defendant, it is stated that the defense chiefly relied upon against the Martin patent is that of anticipation, this defense being based upon the evidence regarding a pump claimed to have been made by Daniel Johnson at Ashland, Ohio, and put into a well on the premises of Wilbur F. Felger in the year 1883. It is well settled that to sustain the defense of prior invention or use, the evidence must be clear, satisfactory, and such as to leave no reasonable doubt as to the material facts. Furthermore, when it appears that several parties have been independently engaged in experiments upon the same invention or device, the one who succeeds in first giving it a practical form, who brings it to public knowledge by obtaining a patent therefor, and makes it of general use and value by manufacturing or causing to be manufactured machines or articles embracing the invention, will be protected in the rights secured by his patent, even though it be shown that another may have mentally conceived the invention at an earlier day, or even if, in addition to the mental conception, he may have embodied it in a successful experimental form, and then abandoned it. The benefits and protection of the patent law are not for those who indulge in speculations and experiments only, but are intended to protect those who make available to the public novel and useful inventions by following up the original conception, carrying it through the experimental stage, and so far perfecting it as to furnish to the public a practical means of utilizing the novelty sought to be patented. Barbed Wire Patent, 143 U. S. 275, 292, 12 Sup. Ct. 443, 450; Coffin v. Ogden, 18

Wall. 120; Cantrell v. Wallick, 117 U. S. 689, 6 Sup. Ct. 970; Deering v. Harvester Works, 155 U. S. 286, 15 Sup. Ct. 118. It may, therefore, be admitted that the evidence shows that Johnson was experimenting in the same direction pursued by Martin, and that his efforts in this line antedated those of Martin; but it is no less clear that if the public knew no more of the invention than was communicated to it by the making and use of the Felger pumps, in 1883 and 1884, it would be in entire ignorance of the improvement. The experiment was made, and then abandoned; that is to say, it was not made the basis of an application for a patent, nor was the manufacture and sale of pumps embracing the invention entered upon. I do not, therefore, deem it necessary to consider in detail the evidence upon the question of the actual date of the making of the Felger pumps, as it must be held that they do not defeat the Martin patent, even if made before the date thereof. In regard to the Hooker patent, the point is made that the evidence fails to show title thereto in the complainants. It is admitted by counsel for complainants that, through oversight, the conveyance or assignment to Mast, Foss & Co. was not put in evidence, and leave is therefore given to supply the lacking link in the chain of title. Assuming that this will be done, I hold that the Hooker and Martin patents are valid, and that the first and third claims of the Martin patent and the first claim of the Hooker patent are infringed by the pumps put in evidence by the defendant. The result is that the bill is dismissed upon the merits, and at the cost of complainants, on the Bean patent, and is sustained on the Hooker and Martin patents. Decree accordingly.

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#### NEW HOME SEWING-MACH. CO. v. SINGER MANUF'G CO.

(Circuit Court, S. D. New York. May 22, 1895.)

#### PATENTS—INFRINGEMENT OF COMBINATION CLAIM—SEWING MACHINE.

The Grout patent, No. 261,446, for an improvement in sewing-machine treadles, construed narrowly, and, being for a combination, held not infringed by a machine which omitted two of the elements expressly named in the claim.

This was a bill by the New Home Sewing-Machine Company against the Singer Manufacturing Company for infringement of a patent relating to sewing-machine treadles.

This action is based upon letters patent, No. 261,446, granted to W. L. Grout, July 18, 1882, for an improvement in sewing-machine treadles. The patent is now owned by the complainant. The specification is as follows:

"My invention has for its object a novel construction of the treadle to support the crank of the driving-wheel at each end. In this my invention I have mounted the adjustable bearing-screws in a brace which connects together the side pieces of the treadle, thus making a very firm support for the crank-shaft and bracing the table very firmly. The drawing represents in front elevation a sewing-machine table embodying my invention.

"In the drawing, A represents the side pieces of the treadle, and B the brace connecting the said side pieces, the screws, c, and rod, d, uniting the said side pieces and brace, the rod, d, also supporting the treadle, e, connected by link, f, with the crank of the crank-shaft, G, pointed or made conical at its ends and supported by the bearing-screws, h, i, having conical re-