

SHAW STOCKING CO. v. PEARSON.

(Circuit Court, D. Massachusetts. November 10, 1891.)

1. PATENTS FOR INVENTIONS—INFRINGEMENT—WEB-HOLDERS FOR KNITTING-MACHINES.
 Letters patent No. 218,460, issued August 12, 1879, to the Shaw Stocking Company, as assignee of Benjamin F. Shaw, for improvements in web-holding mechanism for knitting-machines, the claim being, among other things, for web-holders with "downwardly curved tail-pieces," is not infringed by a machine in some respects similar, but having web-holders with straight tail-pieces.

2. SAME—AMENDING CLAIM—WAIVER.

When a broad claim is rejected by the patent-office because of anticipation by certain other patents, and thereupon the applicant amends his specification and claim, and accepts a patent thereon, he waives the broad invention, and cannot afterwards, in an action for infringement, claim that his invention was really made before the anticipating patents were issued.

In Equity. Bill for infringement of patent. Dismissed.

Frederick P. Fish, for complainant.

Joshua Pusey, for defendant.

COLT, J. This bill in equity is founded upon the alleged infringement of letters patent No. 218,460, granted August 12, 1879, to the complainant, as assignee of Benjamin F. Shaw, for improvements in web-holding mechanism for knitting-machines. For a number of years Shaw was engaged in the production of a machine for knitting seamless stockings, and his inventions are covered by several patents. The patent in suit is for a part of this mechanism, and relates to devices for holding down the fabric during the operation of the needles. In the old circular knitting-machines, the requisite tension was brought to bear on the web by means of weights hanging upon it, and these answered the purpose for plain tubular work. In the production of the heel of a seamless stocking, however, it is necessary to run only a part of the needles, while the rest remain stationary. Under these conditions, the weights might pull effectively on the side of the web where the needles are at rest, but they would not produce the proper tension during the widening and narrowing operation on the side of the web which is being lengthened. To meet this difficulty Shaw substituted what he calls "web-holders" in place of the weights. The web-holder is made of a thin, flat strip of metal, and it has a turned down tail-piece at its forward end, and an overhanging hook or finger on its upper side. The tail-piece is downwardly curved or made blunt, so that it may not penetrate or hold the web as it is moved over the end of the tail, and through the hollow needle-bed or cylinder. A web-holder is inserted between each pair of adjacent needles. The tail-pieces always remain in the rear of the needles, near the upper edge of the web, where the knitting takes place, and the projecting fingers, co-operating with the needles, press upon the edge of the web, and hold it down during the operation of knitting.

These web-holders have a forward and back movement, caused by lugs upon their under side engaging with a rotary cam, and they are fitted in radial grooves in an annular web-holder bed attached to the upper part of the needle-bed. As the needles rise through the fabric, the web-holders move forward, their downwardly curved tail-pieces bearing upon the fabric, and the web-holders continue to advance until the overhanging fingers on the top engage with the edge of the web on each side of the needle. By this means also the loop held on the needle is drawn back away from the open or latch side of the needle, thus insuring that the needle shall carry its shank through the loop in its upward passage, instead of permitting it to slip off the latch side, as it might if not so held back. As the needle continues its upward movement through the loop, preparatory to taking the yarn for a new loop, it tends to lift the fabric with it, owing to friction, but the overhanging fingers of the web-holders rest above the edge of the web on each side of the needle, and thus prevent it from being lifted up by the needle. About the time the needle has reached its descent, or before it begins to ascend, the web-holders are retracted or moved outward, so that they may be again moved inward to engage with the web and co-operate with the needle. The specification declares that the invention has special reference to a combination, and the elements of the combination are set forth in the claim of the patent, as follows:

"In a circular knitting machine, a cylindrical, hollow, unobstructed needle-cylinder, adapted to permit the free passage down through it of a knitted web and a series of latched needles, a separate web-holding bed provided with radial grooves, and a web-holder operating cam, combined with longitudinally reciprocating web-holders placed and made movable within the grooves of the web-holder bed, the said web-holders being provided with points, *g*, and downwardly curved tail-pieces, *h*, adapted to remain always within and at the rear of the series of needles, and to press against, but not penetrate, the web as it is drawn over the said web-holders and out through the hollow cylinder, the cam to move the web-holders being shaped to operate as and for the purpose described."

This case turns upon the construction which should be given to the claim, and especially to the words, "downwardly curved tail-pieces," as applied to the web-holder. It is important in this connection to examine the file-wrapper and contents of the patent. In his first application Shaw claimed broadly the combination of a series of independently acting web-holders with a series of independently acting needles adapted to co-operate together to knit the web, and hold it down; also a series of web-holders notched to hold the web down, in combination with a series of needles adapted to be actuated independently, and with a cam to retain the web-holders forward during the time that the needles rise and fall adjacent to the web-holders. This application was rejected by the Patent Office on the ground that the invention was anticipated by the Burson and Nelson patent of November 30, 1875, the Hollen patent of October 10, 1876, and the English patents granted to White, May 16,

1863, and to Mellor, November 7, 1863. Shaw thereupon amended his specification and claims, but the patent was again refused. After further amendments, the patent was finally allowed in its present form. By these proceedings Shaw waived the broad invention covered by the claims in his first application, and limited his invention to the combination of elements found in the claim of the patent. I am aware that the complainant seeks to cut under to a great extent the prior art, as exhibited in these patents, by proving that Shaw made his invention in 1867, or 10 years before he filed his application. The difficulty with this position is that, having acquiesced in the decision of the Patent Office, and obtaining his patent on that condition, it is now too late to try and broaden its scope by showing that his invention antedated some of the patents cited by the examiner. Whatever the date of the invention, it must be construed with the limitations imposed by the Patent Office as a condition of the grant, or, in other words, it must be limited to the combination set forth in the claim of the patent; and, so interpreted, I agree with the statement of complainant's expert, Mr. Livermore, that all the elements composing the claim of the Shaw patent were old at the date of the patent, and that the only new and patentable feature lies in the "specific construction of some of those elements."

The inquiry remains, does the defendant's machine embody this combination? The defendant uses a web-holder having a straight tail-piece rounded at the end, but not downwardly curved. If the downwardly curved feature of the Shaw tail-piece is immaterial, so far as the successful working of the machine is concerned, and was so regarded by the inventor, it might be that the court should consider the defendant's tail-piece as the equivalent of Shaw's, and so within the patent; but if it should turn out that this peculiar construction of the tail-piece was necessary to the practical operation of the Shaw machine as organized, and was so regarded by the inventor, then the absence of this feature in the defendant's web-holder has a very important bearing on the question of infringement, especially in view of the scope of the Shaw patent as shown by the file-wrapper and contents.

Turning to the record in this case, we find in the affidavit of Henry P. Hardy, (the mechanic who built the first machine covering this invention under the direction of Shaw,) filed in the Patent Office in connection with the Shaw application, the following language:

"Though there is apparent similarity in outline, the omission in the English device of that which in Mr. Shaw's constitutes the difference between them (position and modes of operation being not considered) is of the utmost significance, for the drooping edge constituting what is called the 'tail' of the web-holder is indispensable to its use as a practical device for holding the web during the process of knitting."

To the same effect is the language used by the solicitors of Shaw in a communication addressed to the commissioner of patents pending his application:

"The particular construction of the Shaw tail-piece is, in practice, a matter of very great importance, the perfect operation of the machine largely depends upon it, and such novel web-holder and tail-piece is certainly patentable."

Further, Hardy testifies in this case, and it is not denied, that the web-holder first tried in the Shaw machine had a straight tail-piece rounded at the end, and that it did not work well because the end would penetrate the fabric, and sometimes tear a hole in it, and that, therefore, Shaw suggested to make the web-holders with a downwardly curved tail to keep the points from penetrating the web and making torn work, and that by so doing the machine worked first-rate. These facts explain why Shaw was so particular to state in the specification and claim of his patent that the tail-pieces should be downwardly curved. In his view, as demonstrated by actual experiment, the machine would not produce a merchantable product without this specific feature, and was therefore worthless. It results from this that Shaw has made the peculiarly constructed tail-piece a material and necessary element of the combination claim of his patent.

But the question may be asked, how does it happen that, if Shaw could not produce satisfactory work on a machine having a web-holder with a straight tail-piece, the defendant can do it on his machine? The answer lies, I think, in the somewhat different organization of the two machines. In the defendant's machine the cam is so constructed that the web-holders are drawn back from the knitting operation just as the needles begin to descend, and consequently the web hangs loosely or is not drawn down taut in front of the web-holder as it advances on the rising of the needle, and so the end of the tail-piece will push the web away rather than penetrate it. In the Shaw machine the web-holder remains in its advanced position upon the web, thereby keeping it taut, until the needle has about completed its descent, when the holder is withdrawn only to be immediately advanced again as the needle begins to rise. The degree of the effect produced upon the looseness of the web at the end of the advancing tail-piece, owing to this difference between the two machines, I do not know, because the complainant has not introduced in evidence any model of the Shaw machine; but, whatever this difference may be, an inspection of the working model of the defendant's machine in evidence shows that the fabric hangs loosely in front of the end of the tail of the advancing web-holder, and that, therefore, there is little danger from penetration; and this position is fortified by the successful operation in the presence of the court of one of defendant's machines, in which a portion of the tail-pieces have a round end, another portion a square end, and another portion a beveled end.

It is urged by the complainant that the Shaw tail-piece is narrow, while that used in defendant's machine is broader, and that consequently one would penetrate the web while the other would not. There may be some truth in this, but it only goes to show another difference in the organization and construction of the two machines. Upon the descent of the needle in the Shaw machine, as the web-holders are still in their

advanced position, the loop carried by the needle is drawn across the wider part of the web-holder or back of the overhanging finger, and therefore the loop would be too long except for coarse work, unless the web-holder was narrow; while in the defendant's machine, owing to the earlier retraction of the web-holder, the loop on the descending needle is drawn over the tail-piece, and this enables the defendant to use a broader web-holder without injuriously affecting the size of the loop. I do not think there is any infringement in this case,—*First*, because the downwardly curved tail-piece of the web-holder is made a necessary and fundamental part of the combination described in the first claim of the Shaw patent, without which the machine would be practically inoperative; and, *second*, because the defendant has so changed the organization of some of the parts in his machine as to permit of the successful working of a straight tail-piece.

As to the second defense, of public use, I need only say that, in my opinion, it is not made out upon the evidence. The first Shaw knitting-machine, made in 1877, was never put into public use, or its products sold, for the reason that it was defective. It was not until about 10 years later that a working machine was completed, and all previous efforts were experimental. While there was a long delay largely caused by the pecuniary embarrassments of Shaw before the machine was perfected, it does not appear that he ever abandoned the invention. Upon the ground of non-infringement, and for the reasons given, I must dismiss the bill.

Coop et al. v. DR. SAVAGE PHYSICAL DEVELOPMENT INST., Limited.*(Circuit Court, S. D. New York. November 27, 1891.)***PATENTS FOR INVENTIONS—INFRINGEMENT—INTERROGATORIES AND ANSWER.**

Where a bill for infringing a patent for an improvement in walking tracks for gymnasia propounds interrogatories as to whether defendant is using a track of a particular construction, and, if not, of what construction, they must be answered by stating the facts, and a general denial of infringement is insufficient.

In Equity. Bill by William L. Coop and others against the Dr. Savage Physical Development Institute, Limited, for infringement of a patent. On exceptions to answer. Exceptions sustained.

Fowler & Fowler and Charles N. Judson, for plaintiffs.

A. D. Kiddle, for defendants.

WHEELER, J. This suit is brought upon letters patent No. 358,483 for an improvement in walking tracks for gymnasia, and interrogatories as to whether the defendant has made, or caused to be made and used, walking tracks of a particular construction, and, if any not of that, of what other, construction, were annexed to the bill, and required to be answered. The defendant has answered, denying the infringement generally, without otherwise answering the interrogatories, and the answer is excepted to for this lack. The exceptions have now been heard. The interrogatories have been approved on demurrer, heard by Judge SHIRMAN. *Coop v. Institute*, 47 Fed. Rep. 899. The denial of infringement is a conclusion, and not an answer of facts from which it is drawn. The conclusion may not follow from the facts when given, and whether it does or not may be a question in the case. The plaintiffs seem to be entitled to the facts, and not to be bound by the conclusion, or to overcome it.

Exceptions sustained.

THE PROGRESSO.
STREET et al. v. THE PROGRESSO.*(District Court, E. D. Pennsylvania. September 21, 1891.)***1. WITNESSES—FEES AND MILEAGE IN ADMIRALTY CASES.**

In admiralty causes in the eastern district of Pennsylvania, mileage will not be allowed to witnesses brought from beyond the district, except as to 100 miles of the distance.

2. SAME—FEES AND MILEAGE OF PARTY.

A party is not entitled to either witness fees or mileage when his presence has not been required by the opposite party.