

could be supposed that it had not manufactured any device having means for securing the protector plate to both of the adjacent segments, yet it would not follow that infringement had been avoided. It is obvious that, even with provision for fastening to one of the two segments omitted, the gist and substance of the Phillips construction would still be present in that of the defendant,—it would still effect the same object, and by means not essentially different. The decree of the circuit court is reversed, and the cause will be remanded to the circuit court of the United States for the Western district of Pennsylvania, with direction to enter a decree in favor of the plaintiff.

EPPLER WELT MACH. CO. v. CAMPBELL MACH. CO.¹

(Circuit Court of Appeals, First Circuit. February 19, 1898.)

No. 236.

WAX-THREAD SEWING MACHINES.

The Campbell patent, No. 253,156, for improvements in wax-thread sewing machines, construed, and limited as to claim 19, covering a combination of a hook needle, a thread arm, a thread eye, and operating mechanism for the arm and eye. 83 Fed. 208, reversed.

Appeal from the Circuit Court of the United States for the District of Massachusetts.

This was a suit in equity by the Campbell Machine Company against the Eppler Welt Machine Company for alleged infringement of the nineteenth claim of letters patent No. 253,156, granted January 31, 1882, and of the first claim of patent No. 374,936, granted January 31, 1882, both to the complainant, as assignee of D. H. Campbell, for improvements in wax-thread sewing machines. The circuit court found that the first-mentioned patent was valid, and had been infringed by defendant as to the claim in issue, and that the first claim of the second patent was invalid. 83 Fed. 208. From this decree the defendant has appealed.

Frederick P. Fish and James J. Storrow, for appellant.

James E. Maynadier, for appellee.

Before PUTNAM, Circuit Judge, and ALDRICH and LOWELL, District Judges.

PUTNAM, Circuit Judge. The patent in suit relates to "improvements" in wax-thread sewing machines, and contains 29 claims. It is, consequently, necessary in the present case, where, for some reason unknown to the court, the complainant limited its suit to one claim out of the many in the patent, to make sure that the claim in issue does not receive improper color or breadth from those not in issue.

The claim in issue is as follows:

"(19) The combination, substantially as hereinbefore described, of a hook needle, a thread arm, a thread eye, and operating mechanism for the arm

¹ Rehearing denied April 28, 1898.

and eye, which causes said eye to first carry and deliver the thread to the arm and thence deliver thread to the needle, and also causes the arm to merely retain and release the thread delivered to it by the eye, whereby said arm is prevented from abrading the thread, as set forth."

The purpose to be accomplished by the device of this claim is shown in the specification as follows:

"It is not new to employ a swinging thread arm with a swinging eye, but, as heretofore organized and operated, the arm helped itself to thread during the movement of the eye, and by continuing onward said arm carried the thread in a direction away from the eye and over the presser foot, so that the thread slipped over the arm; and it is the abrasion incident to this slipping action at the arm which I have obviated by having the eye carry the thread to the arm, which merely holds it while the eye next proceeds to and around the needle, and, instead of delivering the thread to the needle in a straight line between eye and arm, as heretofore, the thread is delivered to the hook in a horizontal bight, as clearly shown in Fig. 9, thereby greatly contributing to an unfailling and accurate engagement of the thread by the hook."

That it was old in the art to deliver thread freely to the needle from both directions, and that thus abrasion by the needle itself had been overcome, are admitted in the specification by reference to the inventor's prior patent, No. 231,954, and are clearly shown to have also anticipated that patent, and to have been a long time well known. Prior to the invention now in issue, this had been accomplished by use of a vibrating arm as well as a vibrating eye, the arm seizing the thread and drawing it out from the spool, and delivering up, when needed to make the stitch, the intermittent supply thus obtained by it. It is claimed in the extract we have made from the specification that the arm abraded the thread, and the function of claim 19 is to overcome this abrasion.

The specification also contains the following:

"In said prior organizations of swinging thread eye and arm, the latter swung over the presser foot; and, in order that the latter could nevertheless be lifted, said foot, eye, and arm were connected together, so that all were raised or lowered together, involving a complication in the operative mechanism of the eye and arm, which I obviate by locating my arm wholly at one side of the presser foot."

It is argued, and seems to have been held by the court below, that this relates to some function of claim 19; but this proposition is without foundation. We are re-enforced in this by the fact that this function is specially covered by claim 18, and also by the illustrative fact that it would not be conceded that claim 19 might not be infringed without reference to the question as to the side of the presser foot at which the infringing arm might be located.

During the progress of the application for this patent, the patent office required the applicant to amend the claim in issue, as originally drawn, by adding the words, which now appear therein, as follows: "And also causes the arm to merely retain and release the thread delivered to it by the eye, whereby said arm is prevented from abrading the thread, as set forth." Some other verbal changes were made, which related only to clearness of expression, and are not now of importance. We have no occasion, as to these amendments, to add anything to what was said by us in *Reece Button-Hole Mach. Co. v.*

Globe Button-Hole Mach. Co., 10 C. C. A. 194, 61 Fed. 958. The word thus introduced which has been principally discussed is "merely." Whatever was the invention, and whatever the patentee ought to have been allowed to incorporate into claim 19, it is clear that, under the circumstances of this case, the patentee bound himself and the court by the addition of these amendatory words. Applying the rules in Reece Button-Hole Mach. Co. v. Globe Button-Hole Mach. Co., especially those at pages 961 and 967, 61 Fed., and pages 197 and 201, 10 C. C. A., and, aside from that, applying the rules of interpretation which we have no judicial right to reject, we must give the amendment, including the word "merely," full effect. We are, however, to apply again the fundamental rules of law in construing the word "merely." These rules do not allow us to construe it so literally as to result in what is contrary to common sense, or so as to support what is trifling or useless. The arm, as shown in the patent, operates by being lifted on its axis to catch and retain the thread, and by depression on its axis to surrender the thread to the needle. So much it must do in order to "merely retain and release the thread"; and, on the proper construction, under the rules of law, of the words added by amendment to claim 19, this constitutes the proper action and function of the arm, and the whole of them. On a legal construction of this claim, anything which does not possess this function and this action, no matter to what extent in other particulars it may answer its calls, does not infringe it.

The result is that it is an essential element in claim 19 that the arm shall have no positive or affirmative function in making the loop of thread to furnish a supply for the needle, as explained, and therefore the claim cannot be infringed by any device in which the arm has a proper function of that kind. Of course, it might be infringed when the arm is given a movement needless to the performance of its proper function, or additional to it, because to refuse to admit this would violate the rule of construction to which we have referred, which does not allow literalness to the extent of triviality.

In the complainant's device, as it is shown in the patent, the arm occupies a position, fixed at its axis or base, at some distance from the needle, so that, when the eye has traveled around it, there is necessarily laid thread sufficient, when the arm releases it, to supply the needle from a direction in effect opposite to the spool. This, however, would not be the fact if the normal position of the arm were substantially close to the perpendicular of the needle, because, in that event, the arm must make a substantial movement away from the needle in order to secure a supply of thread, even though the eye traveled about the arm as in the claim in issue. In the latter case, the arm would make substantially the same movement as in the old art, though not the whole of it, even if the eye did not, and therefore there could be no infringement. If, however, the movement of the arm were not functional for the purpose named, but only colorable, or purely supplemental, infringement would not be avoided. What are the facts at bar with reference to these hypotheses?

If should be observed that there is nothing functionally new in

the relative manner in which the arm and the eye approach each other in connection with the delivery of thread to the former by the latter, although, on the proper construction of claim 19, that matter alone would not be material to the case. In all the devices before the court, the relative manner of their approach is the same, although in the old devices the arm makes the approach, while in complainant's device it is made by the eye. Therefore, there is nothing functionally new in the fact that the complainant's arm, when receiving the thread, interposes between the eye and the needle; nor would it affect this case if it were otherwise. The old devices required an ultimate double movement across the whole plane of operation,—the arm to the right, the eye to the left. The complainant's invention reduced materially the quantum of these movements, and this alone may well have involved invention. But, as claim 19 is drawn, this constitutes only one element in it, and therefore this fact is not of itself of importance in this case.

Coming back to the principal question already stated, and referring to the respondent's machine, the complainant says:

"In defendant's machine the mode of operation of the thread eye and thread arm with reference to the hook needle is the mode of operation of those parts described in the 19th claim. The thread eye on its return stroke carries and delivers the thread to the thread arm, which is then in its forward position; the thread arm then moves back to engage and hold the thread, and the eye then makes its needle-threading stroke and threads the hook needle, which then draws a loop of thread through the material, and the thread arm moves forward to release the thread as the needle draws the loop. The thread eye has the new function of carrying and delivering the thread to the thread arm, and the thread arm has merely to retain and release the thread delivered to it by the eye, in order that the two may co-operate to thread the needle with a bight of thread between the needle and the material."

His expert, referring to the respondent's expert, says:

"Mr. Calver totally disregards this difference as a basis of comparison, and bases his comparison apparently wholly upon the fact that while in defendant's machine the bight is formed by the delivery of thread by the thread eye to the thread arm, the holding of that thread by the thread arm, and the subsequent delivery of thread by the thread eye to the needle, the thread arm moves further than is necessary to the performance of its function in forming the bight, and that in addition to performing this function it elongates the bight."

On the other hand, the respondent says:

"In the Campbell patent in suit, as we have pointed out, the entire share of the thread arm in the thread-drawing movement has been given to the thread eye, so that the thread arm merely retains the thread in position to which it has been brought by the thread eye. It is because the thread arm of the patent in suit has no thread-drawing, but merely a thread-retaining movement, that the rubbing or slipping of the thread over thread arm, referred to in the specification as objectionable, is prevented. In the Campbell patent in suit not a hair's breadth of thread is drawn down by the thread arm; the thread arm simply first retains the apex of the bight and then drops it. The exact amount of thread drawn down relatively by the thread arm and the thread eye in the defendant's machine varies somewhat. The thread arm and thread eye of the defendant's machine, as in all machines of this class, are capable of a certain amount of adjustment, so as to enable them to deal with leather of different thicknesses. When the defendant's machine is ad-

justed so as to give the least possible movement to both thread arm and thread eye, the thread eye will draw down three-sixteenths of an inch of thread while the thread arm will draw down four-sixteenths. When both the thread arm and thread eye in the defendant's machine are adjusted to draw down the greatest amount possible of thread, the thread eye will draw down six-sixteenths of an inch of thread and the thread arm will draw down ten-sixteenths of an inch of thread."

The respondent's expert testifies as follows:

"As to the defendant's machine, * * * the arm begins with a bight-forming movement against the line of the standing thread, the eye moving not first, but last, and the arm and eye co-operating together, and each having a positive movement to form the bight."

We derive from the record no further substantial assistance, and have been compelled to resort to an inspection of the respondent's machine, put into the case by the complainant. Complainant also put in one of its commercial machines, which has complicated any attempt at comparison, as it clearly does not conform in construction to claim 19. The complainant's expert testifies about it and the respondent's machine as follows:

"In saying that each of these two machines contains a thread arm and a thread eye operating together, after the manner described in the patent in suit, and referred to in the nineteenth claim, I have not failed to notice that in each of these two machines the thread arm has a little more movement than is necessary to enable it to take hold of the bight formed and delivered to it by the thread eye. The result of this excessive movement is that, after the bight has been formed by the thread eye and delivered to the thread arm, it is slightly elongated by the excessive motion of the thread arm before the thread eye begins to move towards the needle. I regard this excessive movement, however, wholly immaterial so far as concerns the practical results of the operation of the machine, and so far as concerns any question of the embodiment of the invention described in the patent in suit, and referred to in the nineteenth claim."

But an inspection of complainant's commercial machine shows that the arm has a very considerable throw, and that, so far from having only the motions shown by the patent to be necessary for retaining and releasing thread, it has a very substantial, independent, positive action, in drawing out the supply required to feed the needle from the direction opposite to the spool. We are therefore without the advantage which would come from making a comparative inspection, and we are compelled to observe as best we can, without any practical standard with which to compare. This inspection discloses to us that, at the beginning of the series of movements which results in feeding the needle, the respondent's needle and arm are substantially in the same perpendicular, so that, as already said, the arm must presumably make a substantial movement away from the perpendicular of the needle in order to form the necessary loop; that, consequently, the arm, in forming the loop, does apparently exert a proper and necessary function by a substantial and very considerable active throw in drawing out a supply of thread; and that the respondent's eye and arm apparently cooperate in a normal manner in forming the loop, substantially as the loop co-operated in the old device, although approaching from different directions. Such being the apparently normal and proper

operation of the respondent's machine, we have nothing to overcome the presumption against the complainant, arising therefrom, except the bare statement of the complainant's expert, which we have already cited, that the respondent's "thread arm moves further than is necessary to the performance of its function in forming the bight." To accept a statement so general that it gives the court no details by which it can apply its terms, or by which it can judge for itself the limitation to be put on the expression "further than is necessary," or by which it can determine whether the alleged excessive degree of throw is substantial, would be to substitute the witness for the court. The attempted application of so general a statement is made all the more doubtful because the long throw of the arm in the complainant's commercial machine shows apparently that the inventor's idea that abrasion by the arm of the old devices was injurious, was fanciful, or that it was easily overcome by properly reshaping the arm, or by somewhat changing its relative location. This is apparently all the respondent has done, and it had a right to do this. We do not think the complainant has met the burden, resting on it, of proving infringement of claim 19, as properly construed. The decree of the circuit court is reversed, and the case is remanded to that court, with direction to dismiss the bill, with costs, the appellant to recover the costs of this court.

SAFEGUARD ACCOUNT CO. v. WELLINGTON.

(Circuit Court, D. Massachusetts. January 27, 1898.)

1. PATENTS—INVENTION.

The use of perforated lines in paper, for the purpose of permitting easy separation, having for many years been common in the arts in which paper is used, its application to any particular art, or any subdivision thereof, does not involve invention, unless under peculiar circumstances.

2. SAME—BLANK BOOKS FOR LEDGERS.

The Horne patents, Nos. 393,506 and 393,507, for blank books, considered; and the former, which is for a book having full leaves of the same width, a part of which are longitudinally perforated near their outer edges to make removable margins, thereby forming a long and short leaf ledger, is, nevertheless, following the analogy of Thomson v. Bank, 3 C. C. A. 518, 53 Fed. 250, held valid and infringed, and the latter held void for want of invention, over the former.

This was a suit in equity by the Safeguard Account Company against Edward F. Wellington for alleged infringement of letters patent No. 393,506 and 393,507, issued to John W. Horne for blank books.

Clarke, Raymond & Coale and George O. G. Coale, for complainant.
Robert W. Hardie, for defendant.

PUTNAM, Circuit Judge. The earlier of the two patents in suit, No. 393,506, is the only one which requires particular consideration. It was applied for June 27, 1887, and issued November 27, 1888. Claim 1 is as follows: