

SCHMIDT *v.* FREESE.

*Circuit Court, E. D. New York.*

May 10, 1882.

1. PATENTS FOR INVENTIONS—ESSENTIAL ELEMENT LEFT OUT.

In a claim for a combination, one essential element whereof is an intermediate lever, a machine which omits the essential element of an intermediate lever, and substitutes another, whereby the same result is accomplished in a different manner, does not infringe the patent.

2. SAME—NOT A COLORABLE MODIFICATION.

Where the difference in the action of the two machines is substantial, the defendant's arrangement is not a colorable modification of plaintiff's arrangement, and is not an infringement.

*F. von Briesen*, for plaintiff.

*Van Santvoord & Hauff*, for defendants.

BENEDICT, D. J. This action is for an injunction and account. It is based upon two letters patent for improvements in feed mechanism for button-hole sewing-machines. A form of machine conceded to be made and sold by the defendant is alleged to infringe both the patents set forth in the bill. The defendant denies the infringement, and also disputes the validity of the patents. The first patent set forth in the bill is No. 197,528, dated November 27, 1877. This patent has seven claims. Infringement of the second and fifth claims is charged, but the charge as to the fifth claim has been abandoned, leaving the second claim only to be considered here.

The object of the invention set forth in this claim is to simplify the mechanism for imparting motion to the feed-wheel of a button-hole sewing-machine. The specification refers to a former patent, No. 183,333, and states that instead of the jointed lever described in such 564 former patent as a means of transmitting to the feed-wheel the motion of a rotary shaft, the patentee has invented a system of independent levers.

A particular description of these levers is given in connection with drawings attached. One of these levers, E, which is pivoted to the frame of the machine, and subjected to the action of two toes that project from a rotary shaft, is termed the "operating shaft." When this lever is oscillated by means of the rotating shaft its motion is transmitted to another lever, D, termed the "intermediate lever." This intermediate lever, when oscillated by the action of the operating lever, in turn transmits its motion to a sliding feed-dog, by which an intermittent rotary motion is imparted to the feed-wheel.

The words of the claim are as follows: "The sliding feed-dog, C, combined with the intermediate lever, D, operating lever, E, and with the shaft, F, leaving the toes *l* and *m* substantially as specified." This claim is for a combination of old devices. Friction feeds, as distinguished from ratchet feeds, moved by a rotating shaft, have long been employed in sewing-machines. Similar devices to those employed by the plaintiff have often been used to produce similar results. All that is claimed to be new in the plaintiff's invention is the particular combination described in the patent.

In the machines made by the defendant the feed-wheel is made to rotate by the action of a sliding feed-dog, as in the plaintiff's machine. The motion of the feed-dog is effected by the action of a rotating shaft in connection with an operating lever, as in the plaintiff's machine, but the defendant dispenses with the "intermediate lever" which the plaintiff employs. By changing the relative position of the operating lever and the feed-dog, a sliding link is employed to transmit the motion of the operating lever to the feed-dog, instead of an intermediate lever. Here lies the point of the controversy. The plaintiff contends that the sliding link employed by the defendant is in fact a lever, and the intermediate lever of the plaintiff's combination, while the defendant insists that his sliding link is in

no sense a lever, but a different thing, the employment of which changes the combination. Upon this question my opinion is in favor of the defendant's contention. I consider it plain that in the defendant's machine there is no lever intermediate the feed-dog and the operating lever employed to transmit the motion of the operating lever to the feed-dog, but that piece is not a lever in any sense of the term. It has no fulcrum, and its slight vibrating motion is opposite to the direction in which the end of the lever by which it is operated moves.

565

The plaintiff's expert disposes of this question adversely to the plaintiff when he says (plaintiff's record, p. 177) "the necessities of the motion of the feed-dog alone causes the vibration of the piece on its pivot." This conclusion, that the sliding link of the defendant's machine is not a lever, is decisive of the case so far as the patent under consideration is concerned, for there is no evidence on which to found a conclusion that the defendant's sliding link, not being a lever, is nevertheless an equivalent for the plaintiff's intermediate lever. Indeed, reliance upon the doctrine of equivalents was expressly disclaimed at the argument, and the case, so far as the patent under consideration is involved, was made to depend upon the question whether the defendant's sliding link is a lever. My determination, therefore, is that the plaintiff has failed to prove infringement of the second claim of the plaintiff's patent of 1877.

The complainant's second patent, No. 219,656, dated September 16, 1879, relates to improvements on the mechanism described in letters patent which have just been considered, and in patent No. 183,333, dated October 17, 1876. The invention described in this 1879 patent is stated to consist in "a new mechanism for regulating the length of stitch." All the mechanism covered by the second claim of the patent of 1879 is retained, and the necessary change in motion of

the feed-wheel from fast to slow is effected by the interposition between and its withdrawal from between the two contact surfaces of the operating lever, E, and the intermediate lever, D, of one arm of an elbow lever, J, which is pivoted upon the face of the operating lever next the face of the intermediate lever. The end of the operating lever, E, in contact with the intermediate lever, D, is stepshaped, and the arm of the elbow lever is interposed in such a manner that it partly closes or equalizes and fills out the step, whereby the outline of the contact surface of the operating lever is changed, and, in consequence, the vibration of the intermediate lever is changed. This interposition and withdrawal of the arm of the elbow lever is effected by vibrating the elbow lever upon its pivot. To this end its second arm is by an elastic rod, I, connected to a lever, H, which is caused to swing by means of a pin, *t*, entering a groove, *a*, in the feed-wheel.

There are three claims. The *first* claim is as follows: "The combination of the lever E and lever D with the intermediate pivoted elbow lever, J, and with mechanism for vibrating the said parts on their respective pivots, substantially as herein shown and described." The *second* claim is as follows: "The combination of the lever, H, 566 elastic rod, I, with the pivoted elbow lever, J, and with the levers, E, and D, and with mechanism, F, *e*, *m*, for oscillating the lever, E, substantially as herein shown and described." The *third* claim is as follows: "The lever, E, having fixed contact portion, *i*, and elbow lever, J, in combination with the lever, D, and with the spring rod, I, passing through the elbow lever, J, and with the lever, H, grooved wheel, B, and actuating shaft, F, substantially as herein shown and described."

It will be observed that each of these claims is for a combination, one essential element whereof is the intermediate lever, D, already noticed in considering

the plaintiff's patent of 1877. The conclusion already announced, that the defendant's machine has no intermediate lever, affords one ground, therefore, for holding that such machine does not infringe the patent of 1879, because it omits one element of the combination claimed in that patent, by which motion is imparted to the feed-dog, and substitutes another, whereby the same result is accomplished in a manner different from that described in the patent.

There are, besides, other grounds to be found in the difference between the mechanism employed by the plaintiff to secure a fast and slow motion of the feed-wheel, and the mechanism employed by the defendant to secure the same result. As has been already noticed, the elbow lever employed by the plaintiff to change the motion of the contact end of the operating lever is pivoted upon the face of the operating lever next the face of the intermediate lever, and moves in the direction of the contact plane. From this method of construction two difficulties arise. One difficulty, not wholly insignificant, is that the elbow lever when so pivoted is liable to work loose upon its pivot; another, more important, is that the free arm of the elbow lever may be moved by the lever, H, to interpose between the operating and the intermediate lever before those levers have separated sufficiently to permit such interposition, in which case breakage must result unless provision be made for a yielding of the parts. To obviate this difficulty the plaintiff employs an elastic rod to transmit motion from the lever, H, to the elbow lever. This rod, by springing when the contingency suggested arises, avoids breakage. Both the difficulties alluded to are avoided in the defendant's machine. Instead of interposing one arm of an elbow lever, pivoted upon the operating lever, for the purpose of changing the outline of the contact surface of the operating lever, the defendant employs an elbow lever to move a

sliding cam upon the operating 567 lever, which cam, by sliding in the direction in which the part to which it transmits motion moves, changes the outline of the contact end of the operating lever, and thereby changes the speed of the feed-wheel. By this arrangement the interposing piece or cam can be, and is, kept steady in its slide, without danger of working loose, and all danger of any obstacle being prevented to its action whenever moved by the lever, H, is removed. There is, therefore, no need in the defendant's machine of an elastic rod, I, such as is employed in the plaintiff's machine, and this feature, which is an essential element of the plaintiff's combination, is dispensed with.

The court has been pressed to say, from an inspection of the defendant's machine, that the connecting rod employed to transmit motion from the lever, H, to the elbow lever is so made as to be elastic; but this cannot be said, especially in view of the fact that there is no necessity requiring the rod to be elastic, and the positive testimony that the rod is not a spring rod, and does not yield in the direction in which it transmits motion. These differences in the action of the two machines which I have thus endeavored to point out are, in my opinion, substantial, and sufficient to compel the conclusion that the defendant's arrangement is not a colorable modification in form of the plaintiff's arrangement for regulating the length of stitch, but entitles the defendant's machine to be considered as substantially different from the plaintiff's, and not an infringement upon any of the claims of the patent under consideration.

The bill must, therefore, be dismissed, and with costs.

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