

NATIONAL HAT-POUNCING MACHINE CO.
v. THOM AND OTHERS.

Circuit Court, D. Massachusetts. November 6, 1885.

PATENTS FOR INVENTIONS—HAT-POUNCING
MACHINE—ANTICIPATION—WANT OF
UTILITY—INFRINGEMENT.

Patent No 97,178, granted on November 23, 1869, to Rudolph Eickemeyer for an improvement in hat-pouncing machines, *held* not void for want of utility, or because anticipated by the Chamberlain machine for polishing the heels of boots and shoes, for which a patent was granted July 23, 1861, and infringed as to the second claim by defendants in the use of a machine built under the patent granted to E. B. Taylor, October 21, 1879, and numbered 220,889.

In Equity.

Chauncey Smith and W. W. Swan, for complainant.

B. F. Thurston and Julien T. Davies, for defendants.

Before Colt and Carpenter, JJ.

COLT, J. This bill is founded upon the alleged infringement of three several letters patent relating to hat-pouncing machines. The patent granted to Rudolph Eickemeyer, dated November 23, 1869, and numbered 97,178, is the only one pressed at the hearing. Pouncing is that part of the process of finishing hats which consists in grinding off the rough surface of the wool or fur. Previous to the introduction of machinery, hat-pouncing was done by hand. A round hole was cut in the workman's bench, and the crown of the hat inserted therein, the brim resting upon the bench. The workman, taking in his hand a block covered with sand or emery paper, rubbed the exposed side of the brim. The hat was then turned inside out, and the other side of the brim was pounced in the same manner. In pouncing the crown, side crown, and tip of the hat, a block was taken which fitted the crown of the hat, and the hat was stretched over it. Gradually lathes

with horizontal spindles, carrying a block over which the hat was drawn, were introduced for the purpose of pouncing wool hats. The block was revolved rapidly, and sand-paper or pumice-stone was held in the hand and applied to the surface of the hat. The brim of the hat was pounced by putting sand-paper on either side, the brim revolving rapidly between the papers. Hat-pouncing machines were introduced not earlier than 1866. Among the early patents prior to that of Eickemeyer, are those of Wheeler and Manly, No. 57,232; Nougaret, No. 58,126; Labiaux, No. 63,261; Richardson, No. 73,044. The Wheeler and Manly machine contained two ⁴⁹⁷ separate mechanisms,—one for pouncing the crown, and the other for pouncing the brim. Nougaret had two machines on the market,—the Nougaret brim-machine, and the Nougaret crown-machine. The Labiaux machine was an improvement on the Nougaret crown-machine. Prior to the invention of Eickemeyer, it was generally understood that it required two separate devices to pounce the crown and brim of a hat, though the defendants have shown that in some instances, before the date of the Eickemeyer invention, hats had been pounced all over on the Nougaret brim-machine. Eickemeyer set himself to the problem of devising a way of supporting the crown of the hat so that both the crown and the brim should be presented by the same instrumentality to the pouncing cylinder. The means he adopted to accomplish this was the use of a vertical supporting horn, the office of which is simply to hold all parts of the hat in succession against the pouncing cylinder during the operation of pouncing. The specification says:

“My invention further consists in an arrangement of the pouncing cylinder and a rest, or supporting horn, for the hat-body, which can be introduced within the crown to support it against the cutting action of the pouncing cylinder during the operation of pouncing, the arrangement being such as to dispense with the use

of a hat-block in pouncing the tips and side crowns of the hats. * * * The essential part of the arrangement of the supporting horn being the space left between it and the lathe-head to give room for the brim while it is supporting the tip in the operation of pouncing.”

The patent describes a pouncing cylinder supported upon a spindle to which rapid rotary motion can be communicated. The pouncing cylinder projects out from the frame which carries the spindle, and has arranged beneath it a hat support, or horn, called “a supporting horn.” The horn is so mounted and is of such size that a hat-body can be put over it, and moved so as to expose every part of its surface to the operation of the pouncing cylinder. By means of proper adjustments, described in the patent, the horn can be brought so near to the pouncing cylinder that the surface of the latter can be brought to act upon the surface of the hat. The machine also has feed-rollers by means of which the hat-body may be moved over the horn so as to expose different parts of its surface to be pounced. The horn is mounted upon a bent supporting lever in such manner that by means of a screw it may be adjusted vertically to pouncing cylinders of various sizes, and to hat-bodies of various thicknesses. The horn is also adjustable to the inclination of the sides of the pouncing cylinder, the support or lever being so mounted on a bolt which forms a hinge that it can be tipped. When it is set in the proper position there is a set-screw which will hold it there. The horn is so mounted and supported with reference to the frame of the machine and the surface of the pouncing roller that there is left ample space for the twisting of the hat around so that all parts of it may, at the will of the operator, be, subjected to the action of the pouncing cylinder.⁴⁹⁸

The defendants agree that the machine used by them was built under the patent granted to E. B. Taylor, dated October 21, 1879, and numbered 220,889. In

the Taylor machine there is a pouncing cylinder which rotates; also a short horn or support for the hat-body, mounted upon a swinging arm in such manner that it can approach or recede from the pouncing cylinder. The horn is so supported as to leave room for the hat to be turned round upon it so as to expose all parts of the hat to the pouncing cylinder. In the Eickemeyer machine, the horn lies directly beneath the pouncing cylinder. In the Taylor machine, the horn lies at one side but below the center of the pouncing cylinder. The Taylor machine has no feed-rollers. The hat is moved and guided by the operator. There is a guard placed over the supporting horn to protect the hand of the operator. A presser-pin works through a hole in the end of the guard, and can be pressed down upon the hat with more or less force, by which means the movement of the hat may be retarded and its direction controlled. The Taylor machine is also provided with means for the adjustment of the horn to the surface of the pouncing cylinder. The defendants are charged with infringement of the second, fourth, and fifth claims of the Eickemeyer patent, which are as follows:

(2) The arrangement and combination of a rotating pouncing cylinder with a vertical supporting horn, substantially as described, whereby the supporting horn may be used to support the tip, side crown, or brim during the operation of pouncing the hat.

(4) In combination with the rotating pouncing cylinder and supporting horn, the hinge and set-screw, whereby the supporting horn is adjusted to the inclination of the sides of the pouncing cylinder.

(5) In combination with the pouncing cylinder and the supporting horn for the hat, the horizontal treadle-lever and adjusting screw, whereby the supporting horn is adjusted vertically to various sizes of pouncing cylinders, or various thicknesses of hat-bodies.

The defendants contend at the outset that the Eickemeyer patent is void for want of utility. The

Eickemeyer machine never came into the market. It appears that the only machines built were those used in this suit. In view of the fact, however, that the evidence shows that a machine made after the Eickemeyer patent is practically operative for pouncing hats in the manner described, this defense falls to the ground. The Taylor machine may be an improvement on Eickemeyer's, by reason of avoiding the necessity of feed-rollers, and by reason of its simplicity of construction; and it may, in consequence, be very valuable commercially, and the best pouncing-machine in use; but this will not protect Taylor or the defendants in the use of the specific mechanism described in the specification and embodied in the claims of the Eickemeyer patent, provided, as has been shown, that the Eickemeyer machine is operative for the purpose it was designed. But the main controversy is over the second claim of the Eickemeyer patent, which describes the combination of a rotating pouncing cylinder with a vertical supporting 499 horn, wherein the horn is used to support the whole hat-body during the operation of pouncing.

It is said that the Nougaret machines anticipate in substance this claim. It is apparent, however, that the Nougaret machines employ a long horn. They do not make use of a supporting horn of such a small size that the hat may be freely turned thereon, and so supported in the machine as to leave the space described in the patent, in order that the hat may be freely turned, so as to pounce all parts of the surface thereof; and we find no prior machine so organized. This is not a formal but a material difference, and this difference is the essence of the Eickemeyer invention.

It is further urged that you could pounce the whole hat-body in a Nougaret machine; that it has been done repeatedly; and that consequently the second claim of the Eickemeyer patent should receive a narrower construction than if Eickemeyer had been the first to

accomplish such a result. Admitting that to a limited extent the Nougaret brim-machine has been employed to pounce the whole hat-body, yet such was not its ordinary use. Before the invention of Eickemeyer it was generally understood that it required two sets of mechanism to pounce a hat. But, however this may be, the complainant has demonstrated that the employment of a short rest with the vertical space for the brim of the hat while the tip is being pounced, which we find in Eickemeyer's machine, is a great improvement over the long rest as used in machines of the Nougaret type. This is not the case of a trifling improvement, but, in view of what had been before accomplished, of a substantial advance in the art, and consequently no mere changes in the details of construction should relieve a party from the charge of infringement.

It is further urged in defense that the second claim of the Eickemeyer patent must be limited to a frusto-conical pouncing cylinder, and that as Taylor uses a cylindrical pouncing wheel, there is no infringement. If we turn to the specification of the Eickemeyer patent, we find that the pouncing roller may be either a cylinder or a cone. The claim uses the term pouncing cylinder. The drawings of the patent and the machines exhibited in the case show a frusto-conical cylinder. In view, however, of the language of the specification and of the claim, the defendants cannot relieve themselves of infringement by using a cylindrical pouncing wheel in place of a frusto-conical one, unless it can be shown that the Eickemeyer machine would be inoperative if the pouncing wheel was cylindrical.

Again, it is said that this second claim is of such an indefinite and nebulous character that, in order to be sustained, it must be subjected to certain limitations. *First*, it must embody the feed-rollers by implication; that otherwise the claim would be inoperative. The feeding mechanism is the subject-matter of the third

claim. The second claim is for the sub-combination of devices which hold the hat up to the pouncing cylinder during the operation of pouncing, so 500 that all parts of the hat can be brought under the operation of the pouncing cylinder. A claim for the combination of parts which perform a distinct function is good. The feeding mechanism performs a useful duty, but a distinct and separate one. It does not aid the horn to support the hat against the pouncing cylinder.

Another limitation sought to be imposed is that the claim should read, "a supporting horn, capable of supporting a hat vertically." This, it seems to us, would be doing violence to the language of the claim, and of the specification. What the claim requires of the horn is that it "may be used to support the tip, side crown, or brim during the operation of pouncing;" and the specification says, as to the pouncing of the tip, that "any other practical mode of mounting the vertical supporting horn will answer which will admit of vertical adjustment, and leave sufficient space between it and the lathe-head for the brim of the hat when pouncing the tip; the essential part of the arrangement of the supporting horn being the space left between it and the lathe-head to give room for the brim while it is supporting the tip in the operation of pouncing."

It being our opinion that this second claim of the Eickemeyer patent covers the combination of a rotating pouncing cylinder with a vertical supporting horn, as described, whereby the horn may be used to support the whole hat-body during the operation of pouncing, the next question arises whether this combination is not found in the prior Chamberlain machine for polishing the heels of boots and shoes, for which a patent was granted July 23, 1861. Upon examination, and without entering into a critical comparison of the two machines, it is sufficient to say that, in our opinion, the shoe-machine differs so much in its

mechanism and mode of operation that it cannot fairly be held to have anticipated the second claim of the Eickemeyer patent. The shoe-machine, as embodied in defendants' Exhibit No. 14, has been altered. As an experiment, it will pounce a hat, but how well the work will be done is not satisfactorily shown. The Chamberlain machine, as altered by the defendants, is hardly adapted to the work for which it was designed, and without such changes we do not think it is shown that it is capable of pouncing the whole body of a hat. From the character of the work to be done it would almost seem as if a machine for pouncing hats, and a machine for polishing the heels of shoes, must of necessity differ in important particulars. However this may be, we do not find in the Chamberlain or Stoneham machine the combination of devices which form the subject of the second claim of the Eickemeyer patent.

There is another ground of defense which remains to be considered. It is apparent, on inspection, that the Taylor machine combines a pouncing cylinder with a supporting horn of such a small size that the whole body of the hat may be freely turned thereon, and all parts of its surface brought in contact with the pouncing cylinder. If you take away the presser-pin in the Taylor machine, which, together 501 with the hand of the operator, forms the feeding device, and take away the feed-rollers from the Eickemeyer machine, you have left in each case a pouncing cylinder and a short rest, which can be placed inside the crown of the hat-body.

Admitting this, it is urged with much force by defendants' counsel that the mode of operation of the two machines is essentially different. In the Taylor machine, the hat moves in the direction of the rotation of the pouncing cylinder. The hand of the operator, assisted when necessary by the presser-pin, retards the hat in its passage and controls its direction. In

the Eickemeyer machine, the hat, through the action of the feed-rollers, is pulled through the machine in the opposite direction to the rotation of the pouncing cylinder. Further, the position is taken by the defendants that in the Taylor machine the hat must revolve from brim to center of tip during the whole pouncing operation, in substantially horizontal planes, while the Eickemeyer machine is organized to pounce the tip of the hat while the side crown is in a vertical position, by the combined effect of the frusto-conical pouncing wheel and feed-rollers. In the Taylor machine, it is said the hat would at once be thrown off the machine if it ever hung down about the horn, as in the Eickemeyer machine, during the operation of pouncing, because the cylindrical pouncing wheel would cause the hat to travel in a straight line. In order to show that the side crown never stands vertically in the Taylor machine, and that the space between the rest and the lathe-head, to give room for the brim, as described in the Eickemeyer patent, is not necessary, the defendants have shown that hats are pounced on Taylor machines with a horn or rest, 12 inches in length, thus preventing the hat from ever assuming the position about the horn which it does in the Eickemeyer machine.

This in substance is the argument of the defendants to prove that the two machines have different modes of operation, and that, therefore, there can be no infringement of Eickemeyer's second claim. In answer to this reasoning, it may be observed that the Taylor machine is ordinarily made with a short rest, as shown in the patent. If hats can be pounced equally well on a Taylor machine with a long rest, the defendants have but to substitute it for a short rest to escape infringement; and if, in the Taylor machine, the hat must be made to revolve in horizontal planes, and the side crown can never occupy a vertical position around the horn during the operation of pouncing, the use

of a long horn would seem to be attended with less risk, because, when a short horn is used, you must depend upon the skill of the operator to keep the hat in a horizontal position. But let us turn for a moment to the Taylor patent, and see the mode of operation contemplated by the inventor:

“The mode of operating my machine is as follows: The hat to be pounced is placed over the supporting block and pressed against the self-feeding pouncing cylinder by means of the treadle operating the swinging bracket. The 502 self-feeding pouncing cylinder, revolving at a great speed, draws the hat through the space between the supporting block and the self-feeding pouncing cylinder. The hand of the operator, assisted when necessary by the presser-pin, retards the hat in its passage and controls its direction, by which means the pouncing surface can be caused to move over the material to be pounced at any rate of speed or in any direction that may be desired. The presser-pin, L, Figs. 1, 2, and 8, is a peculiar and novel feature of my machine, its operation being as follows: The hat to be pounced can be caused to revolve about it as a center by means of the pressure exerted upon it, so that every part of the hat, except that immediately under the presser-pin, would in its rotation come in contact with the pouncing cylinder, and by lessening the pressure the hat would be drawn under the presser-pin in any desired direction, and that part of it which had formed the center of rotation would then be pounced. This is only one of many ways in which the presser-pin could be used in pouncing hats.”

It will be observed that, by the specification, the hat is made to revolve about the presser-pin as a center. When the hat upon the short rest of the Taylor machine is revolving in circles about the presser-pin, as described in the patent, it is difficult to see why it does not occupy about the same position as is shown

in the drawing in Eickemeyer's patent. When a long rest is used on the Taylor machine, the presser-pin appears to have been discarded, and the hat is kept in a nearly horizontal position by the hands of the operator. In a Taylor machine, organized with a long rest and without a presser-pin, a hat may not assume the position in the operation of pouncing which it does in the Eickemeyer machine; but a Taylor machine, so constructed, is not made under the Taylor patent, and is not the machine which the complainant charges is an infringement of Eickemeyer's second claim. As for the mode of operation of a Taylor machine, made after the patent, with a presser-pin and a short rest, we do not think, after careful examination, that the evidence shows that it is so materially different in its mode of operation from the Eickemeyer machine as to relieve the defendants from the charge of infringement. The burden is upon the defendants to clearly establish this point, and we do not think they have done it. We believe this disposes of all the material defenses urged against the validity of the second claim of the Eickemeyer patent. Our conclusion is that the defendants infringe the second claim of the Eickemeyer patent.

With respect to the fourth and fifth claims of the Eickemeyer patent, we find no infringement by the defendants. And we deem it sufficient to observe that, in our opinion, all the elements of the combinations which form the subject-matter of those claims are not found in the Taylor machine. Decree for complainant.

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