R. EICKEMEYER.

Hat Stretching Machine.

No. 162,540. Patented April 27, 1875.

Fig. 1.

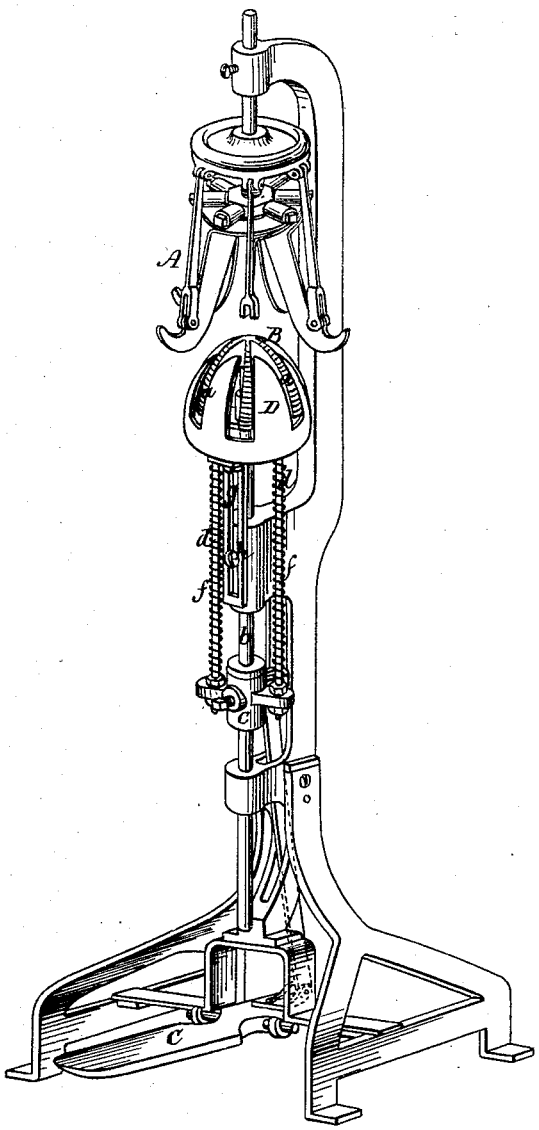
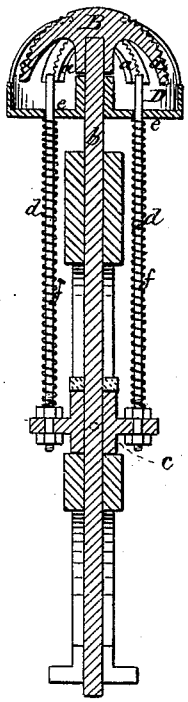


Fig. 2.



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UNITED STATES PATENT OFFICE.

RUDOLF EICKEMEYER, OF YONKERS, NEW YORK.

IMPROVEMENT IN HAT-STRETCHING MACHINES.

Specification forming part of Letters Patent No. **162,540**, dated April 27, 1875; application filed March 23, 1875.

To all whom it may concern:

Be it known that I, RUDOLF EICKEMEYER, of the city of Yonkers, in the county of Westchester and State of New York, have invented a certain new and useful Improvement in Hat-Stretching Machines; and I do hereby declare that the following specification, taken in connection with the drawings furnished and forming a part of the same, is a clear, true, and complete description of my invention.

My said improvement relates to that class of stretching-machines which operate on the "corrugation" principle; and my invention consists in the combination, with the skeleton ribbed former, of a stripping or clearing device, whereby, after each stretching action, the hat is automatically detached from the former.

It is well known to persons skilled in the art that, after the former, with the hat thereon, has been forced upward into proper relation with radial fingers to effect a partial or gradual stretching, the hat must be detached from the former by the operative, and partially turned thereon, in order to present other surfaces for contact with the stretching-fingers and the arms of the former. The upper engaging surfaces of the arms or ribs of the former are generally scored laterally, in order that said arms may be enabled to properly engage with the hat and more readily to perform the required service, and therefore it frequently requires some little time and labor to effect the disengagement of the hat every time the former is lowered.

In order to more particularly describe my invention I will refer to the accompanying drawings, in which Figures 1 and 2 represent in perspective and partially in section a hat-stretching machine embodying my invention.

The particular machine here shown, independent of my present improvements, is substantially like that described in Letters Patent issued to me July 15, 1873, No. 140,903, and it is only necessary for me to herein refer generally thereto, and to describe it as composed of the several radial stretching-fingers at A, the former at B, which is mounted on a vertical sliding rod actuated by the treadle C. The novel feature is shown in the stripper or clearer D. It is preferably composed of thin sheet or other metal, hemispheroidal in form, and slotted to admit of the upward passage of the arms or ribs *a* of the former. The exterior surface of the stripper is smoothly finished, in order that a hat may be rotated freely thereon. The stripper is mounted upon the vertical sliding rod *b* by means of the sleeve *c*, which has two laterally-projecting arms, which support two vertical rods, *d*, which pass upward into the interior of the stripper through two holes in a diametrical cross-bar at *e*, which forms a part of said stripper. These two rods are encircled by expansive spiral springs at *f*, on the tops of which the stripper D rests. A slotted guide-bar, *g*, projects downward from the stripper, and a screw-stud at *h*, passing through said slotted bar, enters the adjacent portion of the standard of the machine. When at its lowest point and ready to receive a hat, the upper surfaces of the arms or ribs of the former are generally slightly below the exterior surface of the stripper. Although adjacent to the center, said arms may be flush with the upper surface of the clearer, or they may project slightly above said surface. It will be seen that the rods *d* serve as guides or lateral supports for the springs *f*, and that the clearer or stripper is wholly supported by the springs. Small nuts may be placed on the rods *d*, below said springs, in order that the expansive force of the springs may be adjusted from time to time, in order that they may always maintain the stripper at proper height with relation to the former.

In operation, a hat is placed upon the former while depressed, as shown in Fig. 2. On being elevated the former and clearer move together until the lower end of the slot in the guide-bar *g* engages with the screw-stud at *h*, which arrests the upward movement of the clearer or stripper. The former, carrying the hat, then freely moves upward and performs a stretching operation; then downward until the stripper is reached, and the former retires within it, leaving the hat on the stripper wholly cleared from the former. The operative can then readily revolve the hat to the proper extent and repeat the operation. The smooth upper surface of the clearer affords a good general bearing for the hat while being rotated,

and it is therefore an easy matter for the operative to turn the hat and re-present it to the stretching-fingers, in any position which may be desirable.

I desire it to be distinctly understood that I do not limit myself to the precise construction of the clearer shown, nor to the manner illustrated of attaching it to the spindle, as all the advantages which accrue from the combination with the former of a clearer may be attained regardless of the details of construction, provided that the former has a movement independent of the clearer, so that it may extend above it, perform the stretching operation, and then retire within the peripherical limits of the clearer sufficiently to clear the hat from the former, and leave it partially or wholly supported by the clearer or stripper. The particular arrangement of mechanism shown has been proven to possess practical value.

I claim as new and desire to secure by Letters Patent—

In a hat-stretching machine, a skeleton or ribbed former, in combination with a clearer or stripper, substantially as described.

RUDOLF EICKEMEYER.

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