(No Model.)

J. WILSON.

MACHINE FOR CURLING HAT BRIMS.

No. 289,202. Patented Nov. 27, 1883.

Fig. 1.

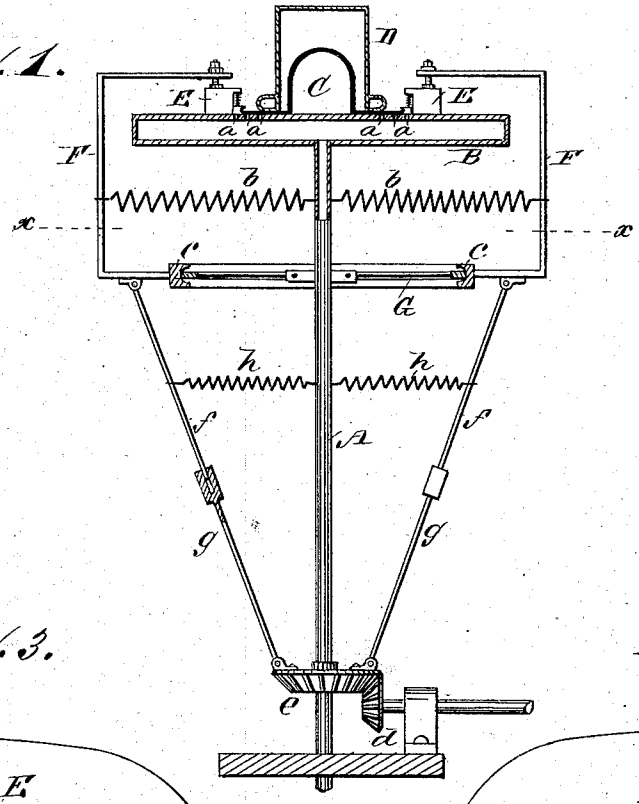


Fig. 3.

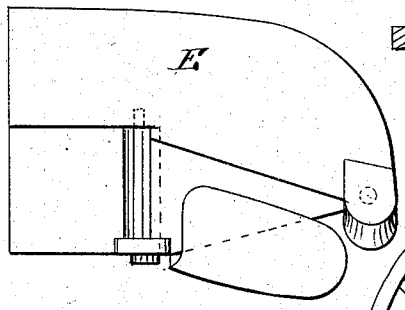


Fig. 4.

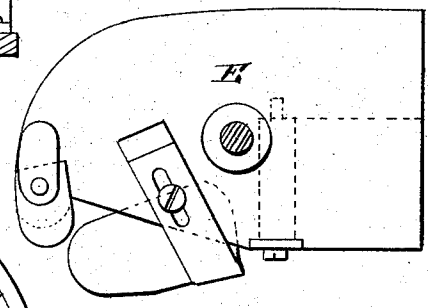


Fig. 2.

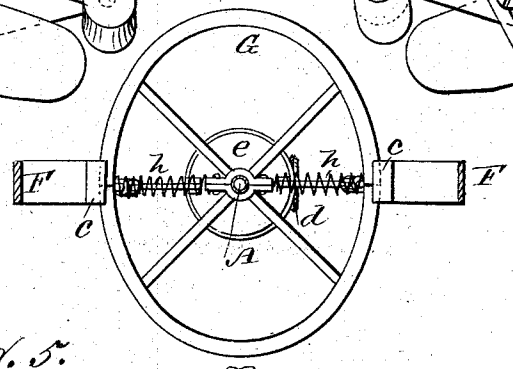
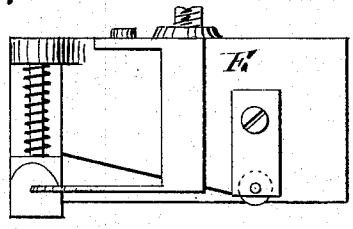


Fig. 5.



WITNESSES:

Theo. G. Hoster

C. Sedgwick

INVENTOR:

J. Wilson

BY Munn & Co

ATTORNEYS.

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

JOHN WILSON, OF NEWARK, NEW JERSEY.

MACHINE FOR CURLING HAT-BRIMS.

SPECIFICATION forming part of Letters Patent No. 289,202, dated November 27, 1883.

Application filed April 27, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN WILSON, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Machines for Curling Hat-Brims, of which the following is a full, clear, and exact description.

This invention is mainly designed to be applied to turning over the edges or curling the brims of hard felt hats before shaping them, and uses, in common with other machines, a perforated steam bed or table, on which the brim of the hat to be curled rests, and whereby it is softened to facilitate the curling operation; also, curling-tools arranged to revolve around the brim and guided in or out by a templet or pattern to conform to the oval-like shape of the brim.

The invention consists in certain combinations of parts in such a machine or apparatus whereby great simplicity and accuracy of action are obtained, without exposing the side crown of the hat or its lining to any injurious effects of the escaping steam, or having of necessity to use any adjustable interior hat-clamping devices, the crown portion of the hat being preserved and protected against escaping steam, and the brim of the hat held down to its place on the steam-bed by a hollow weighty cover or shield, all substantially as hereinafter described.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 represents a vertical section of a machine or apparatus for curling hat-brims, embodying my invention; Fig. 2, a horizontal section of the same on the line *x x*, in Fig. 1. Fig. 3 is an under view; Fig. 4, a top view; and Fig. 5, a side view, upon a larger scale, of an ordinary curling device or tool applicable to my improved machine.

A in the accompanying drawings is a hollow upright stationary shaft or post, having mounted on it a hollow bed or table, B, to which steam is admitted through said shaft. This steam bed or table, on which the brim of the hat C to be curled rests, has perforations *a a* in its upper surface, arranged so as to admit of the escape of the steam to or under that portion of the brim of the hat which requires to be curled, for the purpose of softening said portion of the brim without exposing the side crown of the hat or its lining to the action of the steam, which would raise the nap of the hat, destroying its finish, and would pucker the leather lining. The hat C is thus suitably held in place down on the perforated steam-bed B, and its crown portion preserved or protected from escaping steam by a removable weighty or weighted hollow cover or shield, D, of a suitable size and shape to receive within it the body or crown portion of the hat, and to bear down on the inner portion of the brim of the hat, within that part of it which requires to be softened and curled.

E E are duplicate and oppositely-arranged brim-curling devices or tools for curling the brim at the two sides of the hat at the same time, each tool curling its own side of the hat. These tools, as shown in Figs. 3, 4, and 5, are or may be of the same construction as the hand-tools for the like purpose in ordinary use; but instead of being worked by hand they rest on the table B, receiving the edge of the brim of the hat within them, and are attached to or carried by a laterally expanding and contracting divided outside frame or frame-sections, F F, which project downward outside of the table B, and are drawn toward each other by a connecting spring or springs, *b*. The lower ends of this divided frame are provided with concave bearing-blocks or other suitable bearing devices, *c*, arranged to press against the outside edge or periphery of a templet or pattern, G, which corresponds to the oval shape of the brim, and is or may be made in halves, and is clamped or otherwise secured to the stationary shaft A. This pattern is or may be changed to suit different sized or shaped hats.

The divided frame F F has rotary or reciprocating rotary motion communicated to it by means of a driving bevel-pinion, *d*, arranged to gear with a bevel-wheel, *e*, loose on the stationary shaft A, and connected by jointed and longitudinally-extensible arms *f g*, with the opposite sections of the divided frame F F. Springs *h*, free to revolve around the fixed shaft A, may also be applied to said arms on opposite sides of said shaft. These springs act, in conjunction with the springs *b*, above or on the other side of the templet or pattern G,

to keep the bearing-blocks *c* of the divided frame or frame-sections F F against said pattern, which serves to give the curling-tools E E their proper run or action corresponding with the oval shape of the hat, while the longitudinally-extensible construction of the arms *f g* provides for the in-and-out lateral movement of the said arms with their attached divided frame or frame-sections F F.

A machine constructed substantially as described will do a large amount of work in very little time, and the hats may be readily put in position on the steam-bed of the machine, and, after their brims have been curled, be as readily removed by reason of the facilities which the spring-held expanding and contracting frame-sections F F and the removable weighted cover or shield D afford.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with the perforated steam bed or table B and brim-curling devices or tools arranged to work on or over the same, of the removable hat cover or shield D, substantially as and for the purposes specified.

2. The divided frame F F and connecting spring or springs *b b*, arranged to rotate or move around a vertical axis, in combination with the attached curling-tools E E, the perforated steam-bed B, and the templet or pattern G, essentially as shown and described.

3. The combination of the hollow stationary shaft A and attached perforated steam-bed B, the stationary pattern G, the divided rotating frame F F, having attached curling-tools E E, the wheel *e*, the extensible arms *f g*, jointed to the opposite sections of said frame and to the wheel *e*, and the springs *b h*, substantially as and for the purposes specified.

JOHN WILSON.

Witnesses:
A. GREGORY,
C. SEDGWICK.