(No Model.)

J. P. FARMER.

Machine for Shaping Hats.

No. 238,771. **Patented March 15, 1881.**

Fig. 1.

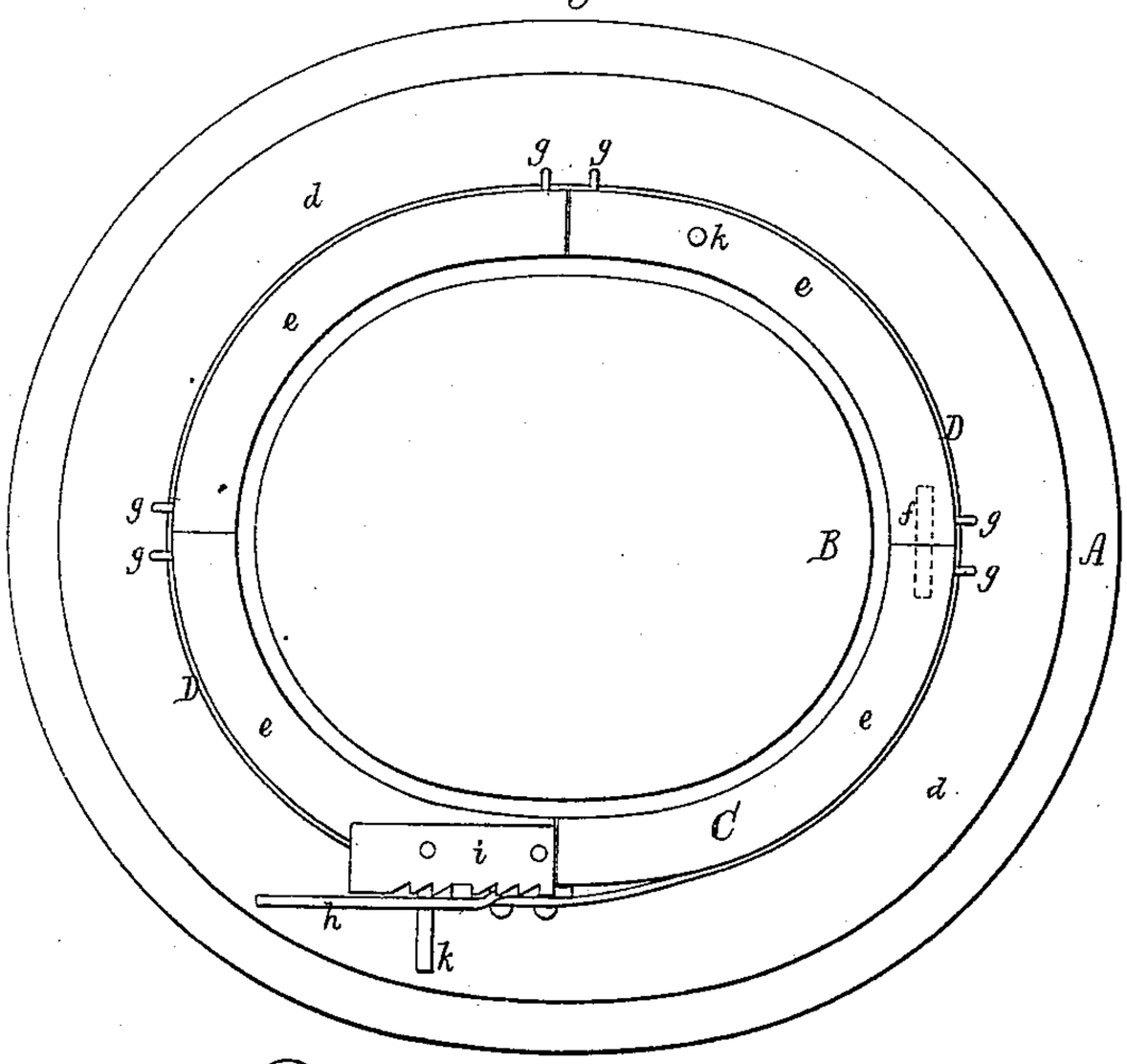


Fig. 2.

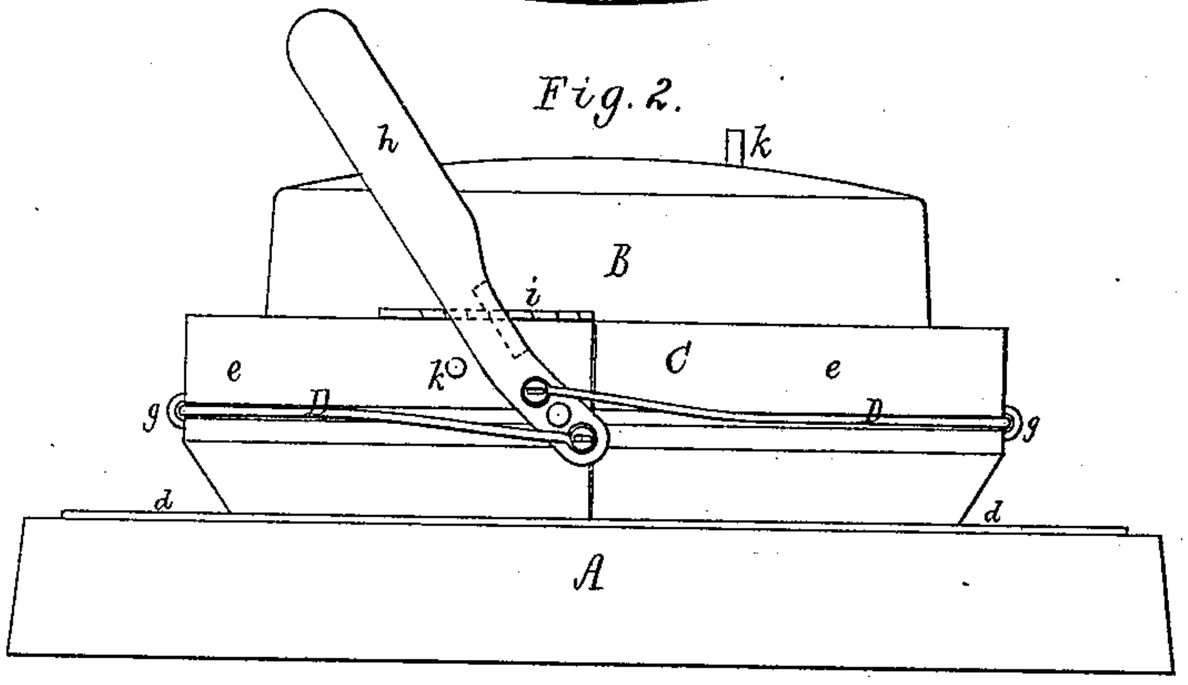
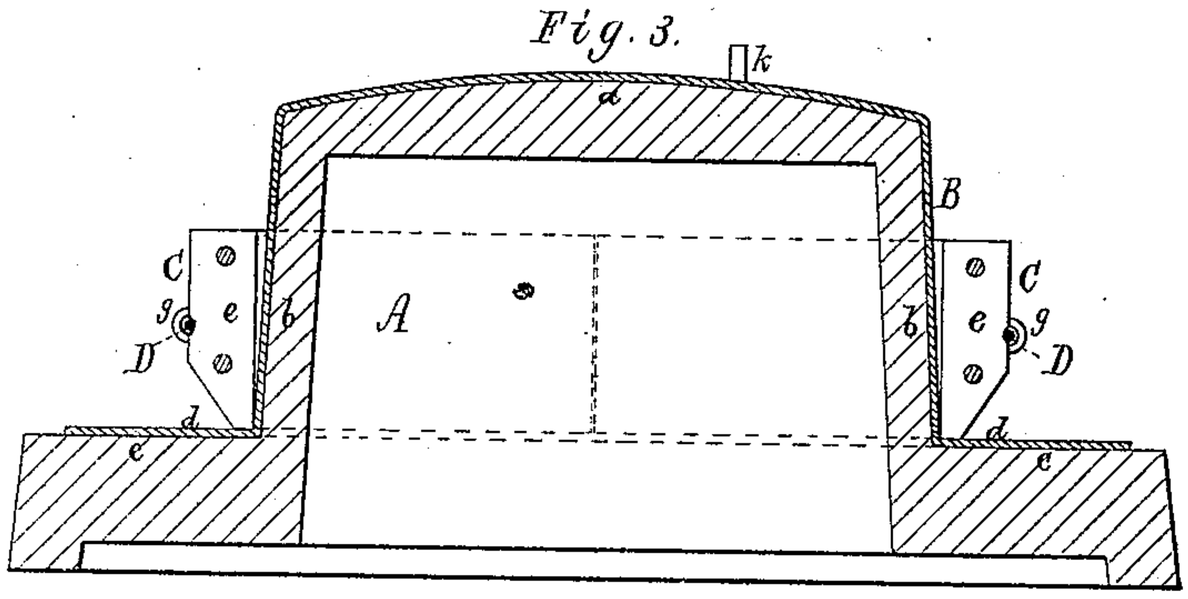


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

JOHN P. FARMER,, OF FRANKLIN, MASSACHUSETTS.

MACHINE FOR SHAPING HATS.

SPECIFICATION forming part of Letters Patent No. 238,771, dated March 15, 1881.

Application filed December 27, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOHN P. FARMER, of Franklin, of the county of Norfolk and State of Massachusetts, have invented a new and useful Improvement in Machines for Shaping Hats; and I do hereby declare the same to be described in the following specification, reference being had to the accompanying drawings, illustrative of the mechanism of the improved kind in use by me for shaping a hat, whether the body of such hat be made of braided straw or other material, or be composed of felt or cloth.

In the said drawings, Figure 1 is a top view, Fig. 2 a side elevation, and Fig. 3 a longitudinal section, of a hat and its body and brim mold or block, and the hat-body and brim-setter used in effecting the fitting of the hat-blank to the body and crown of the mold, and in setting the brim to its proper angle to the hat-body.

The hat body or mold shown at A is the counter-shape of the hat on its inner surface, the crown part of the mold being shown at *a*, the body part at *b*, and the brim or shaping portions thereof at *c*.

My invention is to effect the fitting of the hat-blank to the body and crown of the mold, and to set the brim portion of the said blank to its proper angle and position relatively to the body portion of the blank.

Hat-blanks as usually made, whether of straw-braid or felt, are in the shape of a sugar-loaf, or an approximation thereto, and they have to be subsequently reduced to the configuration of a hat by means of a mold.

In using the hat-shaping mechanism herein described, the hat-blank is first to be thoroughly wet or moistened with water or by means of steam, and while it is so wet and in a soft and yielding state, the body of the mold is to be inserted in such blank, which should next be crowded down upon the body part of the mold until the center of the crown of the blank may be brought directly over the center of the crown of the mold, and in contact, or nearly in contact, therewith. This having been done, the next part of the process is effected by the use of the hat-body and brim-setter, which is shown at C as encompassing the hat-blank B and the body of the mold, and resting on the hat-brim *d*. The said setter consists of a series of ring-sections, *e*, usually of four elliptical quadrants, shaped and arranged as represented, each of them being held in position relatively to those next it by one or more dowels extending from one into the other of them, but loosely, so as to enable them to be moved apart from or toward one another short distances, as occasion may require, one of such dowels being shown in dotted lines at *f*. Encompassing the annular or ring sections is a metallic band or wire, D, which goes through eyes *g* projecting from the outer surface of the sections, and at its ends is fixed, as shown, to a lever, *h*, which is fulcrumed to one of the sections, there being fixed to such section a serrated rack, *i*, for the longer arm of the lever to take into, in order to hold the band or wire tightly down about the sections when contracted by it on the hat-block. Handles *k k* project from two of the sections, to enable the setter to be raised bodily off or placed on a hat-blank when on the mold. In using the said setter, whose ring-sections are to be heavy masses of metal, it, after the hat-blank may have been applied and adapted to the mold in manner as above stated, is to be placed on the body part of the blank, so as to encompass it, and is next to be set down firmly and quickly to crowd the blank entirely around it down upon the body and rim portions of the mold, after which the lever is to be turned so as to contract the set of annular sections closely upon the hat-blank and force it into the vertex of the angle between the body and rim portions of the mold, the lever, on this having been done, being moved laterally into the rack so as to hold the sections in their clamping positions. Next, the brim portion of the blank is to be drawn to or in parallelism with the periphery of the brim part of the mold, or to the necessary extent, and is to be secured in place by tacks driven into it and the mold. After this the hat-blank is to be dried upon the mold, such being done by any useful or proper means of effecting the evaporation of the moisture contained in the blank.

If necessary, a stiffening or gummy or starchy matter may be used with the moistening-fluid, or in other ways, to cause the hat when off the mold to preserve its blocked shape.

In my above-described mechanism for shaping a hat I have, besides the series of ring-sections and their contractile band, a mechanism

not only for contracting the said band, but for automatically holding it so contracted. In this respect my mechanism differs from that shown in the United States Patent No. 139,133. Furthermore, my process of operation involves what is not described in such patent—viz., "the drawing out of the brim portions and fixing it to the mold by tacks, and subsequently drying the hat-body while so applied to the mold."

I claim as my invention as follows, viz:

The hat-body and brim-setter, substantially as described, consisting of the series of ring-sections and their contractile band or wire, and means of contracting, and automatically holding contracted, as described, the said band or wire, such means, as represented, being the lever and its catch-rack, all being arranged and adapted essentially in manner and to operate as and for the purpose set forth.

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Witnesses:
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