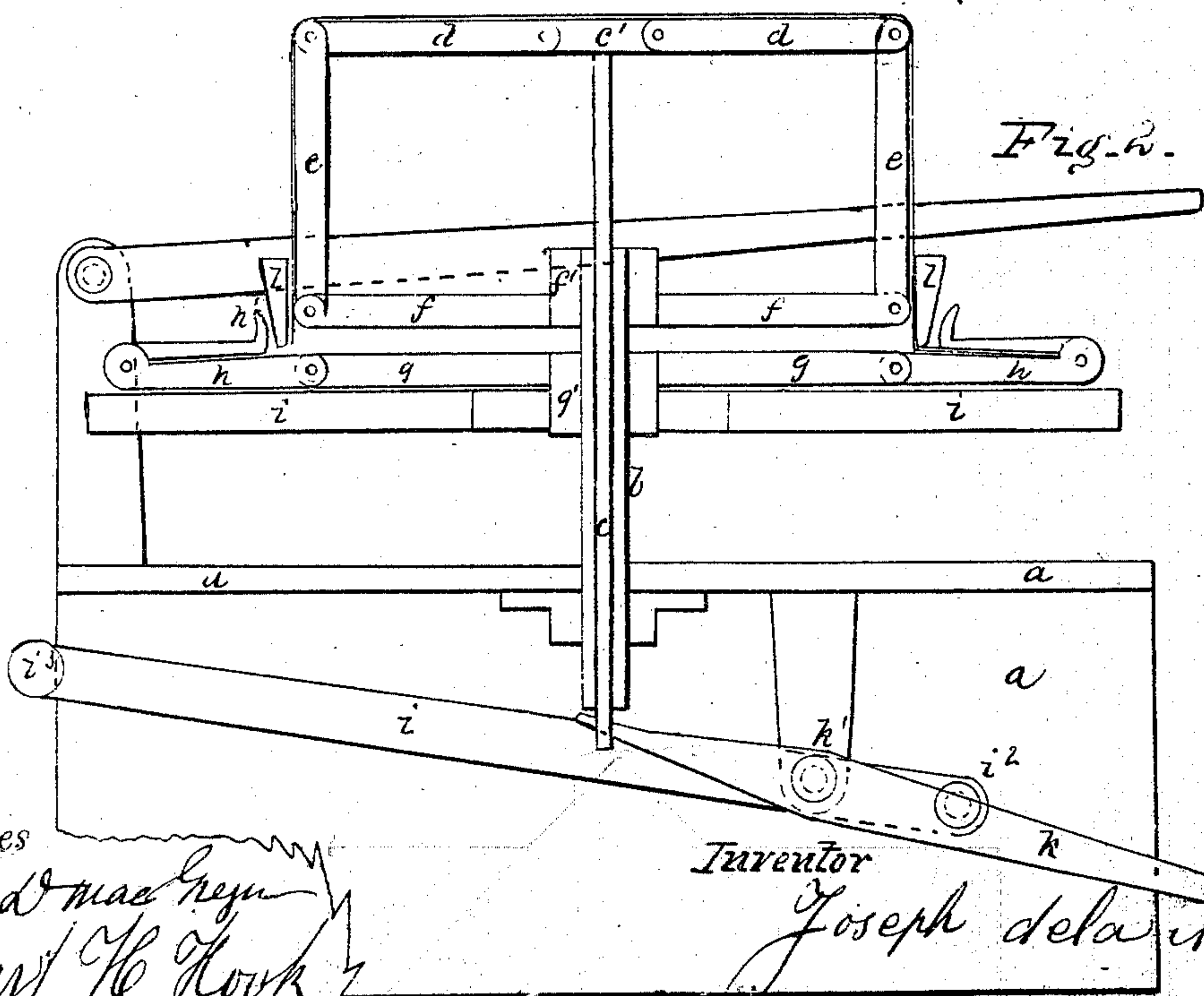
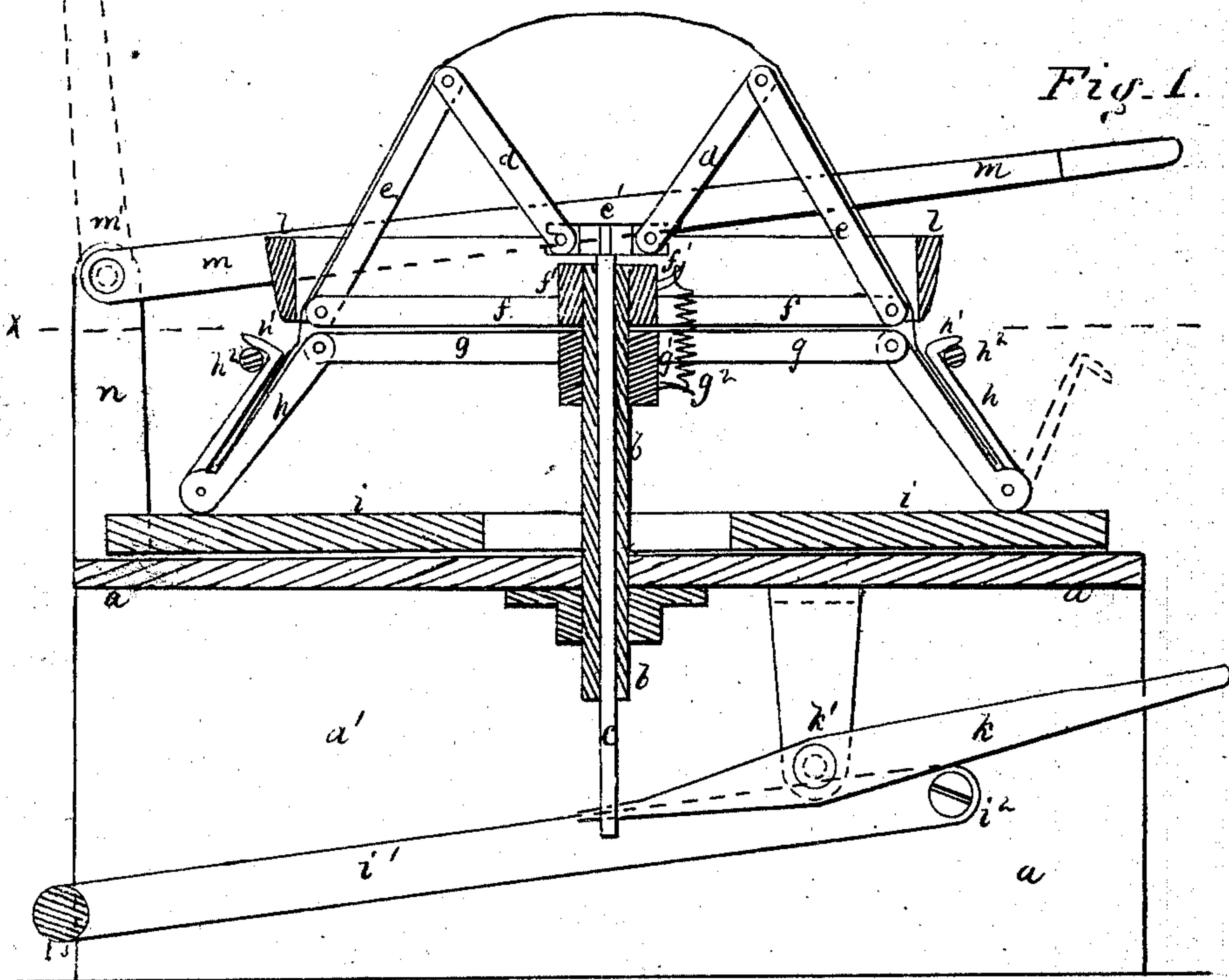


*J. De la Mar.*  
*Blocking Hats.*

N<sup>o</sup> 62321

Patented Feb. 26, 1867.



Witnesses

*Thos. & Mac Kenzie*  
*Albert H. Hook*

Inventor

*Joseph de la Mar*





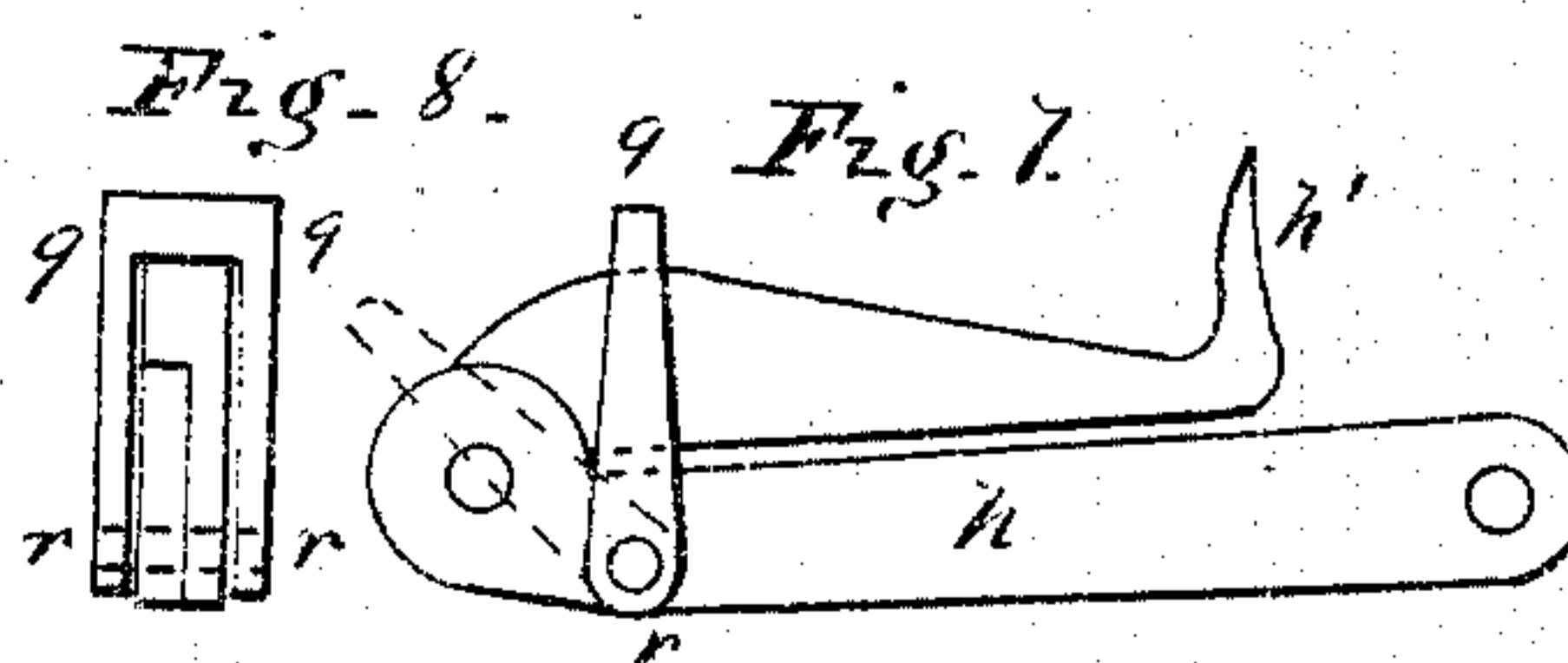
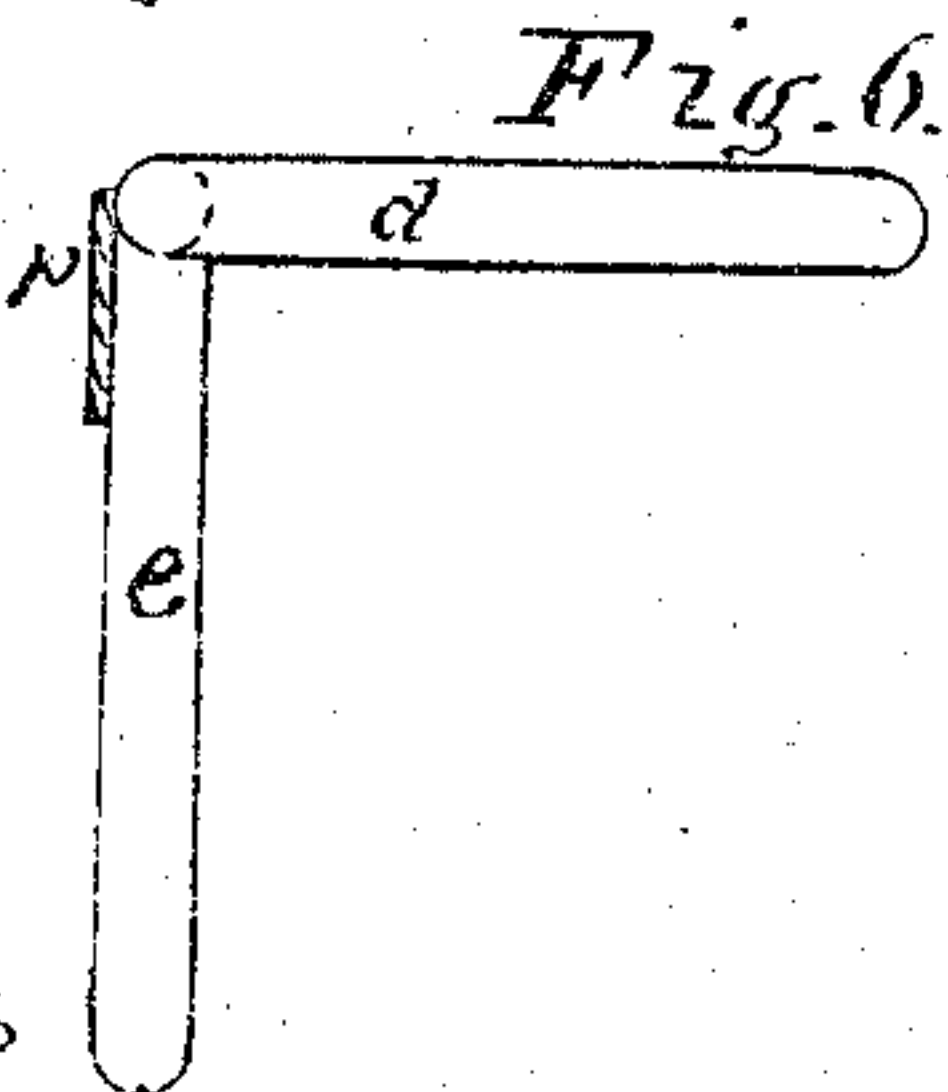
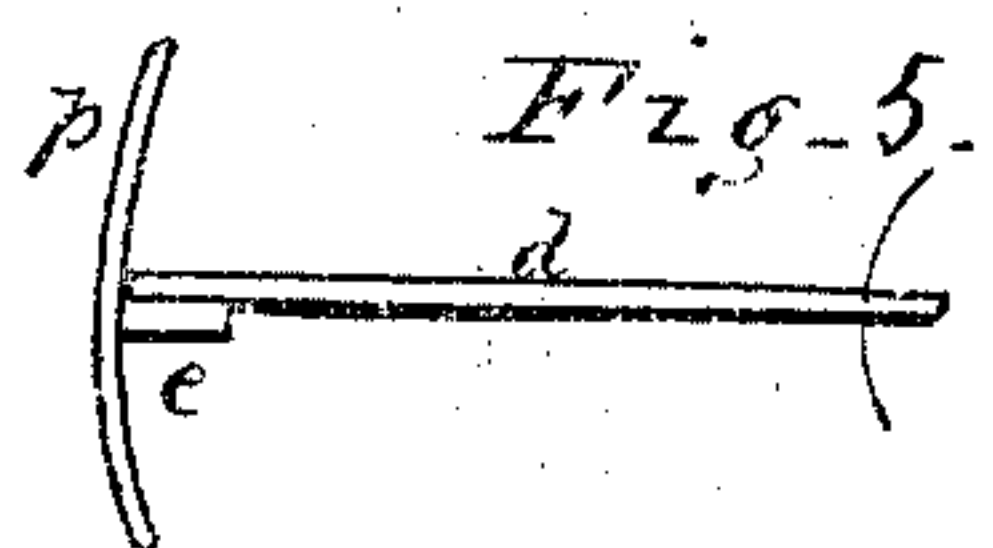
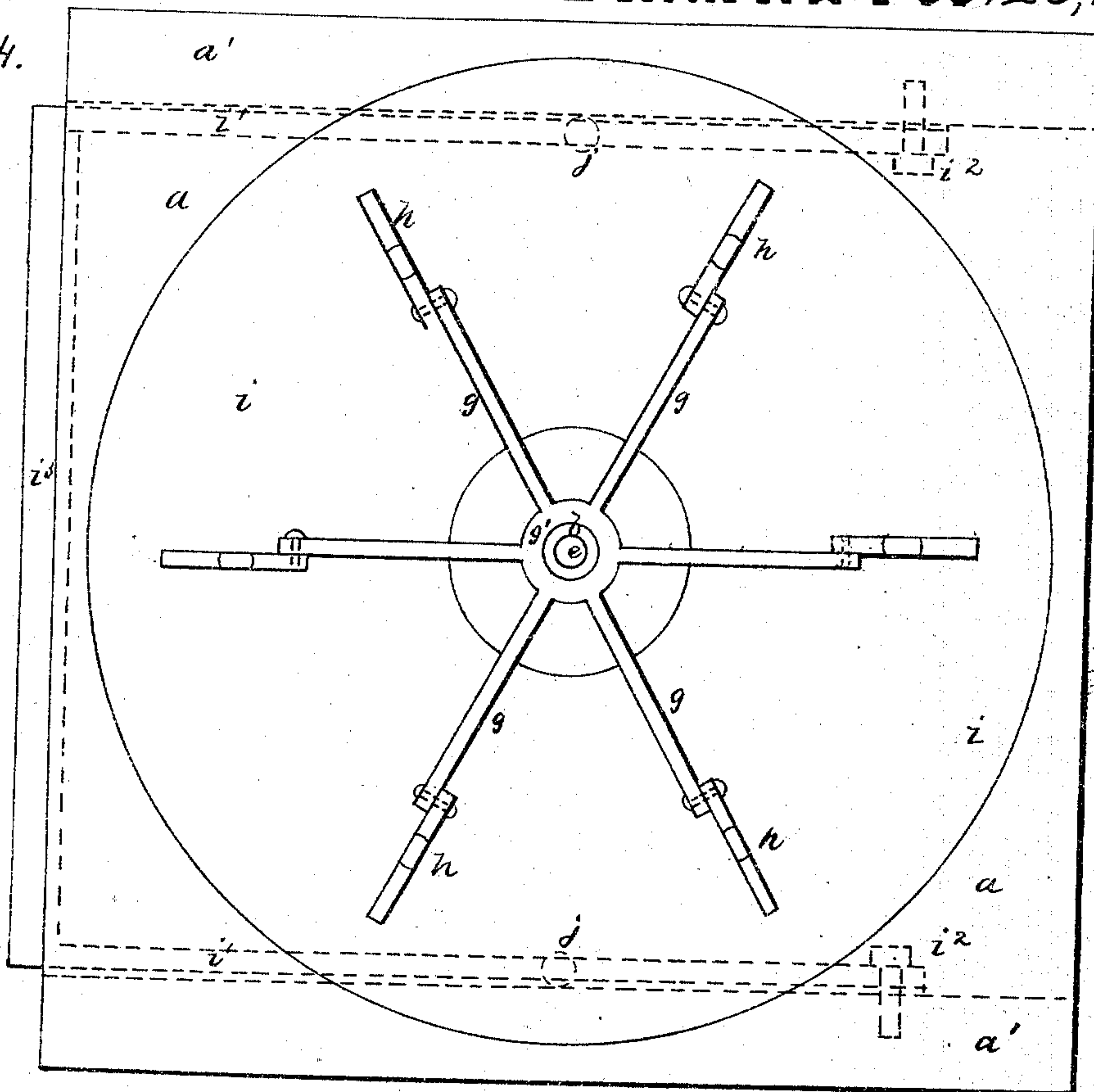
J. De la Mar.

Blocking Hats.

N<sup>o</sup> 62321

Patented Feb. 26, 1867.

Fig. 4.



Witnesses

Mo: *D. Mac Gwyn*  
*Albert H. Hawk*

Inventor

*Joseph de la Mar*



# United States Patent Office

JOSEPH DE LA MAR, OF BROOKLYN, NEW YORK, ASSIGNOR TO GRISWOLD & SHELDON.

Letters Patent No. 62,321, dated February 26, 1867.

## IMPROVEMENT IN HAT-BLOCKING MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

Be it known that I, JOSEPH DE LA MAR, of Brooklyn, Kings county, State of New York, have invented new and useful Improvements in Machines for Blocking Hats; and I hereby declare that the following is a clear and exact description thereof, reference being had to the annexed drawings, in which—

Figure 1 is a vertical section of the machine, in a position as it requires to be when the hat-body is placed upon it for blocking.

Figure 2 is a vertical section of the machine showing it in such a position as it has assumed after the hat has been stretched or blocked.

Figure 3 represents a plan view of the upper mechanism for stretching the crown, the ring for breaking band, and the lever for working this ring.

Figure 4 shows a horizontal section in line *x x* of fig. 1.

Figures 5, 6, 7, and 8, are representations of some of the details of the machine.

My invention consists in constructing a machine which will form a hat from a hat-body by stretching out the crown, drawing down the cylindrical part straight, and spreading out the brim, simultaneously or in successive operations, without removing the hat-body from the machine until it is completed.

A square table, *a*, with legs *a'*, serves to support the machine. In the centre of this table is a vertical tube, *b*, secured firmly in a hub at the bottom of the table, and a vertical rod, *c*, passes through this tube, being capable of sliding therein up and down. The upper end of this rod *c* bears a hub, *c'*, which forms the common fulcrum of a number of bars, *d*, which are placed around said hub. The outer ends of these bars *d* are hinged to as many descending bars, *e*, and the lower ends of these bars *e* are again hinged to arms *f*, which radiate from a common hub, *f'*, attached to the upper end of tube *b*. Another set of arms, *g*, of about the same length as those previously described, project radially from a hub, *g'*, which is capable of sliding up and down on the tube *b*, and is held up by a spring, *g''*. To the outer ends of these arms *g* are jointed the clamps *h*, which are intended to clamp the edge of the hat-body, and which are in an inclined position when the machine is ready to receive the hat-body. They rest upon a round plate, *i*, which can be moved up by a pair of levers, *i'*, below the table, which have their fulcrum at *i''* in the legs *a'* of the machine, and which have a common handle, *i'''*, by which they can be worked simultaneously. Each of these bears against the lower end of one of two vertical rods *j* secured to the lower side of the plate *i*, passing through the table *a*, down to the levers *i'*. By lifting the handle *i'''*, the plate *i* is lifted, and the clamps *h* are brought up to a horizontal position as shown in fig. 2. There is another lever, *k*, below the table, with a fulcrum at *k'*, which serves to move the centre-bar *c* up, thereby forcing the bars *e* out and bringing them into a vertical position, as shown in fig. 2. In order to block a hat the centre rod *c* is brought down, and also the plate *i*. The parts will then have the position as shown in fig. 1; the clamps are then to be opened, and the hat-body, shown in red lines, is placed over the expansible frame work, consisting of the bars *d* and *e*, and its edge, or that part which is intended to form the brim, is inserted into the clamps *h*, which are then to be fastened by an elastic ring, *h''*, put around their upper jaws, for which purpose they are provided with a shoulder, *h'*. Then a cylindrical ring, *l*, is put over the hat-body, which serves to break the band or the corner between the upright part of the hat and the brim, and this ring is forced downward by a forked lever, *m*, whose fulcrum are at *m'*, attached to two uprights *n*, the ring having for this purpose two side projections, *l'*, at opposite points, upon which the two sides of the lever bear. In the meantime the clamps *h* are brought up to a horizontal position by means of raising the plate *i*, and at last the bars *e* are forced out by raising up the centre rod *c*. Now the machine is in the position shown in fig. 2, the hat is completed, and can be removed from the machine by opening the clamps and lifting the ring *l* off. In order to insure an equal stretching all around at the corner of the crown, the bars *e* may be provided at their upper extremities with shields, *p*, as shown in figs. 5, 6, which ought to form a segment of the circle of the crown. A modification of the means for closing and fastening the clamps to stretch the brim is shown in figs. 7, 8—fig. 7 being a front view, and fig. 8 an end view. It consists of a swivel, *q*, hinged at *r*, to the lower jaw of the clamp, and is forced over the upper jaw in order to fasten the felt. In order to adapt the machine to all sizes and depths of hats, I propose to make some or all of the bars *d e*, and arms *f* and *g*, adjustable in length.

Having now fully described my invention, what I claim therein as new, and desire to secure by Letters Patent, is—

The combination of the expansible bars *e*, ring *l*, and clamps *h*, constructed substantially as and for the purpose specified.

JOSEPH DE LA MAR.

Witnesses:

JNO. D. MACGREGOR,  
ALBERT H. HOOK.