

(No Model.)

M. QUINN.

MACHINE FOR BLOCKING AND PRESSING HATS.

No. 473,641.

Patented Apr. 26, 1892.

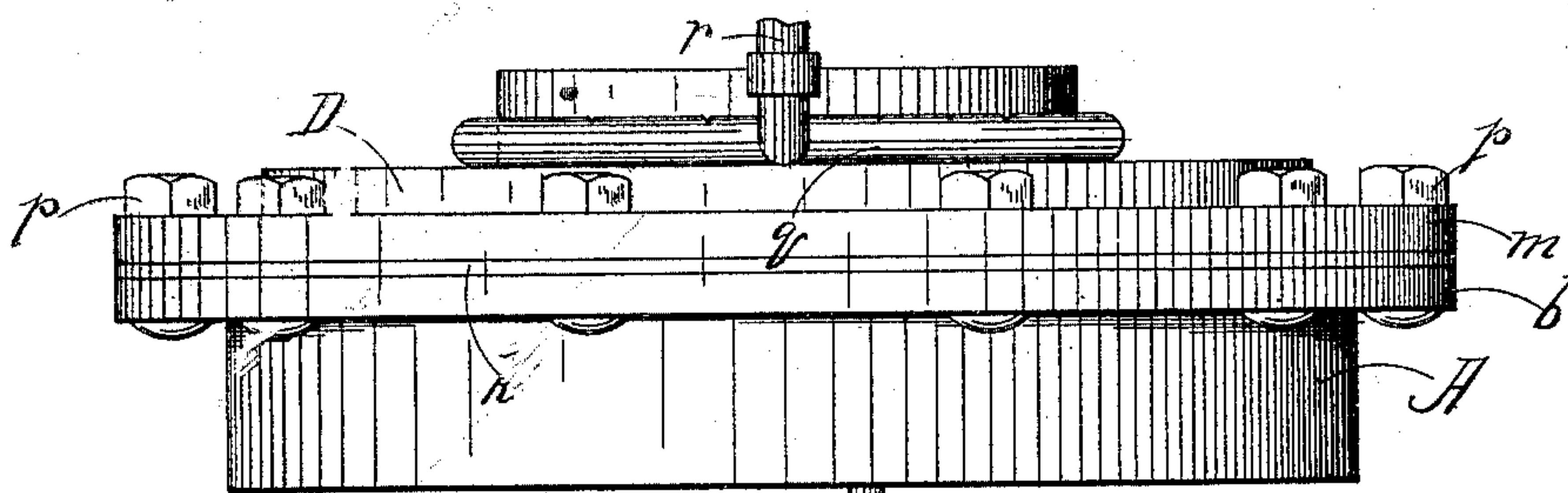


Fig. 1.

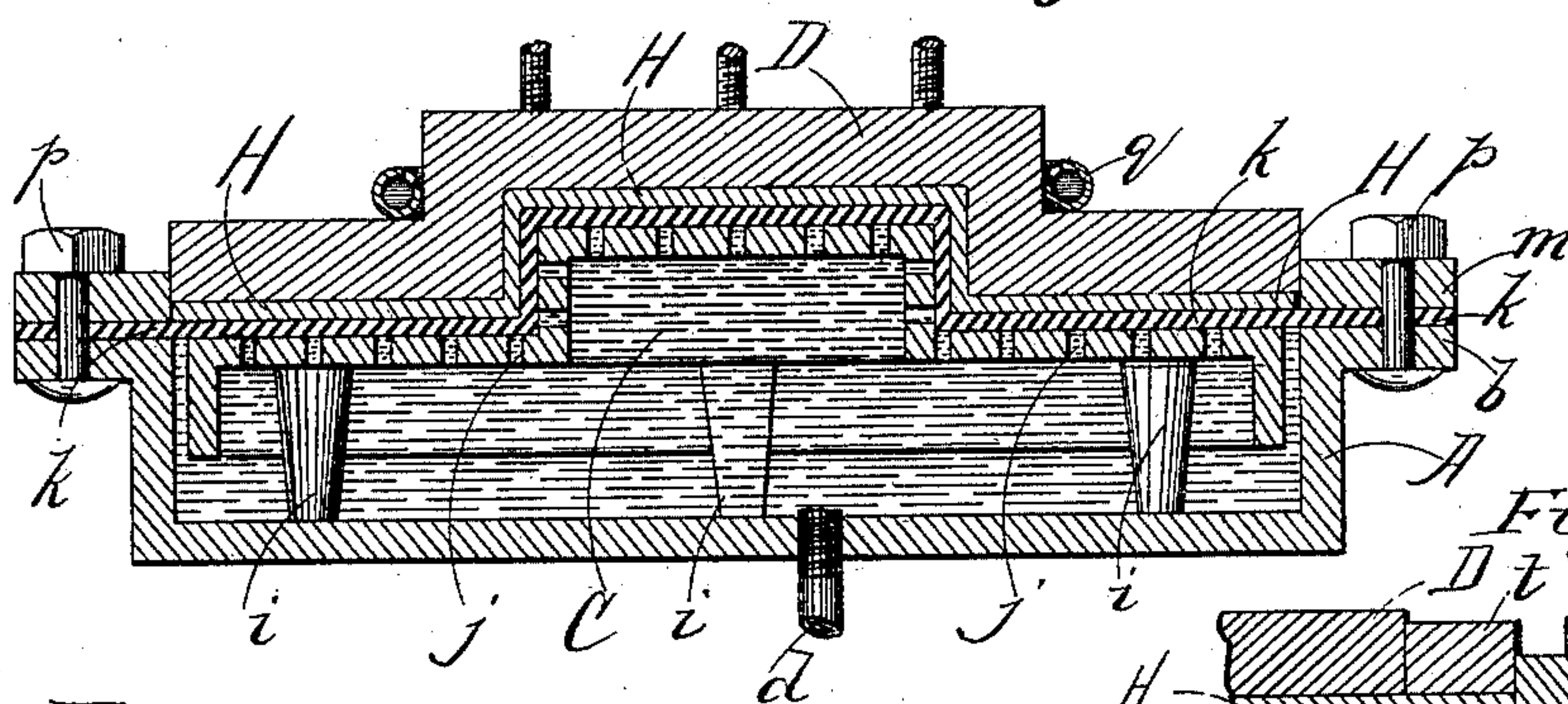
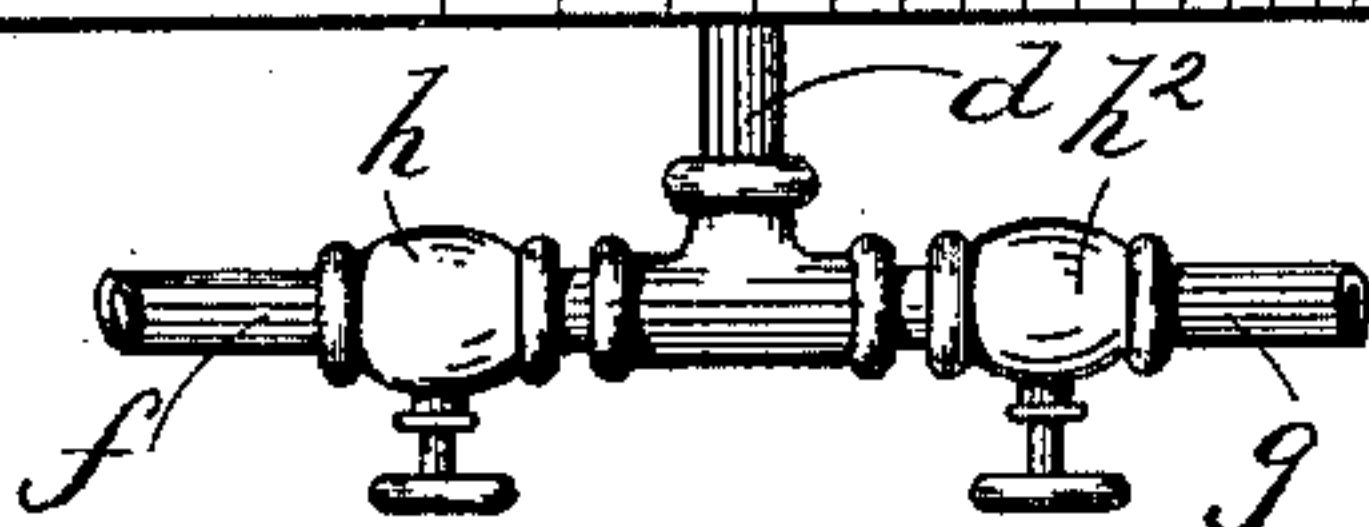


Fig. 2.

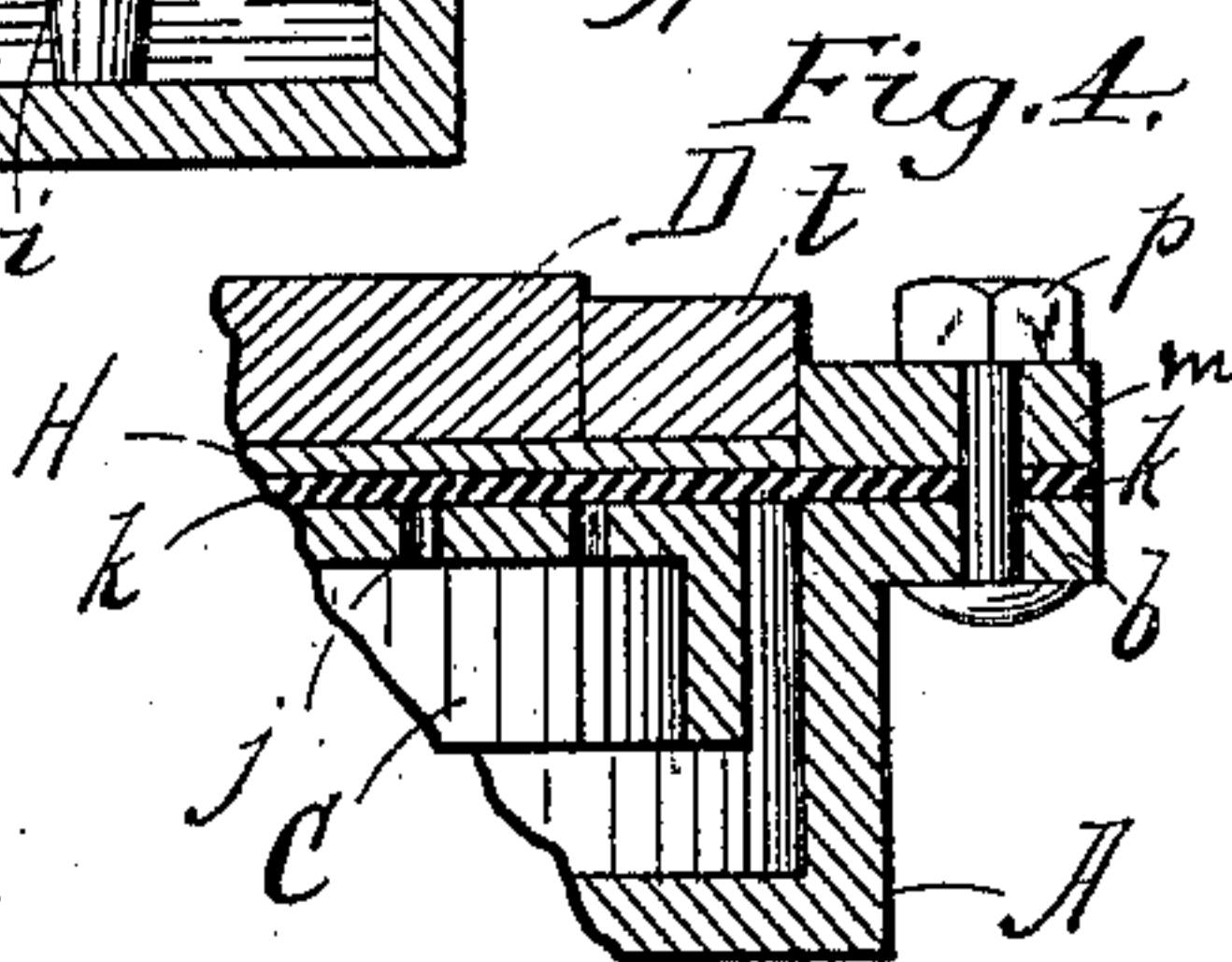


Fig. 4.

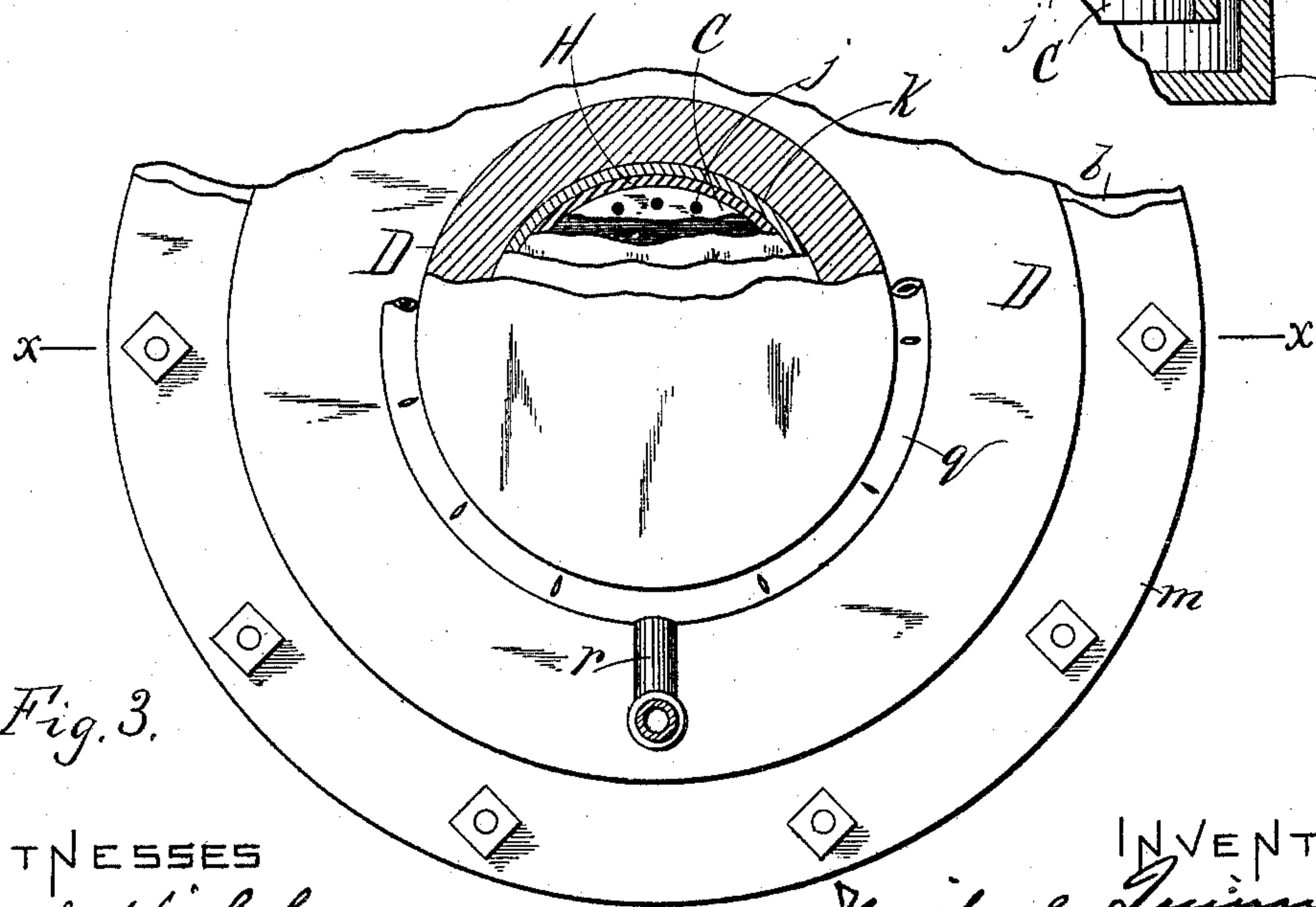


Fig. 3.

WITNESSES

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# UNITED STATES PATENT OFFICE.

MICHAEL QUINN, OF WESTBOROUGH, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO RICHARD S. COLTMAN, OF SAME PLACE.

## MACHINE FOR BLOCKING AND PRESSING HATS.

SPECIFICATION forming part of Letters Patent No. 473,641, dated April 26, 1892.

Application filed November 10, 1891. Serial No. 411,512. (No model.)

*To all whom it may concern:*

Be it known that I, MICHAEL QUINN, of Westborough, in the county of Worcester, State of Massachusetts, have invented certain new and useful Improvements in Machines for Blocking and Pressing Hats, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of my improved machine; Fig. 2, a vertical transverse section of the same; Fig. 3, a top plan view partially broken away; and Fig. 4, a sectional view of a modification.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention relates especially to machines for simultaneously forming or blocking and pressing straw-hats; and it consists in certain novel features hereinafter fully set forth and claimed, the object being to produce a simpler, cheaper, and more effective device of this character than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation:

In the drawings, A represents a cylindrical tank, which is provided around its upper edge or mouth with an annular flange *b*. A pipe *d* taps through the bottom of said tank and connects with a supply-pipe *f* and a discharge *g*, suitable valves *h* *h*<sup>2</sup> being interposed in said supply and discharge, respectively, at opposite sides of the pipe *d*.

The block C (see Fig. 2) is of the ordinary form and is adapted to be disposed within the tank A, said block being supported therein by legs *i* on a plane flush with the flange of the tank. The face of the block is perforated at *j*. The upper face of the block is covered by a sheet of rubber *k* or similar elastic material, said sheet being secured by an

annulus *m*, fastened by bolts *p* to the body-flange *b*. The interior diameter of the ring *m* is the same as that of the tank A. A die or press block D is shaped to fit tightly into the ring *m* over the block C. A steam-pipe *q* encircles the crown of said die and is connected by a pipe *r* with any suitable steam-supply, whereby the block D may be heated.

In operating the machine the hat H, prepared with sizing, is disposed on the block C above the elastic sheet *k*, against which it is formed by the die D. By opening the valve *h* water under high pressure is admitted to the tank A, and passing through the perforations *j* in the block forces the elastic sheet *k* against the hat material, shaping the same accurately into the die D. The valve *h* being closed and the valve *h*<sup>2</sup> opened, the pressure of the water is relieved from the elastic sheet, and heat being applied by the steam-pipe *q* the hat is readily dried into its proper shape. The sheet *k* prevents moisture from reaching the straw. By mounting the block C on legs, so that a large water area is afforded, the pressure is equalized on all parts of the hat. The die D, fitting tightly into the ring *m*, all lateral movement thereof incident to the compression of the elastic sheet is avoided. The hat when removed is entirely completed, excepting trimming and binding. The action of the apparatus, as described, at a single operation forms, blocks, and presses the hat, which ordinarily necessitates at least two distinct processes. Instead of having the die fit tightly into the ring *m*, said die may be of sufficient diameter to cover the hat-rims of ordinary width, and the tank and ring be of a diameter suitable to admit hats having wider rims. A heavy ring *t* may in this case be dropped between the edge of the die and the ring *m*, the weight of said ring *t* being sufficient to resist the water-pressure and form the outer edge of the hat-rim.

Having thus explained my invention, what I claim is—

In a hat blocking and pressing machine, the combination of a tank having an annular

flange, means for supplying and discharging  
water to and from said tank, a detachable  
perforated block supported on legs within  
said tank on a plane flush with the flange of  
5 said tank, a sheet of rubber covering said  
perforated block and annular flange of the  
tank, an annulus resting upon the outer por-

tion of said rubber covering and connected to  
the flange, and a die shutting within the an-  
nulus.

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Witnesses:

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