

No. 623,028.

Patented Apr. 11, 1899.

J. C. MULCAHY.  
HAT BLOCKING AND PRESSING MACHINE.

(Application filed June 22, 1898.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

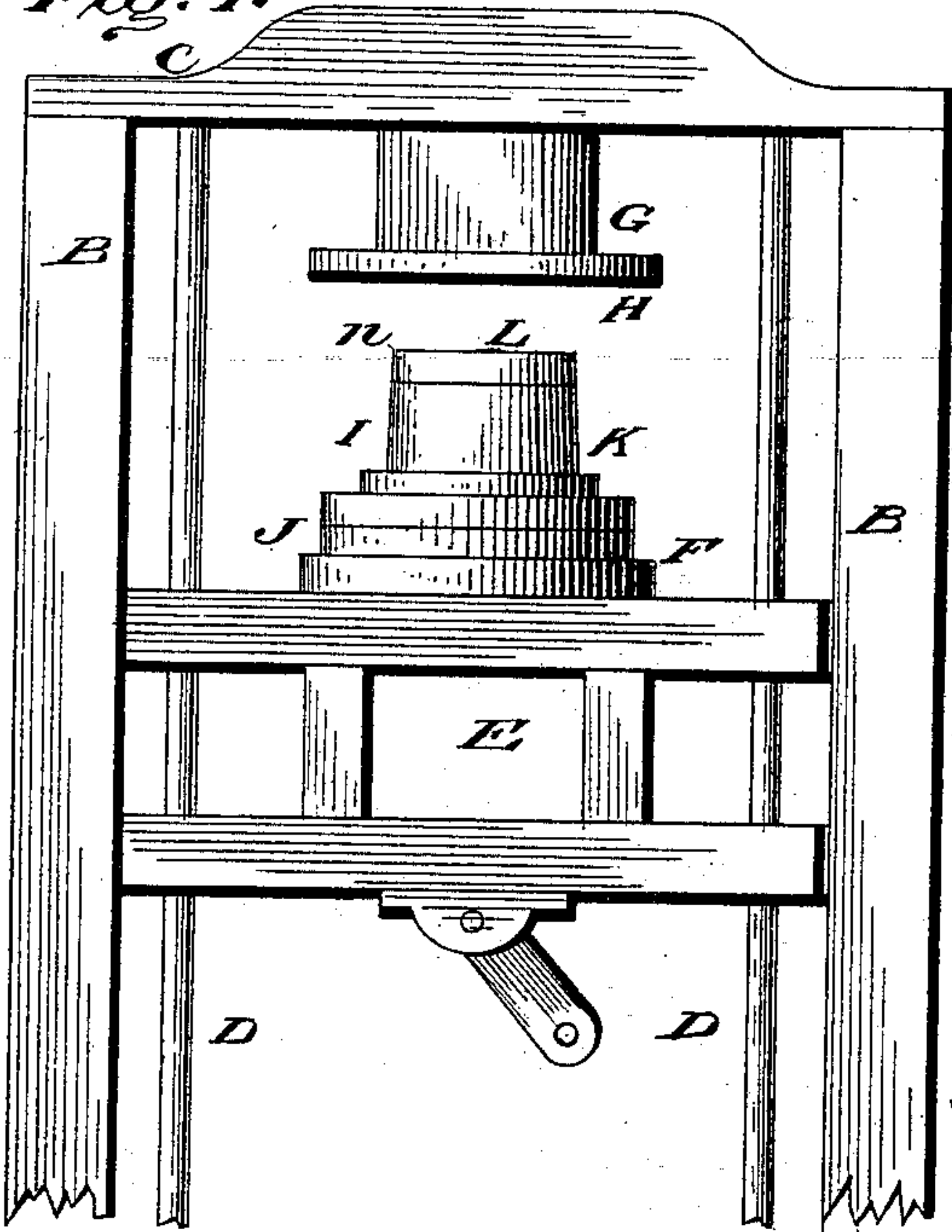


Fig. 2.

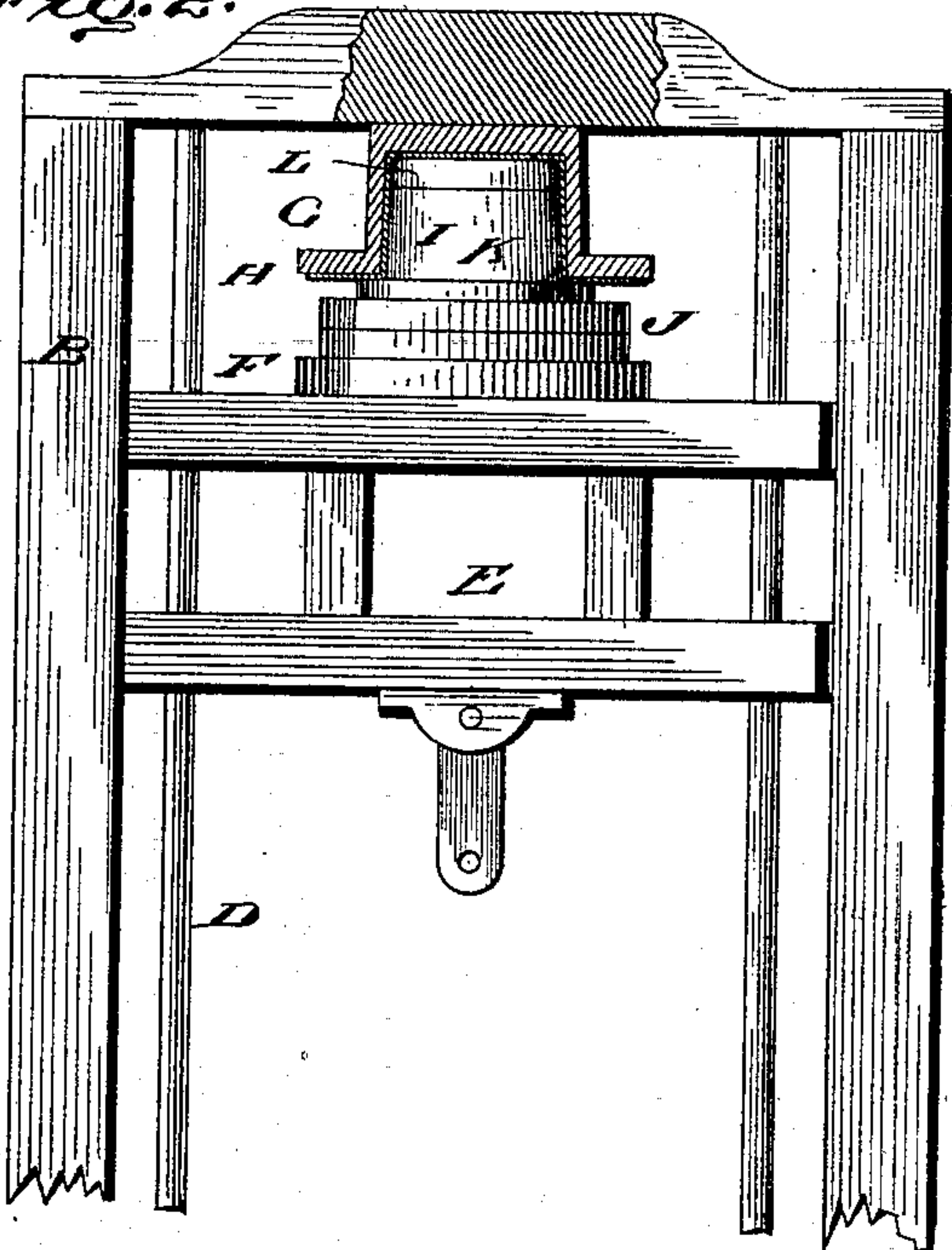


Fig. 3.

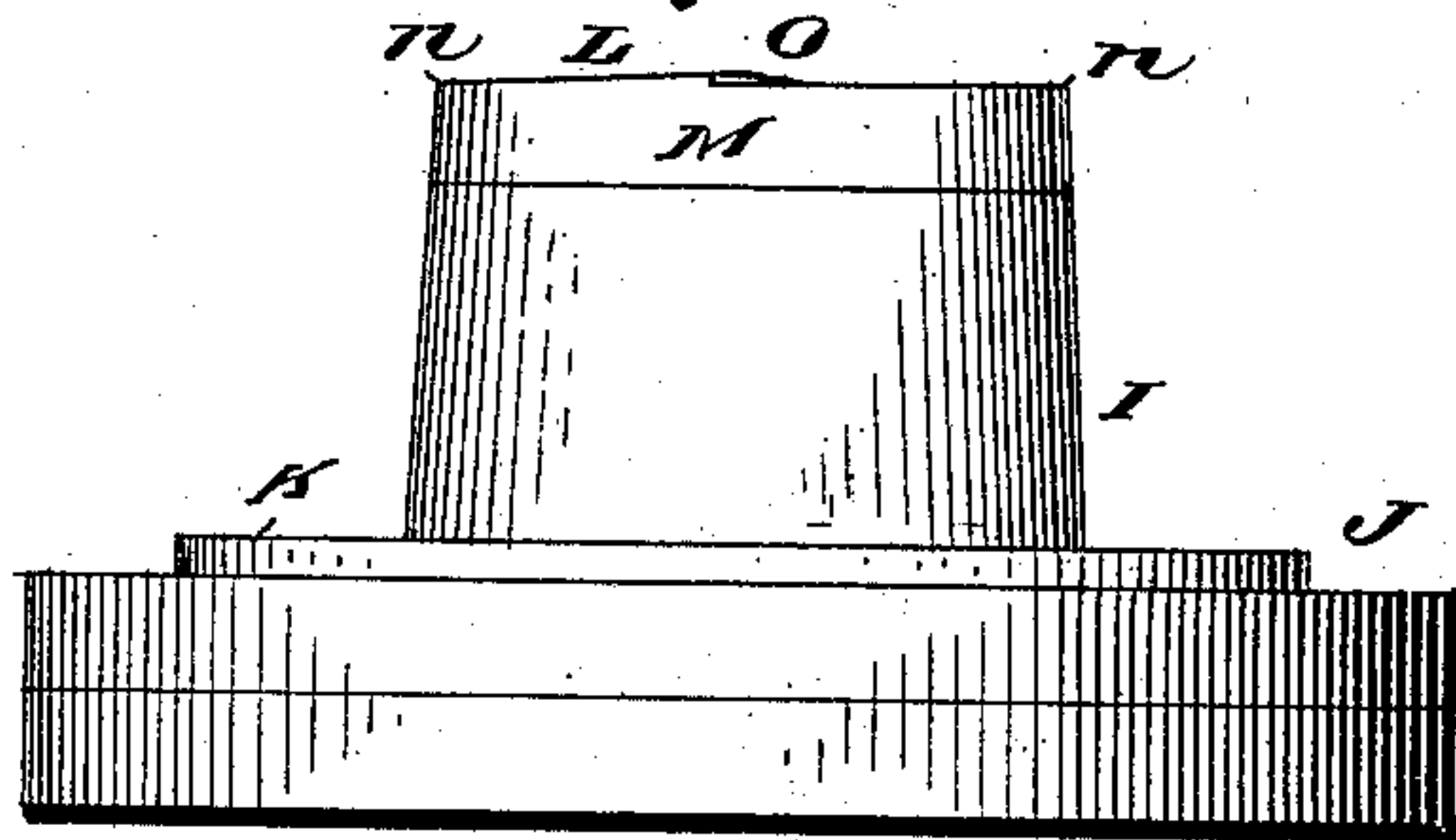
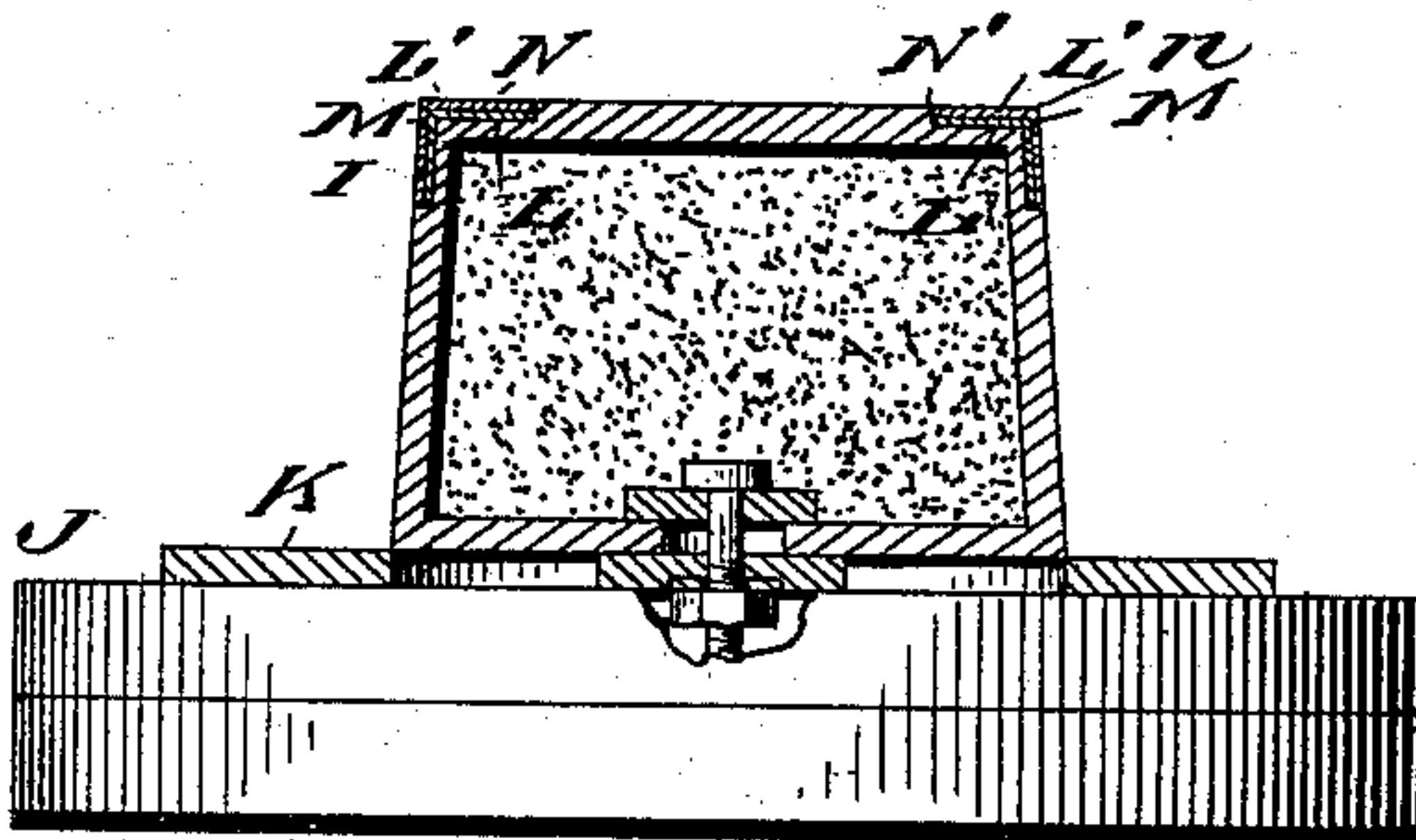


Fig. 4.



Witnesses

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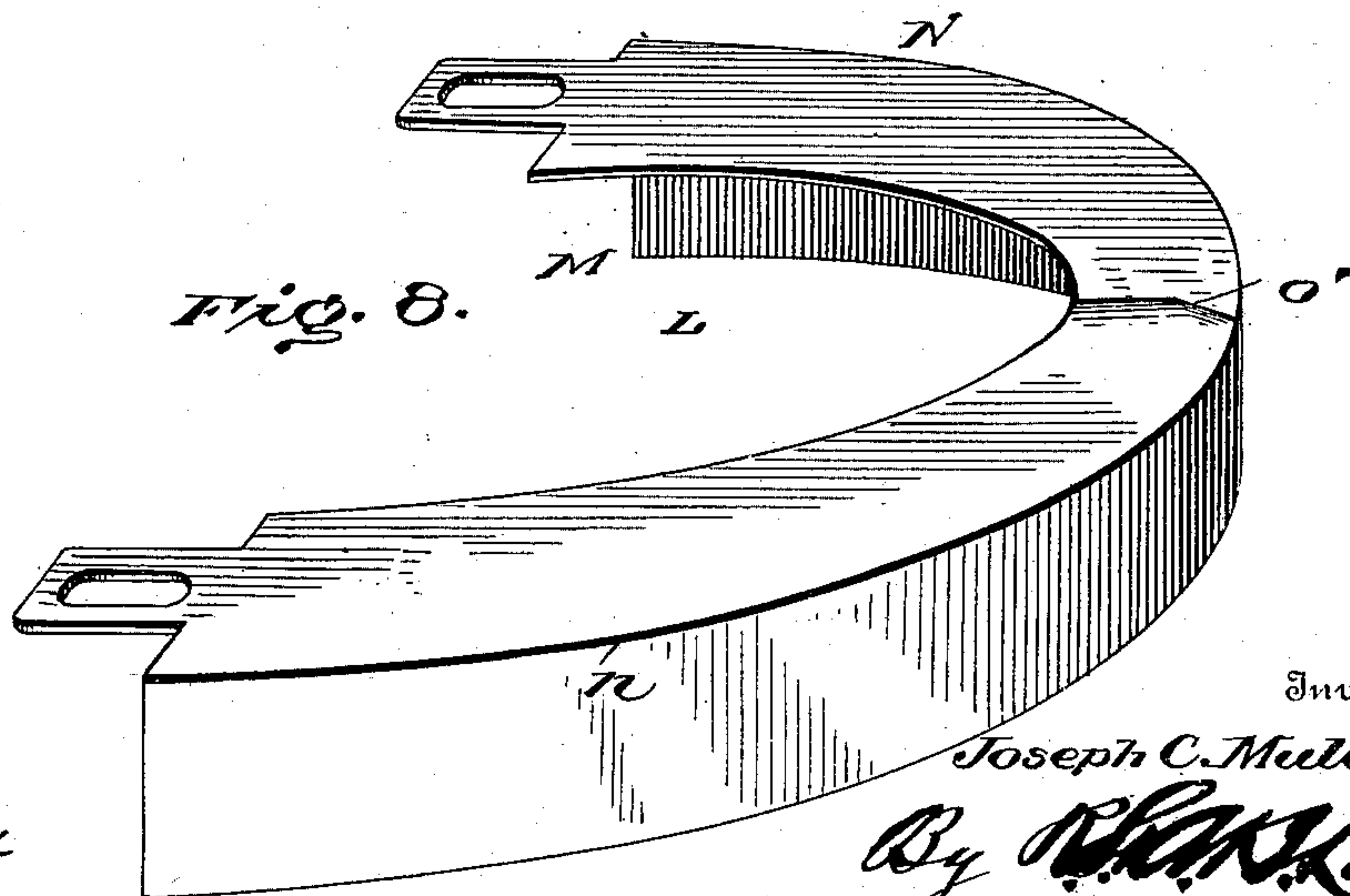
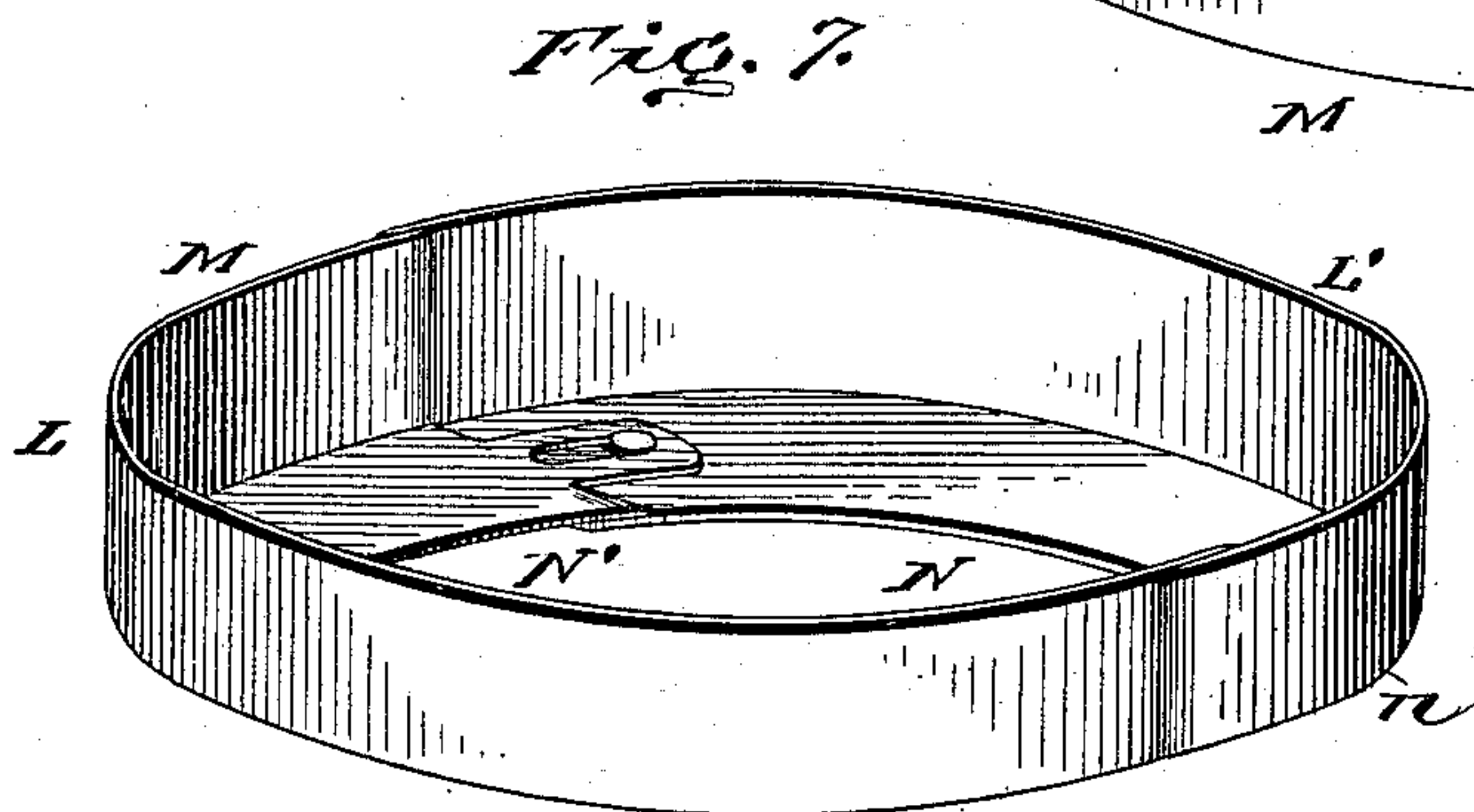
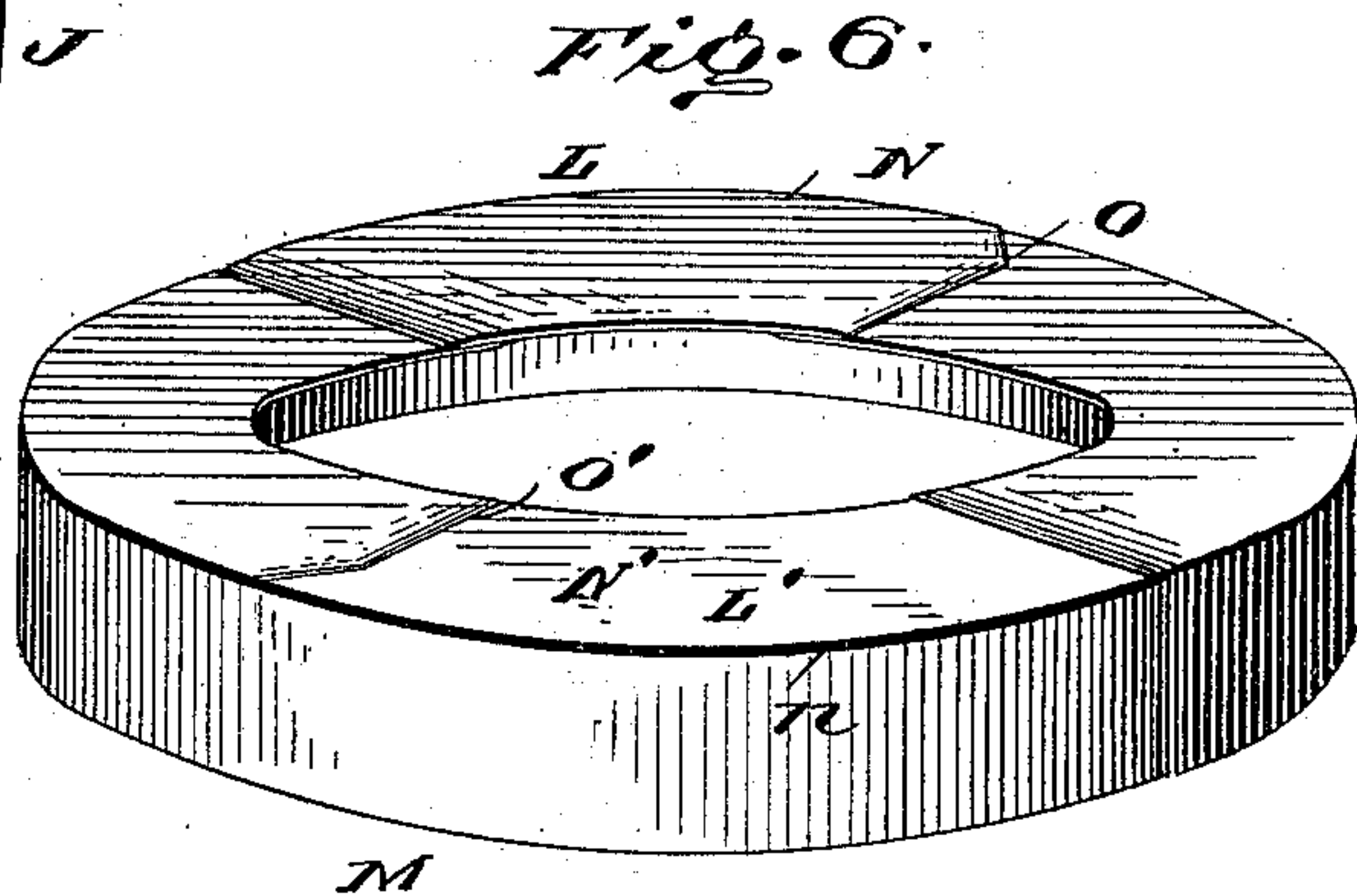
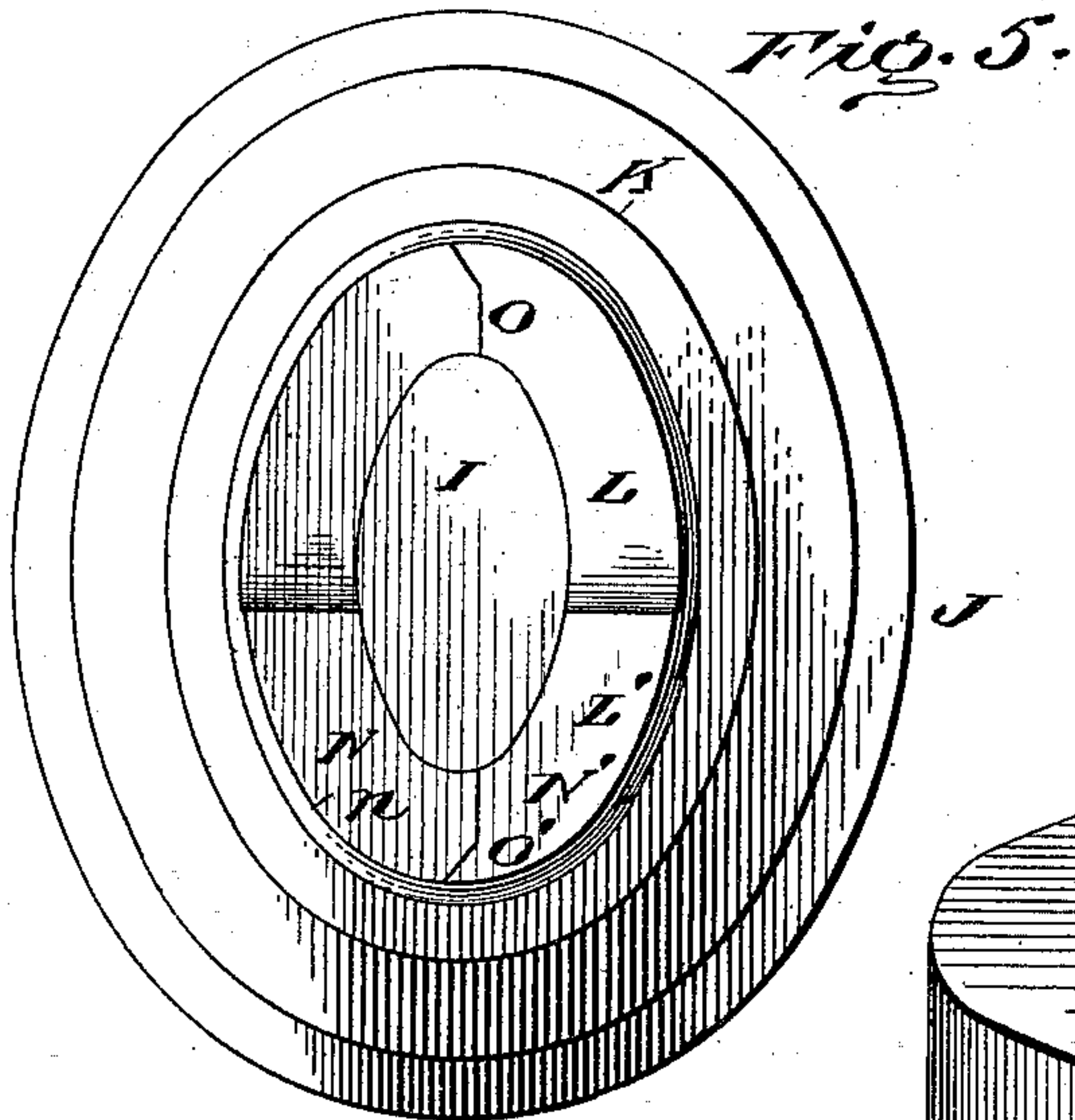
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Witnesses

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# UNITED STATES PATENT OFFICE.

JOSEPH C. MULCAHY, OF MATTEAWAN, NEW YORK.

## HAT BLOCKING AND PRESSING MACHINE.

SPECIFICATION forming part of Letters Patent No. 623,028, dated April 11, 1899.

Application filed June 22, 1898. Serial No. 684,163. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH C. MULCAHY, a citizen of the United States, residing at Matteawan, in the county of Dutchess and State of New York, have invented certain new and useful Improvements in Blocking and Pressing Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in stamping or pressing machines wherein goods are formed into the shape of a die or mold, generally for headwear, by using a flexible block or bag filled with a suitable elastic or semi-elastic material and forced into the die by lever or other pressure, so as to cause the goods to conform to the shape of the die.

The invention may be beneficially employed in making all goods in the manner stated, or pressed in such manner after being made, where sharp angles or corners are required, but is especially designed to overcome certain difficulties existing in the making of Manila and Java hats. At present the angles or corners at the juncture of the side walls of the crowns with the tips of these hats are formed by the flexible block or bag alone or by the use of pads made of a material resembling sole-leather stuck on the tip of the block. These methods are, however, objectionable and unsatisfactory, because in the former case the required pressure cannot be obtained after the block has been some time in use, and in the latter the material soon gets out of shape and has to be frequently replaced, even when the goods are of the same grade, owing to the fact that there are several grades of goods varying in thickness, and frequently the thickness of goods of the same grade varies. When the tip-pad is made large enough to form a good corner or angle, it is liable to force too much of the goods to the tip of the hat and form wrinkles, and it is also difficult to withdraw from the die, often becoming detached from the block and sometimes tearing or pulling it apart, all of which takes time to remedy and is a source of expense and annoyance.

The object of this invention is to provide

a simple and effective cap or angle-forming attachment for blocks of this character which is sufficiently rigid to form a sharp and nicely-finished angle and at the same time capable of yielding or contracting and expanding with the block to cause the goods to conform to the shape of the die; also, to provide an angle-forming cap which is strong and durable and capable of being used indefinitely and adapted to be readily and conveniently applied and removed from the block whenever desired.

To these ends the invention consists in certain novel features of construction, combination, and arrangement of parts which will be hereinafter more fully described, and particularly pointed out in the appended claim.

In the accompanying drawings I have shown my invention applied to the construction of block or head patented to D. E. Foley February 9, 1897, No. 576,567, without, however, intending to limit it in application thereto.

In the said drawings, Figure 1 is a front elevation of a hat blocking and pressing machine embodying my invention. Fig. 2 is a sectional view of the die, showing a hat forced therein by the block. Fig. 3 is a side elevation of the block and angle-forming cap or reinforce applied thereto. Fig. 4 is a central vertical section, and Fig. 5 a top plan view, thereof. Fig. 6 is an outer perspective view of the angle-forming cap detached; Fig. 7, an inner perspective view of same, and Fig. 8 is an enlarged detail view of one of the sections thereof.

Referring now more particularly to the drawings, wherein like letters of reference designate corresponding parts throughout the several views, A represents the main frame of a hat blocking and pressing machine in connection with which my invention is shown in the present instance employed, said frame comprising side standards B, a cross-bar C, connecting the same, and vertical guide-rods D. Between the standards and mounted to slide up and down on the rods is a reciprocating frame E, which carries a table F and is adapted to be raised and lowered in the usual manner by means of a lever or other suitable manually-operated or power-driven mechan-



ism. The ordinary heated die G is secured to the cross-bar C and is provided with a brim-flange H.

The head or block I is mounted on the bed 5 J, which is provided with an annular pressing-plate K, between which and the flange H of the die the brim portion of the hat is pressed. Said head or block comprises a casing of rubber or other yielding material 10 formed of the required shape and filled with a liquid, fluid, or yielding body of sand or other suitable material.

The angle or corner forming cap or reinforce consists of two parts or sections L and 15 L', each comprising in its construction an approximately semicircular side wall M, formed of spring metal, and a top wall composed of two or more sections N and N', secured thereto and forming therewith a sharp corner or angle 20 *n*. The said top wall sections may or may not be made of spring metal, and the meeting edges *o* and *o'* thereof are beveled and overlap so as to form a smooth nearly-flush joint of the same, or substantially the same, thick- 25 ness as the walls, which permits the section to expand and contract, the resiliency of the side wall serving to restore the parts to their normal positions. The said sections of the top wall are shown as cut away centrally to re- 30 duce weight and facilitate expansion and contraction; but this is not absolutely essential. The cap-sections thus constructed are applied to the block in the manner shown in Figs. 3 and 4, the top walls thereof resting upon the 35 tip of the block and the side walls encompassing the upper portion of the side wall of the crown of said block, so that the angle *n* formed thereby covers the corner-angle of the block. Said cap-sections may be glued or otherwise 40 permanently or temporarily secured to the block, but are slidably connected to each other by means of pins and loops or otherwise, so that they may move apart or elongate to conform to the shape of long and narrow hat- 45 crowns. These adjustments are indicated in broken lines in Figs. 6, 7, and 8. The meeting ends of the side walls and top wall sections of the two parts of the device are also beveled off and overlap to form smooth joints. 50 It will thus be seen that the invention provides a substantial, rigid, or unyielding and well-defined corner or angle for the block, which may be used indefinitely without losing its shape and yielding tip and side walls 55 capable of expanding and contracting therewith when forced into the die.

In operation the hat to be shaped or pressed is placed on the head or block, and then the

frame E is elevated to carry the hat and said block into the die and apply sufficient pres- 60 sure thereto to effectually press the hat. The preliminary upward movement of the frame E moves the hat and block into the die G, and the final upward pressure applied on the 65 lower surface of the block causes the yielding filling therein to expand the surfaces of said block equally and firmly in all directions against the interior of the hat and press the same evenly against the entire inner walls of the die G. During this operation the cap 70 yields with the hat to compensate for variations in the thickness of material and to conform to the shape of the die, while the reinforced corner of the die forms a sharp angle at the juncture of the side wall of the crown 75 with the tip or top wall of the hat without straining or tearing the same and without causing the formation of wrinkles. The top and side walls of the cap also firmly press and finish the upper portion of the side wall and 80 tip of the crown, so that the corner-angle will be reinforced and rendered more durable.

From the above description, taken in connection with the accompanying drawings, the construction and operation of my invention 85 will be readily understood. Its advantages are, first, that it may be used indefinitely and effectually protects and prolongs the life of the blocks; second, it concentrates the pressure at the angle of the crown where it is 90 most needed and forms the angles on all hats pressed equally well, and, third, it effectually adjusts itself to all the different grades of goods of different thicknesses and takes up the slack therein, thus avoiding the forma- 95 tion of wrinkles. Many other advantages ensuing from its use will also be apparent to those skilled in the art.

Having thus fully described my invention, what I claim as new and useful, and desire to 100 secure by Letters Patent, is—

An angle-forming cap or reinforce for presser heads or blocks, consisting of two independent sections or members each comprising an approximately semicircular resilient 105 side wall adapted to contract and expand and a tip or top wall constructed of two or more sections to expand or contract with the side wall, the said sections or members being slidably connected, substantially as described. 110

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH C. MULCAHY.

Witnesses:

EDWARD ROGERS,  
DAVID L. CAREY.