

(No Model.)

C. C. WIDMER.
EXPANSIBLE HAT BLOCK.

No. 493,200.

Patented Mar. 7, 1893.

Fig. 1.

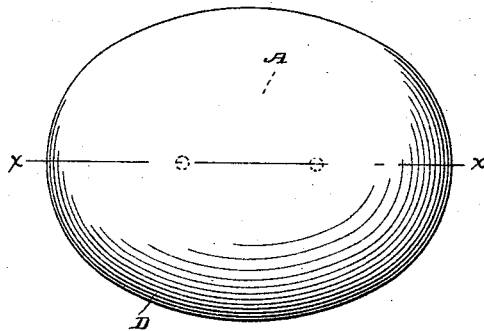


Fig. 2.

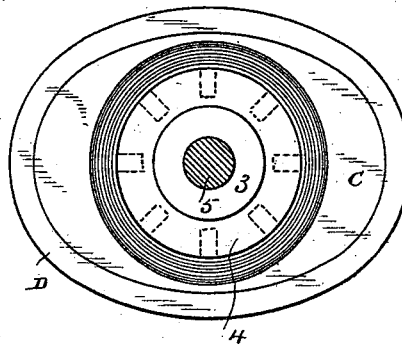


Fig. 3.

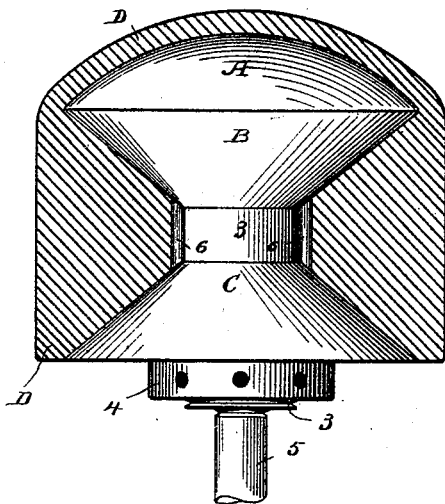
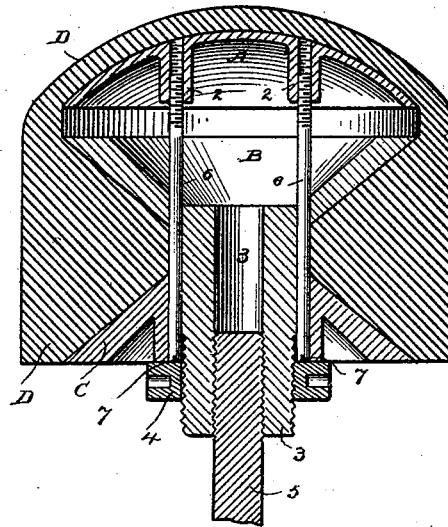


Fig. 4.



WITNESSES

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CHARLES C. WIDMER, OF DANBURY, CONNECTICUT, ASSIGNOR OF ONE-HALF
TO JOHN MCCANN, OF SAME PLACE.

EXPANSIBLE HAT-BLOCK.

SPECIFICATION forming part of Letters Patent No. 493,200, dated March 7, 1893.

Application filed August 3, 1892. Serial No. 442,008. (No model.)

To all whom it may concern:

Be it known that I, CHARLES C. WIDMER, a citizen of the United States, residing at Danbury, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Expansible Hat-Blocks; 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.

My invention has for its object to produce an expansible hat block which shall be adapted for general use in the manufacture of hats and especially adapted for use as a pouncing block, it being essential in the operation of pouncing that the block fit the crown of the hat closely, but very difficult indeed to make ordinary hat blocks fit the crowns closely after the several operations have been performed prior to the operation of pouncing. In order to overcome this difficulty and produce a block which shall be expansible so as to adapt it not only to the slight variations in different hats of the same size but also to adapt it to different sizes of hats so that one block or at the most two will be all that will be required for an entire set of hats, I have devised the novel block which I will now describe referring by numbers and letters to the accompanying drawings forming part of this specification in which

Figure 1 is a plan view. Fig. 2 an inverted plan view. Fig. 3 a section on the line $x-x$ in Fig. 1 showing the block in its normal condition, and Fig. 4 is a similar section showing the block in the expanded condition.

The frame of the block consists of three metallic parts which I designate respectively as A, B and C. Part A constitutes the crown piece of the block and is provided on its underside with threaded hubs 2. Part B consists of a plate, the upper edge of which is adapted to correspond with the underside of the crown piece. The underside of part B tapers downward and inward and at its lower end is provided with a hub 3 which is provided externally with a screw thread which is adapted to be engaged by a nut 4, and internally with a screw thread which is adapted to engage a lathe spindle 5. Part C consists of a plate

whose upper side tapers upward and inward from the outer edge to correspond with the downward taper of plate B. Said plate C is provided with a central opening through which hub 3 passes freely so that in use plate C may be moved upward by turning nut 4 upward on the hub.

6 denotes rods which pass freely through plates B and C and the upper ends of which are threaded to engage hubs 2 on the crown piece. The lower ends of these rods are provided with slots 7 to adapt them to be turned in or out by an ordinary screw driver. In use the lower ends of these rods are engaged by nut 4.

The body of the block consists of a single piece of rubber molded to have the external contour of an ordinary hat block and to correspond internally with the inclined surfaces of plates B and C and with the upper surface of the crown piece. This rubber body I have designated as D. When the block is in its normal condition as in Fig. 3 it passes readily into the crown of the hat. The operator then turns nut 4 on the hub which engages rods 6 and raises the crown piece and also raises plate C. The upward movement of the crown piece stretches the crown of the body upward into the crown of the hat and the upward movement of plate C compresses that portion of the solid rubber of the body which lies between the inclines of plates B and C and forces it outward as clearly shown in Fig. 4 so that the sides of the body are caused to fit the sides of the hat and distend it evenly and firmly ready for pouncing or any of the other operations in manufacturing a hat. The instant the operation upon the hat is finished the operator turns nut 4 backward sufficiently to loosen the body in the hat after which the hat is removed and another is placed over the block and the nut given a few turns forward to tighten it thereon.

I find in practice that I get ample expansion of the block to provide for several sizes of hats. It will of course be obvious that when nut 4 is turned backward on the hub the rubber of the body will expand instantly and will force plate C outward from plate B so that all the operator has to do to expand or contract the block is to turn nut 4 forward or

backward as may be required on the hub. Should the style of hat change and a higher crown be required rods 6 are turned in hubs 2 so as to raise the crown piece relatively to part B and the hub. I am thus enabled to get all the adjustment that is necessary to provide for the varying heights of the crowns of hats.

Having thus described my invention, I claim—

10 1. A hat block comprising a crown piece A, a plate B inclined downward and inward on its underside and having a hub, a plate C inclined upward and inward to correspond with plate B and adapted to slide freely over the
15 hub, a rubber body molded internally to correspond with the crown piece and plates B and C and externally to conform to the shape of a hat, and suitable means for raising plate C and the crown piece relatively to plate B so
20 as to expand the block within the hat.

2. A hat block consisting of a crown piece A having threaded hubs on its underside, a plate B whose underside tapers downward and inward and which is provided with a threaded
25 hub, a plate C whose upper side tapers inward and upward, rods 6 passing freely through plates B and C and threaded at their

upper ends to engage the hubs on the crown piece, a molded rubber body corresponding in outline to the shape of a hat and fitting
30 plates B and C and the crown piece, a nut 4 engaging the thread on the hub and adapted to move plate C with the rods and the crown piece upward, whereby the body is expanded causing it to fit the hat.

3. The combination with the crown piece
35 having threaded hubs 2, plate B having threaded hub 3, and plate C having an internal opening to permit it to slide over the hub, of rubber body D corresponding externally
40 with the shape of a hat and fitting plates B and C and the crown piece, rods 6 engaging hubs 2 by which the crown piece may be adjusted relatively to the plates, and a nut engaging hub 3 whereby plate C and the rods
45 and crown piece may be raised to expand the body within the hat.

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

CHARLES C. WIDMER.

Witnesses:

JOHN MORLOCK,
CHAS. H. P. WIDMER.