

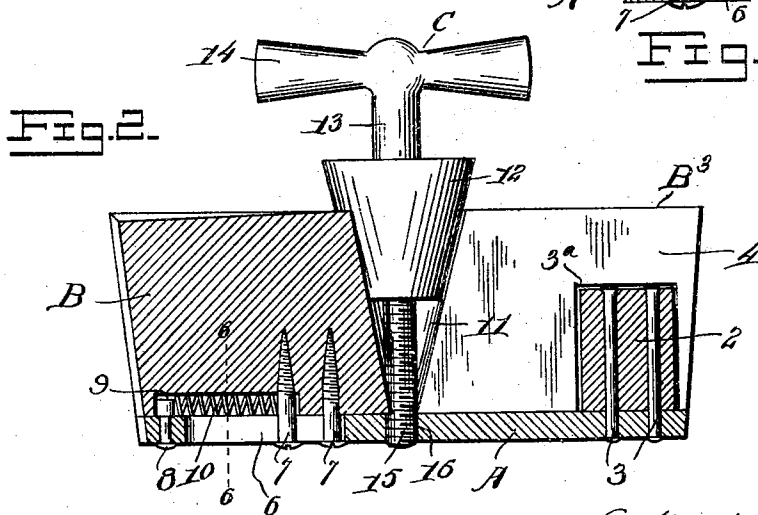
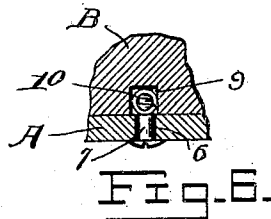
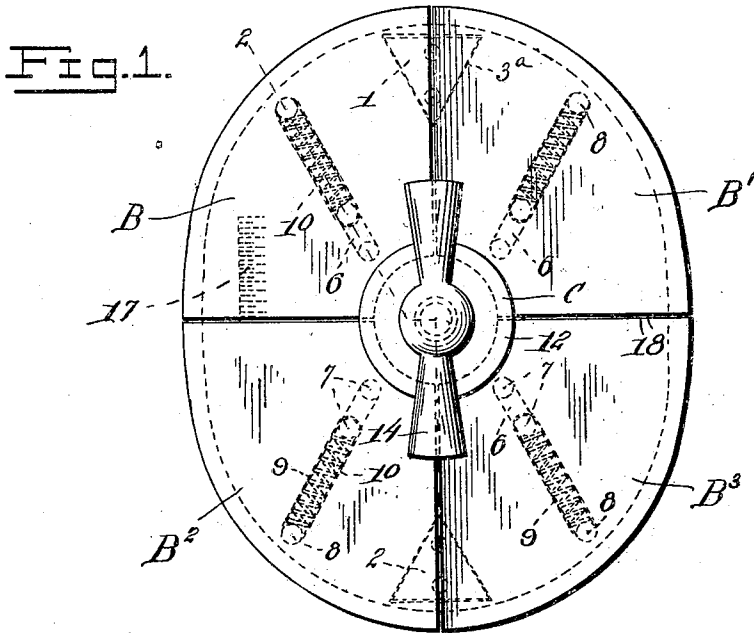
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PATENTED MAR. 6, 1906.

E. W. SHARBAUGH.  
HAT STRETCHER.

APPLICATION FILED JAN. 13, 1906.

2 SHEETS—SHEET 1.



Witnesses  
*L. Armstrong.*  
*J. B. Roman*

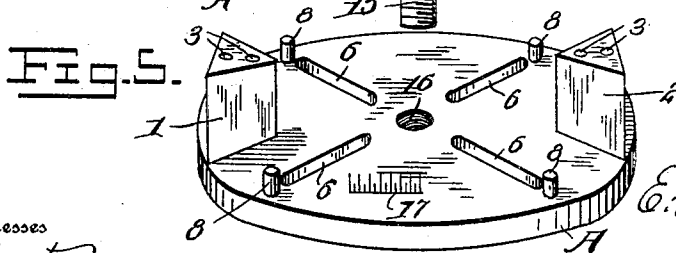
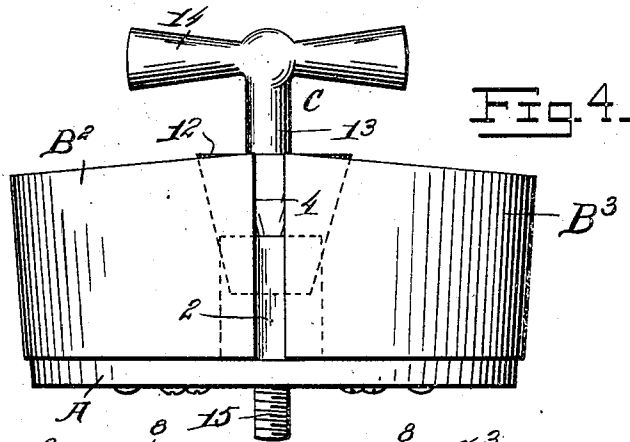
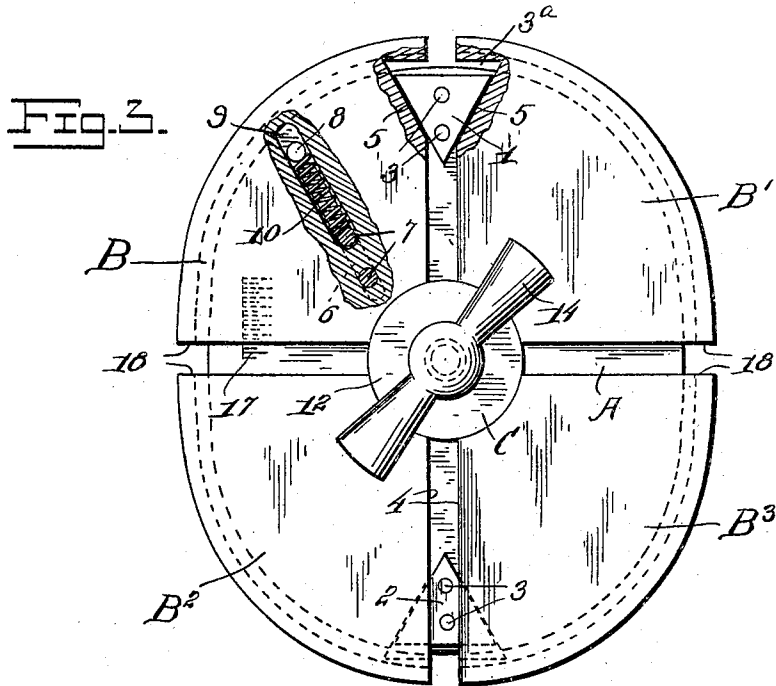
By

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2 SHEETS—SHEET 2.



Witnesses  
*L. Armstrong*  
*H. B. Roman*

Inventor  
*E. W. Sharbaugh*  
 By *Robert Watson*  
 Attorney

# UNITED STATES PATENT OFFICE.

EDWARD W. SHARBAUGH, OF EAST PITTSBURG, PENNSYLVANIA.

## HAT-STRETCHER.

No. 814,628.

Specification of Letters Patent.

Patented March 6, 1906.

Application filed January 13, 1905. Serial No. 240,887.

*To all whom it may concern:*

Be it known that I, EDWARD W. SHARBAUGH, a citizen of the United States, residing at East Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Hat-Stretchers, of which the following is a specification.

My invention comprises improvements in hat-stretchers, the details and operation of which will be plain from the following description, taken in connection with the accompanying drawings, in which—

Figure 1 is a top plan view of the hat-stretcher with the blocks in their closed positions. Fig. 2 is a section on the line 2 2 of Fig. 1. Fig. 3 is a top plan view of the stretcher, partly in horizontal section, showing the segmental blocks forced apart. Fig. 4 is an end view of Fig. 3. Fig. 5 is a perspective view of the base-plate and the parts which are permanently fixed thereto, and Fig. 6 is a detail sectional view on the line 6 6 of Fig. 2.

Referring to the drawings, A indicates the elliptical base-plate, preferably of metal and having at its ends a pair of diametrically opposite wedge-pieces 1 and 2, the apices of which point inwardly toward the center of the base-piece. These wedge-pieces, as most clearly shown in Fig. 2, are secured to the base by pins 3, which are riveted over at their ends. Upon the base are arranged four similar segmental hard-wood blocks B B' B<sup>2</sup> B<sup>3</sup>.

As shown in Figs. 2 and 3, notches 3<sup>a</sup> are cut in the outer ends of the faces 4 of the blocks which extend longitudinally of the stretcher in order that the blocks may fit over the wedge-pieces, and the walls 5 of these notches, which converge inwardly, from cam-surfaces which are adapted to abut against adjacent inclined faces of the wedge-pieces. Guide-slots 6 are arranged in the base parallel with the inclined faces of the wedge-pieces, and the blocks or quadrants are held in sliding engagement with the base by means of wood-screws 7, extending through the guide-slots 6 into the blocks. Each block is thus movable parallel with the adjacent face of one of the wedge-pieces, and each block is further guided in its movement by a stop-pin 8, riveted to the base and projecting into a slot or groove 9 in the base of the block.

These grooves, as shown in Fig. 6, are somewhat wider than the slots 6, and a compres-

sion-spring 10 is arranged in each groove between the stop-pin 8 and one of the wood-screws 7. The spring 10 abuts against said stop-pin and wood-screw and tends to force the block inward. The blocks are thus normally forced together by the springs, as shown in Fig. 1. The meeting corners of the four blocks are cut out, as indicated by the numeral 11 in Fig. 2, to form a conical opening in the center of the stretcher, and within this conical opening is arranged an expanding device C, consisting of a conical wedge 12, rigidly secured to a stem 13, having a handle 14 at its upper end and having a threaded shank 15 at its lower end, which extends into a threaded opening 16 in the center of the base.

From the foregoing description, the operation of the stretcher will be apparent. When the handle of the expanding device C is turned so as to force the cone 12 downward, the blocks will be forced outward against the inclined faces or cam-surfaces of the fixed wedge-pieces, being guided in their movements by the screws 7 and stop-pins 8 within the slots 6. The springs 10 are compressed when the blocks are forced outward, and when the expanding device is turned so as to raise the cone 12 the blocks will be moved inward by the springs until the opposing faces of the blocks meet.

In order to observe the extent of the expansion of the stretcher, a scale 17 is placed upon the base, the first or zero mark on the scale being in line with the meeting faces 18 of the blocks when the latter are in their closed position.

Having described my invention, what I claim is—

1. A hat-stretcher comprising a base having wedge-pieces arranged diametrically opposite one another, segmental blocks movably secured upon said base and having parts arranged to abut against the inclined faces of said wedge-pieces, means for forcing said blocks simultaneously outward against the wedge-pieces, and means for moving the blocks toward one another.

2. A hat-stretcher comprising a base having wedge-pieces arranged diametrically opposite one another, segmental blocks movably secured upon said base and having parts arranged to abut against the inclined faces of said wedge-pieces, springs arranged to move said blocks toward one another and means for forcing the blocks against the wedge-

pieces consisting of a conical wedge arranged at the center of the stretcher and adapted to engage the adjacent corners of the several blocks.

5 3. A hat-stretcher comprising a base-plate having fixed wedge-pieces arranged diametrically opposite one another, segmental blocks movably secured to said base and having parts arranged to abut against the wedge-  
10 pieces, means for guiding said blocks parallel with the inclined faces of said wedges, and means for forcing said blocks simultaneously apart.

15 4. A hat-stretcher comprising a base-plate having fixed wedge-pieces arranged diametrically opposite one another, segmental blocks movably secured to said base and having parts arranged to abut against the wedge-  
20 pieces, means for guiding said blocks parallel with the inclined faces of said wedges, means for forcing said blocks simultaneously apart and means for moving said blocks toward one another.

25 5. A hat-stretcher comprising a base-plate, having fixed wedge-pieces arranged diametrically opposite one another and having guide-slots parallel with the inclined faces of said wedge-pieces, segmental blocks movably secured to said base by guiding devices se-  
30 cured to the blocks and extending into said slots, means for forcing said blocks simultaneously apart and means for moving the blocks toward one another.

35 6. A hat-stretcher comprising a base, segmental blocks movably secured upon said base, adjacent blocks having cam surfaces or faces converging inwardly toward the diametral line of the base, parts secured to the base and arranged to abut against said in-

clined faces when the blocks are forced out- 40 wardly, and means, at the center of the stretcher, for forcing said blocks against said parts.

7. A hat-stretcher comprising a base-plate having fixed wedge-pieces arranged diamet- 45 rically opposite one another, guide-slots parallel with the inclined faces of said wedge-pieces and stops at the outer ends of said slots, segmental blocks upon said base hav-  
50 ing parts engaging said inclined faces and having grooves in their lower sides parallel with said slots, springs within said grooves, guiding devices secured to the blocks and extending through said slots, and means for forcing said blocks simultaneously apart. 55

8. A hat-stretcher comprising a base-plate having fixed wedge-pieces arranged diamet- rically opposite one another, guide-slots par-  
60 allel with the inclined faces of said wedge-pieces and stops at the outer ends of said slots, segmental blocks upon said base hav-  
65 ing parts engaging said inclined faces and having grooves in their lower sides parallel with said slots, springs within said grooves, guiding devices secured to the blocks and ex-  
70 tending through said slots, and means for forcing said blocks simultaneously apart comprising a stud engaging a threaded opening at the center of the base and having a suitable handle, and a conical wedge secured to said stud and engaging the adjacent corners of the blocks.

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

EDWARD W. SHARBAUGH.

Witnesses:

LEIGHTON C. TAYLOR,  
HIRAM A. TAYLOR.