

H. BIRNN.
Watch-Case Backs.

No. 154,636

Patented Sept. 1, 1874.

Fig: 1.

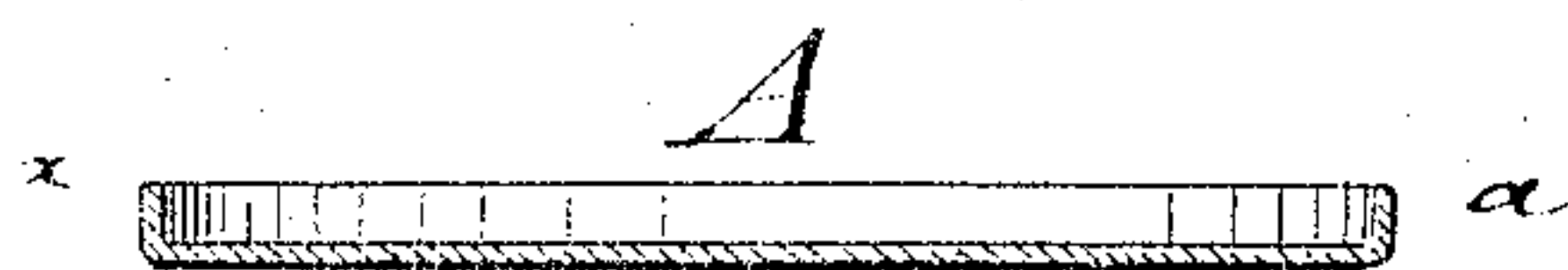


Fig: 2.

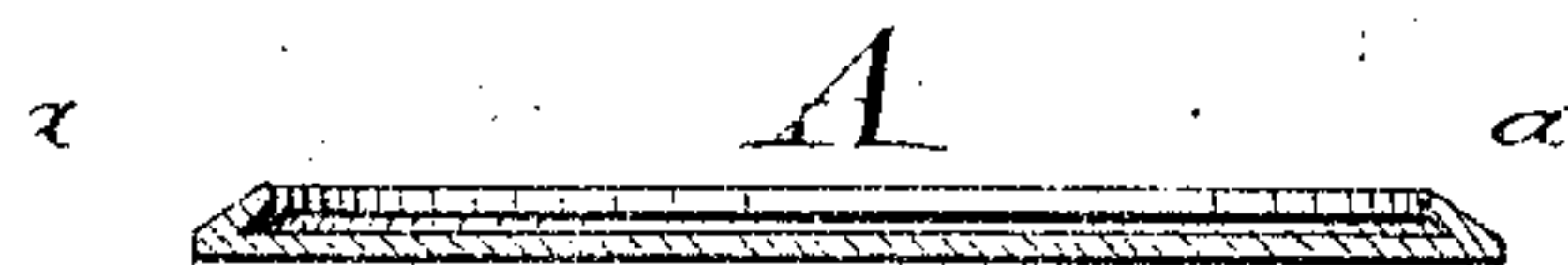


Fig: 3.

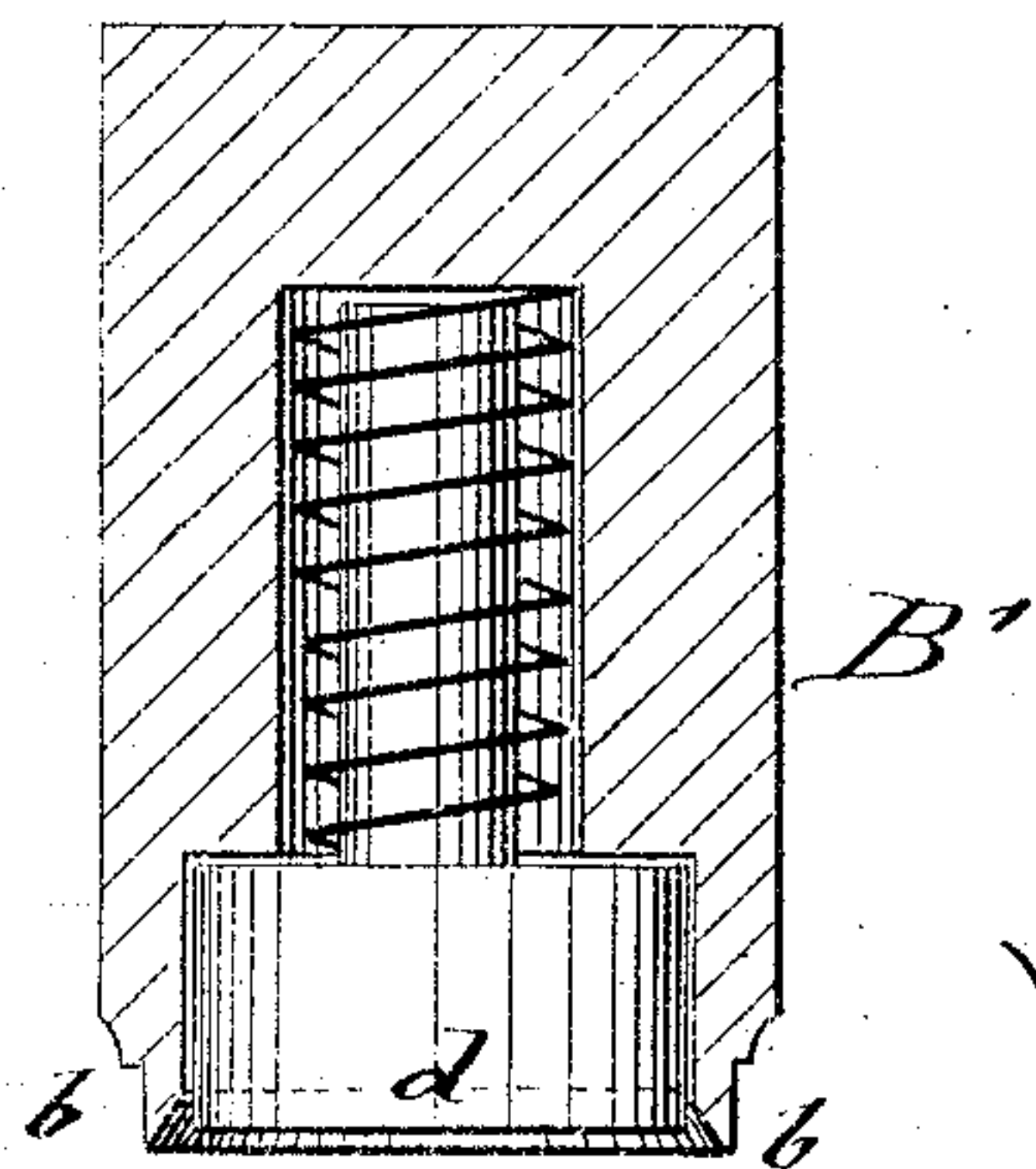
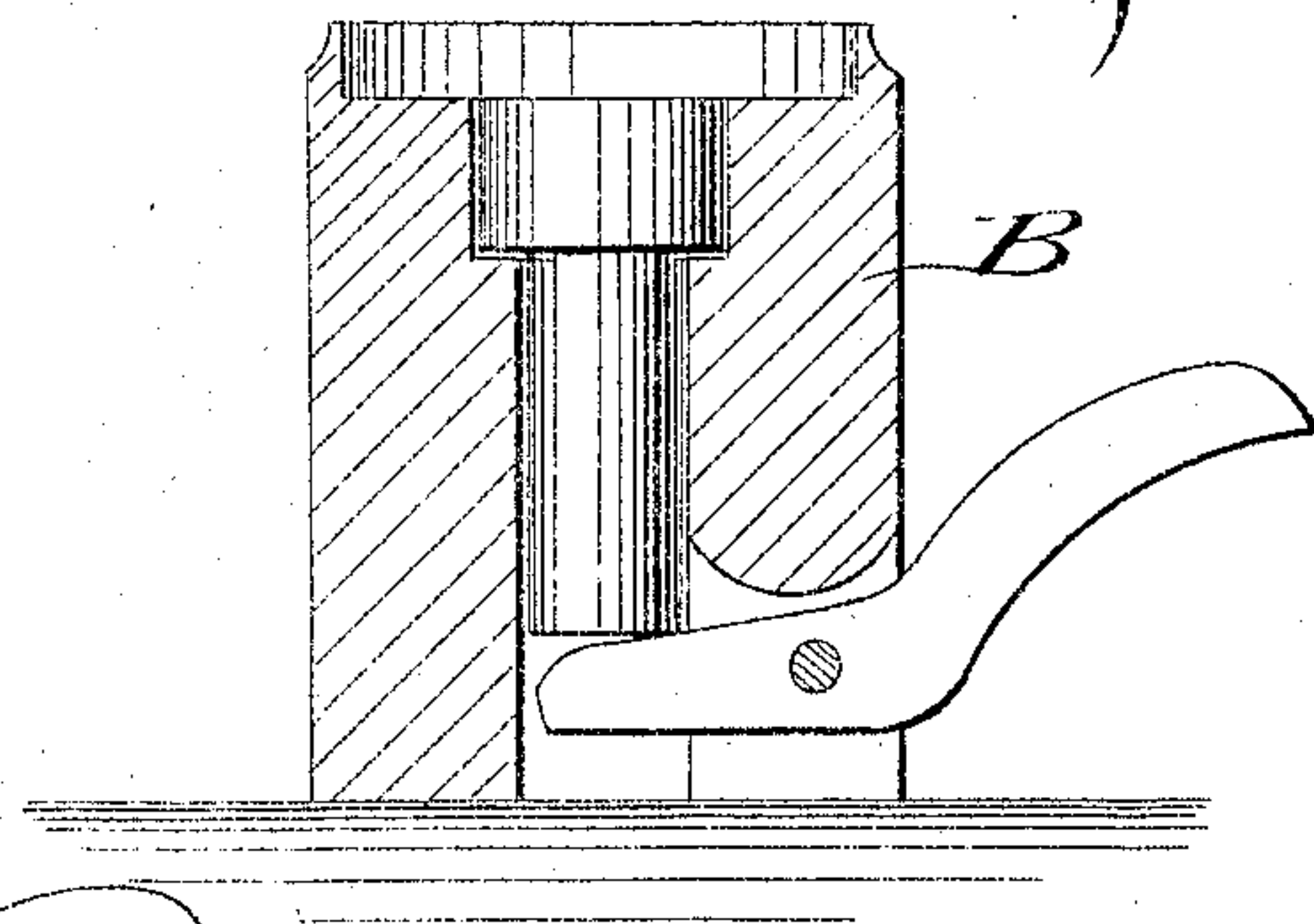


Fig: 4.



Witnesses:

Chas. Nida
Chiquier

Inventor:

H. Birnn
Per *Wm. L.*
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UNITED STATES PATENT OFFICE.

HENRY BIRNN, OF JERSEY CITY HEIGHTS, NEW JERSEY.

IMPROVEMENT IN WATCH-CASE BACKS.

Specification forming part of Letters Patent No. **154,636**, dated September 1, 1874; application filed February 14, 1874.

CASE C.

To all whom it may concern:

Be it known that I, HENRY BIRNN, of Jersey City Heights, in the county of Hudson and State of New Jersey, have invented a new and useful Improvement in the Manufacture of Watch-Case Caps and Backs, of which the following is a specification:

In the accompanying drawing, Figure 1, 2, and 3 represent vertical central sections of my improved watch-case caps or backs, showing them in different stages in passing through the dies; and Fig. 4 shows a vertical central section of the die and punch for producing the solid tapering snap of the caps and backs.

Similar letters of reference indicate corresponding parts.

The object of this invention is to so improve the manufacture of watch-case caps and backs that the same may be produced with greater rapidity and with increased strength at the outer circumference, without soldering the snaps to the same.

In the drawing, A represents the watch-case caps or backs, of the usual shape and size in common use. A blank of the size and thickness required is punched out of any sheet-metal commonly used for watch-cases, and first struck up with an outer flange, *a*, as shown in Fig. 1. The blank is then transferred into the die B, (shown in Fig. 4,) whose punch B' has a tapering rim, *b*, with a slightly-projecting central spring piston or bolt, which together form an angular recess with inclined side. The stroke of the punch on the flange

of the blank carries the same to the inside, under the same inclination as that of its rim, and produces thereby a solid snap of triangular shape, which increases in thickness toward the outer circumference of the cap or back, and strengthens the same at the point of greatest strain. The blank is detached from the die B by a slight stroke of the hammer on the pivoted lever, lifting the movable center bolt, and transferred to the common concave die for producing the convex shape of the back or cap, which throws also the snap-ring still more to the inside into its regular position, parallel to the body of the cap or back.

The greater strength of the caps and backs produced in this manner allows the easier application of the hinge and other devices connecting it to the watch-case center, while dispensing entirely with the soldering on of the snap and the defects connected therewith, and producing a vast saving of time and labor in their manufacture.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent—

The one-piece cap or back, having solid angular snap, increasing in thickness toward the outer circumference, and thus strengthening the same at the point of greatest strain.

HENRY BIRNN.

Witnesses:

GEORG P. KAISER,
ROBERT F. LAIRD.