W. B. MEHL.

END STONE CAP FOR WATCH MOVEMENTS.

APPLICATION FILED JUNE 10, 1909.

978,612. Patented Dec. 13, 1910.

Fig. 1.

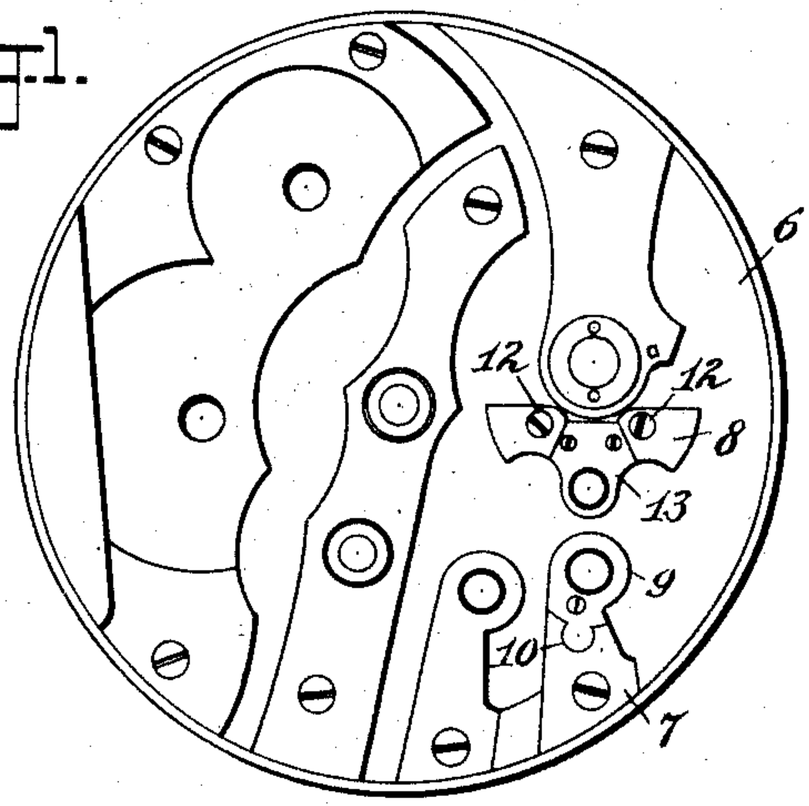


Fig. 2.

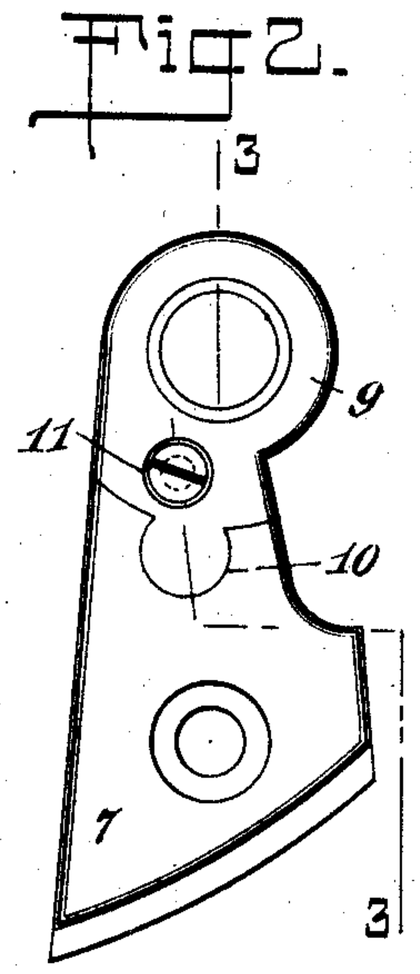
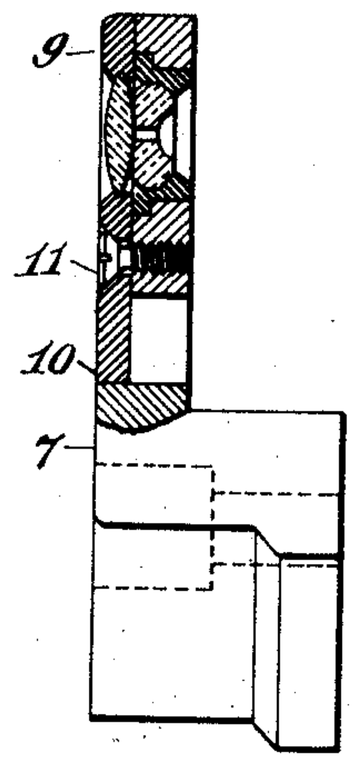


Fig. 3.



Witnesses:
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By his Attorney George Cook

UNITED STATES PATENT OFFICE.

WALTER B. MEHL, OF WALTHAM, MASSACHUSETTS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE KEYSTONE WATCH CASE COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

END-STONE CAP FOR WATCH-MOVEMENTS.

978,612. Specification of Letters Patent. **Patented Dec. 13, 1910.**

Application filed June 10, 1909. Serial No. 501,405.

To all whom it may concern:

Be it known that I, WALTER B. MEHL, a citizen of the United States, and a resident of Waltham, in the county of Middlesex and State of Massachusetts, have made and invented certain new and useful Improvements in End-Stone Caps for Watch-Movements, of which the following is a specification.

My invention relates to an improvement in watch movements, and more particularly to the construction and arrangement of means for retaining the escape end stone cap in its proper position. The retention of this member in a watch movement, has heretofore caused much trouble to the manufacturer and repairer, in that the part is so small that great difficulty has been experienced in properly securing it in place. The escape end stone cap, is but eighteen-one-thousandths of an inch in thickness, the single screw which has heretofore been used for retaining the cap in place, and to prevent the lateral movement of the same, being but twenty-one-thousandths of an inch in length, and containing approximately two hundred and fifty threads to the inch. It will therefore be understood that the slightest undue strain placed upon the screw in turning the same home, will strip the thread, thereby rendering it useless and in many instances necessitating the re-tapping of the threaded opening in the train bridge to which it is secured, and the use of a larger screw. Even when the parts are accurately made and fitted, this minute screw is insufficient to always hold the cap in place, as any slight lateral pressure on said cap, will necessarily disturb the relation between the several parts.

The object of my invention is to so construct and assemble the cap and train bridge that the danger of the shifting of the cap will be overcome, the strain on the screw being partially relieved and assumed by the bridge, the cap being held against lateral movement by means of a retaining lug and the screw, the cap at the same time being held down against the bridge by means of the screw alone.

With these and other ends in view, the invention further consists in certain novel features of construction and combinations of parts, as will be hereinafter fully described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of a part of a watch movement, showing my improved means for retaining the escape end stone cap in position. Fig. 2 is a detached plan view showing the method of retaining the end stone cap in position on the train bridge. Fig. 3 is a sectional view taken on the line 3—3 of Fig. 2.

Referring to the drawings, 6 represents the dial plate to which are secured the train bridge 7. As clearly illustrated in Figs. 2 and 3 of the drawing, the train bridge 7 is recessed or cut away at its inner end for the reception of the end stone cap 9, the latter having the outline, as clearly illustrated in Fig. 2, that is, is provided on one end with the retaining lug 10, adapted to fit in a corresponding recess in the bridge 7, this lug having the outline of the arc of a circle and greater than a semi-circle, the lug being fitted tightly and snugly in the recess formed to receive it in the train bridge, and materially assisting the screw hereinafter referred to, in preventing any lateral movement of the cap on the bridge. Through the cap 9 passes the retaining screw 11, threaded, as illustrated in Fig. 3 of the drawings, into the bridge 7, this screw holding the cap down in place on the bridge, and at the same time assisting the lug 10 to resist any lateral or sidewise movement of the cap on the bridge. It will be understood from the foregoing that by reason of this construction and arrangement of parts, the escape end stone cap is always accurately located on the train bridge, and that the lug 10 and screw 9 securely lock the cap in position and obviate all danger of the cap moving on the bridge. Furthermore, these means tend to prevent the danger of stripping the thread on the small retaining screw and in the bridge, and also to relieve the screw of a large part of the strain imposed upon it.

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

1. In a watch movement, the combination with a dial plate, of a train bridge secured to said dial plate, an escape end-stone cap provided with a lug having the outline of an arc of a circle, fitting in a correspondingly

shaped recess formed in said train bridge, and a screw passing through said escape end-stone cap and into said train bridge and outside of said arc shaped lug for holding said cap and bridge in their proper relative positions, substantially as described.

2. In a watch movement, the combination with a dial plate, of a train bridge secured thereto, an escape end-stone cap formed with a lug having the outline of the arc of a circle and greater than a semi-circle, fitting in a correspondingly shaped recess formed in the train bridge, and a screw passing through said cap and into said bridge and outside of said arc shaped lug for holding the parts in their proper relative positions, substantially as described.

Signed at Waltham, in the county of Middlesex, and State of Massachusetts, this 2nd day of June, A. D. 1909.

WALTER B. MEHL.

Witnesses:
E. R. SNOW,
W. C. COOK.