No. 833,881. PATENTED OCT. 23, 1906.

J. F. KING.

WATCH STEM.

APPLICATION FILED JUNE 29, 1905.

Fig. 1.

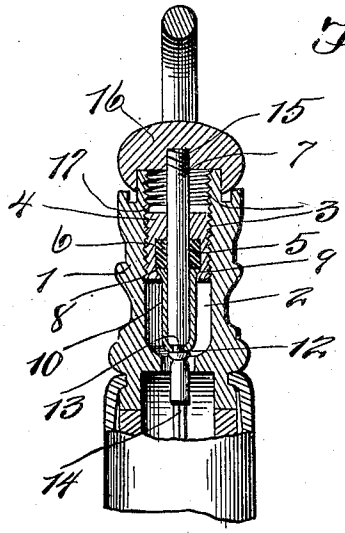


Fig. 2.

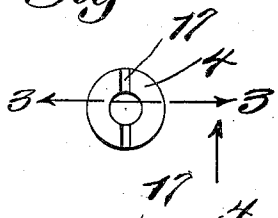


Fig. 3.

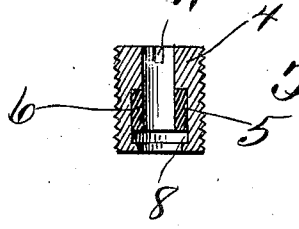


Fig. 4.

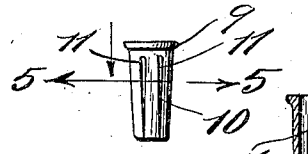


Fig. 6.

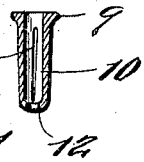
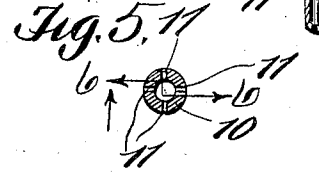


Fig. 5.



Witnesses

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WATCH-STEM.

No. 833,881. Specification of Letters Patent. Patented Oct. 23, 1906.

Application filed June 29, 1905. Serial No. 267,673.

To all whom it may concern:

Be it known that I, JOHN FIELDEN KING, a citizen of the United States, residing at Sheridan, in the county of Madison and State of Montana, have invented a new and useful Watch-Stem; 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 watches and particularly to a simple and efficient means to form a dust and water-proof bearing for the winding-spindle of watch-stems and at the same time to allow the crown-piece to be turned for the purpose of winding the watch.

Furthermore, the invention comprises a suitable spindle, a crown-piece screw-threaded thereon, and a suitable bushing to encircle said spindle, and being provided with an inner circumferential recess for the purpose of receiving a packing of gutta-percha or other suitable material, which is adapted to have frictional engagement with the circumference of the spindle and at the same time leaving a sufficient amount of space between the lower part of said gutta-percha packing and the flange at the lower portion of the inner circumferential recess for the purpose of receiving a suitable hub, which is split in four places at right angles to each other, as shown in Figs. 4 and 5 of the drawings. This hub is made of resilient metal, so that the spring-arms formed by splitting the hub will allow the projections at the end of said arms to spring into a circumferential recess of the spindle and at the same time to prevent the spindle from vertical play.

Furthermore, the invention comprises other and further objects and advantages, which will be hereinafter described and the novel features thereof defined by the appended claims.

My invention is illustrated in the accompanying drawings, which, with the figures of reference marked thereon, form a part of this application, and in which drawings—

Figure 1 is a cross-sectional view through the stem of a watch, showing my invention applied therein. Fig. 2 is a top plan view of the bushing, showing recesses opposite one another to receive a spanner. Fig. 3 is a sectional view on line 3 3 of Fig. 2. Fig. 4 is a detail side elevation of the split hub; Fig. 5, a sectional view on line 5 5 of Fig. 4, and Fig. 6 is a sectional view on line 6 6 of Fig. 5.

Reference now being had to the details of the drawings by figures, 1 designates the outer casing of the stem of a watch, which is provided with a suitable longitudinal bore 2, the upper portion of which is threaded, as at 3, to receive a suitable bushing 4. Said bushing is provided with an inner circumferential recess 5, which is adapted to receive a suitable gutta-percha or any other packing, which is adapted to frictionally engage the circumference of the winding-spindle 7, for the purpose of preventing foreign matter from entering the watch through the stem and adjacent to the winding-spindle. Just below the gutta-percha packing a sufficient amount of space 8 is left to receive a circumferential flange 9 of a hub 10, as clearly shown in Fig. 1 of the drawings, for the purpose of preventing said hub from having a vertical play. This hub is made of resilient metal and is split in four places, as at 11, as shown clearly in Figs. 4 and 5 of the drawings, for the purpose of forming spring-arms, the lower portions of which are provided with circumferential projecting portions 12, which are adapted to insert themselves into the circumferential recess 13 in the lower portion of the winding-spindle 7 when said hub is slipped over said spindle. The lower portion of the spindle, as at 14, is suitably connected to a mechanism forming the ordinary watchworks, which does not form any part of the present invention and which also is not shown. The upper part of the winding-spindle is screw-threaded, as at 15, to receive the ordinary crown-piece 16 for the purpose of rotating said spindle, which in turn winds the watch.

The upper face of the bushing is provided with recesses 17 to receive a spanner for the purpose of screwing said bushing within the bore of the watch-stem, as clearly shown in Figs. 1, 2, and 3 of the accompanying drawings.

From the foregoing description of the above-set-forth invention the detailed construction of the same is readily understood.

Of course it is distinctly understood that various changes can be made in the details of construction and combinations of parts other than those illustrated in the accom-

panying drawings, if desired, without in any way departing from the spirit and scope of the invention.

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

1. The combination with a bored and internally-threaded pendant, of a threaded bushing adapted to said threaded bore and provided with an inner circular recess, a winding-spindle extending through the bushing, a waterproof packing arranged in the recess and encircling the stem, and a spring-jawed spindle-engaging hub or sleeve disposed in the lower portion of the recess, and serving to hold the packing in place.

2. The herein-set-forth device substantially as shown and described and for the purpose set forth, the same comprising in combination with the outer casing of a stem of a watch, having a chambered portion therein, the upper portion of which is threaded, a bushing adapted to engage said threaded portion and having an inner circumferential recess, a gutta-percha packing mounted within said recess and adapted to frictionally engage the winding-spindle of the stem to prevent foreign matter from entering, a sufficient amount of space left below said gutta-percha packing to receive a circumferential flange of a bearing-hub, which is split in four places, forming resilient arms, inner circumferential projecting portions upon the lower portions of said arms, adapted to insert themselves within a circumferential recess in the winding-spindle to prevent vertical play of said spindle, substantially as described and for the purpose set forth.

In testimony whereof I have hereto affixed my signature in the presence of two witnesses.

JOHN FEILDEN KING.

Witnesses:

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