A. J. HARRISON.

Dust Cap for Watches.

No. 80,480. Patented July 28, 1868.

Fig. 1.

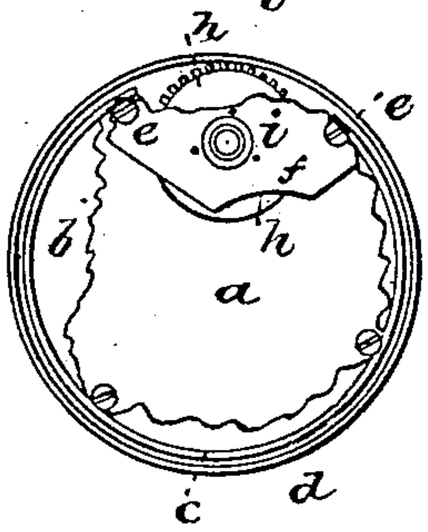


Fig. 2.

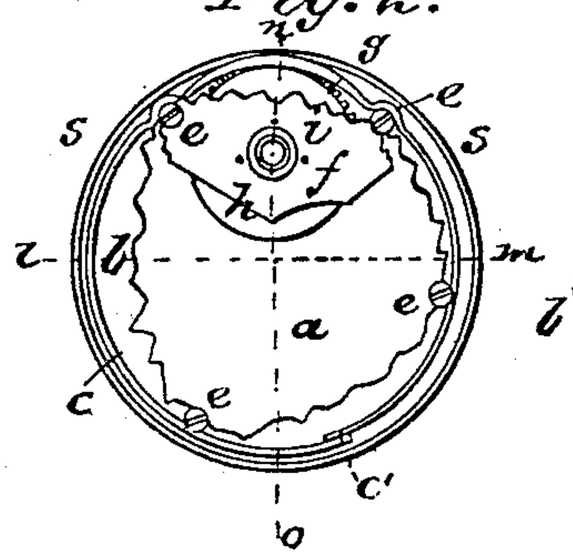


Fig. 3.

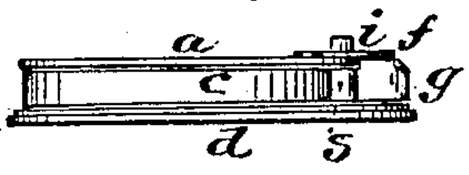


Fig. 4.

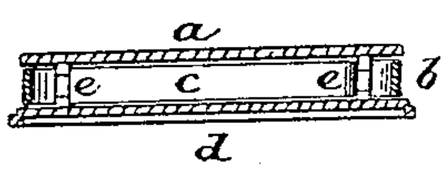


Fig. 5.

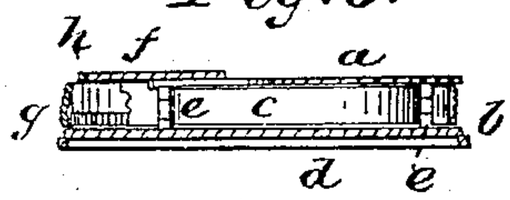
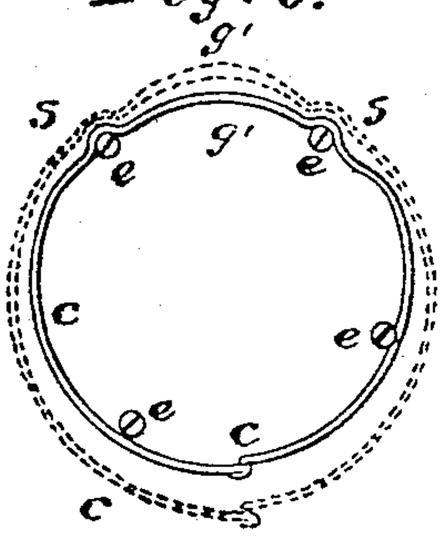


Fig. 6.



Witnesses:

Sylvanus D Locke.

J. Mc. May

Inventor:

Andrew J Harrison

United States Patent Office.

ANDREW J. HARRISON, OF ROCK COUNTY, WISCONSIN, ASSIGNOR TO HIMSELF, W. W. DEXTER, WILLIAM M. UNDERHILL, AND ALONZO K. CUTTS, AND SAID UNDERHILL ASSIGNOR TO SAMUEL C. BURNHAM, JR.

Letters Patent No. 80,480, *dated July* 28, 1868; *antedated January* 28, 1868.

IMPROVEMENT IN WATCHES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, ANDREW J. HARRISON, of Rock county, in the State of Wisconsin, have invented a new and useful Mode of Protecting the Movements or Mechanism of Watches from dust, and from foreign substances; and I do hereby declare the following to be a clear, full, and exact description thereof, reference being had to the accompanying drawing, and the letters of reference marked thereon, the same letters representing the same part in each figure.

The nature of my invention consists in providing a circular-band packing, to enclose the movement of a watch around its edge, between the upper and lower plates, and outside the posts, with an opening at one side, so that it may be easily sprung open and removed from between the plates, and as readily replaced, when it will spring in or contract between the plates against the posts, and close the space against dirt and dust, which might otherwise foul the works of the watch.

Figure 1 is a vertical view of the plates, bridge, and drum, with part of the upper plate broken away, showing a band that encircles the movement, except the drum or main wheel.

Figure 2 is a view similar to fig. 1, with the band-packing extending wholly around the movement.

Figure 3 is a view at right angles with figs. 1 and 2, showing the edge of the upper and lower plates, and the band-packing.

Figure 4 is a vertical section cut through the centre from *l* to *m*, in fig. 2.

Figure 5 is a sectional drawing similar to fig. 4, cut through the centre from *n* to *o*, in fig. 2.

Figure 6 is a view of the posts between the plates, with a band-packing that is elastic, the dotted lines showing the band opened by its yielding to force in putting it in place, or in removing it.

a is the upper plate, *b* is the lower one, *e e e e* are the posts between the plates, *f* is the bridge, *i* is the key-hole or tube, *h* is the drum, and *c* is the band-packing. This band may be made of any suitable material, though I prefer brass or spring-steel, that may be covered with felt or similar soft material, if desired. When in its place, it encircles the movement, except the drum, as in fig. 1, while in figs. 2, 3, 4, 5, and 6, the band is represented as extending wholly around the circumference of the movement of the watch. At *g*, in figs. 2, 3, 5, and 6, a portion of the band-packing is swaged and bevelled, so as to enclose the drum and cog-gear on its lower edge. Also at *s* the band is made to fit posts *e e*, to keep the band from moving in a circular direction. In fig. 6, the band-packing is represented as a spring pressing on the posts, the ends overlapping at *c'*, so as to wholly exclude dust and foreign substances from getting into the movement, and the dotted line shows it sprung apart, to remove or return it to its place, when its elasticity brings it in contact with the posts, and fits closely between the plates, thus covering the entire movement.

When the case is closed, it is intended to exclude the dust very perfectly, but the spring that holds the case closed, and the one that opens the case, necessarily have spaces, to allow them to work freely. When the case is opened, dust gradually settles on the inside of the case and on the crystal, and gradually works into the movement, the dust being confined inside the case when closed, so that, without any protection, the classes of watches to which my packing is applicable need cleaning much oftener than is necessary when my packing is used. A band may extend nearly around, as in fig. 1, or it may be made elastic, and overlap at its points, as at *c'*, in figs. 2 and 6, or it may be made rigid, and put to its place between the plates when the plates are put together; but I prefer making it elastic, so as to make it necessary to spring it apart, as shown by the dotted line in fig. 6, and allowing it to spring together on to the post, as is shown in the same figure, and also is shown in fig. 2.

I am aware that watches have long been made with a cap, to cover and surround the upper plate, and shut down against the lower plate, to exclude the dust and dirt from the works of the watch; I am also aware that a complete ring or band has long been in use, which is made to slip on around the upper plate, and down to the lower plate, to exclude the dust and dirt from the works of the watch.

What I claim as my invention and improvement in watches, is—

A band or hoop, cut open or divided at one side, so that it may be sprung open and applied around or partially around the works or mechanism of a watch, between the upper and lower plates, substantially as described, either with or without a covering of felt.

ANDREW J. HARRISON.

Witnesses:

J. M. MAY,

LEVI ALDEN.