

March 17, 1936.

A. BULOVA

2,034,651

WATCH

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Fig. 1.

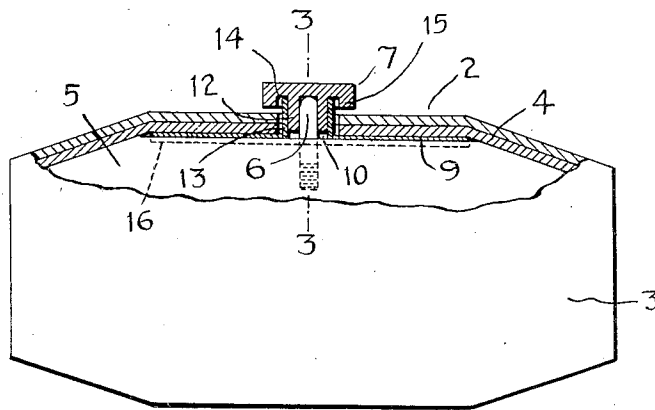


Fig. 2.

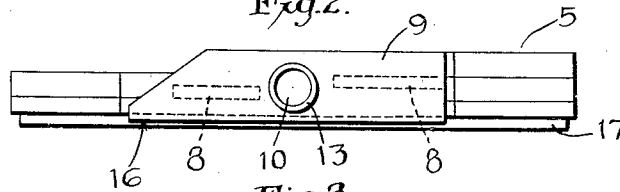


Fig. 3.

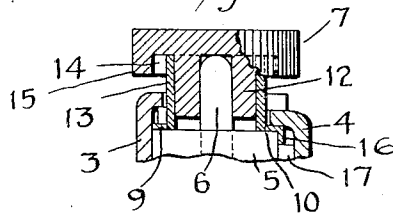


Fig. 4.

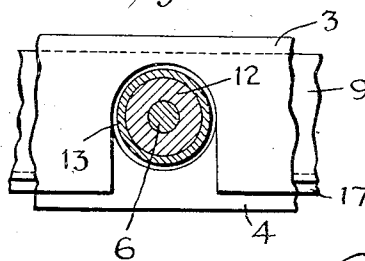
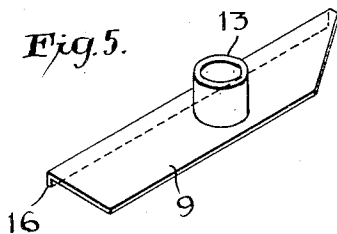


Fig. 5.



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UNITED STATES PATENT OFFICE

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WATCH

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Application August 15, 1935, Serial No. 36,271

4 Claims. (Cl. 58—90)

This invention relates to watches, and especial-
ly to small watches. In a small watch the cost of
the movement is materially greater as the size
is less, and it is a problem how to produce means
for excluding dust and weather without making
the watch larger or requiring a smaller move-
ment.

An object of this invention is to provide an
effectual dust-proofing device which does not call
for a smaller movement for a given size of watch
and does not appreciably or noticeably increase
the size of the watch as a whole.

Another object of the invention is to dust-proof
the face of the movement where it is not covered
by the dial plate.

Another and important object is so to con-
struct the dust-proofing element in relation to
the winding means that the entrance of foreign
material at this region is virtually precluded
while at the same time the delicate winding stem
is strongly braced. Breaking of the winding stem
has heretofore been a common occurrence.

In the accompanying drawing, forming a part
hereof:

Fig. 1 is a rear elevation of a baguette watch,
partly in section to illustrate the invention;

Fig. 2 is a plan view, or upper edge view, of the
movement and the shield of this invention;

Fig. 3 is a fragmentary cross-section, on a larg-
er scale, taken on the line 3—3 of Fig. 1;

Fig. 4 is a fragmentary top view of the watch,
including the case, shield and movement, with
the stem again in section, this view being on the
same scale as Fig. 3; and

Fig. 5 is a perspective view of the shield, en-
larged.

The specific construction of the watch-case 2
may be varied. For small watches a capsule type
of case consisting of a bottom part 3 and a front
or bezel part 4, tightly telescoping, is suitable.
The movement is marked 5, the winding and set-
ting stem 6 and the crown 7. In the upper edge
of the movement, at opposite sides of the stem,
certain customary slots 8 are indicated in broken
lines beneath the shield 9.

This shield is a thin strip of metal as wide as
the movement and long enough to cover the slots,
with a hole 10 more or less in the middle. This
strip is inserted between and tightly clasped by
the case and the upper edge of the movement.
The winding stem 6 extends through the middle
of this hole, and is fixed frictionally or other-
wise in the depending neck 12 of the crown 7.
This neck 12 is closely encircled or telescoped by
a tube 13, which is united to the dust-strip 9

about the edge of the hole 10. As a further pro-
tection, the tube 13 is caused to extend into an
annular recess 14 in the under side of the crown
7 between the neck 12 and a depending rim 15.
This relation of the parts makes it practically
impossible for dust or moisture to enter the watch
and so supports the winding stem that it is vir-
tually proof against shocks.

The firmness with which the tube 13 is support-
ed, and the strong bracing which it affords to the
winding stem, are due entirely to the union of
the tube with the thin strip 9, which is not itself
a rigid or massive element or secured in any way
except by being tightly and frictionally gripped
throughout its extent by and between the case
and the movement. This gives the tube an ex-
ceptionally firm foundation, so that the tube
stands rigid without any other support from the
case. At the same time the leaf or strip protects
the movement from dust seeking to enter around
the outside of the tube. The opening in the case
through which the tube projects is formed in the
usual manner by slots or notches in the two parts
of the case and naturally can not be expected to
make a tight fit with the outside of the tube so
as either to exclude dust at this region or to pro-
vide support for the tube. A further advantage
of the construction is that it is exceedingly com-
pact; that is to say, the presence of the dust strip
and the manner in which the tube is supported do
not require a larger case, or on the other hand a
smaller movement.

Another feature of the invention is a flange
16 on one edge of the dust-strip 9, the purpose of
this flange being to fit over the edge of the face
of the movement 5 and against the edge of the
dial plate 17. This flange closes off another ac-
cess against grit and moisture.

I claim:

1. In a watch comprising a case and a move-
ment with winding means, a dust-shield consist-
ing of a metal leaf inserted between and clasped
by the case and the upper edge of the movement
and having a hole for the winding means, and a
tube extending upward from said leaf at the re-
gion of the hole, said tube being firmly held sole-
ly by the leaf to which it is united and which is
clasped by and between the case and the move-
ment, and said tube closely surrounding a portion
of the winding means so as to increase the dust-
proofness and to protect the fragile part of the
winding means against breakage.

2. In a watch comprising a case and a move-
ment with winding stem, the combination of a
crown applied to said stem and provided with a

neck, a dust-strip inserted between and clasped by the case and the upper edge of the movement and having a hole about the winding stem, and a tube extending upwardly from said dust-strip at the region of the hole and telescoping with said neck, said tube being firmly held solely by the dust-strip to which it is united and which is clasped by and between the case and the movement.

3. In a watch comprising a case and a movement with winding stem, the combination of a crown applied to said stem and provided with a neck, and with an annular recess, a dust-strip inserted between and clasped by the case and the upper edge of the movement and having a hole

about the winding stem, and a tube extending upward from said dust-strip and telescoping with said neck and entering said recess, said tube being firmly held solely by the dust-strip to which it is united and which is clasped by and between the case and the movement.

4. In a watch comprising a case and a movement with winding means, a dust-strip inserted between the case and the upper edge of the movement and having an opening closely fitting the winding means, said dust-strip also having a flange closely overlapping one face of the movement.

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