

No. 680,067.

Patented Aug. 6, 1901.

E. C. PHILLIPS.
WATCHCASE PENDANT.

(Application filed Jan. 7, 1901.)

(No Model.)

Fig. 1.

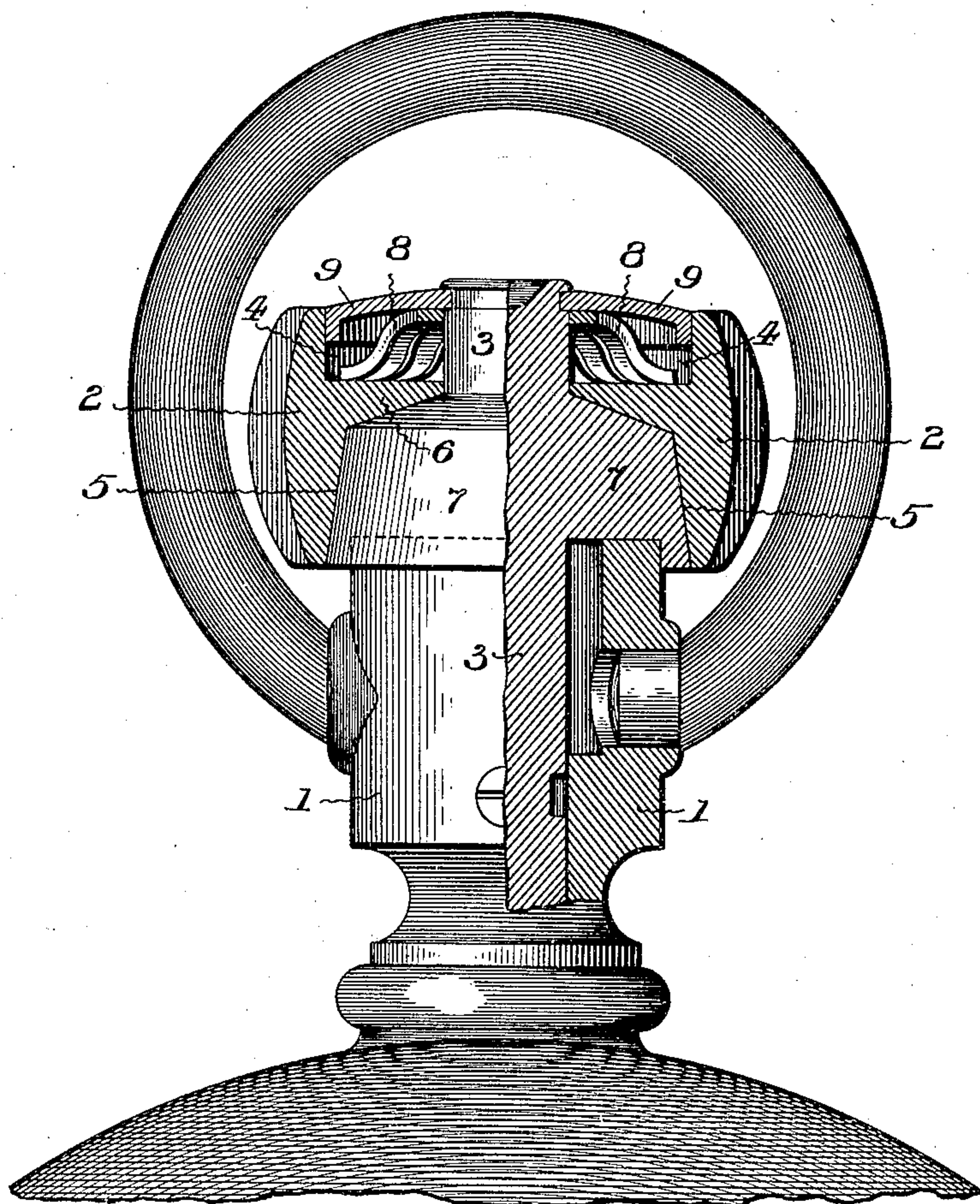
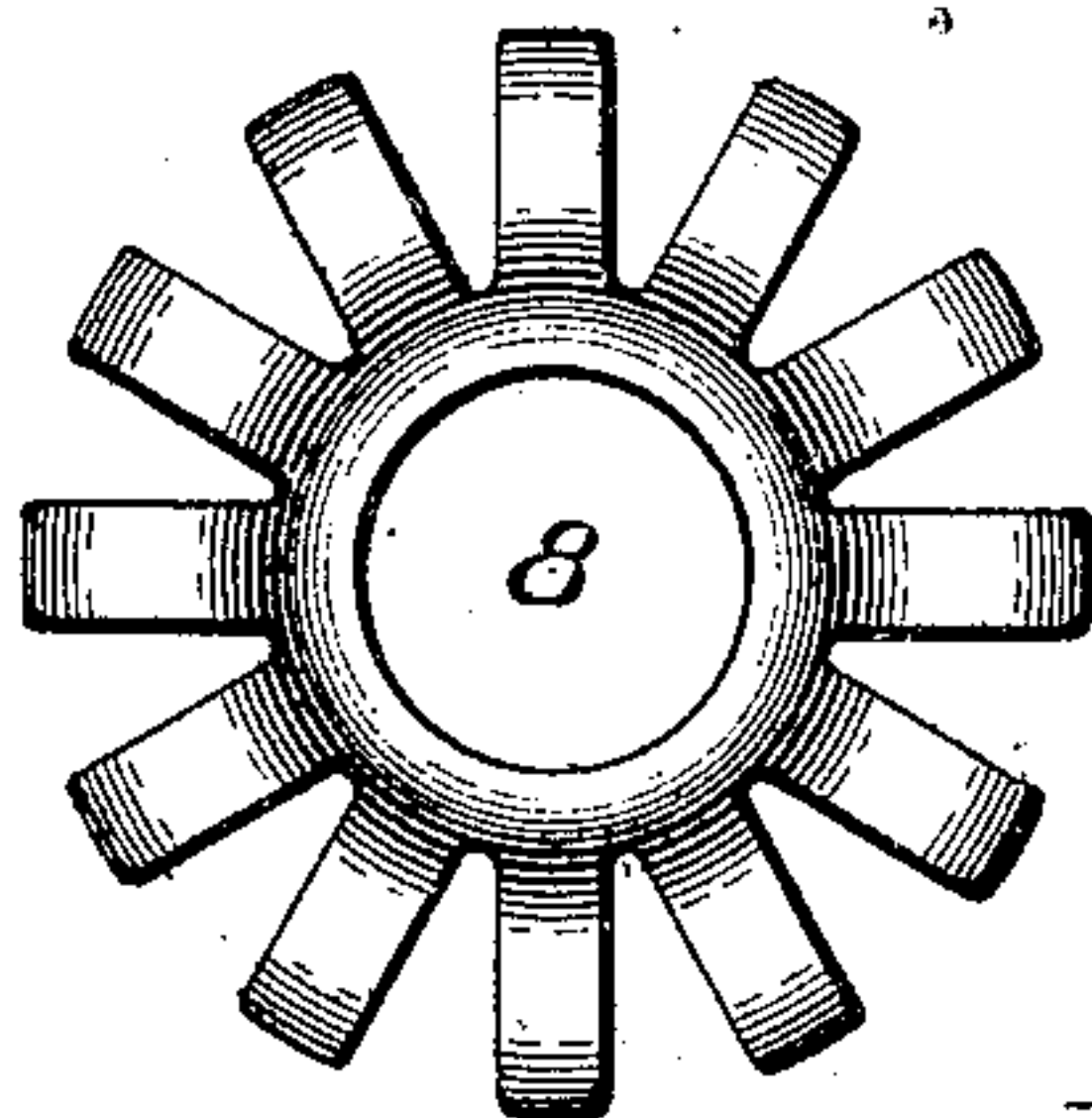


Fig. 2.



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UNITED STATES PATENT OFFICE.

ELWOOD C. PHILLIPS, OF CHICAGO, ILLINOIS.

WATCHCASE-PENDANT.

SPECIFICATION forming part of Letters Patent No. 680,067, dated August 6, 1901.

Application filed January 7, 1901. Serial No. 42,290. (No model.)

To all whom it may concern:

Be it known that I, ELWOOD C. PHILLIPS, a citizen of the United States, and a resident of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Watchcase-Pendants; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings.

The present invention relates to the stem winding mechanism of watches.

The object of the present improvement is to provide a simple and efficient means whereby an overwinding of the watch-spring and a liability to a breakage or straining of the mechanism are entirely prevented, all as will hereinafter more fully appear and be more particularly pointed out in the claims. I attain such object by the construction and arrangement of parts illustrated in the accompanying drawings, in which—

Figure 1 is an enlarged vertical sectional elevation of the stem portion of a watch embodying the present improvement; Fig. 2, a plan view of the clutch-actuating spring of the present construction.

Referring to the drawings, 1 represents the watch-pendant, 2 the crown, and 3 the winding stem or key, of any usual and well-known construction.

In the present invention the upper end of the crown 2 will be chambered out to form a shallow cylindrical cavity 4, and the lower end of such crown will be likewise chambered out to form a shallow cavity 5, of an acute truncated-cone form, the crown of which is in turn of an obtuse cone formation, as shown in Fig. 1.

The two chambers above described are separated from each other by a central partition 6, provided with a central guide-orifice for the upper portion of the winding stem or key 3.

In the present improvement the winding stem or key 3 is formed with an enlarged head 7 near its upper end, that fits or bears upon the upper end of the watch-pendant 1, its periphery or outer surface being formed to fit the lower cavity of the crown 2 and having a main truncated and acute cone por-

tion and a crown portion of an obtuse cone form, as illustrated in Fig. 1 of the drawings.

The described formation of the contact-surfaces between the crown 2 and the winding-stem 3 constitutes a frictional engagement between the two to effect the winding of the watch, but which will afford a slip between the parts if the crown is still rotated after the proper winding of the watch mechanism has been effected.

The proper degree of frictional contact between the parts as above described is attained by means of a spring 8, arranged within the upper cavity 4 of the crown and between the partition 6 of the same and a cap-disk 9, secured to the upper end of the winding stem or key 3, preferably in a permanent manner, by an outward swaging of the upper end of said stem, as illustrated in Fig. 1.

The cap-disk 9 fits the cylindrical cavity 4 to act as an additional guide for the winding-stem, and to this end its margin is downwardly flanged to afford a more substantial bearing contact.

The spring 8 may be of any usual form; but preference is given to the ray form of spring (illustrated in Figs. 1 and 2) as affording a more perfect and uniform thrust to the parts in line with their axis.

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

1. In a stem winding mechanism for watches, the combination of the crown formed with a bottom recess or cavity of an acute truncated-cone form, and the winding-stem formed with an enlarged head the periphery of which is of a corresponding truncated-cone form, and a spring for holding the parts in frictional engagement, substantially as set forth.

2. In a stem winding mechanism for watches, the combination of the crown formed with a central partition and with an upper cylindrical cavity, a lower cavity having an acute truncated-cone form, its crown being of an obtuse cone formation, a winding-stem formed with an enlarged head the periphery of which is of a corresponding cone formation, a cap-disk secured to the upper end of the winding-stem and fitting the cylindrical

cavity of the crown, and a spring arranged between said cap-disk and the partition of the crown, substantially as set forth.

3. In a stem winding mechanism for
5 watches, the combination of the crown formed with a central partition and with an upper cylindrical cavity, a lower cavity having an acute truncated-cone form its crown being
10 of an obtuse cone formation, a winding-stem formed with an enlarged head the periphery of which is of a corresponding cone forma-

tion, a cap-disk secured to the upper end of the winding-stem and fitting the cylindrical cavity of the crown and a ray-shaped spring arranged between said cap-disk and the par- 15
tion of the crown, substantially as set forth.

Signed at Chicago, Illinois, this 4th day of January, 1901.

ELWOOD C. PHILLIPS.

Witnesses:

ROBERT BURNS,
HENRY A. NOTT.