

(No Model.)

W. BELL.

WINDING STOP FOR WATCHES.

No. 316,226.

Patented Apr. 21, 1885.

Fig. 1.

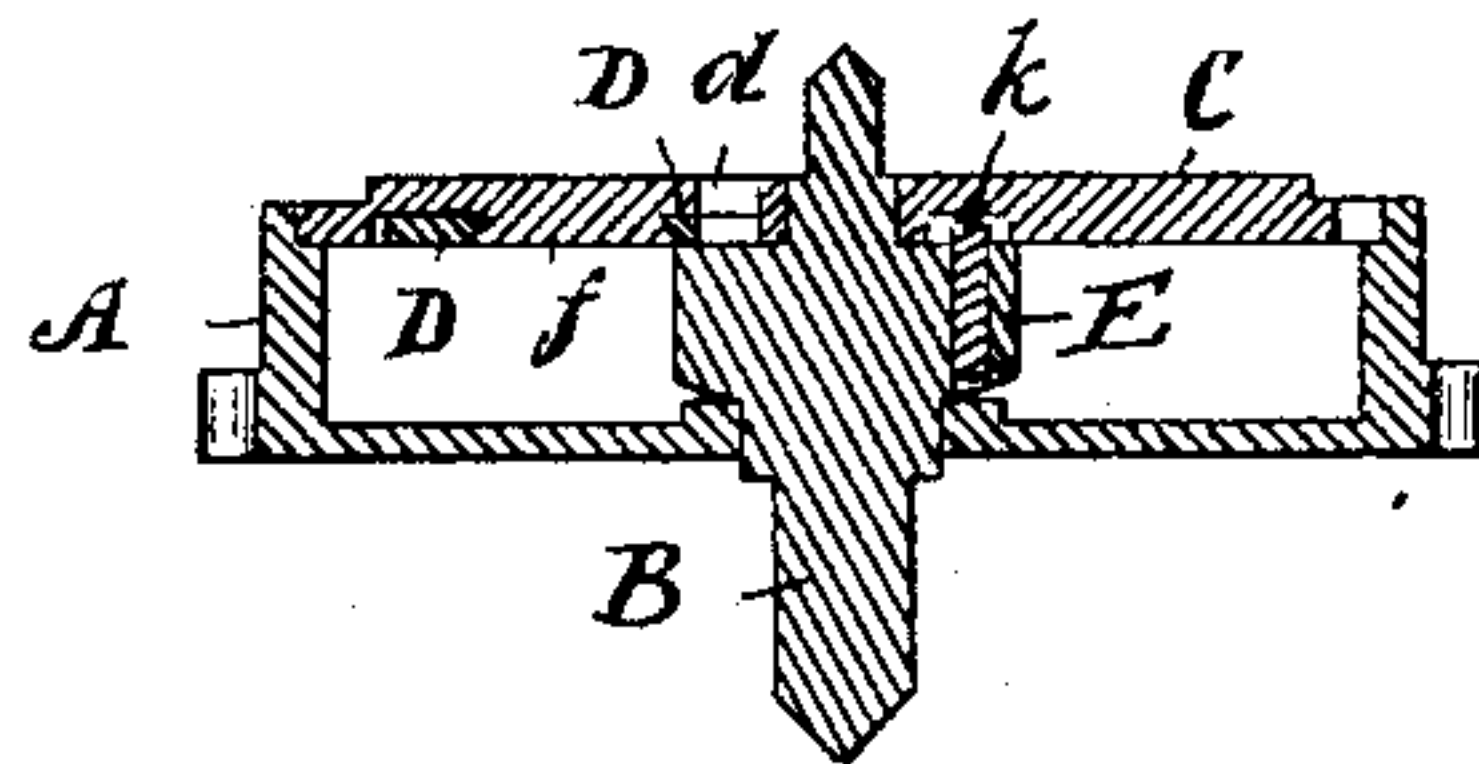


Fig. 2.

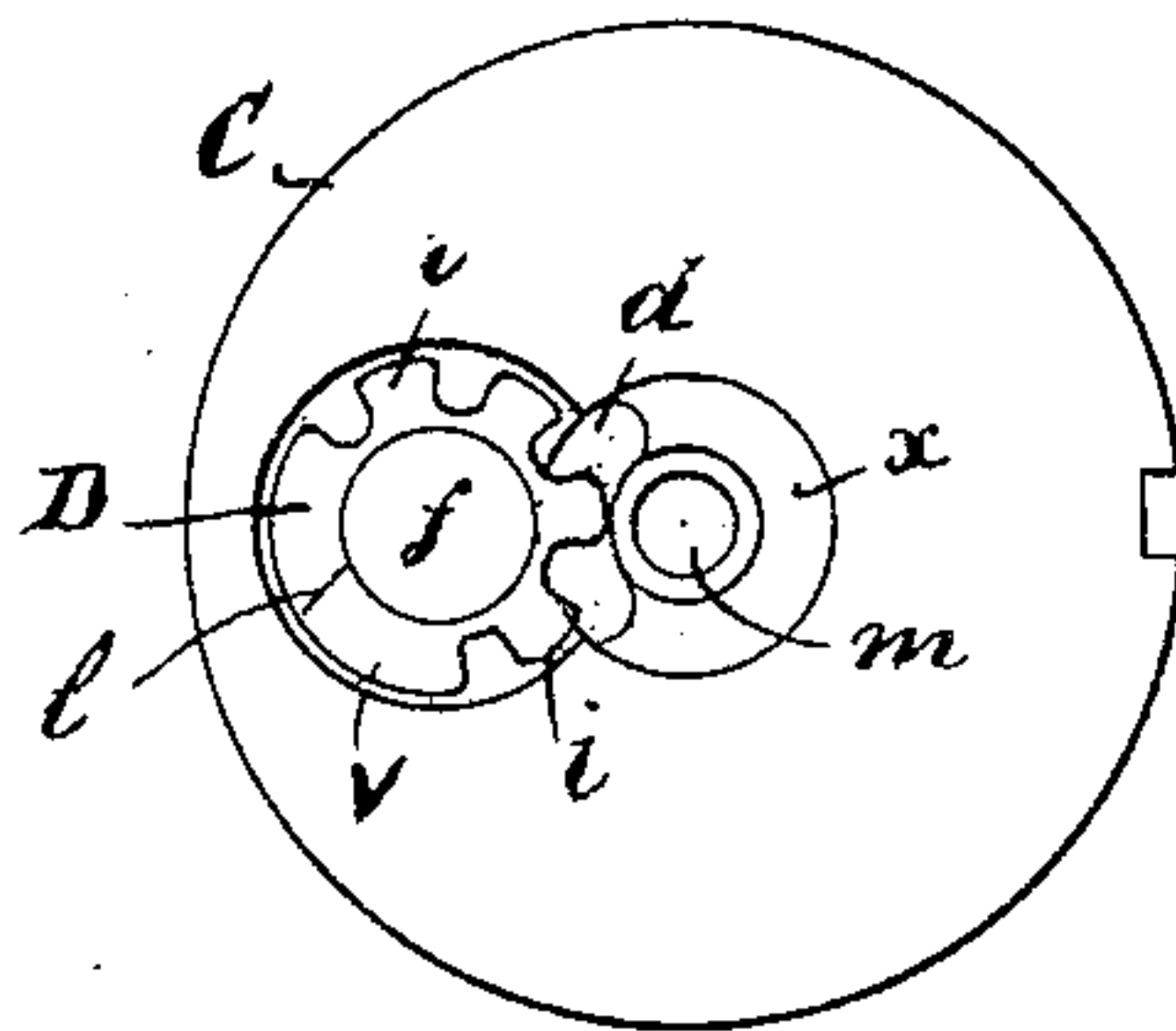


Fig. 3.

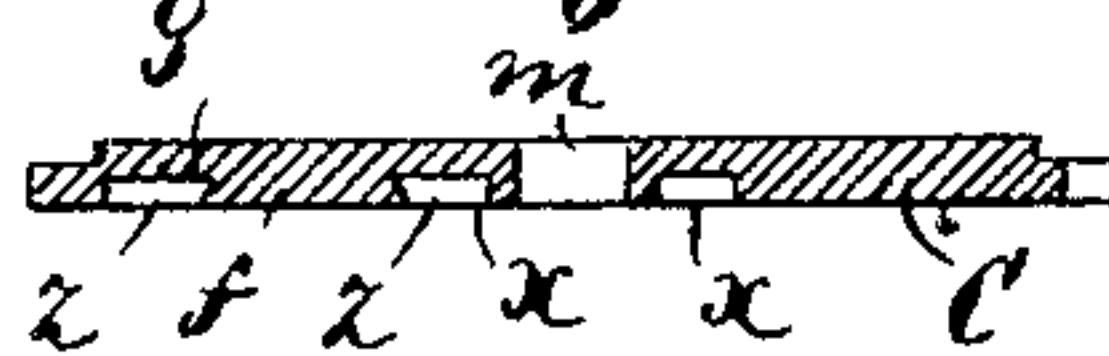


Fig. 4.

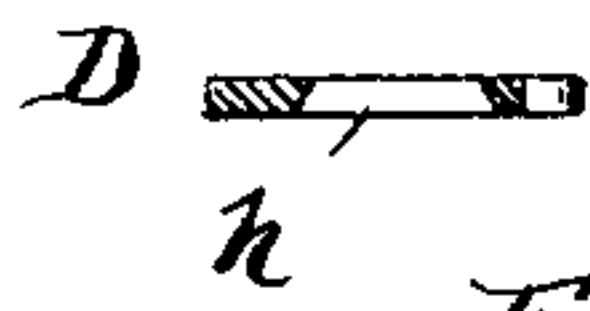
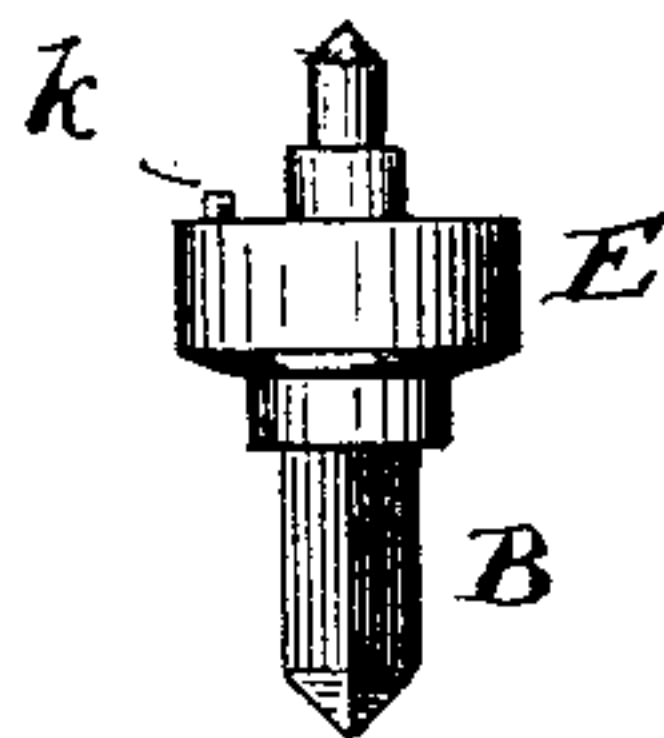


Fig. 5.



Witnesses

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WINDING-STOP FOR WATCHES.

SPECIFICATION forming part of Letters Patent No. 316,226, dated April 21, 1885.

Application filed December 31, 1884. (No model.)

To all whom it may concern:

Be it known that I, WEBSTER BELL, of Boston, in the county of Suffolk, State of Massachusetts, have invented a certain new and useful Improvement in Watches, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical transverse section of the barrel and arbor of a watch provided with my improved stop mechanism; Fig. 2, is a plan view of the lower side of the barrel-cap; Fig. 3, a vertical transverse section of the same, with the stop-disk removed, taken through the center of the cap; Fig. 4, a vertical transverse section of the stop-disk detached, and Fig. 5 a side elevation of the arbor.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

The stop-motions of watches as ordinarily constructed usually consist of an annular disk having a segment only of its periphery serrated, said disk being journaled on the outer side or top of the barrel-cap, and adapted to engage a disk disposed on the outer end of the barrel-arbor, and having but one tooth or projection, the disks being respectively denominated "female" and "male" stop-wheels; but this construction and arrangement of the parts are objectionable for several reasons, among the principal of which are, first, the stop-wheels are exposed, being located on the outer side of the barrel-cap, thereby injuring the appearance of the movement; second, the arbor has to be extended and squared to receive the male disk; and, third, when the members of the stop-motion are constructed as described, the tooth or projection on the male disk is liable to strike and wear away the corners or sharp edges of the teeth of the female disk, or to break the same, and thereby cause the stop-motion to work imperfectly. My invention is designed to obviate these difficulties and objections, and to that end I make use of means which will be readily understood by all conversant with such matters from the following explanation:

In the drawings, A represents the barrel, B the arbor, and C the cap.

An annular channel or groove, *x*, is cut on the under or inner side of the cap around the arbor-hole *m*, and there is also a corresponding but slightly larger channel, *z*, cut in the under side of said cap to form the hub *f*, said channels intersecting between said hub and the hole *m*.

Disposed in the channel *z* there is an annular disk, D, provided with the teeth *i* and blank *v*.

The hub *f* is undercut or dovetailed, as shown at *g*, and the hole *h*, through the disk D, is correspondingly countersunk, so that when the disk is placed in the channel *z* it will pass under the flaring edges of the hub, and be held in position thereby, the disk being bisected at *l*, and constructed of spring steel or similar material, thereby adapting it to be passed over the hub, and to contract around the same, as described, it being understood that the channel *z* is slightly wider than the body of the disk.

Disposed on the arbor B there is an ordinary hub, E, and projecting upwardly from this hub near its periphery, in parallelism with said arbor, there is a stud, *k*, adapted to engage the disk D as the arbor is turned in winding the watch.

The spring (not shown) is disposed in the barrel A, being attached to the same and to the hub E in the usual manner.

In Fig. 1 the parts are represented as in position for use, and by reference thereto it will be observed that all parts of the stop mechanism are housed or disposed within the barrel.

The pin *k* projects into the channel *x*, in which it works, and takes the place of the male disk of the ordinary stop-motion, but, being round and disposed near the periphery of the hub, is readily engaged with and disengaged from the disk D without liability of breaking the teeth of said disk or unduly stopping the winding of the watch.

As the disk D is let into the face of the cap C, and the pin *k* projects into the channel *x*, it will be obvious that the stop mechanism does not interfere with the spring of the watch, or require any increase in the size of the bar-

rel to accommodate the same when housed as described.

A hole or elongated slot, *d*, is cut through the cap C, to enable the disk D to be adjusted in case it should at any time become disarranged without the necessity of removing the cap from the barrel.

Having thus explained my invention, what I claim is—

10 1. In a watch, the combination of the following instrumentalities, to wit: a barrel for containing the spring, a winding-arbor for said spring, a hub disposed on said arbor within said barrel, and provided with a stud or
15 projection, a disk having a portion of its periphery serrated, and a portion left plain or blank, said disk being journaled within said barrel and adapted to engage said stud, substantially as described.

20 2. The arbor B, provided with the stud *k*,

the cap C, provided with the channels *z*, the disk D, provided with the teeth *i*, and blank *v*, and the barrel A, constructed, combined, and arranged to operate substantially as set forth.

3. The cap C, provided with the hold *d*, in combination with the disk D, substantially as and for the purpose specified.

4. In a watch, the cap C, having the channel *z* and undercut hub *f* on its inner face, in combination with the flattened serrated annulus or disk D, having the blank *v*, and with a stud or projection on the barrel-arbor adapted to engage said disk, substantially as and for the purpose specified.

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Witnesses:

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