(No Model.)

A. TROLLER.

WATCH MOVEMENT BOX.

No. 359,946. Patented Mar. 22, 1887.

Fig. 1.

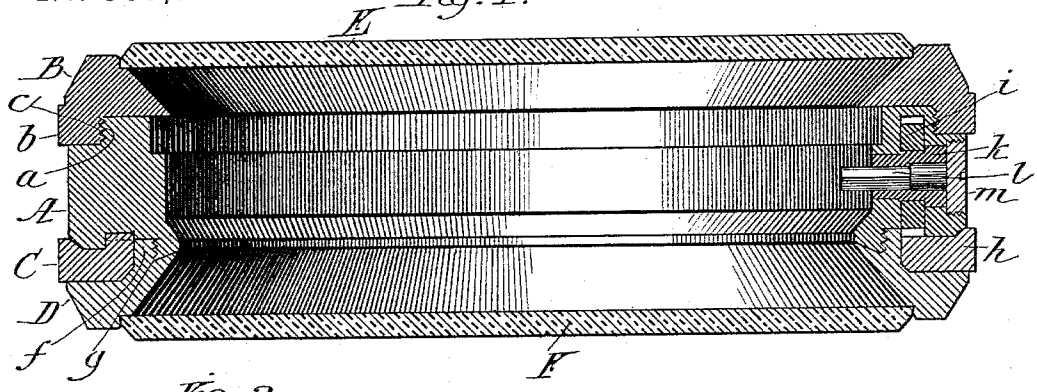


Fig. 2.

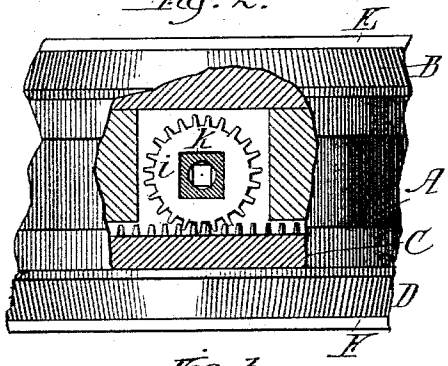


Fig. 4.

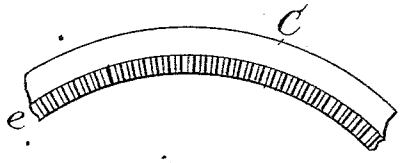


Fig. 10.

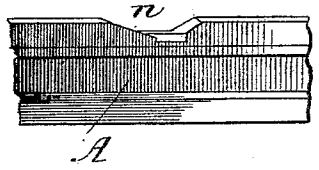


Fig. 3.

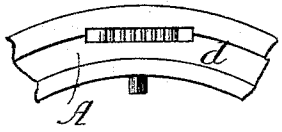


Fig. 5.



Fig. 6.



Fig. 8.



Fig. 9

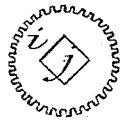


Fig. 7.



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UNITED STATES PATENT OFFICE.

ALBERT TROLLER, OF ROCKFORD, ILLINOIS, ASSIGNOR TO THE ROCKFORD WATCH COMPANY, OF SAME PLACE.

WATCH-MOVEMENT BOX.

SPECIFICATION forming part of Letters Patent No. 359,946, dated March 22, 1887.

Application filed December 13, 1886. Serial No. 221,465. (No model.)

To all whom it may concern:

Be it known that I, ALBERT TROLLER, residing at Rockford, in the county of Winnebago and State of Illinois, and a citizen of the United States, have invented a new and useful Improvement in Watch-Movement Boxes, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical section. Fig. 2 is a detail showing the outside of a portion of the box, some parts being cut away. Fig. 3 is a detail, being an under side view of that portion of the center rim which is shown, the back bezel and annular disk, with gear attached, being removed, the winding-pinion being in view. Fig. 4 is a detail, being a plan of a portion of the annular disk with its gear. Fig. 5 is a detail, being an elevation of the plug. Fig. 6 is a detail, being an elevation of the socket which enters the winding-pinion. Fig. 7 is a detail, being a sectional perspective of the parts shown in elevation in Fig. 6. Fig. 8 is a detail, being an elevation of the winding-key. Fig. 9 is a detail showing the winding-pinion. Fig. 10 is a detail, being an inside view of a portion of the center rim, showing a recess in the upper edge to receive the setting-lever of a watch-movement. The figures are all enlarged.

It is common to place stem-winding watch-movements in so-called "movement-boxes" provided with glass faces, mainly for the purpose of exhibiting such movements for sale. Heretofore such boxes have been so constructed that it is necessary to open a box and remove the movement to wind the same.

The object of my invention is to provide a movement-box so constructed that the stem-winding movement can be wound without opening the box and removing the movement therefrom, which I accomplish as illustrated in the drawings, and as hereinafter described. That which I claim as new will be pointed out in the claims.

In the drawings, A represents a center rim, which forms the main part of the body of the box. The upper portion of this rim is cut away, and is provided with a screw-thread, *a*.

B is the front bezel, provided on the under side with a projection, *b*, the inside of which is provided with a screw-thread, *c*, which engages with the screw-thread *a* on the rim A. The screw-threads *a c* are left-handed.

The form of the under side of the center rim, A, is clearly shown in Figs. 1 and 3, and such under side is provided with an annular groove or recess, *d*.

C is an annular disk or ring provided on its upper surface with a crown-gear or rack, *e*, extending around the entire ring or disk. This ring C is so formed that the crown-teeth enter the recess *d* in the rim A.

D is the back bezel, which is provided with a projection, *f*, the inside of which is screw-threaded and engages with screw-threads *g* on a downward projection from the center rim, A. These screw-threads *f g* are also left-handed. The ring C is of such size that when the bezel D is screwed to its place the ring C can be easily rotated by taking hold of the projecting rim *h* thereon, the outer edge of which rim *h* may, for convenience, be rough.

E F are glasses set in the two bezels B D.

i is the winding-pinion, which is located in a recess provided for it in the center rim, A. The center of this pinion is, as shown, provided with a square hole, *j*.

k is a socket-piece, which, as shown, is round at its two ends; but the central portion is square to fit the hole *j* in the pinion. This socket-piece *k* is hollow, the outer end of the hole through it is round, and the inner end is square, as shown in Fig. 7.

l is the winding-key.

m is a screw-threaded plug fitting a screw-threaded hole in the central rim, A, which rim is provided with a hole adapted to receive the socket-piece *k*. The pinion *i* is so arranged that it engages with the teeth *e* on the rim C.

The pinion *i* can be inserted into the recess prepared for it from either side. Then the socket-piece *k* can be inserted through the hole in the rim into the pinion *i*. Then the key *l* can be inserted into the socket-piece *k*. Then the plug *m* is to be screwed to place, and the pinion *i*, the socket-piece *k*, and the key *l* will be held in place. The bezel B is to be put into position and screwed to place, and the ring C is to be placed in proper position, as indicated in the drawings, its gear-teeth engaging with the pinion *i*, and then the bezel D is to be

screwed to place, by which the ring C will be held in place, but not so firmly as to be prevented from being rotated readily.

When the parts are put together as described, the box is complete and ready for use. By removing the bezel B the watch-movement can be inserted in the box and the key *l* be made to enter the winding-pinion of the watch. Then the bezel B is to be replaced. The watch-movement in the box can now be wound at any time by rotating the ring C, the teeth of which engage with the pinion *i*, causing it and the key *l* to rotate, and the key being engaged, as described, with the winding-pinion of the watch, the watch will be wound. If the watch which is placed in this movement-box has a projecting key, as is sometimes the case, the key *l* must be omitted, and the key which projects from the movement can be made to enter the inner end of the socket-piece *k*, and then such movement can be wound, as before described.

I provide the upper edge of the center rim with a recess adapted to receive the setting-lever of a stem-winding watch, so that by removing the front bezel the setting-lever can be adjusted to the proper position for setting the hands without removing the movement from the box, and then by rotating the disk C the hands can be set. The recess last mentioned is shown in Fig. 10, (indicated by *n*.)

Boxes containing my improvements may be made of various sizes, corresponding with the sizes of the movements which they are designed to receive.

My movement-box may be permanently used as a watch-case with a movement, and, if desired, the rim A may be provided with a stem or ring to receive one end of a watch-chain; or my improvements may be applied to a watch-case without materially changing the devices which I have described.

I do not limit myself to the exact means described for securing the front and back bezels to the rim. The front bezel may be hinged to the rim, the rim and bezel being properly constructed in the ordinary manner.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, in a watch-movement box, of a center rim, A, a pinion located in a recess in said rim and provided with a socket adapted to receive a key for a stem-winding watch, and an annular disk, C, provided with a crown-gear engaging with the pinion, substantially as and for the purpose specified.

2. A watch-movement box consisting of a central rim, a pinion located in a recess in said rim and provided with a socket to receive a key for a stem-winding watch, an annular disk provided with crown-gear to engage with such pinion, a front bezel, and a back bezel, substantially as and for the purpose specified.

ALBERT TROLLER.

Witnesses:
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