

(No Model.)

J. DUPLAIN.

STEM WINDING AND SETTING WATCH.

No. 388,186.

Patented Aug. 21, 1888.

Fig. 1.

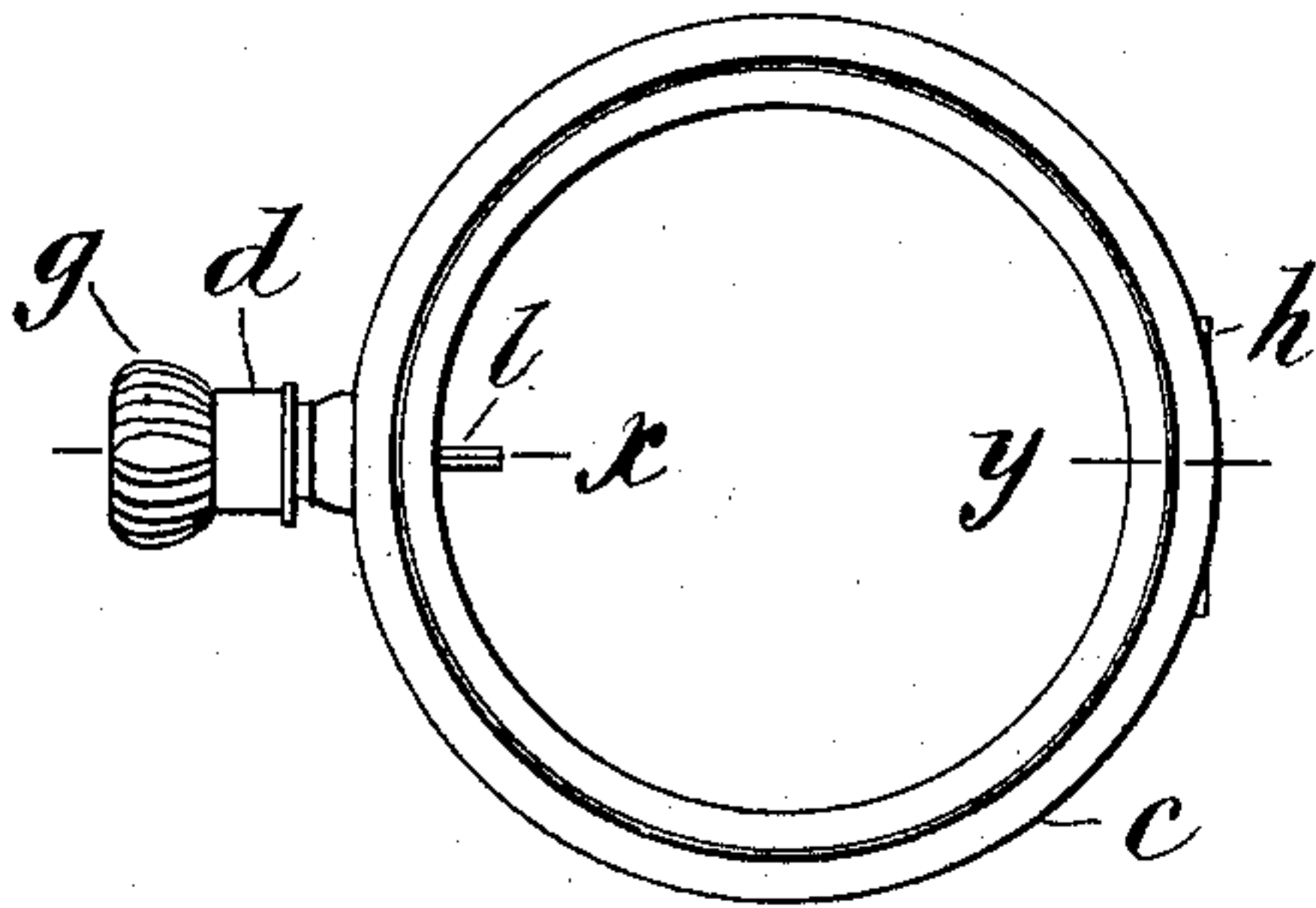


Fig. 2.

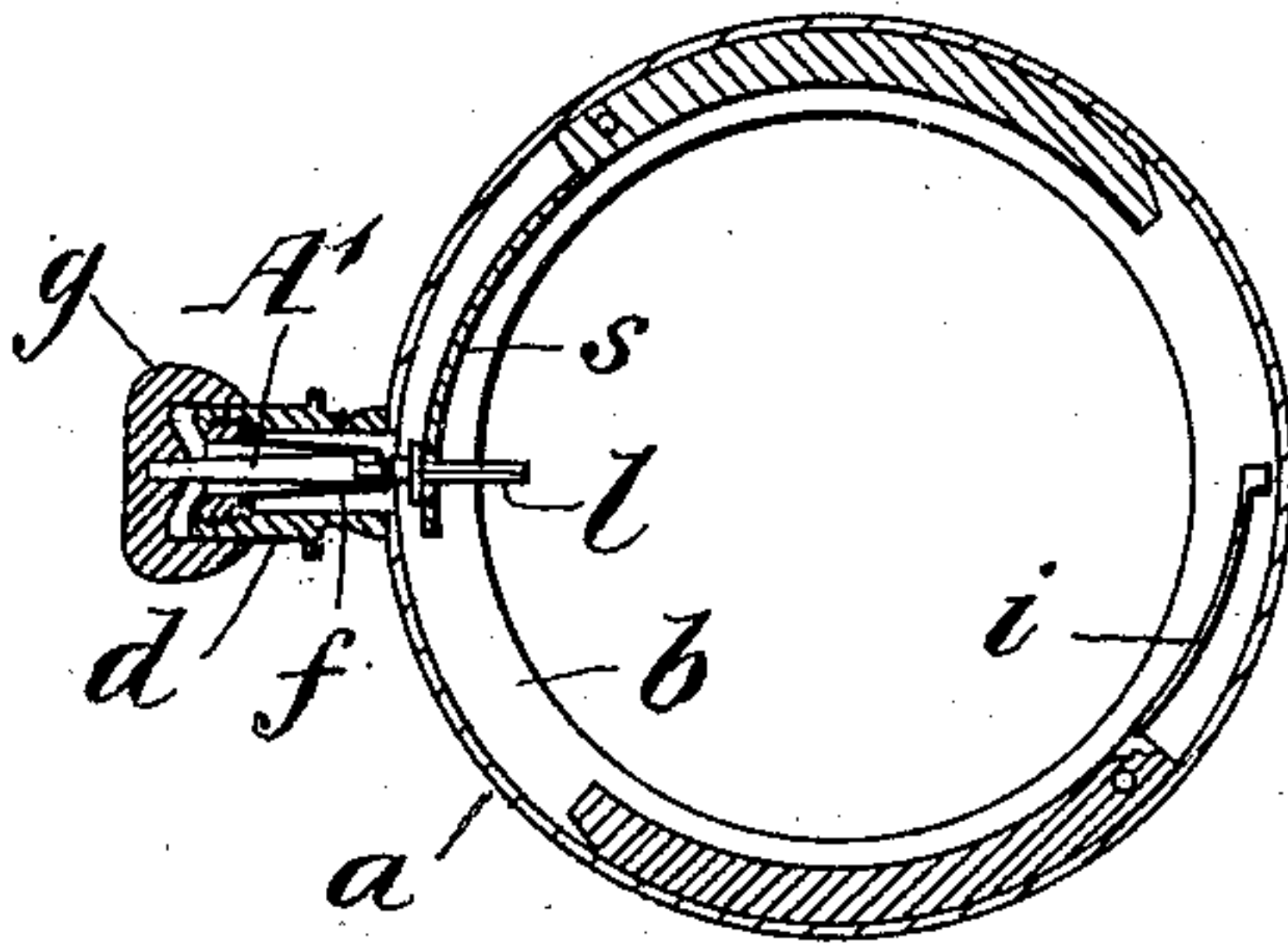


Fig. 3.

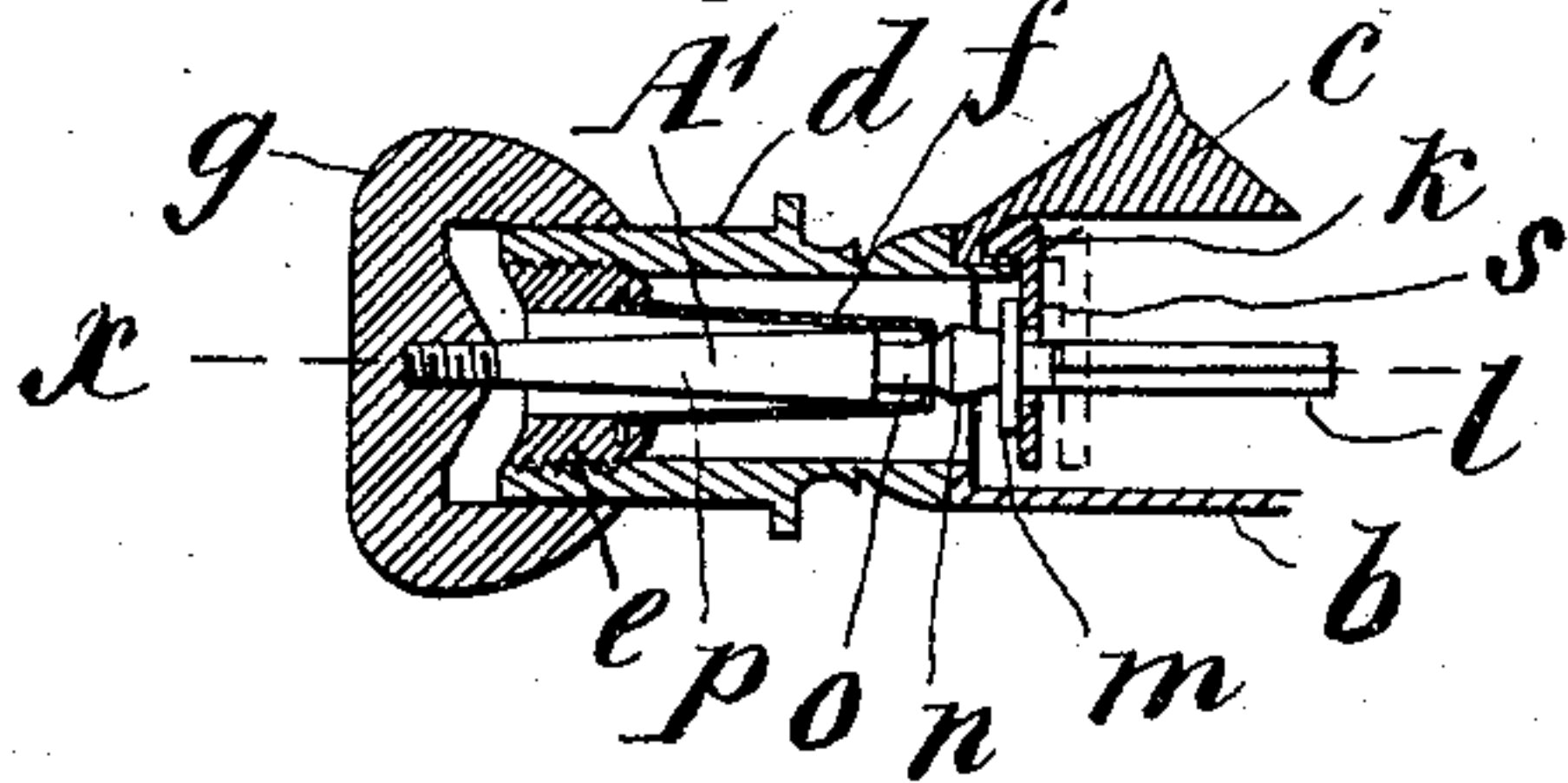


Fig. 4.

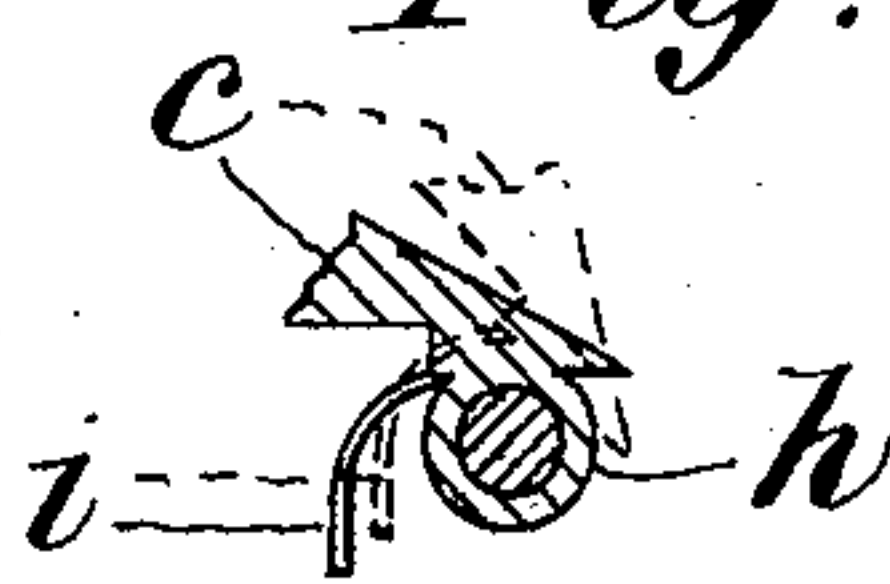


Fig. 5.

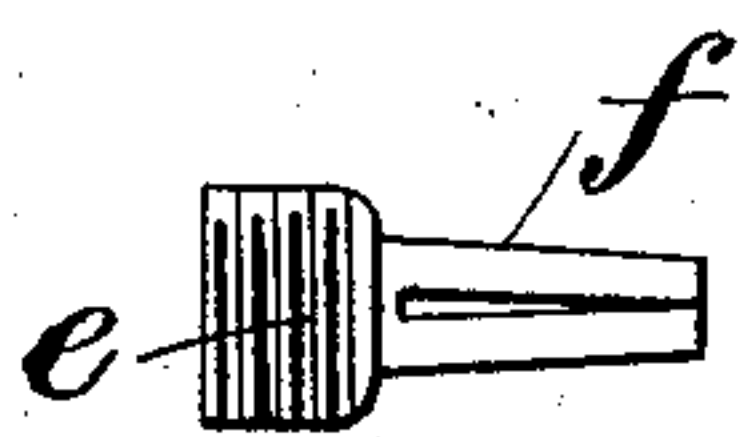


Fig. 6.

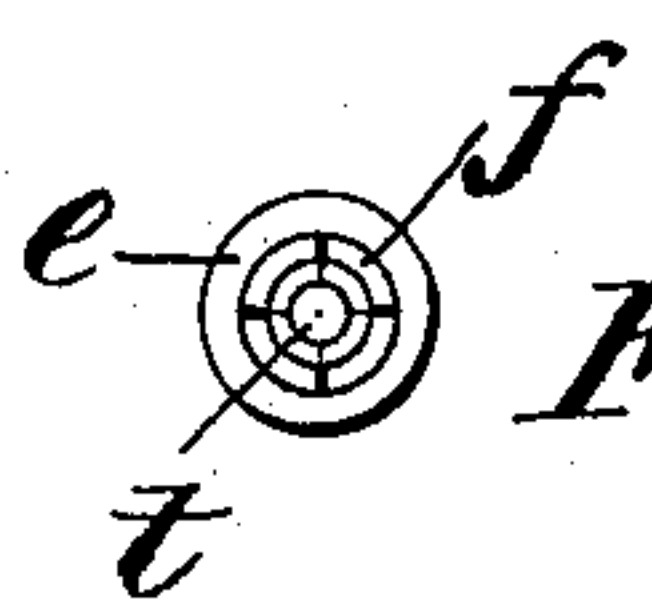
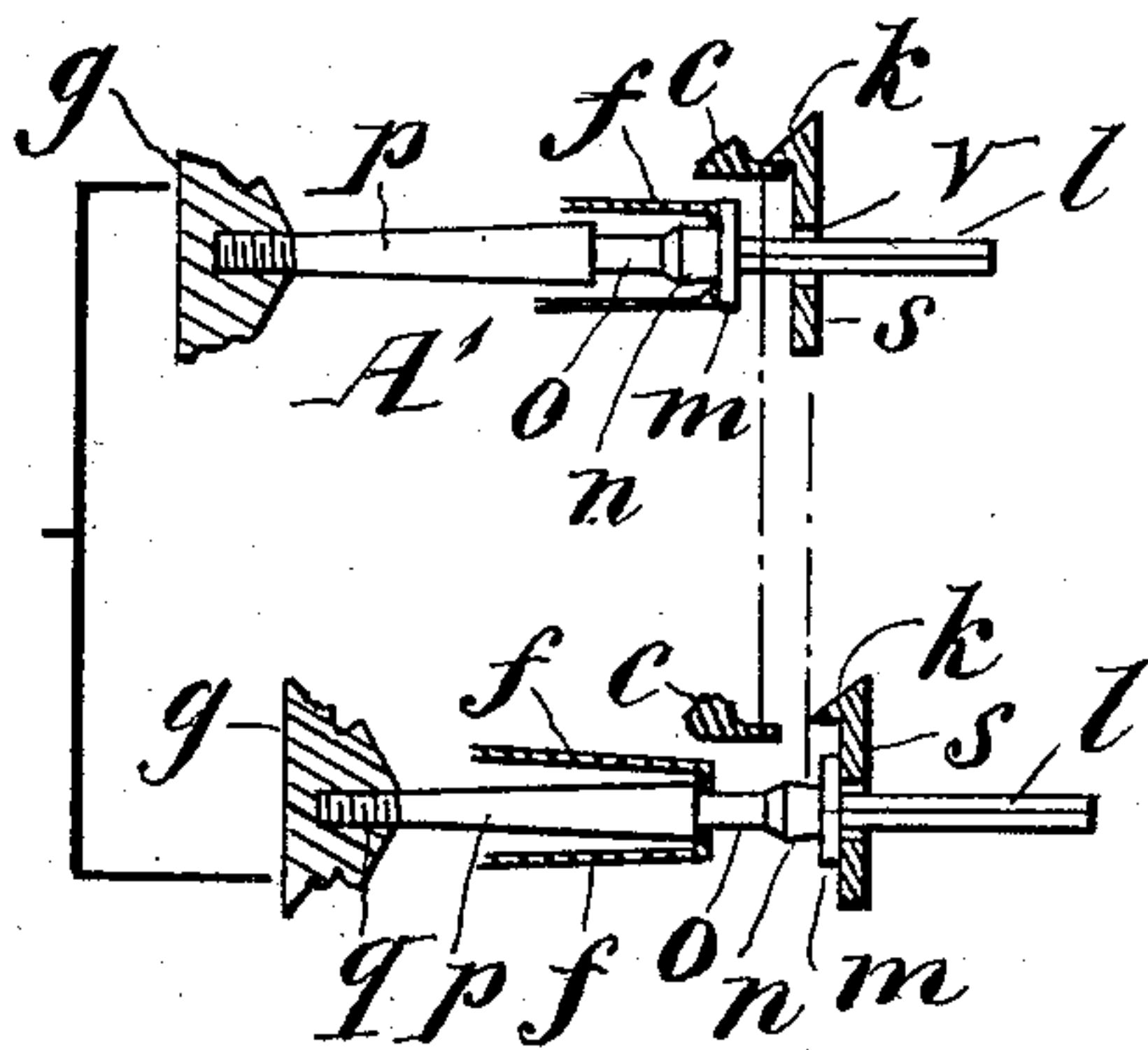


Fig. 7.



Witnesses.

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STEM WINDING AND SETTING WATCH.

SPECIFICATION forming part of Letters Patent No. 388,186, dated August 21, 1888.

Application filed June 12, 1888. Serial No. 276,815. (No model.)

To all whom it may concern:

Be it known that I, JULES DUPLAIN, a citizen of the Republic of France, residing at the city of Montreal, in the District of Montreal and Province of Quebec, Canada, have invented new and useful Improvements in Pendant Sets for Watches; and I do hereby declare that the following is a full, clear, and exact description of the same.

This invention relates to improvements in that class of watches called "stem-winding and hand-setting," in which, by actuating the crown of the pendant set in particular manners, it will cause the stem attached thereto to actuate two different mechanisms—one to set the hands with and the other to wind up the mainspring with—as shown in Letters Patent No. 192,425, dated June 26, 1877, and No. 312,856, dated February 24, 1885, to G. Hunter, and No. 287,001, dated October 23, 1883, to C. K. Colby. By my invention the said crown and stem may be actuated in a third manner in addition to the two others, whereby the spring which holds the casing of the watch closed will be disengaged therefrom and allow the watch-casing to spring open by the spring arranged for that purpose.

In the drawings hereunto annexed similar letters of reference indicate like parts.

Figure 1 is a plan of a watch-casing and pendant set embodying my invention. Fig. 2 is a horizontal section of the watch-casing, &c., shown in Fig. 1, taken at the level of line *x* in Fig. 3. Fig. 3 is a vertical section on line *x*, Fig. 1. Fig. 4 is a part section of the hinge, showing in connection therewith the end of the spring *i* by which the watch-casing is caused to open, the section being taken at line *y*, Fig. 1. Fig. 5 is a side elevation of the nipple *e* and latches *f* attached thereto detached. Fig. 6 is an end elevation of the parts shown in Fig. 5. Fig. 7 is a diagram showing two of the positions of the operative parts.

a represents the center band, *b* the back, and *c* the front, of the watch-casing. *d* is the tubular stem or pendant, all of ordinary construction and as heretofore in use.

e is the nipple, screwed, as shown, into the pendant *d*, to which are attached the latch-springs *f*. As shown, they are four in number, forming a tubular configuration, and are

substantially the same as heretofore in use, although somewhat modified in shape and position. The latch-springs *f* are attached to the nipple by spinning the end of the nipple over the foot of the tube out of which the springs or latches *f* are formed.

g is the crown.

h is the hinge.

i is the spring, the end of which is arranged to actuate the sides *c* of the casing and cause it to fly open when released by the catch *k*.

The stem *A'* in this case consists of parts as follows: square end *l*, to actuate the hand-setting and winding mechanisms in a similar manner as set forth in the hereinbefore-mentioned Letters Patent, collar *m*, inclined and enlarged part *n*, neck *o*, body *p*, and screwed end *q*. The screwed end *q* is made of suitable size to enter freely in between the spring-latches *f*, and is threaded to fit a screw-threaded hole in the crown *g*, whereby it is attached to the crown. The tapered body *p* enables the stem *A'* to wedge the spring-latches *f* apart, being entered from the inside of the watch-casing to the position shown in Figs. 2 and 3, the spring *s* being removed for that purpose and put in place after the stem *A'* is located. The neck *o* is of suitable size to fill the space *t* between the latches. (See Fig. 6.) The enlarged part *n* causes the spring-latches *f* to hold the stem *A'* by the neck *o*, or, if the crown is pulled outward, to yield and allow them to pass over the enlarged part *n* and grip close up to the collar *n*, as shown in the upper part of Fig. 7.

With the parts in the position shown in Fig. 3, the stem *A'* is in the proper position for causing the end *l* to wind up the mainspring, and when moved to the position shown in the upper part of Fig. 7 it is in the position for setting the hands by, and by pushing upon the crown *g*, so as to cause it to enter more over the end of the pendant *d* than shown in Fig. 3, the stem *A'* is moved from that position to the position shown in the lower part of Fig. 7, in doing which the collar *m* presses the end of the spring *s* from the position shown in solid lines in Fig. 3 to that shown by dotted lines in that figure, or to the position shown in the lower part of Fig. 7, thus disengaging the catch *k* from its hold on the cover *c* and allowing the spring *i* to cause it to fly open.

It will be observed that when the stem A' is in the position shown in Fig. 3 it is held in that position from free motion (longitudinally) in one direction by the spring s, which has an opening, v, in it for the end l to pass freely through, and from free motion in the other direction by the ends of the spring-latches resting at the bottom of one of the inclines of the enlarged part n. When the stem A' has been forced by pressing on the crown g from the position shown in Fig. 3 to that shown in the lower part of Fig. 7, as soon as the force is removed from the crown g the spring s will return the stem A' to the position shown in Fig. 3.

I do not confine my invention to the precise

proportions and configurations of parts shown, as these may be considerably changed without departing from the gist of my invention.

What I claim is as follows:

The combination, in a watch arranged for stem-winding and hand-setting by the crown, of a stem, A', having a collar, m, said stem being attached to the crown, with crown g and with spring s, having catch k, and opening v, through which the end l of the stem A' passes, the whole substantially as described.

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Witnesses:

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