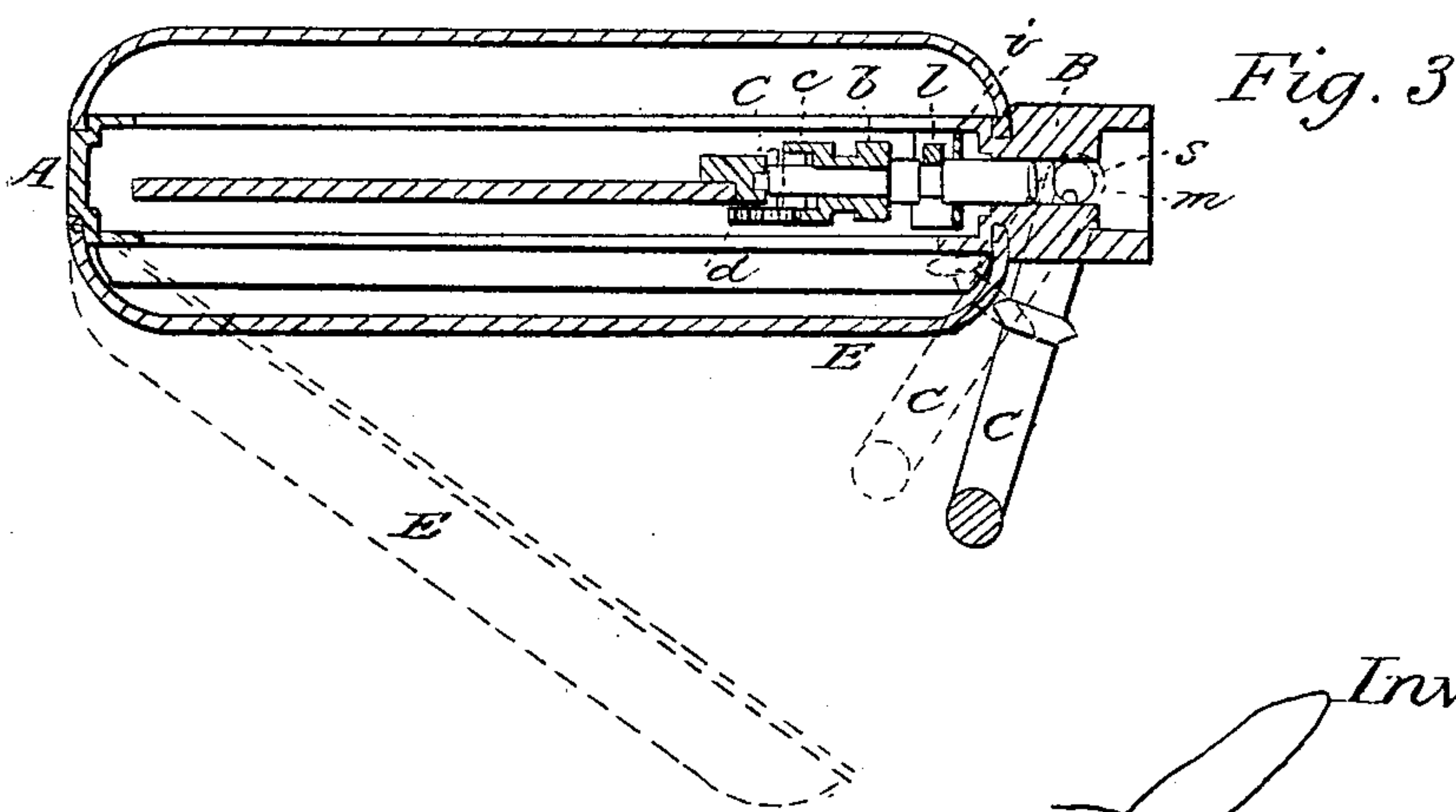
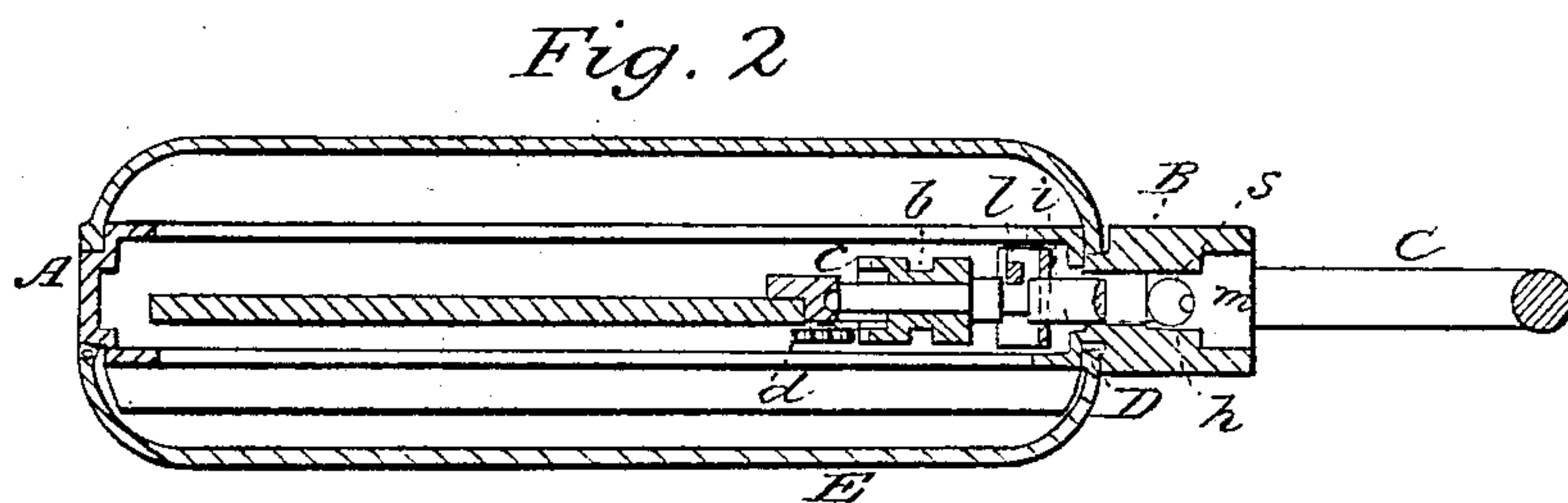
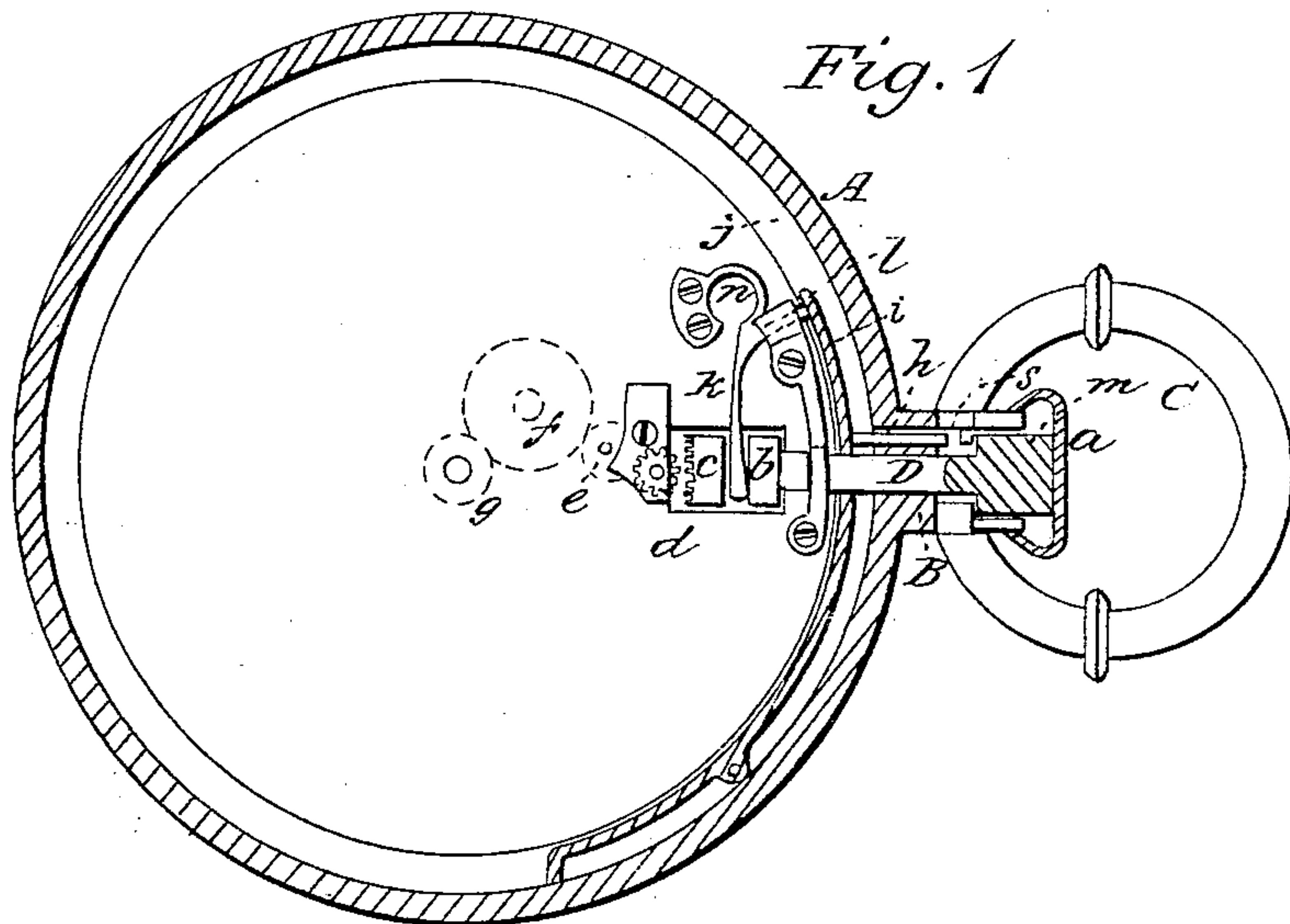


J. JURGENSEN.

Watch.

No. 61,207.

Patented Jan. 15, 1867.



Witnesses:
J. W. Coombs
L. W. Reed.

Inventor:
Jules Jurgensen
Per his attorney
Brown, Coombs & Co.

United States Patent Office.

JULES JURGENSEN, OF LOCLE, SWITZERLAND.

Letters Patent No. 61,207, dated January 15, 1867.

IMPROVEMENT IN STEM SETTING WATCHES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JULES JURGENSEN, formerly of Copenhagen, in the kingdom of Denmark, but now of Locle, in the republic of Switzerland, have invented a certain new and useful Improvement in Stem Setting Watches; of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, which forms part of this specification, and in which—

Figure 1 represents, on an enlarged scale, a side or face view in section of a watch case, with stem and pendent bow attached, and such portion of the interior mechanism as relates to my invention.

Figure 2, a transverse section of the same; and

Figure 3, a similar view, representing in black and red lines different positions of certain parts or devices, as controlling the setting of the hands by or at the stem.

Like letters refer to like parts in all the figures.

In stem setting watches, as previously constructed, it has been usual, in addition to the stem-turning gear, whereby the hands are adjusted or set forward or backward as required, to employ a pin or spring, arranged to protrude from the case, and requiring a separate application of pressure or force, say by the thumb or finger, before and whilst turning the rotating device at the stem, for the purpose of locking the latter at pleasure, as required, with the cannon or minute hand operating pinion of the watch. This, however, is very objectionable, not only on account of the double manipulation requisite to set the hands, but also on account of the liability to accidental and improper adjustment of them by some casual outside contact with and action on the stem-gearing pin or spring, and turning of the attachment that is used for setting the hands. To obviate this is one of the objects of my improvement, by making automatic, consequent on the adjustment of the pendent bow of the stem, when the cap or a portion of the case only is open, the gearing of the rotating device at the stem with the cannon pinion of the watch; and my invention further consists, independently of its being governed by the opening of the cap, in making the pendent bow control the action of the rotating device at the stem; also, in the employment of certain mechanism whereby the same is effected.

For the information of those whom it may concern, I will now proceed to describe my improvement, as illustrated in the accompanying drawing, wherein—

A is the rim of the case; B the pendant or stem of the watch; and C the bow or pendent ring. This bow is divided where it is hung in the stem, so as to admit of a spindle, D, passing up through the latter. Said spindle is provided with a milled cap or rose-head, *a*, on its exterior end, to facilitate the turning of it by the fingers in setting the hands of the watch, and passing through the rim into the body of the case, and, supported by suitable bearings, it carries, near its opposite or inner end, a clutch, *b*, the inner face of which is made to form, or has attached to it, a contrate wheel, *c*. The clutch *b* is made to turn with the spindle D, and also to slide longitudinally on it, for the purpose of throwing said spindle, by the contrate wheel *c*, in or out of gear with a pinion, *d*, that meshes, through a train of spur-wheels or pinions, *e f*, with the cannon pinion *g* of the watch. On one end, *s*, of the bow C, where it enters the stem, is an eccentric-pin or projection, *m*, which is so pitched in relation to a sliding-rod or pin, *h*, passing from the stem into the body of the case, that when the bow is extended, as in figs. 1 and 2, it is out of gear or contact with said sliding-rod, and remains so even when the bow is turned down on the closed cap E, or other stop or guard to it, but on opening or removing the guard, say opening the cap E, to see the position of the hands and amount of adjustment necessary to give them, then, on turning the bow C yet further down, as represented by red lines in fig. 3, which the removal of the stop or guard or opening of the cap now admits of, the eccentric pin *m* is brought to bear and press inward the sliding-pin *h*, that touches and compresses a spring, *i*, extending partly around the rim on the inside of the case. This spring *i* exerts a tendency to keep pressed outward the sliding-pin *h*, that when forced inward by the action of the eccentric-pin connected with the bow, as described, in compressing said spring, causes the latter to bear and drive inward a branch or arm, *j*, of a spring clutch lever, *k*, said branch or arm working through a suitable guiding cavity or aperture in a fixed bracket or plate, *l*, and the free end of the clutch lever *k* being forked to fit the clutch *b*. The lever *k* being forced inward or compressed, it being of a spring or elastic character at its attachment, *n*, to the case, causes the clutch *b* to be slid inward, and with it the contrate wheel *c*, which is accordingly thrown into gear with the pinion *d*, so that by turning the milled cap *a* of the spindle D to the right or to the left, the hands of the watch are set forward or backward as required. But on again throwing back or

extending, or commencing to lift the bow C, the eccentric-pin *m* is released from pressure on the sliding-rod *h*, which the spring *i* throws outward, while the spring clutch lever *k*, in being relieved from the action of the spring *i*, also shoots back and draws with it the clutch that detaches the contrate wheel *c* from gear with the pinion *d*, so that turning the milled cap *a* and spindle D will have no effect upon the setting mechanism of the watch, and the shutting to again of the cap E, or putting into action the stop or guard, secures or locks the same out of gear without regard to the position of the bow, that may then be either closed or extended. The winding of the watch at the stem or otherwise may be effected by any suitable means, which it is not necessary here to describe.

What I claim as my invention, and desire to secure by Letters Patent, is as follows:

1. In combination with mechanism for setting the hands of the watch, I claim the pendent bow C, constructed and arranged so that by its movement said mechanism is thrown in or out of gear, substantially as specified.
2. The combination of the cap or guard E with the pendent bow C and hand-setting mechanism, whereby the said cap, while closed, is made to prevent the bow from throwing the hand-setting mechanism in gear, essentially as specified.
3. The combination of the spindle D, pendent bow C, with its eccentric-pin *m*, sliding-rod *h*, spring *i*, clutch lever *k*, clutch *b*, contrate wheel *c*, and pinion *d*, in gear with the cannon pinion of the watch, substantially as shown and described.

JULES JÜRGENSEN.

Witnesses:

SAM. J. HUBER,

LS. MOCCAUP.