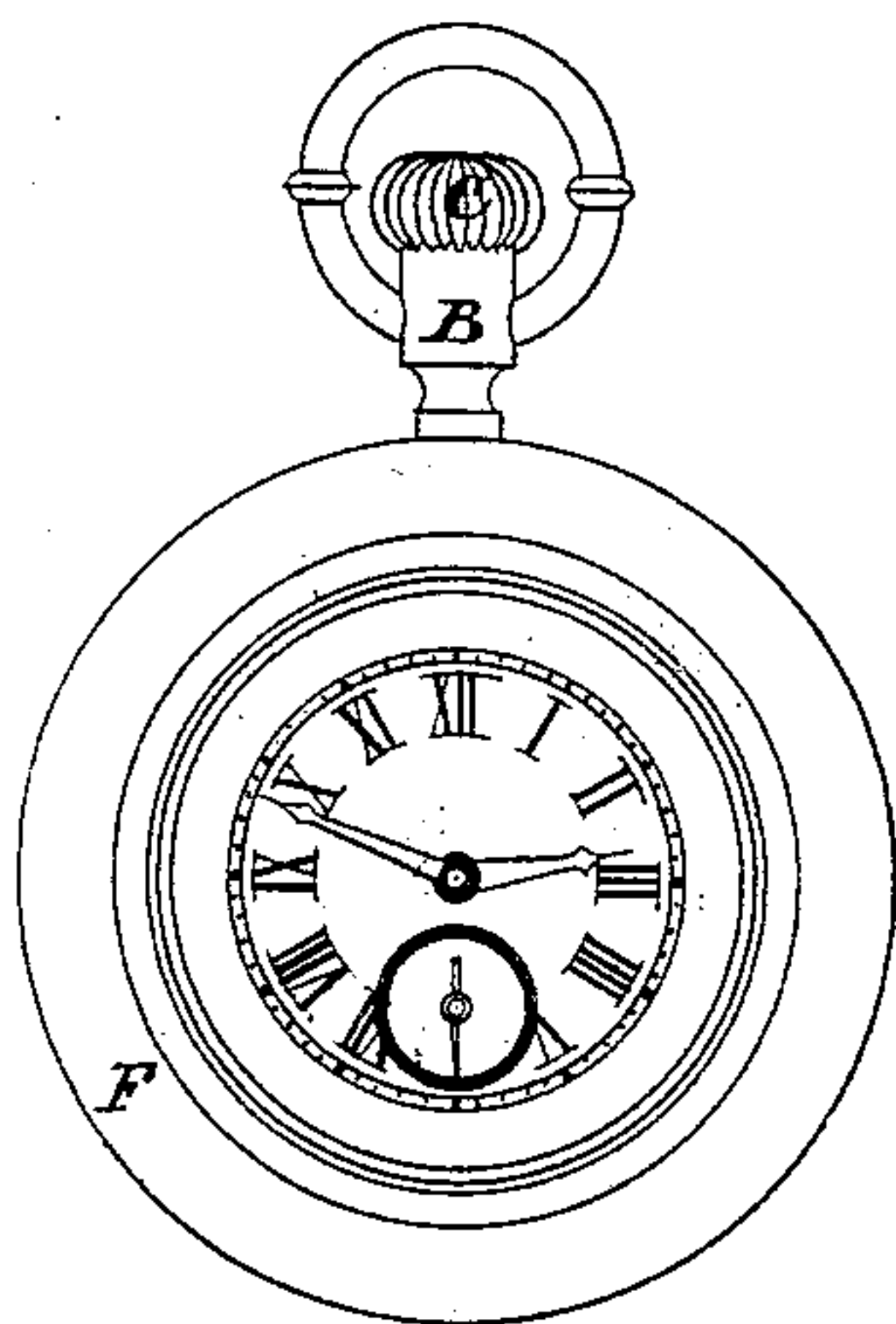
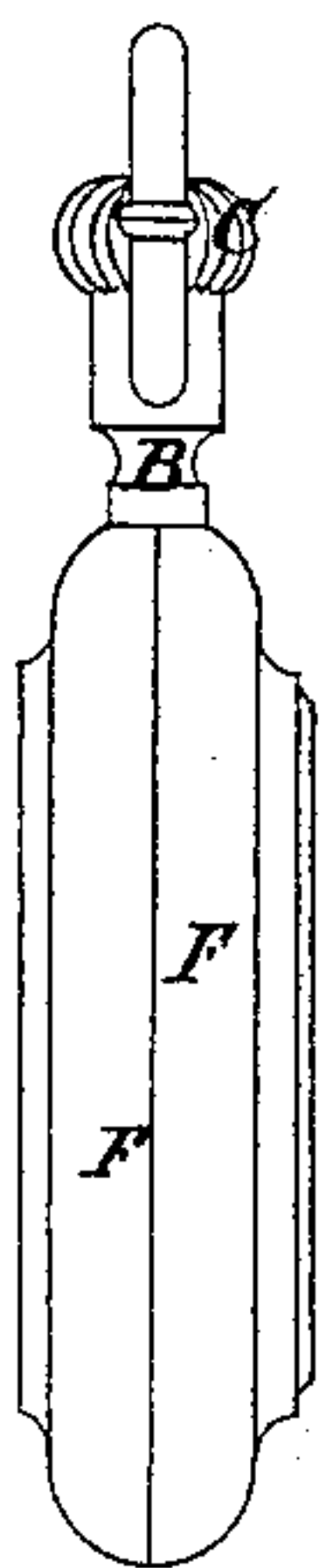


O. DOMON  
 Stem-Winding and Setting Device for Watches.  
 No. 200,380.                      Patented Feb. 19, 1878.

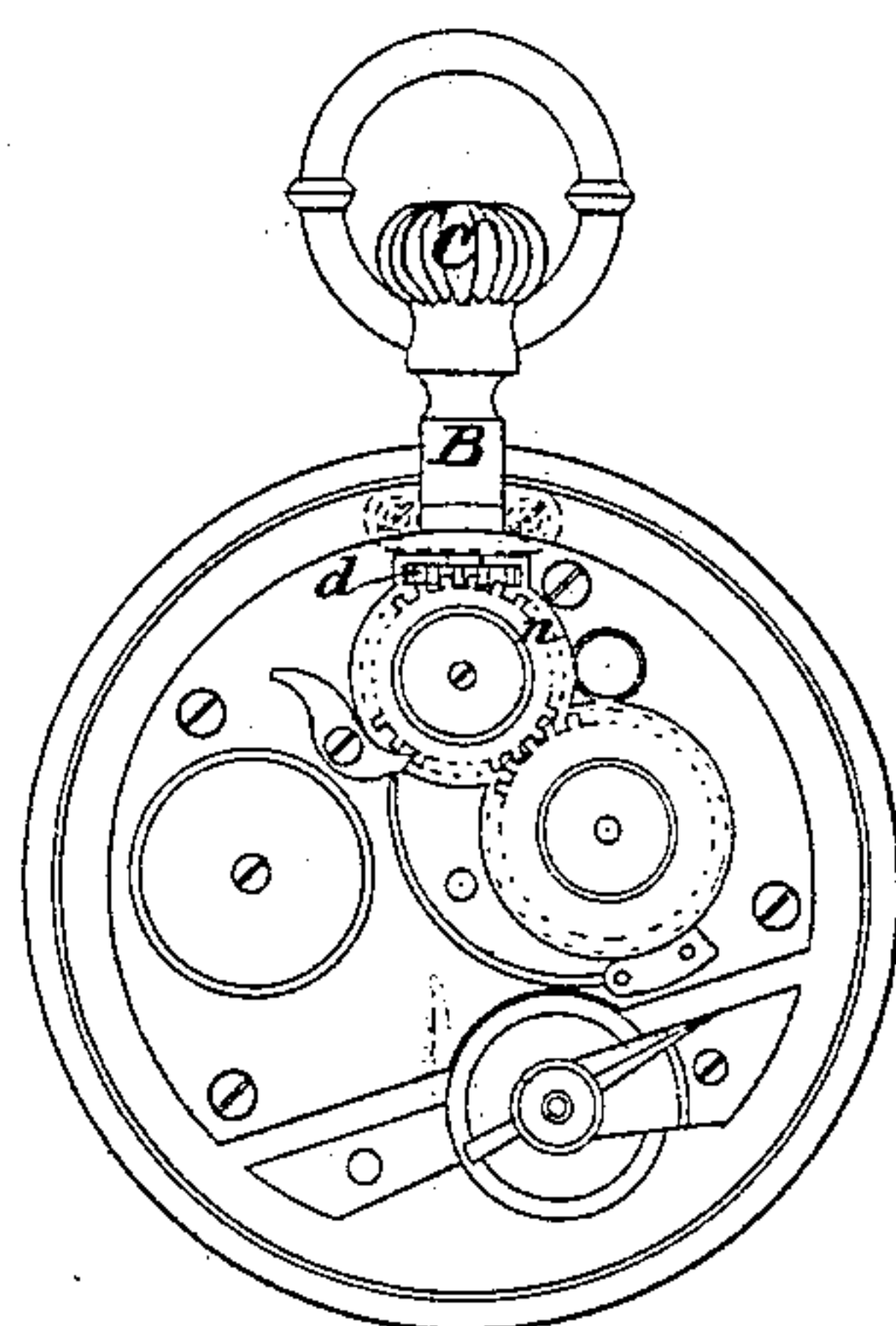
*Fig. I.*



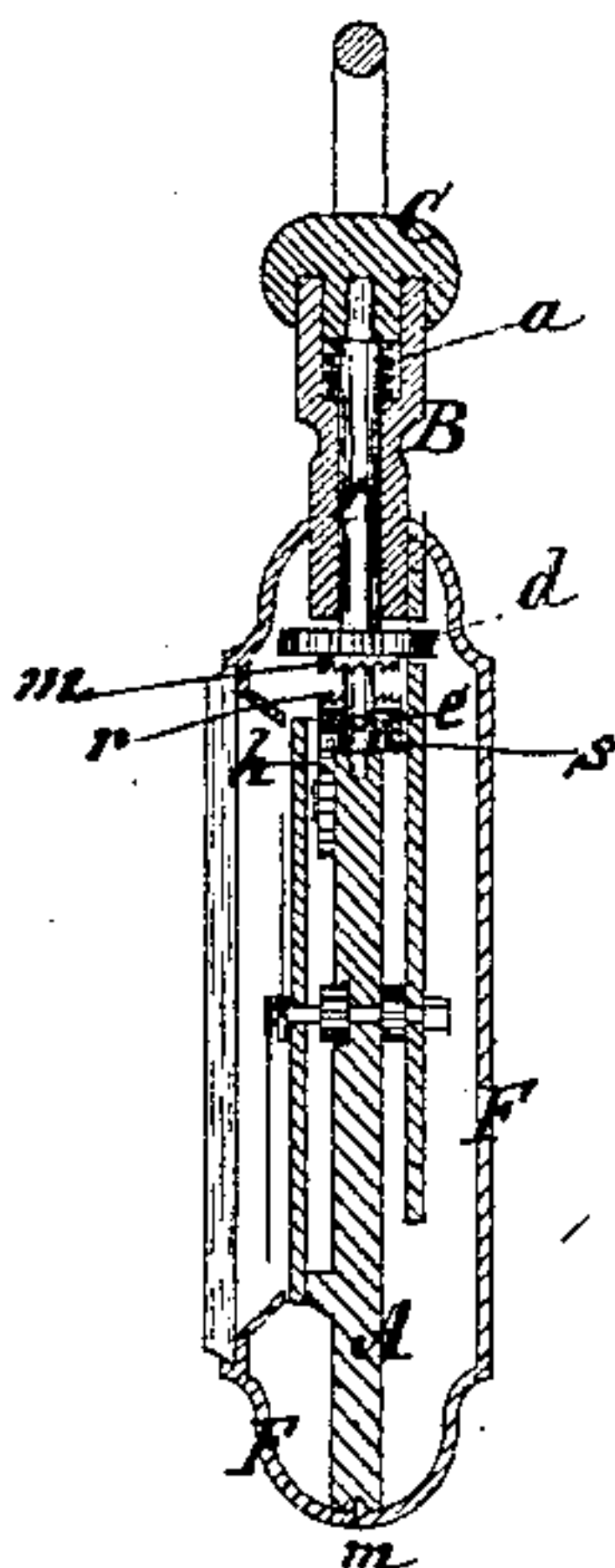
*Fig. II.*



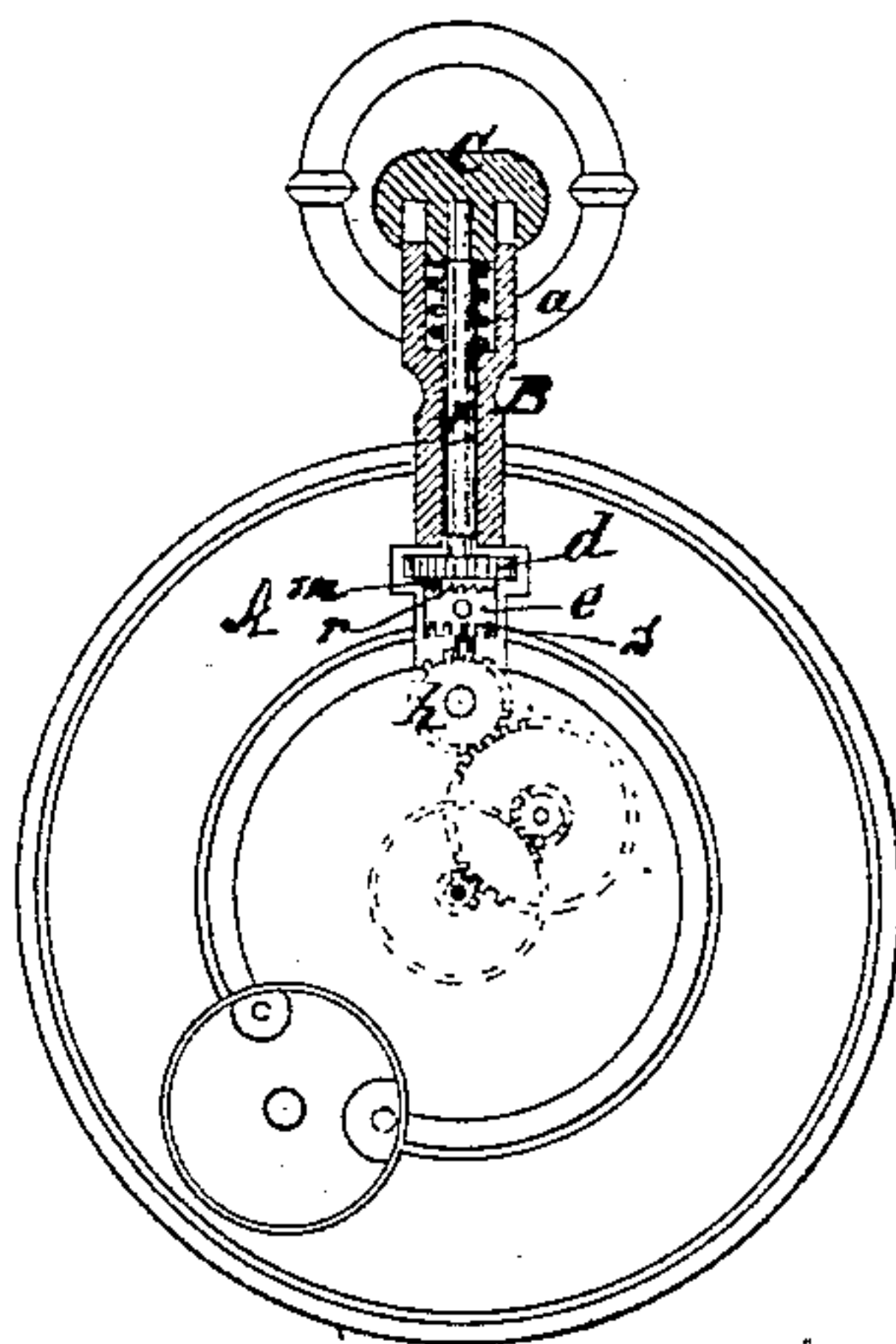
*Fig. III.*



*Fig. IV.*



*Fig. V.*



*Witnesses.*

*John F. Allen*  
*Wm. Chret.*

*Inventor.*

*O. Domon*  
*per Wm. E. Roeder*  
*Attorney.*



# UNITED STATES PATENT OFFICE.

OVIDE DOMON, OF BIENNE, SWITZERLAND.

IMPROVEMENT IN STEM WINDING AND SETTING DEVICES FOR WATCHES.

Specification forming part of Letters Patent No. **200,380**, dated February 19, 1878; application filed December 13, 1876.

*To all whom it may concern:*

Be it known that I, OVIDE DOMON, of Bi-  
enne, in the Republic of Switzerland, have in-  
vented certain new and useful Improvements  
in Watches, of which the following is a specifi-  
cation:

The invention subject-matter of this patent  
relates particularly to the watch-winding and  
hand-setting mechanism, and has for its ob-  
ject the performance of these operations—  
namely, the winding and hand-setting—by  
means of the crown-piece in the pendant or  
stem of the watch, and without the use of any  
auxiliary or accessory devices, by which the  
gear of the minute-hand and the gear of the  
winding mechanism are engaged with and dis-  
engaged from the gear directly operated by  
the crown-piece.

My said invention consists in the combina-  
tion, with a watch-plate and a stem or pend-  
ant directly attached thereto, of a central  
and longitudinally-movable spindle rigidly  
connected with the crown-piece, and provided  
with a Breguet click and suitable gear-wheel,  
arranged in relation to the watch-winding  
gear and the hand-setting gear, substantially  
as hereinafter described, and of a helical  
spring located in a chamber in the stem sur-  
rounding said spindle, and acting against the  
bottom of said chamber and the under side of  
said crown-piece, as and for the purposes  
hereinafter shown and described.

As before stated, the watch is provided  
with a Breguet click, and the winding of the  
watch-movement and the setting of the hands  
are each affected independently of the other.  
The engaging and disengaging with the re-  
spective gears are effected by means of the  
crown-piece, which, being rigidly connected  
with a spindle carrying a Breguet click, is, in  
its normal condition, engaged or connected  
with the winding mechanism, while, when de-  
pressed, it is disengaged from the winding  
mechanism to engage with the hand-setting  
mechanism. A helical wire spring located in  
the chamber of the stem throws the crown-  
piece, when released from pressure, together  
with its spindle, out of gear with the hand-  
setting mechanism, to engage it again auto-  
matically with the winding mechanism. By  
this arrangement it will be seen that the watch

can be finished entirely without a case and  
without a rim, and therefore can be produced  
at a greatly-reduced cost, inasmuch as this  
most difficult and tedious operation is entirely  
dispensed with; and also obviates the neces-  
sity of using any extraneous or projecting  
pieces, such as slides, knobs, &c., which are  
generally used in connection with stem-wind-  
ers, in order to shift connection of the stem-  
gear from the winding to the hand-setting  
mechanism, and vice versa.

In the watch shown in the drawings the  
stem is shown directly attached to the watch-  
plate by means of a suitable metal strap, by  
screws; but the stem may be otherwise se-  
cured, according to the judgment of the man-  
ufacturer.

In the accompanying drawings I have shown  
a watch constructed in accordance with my  
said invention, Figures 1 and 2 representing  
exterior views of the watch face and side.  
Fig. 3 shows the same with the back plate re-  
moved. Fig. 4 is a transverse view of the  
same with a section of the stem. Fig. 5 rep-  
resents the watch seen from the side of the  
minute-wheel, with a section of the stem, show-  
ing the Breguet click disengaged from the  
hand-setting mechanism.

In said drawings, the plate is shown at A,  
against or upon which is mounted the watch  
mechanism, which it is unnecessary here to  
particularly describe, except so far as to indi-  
cate by reference to the figures the gear-wheel  
and click.

In the head of the plate, by means of  
screws, is secured the stem B, through the  
center of which passes the spindle *t*, which  
is connected at its upper end with the crown-  
piece C, and its lower end laterally fits in a  
journal-bearing, yet so as to admit of a longi-  
tudinal movement therein.

The stem B is provided with a chamber,  
within which a helical wire spring, *a*, sur-  
rounding the spindle, is located. This spring  
bears on the one end against the bottom of the  
chamber in the stem, and on the other end  
against the lower side of the crown-piece.  
The latter is provided on its under side with  
an annular recess, which allows of its being  
depressed to slide a given distance upon the  
stem.



The spindle *t* of the crown-piece passes, at its lower end, through the center of the helicoidal wheel *d*, which is loose upon its axis, and is arranged to engage with the spring-barrel. This wheel is rigid with the toothed circle of the Breguet click, whose second part *e* is fast upon the spindle at its lower extremity.

The lower portion of the Breguet click is indented to gear with the minute-hand wheels. The tendency of the spring *a* is to throw up the spindle, and with it the Breguet click, the upper part of which engages with the corresponding portion projecting from and making body with the helicoidal wheel, and in that position it is always ready to act upon the barrel-gear for the purpose of winding the watch. On pressing upon the crown-piece the Breguet click engages with the minute-hand gear.

Having thus described my invention, and the manner in which the same is or may be

carried into effect, what I claim, and desire to secure by Letters Patent, is—

The combination, with a watch-plate and a stem or pendant directly attached thereto, of a central and longitudinally-movable spindle rigidly connected with the crown-piece, and provided with a Breguet click and suitable gear-wheel, arranged in relation to the watch-winding gear and the hand-setting gear, substantially as herein described, and of a helical spring located in a chamber in the stem surrounding said spindle, and acting against the bottom of said chamber and the under side of said crown-piece, as and for the purposes herein shown and described.

In witness whereof I have hereunto set my hand this 8th day November, 1876.

DOMON.

Witnesses:

RUDOLF ASCHMANN,  
O. B. DUNCHERT.