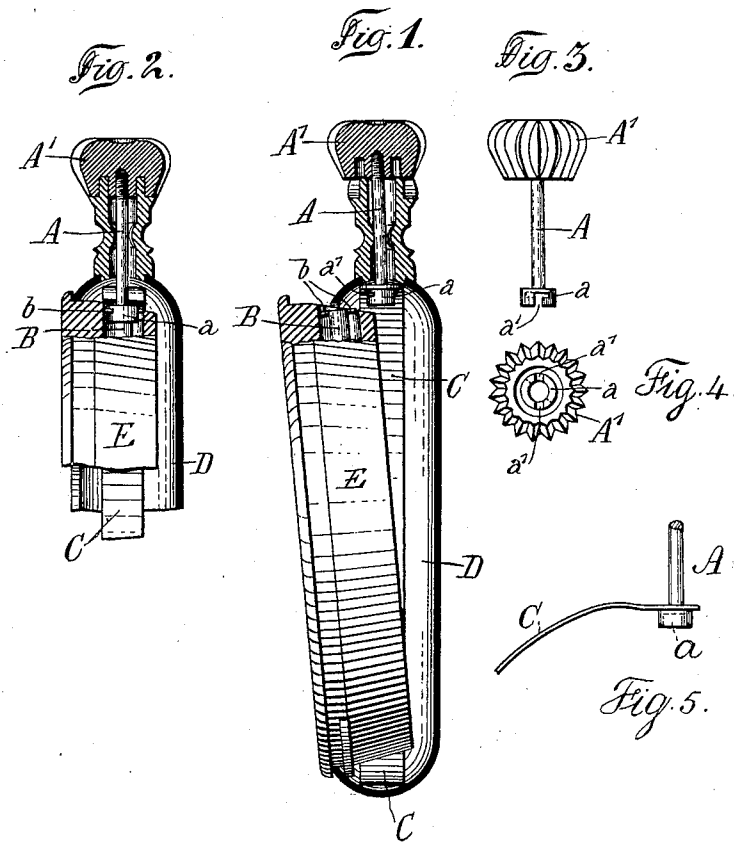


(No Model.)

F. KÖHLI.
WATCH STEM FASTENER.

No. 566,586.

Patented Aug. 25, 1896.



Witnesses

Chas. H. Smith
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Inventor

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UNITED STATES PATENT OFFICE.

FRITZ KÖHLI, OF BIENNE, SWITZERLAND, ASSIGNOR TO EMILE FLOTRON,
OF MADRETSCH, SWITZERLAND.

WATCH-STEM FASTENER.

SPECIFICATION forming part of Letters Patent No. 566,586, dated August 25, 1896.

Application filed February 3, 1896. Serial No. 577,872. (No model.)

To all whom it may concern:

Be it known that I, FRITZ KÖHLI, watch-maker, of Bienne, canton of Berne, Switzerland, have invented certain new and useful Improvements in and Relating to Stem-Winding Watches, of which the following is a specification.

My invention relates to devices for connecting or coupling in stem-winding watches the stem of the movement with the stem extending through the pendant from the crown, and also for fastening the watch-movement in its case. In these watches it is essential that the stem be longitudinally movable, so as to operate either the winding or hand-setting mechanism, and this must be effected without disengaging the coupling device.

In carrying out my invention I provide a pin extending centrally across the stem of the watch-movement and having projecting ends, and the lower end of the stem from the crown extending through the pendant is made with a coupling-head having an open center and a groove across the under face of the head with bayonet-slots at the base of the groove. This head fits over the stem of the movement and the pin across this stem is received in the groove of the head, and a partial rotation of the head causes the ends of the pin to move into the bayonet-slots, and a coiled contractile spring acting over the head causes the parts to normally remain in engagement when the crown is turned in either direction, and the pin in the bayonet-slot keeps the parts together when moved longitudinally to change from the winding to the hand-setting position.

In the drawings, Figure 1 is a cross-section and partial elevation showing the case for the watch-movement partially inserted in the outer case. Fig. 2 is a cross-section at the pendant, showing parts of the cases as connected. Fig. 3 is an elevation of the crown, stem, and head. Fig. 4 is an inverted plan of the same, and Fig. 5 is a side elevation of part of the coiled spring and the head and stem upon which it acts.

The watch-case D and its pendant and the movement-case E are of well-known construction and do not require further description.

Within and around the inner surface of

the case D is a coiled contractile spring C, and the movement-case E is made with a rib *e* to engage the case, as shown in Fig. 1.

The movement is provided with a stem B, across whose upper end is centrally located a pin *b*, whose ends project.

The stem A is connected to the crown A' and passes through the said spring C, and on the lower end of said stem A is a coupling-head *a*, having an open center and a groove *a'* across its under face and bayonet-slots in the head at the base of the groove.

In the position Fig. 1 the crown is moved aside and supported on the upper edge of the pendant with the stem A inclined in the pendant, and the spring C is bent outward and under tension. In this position the movement-case E is inserted in the case D. The crown and stem are then moved to the center of the pendant and the spring C draws the same down with the head *a* resting on the stem B. The head is now turned by the crown and the groove *a'* brought into line with the pin *b*. In this position the spring moves the head *a* down over the pin, and a partial rotation of the crown causes the pin *b* to enter the bayonet-slots. The parts are now connected and locked together, as shown in Fig. 1. In this position the crown and stem may be rotated to wind up the main-spring or the stem may be moved longitudinally and turned to effect the hand-setting operation without disengaging the parts.

With the parts in the position Fig. 2 the coupling-head *a* and stem B are kept together and the crown can be rotated in either direction without the parts becoming separated. If the crown and stem are moved in the reverse direction, and also moved longitudinally, a separation is effected that releases the stem B, so that the movement and its case can be taken from the case D. This coupling device may be inverted, that is, the coupling-head *a* may be upon the stem B and the pin *b* be upon the stem A, without altering the operation of the parts or changing the character of my invention, except that in this case the stem would be notched and the end of the spring C forked to take a bearing therein, as in Letters Patent granted to me September 17, 1895, No. 546,543.

I claim as my invention—

1. The combination with a watch-case having a side opening and pendant and a removable movement case and stem, of the crown
5 and stem, a coupling-head having a hollow center, a cross-groove in one face and bayonet-slots in opposite directions at the base of the
10 groove upon the end of one stem, and a cross-pin upon the adjacent opposing end of the other stem, the groove and bayonet-slots receiving the cross-pin for coupling the stems
of the movement and crown together, and a spring acting downward for holding the parts
15 in contact and the crown in place, substantially as set forth.

2. The combination with a watch-case having a side opening and pendant, and a removable movement case and stem, and a cross-pin through the upper end of the movement-

stem, of the crown and its stem, a coupling- 20 head on the crown-stem and having a hollow center, a cross-groove in its under face and bayonet-slots in opposite directions at the base of the groove to receive the respective
25 ends of the said cross-pin, and a coiled contractile spring around within the watch-case and acting downward over the coupling-head to hold the parts in engagement with the
stem of the movement and the crown in place, substantially as set forth.

30 In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRITZ KÖHLI.

Witnesses:

E. IMER-SCHNEIDER,
EMILE FLOTRON.