

J. A. DAWSON.

STEM-WINDING AND SETTING DEVICE FOR WATCHES.

No. 182,018.

Patented Sept. 12, 1876.

Fig. 1.

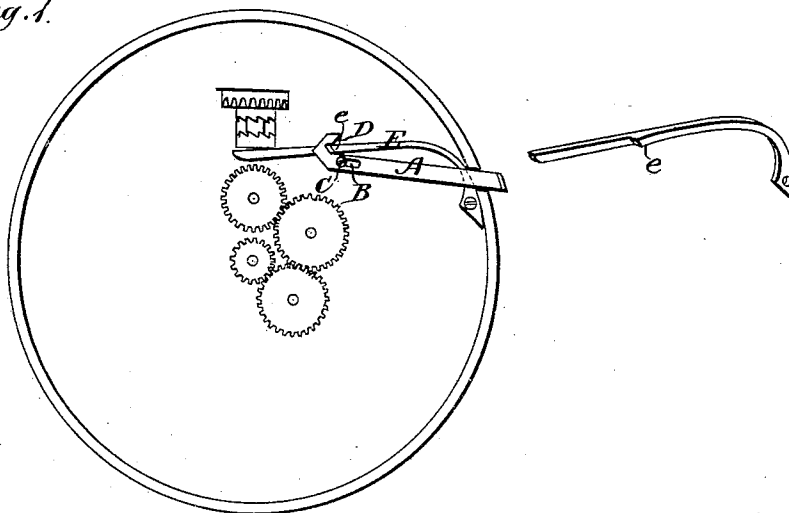


Fig. 2.

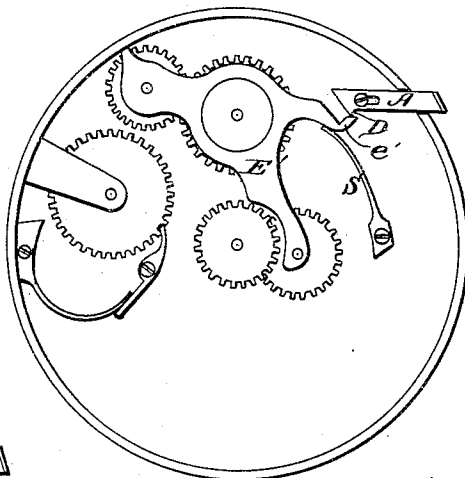


Fig. 3.

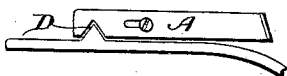
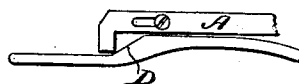


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

JOHN A. DAWSON, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN STEM WINDING AND SETTING DEVICES FOR WATCHES.

Specification forming part of Letters Patent No. 182,018, dated September 12, 1876; application filed February 7, 1876.

To all whom it may concern:

Be it known that I, JOHN A. DAWSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Stem-Winding Watches, of which the following is a specification:

Figure 1 represents a view of my invention applied to the spring-arm of a Breguet ratchet. Fig. 2 represents a view of the same applied to an oscillating bar; and Figs. 3 and 4 are views of modifications.

This invention has for its object to provide a simple and efficient device for shifting the winding mechanism in stem-winding watches from the winding to the hand-setting wheels.

My invention consists in the combination, with the spring-lever, of the Breguet ratchet, or with the oscillating arm of other shifting mechanisms of stem-winding watches, of a peculiarly-constructed shipper-bar, adapted to slide longitudinally in suitable guides on the watch-plate. Said bar is provided, at its inner end, with an incline, against which the lever or arm of the shifting mechanism is held with a yielding pressure by a suitable spring, the incline being so formed that it will press against and move or swing the lever or arm against the force of its spring sufficiently to shift the winding mechanism from the winding to the hand-setting wheels, and hold it in this position when the sliding bar is moved outwardly, and allow said lever or arm to be moved back to its former position by the force of its spring, when the sliding bar is moved inwardly, the latter motion of the bar being effected by the closing of the watch-case, and facilitated by the spring-pressure of the arm or lever against the incline, all of which I will now proceed to describe.

In the drawings, A represents the sliding shipper-bar, which is provided with a longitudinal slot, B, and is held in place on the plate of a watch by a screw, C, passing through said slot and a groove in the edge of the plate, the outer end of the bar projecting slightly beyond the edge of the plate, so as to be within reach of the operator. The bar A is adapted to slide longitudinally, its motion being limited by the screw and slot. The inner end of the bar A is provided on one side with a plane,

D, which is inclined or diagonal to the line of motion of the bar. E, Fig. 1, represents the spring-arm of a Breguet ratchet, which carries the clutch, whereby the stem is engaged with either the winding or the setting wheels; and E', Fig. 2, represents the oscillating arm, which carries the winding and setting wheels in other stem-winding watches. These carrying devices are held with a yielding pressure against the incline D, the pressure being effected in the former case by the elasticity of the arm E, and in the latter by a spring, S. When the bar A has been moved inwardly, the lever E or arm E' bearing against its incline is in such position that the turning of the stem operates the winding mechanism, and when the bar is moved outwardly its incline bears against the lever E or arm E', and swings it from its former position sufficiently far to disconnect the stem from the winding, and engage it with the hand-setting mechanism. The arm E is provided with a shoulder, e, which bears against a plane or point of rest substantially parallel with the line of motion of the bar A, when the latter is drawn out, as shown in Fig. 1, this point of rest holding the spring-arm in the position shown, and preventing it from returning automatically to its former position until the bar A is pushed inwardly far enough to cause the point of rest to pass the shoulder e; the latter then presses against the incline D, which offers but little resistance, and is forced inwardly and returned to its former position. The same result is produced when the arm E' is employed, the arm having a notch, which receives the incline D when the bar A is pushed in, and a plane or point of rest beyond the notch, against which the apex or outer end of the incline bears when the bar is pulled out, as shown in Fig. 2.

It will thus be seen that a shipping device is produced which is extremely cheap and simple, has a perfectly sure, easy, and positive action, and is not liable to get out of order. When pulled out, the shipper-bar stays in place with no tendency to shift, excepting when pushed back, either by shutting the case or otherwise. In consequence of its longitudinal motion, it can be fitted closely in the case without leaving an opening for the

admission of dust, as is the case with all shippers having a swinging motion.

The incline D may be made in various forms, as shown in Figs. 1, 2, and 3, and may be made upon the bar A, as shown in Figs. 1, 2, and 3, or upon the spring-lever or oscillating arm, as shown in Fig. 4, without departing from the spirit of my invention.

I claim—

A longitudinally-sliding shipper-bar, having a plane, D, which is inclined or diagonal

to the line of motion of the bar, combined with the spring-arm E, or other carrying device of a stem-winding watch, substantially as described, for the purpose specified.

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

JOHN A. DAWSON.

Witnesses:

C. F. BROWN,
A. E. DENISON.