A. & F. HATHAWAY.

Watch-Key.

No. 163,771. Patented May 25, 1875.

Fig. 1.

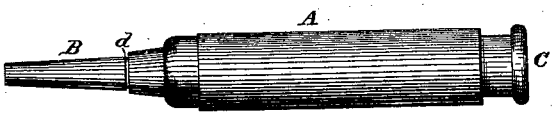
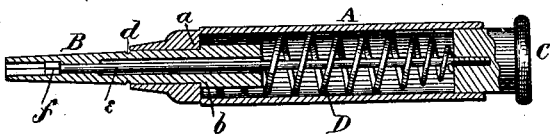


Fig. 2.



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UNITED STATES PATENT OFFICE.

ADDISON HATHAWAY, OF CHICOPEE FALLS, AND FRANK HATHAWAY, OF SPRINGFIELD, MASSACHUSETTS.

IMPROVEMENT IN WATCH-KEYS.

Specification forming part of Letters Patent No. **163,771**, dated May 25, 1875; application filed April 15, 1874.

To all whom it may concern:

Be it known that we, ADDISON HATHAWAY, of Chicopee Falls, and FRANK HATHAWAY, of Springfield, county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Watch-Keys, of which the following is a specification:

The nature of our invention consists in providing a watch-key with a revolving cylinder and an interior spring-plunger, so arranged that the cylinder may revolve freely backward, but will carry the barrel with it upon a forward revolution, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which our invention appertains to make and use the same, we will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side view of a watch-key embodying our invention, and Fig. 2 is a longitudinal section of the same.

A represents the outside cylinder, and B the barrel, of a watch-key. The lower end of the cylinder A is contracted, as shown, and provided with an interior circumferential shoulder, *a*. The outside circumference of the barrel B is of the same size as the interior circumference of the contracted part of the cylinder; but the inner end of the barrel is enlarged, so as to form a circumferential shoulder, *b*, on the outside, which is to abut against the interior shoulder *a* of the cylinder. *d* is a circumferential groove on the outside of the barrel B, at such a point that when the barrel is passed through the cylinder to its position, the extreme lower end of the cylinder may be spun or otherwise forced into said groove, so as to so unite them that they cannot be separated, but allow the cylinder to be turned independent of the barrel. The outer end of the barrel is made square on the inside, as usual, to fit the journal of the watch, and in this portion of the barrel is inserted a square plunger, *f*, formed upon the end of a rod, *e*, which passes through the center of the barrel, and has a plug, C, fastened upon its other end. This plug is made of such size as to fit within the upper or open end of the cylinder A, and forms a head or finish for the watch-key. D represents a spiral spring placed around the rod *e* within the cylinder, and fitting snugly therein. One end of this spring is placed around and soldered or otherwise fastened to the outside of the barrel B at its inner end, while the other end of the spring is loose, and bears against the inner end of the plug C.

By pressing upon the plug C the plunger *f* is forced to the front end of the barrel, and thereby cleaning the same of all dirt, and the spring D throws it back again. It will also be noticed that, by the spring D being fastened to the barrel, and fitting close to the inner side of the cylinder, it acts similar to a ratchet, allowing the cylinder to be turned backward without turning the barrel.

Upon the forward revolution of the cylinder A there is sufficient friction with the spring D to cause the barrel B to revolve with the cylinder and wind up a watch.

A spring-plunger for the purpose described may be arranged within a watch-key of any construction.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The combination, with the revolving cylinder A and barrel B, of the plunger *f*, rod *e*, spring D, and plug C, substantially as shown and described.

In testimony that we claim the foregoing as our invention we hereunto affix our signatures this 13th day of April, 1874.

ADDISON HATHAWAY.
FRANK HATHAWAY.

Witnesses:
R. W. HOLCOMB,
L. W. COBB.