C. E. LOMBARD.

Watch and Clock Key.

No. 211,918. Patented Feb. 4, 1879.

Fig. 1.

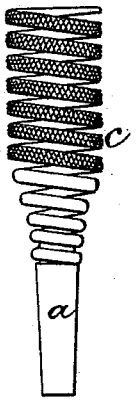


Fig. 2.

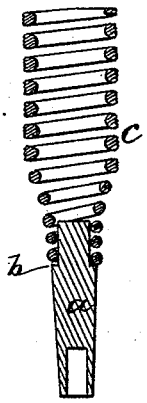
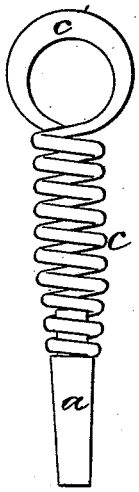


Fig. 3.



Witnesses.
Geo. W. Pierce
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C. E. Lombard
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UNITED STATES PATENT OFFICE.

CHARLES E. LOMBARD, OF CAMBRIDGE, ASSIGNOR OF ONE-HALF HIS RIGHT TO CHARLES F. BROWN, OF READING, MASSACHUSETTS.

IMPROVEMENT IN WATCH AND CLOCK KEYS.

Specification forming part of Letters Patent No. **211,918**, dated February 4, 1879; application filed May 24, 1878.

To all whom it may concern:

Be it known that I, CHARLES E. LOMBARD, of Cambridge, in the county of Middlesex and State of Massachusetts, have invented certain Improvements in Watch or Clock Keys, of which the following is a specification:

This invention relates to watch or clock keys in which the shank or handle of the key is made elastic or resilient for the purpose of preventing breakage of the mainspring of the watch or clock when the mainspring is entirely wound up, the resilient shank of the key being so constructed that it will be unyielding, and will resist the force required to wind up the mainspring until the latter is entirely wound up, and then yield if the key is additionally turned.

My invention has for its object to improve the construction of keys of the above-named class with respect to efficiency of operation and cheapness; and to this end it consists in the employment of a spiral spring as the shank of a watch or clock key, said spring being rigidly attached to the pipe or barrel of the key, as I will now proceed to describe.

Of the drawings forming a part of this specification, Figure 1 represents a side view of a watch or clock key embodying my invention. Fig. 2 represents a longitudinal section of the same. Fig. 3 represents a side view of a modification.

Similar letters of reference indicate corresponding parts.

In the drawings, *a* represents the pipe or barrel of a watch or clock key, the same being provided, as usual, in its outer end, with a square cavity, to fit over the winding-post of a watch or clock. The opposite end of the pipe is formed with a shoulder, *b*, the pipe being reduced to form this shoulder. *c* represents the elastic or resilient shank, which is composed of a single wire, and is formed at one end to fit closely on the reduced end of the pipe *a* and bear against the shoulder *b*. The end of the spring is rigidly secured to the pipe by soldering or in any desired manner. I prefer to enlarge the coils or convolutions of the spring above the end which is attached to the pipe, and mill or roughen the outer surfaces of the enlarged coils, as shown in Fig. 1. The enlarged milled portions enable the key to be easily turned by the thumb and finger of the operator. If desired, the outer or upper end of the spring *c* may be formed into a loop or handle, *c'*, as shown in Fig. 3. The spring is made of such strength that when the key is being turned to wind a watch or clock there will be no yielding or resilience in the shank of the key until the spring is entirely wound up and comes to a stop, when, in case the key is further rotated, the shank *c* will yield, and thus relieve the strain on the mainspring and its stops, and prevent the key from turning or slipping on the latter.

The chief advantages of the spiral spring are, first, its cheapness and the ease with which it can be attached to the pipe; and, second, its adaptability to yield in either direction, so that its function will be the same whether the watch or clock winds to the right or to the left. The shank thus constructed is also flexible, so that it can be bent in either direction laterally, and thus avoid contact with the opened cover of the watch in winding.

I claim as my invention—

A watch or clock key composed of a pipe or barrel and a spiral spring attached thereto, and forming a flexible shank or handle, as and for the purpose specified.

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

CHARLES E. LOMBARD.

Witnesses:

C. F. BROWN,

GEO. W. PIERCE.