M. L. GUTMANN.

Adjustable Watch-Key.

No. 211,992. Patented Feb. 4, 1879.

Fig. 1.

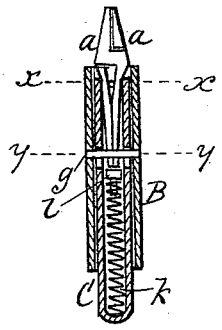


Fig. 2.

Fig. 3.

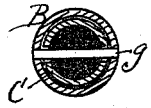


Fig. 4.

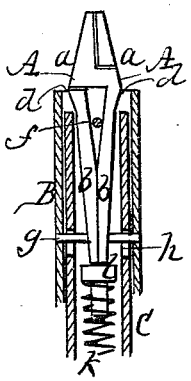


Fig. 5.

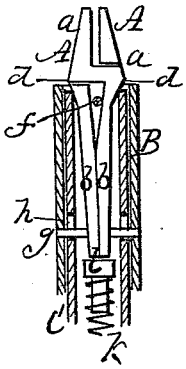
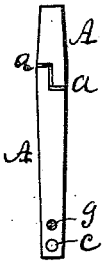


Fig. 6.



Attest.

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UNITED STATES PATENT OFFICE.

MAX L. GUTMANN, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN ADJUSTABLE WATCH-KEYS.

Specification forming part of Letters Patent No. **211,992**, dated February 4, 1879; application filed December 16, 1878.

To all whom it may concern:

Be it known that I, MAX L. GUTMANN, of the city of Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Watch-Keys; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a central vertical section of my improvement. Fig. 2 is a cross-section in line *x x* of Fig. 1, enlarged. Fig. 3 is a cross-section in line *y y*. Figs. 4 and 5 are views similar to Fig. 1, but on an enlarged scale, and representing respectively the key in its closed and its open positions. Fig. 6 is a view of the key proper, or the key-pipe, at right angles to the views of the same part in the other figures.

My improvement relates to that class of watch-keys which may be opened or expanded to different widths to fit different-sized winding-posts in watches.

The invention consists in an improved construction of the key-pipe, so that in the act of winding the watch the parts will bind closer together, thereby keeping in line; also, in combination therewith, certain other parts, which will be hereinafter more fully described.

In the drawings, A A represent the two parts forming the key-pipe. They are counterparts, and at the upper end, which forms the socket, they are halved together like a pair of blacksmith's tongs, so that they cross each other, as shown at *a a*. The lower ends are extended to form shanks *b b*, and are united at the bottom by a rivet, *c*, or by any other means; or the two parts A A may be made in a single piece, bent double to proper shape.

It will be seen that as the two parts *b b*, forming the shank, are pressed together, the socket-pieces *a a*, forming the key-pipe, will be pressed apart or opened to fit any size of winding-post; and as said parts *b b* are pressed apart the said socket-pieces will be closed; also, when the key-pipe is applied to the winding-post and turned to the right in winding the watch, the two parts *a a*, forming the key-pipe, bind together by the twisting action, and thereby keep the same in line and produce a binding action upon the post. This is owing to said parts crossing each other and being halved together, as before described, and is a distinguishing feature of my invention.

The device above described may be used by attaching the end of shanks *b b* to an ordinary thumb-piece of a watch-key, placing a small flat spring between the parts of the shank, to throw them apart, and also passing a small pin through slots in the parts *a a*, in which case the device is similar to an ordinary watch-key in form; but I prefer the following arrangement.

B is an open-ended tube, in which rests a barrel, C, closed at its bottom, but open at its top. A cross-pin, *f*, in the top of this barrel passes through the cleft between the shanks *b b*, and the top of said barrel rests against inclined shoulders *d d* of the socket-pieces *a a*, as shown.

The outer tube, B, is connected with the lower end of shanks *b b* by another cross-pin, *g*, which passes through vertical slots *h h* of the barrel C, to allow the latter a degree of longitudinal movement in the outer tube. The device A A thus forms a permanent attachment with the outer tube, B.

As the barrel C is moved up in the tube, its upper end, striking the inclined shoulders *d d*, forces the socket-pieces *a a* apart, and as said barrel moves down the cross-piece *f* between the shanks *b b* brings said socket-pieces together again.

A coiled spring, *k*, is inserted in the barrel C, with a head, *l*, resting under the end of the shanks *b b*, which serves to throw the barrel down in the tube.

The upper end of the tube B, in which the socket-pieces *a a* rest, is made square to fit said socket-pieces, and prevent strain or expansion of said parts in turning.

What I claim herein as new is—

1. In a watch-key, the key-pipe consisting of the two pieces A A, halved together at their upper ends, as described, so that they will bind together in the act of winding the watch, as specified.

2. The combination of the divided key-pipe A A, the tube B, connected with the same by the cross-pin *g*, the barrel C, sliding in the tube and provided with the cross-pin *f*, resting between the parts of the key-pipe and the spring *k* in the barrel C, as shown and described, and for the purpose specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

MAX L. GUTMANN.

Witnesses:
R. F. OSGOOD,
JACOB SPAHN.