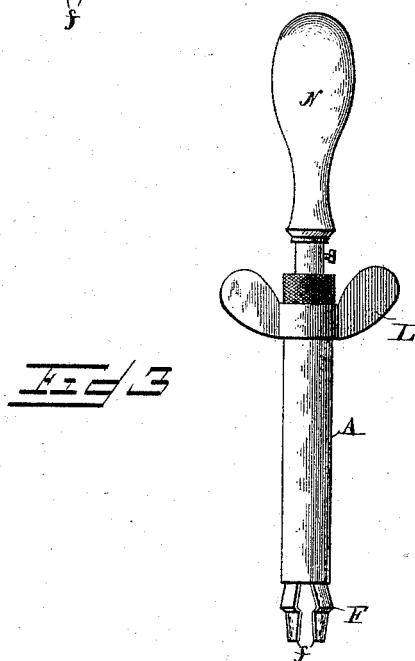
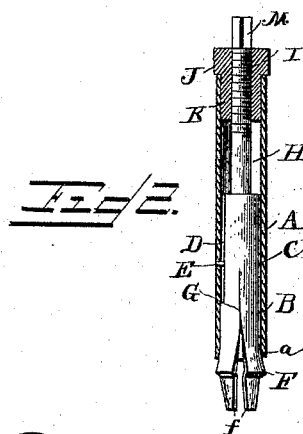
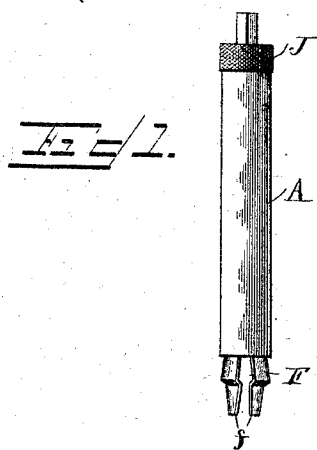


(No Model.)

W. F. BINGHAM.
WATCH KEY.

No. 493,815.

Patented Mar. 21, 1893.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM F. BINGHAM, OF MONTICELLO, IOWA.

WATCH-KEY.

SPECIFICATION forming part of Letters Patent No. 493,815, dated March 21, 1893.

Application filed October 4, 1892. Serial No. 447,811. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. BINGHAM, a citizen of the United States, residing at Monticello, in the county of Jones and State of Iowa, have invented a new and useful Jewelers' Watch-Key, of which the following is a specification.

This invention relates to watch keys; and it has for its object to provide an improved tool of this character which can not only be readily adjusted to fit all sizes of watches, to the very smallest, but also can be employed as a clock key and for bench purposes for letting down clock or other spring, and for fitting various sized arbors in all work.

To this end the invention primarily contemplates simple improvements in watch keys of this character to adapt the same for the various purposes specified.

With these and other objects in view which will be apparent to those skilled in the art, the invention consists in the novel construction, combination and arrangement of parts hereinafter more fully described, illustrated and claimed.

In the accompanying drawings:—Figure 1 is a side elevation of an adjustable watch key constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a detail elevation showing an adaptation of the key to bench purposes.

Referring to the accompanying drawings, A represents the outer cylindrical case or tube of the key, having an inner beveled portion *a*, at one end thereof, in order to facilitate the drawing up of the key tube or chuck B, within the case. The said key chuck is provided with a cylindrical portion C, adapted to slide within the beveled end of the case and provided with the side guide groove D, working over the inwardly projecting pin E, extending inwardly from the case A, and providing for holding the said tube to a straight sliding movement within the case, and thereby prevent the same from turning when the key is clamped onto a post or arbor.

The key chuck B, is provided at the outer end of the tube portion B, with an elongated shouldered head F, which together with the greater portion of the tube C, is slit as at G, to form opposite spring jaws *f*, normally springing apart, in order to fit the largest sized

posts or arbors, and which are closed to any size desired by withdrawing the entire key within its case, the tube portion of the key contacting with the beveled edge of the case, which serves to contract said jaws as said tube is withdrawn. The outer ends of the jaws *f*, are provided with the usual squared recesses adapted to fit onto the square post or arbor.

Extending through the case A, from the inner end of the key tube C, is the spindle H, having an upper exteriorly threaded end I, projecting beyond one end of the case. The said spindle H, is either separately or integrally connected with the key tube, and is adapted to receive on the upper threaded end thereof, the adjusting nut J. The adjusting nut J, works over one end of the case, and is provided with an inwardly extending interiorly threaded collar K, working over and taking a good purchase on the spindle H, so that by turning the nut, the key is drawn into the cylinder or case to contract the jaws thereof, or to feed the key out of the cylinder or case to open the jaws farther, and in either event, whenever said jaws are adjusted to the proper size, the same will not yield from such adjusted position, inasmuch as the beveled end of the cylinder or case forms a stop which prevents the jaws from spreading, except by the feed of the nut.

In adapting the hereindescribed key for winding clocks and heavier work than as a watch key, a thumb grasp L, is secured to the nut end of the cylinder or case so that the same can be readily turned, and in order to adapt the key for bench purposes, the outer projecting end of the spindle H, is provided with a squared stud M, adapted to receive the socket of an ordinary tool handle N, as illustrated in the drawings, thus adapting the key for many purposes.

It is thought that the construction, operation and adaptations of the herein described key will be readily apparent to those skilled in the art, but further attention is directed so the squared stud M. The squared stud M, is not only adapted to receive a tool handle so as to provide a clock bench key, but the same is constructed in the shape of an ordinary winding square such as is employed for winding up all pendent set watches before putting the same in their case. The said

square is therefore valuable in connection with the constructions illustrated in Figs. 1 and 2, in the capacity of an auxiliary winding square, so that the device as a watch key is adapted for a double use, to wit, winding up all sizes of key wound watches, and all pendent set watches while out of the case.

When the device is used as a clock key in the construction illustrated in Fig. 3, the square then provides means for the attachment of the bench handle.

It will of course be understood by those skilled in the art, that the chuck or key part of the device herein described, may be made of one or more parts, and the other elements comprising the entire key, modified according to the discretion of the manufacturer, without departing from the spirit of the invention.

Having thus described my invention, what I desire to secure by Letters Patent is—

1. In an adjustable watchmakers' key, the cylindrical case, a sliding key chuck moving in one end of the case having an inner beveled portion at one end and provided with normally separated spring jaws contacting with said beveled end, a longitudinally disposed guide groove, a threaded spindle projecting

through the other end of the case, and having an outer handle-receiving squared stud, a pin projecting inwardly from the casing and into said guide groove, and a separate adjusting nut arranged at one end of the cylinder and having an inwardly extending interiorly threaded collar engaging the threaded end of the spindle and working inside of the case, substantially as set forth.

2. In a watch key, the outer cylindrical case, a sliding adjustable key chuck moving in the case and having a threaded spindle projecting through the other end, a separate and independent threaded collar arranged in one end of the case to engage said threaded spindle for reciprocating the spindle, and an auxiliary winding square arranged at the outer projecting end of the spindle, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM F. BINGHAM.

Witnesses:

BURTON M. GAYLORD,
GEORGE G. SCHAEFFER.