W. A. BELCHER & D. J. PLUME.

Hollow Staff for Watches.

No. 167,634.

Patented Sept. 14, 1875.

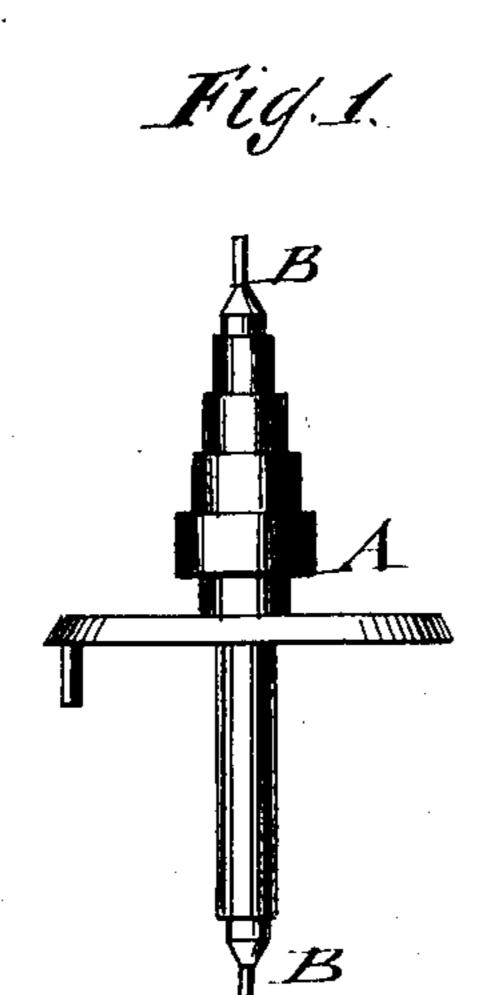
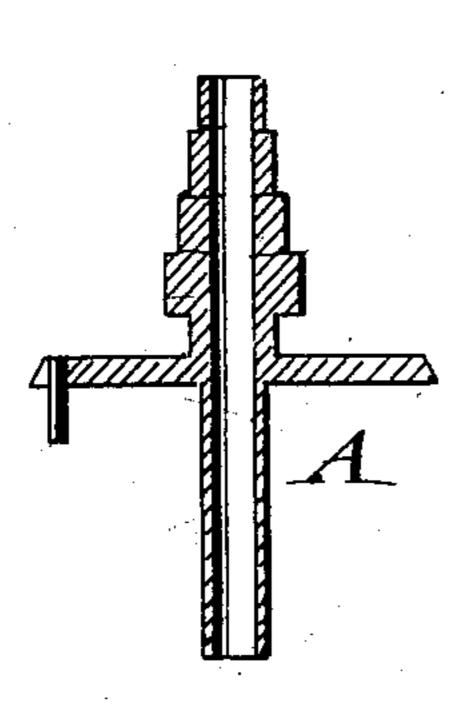


Fig. 2.

Fig. 3.



WITNESSES:

A. Herry

W. a. Believe By D. J. Plume ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM A. BELCHER AND DAVID J. PLUME, OF OPHIR CITY, UTAH TER.

IMPROVEMENT IN HOLLOW STAFFS FOR WATCHES.

Specification forming part of Letters Patent No. 167,634, dated September 14, 1875; application filed June 26, 1875.

To all whom it may concern:

Be it known that we, WILLIAM A. BELCHER and DAVID J. PLUME, of Ophir City, Tooele county, Utah Territory, have invented a new and Improved Hollow Staff for Watches, of which the following is a specification:

Figure 1 represents a side elevation of our improved hollow staff for watches; Fig. 2, a vertical central section with central plug detached, and Fig. 3 a side view of the center plug.

Similar letters of reference indicate corre-

sponding parts.

The object of our invention is to provide for lever watches of all kinds an improved staff, which may be quickly replaced when one of the pivots is broken off, without in the least interfering with the balance-wheel or other parts.

For repairing the said staffs used at present in all kinds of lever watches, it is necessary to unrivet the balance-wheel, which, by handling, frequently becomes untrue. This is especially the case in chronometer-balances, which cannot be perfectly trued after they have been once bent in the arms by being taken off the staff. In turning a new staff it is furthermore necessary to get a perfect fit for the balance, hair-spring, collet, and roller-table, which requires considerable time to be accurately attended to.

To avoid these difficulties, and enable watchmakers to repair staffs easily and quickly, we have provided a hollow staff with detachable center plug, that is readily removed and replaced without interfering with the other parts.

In the drawing, A represents our improved staff for watches of all kinds, which is centrally perforated for the detachable staff or center plug B that is turned to fit exactly therein.

For inserting a new staff the center plug is merely driven out, and a new one turned and inserted from the bottom into the hollow staff, which leaves the hair-spring, balance-wheel, and roller-table perfectly undisturbed, and, consequently, in as true a condition as before.

The operation is accomplished in a short time and without the least difficulty, so as to facilitate and expedite the repairing of watch-staffs.

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

The hollow staff A, provided with the solid driven plug B, as and for the purpose specified.

WILLIAM ABRAHAM BELCHER. DAVID JAMES PLUME.

Witnesses:

LAURENCE A. BROWN, EDWARD J. O'CALLAGHAN.