

C. F. HALL.
 DEVICE FOR REFITTING VALVE-SEATS.
 No. 170,363. Patented Nov. 23, 1875.

Fig. 1.

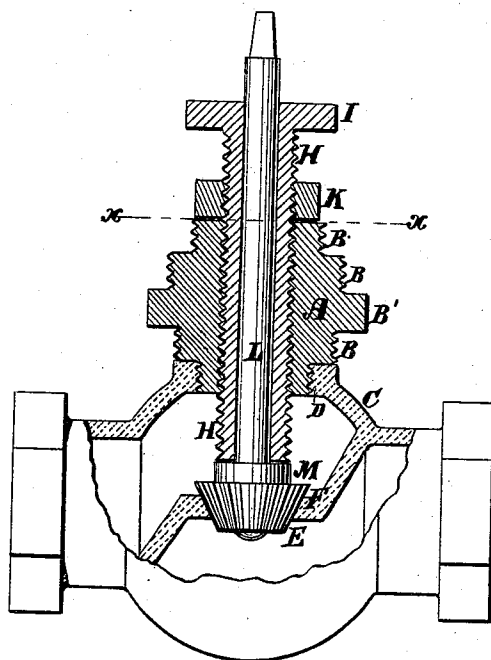
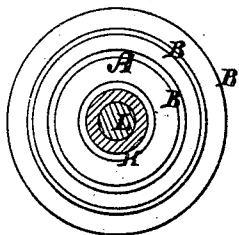


Fig. 2.



Witnesses:
A. Bennekenhoff.
A. F. Terry

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UNITED STATES PATENT OFFICE.

CHARLES F. HALL, OF SKANEATELES, NEW YORK.

IMPROVEMENT IN DEVICES FOR REFITTING VALVE-SEATS.

Specification forming part of Letters Patent No. **170,363**, dated November 23, 1875; application filed February 16, 1875.

CASE A.

To all whom it may concern:

Be it known that I, CHARLES F. HALL, of Skaneateles, in the county of Onondaga and State of New York, have invented a new and Improved Apparatus for Refitting Valve-Seats of Globe-Valves, of which the following is a specification:

My invention consists of a kind of double cone-shaped stock, with differential screw-threaded facets for fitting into different-sized screw-threaded holes in the shells of the valves to hold the refitting-tool, which stock has a screw-threaded central hole, in which is a hollow threaded feed-screw, which holds the shank of the refitting-tool in its central hole, and forces the tool down to its work by screwing in the aforesaid stock against a shoulder on the tool-shank. A jam-nut is provided on the feed-screw, to hold it in any position to which it may be adjusted by screwing against the stock, and prevent it from being turned by the shank of the tool, which is turned by a wrench or crank applied to the end projecting up through the top or outer end of the feed-screw, all as hereinafter described.

Figure 1 is a vertical sectional elevation of my improved refitting apparatus and the shell of a globe-valve, showing the application of the tool to the valve-seat. Fig. 2 is a horizontal section of the apparatus, taken on the line *x x*.

Similar letters of reference indicate corresponding parts.

A represents the before-mentioned double conical-shaped stock, with differential screw-threaded facets B, by which it is adapted to fit shells C of different sizes, with holes D, varying in size, in which holes the stock is to be screwed to hold the milling-tool E for dress-

ing off the valve-seat F, in the manner clearly indicated in Fig. 1. The middle facet B' is used for turning the stock. This stock has a central longitudinal screw-threaded hole through it, and a hollow feed-screw, H, fitted to screw in and out of it, said screw having a disk, I, for turning it. K is a jam-nut, screwing on the hollow feed-screw against the upper end of the stock, to fasten said feed-screw in any position as may be required. L is the shank of the refitting-tool, fitted at the base of the feed-screw, projecting above it, for the application of a wrench for turning it, and having a shoulder, M, against which the inner end of the feed-screw bears to hold it to its work. The cutter is of the ordinary kind of conical milling-tools used in dressing valve-seats.

In using this apparatus, the screw H is screwed down against the tool, so as to press it on the valve-seat with considerable force, and made fast by the jam-nut. The wrench is then applied to the shank L, and the tool is turned as long as it continues to cut, working out a perfectly true face by being held without feeding forward, so that all the cuts ultimately vanish, and leave no marks or ridges.

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

The combination of the stock A, with differential screw-threaded facets, feed-screw H, jam-nut K, and the refitting-tool E, shank L, and collar M, substantially as specified.

CHARLES F. HALL.

Witnesses:

S. L. BENEDICT,
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