(No Model.)

J. S. GLENN.

SWIVEL HANDLE FOR VALVES AND COCKS.

No. 367,513. Patented Aug. 2, 1887.

Fig. 1.

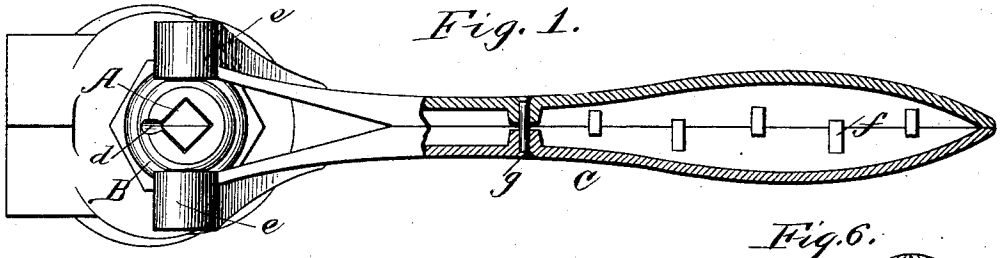


Fig. 6.



Fig. 2.

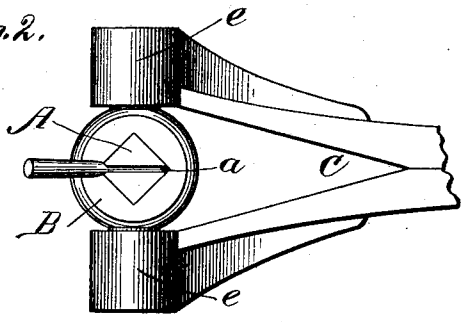


Fig. 3.

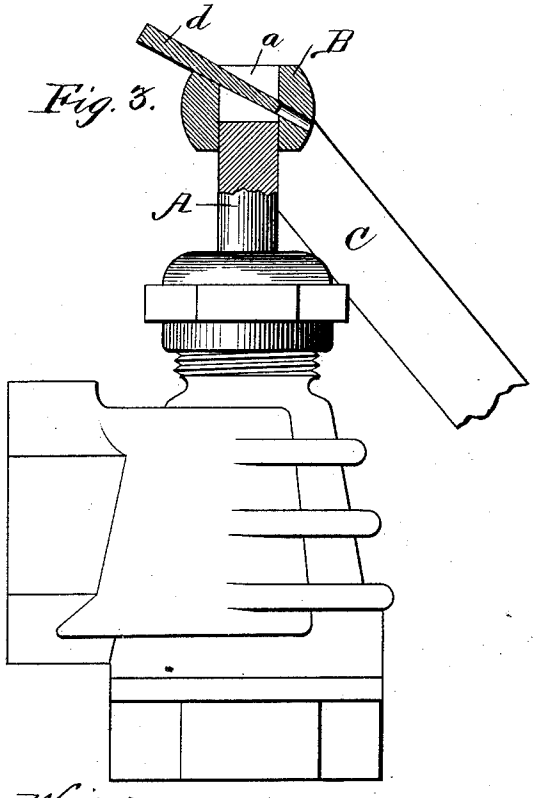


Fig. 4.

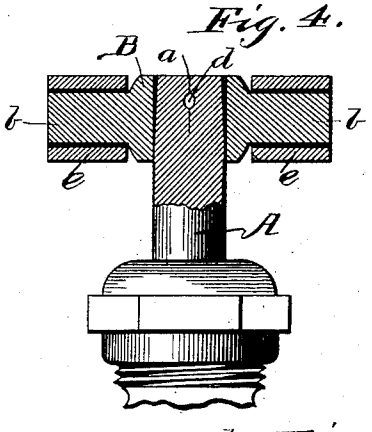
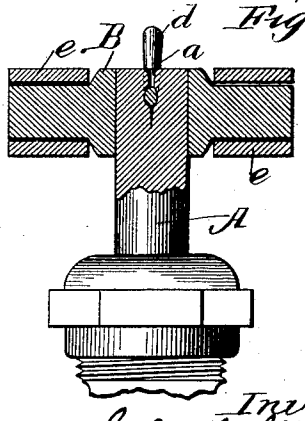


Fig. 5.



Witnesses.
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UNITED STATES PATENT OFFICE.

JOHN S. GLENN, OF CHICAGO, ILLINOIS.

SWIVEL-HANDLE FOR VALVES AND COCKS.

SPECIFICATION forming part of Letters Patent No. 367,513, dated August 2, 1887.

Application filed April 5, 1887. Serial No. 233,704. (No model.)

To all whom it may concern:

Be it known that I, JOHN S. GLENN, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Swivel-Handles for Valves and Cocks, of which the following is a specification, reference being had therein to the accompanying drawings.

Throttle-valves of all specialties—as for hydraulic and steam machinery—require handles that afford sufficient leverage for easy operation, and such handles heretofore were fixed to the valve-stems, being rigid therewith, when by their long projecting out these handles were exposed to be broken off by the moving past of heavy objects, and it has been my object to provide a handle pivotally secured to the valve-stem in a manner to fold against the valve-casing when not used; and with that object in view my invention consists of the novel devices and combinations of devices hereinafter described, and specifically claimed.

In the accompanying drawings, Figure 1 represents a plan of a valve and a sectional plan of the handle attached; Fig. 2, a plan, on an enlarged scale, of the pivot portion of the handle; Fig. 3, a sectional side elevation of a valve with handle attached; Figs. 4 and 5, sectional end elevations of the upper portions of the valve with handle attached, and Fig. 6 a cross-section of the handle.

Corresponding letters in the several figures of the drawings designate like parts.

A denotes the valve-stem, and B a hub having a square hole that receives the square upper extremity of such valve-stem, and having trunnions *b* for pivotally connecting the handle C. The squared upper end of valve-stem A is slightly tapering and has cut a slit, *a*, from its top downward diagonally on a line through two opposite corners, and a tapering hole is drilled through the hub B and through the slit of the squared end of stem A, to be on an inclined direction vertically for a taper ing pin, *d*, which with driving it therein will not only lock the hub B upon such stem against vertical removal, but also will expand the upper end of the stem to form a close and rigid joint with the square hole in hub B, by taking up any lost motion that otherwise might occur from a loose fitting.

The handle C is made of two pieces, each being a semicircular shell with an eyed end, *e*, fitting over one of the trunnions *b*. These two shells fit against each other, having shoulder-lugs *f* cast against their inner edges. That of one shell will overlap the other shell, holding the two rigidly in line with each other, and a rivet, *g*, passed through both shells and through bosses cast against the inside faces thereof, secures the two halves rigidly against each other, that when so connected the whole will constitute a handle with bifurcated ends, the eyed hubs of which receive the two trunnions *b* of hub B. This handle thus made and attached will hang down against the valve-casing, occupying but very little space thereon, while for adjusting the valve, by grasping the handle and by raising it to a position rectangular with the valve-stem it provides a long leverage for the operation.

The whole device, as will be noticed, is simple and cheap in its manufacture.

What I claim is—

1. The device for operating valves, consisting of a trunnioned hub secured upon the end of the valve-stem and of a handle bifurcated at one end, with eyes pivotally engaging the trunnions of such hub, substantially as set forth.

2. The means herein described for securing the handle upon a valve-stem, consisting of a stem having a squared end split diagonally, a handle having a hub provided with a square eye fitting upon the end of said stem, and a conical pin driven into the hole bored through the hub of the handle and diagonally through the stem in the inclined direction, substantially as described.

3. As a valve-operating device, the hub B, secured upon the valve-stem A and having trunnions *b*, and the pivotally-attached handle C, made of two sections, each with an eyed end engaging one of the trunnions and secured together by riveting, substantially as set forth.

4. As a valve-operating device, the combination, with hub B, secured upon the squared and slit end of the valve-stem by a tapering pin, *d*, in the manner described, and having trunnions *b*, of handle C, having bifurcated

eyed ends *e*, engaging the trunnions *b*, substantially as set forth.

5. The valve-operating device herein described, consisting of hub B, secured upon the squared and slit end of valve-stem A by tapering pin *d* and having trunnions *b*, and in combination therewith the handle C, made in halves, secured together by lugs *f* and rivet *g*, and each half provided with an eyed end, *e*, engaging the trunnions *b*, all substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN S. GLENN.

Witnesses:
WILLIAM H. LOTZ,
OTTO LUBKERT.