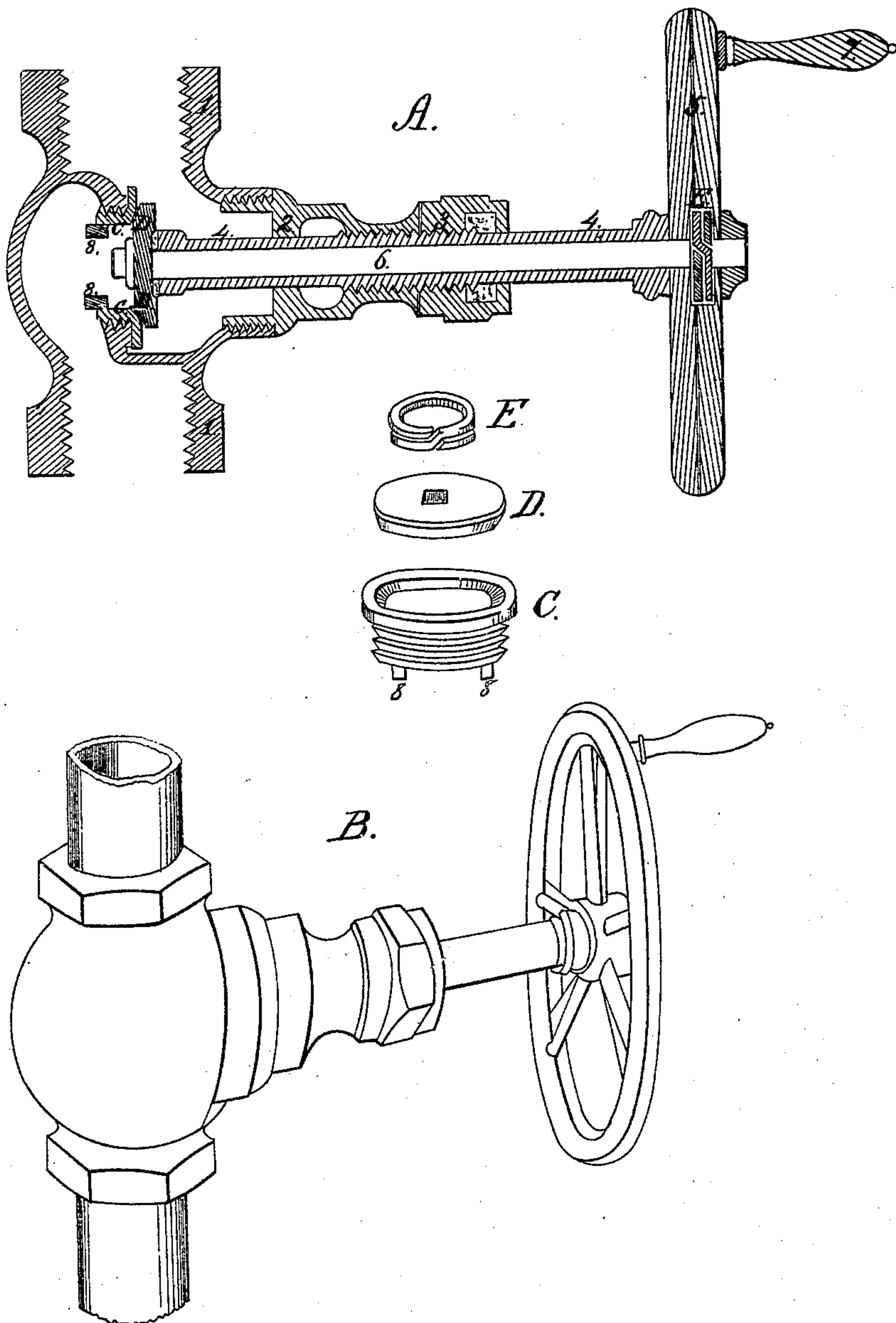


H. Burt.
Globe Valve.

N^o 94,394.

Patented Aug. 31, 1869.



Witnesses,
W. M. Gooding
Edward Collier

Inventor,
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HENRY BURT, OF NEWARK, NEW JERSEY, ASSIGNOR TO HIMSELF.
AND LOVIAS D. TOWSLEY, OF SAME PLACE.

Letters Patent No. 94,394, dated August 31, 1869.

IMPROVEMENT IN GLOBE-VALVES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, HENRY BURT, of the city of Newark, in the State of New Jersey, have made certain Improvements in Globe-Valves; and declare the following, taken in connection with the accompanying drawings, to be a full, clear, and exact description of the same.

The nature of my improvements consists in so constructing a valve that all needed implements for revolving and grinding it upon its seat shall form part and parcel of the stem itself, or be the handle upon one part of a compound stem; and in a spring, to prevent leakage from the compound stem.

In the accompanying drawings—

A shows a globe-valve, in section, with all its various parts;

B shows the same globe-valve in perspective;

C is the improved valve-seat;

D is the valve; and

E, the spring.

The interior of the globe is of the usual form, the shell being in this case in three pieces, 1, 2, 3. 1 is the globe and pipe-nuts; 2 is the shank; and 3, a stuffing-box.

The outer stem, 4, has upon it a thread, corresponding with the screw-thread in shank 2, and stuffing-box 3, and upon its outer end, one-half of the split wheel 5 is secured, the inner end of the stem pressing against the back of the valve D, forcing it close to the seat C, by turn of the wheel 5.

The inner stem, 6, can revolve in the outer stem. At its inner end the valve D is held on by a screw, the hole in the valve being made with two parallel sides, and two angular sides, and the end of the stem corresponding thereto. When required to be removed, the valve will be certain to stand in the same position when it shall be replaced on the stem. The valve, of course, must thus revolve with the stem.

On the outer end of the stem 6, the outer half of the split wheel 5 is secured, which can have a handle, 7, to be used in turning the stem and the valve.

In the interior of the aperture, through the interchangeable valve-seat C, at the opposite end to the seat proper, two knobs, 8 8, are cast, fast, projecting,

if deemed necessary, beyond the end of the screw, to be used in turning in or out the removable valve-seat C.

A recess in each half of the split wheel 5 receives the spiral split spring E, which forces together the back of the valve D and the end of the outer stem 4. A recess for packing or grease can be there or not, as deemed best, the object being to prevent the leakage of steam when the valve is open, from between the end of the stem and the valve.

As in all water there is more or less grit, in practice it is found to be arrested and held between the valve and the seat, the pressure of the closing-screw, even if crushing particles still, retains it where crushed, it preventing the perfect closing of the valve, and causing irregularities in the surfaces of the valve and the seat, the valve is soon out of repair.

Provision has heretofore been made for revolving the valve in ways that required the use of tools not always at hand, and the slight motion needed to grind the grit, distributing or ejecting it, is, in practice, almost sure to be neglected until the seat is wholly unfit for use.

By turning the whole wheel until the valve just touches the seat, and then revolving the outer half of the split wheel 5, and, of course, therewith the valve, the faces of the valve and seat are ground to a perfect fit, which, as in our construction, having the means wherewith to do this always on hand when closing the valve, will not be likely to be neglected; and thus a steam-tight valve is at an engineer's command.

What I claim, and desire to secure by Letters Patent, is—

1. The double or split hand-wheel 5, combined with the compound stems 4 and 6, as specified and shown.

2. The spring E, in combination with the split or double wheel 5, and the compound stem 4 and 6, for the object set forth.

HENRY BURT.

Witnesses:

W. M. GOODING,
EDWARD COLLIER.