B. W. MASSEY & T. J. GOODWIN.

VALVE CLEANER.

APPLICATION FILED SEPT. 17, 1914.

1,159,977. Patented Nov. 9, 1915.

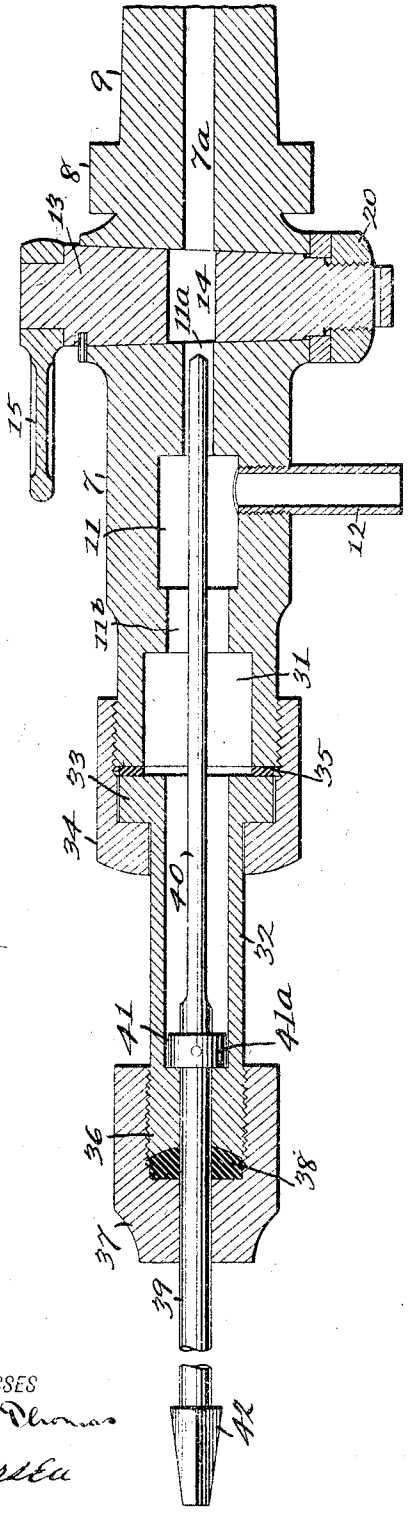


FIG. 1.

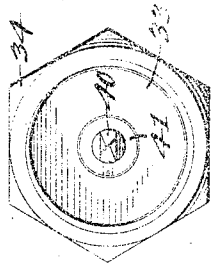


FIG. 2.

WITNESSES

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UNITED STATES PATENT OFFICE.

BONNER W. MASSEY, OF EAST MACON, AND THOMAS J. GOODWIN, OF SOUTH MACON, GEORGIA.

VALVE-CLEANER.

1,159,977. Specification of Letters Patent. Patented Nov. 9, 1915.

Original application filed May 2, 1914, Serial No. 835,890. Divided and this application filed September 17, 1914. Serial No. 862,237.

To all whom it may concern:

Be it known that we, BONNER W. MASSEY and THOMAS J. GOODWIN, both citizens of the United States, and residing the former at East Macon and the latter at South Macon, in the county of Bibb and State of Georgia, have invented certain new and useful Improvements in Valve-Cleaners, of which the following is a specification.

This invention relates to gage valves, particularly to means for cleaning the same, and is based upon matter divided out of our application for Letters Patent of the United States on gage valves and cleaners thereof, filed May 2, 1914, Serial Number 835,890, and the main object thereof is to provide means for attachment with a valve barrel whereby the passages through said valve may be cleaned.

A further object is to provide such cleaning means which are readily attachable to a portion of the valve barrel from which certain normal parts have been removed.

A further object is to provide means whereby the inward passage of the cleaning element may be limited; and further objects are to provide such devices which are simple in construction and use, highly efficient, and comparatively inexpensive.

Our invention is fully described in the following specification, of which the accompanying drawings form a part, in which the separate parts are designated by the same reference characters in each of the views, and in which:—

Figure 1 is a sectional view of our cleaner in position on a valve barrel, ready for use; and Fig. 2 is an end view thereof, detached from the valve.

The valve is fully described in the application above identified, only the barrel and the plug-valve being herein illustrated, said barrel being designated 7 and having a hexagonal portion 8 whereby the tapering portion 9 may be screwed into a boiler, and said barrel has a passage 7^a communicating with a passage 11^a, through the passage 14 of a plug-valve 13 operable by means of a handle 15 and held in position by means of a nut 20.

The passage 11^a connects with a chamber 11 having a nipple 12 in communication therewith, and said chamber 11 is also in communication with an enlarged chamber 31 by means of a passage 11^b, the chamber 31 being adapted to receive the packing gland in the normal use of the device as a valve, and the barrel 7 is screw threaded externally in the position of the chamber 31. Threaded on this end of the barrel is a cap 34 encircling a sleeve 32 provided with a flange 33 within said cap, a gasket 35 being interposed between the flange 33 and the end of the barrel 7, and the sleeve 32 is thus held firmly against and in communication with the barrel. The sleeve 32 is provided with a threaded portion 36 and fitted thereon is a cap 37 having a packing 38 therein, and through which passes a revoluble stem 39 carrying a drill 40, a collar 41 preventing outward movement of the stem 39 by reason of the shoulder 41^a and which collar is of such diameter as not to be able to pass through the passage 11^a of the barrel, and the stem 39 is provided with a frusto-pyramidal head 42, which head is adapted to limit the inward movement of the drill.

When the normal valve has been removed, together with the cap which threads on the threaded end of the barrel 7 in the position of the chamber 31, the drill 40 is inserted into the barrel and the cap 34 screwed into position, after which an ordinary brace chuck may be connected with the head 42 and the drill rotated within the barrel 7, working its way through until the collar 41 is stopped just above the position of the nipple 12, thereby preventing the drill from penetrating into the boiler, on which the valve barrel is mounted, to an extent which might cause damage or injury thereto. When the barrel 7 has been thus cleaned, the parts may be removed, and the normal valve needle restored in position, and the valve is again ready for normal use.

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is:—

1. As an article of manufacture, for use with a valve casing having a gland engaging screw-thread at one end; of a cleaner, comprising a cap internally threaded to engage the gland thread on said casing, a flanged sleeve held by said cap and rotatable therein, a drill rotatable in said sleeve, and means for limiting the movement of said drill in either axial direction.

2. As an article of manufacture, for use with a valve casing having a gland engaging screw-thread at one end; of a cleaner, comprising a cap internally threaded to engage the gland thread on said casing, a flanged sleeve held by said cap and rotatable therein and provided with two axial bores of different diameters, a drill having a bearing and rotatable in the bore of lesser diameter, means for packing said sleeve and drill against leakage, said drill having an enlarged head at its outer end, and a detachable collar on said drill within the sleeve bore of greater diameter, said head and collar limiting axial drill movement, and said cap, sleeve, and drill forming a unit.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

BONNER W. MASSEY.
THOMAS J. GOODWIN.

Witnesses:
H. F. LUQUIRE,
J. W. STROZIER.