No. 762,305. PATENTED JUNE 14, 1904.

J. W. GRANTLAND.

STOP AND WASTE COCK.

APPLICATION FILED FEB. 19, 1902.

NO MODEL.

Fig. 1

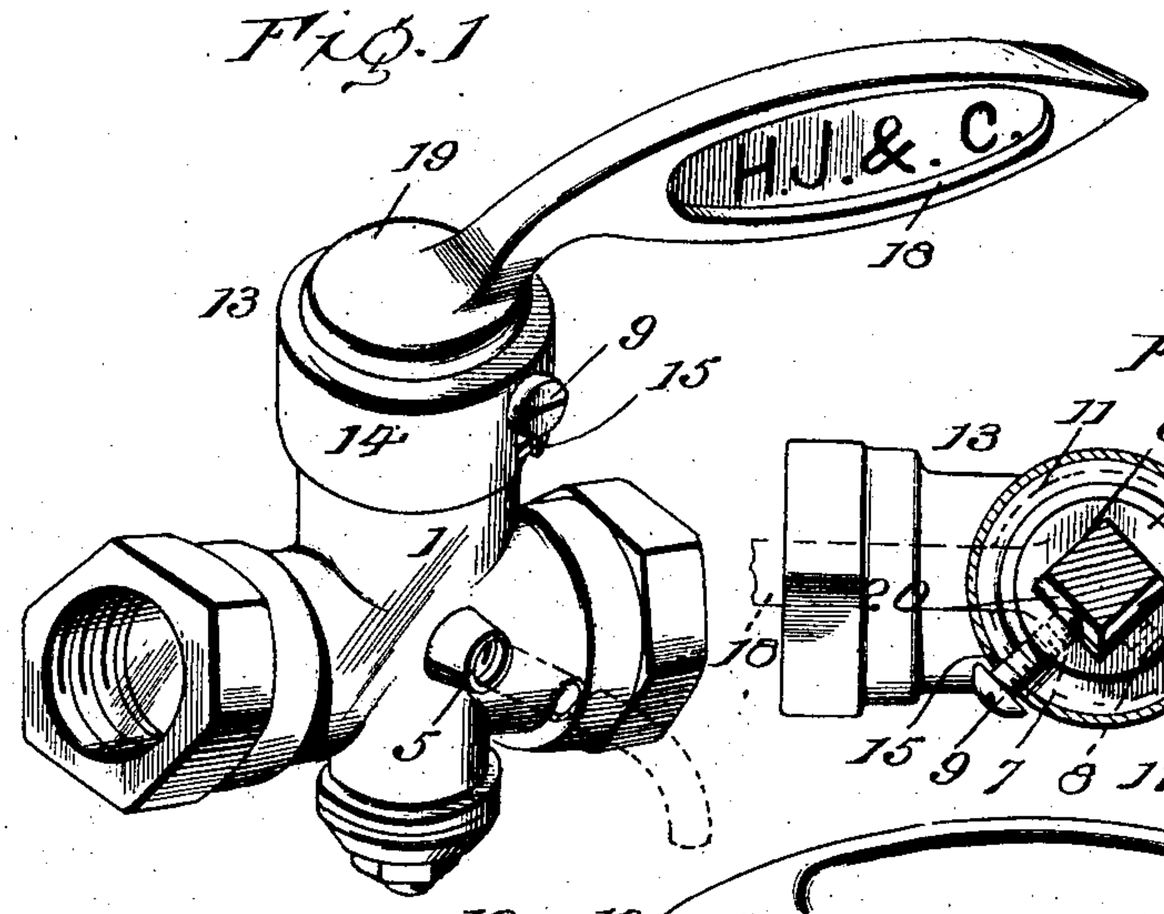


Fig. 5.

Fig. 6.

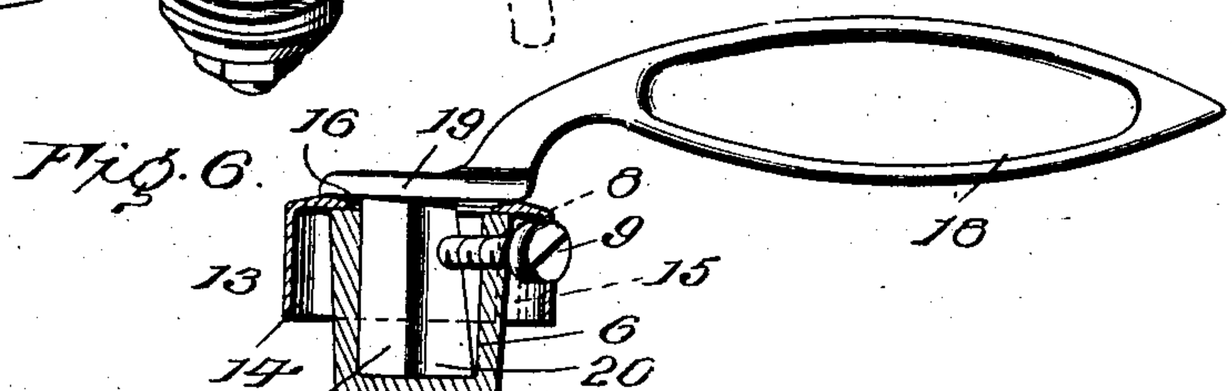


Fig. 2.

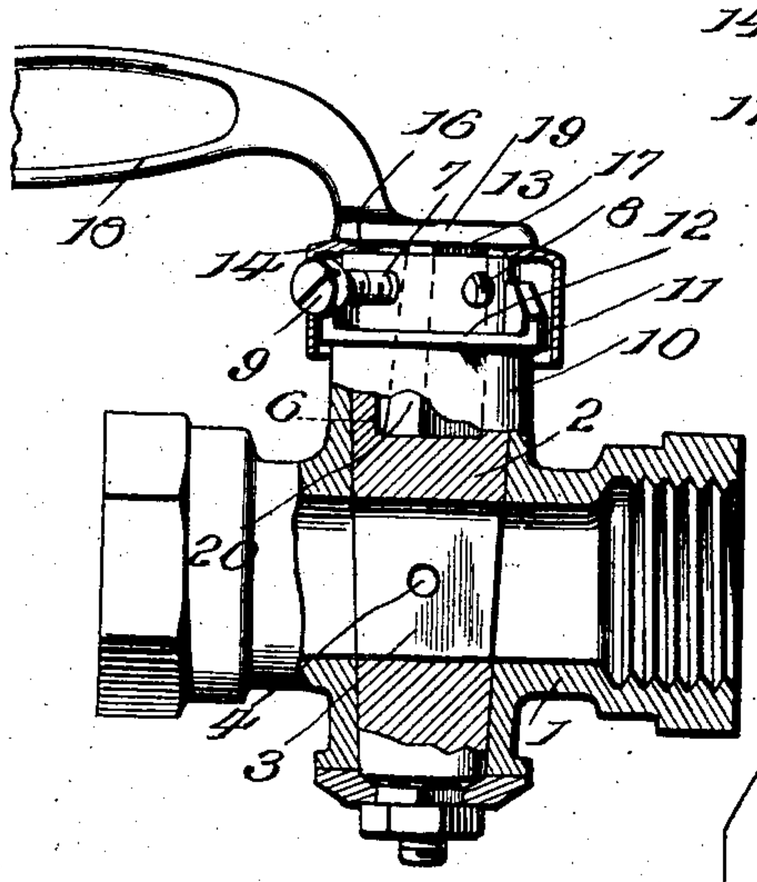


Fig. 3.

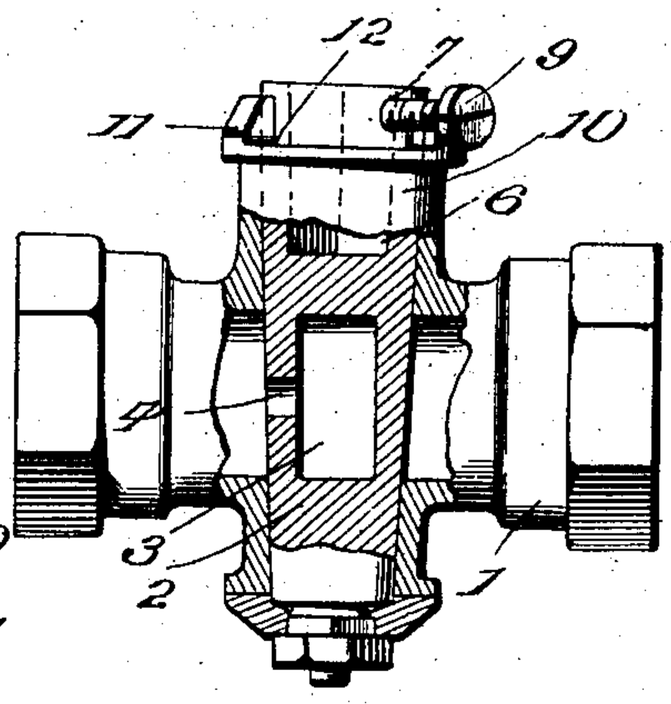
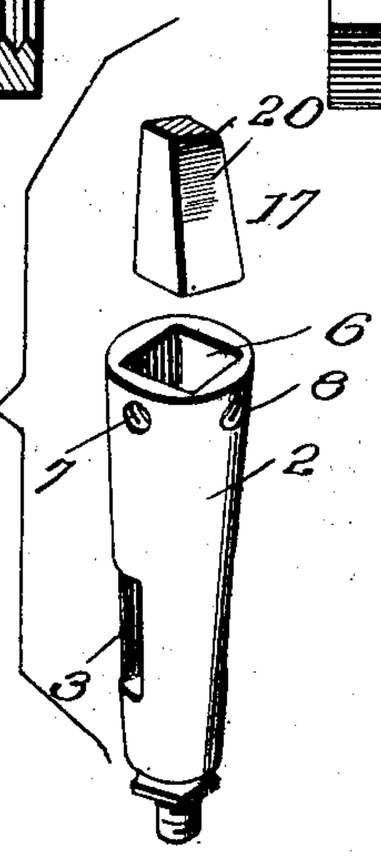


Fig. 4.



Witnesses-

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No. 762,305. Patented June 14, 1904.

UNITED STATES PATENT OFFICE.

JOHN W. GRANTLAND, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HAINES, JONES & CADBURY COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

STOP AND WASTE COCK.

SPECIFICATION forming part of Letters Patent No. 762,305, dated June 14, 1904.

Application filed February 19, 1902. Serial No. 94,772. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. GRANTLAND, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Stop and Waste Cocks, of which the following is a specification.

The principal objects of the invention are to provide a right and left handed stop and waste cock which can be readily interchanged and wherein this operation can be performed without disturbing the valve-casing, so that dirt and other foreign substances are excluded.

To these and other ends the invention consists in the improvements hereinafter described and claimed.

The nature, characteristic features, and scope of the invention will be more clearly understood from the following description, taken in connection with the accompanying drawings, forming a part hereof, wherein—

Figure 1 is a perspective view of a stop and waste cock embodying features of the invention. Fig. 2 is a view, principally in section, illustrating the cock in open position. Fig. 3 is a similar view illustrating the cock in the position for wasting. Fig. 4 illustrates detail views of the plug and the depending undercut lug of the handle. Fig. 5 is a transverse sectional view of the covering-cap applied to the head. Fig. 6 is a vertical sectional view of the plug with the cap and handle applied.

Referring to the drawings, 1 indicates the valve-casing, and 2 indicates the tapering turning plug or valve that is seated in a corresponding chamber in the casing and has a main passage-way or port 3 and a small aperture 4, which is disposed at right angles to the port 3 and constitutes the waste-port of the valve. These ports are arranged for communication with either side of the valve by simply turning the plug 2.

5 indicates the vent or waste-passage of the valve-casing. The upper end of the valve or turning-plug 2 is provided with a square socket 6, having apertures 7 and 8 arranged at right angles to each other and tapped for the reception of a screw 9. The head 10 of the valve-casing has the continuity of its annular shoulder 11 interrupted to provide a segmental way 12, which accommodates the screw 9, and the ends of which constitute stops for said detent or screw 9.

It may here be remarked that the cock is considered right or left handed, according as the right or left hand side of the main passage is the discharge end, and in Fig. 2 the cock is shown in open position, assuming the left-hand side thereof to be the discharge-passage, and in Fig. 3 the cock is shown in the position for wasting. It will be understood that by removing the screw-detent 9 from the opening 7 and inserting it in the opening 8 the cock can be made to stop and waste the right-hand side thereof.

A collar 13, Figs. 1, 2, and 6, is arranged to fit loosely over the shoulder on the head, so as to turn around it, and constitutes in effect a covering-cap or hood, which effectually excludes dust and dirt from between the plug 2 and the valve-casing. The skirt or flange 14 of the hood, covering-cap, or collar 13 is provided with an opening or slot—for example, as at 15—to accommodate the screw 9, and at its top the cap is apertured, as at 16, for the reception of the depending lug or shank 17 of a suitable handle or lever 18, which is provided to turn the plug or valve 2. The handle 18 has a flange 19, which acts to clamp the hood or cap 13 between it and the plug 2.

The screw 9, which constitutes a stop or guard for the valve, also acts to bind the lug 17 in its socket 6, and thus connects the three pieces—namely, the plug, collar, and lever, and holds them as one piece, Fig. 6, movable in its entirety, the said lug being undercut, as at 20, on the two surfaces, which contact with the screw to permit the latter to secure a purchase on them. It will be apparent that the screw-stop 9 can be removed from one of its sockets or openings and inserted in the other, and that the position of the lever 18 may be reversed with respect to its socket without disturbing the collar 13, so that dirt

and other foreign substances are wholly excluded from working their way into the casing and injuring the plug.

It will be obvious to those skilled in the art to which the invention appertains that modifications may be made in details without departing from the spirit and scope of the invention. Hence I do not limit myself to the precise construction and arrangement of parts hereinabove described and illustrated in the accompanying drawings; but,

Having described the nature and objects of my invention, what I claim as new, and desire to secure by Letters Patent, is--

The combination in a stop and waste cock, of a casing provided with a circular head or rim having a depression or recess, which constitutes a way, a turning-plug seated in said casing and provided at its upper end with a square socket and with apertures penetrating the walls thereof and tapped for the reception of a screw, a collar superimposed on the plug and having a depending wall or skirt which may be moved completely around the head and is provided with an opening or slot, a handle having a stud fitted in said socket and having a flange overlying the collar, and a screw passing through said slot and recess, said screw adapted to either of said apertures to bind the stud in its socket and coöperating with the end walls of the recess to properly position the plug, the arrangement being such that the screw may be changed from one aperture to the other without removing the collar, substantially as specified.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JOHN W. GRANTLAND.

Witnesses:
W. J. JACKSON,
JAS. A. RICHMOND.