

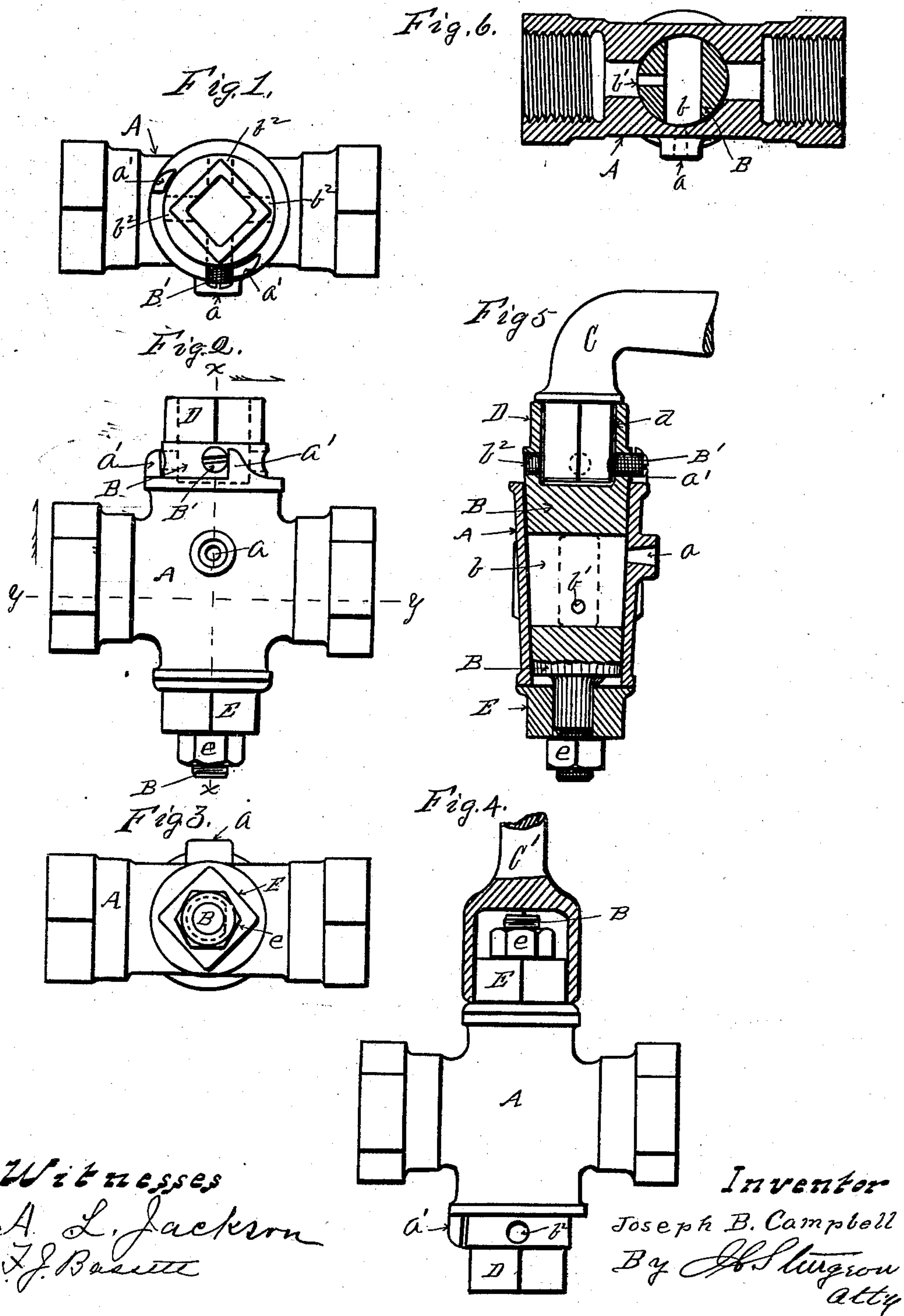
No. 664,463.

Patented Dec. 25, 1900.

J. B. CAMPBELL.
STOP AND WASTE COCK.

(Application filed Aug. 24, 1900.)

(No Model.)



UNITED STATES PATENT OFFICE.

JOSEPH B. CAMPBELL, OF ERIE, PENNSYLVANIA.

STOP AND WASTE COCK.

SPECIFICATION forming part of Letters Patent No. 664,463, dated December 25, 1900.

Application filed August 24, 1900. Serial No. 27,867. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH B. CAMPBELL, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Stop and Waste Cocks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming part of this specification.

My invention relates to improvements in stop and waste cocks, and has for its object the construction of a cock adapted to be used in the ordinary manner and also as an inverted cock and also to be adjusted so as to operate either as a right or left waste cock regardless of the direction the handle is to be turned; and it consists, substantially, in making the plug of the cock with a square on both ends adapted to receive a like-sized socket-wrench and also in making the plug so that it can be adjusted to operate in four positions, in either one of which the plug operates to stop the flow from one direction and waste it from the other, so that the same cock can be used in each and every position in which a stop and waste cock is desired.

The features of this invention are hereinafter set forth and described, and illustrated in the accompanying drawings, in which—

Figure 1 is a top or plan view of an invertible stop and waste cock embodying my invention. Fig. 2 is a side view in elevation of the same. Fig. 3 is a plan view of the bottom of the same. Fig. 4 is a side view in elevation of the cock inverted, with a section of a wrench thereon. Fig. 5 is a vertical section of the cock on the line *xx* in Fig. 2. Fig. 6 is a longitudinal section of the same on the line *yy* in Fig. 2.

In the drawings thus illustrating my invention, A is the body of the cock, and B the plug therein. In the side of the cock-body A there is a waste-opening *a*, and in the plug B there is the usual waterway *b* and a waste-opening *b'* on a plane considerably below the waste-opening *a* in the cock-body. On the cock-body where the larger end of the plug

projects therefrom there are two stops *a' a'*, so located thereon as to admit of the turning of the plug B one-quarter around before the screw-stop B' therein contacts with said stops. The plug B is provided with four holes *b²*, (shown in Fig. 5 and in dotted lines in Fig. 1,) in any one of which the screw-stop B' can be placed, according to the direction from which it is desired to waste and the direction it is desired to turn the handle C of the cock, which handle fits into a socket *d*, formed in the square end D of the plug B, and is secured therein by the screw-stop B', the screw-stop B' performing the double function of securing the handle C in place and operating as a stop-screw governing the distance the plug is rotated. The larger end of the plug B is provided also with a squared outside surface D, adapted to receive a socket-wrench C', as illustrated in Fig. 4. The small end of the plug B is also provided with a washer E, which is non-rotatable on the plug B and is secured thereon by a nut *e* in the usual manner. This washer E has its periphery squared and is of the same size as the squared end D on the larger end of the plug B and is adapted to receive a socket-wrench, as illustrated in Fig. 4, whereby the plug B can be turned with the same facility as though the wrench was placed on the larger end D of the plug. Thus it will be observed that the cock can be used either side up with equal facility. From the description hereinbefore given it is also obvious that the plug B can be operated in four different positions, according to the location of the screw-stop B' therein, which enables the cock to be used not only as a right and left stop and waste cock, but enables it to be operated as such with the handle C in any one of four different positions in each case, so that the same cock may be adjusted for use in any position in which a stop and waste cock can be used and not make it necessary to have specially-constructed cocks therefor.

Having thus fully described my invention, so as to enable others to construct and use the same, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination in a stop and waste cock of a cock-body having a waste-opening

therein, a plug having a waste-opening, and operating in said cock-body, and a peripherally-squared washer on the smaller end of said plug non-rotatable thereon, substantially
5 as and for the purpose set forth.

2. The combination in a stop and waste cock of a cock-body having a waste-opening therein, a plug operating therein, having its larger end squared, and having a waste-
10 opening therein, and a washer, non-rotatable, on the smaller end of said plug, having its periphery squared, substantially as and for the purpose set forth.

3. The combination in a stop and waste
15 cock of a cock-body having a waste-opening in one side thereof, a plug operating in said cock-body and having a waste-opening therein, stops on said cock-body adapted to engage an adjustable stop-screw in said plug, a
20 squared end on the larger end of the plug having a square socket therein, and a peripherally-squared washer on the smaller end of

said plug non-rotatable thereon, substantially as and for the purpose set forth.

4. The combination in a stop and waste
25 cock of a cock-body A having a waste-opening a in the side thereof, and stops a' a' on the top of said body, a plug B having a waterway b and a waste-opening b' therein, a squared end D on the upper end of the plug
30 having a square socket d therein, and having screw-holes d^2 at opposite sides thereof, a screw-stop B' adapted to be placed in one of the screw-holes b^2 and engage a handle C and also the stops a' on the cock-body, and a pe-
35 ripherally-squared washer E on the smaller end of the plug B non-rotatable thereon, substantially as and for the purpose set forth.

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

JOSEPH B. CAMPBELL.

Witnesses:

HANNA OPPENHEIMER,
A. L. JACKSON.