

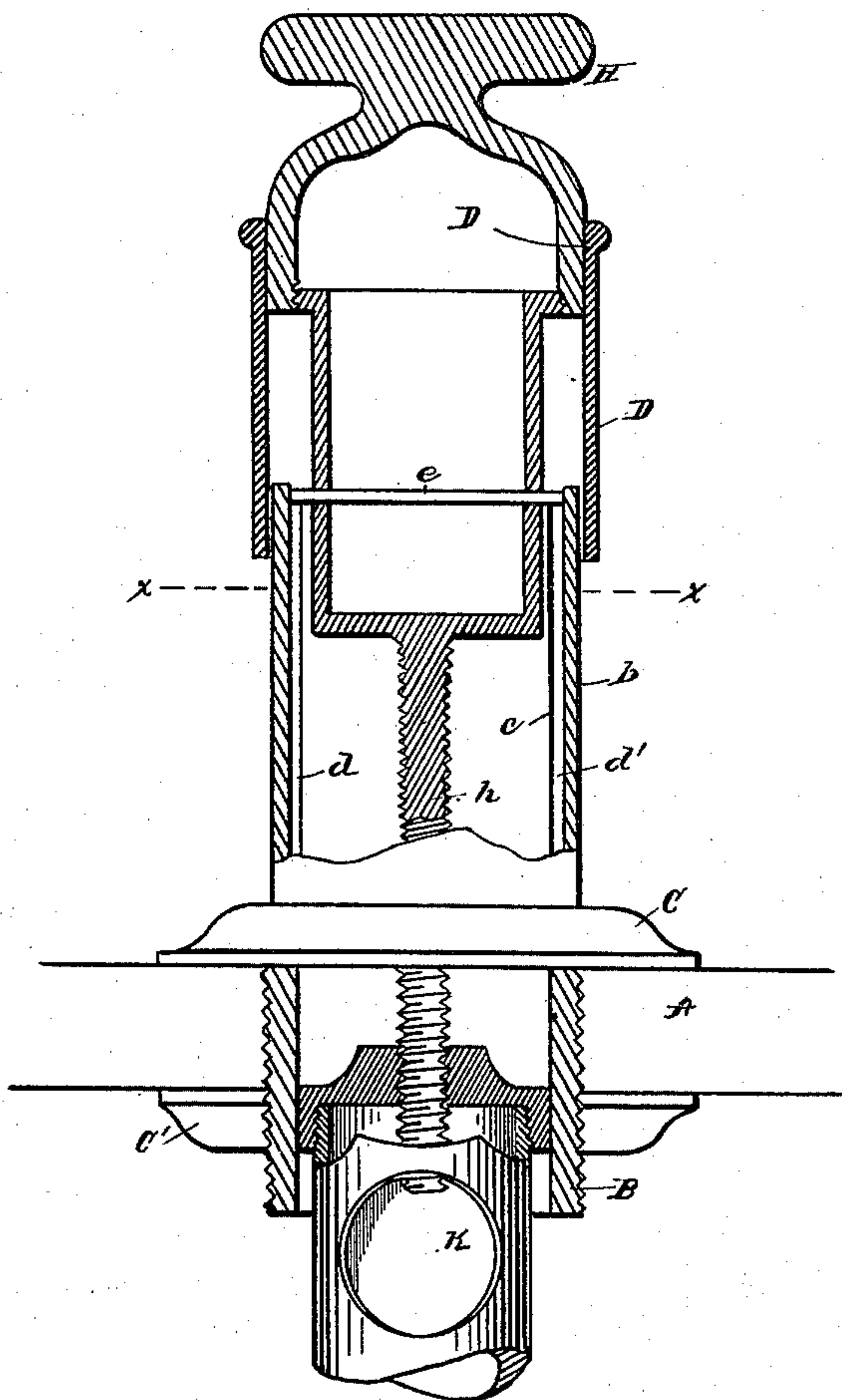
(No Model.)

C. H. MUCKENHIRN.  
WASTE VALVE.

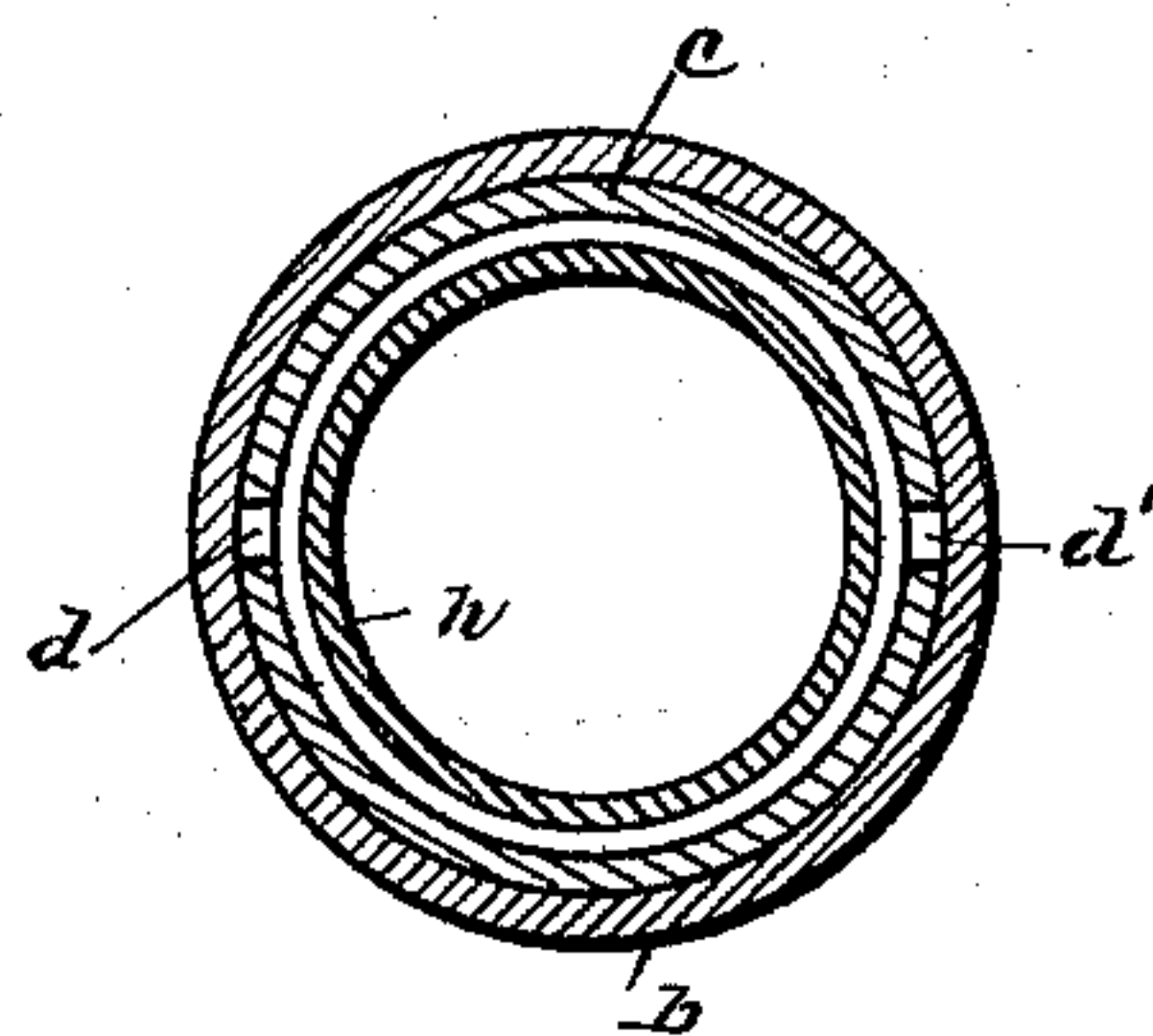
No. 540,071.

Patented May 28, 1895.

*Fig. 1.*



*Fig. 2.*



WITNESSES  
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# UNITED STATES PATENT OFFICE.

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## WASTE-VALVE.

SPECIFICATION forming part of Letters Patent No. 540,071, dated May 28, 1895.

Application filed January 17, 1894. Serial No. 497,218. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES H. MUCKENHIRN, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Waste-Valves; and I 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 pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to valves for waste pipes, and has for its object an improvement in the means for lifting and holding in an elevated position the drop valve commonly used in connection with waste pipes from bowls, sinks, and similar articles.

In the drawings, Figure 1 is a sectional elevation of that part of such a valve in which is contained this invention. Fig. 2 is a cross-section at the line *x x* of Fig. 1.

A indicates the slab of marble or other support which sustains the bowl and the various parts of the valve and its adjuncts.

B indicates a shell inserted through a hole in the support A, provided with a collar or flange C, which rests on the upper side of the support A, and with a second flange or collar C' passes up from beneath, and, engaging with the threads on the outside of the shell B and against the under surface of the support A, holds the parts firmly in position. Above the collar C the shell B continues, and is provided on its inner side with a split tube, *c*, made in two parts, between which are two slots or grooves *d d'* circumferentially opposite to each other.

A lifting handle, H, provided with a screw threaded reach rod, *h*, is arranged to lift the valve, which I prefer to employ in the form of the ordinary hollow stem lifting waste valve, indicated at K. Across the upper part of the extension reaching from the handle H, is a bar *e*, equal in length to the interior diameter of the shell *b*, and in thickness to the width of the grooves *d d'*. As shown in the drawings, the upper part of the reach rod *h* is made in the form of a cup, but this form is not essential to the workings of the device,

but is simply a desirable form, as it enables me to get a wide bearing for the guide rod *e*, giving that guide rod a firm support with respect to the reach rod *h*.

Secured to the handle H is a tubular extension D, reaching downward, and larger in diameter than the upward extending shell *b*. The handle rises and falls in lifting or opening and closing the valve, and is guided in its rising and falling by the engagement between the guide rod *e* and the slots *d d'*. These prevent any engaging action between the outside of the tube *b* and the inside of the tube D, and enable me to finish the tube *b* with plating or in any other ornamental way, and protect the ornamental external finish of the tube *b* from all wear due to friction between it and the tube D. When the tube D is lifted, it may be held in its elevated position by turning it very slightly on its axis, the ends of the guide rod *e* passing out from the ends of the slots or grooves *d d'*, and over the top of the internal casing *c*, and hold the handle and valve in their elevated positions.

What I claim is—

1. As a means for actuating a lift valve, the combination of an unbroken shell secured to the main support, guiding grooves on the interior thereof, an external unbroken tube adapted to close over the fixed shell, a guide rod secured to the outer tube adapted to engage in the guiding grooves and to prevent frictional contact between the fixed and the outer tubes, a valve stem uniting the outer tube and the valve, substantially as described.

2. In combination with a lift valve, an unbroken shell *b*, an internal split shell *c*, an external unbroken tube D, a guide rod *e* adapted to engage in the grooves *d d'* and prevent frictional contact between tubes *b* and D, and a valve stem uniting the external tube and the valve, substantially as and for the purpose specified.

In testimony whereof I sign this specification in the presence of two witnesses.

CHARLES H. MUCKENHIRN.

Witnesses:

CHARLES F. BURTON,  
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