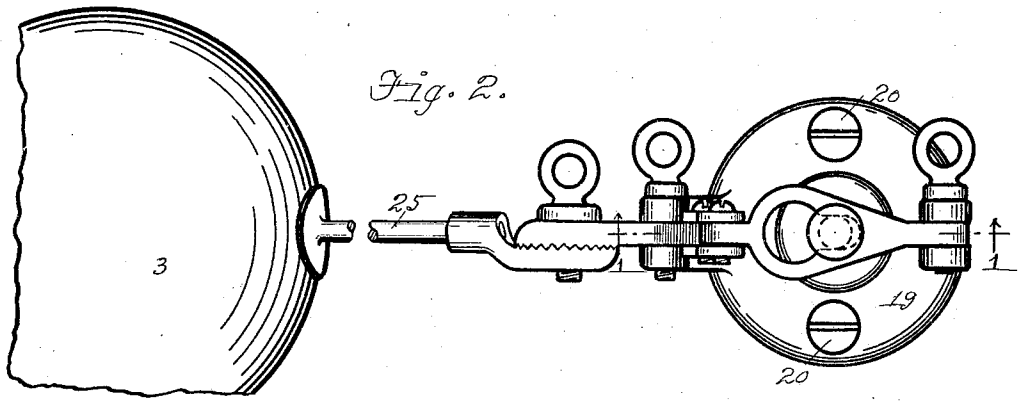
Nov. 8, 1932. L. A. CORNELIUS 1,887,235

VALVE MECHANISM

Filed June 11, 1930

Fig. 2.



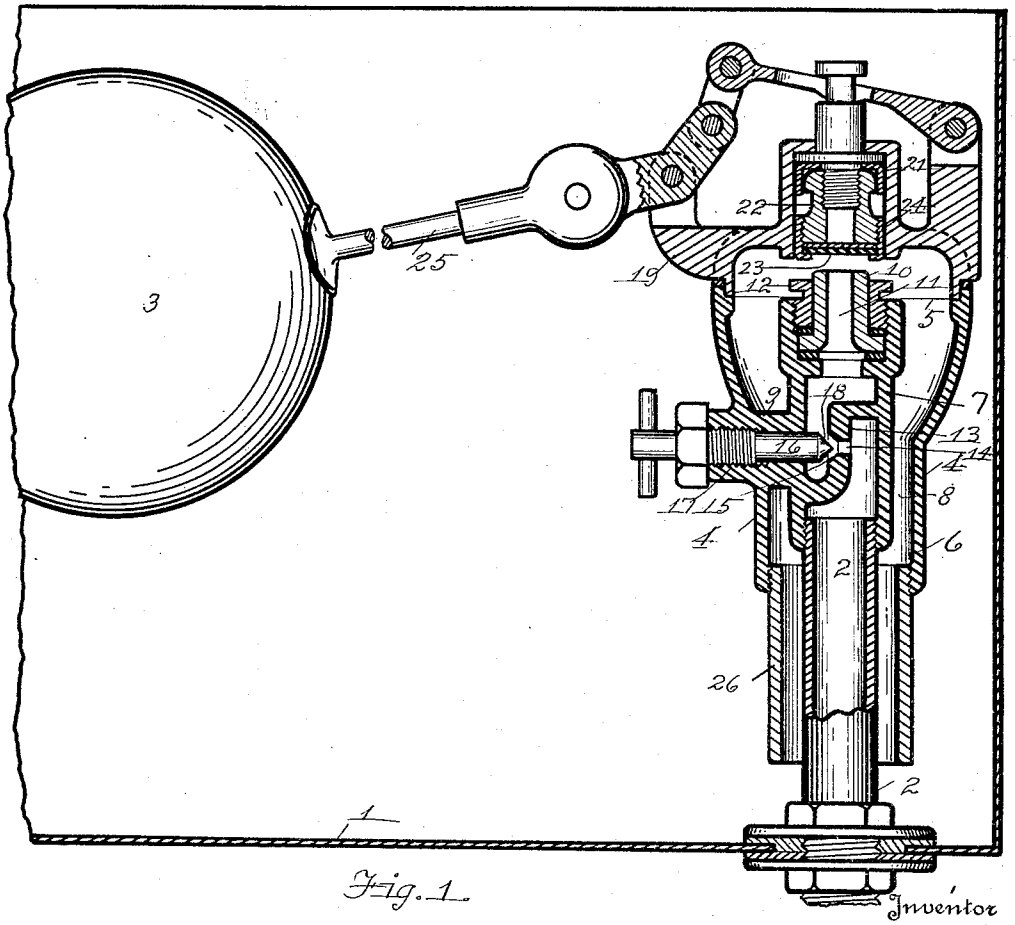


Fig. 1.

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Patented Nov. 8, 1932 1,887,235

UNITED STATES PATENT OFFICE

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VALVE MECHANISM

Application filed June 11, 1930. Serial No. 460,376.

The present invention relates to valve mechanisms, particularly such as are employed for controlling the water inlets to the flushing tanks of water closets and the like; and its object is, generally, to provide an improved mechanism of that character which may be economically manufactured and readily and effectively operated; and more particularly, to provide such a mechanism which shall comprise few parts readily assembled in compact form.

This and any other and more specific objects hereinafter appearing are attained by, and the invention finds preferable embodiment in, the structure or valve mechanism particularly described in the body of this specification and illustrated by the accompanying drawing, in which:

Figure 1 is a vertical central sectional view of a valve mechanism for controlling the supply of water to a flushing tank for water closets and the like, taken on line 1—1 of Figure 2; and

Figure 2 is a top plan view of said mechanism.

In this drawing, a flushing tank 1 is shown containing valve mechanism for controlling the supply of water thereto through the vertical suppply pipe 2, said mechanism being actuated by a float 3 in a well-known manner.

In the particular construction illustrated by this drawing, the valve mechanism includes a metal casting comprising a hollow, or tubular body portion or member 4 having a transversely-enlarged open upper end 5 and an outlet 6 at its lower end, and also a tubular inlet portion or member 7 inside said body portion and spaced therefrom as shown to provide an outlet passage 8 between said portions, said casting comprising also a connecting portion or member 9 extending between said body portion and inlet portion and being integral therewith.

The tubular inlet portion 7 has at its upper end and inside the enlarged upper end of the body portion an annular valve seat 10 having a water passage 11 therethrough and being detachably mounted on said inlet portion by a collar 12 threaded in said inlet portion's end. This tubular inlet portion of the casting has a partition 13 extending across the water passage therethrough, said partition having an opening 14 provided with a valve seat 15.

A valve stem 16 threaded for adjustment in a bore 17 through the wall of the body portion 4 and the connecting portion 9 has a valve inner end 18 adapted to be seated in the valve seat 15 to close the water passage through the mechanism or to be opened sufficiently to admit the flow of water therethrough to a desired degree.

The open upper end of the body portion is closed by a cover 19 detachably connected thereto by screws 20. This cover has a cylindrical bearing 21 in which is slidably mounted a valve stem 22 having a valve 23 desirably of flexible material at its lower end, secured thereto by a collar 24 threaded on the valve stem and having an inwardly extending flange to hold said valve in place.

The means for operating the valve is carried by this cover 19 on its outer side as shown and comprises the ball float 3 carried at the free end of an arm 25 mounted on said cover and having suitable connections with the valve stem for operating the same.

Water passing upwardly through the supply pipe 2, the tubular inlet portion 7, and its open valves, passes into the enlarged upper end of the body portion 4 and flows between said body portion and the tubular inlet portion 7 down into the tank.

The said casting is threaded at the lower end of its tubular inlet portion for connection with the supply pipe 2 and may be thus threaded at the lower end of its body portion for connection with the pipe extension 26; and the cover 19 being detachably connected to said body portion, it will be seen that the parts may be readily connected and disconnected and that by removing this cover, access to the valve seat 10 and valve 23, etc., for replacing the same, is readily had.

The valve-operating mechanism carried by the cover 19 and illustrated by this drawing is claimed in my application No. 460,377, filed June 11, 1930, Patent No. 1,830,734.

The invention being intended to be pointed out in the claim, is not to be limited to or by details of construction of the particular em-

bodiment thereof illustrated by the drawing or hereinbefore described.

I claim:

Valve mechanism for flushing tanks, comprising spaced inner and outer tubular bodies integrally united intermediate their ends by a connecting portion, the inner body having a partition integral therewith and extending longitudinally thereof in which is formed an opening, a valve mounted in the connecting portion of the bodies for closing the opening in the partition to regulate the flow through the inner body, a removable valve seat at the top of the inner body, a cover closing the top of the outer body and formed with a cylindrical portion, and a float-controlled valve in the said cylindrical portion of the cover for closing the top of the inner body.

In testimony whereof I have hereunto set my hand at Grand Rapids, Michigan this 7th day of June, 1930.

LOUIS A. CORNELIUS.