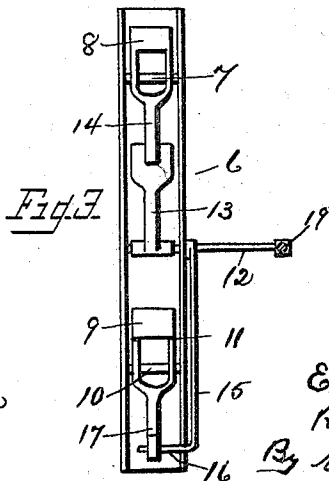
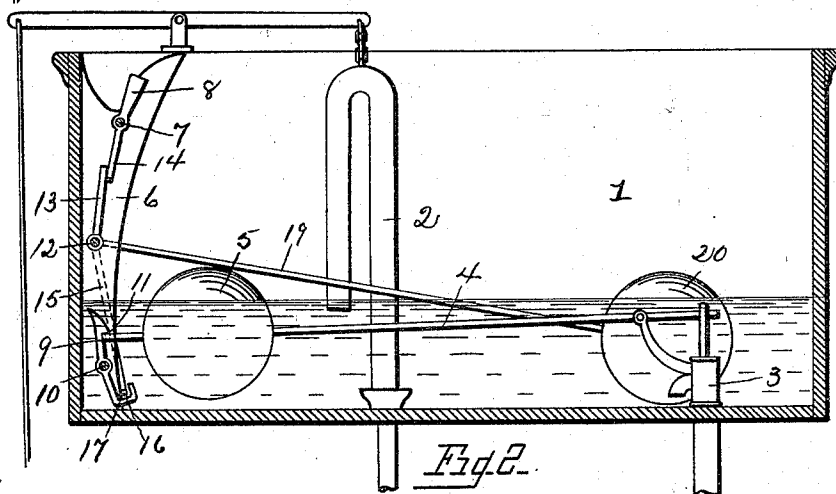
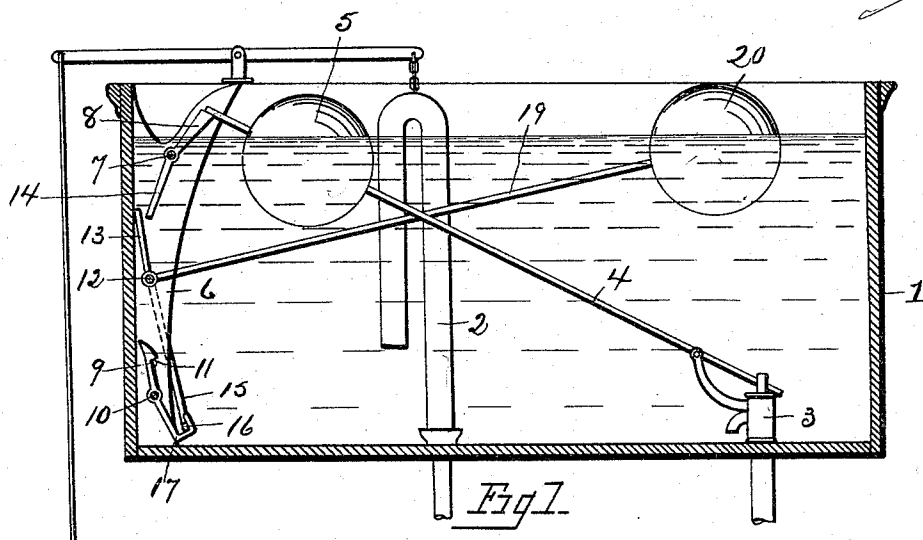


(No Model.)

E. M. KNOBLAUGH, Sr. & R. S. DAWSON.
INLET VALVE FOR FLUSH TANKS FOR CLOSETS.

No. 533,360.

Patented Jan. 29, 1895.



WITNESSES

Carroll J. Webster
Carl H. Keller.

INVENTORS

Edward M. Knoblauch,
Robert S. Dawson
By William Webster Atty.

UNITED STATES PATENT OFFICE.

EDWARD M. KNOBLAUGH, SR., AND ROBERT S. DAWSON, OF TOLEDO, OHIO.

INLET-VALVE FOR FLUSH-TANKS FOR CLOSETS.

SPECIFICATION forming part of Letters Patent No. 533,360, dated January 29, 1895.

Application filed October 27, 1893. Serial No. 489,309. (No model.)

To all whom it may concern:

Be it known that we, EDWARD M. KNOBLAUGH, Sr., and ROBERT S. DAWSON, of Toledo, county of Lucas, and State of Ohio, have invented certain new and useful Improvements in Inlet-Valves for Flush-Tanks for Closets; and we do hereby declare that the following is a full, clear, and exact description of the invention, which 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 figures of reference marked thereon, which form part of this specification.

Our invention relates to means for operating the inlet valves of flush tanks for closets, and has for its object to make the operation of filling the tank noiseless and performed in the least possible time.

Heretofore inlet valves to flush tanks have been provided with a valve, the stem of which has a float which rises as the water enters into the tank, thereby gradually closing the valve. This construction has many disadvantages, one of which is that the water as it flows through the partially closed valve makes a disagreeable noise, due to the diminutive opening through which the water is forced. Another disadvantage is that the valve gradually closing shuts off the water, and therefore requiring some time to fill the tank. Our invention overcomes these defects as we hold the valve wide open until the tank is full, then instantly close the same.

The invention consists in the parts as shown in the drawings, described in the specification and pointed out in the claims.

In the drawings: Figure 1 is a sectional elevation of a flush tank, the same being filled and the valve closed. Fig. 2 is a like view, the tank being empty and the valve opened. Fig. 3 is a detail view of the casing for guiding and holding the valve stem.

1 designates the flush tank having the usual siphon flush valve 2 and means for operating the same, and 3 the inlet valve having a stem 4 there being a float 5 upon the stem. These parts being of the ordinary or of any preferred construction are not described in detail.

6 designates a casing secured to the side of the tank in which the end of the valve stem

passes. Journaled in the upper end of the casing upon a pin 7 is a catch 8, the upper end normally resting in the path of the end of the valve stem 4 when raised, and in the lower end of the casing is a catch 9 journaled upon a pin 10 there being a recess 11 in the catch which engages the end of the valve stem when the same is lowered. Journaled upon pin 12 is a trip lever, the upper portion 13 being in the path of travel of the lower projecting end 14 of catch 8, the lower portion 15 passing outside the casing the lower angled end 16 abutting against the angled portion 17 of the lower projecting end of catch 9. Secured to the pivot pin 12 is a lever 19 having a float 20 thereon.

In operation the tank being flushed lowers float 20 and lever 19 until the water is at its lowest point, when trip lever 13 will trip catch 8 allowing the valve end of stem 4 to fall opening inlet valve 3, when the water begins to flow into the tank. As valve stem 4 falls it is caught by the catch 9, the end engaging in recess 11, it being understood that the trip lever 15 has released from the catch. Float 20, however, continues to rise with the water until the tank is filled when the trip lever 15 will trip catch 9, releasing the valve stem which immediately flies up and closes the valve.

It will be readily seen that we may vary the form and position of the catches, it only being necessary to trip the catches holding the stem and the stem will fall of its own weight or rise by means of the float.

What we claim is—

1. In combination with a flush tank for closets, an inlet valve, a valve stem extending therefrom and carrying a float, the end projecting beyond the float, a casting secured in the tank in which the end of the valve stem moves, a catch journaled in the upper end of the casting in the path of travel of the end of the valve stem when raised, and an auxiliary float valve, the stem of which is secured to a pin journaled in the casting, and an arm secured to the pin for releasing the catch when the tank is emptied.

2. In combination with a flush tank for closets, an inlet valve, a valve stem extending therefrom and carrying a float, the end of the stem projecting beyond the float and travel-

ing in a casting secured in the tank, a catch
journaled in the lower end of the casting in
the path of travel of the projecting end of the
valve stem when lowered, and an auxiliary
5 float, the stem of which is secured to a pin
journaled in the casting, and an arm secured
to the pin for releasing the catch when the
tank is filled.

In testimony that we claim the foregoing as
our own we hereby affix our signatures in the
presence of two witnesses.

EDWARD M. KNOBLAUGH, SR.
ROBERT S. DAWSON.

Witnesses:

ERSKINE H. POTTER,
CARROLL J. WEBSTER.