Oct. 5, 1948. L. E. PHELPS 2,450,609

SPRING TYPE GUIDE FOR COMMODE TANKS

Filed Sept. 13, 1945

Fig. 1.

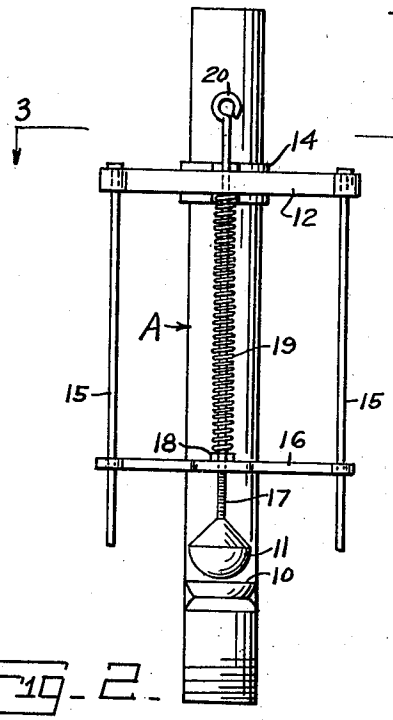



Fig. 3.

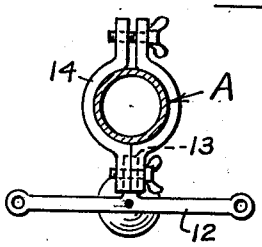



Fig. 4.

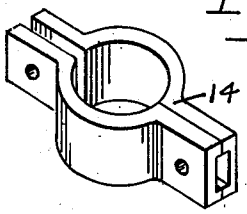



Fig. 2.

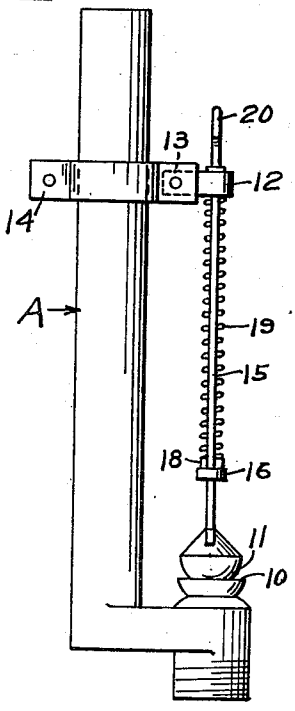



Fig. 5.

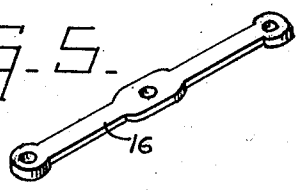
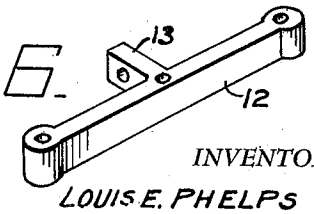



Fig. 6.




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## SPRING TYPE GUIDE FOR COMMODE TANKS

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Application September 13, 1945, Serial No. 616,009

2 Claims. (Cl. 4—57)

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The invention relates to a guide, and more especially to a flush valve guide for flushing tanks to toilets.

The primary object of the invention is the provision of a guide device of this character, wherein the ball flush valve will be properly guided to its seat within a flush tank for the sure seating thereof, and there is no liability of such valve becoming hung after flushing operation, thereby avoiding the loss of water from the tank during the filling period, as the valve will not become caught in an opening position, resultant in water leakage from such tank.

Another object of the invention is the provision of a guide of this character, wherein it has spring action for the sure seating and unseating of the flush valve in the operation of the flushing mechanism to a flush tank, thereby avoiding the leakage of water from the latter unnecessarily..

A further object of the invention is the provision of a guide of this character, which is simple in construction, thoroughly reliable and effective for the purposes intended thereof, strong, durable, readily and easily applied and adjusted to place, possessed of few parts, thus economical for repairs, and inexpensive to manufacture and install.

With these and other objects in view the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter fully described, illustrated in the accompanying drawing, which shows the preferred embodiment of the invention, and is pointed out in the claims hereunto appended.

In the accompanying drawing—

Figure 1 is an elevation of an overflow tube of a flush tank, showing the flush valve guide constructed in accordance with the invention in an applied position.

Figure 2 is a side view thereof.

Figure 3 is a sectional view taken on the line 3—3 of Figure 1 looking in the direction of the arrows.

Figure 4 is a perspective view of the guide hanger bracket.

Figure 5 is a perspective view of the saddle piece of the guide.

Figure 6 is a perspective view of carrier head of the guide.

Similar reference characters indicate corresponding parts throughout the several views in the drawing.

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Referring to the drawing in detail, A designates generally the stand overflow pipe or tube within a flush tank, not shown, for a toilet, and, as usual, is provided with a water inlet valve seat 10, for a flush valve 11, which is associated with a guide constructed in accordance with the invention.

This guide in accordance with the invention, comprises an upset substantially T-shaped carrier head 12, its shank 13 is removably fitted by socketing in a hanger bracket 14 adjustably clamped about the pipe or tube A, as best seen in Figures 1, 2 and 3 of the drawing. The head 12 has depending therefrom at its ends a pair of guide rods 15, which are vertically parallel with each other and disposed at opposite sides of the seat 10. Slidably fitted on these rods beneath the head 12 is a saddle piece 16, which centrally thereof has threaded connection for adjustment with the stem 17 of the flush valve 11. This stem 17 is adapted to play through a clearance in the head 12 centrally of the same.

The saddle piece 16 is locked adjustably to the stem 17 by a binding nut 18 on the latter.

About the stem 17 between the head 12 and the saddle piece 16 is a coiled tensioning spring 19, is playing against the nut 18 which can regulate the tension thereof. The spring may be entirely dispensed with, if desired.

The upper end of the stem 17, above the head 12, has an eye terminal 20 for attachment to a lifter, not shown, it being a part of any standard flushing mechanism for a flushing tank, and operates the usual well known manner for the flushing of a toilet, not shown.

The guide hereinbefore described prevents the accidental bending of the stem 17 of the flush valve 11, and also serves to properly direct the latter to its seat 10, to assure a positive and leakproof seating, as will be apparent from Figure 2 of the drawing. The hanging of the valve 11 in an unseating position is eliminated through the use of the guide device, as may be resultant from a bent condition. The use of the spring 19 tensions the valve 11 to its seat 10, as should be obvious.

What is claimed is:

1. A guide of the kind described, comprising a head, a clamping bracket fastening the head to

an overflow pipe within a flush tank, guide rods depending from the head, a saddle piece slidable on the rods, a flush valve having a stem slidable through the head and adjustably connected to the saddle piece for directing the valve to its seat, and a tensioning spring interposed between the head and saddle piece for action on the latter.

2. In a guide device for flush tanks, a head, a saddle, a flush valve having a stem slidable through the head and adjustably connected to the saddle for directing the valve to its seat, and a tensioning spring interposed between the head and saddle for action on the saddle.

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