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1,506,544

C. J. MICK

GUIDE FOR TANK FLUSHING VALVES

Filed May 20, 1921

Fig. 1.

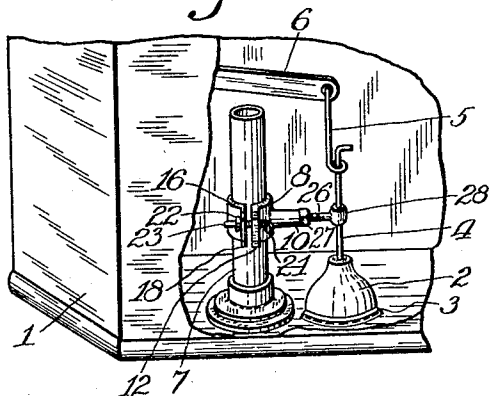


Fig. 2.

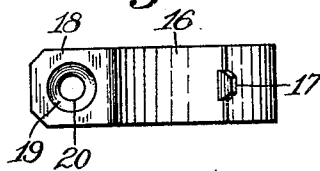


Fig. 3.

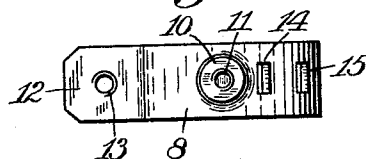


Fig. 4.

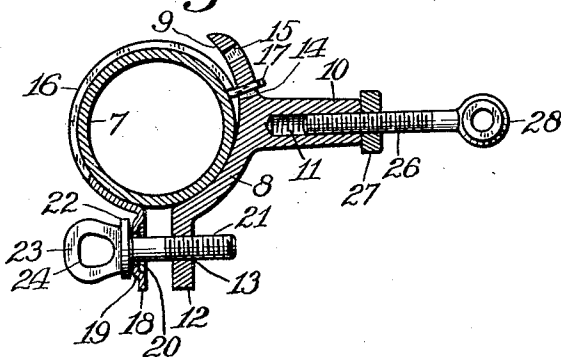


Fig. 5.

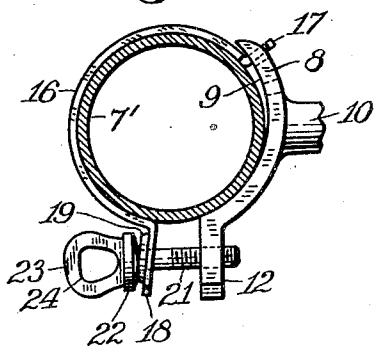
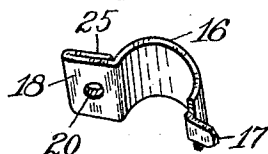


Fig. 6.



INVENTOR:

Claud J. Mick,
BY
E. J. Silvius,
ATTORNEY.

UNITED STATES PATENT OFFICE.

CLAUD J. MICK, OF INDIANAPOLIS, INDIANA.

GUIDE FOR TANK-FLUSHING VALVES.

Application filed May 20, 1921. Serial No. 471,205.

To all whom it may concern:

Be it known that I, CLAUD J. MICK, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Guide for Tank-Flushing Valves, of which the following is a specification, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon.

This invention relates to an adjustable guide for the stem of the valve commonly used in flushing tanks in which an overflow pipe supports the guide, the invention having reference more particularly to a valve guide having a base clamp that is adjustable to overflow pipes of different diameters which may be found in different flushing tanks.

An object of the invention is to provide an improved guide of the above-mentioned character which shall be so constructed as to be simple and inexpensive and adapted to be readily applied to any of the different sizes of overflow pipes in common use, and which shall be capable of being firmly secured in place.

Another object is to provide an adjustable guide for tank flushing valves which shall be so constructed as to insure large bearing surface on an overflow pipe, whether the pipe be of large or small diameter.

A further object is to provide a tank valve guide which shall be adjustable to different sizes of overflow pipes without requiring structural alterations or requiring tedious operations in adjusting the guide, in order that the dealers and repair shops may be relieved of the necessity of carrying various sizes of valve guides in stock, an aim being to enable a workman to make quick repairs when a new guide is needed without it being necessary to carry a variety of guides with him on the grip.

With the above-mentioned and other objects in view the invention consists in a valve guide having an improved base clamp adapted to embrace the maximum circumferential surface of pipes of different diameters; and, the invention consists also further in the parts and combinations and arrangements of parts as hereinafter particularly described and further defined in the accompanying claim.

Referring to the drawings,—Figure 1 is

a fragmentary perspective view of a flushing tank partially broken away and showing an overflow pipe provided with the improved guide arranged to guide the flushing valve; Fig. 2 is a plan showing the inner side of one part of the guide base; Fig. 3 is a plan showing the outer side of the main part of the guide base; Fig. 4 is a central section of the improved guide represented as being connected to one of the smaller sizes of overflow pipe; Fig. 5 is a top plan of the improved guide, partially broken away; and, Fig. 6 is a perspective view of one of the parts of the guide base slightly modified.

Similar reference characters in the different figures of the drawing indicate corresponding elements or features of construction herein referred to in detail.

In the drawings the numeral 1 indicates a flushing tank, provided with a flushing valve 2 operating on the valve seat 3 on the bottom of the tank, the valve having a stem 4 provided with a lifting link 5 that is operated by means of a suitably arranged lever 6, as will be understood; a vertical overflow pipe 7 is secured to the bottom and so as to be connected with a conduit to conduct surplus water away, the top of the pipe being open. The overflow pipe is commonly made use of as a convenient support for a guide for the valve stem 4, as will be understood, and in some cases a certain size of overflow pipe is installed while in other cases the overflow pipe may be relatively larger or smaller in diameter.

The invention as practically embodied comprises a segmental base member 8 that is curved and has a concave bearing face 9 that is designed to conform to the curvature of the larger size of overflow pipe. The base member preferably is made as a casting so as to be stiff and it has a stem member 10 on its convex side, the stem member being suitably adapted to adjustably hold a guide and preferably has a screw-threaded socket 11 therein. One end of the member 8 has a clamp ear 12 thereon in which is a screw-threaded hole 13. In proximity to its opposite end, the member 8 has transverse slots 14 and 15 therein. The base clamp includes an adjustable part or section 16 which is composed of sheet metal to permit it to be slightly flexed to conform to the different sizes of overflow

pipe, and it has a lug 17 on one end thereof that is adapted to be inserted in either one of the slots in the base member 8. The opposite end of the part 16 has an ear 18 thereon which preferably has a struck-up boss portion 19 in which is a bolt hole 20, the ear thus being stiffened. A clamp screw 21 is inserted through the bolt hole 20 and screwed into the hole 13, the clamp screw having a head 22 engaging the ear 18 to draw the base clamp parts tightly to an overflow pipe. The head 22 has a suitable wing 23 for hand operation and the wing preferably has an aperture 24 therein into which a common instrument may be inserted for forcibly turning the clamp screw. In some cases the ear 18 may be stiffened by means of a re-inforcing plate 25 and suitably fixed to the ear.

A screw rod 26 is inserted into the socket 11 and has a lock nut 27 thereon and is provided with a guide head 28 in which the valve stem 4 is guided.

In practical use the base clamp is adjusted to the overflow pipe required in the flushing tank and is readily secured in place. The part 16 will have contact throughout its length with the overflow pipe whether of the larger or smaller size, and the base member 8 will have contact with the pipe on nearly all the remaining circumference, so that the guide shall be firmly supported.

Having thus described the invention, what is claimed as new is:—

The herein-described appliance consisting of a curved segmental guide base member having a concavely curved seat portion and also a relatively shorter lock portion extending from one end of the seat portion, the seat portion extending to the opposite end of the base member and being non-elastic to insure a solid bearing against a stand-pipe, the convex side of the base member having a guide stem member fixed thereon adjacent to the middle of the length thereof, said lock portion having separate apertures therein, a screw-threaded ear fixed to said base member at said opposite end of said seat portion, a curved flexible clamp section to embrace a portion of the stand-pipe and having such length as to extend between the stand-pipe and said lock portion to variably extend said seat portion lengthwise, a lug fixed on one end of said clamp section to enter one of said apertures, an ear fixed to said clamp section opposite to the ear on said base member, and a clamp bolt connected to said ears.

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

CLAUD J. MICK

Witnesses:

E. T. SILVIUS,
M. ROESSNER.