

June 19, 1934.

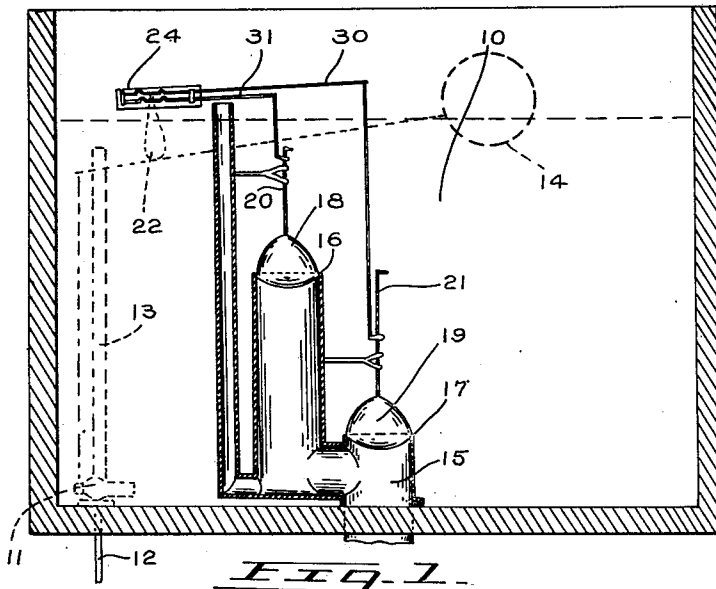
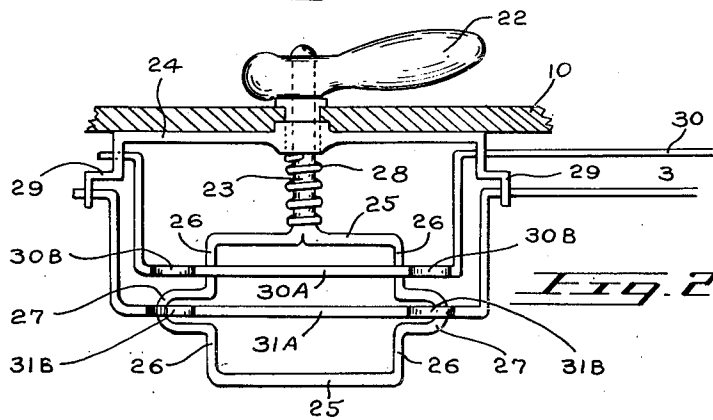
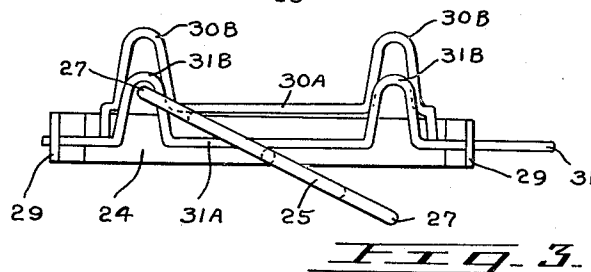
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1,963,211

FLUSHING TANK

Filed Feb. 15, 1933.

2 Sheets-Sheet 1



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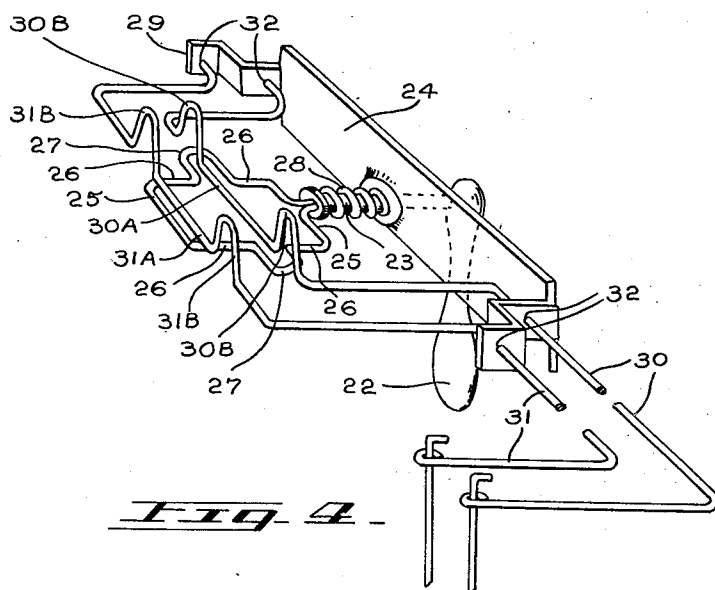


Fig. 4.

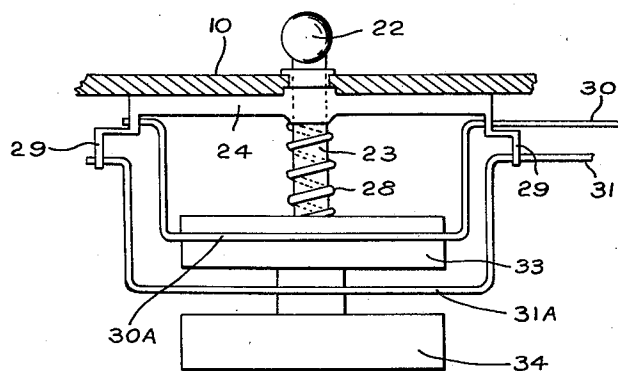


Fig. 5.

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UNITED STATES PATENT OFFICE

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FLUSHING TANK.

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Application February 15, 1933, Serial No. 656,946

5 Claims. (Cl. 4—37)

This invention relates to improvements in a flushing tank, its primary object being to prevent waste of water for flushing purposes.

A further object of my invention is to prevent overloading of drainage systems as installed in country homes where septic tanks are used.

A still further object of my invention is to provide means whereby only part or all the water may be emptied as found necessary, so that when liquids are to be wasted part of the tank contents is sufficient and may be used without emptying the whole tank.

Another object of the invention is to provide means to install the device in a tank in an existing equipment with slight changes thereto.

With these and other objects in view that may appear while the description proceeds, the invention consists in the novel construction and arrangement of parts as hereinafter set forth, claimed and shown in the accompanying drawings, forming part of this present application, and in which:—

Fig. 1 is a sectional elevation view of my invention installed in a flushing tank.

Fig. 2 is a detailed plan view of a lever mechanism.

Fig. 3 is an elevational view showing the same in operation.

Fig. 4 is a detailed perspective view of the bent portion of a lever mechanism.

Fig. 5 is a plan view of an alternative construction of a lever mechanism.

Referring more in detail to the drawings in which similar reference characters designate corresponding parts throughout the several views, it will be seen the invention comprises a tank 10. Installed therein is a valve 11 an inlet pipe 12 standard 13 and a ball float 14 operating the said valve, all of which are of similar design to those now in common use. An outlet pipe 15 is secured in the bottom of the tank 10 and constructed to provide two ball seats 16 and 17, the seat 16 being at a higher elevation than the seat 17. A ball 18 is provided for the seat 16 and a ball 19 for the seat 17. The said balls are connected to the operating mechanism by connecting rods 20 and 21.

The said operating mechanism comprises a handle 22 mounted on a shaft 23 which is in turn slidably and rotatably mounted in a bracket 24 and terminates in an irregular shaped loop member having two parallel sides 25 and parallel ends 26 with loops 27 centrally positioned thereon. A spring 28 is provided on the shaft 23, the tension of which normally keeps the said shaft and its

irregular shaped loop member toward the center of the tank.

Two operating levers are pivotally mounted in lugs 29 on the bracket 24. The lever 30 operates the ball 19 while the ball 18 is operated by the lever 31. The levers are bent to form three sides of rectangles with the ends bent outwards to engage the bearings 32. The long sides of the said rectangles are provided with flat or straight portions 30a and 31a and upwardly extending loops 30b and 31b, the purpose of which will now be explained.

When the tank is to be flushed of its full quantity of water, the handle is in normal position as shown in Fig. 2. (This may be alternated if desired by spring arrangement.) The handle is turned in the usual way. This causes 26 to bear on 30a on one end or the other, depending on which way the handle is turned, the loop 27 fits into loop 31b as the motion proceeds. 30a is raised as shown in Fig. 3 which operates lever 30, but owing to the design of the loops sufficient play is provided so that when loop 27 engages loop 31b no motion is transferred from one to the other as they do not actually touch.

While this lever may be set to partially or fully discharge the tank, as preferred, the drawings indicate that to partially flush the tank, the handle is pulled outward and turned. This causes 26 to engage 31a and raises the same and operating lever 31. The loop 27 now engages loop 30b, and as previously explained, leaves the lever 30 untouched. This is the position shown in the perspective view Fig. 4.

The alternate arrangement shown in Fig. 5 is essentially the same construction for the levers, etc., and the operating is the same. The difference is in the members 33 and 34 which are made from a block of metal, or rod metal bent in the same shape, and secured on the end of the shaft 23. It is obvious that the loops 30b and 31b will be omitted on this type.

It is believed that the construction and advantages of the structure shown may be apparent from the foregoing paragraphs, taken in conjunction with the accompanying drawings without further detailed description.

While the preferred embodiment of the invention has been disclosed, it is understood that minor changes in the details of construction, combination and arrangement of co-operating elements may be resorted to within the scope of what is claimed without departing from the spirit of the invention.

I claim:

1. In a valve operating device, the combination with a flush tank having a pair of discharge valves, of a pair of crank arms operatively connected with the discharge valves and means for selectively operating said crank arms.

2. In a valve operating device, the combination with a flush tank having a pair of discharge valves, of a pair of crank arms operatively connected with the discharge valves and a slidable and rotatable hand lever having means for selectively operating said crank arms.

3. In a valve operating device, the combination with a flush tank having a pair of discharge valves, of a pair of crank arms operatively connected with the discharge valves, a slidable and rotatable hand lever and means carried by said hand lever for selectively operating said crank arms upon actuation of said hand lever.

4. In a valve operating device, the combination with a flush tank having a pair of discharge valves, of a pair of crank arms operatively connected with the discharge valves, said crank arms having loops bent upwardly therefrom, a wire

frame member disposed beneath said crank arms having its ends out of alignment with the loops of said crank arms, the ends of said wire frame having loops bent outwardly therefrom adapted to register with the loops of said crank arms, and means for moving said wire frame member to selectively bring the loops of the frame member into registering relation with the loops of one of said crank arms and for rotating said frame member to operate the other crank arm.

5. In a valve operating device, the combination with a flush tank having a pair of discharge valves, of a pair of crank arms disposed on a horizontal plane and operatively connected with said discharge valves, a wire frame member disposed beneath said crank arms, loops bent upwardly from said crank arms, loops bent outwardly from the ends of said wire frame member adapted to interfit in the loops of said crank arms and a slidable and rotatable hand lever connected with said wire frame member operable to selectively move said member into operative engagement with said crank arms.

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