Sept. 20, 1927. 1,643,025

C. W. MEGGENHOFEN

VESSEL EMPTYING OR FILLING APPLIANCE

Filed July 5, 1923

Fig. 1.

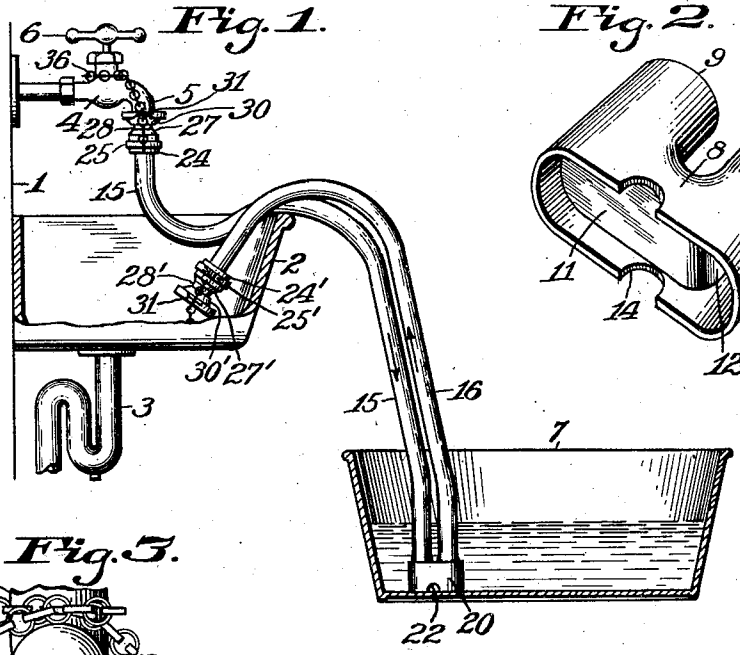


Fig. 2.

Fig. 3.

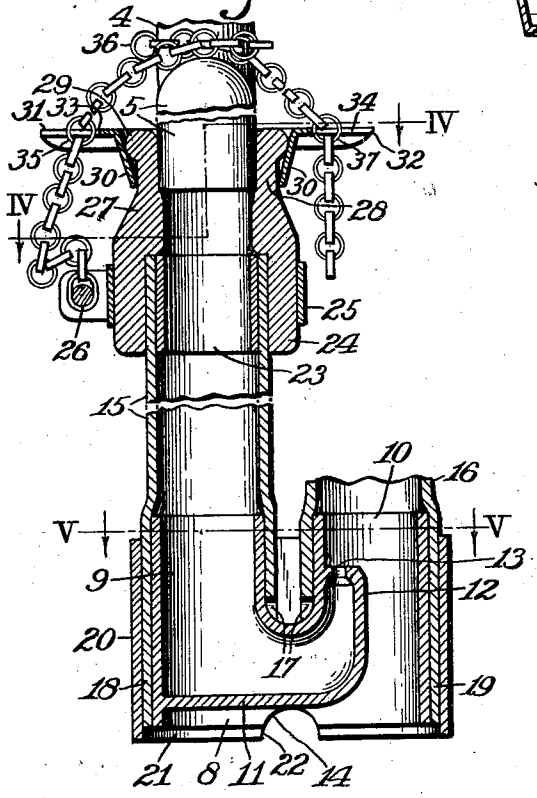


Fig. 4.

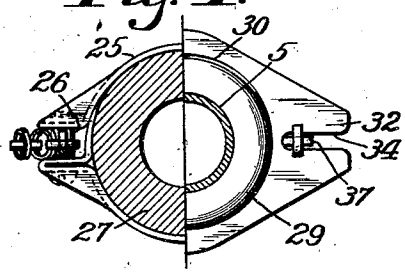
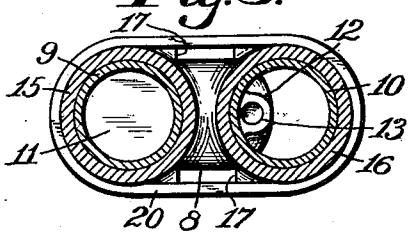


Fig. 5.



INVENTOR:
Charles W. Meggenhofen,
BY
E. D. Silvius,
ATTORNEY.

Patented Sept. 20, 1927. 1,643,025

UNITED STATES PATENT OFFICE.

CHARLES W. MEGGENHOFEN, OF INDIANAPOLIS, INDIANA.

VESSEL EMPTYING OR FILLING APPLIANCE.

Application filed July 5, 1923. Serial No. 649,679.

This invention relates to an appliance for emptying vessels by means of water under pressure or for conveniently filling vessels, especially wash-tubs, the invention having reference more particularly to an appliance that is designed to be connected to the ordinary faucet or tap of the type used in kitchens which has an externally smooth discharge spout.

An object of the invention is to provide a simple and reliable appliance whereby wash-tubs or wash-boilers may be conveniently filled or emptied, in order to eliminate the laborious and at times straining effort in carrying and lifting buckets of water or the larger wash-tubs and wash-boilers.

Another object is to provide an inexpensive appliance that shall be so constructed as to be adapted to be readily used in dwellings that are not completely modern but have water service and kitchen sinks discharging into sewers.

A further object is to provide an appliance that shall be so constructed as to be adapted to be used alternately for emptying a vessel, and to supply water to the vessel, and more conveniently and expeditiously when there are two faucets in the kitchen.

With the above-mentioned and other objects in view, the invention consists in a novel ejector provided with two flexible conduits having each a coupler, the couplers being alike so that either one may be connected to a faucet and permitting connection with two faucets if desired, to make use of the water forced from the faucets, either for forcing water from a vessel or for supplying the vessel with water; and, the invention consists also further in the novel parts and in the combination and arrangements of parts as hereinafter particularly described and further defined in the accompanying claim.

Referring to the drawings,—Figure 1 is a sectional elevation showing a kitchen sink below the water-supply faucet and the new apparatus connected therewith and with a tub of water to be emptied by the appliance; Fig. 2 is a perspective view of the bare ejector comprising a principal part of the appliance; Fig. 3 is a vertical central section of the appliance, partially broken away; Fig. 4 is a section approximately on the line IV—IV in Fig. 3; and Fig. 5 is a section on the line V—V in Fig. 3.

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

In the drawings the numeral 1, for the purposes of illustration, indicates the face of a kitchen wall to which a kitchen sink 2 is attached, the bottom of the sink being provided as usual with a drain pipe and trap 3 to conduct waste water to a sewer or elsewhere if desired. A faucet 4 is commonly arranged above the sink, or more commonly there are two faucets of which one discharges hot water and the other cold water. Each faucet usually has an externally smooth discharge spout 5 and is provided with a suitable valve 6. The wash-tub 7 or other vessels may be arranged lower than the sink, as upon a floor or a bench.

The ejector comprised in the invention has a suitable metallic body 8, the wall of which is approximately oval in plan and it has two upward extending hollow necks 9 and 10 that are cylindrical. The body 8 has a horizontal partition 11 that is arranged at a suitable distance above the lower end of the body, and with the wall portion of the body forms a duct that is connected to the neck 9 and extends partially into the neck 10, a nozzle portion 12 being connected with and extending from the duct and having a jet-hole 13 in its top to discharge upward into the neck 10 at one side thereof, the remaining space in the body being continuous with the space in the neck. The lower portion of the wall of the body 8 has notches 14 therein for the passage of water. Two flexible conduits 15 and 16 are connected with the necks 9 and 10 respectively, each conduit being composed of a section of so-called rubber hose, each section having one end stretched and forced over the neck and being partially cut away to form a recess 17 to clear the portion of the body that is between the necks and forms the top of the conduit, so that the sections of hose have apron-like portions 18 and 19 respectively that together cover the remainder of the outer side of the body 8. The ejector preferably has a rubber composition band 20 that extends about the hose sections and the apron-like portions thereof and downward beyond the lower end of the body 8, so as to constitute an elastic foot ring 21 adapted to rest upon the bottom of a vessel and prevent noise and also the wear-

ing or denting of the metal portions when handling the ejector or dropping it into a metallic vessel, the lower edge of the band having recesses 22 therein corresponding with the recesses 14, for the passage of the water.

The opposite end of each flexible conduit is provided with a coupler whereby to quickly connect it to the discharge spout 5 of a faucet, a metallic thimble 23 being placed in the hose section to prevent collapse of the hose. The main part of the coupler is composed of an elastic substance such as rubber, preferably without fabric reinforcement, and it comprises a socket 24 that is forced over the end of the conduit and is secured thereto by means of a hose clamp 25 of the type having a clamp bolt 26, a tapered shoulder portion 27 extending from the socket wall and having a relatively smaller neck portion 28 extending therefrom that is adapted to be stretched over the spout 5 of the faucet, and the end of the neck portion has a bead portion 29 that is larger diametrically than the neck. In some cases the neck portion 28 may be depended upon to adhere to the faucet spout, but preferably is further secured to the spout by means of a tapered annular collar 30 extending about the bead and when forced upward compressing the neck tightly on the spout. The collar has ears 31 and 32, one ear having a narrow slot 33 therein and the other having a slightly wider slot 34 therein. A link chain is connected at one end to the clamp bolt 26 and one link 35 is secured in the slot 33, the chain in practice being passed about the packing box of the faucet so as to form a loop 36 and brought down so that another link 37 is slipped into the slot 34, permitting the adjacent link to engage the under side of the ear 32, thus effectually securing the coupler to the faucet and preventing accidental removal therefrom.

In practical use, assuming that waste water is to be removed from a vessel, as a wash-tub, the ejector is placed upon the bottom of the vessel and the conduit 15 is connected with a faucet, the other conduit 16 being brought over the upper edge of the kitchen sink so that its coupler shall be in the sink. Upon opening the faucet the hydrant water flows through the conduit 15, with considerable force as will be understood, the water flowing through the conduit in the ejector, through the nozzle 12 and out of the orifice 13, expanding into the neck 10. Water in the vessel having entered the ejector body so as to stand higher than the nozzle, the jet produced forces the waste water out through the conduit 16 as the water enters the ejector body and is discharged into the sink, until nearly all the water has been removed from the vessel, after which the small quantity of water remaining may be readily poured out of the vessel. In case it is desired to supply the vessel with water the conduit 16 is connected to another faucet or may be connected to the faucet 4 after having disconnected the conduit 15, the conduit 16 having the coupler elements 24′, 25′, 27′, 28′, 30′ and other details of the coupler as above-described whereby to secure it to the spout 5 of the faucet. Having opened the faucet to which the conduit 16 is connected the water flows through it and into the ejector body, past the nozzle and out of the lower portion of the ejector into the vessel. The refilling and emptying operations may be repeated when necessary during the laundering operations, avoiding the splashing or spilling of water incidental to the filling and emptying of wash-boilers and tubs by means of a bucket.

What is claimed as new is:—

In a vessel-emptying or filling appliance, the combination of a hollow ejector body that is entirely open at its lower end with a notch in the bottom of its wall and two parallel adjacently arranged hollow necks on the upper portion of the body, a duct in the lower portion of the body connected with the two necks separately from the lower portion of the body, a jet-nozzle connected to the end of the duct and extending into one of said necks, two flexible hose sections connected to said necks respectively on the outside thereof and having portions extending downwards and about the body, and a flexible band extending tightly about the extensions of the hose sections and downward beyond the lower end of the body, the lower edge of the band having recesses therein.

In testimony whereof I affix my signature on the 27th day of June, 1923.

CHARLES W. MEGGENHOFEN.