No. 650,421. Patented May 29, 1900.

T. REIS.

HAND PUMP.

(Application filed Mar. 3, 1900.)

(No Model.)

Fig. 1.

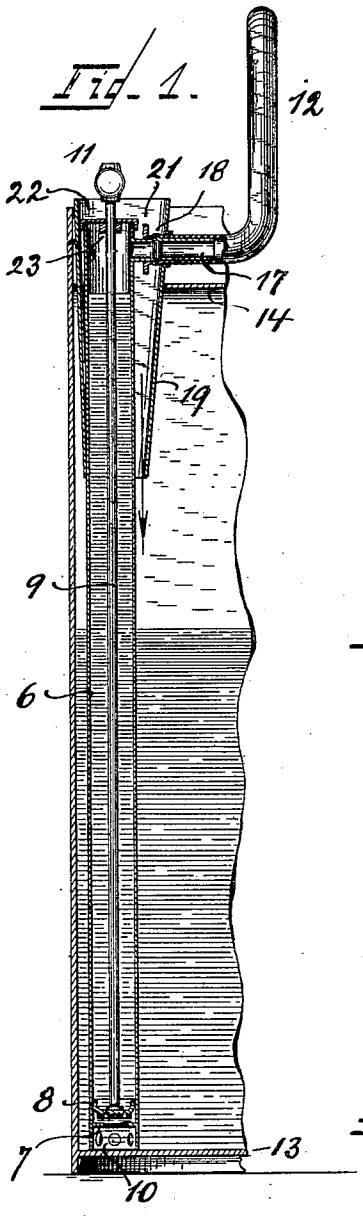


Fig. 2.

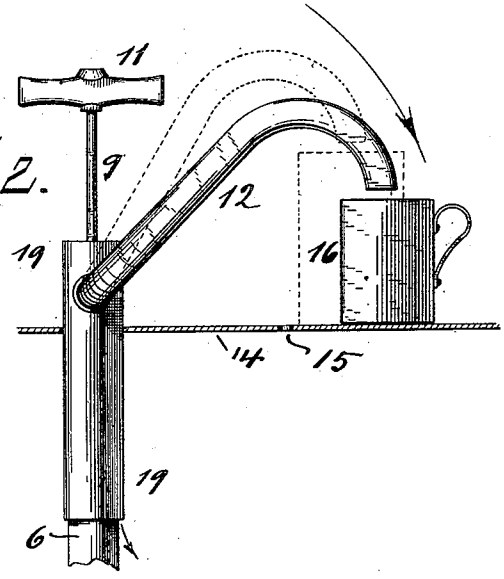


Fig. 3.

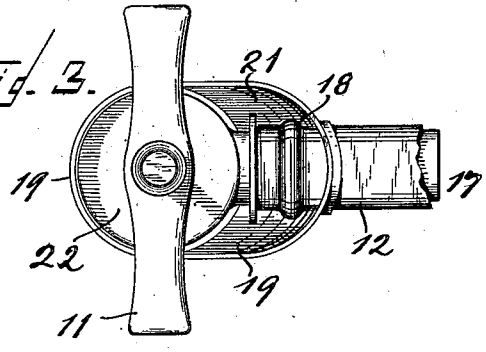
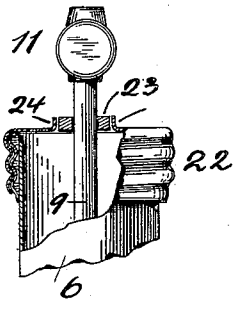


Fig. 4.



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UNITED STATES PATENT OFFICE.

THEODOR REIS, OF CINCINNATI, OHIO.

HAND-PUMP.

SPECIFICATION forming part of Letters Patent No. 650,421, dated May 29, 1900.

Application filed March 3, 1900. Serial No. 7,167. (No model.)

To all whom it may concern:

Be it known that I, THEODOR REIS, a citizen of the United States, and a resident of Cincinnati, Hamilton county, State of Ohio, have invented a certain new and useful Hand-Pump; and I do declare the following to be a description thereof sufficiently clear, full, and exact to enable others skilled in the art to which it appertains to make and use the same, attention being called to the accompanying drawings, with the reference-numerals marked thereon, which form also a part of this specification.

This invention relates to improvements in hand-pumps, particularly such which are used for transferring or emptying the contents of larger vessels, packages, barrels, tanks, &c. It is here shown in connection with a grocer's oil-tank, where these pumps are used to transfer the oil to the smaller vessels of customers or first to measuring vessels.

The invention comprises an adjustable spout whereby the discharge-opening of the pump may be adjusted to the height of the receiving vessel to overcome the distance in case of lower ones, between such vessel and the end of the spout, thereby preventing splashing.

It furthermore comprises features of construction which do not require tight joints at points of contact between stationary and movable parts.

It finally comprises means to catch any leakage and convey the same back to the tank.

In the following specification, and particularly pointed out in the claims, is found a full description of the invention, its operation, parts, and construction, which latter is also illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section of my improved pump shown in connection with portions of an oil-tank. Fig. 2 is an elevation of the upper part of the same. Fig. 3 is an enlarged top view thereof; and Fig. 4 is an enlarged section of the top portion of the pump, showing modified construction.

6 is the cylinder or barrel of the pump, the open inlet to its lower end being controlled by a customary foot-valve 7.

8 is a customary plunger carried at the lower end of a rod 9, provided at its upper outer end with a handle 11 for operation. The liquid, which may be oil in this case, discharges through a spout 12.

The pump is used in connection with a tank, upon the bottom 13 of which it rests, ingress of the liquid being made possible by openings 10 in the side of the barrel close to the lower end thereof. It is held in upright position by top 14 of the tank through an opening in which it passes, and it may be permanently or detachably connected in this position. The side of the tank projects above top 14 of it, forming a pan thereat, which prevents any liquid spilled from running down on the outside of the tank and which liquid may drain back into the latter through a drainage-opening 15.

The spout is curved, as shown, to cause the discharge to fall down straight into the receiving vessel 16, which may be a measuring vessel. It is connected with a joint, which permits the discharge-opening to be raised or lowered to meet the height of the measuring vessel and bringing it as close thereto as possible to prevent splashing. (See dotted lines in Fig. 2.) For such purpose this spout is mounted upon a nipple 17, with a slip-joint which permits it to turn thereon. Beyond the end of this nipple the spout is bent at right angles and the other end is curved, as shown. It is prevented from slipping off by a projection on one of the engaging parts fitting into an annular depression in the other, and in this case is done by beads or corrugations 18, one on nipple 17 fitting closely into another one on the corresponding part of spout 12. While this joint should be as tight as possible without interfering with turning it, no special attempt is made by packing or any other means to render it liquid-tight. The spout being jointed is also an advantage during shipping, at which time it may be turned in a manner to reduce the length and bulk of the pump.

Leakage which occurs is received by a funnel-shaped attachment 19, connected to the upper part of the pump-barrel, which it surrounds, and is of sufficient length to cause it to depend well into the tank. This funnel is formed only on the side where the spout starts, which passes through the wall thereof. To prevent any leakage from passing outside of the funnel through this opening, a flange 21

is provided at the inner end of the spout, which causes such leakage to drip at once into the funnel. Neither is there an attempt made to obtain a liquid-tight joint by stuffing-box or otherwise where the rod 9 passes through the upper end of the barrel, and any leakage occurring thereat is at once received by the funnel attachment 19, being of sufficient height for such purpose and conveyed by it into the tank. This upper end is simply closed by a cap 22, which may be permanently attached or removable in shape of a screw-cap, as shown in Fig. 4. It is reinforced around the opening through which rod 9 passes by means of a plug of metal 23, soldered thereto. In the case of the form shown in Fig. 4 this plug is on the outside, held in addition between upturned parts 24 of the cap, and serves as a nut therefor to permit application of a wrench for removal or attachment of the cap. The upper edge of this funnel attachment serves also as a support for the pump-handle, which rests thereon and is thus prevented from resting upon the cap, where it might become soiled by the leakage. Rod 9 is of such length that when the handle is so supported plunger 8 is prevented from resting upon valve 7.

Screw-caps like the one above referred to, together with the complementary part or neck which receives it, are purchasable as independent complete articles of manufacture, and may thus be obtained and the neck soldered in position. This, together with the other features of construction, dispensing with packed joints, permits altogether a structure which is not expensive, but satisfies all requirements.

Having described my invention, I claim as new—

1. In a pump, the combination of a barrel open for ingress below, a plunger, an outlet near the upper end, a nipple projecting therefrom and a spout fitted thereto in a manner to be capable of turning thereon and that part of it beyond the end of the nipple being bent at right angles to the remaining part and curved at the discharge end as shown.

2. In a pump, the combination of a barrel open below for ingress, a plunger, an outlet near the upper end, a nipple projecting therefrom, a spout fitted thereto in a manner to be capable of turning thereon and projecting beyond the end thereof, the projecting part being bent at an angle to the remaining part and a projection on one fitting into an annular depression in the other of the engaging parts of nipple and spout whereby this latter is held in place.

3. In a pump, the combination of a barrel open for ingress below, a plunger, an outlet near the upper end, a nipple projecting therefrom, a spout fitted thereto in a manner to be capable of turning thereon and projecting beyond the end thereof, the projecting part being bent at an angle to the remaining part and a flange 21 at the inner end of the spout for the purpose described.

4. In a pump, the combination of a barrel open for ingress below, a plunger, an outlet near the upper end, a nipple projecting therefrom, a spout fitted thereto in a manner to be capable of turning thereon and projecting beyond the end thereof, the projecting part being bent at an angle to the remaining part, annular corrugations on the engaging parts of nipple and spout, one corrugation fitting into the other one for the purpose of holding the spout in place.

5. In a pump, the combination of a barrel open for ingress below, a plunger, an outlet near the upper end, a nipple projecting therefrom, a spout fitted thereto in a manner to be capable of turning thereon and projecting beyond the end thereof, the projecting part being bent at an angle to the remaining part, and means to hold the spout in place on the nipple and a flange 21 at the inner end of the spout for the purpose described.

6. In a pump, the combination of a barrel open below for ingress, a plunger, an outlet near the upper end, a nipple projecting therefrom, a spout fitted thereto in a manner to be capable of turning thereon and a funnel-shaped attachment surrounding the upper part of the pump through the side of which this spout projects, the part of it projecting beyond the funnel being bent at an angle to the remaining part.

7. In a pump, the combination of a barrel open below for ingress, a plunger, an outlet near the upper end, a nipple projecting therefrom, a spout fitted thereto in a manner to be capable of turning thereon, a funnel-shaped attachment surrounding the upper part of the pump through the side of which this spout projects, the part of it projecting beyond the funnel being bent at an angle to the remaining part and a flange 21 at the inner end of the spout and within the funnel attachment.

8. In a pump, the combination of a barrel open below for ingress, a plunger, an outlet near the upper end, a nipple projecting therefrom, a spout fitted thereto in a manner to be capable of turning thereon, a funnel-shaped attachment surrounding the upper part of the pump through the side of which this spout projects, the part of it projecting beyond this funnel being bent at an angle to the remaining part, means to hold the spout in place and a flange 21 at the inner end of the spout and within the funnel attachment.

9. In a pump, the combination of a barrel 6, open below for ingress, a foot-valve 7 in this lower end, a perforated cap 22 to close its upper end, a plunger 8, operating-rod 9 and a handle 11 thereon, a nipple 17 projecting from the side of barrel 6 near its upper end, a spout 12 fitted thereto in a manner to be capable of turning thereon, a funnel-shaped attachment 19 surrounding the upper part of

barrel 6 and projecting above the cap thereat, an opening in the side of this funnel attachment 19 through which spout 12 passes, being bent at an angle beyond this opening, a flange 21 on its inner end and engaging annular corrugations on the engaging part of nipple and spout to hold this latter in place.

In testimony whereof I hereunto set my hand in the presence of two witnesses.

THEODOR REIS.

Witnesses:
C. SPENGEL,
ARTHUR KLINE.