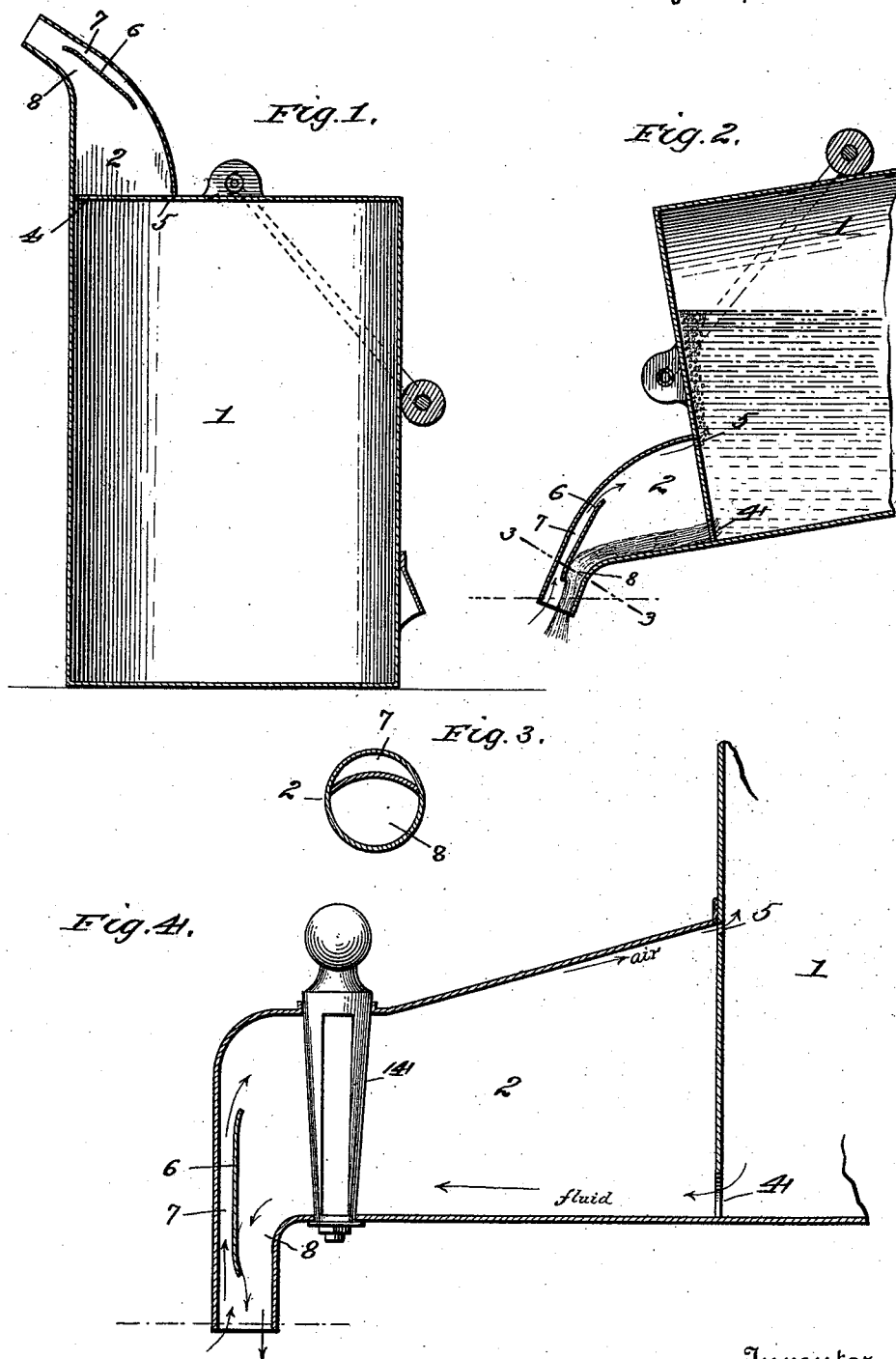


(No Model.)

L. C. KINSEY.
SPOUT FOR VESSELS.

No. 523,580.

Patented July 24, 1894.



Witnesses
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UNITED STATES PATENT OFFICE.

LEONIDAS C. KINSEY, OF MONTGOMERY STATION, PENNSYLVANIA.

SPOUT FOR VESSELS.

SPECIFICATION forming part of Letters Patent No. 523,580, dated July 24, 1894.

Application filed May 5, 1894, Serial No. 510,217. (No model.)

To all whom it may concern:

Be it known that I, LEONIDAS C. KINSEY, a citizen of the United States, residing at Montgomery Station, in the county of Lycoming and State of Pennsylvania, have invented certain new and useful Improvements in Spouts for Vessels, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to a new and improved spout for oil-cans and other vessels, and it has for its object to provide a simple and practical device, by means of which lamps or other vessels may be readily filled without overflowing, the flow of liquid being automatically stopped when the liquid in said vessel rises to the discharge end of the spout, said spout being so formed that it can be inserted in the vessel in the usual manner.

20 The invention consists in the novel construction and arrangement of parts as will be more fully hereinafter described and particularly pointed out in the claims appended.

In the drawings: Figure 1 is a vertical sectional view of a can provided with my improved spout; Fig. 2 a similar view showing the liquid flowing from the spout; Fig. 3 a cross-sectional view of the spout on line 3—3 of Fig. 2, and Fig. 4 a vertical sectional view of my improved spout provided with a stop-cock.

Referring to the various parts by numerals, 1 designates a can or other air-tight vessel which may be of any suitable size and shape. At a suitable point on the top of the can, and near the edge thereof, is secured the spout 2. It is evident however that the spout may be secured in any other suitable position on the can. This spout is formed deeper or wider at its base than the spouts of ordinary construction, and leading into this enlarged chamber are two openings, 4 and 5. The larger opening 4 is the fluid-discharge opening and is formed in the can near the bottom or lower wall of the spout, and the smaller opening 5 is the air-inlet, and is formed near the upper, curved or inclined side of the spout, as shown.

In the spout, adjacent to the curved or inclined, upper side thereof, is a deflector-plate 6, said plate being placed a suitable distance from said curved or inclined side in order to form an air passage between it and the side

of the spout. The plate 6 extends toward the delivery end of the spout a suitable distance, its lower end curving slightly toward the bottom part or opposite side from the curved side of the spout in order to deflect the out-flowing liquid toward said side, as will be more fully hereinafter set forth. The deflector-plate extends up into the spout, substantially parallel with the top-wall thereof, a sufficient distance to prevent the out-flowing liquid from flowing over its upper end and into the air passage formed between the plate and the upper side of the spout.

The plate 6 divides the delivery end of the spout for a portion of its length into two passages 7 and 8, as is clearly shown in Fig. 3 of the drawings, the passage 7 being for the inflowing air and the passage 8 for the out-flowing liquid. The passage 8 is formed of an equal size, or larger than the exit in the can, in order that the liquid may flow out of the spout as quickly as it flows into the same through the opening 4.

The operation is as follows:—The delivery end of the spout is placed in the vessel to be filled and the liquid flows out through the exit 4 and down the spout to the deflector plate 6 and is there deflected by said plate, and prevented from contacting with the upper or inclined side of the spout while in its outward course. As the liquid flows out, the air passes into the spout to one side of the liquid, as shown in Fig. 2, and up along the top-wall thereof, through the passage 7, into the enlarged spout-chamber, and through opening 5 into the can. When the liquid in the vessel to be filled rises to the lower end of the spout, it cuts off the access of air to the interior of the can and thereby immediately stops the flow of liquid. The air-inlet 5 is made small in order that the inflowing air will permit very little, if any, liquid flowing out through it.

In Fig. 4 the spout is provided with a stop-cock and is adapted for use on large tanks, being secured to them at their lower ends. The deflector plate 6 in this construction is located in a position corresponding to its position in the construction shown in Fig. 1 of the drawings. The stop-cock 14 secured in this spout is provided with an opening which extends the entire depth of the spout as

shown. When the stop-cock 14 is opened, the liquid flows out of the vessel, and in its outward course strikes against the deflector plate and is deflected as before described, and the
5 air rising back of the plate 6 passes to the top of the spout and along its upper wall to the air inlet and thence into the tank. When the liquid rises to the lower end of the spout, access of air to the tank is cut off and the
10 flow of liquid is stopped immediately, as in the construction shown in Figs. 1 and 2.

Having thus fully described my invention, what I claim is—

1. The combination with a vessel, of a spout
15 connected thereto, the wall of the vessel being provided with separated openings, one of the openings being near the lower wall of the spout and the other being near the upper wall thereof, and a deflecting plate in the dis-
20 charge end of the spout, said deflecting plate dividing the spout into two passages, substantially as described.

2. The combination of a vessel, a spout connected thereto and communicating therewith
25 by separated openings, one of the openings being adapted to permit the liquid to flow from the tank into the spout and the other being adapted to let air into the vessel, a deflecting plate inserted in the discharge end
30 of the spout, dividing the same into two passages, and a stop-cock inserted in the spout at a point between the deflecting plate and the vessel, substantially as described.

3. The combination with a vessel, of a spout

connected thereto, said spout being enlarged
35 at its inner end, the wall of the vessel being formed with separated openings leading into the enlarged end of said spout one of said openings being near the lower wall of the
40 spout and the other being near the upper wall thereof, and a deflector plate in the spout at the discharge end thereof and directly in line with the out flowing liquid, said plate being
approximately parallel with the upper wall of the spout and forming an air passage at that
45 point, substantially as described and for the purpose set forth.

4. The combination with a vessel, of a spout secured thereto, said spout being enlarged at
its inner end, the wall of the vessel being
50 provided with two separated openings leading into the spout, said openings being so located that they are one above the other when liquid is drawn from the vessel, the lower, fluid exit
55 opening being larger than the upper, air inlet opening, a short deflector plate in the discharge end of the spout directly in line of the out flowing liquid, said plate forming a short
air passage to conduct the air above the out
60 flowing liquid, substantially as described and for the purpose set forth.

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

LEONIDAS C. KINSEY.

Witnesses:

JAMES B. KRAUSE,
J. H. BOZER.