(Model.)

T. C. MASSEY.

Can-Spout.

No. 227,697. Patented May 18, 1880.

FIG. 1.

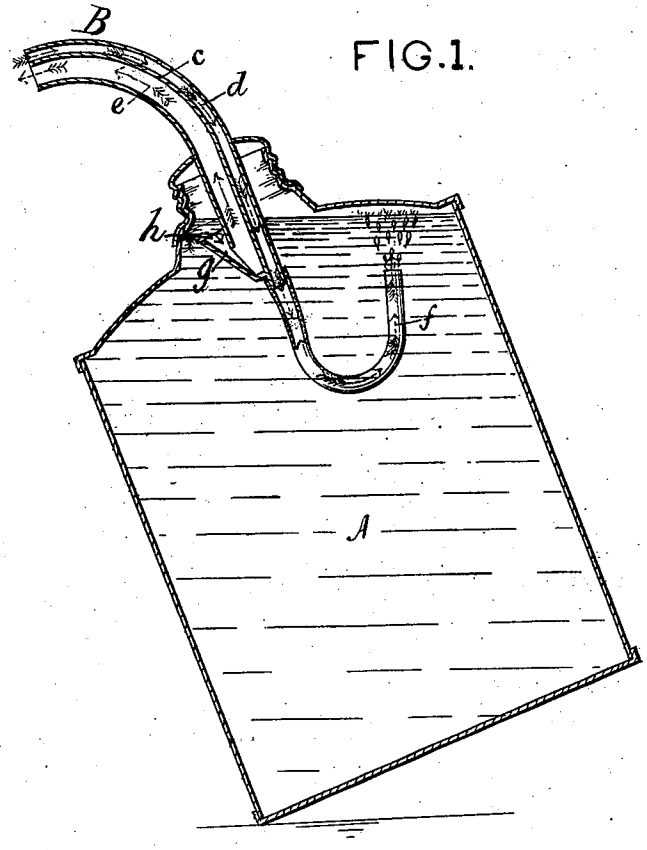


FIG. 2.

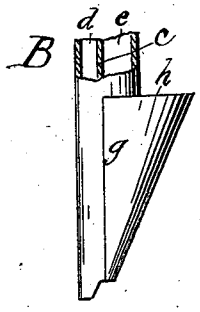
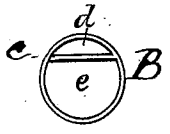


FIG. 3.



Witnesses:
Penn Halsted
Robert Lynch

Inventor
Thomas C. Massey.
by J. J. Halsted
Atty.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

THOMAS C. MASSEY, OF BATAVIA, ILLINOIS.

CAN-SPOUT.

SPECIFICATION forming part of Letters Patent No. 227,697, dated May 18, 1880.

Application filed March 12, 1880. (Model.)

To all whom it may concern:

Be it known that I, THOMAS C. MASSEY, of Batavia, in the county of Kane and State of Illinois, have invented certain new and useful Improvements in Kerosene-Can Spouts; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention has for its object the prevention of evaporation and avoidance of spilling of kerosene or other fluids contained in cans, and also the automatic prevention of waste or overflow while filling lamps from such cans; and it consists in a special construction of the spout of the can, in connection with a rubber or other bouyant tube attached to the inner end of such spout and inside the can, and also of the same in connection with a trap at the inner end of the spout, all as more particularly hereinafter set forth.

Figure 1 is a vertical section of my improved spout applied to a can; Fig. 2, a detail, showing the inner end of the spout partly in section, the flexible tube not being shown; and Fig. 3, an end view of the discharging end of the spout.

The can A may be of any known form. Its spout B is divided throughout its length by a midriff or diaphragm, *c*, to afford two distinct passages—the upper and preferably the smaller one, *d*, for the admission of air, and the lower one, *e*, for the pouring out of the liquid. To the inner end of the air-passage *d*, I attach a short piece, *f*, of flexible tubing—say of india-rubber—and which is left free except at the place of its attachment to the tube, and thus leaving it at liberty to float upon or to be upraised in the liquid whenever the latter has depth enough to bear it upward, and when the liquid is low it hangs from the spout. The extreme inner end of passage *e* is provided with a trap, *g*, as shown, which allows the liquid to enter only at the upper end, *h*, of such trap, its lower end being closed, so that no liquid can pass out of the can without first passing downward into the trap, and thence into and out of the outlet-passage *e*. This trap thus serves also as a cap or cover at the inner end of passage *e*, and its end forms a bar or wall in near proximity to the inner end of tube *d*, so that the currents into or out of either passage respectively need not interfere with that at the other of these passages, and even if the flexible tube should drop off or be removed neither passage will interfere with the desired function of the other. The arrows indicate the direction of the flow of liquid and of air respectively in the respective passages *d e*.

From the above description it will now be seen that no vent-hole is used or needed in the top of the can; that in pouring out the liquid the air is admitted through the passage *d* at the same time that the liquid is discharging through the passage *e*, thus making the spout self-ventilating; that the rubber tube, rising to or near the surface when the can is tipped for use, permits a free flow of oil from this passage *e* as long as the air-passage *d* is free at its inlet end to admit air, but that if such inlet end be closed or its passage-way obstructed no liquid would be poured out, because no air could then be admitted to take its place.

In filling a lamp with this can, therefore, the end of the spout being placed in the mouth or filling-tube of the lamp, it will be evident that as soon as the lamp is filled up to a height such that the oil reaches and covers the end of the spout the rush of air into the passage *d* is instantly cut off, and consequently the outflow of oil from passage *e* is instantly and automatically stopped. Waste and overflow of oil are therefore impossible, and all the bad and dangerous consequences incident thereto are avoided.

The effect of the trap *g* is to prevent evaporation of the kerosene or other liquid contained in the can, and also to prevent the spilling or discharging of the same in handling and carrying the can.

It is evident that variations may be made from the special construction shown without departing from the spirit of my invention. For instance, two independent tubes might be used for the double spout instead of the single tube with its partition.

I claim—

1. A self-ventilating spout made with the two tubes or lengthwise passages *d* and *e*, both terminating at the outer end of the spout, and terminating near to each other at their inner ends, the oil-passage *e* having a cap or covering at its inner end, as and for the purpose set forth.

2. In combination, the spout having the oil-exit passage *e* and air-inlet passage *d*, flexible tube *f*, and trap *g*, substantially as and for the purposes described.

3. In combination with an oil-can, a spout made with an independent continuous air-passage and with an independent continuous oil-passage, both terminating at the outer end of the spout, and with the tube *f* and trap *g*, and operating, as described, to automatically arrest the delivery of the oil when such air-passage becomes closed by contact with the oil in the lamp or vessel being filled.

THOMAS C. MASSEY.

Witnesses:
JAMES O. MCCLELLAN,
W. N. DORN.