(No Model.)

S. DUNLAP.

OIL CAN.

No. 538,103. Patented Apr. 23, 1895.

Fig. 1

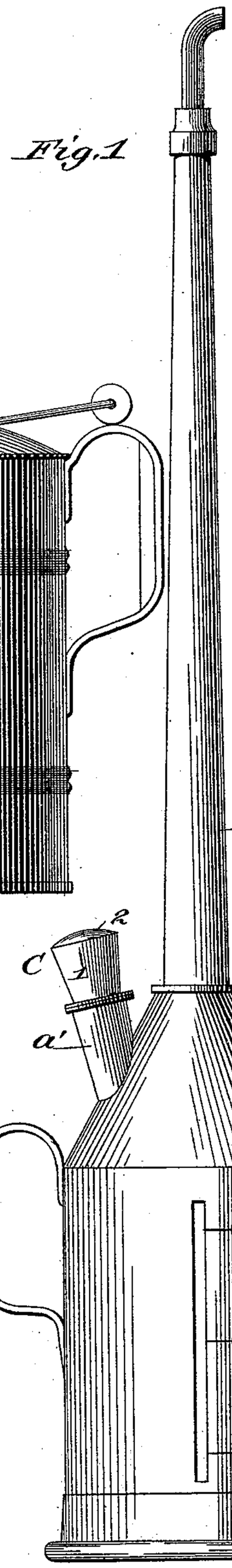


Fig. 2.

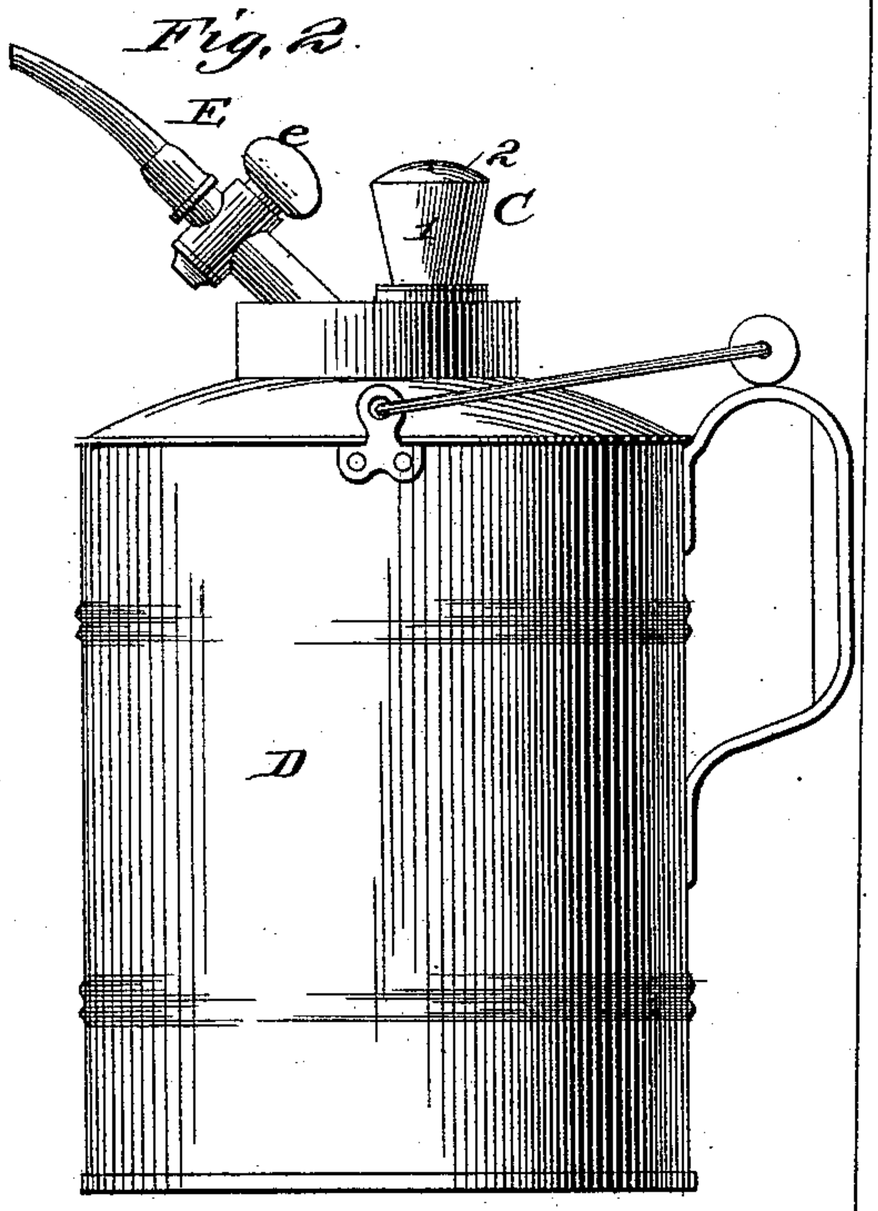


Fig. 3

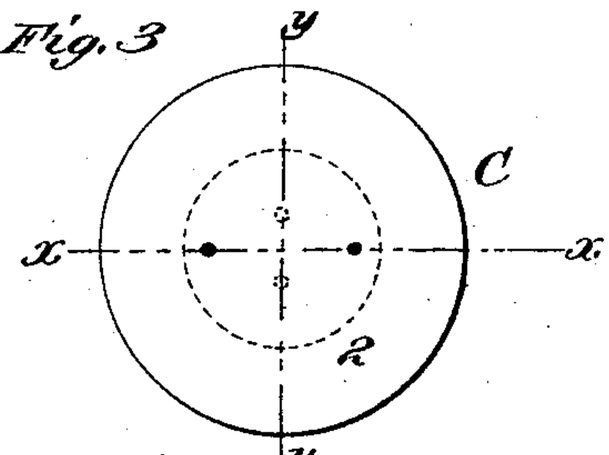


Fig. 4

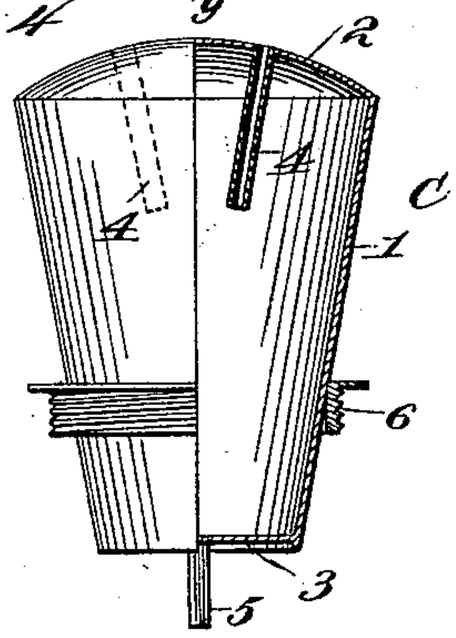
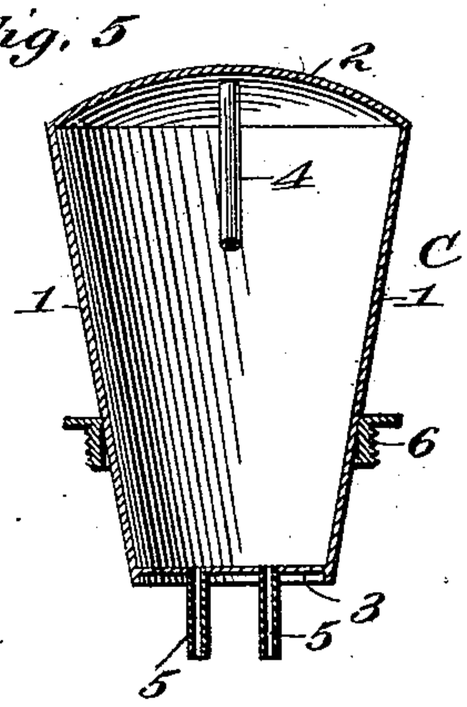


Fig. 5



Witnesses;

J. F. Coleman

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By J. Thurston Atty.

UNITED STATES PATENT OFFICE.

STEWARD DUNLAP, OF ASHLEY, PENNSYLVANIA.

OIL-CAN.

SPECIFICATION forming part of Letters Patent No. 538,103, dated April 23, 1895.

Application filed October 20, 1894. Serial No. 526,457. (No model.)

To all whom it may concern:

Be it known that I, STEWARD DUNLAP, a citizen of the United States, residing at Ashley, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Oil-Cans, of which the following is a specification.

My invention relates to oil cans and it consists in improvements in such cans designed to prevent the contained oil from spilling in transporting the can or when the can is inverted for the purpose of pouring out oil.

In the accompanying drawings in which like reference signs refer to similar parts throughout the several views, Figure 1 is a side view of one form of can embodying my invention. Fig. 2 is a side view of another form of can. Fig. 3 is a plan view of the combined stopper and vent. Fig. 4 is a side elevation of the same, partly broken away on the line *x*—*x* of Fig. 3, and Fig. 5 is a section on the line *y*—*y* of Fig. 3.

The can shown in Fig. 1 is a lubricating oil can such as that fully described in my Patent No. 465,467, dated December 22, 1891. This can A is provided with a conical top *a* and a spout *b*. The filling tube *a'* is attached to the conical top as in my former patent and it is closed by a combined stopper and vent, C.

Fig. 2 represents a can D for illuminating oil having a similar stopper and vent C on top. The spout E of this can is provided with a turning plug valve *e*.

In my former patent, above mentioned, I described a combined stopper and vent consisting of a hollow substantially cylindrical casing having a small perforation in its lower end and a small tube extending centrally downward within the casing from a similar perforation in its upper end.

I have found that if the tube and perforation shown in my former patent are made large enough to admit air freely they will permit the oil to flow too freely through the vent when the can is inverted. My present invention is directed mainly to means for curing that defect.

Referring to Figs. 3, 4 and 5, 1 indicates the side wall of the vent C, 2 the top, and 3 the bottom. The casing of the vent as shown is conical with a rounded top and plain bottom but the shape may be varied to suit the taste or convenience of the manufacturer, all that is necessary being that the casing be hollow and have some capacity for oil.

Instead of a single perforation and tube at the top of the vent, I use a plurality of small tubes 4 extending from a corresponding number of small perforations in the top 2 downward into the casing for some distance. I preferably also attach a plurality of small tubes 5 to the bottom of the casing, these tubes being outside of the casing and extending into the oil can when the vent is in place. The tubes 4 and 5 are small enough to retard the oil by capillary action and may be termed capillary tubes. As shown in the drawings, there are two small tubes connected with the upper end of the casing and the tubes connected with the lower end and arranged upon a line at right angles to the line passing through the upper tubes. By using a sufficient number of small tubes in the vent the air will pass in any desired amount; but on account of the viscous nature of the oil and the capillary action of the small tubes a very small amount of oil can pass out when the can is inverted. By using the tubes 5 at the bottom of the vent I greatly reduce the amount of oil which passes into the vent chamber because the capillary action of the tubes causes the oil to flow much more sluggishly than it would through a mere perforation in the casing, as shown in my former patent. The tubes 5 therefore at the bottom of the casing are mainly designed to prevent or retard the flow of oil from the can into the vent chamber. The tubes 4 at the upper end of the vent chamber prevent the oil from flowing out until a considerable quantity has accumulated in the chamber and in case of such an accumulation they prevent it from spilling rapidly.

My improved vent might be permanently connected with the can but I prefer to use it also as a stopper, the vent being supplied with a threaded ring 6 which fits the opening through which the can is filled.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with an oil can, of a vent consisting of a hollow casing fitted to

the upper portion of the can, said casing being provided with a plurality of capillary tubes extending from its lower part into the can and with a plurality of capillary tubes extending from its top into the chamber of the casing or vent, substantially as described.

2. The combination with an oil can, of a vent consisting of a casing fitted to the upper portion of the oil can, said casing being provided with openings in its lower end communicating with the interior of the can and with a plurality of capillary tubes extending from the upper end of the casing into the chamber of said casing, substantially as described.

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

STEWARD DUNLAP.

Witnesses:

J. L. RICHARDSON,

GEO. G. SLOAN.