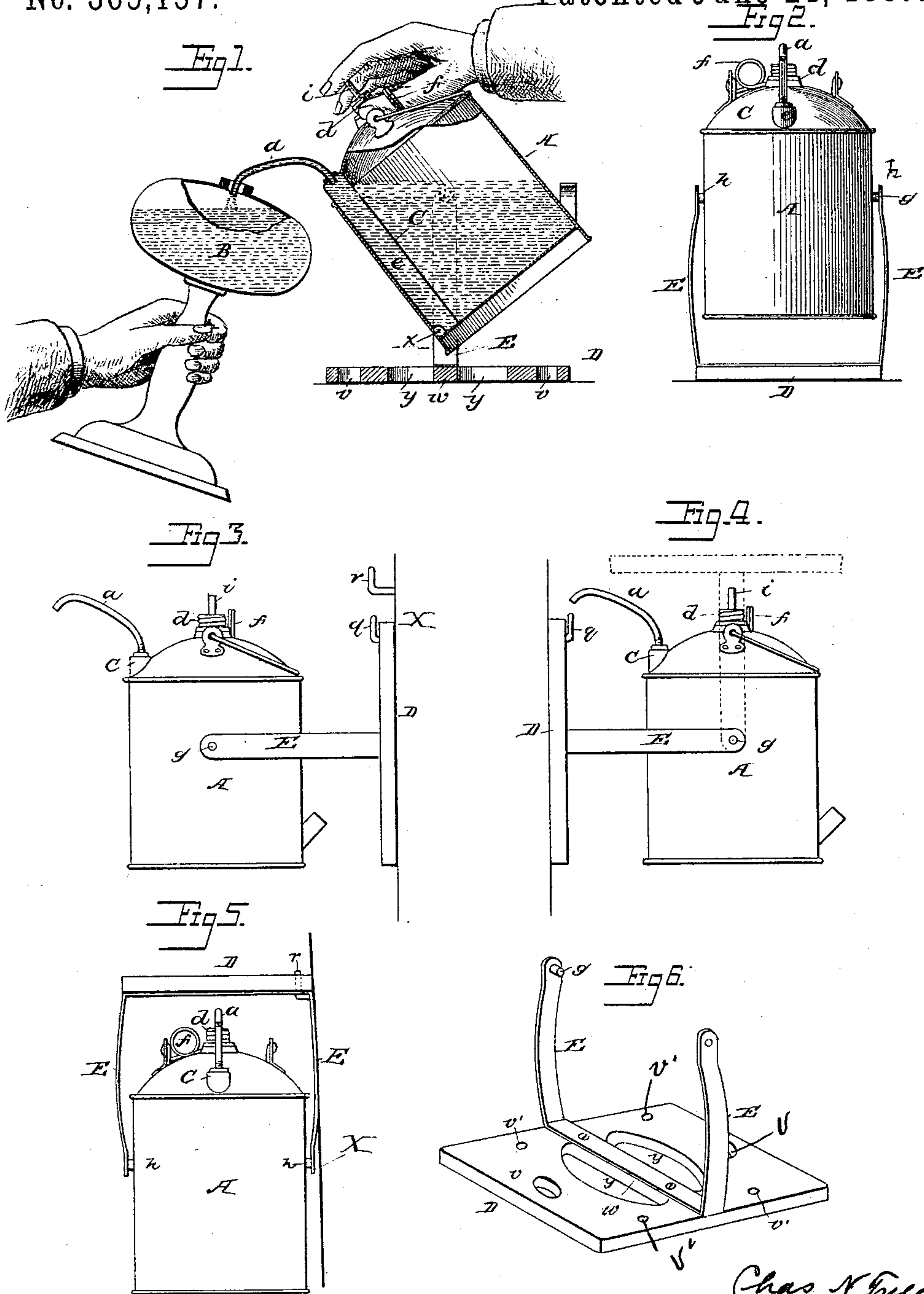


(No Model.)

C. N. TYLER.
SIPHON OIL CAN.

No. 365,157.

Patented June 21, 1887.



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UNITED STATES PATENT OFFICE.

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SIPHON OIL-CAN.

SPECIFICATION forming part of Letters Patent No. 365,157, dated June 21, 1887.

Application filed March 30, 1886. Serial No. 197,208. (No model.)

To all whom it may concern:

Be it known that I, CHARLES N. TYLER, a citizen of the United States, and a resident of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Siphon Oil-Cans, of which the following is a specification.

My invention relates to that class of cans provided with tubes by means of which fluids may be discharged from and siphoned back into the can; and my invention consists in providing the can with a rigid siphon-tube and in supporting the can by means of a base and arms or standards, between which the can swings, all substantially as hereinafter set forth, and as illustrated in the accompanying drawings, in which—

Figure 1 is a sectional elevation of my improved can and support, illustrating the mode of manipulating the can when filling a lamp. Fig. 2 is a front elevation of a can and support. Figs. 3, 4, and 5 are views illustrating the support in different positions. Fig. 6 is a perspective view of the support.

A is the body of the can, which may be of any suitable form and material, and C is a siphon-tube, the lower edge of which communicates with the interior of the can near the bottom, while the upper end projects beyond the top, forming a rigid bent spout, the mouth of which is above the highest point to which the can is likely to be filled and below the level of the bend of the said spout. As thus constructed, the tilting of the can, whether held in the hand or otherwise supported, to an extent to bring the mouth of the spout *a* below the level of the surface of the fluid in the can will cause the fluid to be discharged into a lamp, B, or other suitable receptacle, in the same manner as with ordinary cans having discharge-spouts, while any alternation in the position of the can which will bring the level of the fluid therein to a point below the mouth of the spout will cause a siphoning back of the fluid, and if the spout is immersed in the fluid in the lamp or other receptacle, will cause the discharge of the fluid from the receptacle into the can. By this means the waste and accidents which are apt to result from the overfilling of the lamps, &c., and the attempts to pour the surplus back through the ordinary

filling-openings in the cans, are prevented, while the result is effected with facility and without danger of injury to articles from the spilling of the fluid thereon or danger of explosion of the gas in the top of the can, as the siphon-tube is always sealed at its lower end with a quantity of the fluid.

Inasmuch as the spout *a* is rigid, it may be inserted in and withdrawn from the reservoir by merely manipulating the can while it is held in or operated by one hand, thus leaving the other hand free to support the lamp or other vessel.

I am aware that cans have been provided with nozzles to which rubber tubes have been suspended; but in such case the tube can only be properly inserted and withdrawn by using one hand while the can is supported by the other, thus preventing the proper manipulation of the vessel into which the liquid is poured, the rubber tube being attended with the further disadvantage of fouling or being dissolved by the liquid, while as it is suspended while not in operation its mouth is then carried below the surface of the liquid in the can, so that it is liable to siphon the liquid out of the can in case the latter is accidentally disturbed so as to start the liquid flowing into the tube.

It will be evident that a can provided with a siphon-tube, the upper end of which forms a rigid spout, with its mouth always above the normal level of the liquid when the can is upright, is liable to none of these objections.

In order to insure the siphoning back of the liquid when the surface of the liquid in the can is but a short distance below that of the liquid in the vessel B, I enlarge the diameter of the siphon-tube below the spout, so that the descent of the fluid to any given extent in the enlarged portion *e* of the tube will cause a greater body of fluid to pass back through the spout than would result from its descent to an equal level in a section, *e*, of the same diameter as the spout.

In order that every part of the body of oil within the can may reach the siphon-tube, I cut away the forward side of the latter to form a notch, *x*, at the extreme edge of the can, as shown in Fig. 1, the can being provided with a horizontal bottom.

To better regulate the flow of the liquid, I prefer in most instances to provide the top of the can or the screw-cap *d*, which fits the filling-opening, with a small tube, *i*, to which the finger of the hand may be applied, so as to partially or wholly close or open the tube to control the passage of the air through it into or out of the can, and thereby to regulate the flow of the fluid through the spout.

When the can is to be supported entirely by the hand, I prefer to provide it at the top with a ring, *f*, for the passage of one of the fingers; but when the can is large it is best to support it upon trunnions, so that it may be swung thereon to effect the discharge or inflow of the fluid.

A convenient support consists of a board, *D*, to which are bolted two upright spring-arms, *E E*, each carrying at the upward end an inwardly-projecting lug or trunnion, *g*, adapted to fit a socket in a hub, *h*, at the side of the can, the arms *E* being sprung apart to permit the insertion of the trunnions and retaining the latter in place.

The base and arms will support the can so that it will readily swing under pressure applied by one hand, while the other is used to support the vessel *B*.

The base *D* is so constructed that it may be the means of supporting the can not only upon a level surface or table, but also from a side wall, or in carrying the can, for which purposes it is provided with two openings, *y y*, forming a cross-bar, *w*, and with holes *v v'* near the opposite edges.

When the can is to be carried, the base *D* may be swung upward to the position shown in dotted lines, Fig. 4, and the cross-piece *w* may then be grasped by the hand. When the can is to be supported from a side wall or shelf, *X*, Fig. 3, the base *D* is turned to one side and hung to a hook, *q*, projecting from the wall and passing through one of the openings, *v'*; or the board may be swung to the other side, as shown in Fig. 4, the can thus being suspended in position to swing to or from the wall.

When it is desired to have the can swing in a plane parallel to the wall, the base *D* is carried to a position above the can and is applied at the side edges to hooks *r*, extending through the openings *v*, as shown in Fig. 5. In this position one of the arms *E* forms a brace to aid in supporting the base in its horizontal position, and bears against the side of the wall, as shown.

As shown, the base *D* is of wood and the

spring-arms *E* of metal; but the base may also be of metal, and the arms, instead of being spring-arms, may be rigid arms with adjustable bearings.

By carrying the mouth of the spout below the level of the bend of the same, the lamp or other receiving-vessel may be held in a nearly or quite upright position when being filled, while the can is tipped but comparatively little, thus obviating the objectionable features of all cans in which the mouth of the spout is at the highest point thereof, in which latter case either the can or the receiving-vessel must be unduly tipped and the danger of accidental spilling greatly increased. Cans having the mouth at the top of the spout are not adapted to siphon the liquid from the receptacle into the can, especially when the can is full or nearly so, as the spout, when the can is carried toward an upright position, forms too great an angle with a receptacle having a contracted opening—as that in a lamp, for instance—to enter the said opening, since the can must be brought to a nearly upright position to cause the liquid to flow back, and the receptacle, when full, cannot be tipped.

I claim—

1. The combination of a can and a rigid tube rigidly secured to the can, extending downward and communicating with the can at the lower end and extending upward and outward beyond the top and bent downward at its upper end, with the mouth below the level of the bend and constituting a siphon-spout for discharging liquids from and siphoning them into the can, substantially as described.

2. The combination of the can-body *A* and siphon-tube *C*, provided with a recess, *x*, at the lower end adjacent to the wall of the can at its junction with the bottom, for the purpose set forth.

3. The combination of the can, base, supporting-arms, and trunnion-bearings, the base having a cross-bar, *w*, and openings *v v'*, substantially as and for the purpose set forth.

4. The combination of the can and the base provided with arms *E E*, and having openings *v v'*, adapted to the hooks *q q*, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES N. TYLER.

Witnesses:

W. C. DUVALL,
WM. A. HARRIES.