

G. H. CHINNOCK.
Oil-Can Tops.

No. 156,878.

Patented Nov. 17, 1874.

Fig. 1.

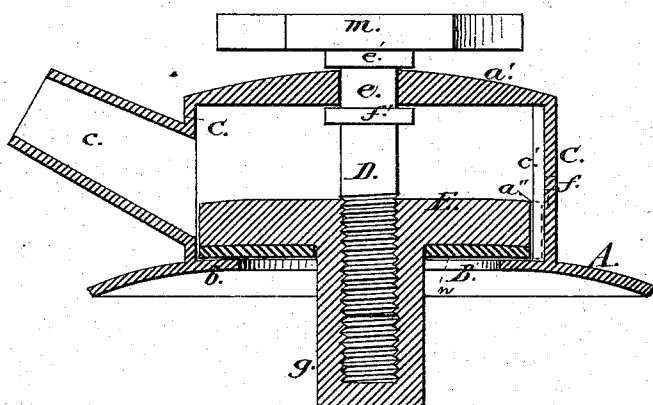
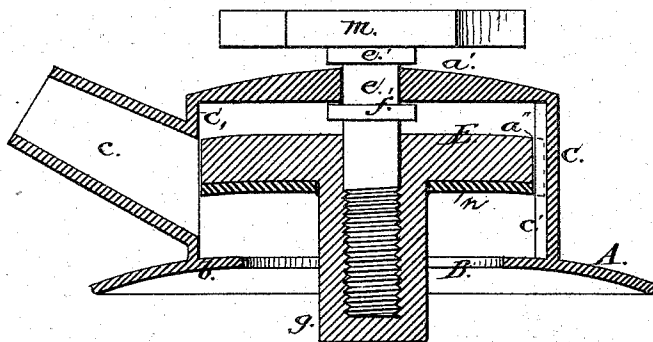


Fig. 2.



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Edw. W. Down
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UNITED STATES PATENT OFFICE

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IMPROVEMENT IN OIL-CAN TOPS.

Specification forming part of Letters Patent No. **156,878**, dated November 17, 1874; application filed
October 19, 1874.

To all whom it may concern:

Be it known that I, GEORGE H. CHINNOCK, of Brooklyn, in the county of Kings and State of New York, have invented certain Improvements in Tops for Closed Cans, of which the following is a specification:

This invention comprises a top or nozzle for oil-cans and the like, in which the shell or body is closed permanently at its upper end, and carries the bearing of an actuating-screw, which gives vertical movement, without rotation, to the valve or plunger of the nozzle. By this novel construction of the latter all leakage through or from the upper end of the nozzle or top is effectually guarded against, and provision is made for the effectual operation of the plunger without any undue application of force, and without liability of grinding or abrading the plunger when brought snugly against its seat by the rotation of the screw.

Figure 1 is a vertical transverse section, on an enlarged scale, of a top for cans constructed according to my invention, showing the parts in position when the can is closed; and Fig. 2 is a similar view, showing the position of the parts when the can is opened to permit the outflow of its contents.

A indicates the upper end of a closed sheet-metal can—for example, a rectangular can—such as is commonly used for holding kerosene. In this end is provided a circular opening, B. Soldered to the said end is a cylindrical shell, C, the diameter of which is greater than that of the opening B, which it surrounds, as shown in the drawings, so that within the shell, at the bottom thereof, is provided an inwardly-projecting flange, constituting the seat *b* for the valve or plunger E, hereinafter described. The shell C should be situated near one corner of the can, and at the outermost side is furnished with a spout or outlet, *c*. In the opposite side of the shell is formed a small air-inlet vent or hole, *f*. The shell is closed at its upper end *a'*. D is a vertical screw, the neck *e* of which works through a cylindrical bearing provided centrally in the upper end *a'* of the shell, and the threaded portion of which screws into a nut provided

internally in the sleeve *g*, that projects downward from the plunger D, and which is closed at its lower end. Formed upon the neck *e* of the screw, one above and the other below the upper end portion *a'* of the shell, are two annular shoulders, *e' f'*. Upon the upper end of the screw, external to the shell, is a thumb-and-finger piece, *m*, by which the screw is turned to raise or lower the plunger, as the case may be. Formed vertical in one side of the shell is an internal feather, *e'*, which fits into a notch, *a''*, provided in the adjacent edge of the plunger. By this means the plunger is prevented from rotating or receiving a movement about its vertical axis from the action of the screw during the elevation or depression of the plunger. (As an equivalent to the feather and notch, as thus arranged, the plunger may be provided with a spur fitting into an internal groove in the shell.) The plunger should, moreover, be furnished upon its lower side with a washer or packing, *n*, where it is brought upon the seat *b*. By turning the screw in one direction, the shoulder *f'* bearing against the under side of *a'*, the plunger will, without turning, be forced snugly down upon the seat *b*, as shown in Fig. 1, thereby preventing the passage of the liquid contents of the can through the opening B to the shell, and thence out through the spout, &c., the closed lower end of the sleeve *g* preventing any passage of the oil or other liquid to or through the bearings of the screw. By reversing the movement of the screw the shoulder *e'* will bear upon the upper surface of *a'*, and the screw will raise the plunger above the inner end of the spout *c* and above the air-inlet hole *f*, as represented in Fig. 2, so that by simply tilting the can the contents may be poured out, the air passing in through *f* to fill the space vacated by the liquid poured out. The plunger, in its vertical movement, being kept from rotating, as hereinbefore explained, has no frictional motion in contact with the seat, and the grinding and wear of the said parts, which would occur from the rotation of the one in contact with the other, is wholly obviated; moreover, much less force is required to bring the plunger to the seat with the requisite

tightness in closing, or in starting it therefrom in opening the can. This avoidance of friction, by enabling a plunger of greater area, as concerns its bearing upon the seat *b*, to be used, permits the employment of a larger opening, *B*, than would otherwise be available; moreover, the slight play of the screw in its bearings permits the self-adjustment of the plunger to its seat to fit snugly all around upon the same. As an equivalent to the hereinbefore-described arrangement of the plunger, the latter may be placed below the seat *b* and

brought upward by the screw to close the opening *B*.

What I claim as my invention is—

The shell, formed with the closed upper end, carrying the bearing of the screw which gives vertical movement without rotation to the plunger, substantially as and for the purpose set forth.

GEO. H. CHINNOCK.

Attest:

JAMES A. WHITNEY,
A. MOORE.