

H. Miller,

Can Nozzle.

No. 105,713.

Patented July 26, 1870.

Fig: 1.

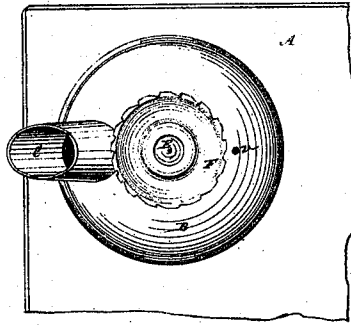


Fig: 2.

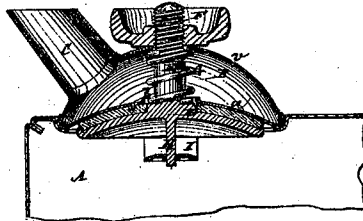
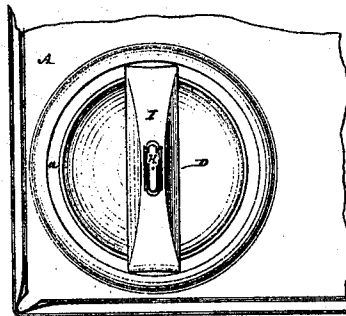


Fig: 3.



Witnesses.
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HERMAN MILLER, OF NEW YORK, N. Y.

IMPROVEMENT IN TAP-NOZZLES FOR CANS.

Specification forming part of Letters Patent No. 105,713, dated July 26, 1870.

To all whom it may concern:

Be it known that I, HERMAN MILLER, of the city, county, and State of New York, have invented a new and Improved Tap-Nozzle for Cans and other Vessels, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification, and in which—

Figure 1 represents an outside face view of my invention as applied to a can; Fig. 2, a sectional view of the same, taken at right angles to Fig. 1; and Fig. 3, an inside face view.

Similar letters of reference indicate corresponding parts.

Although applicable to barrels and various vessels, it will suffice here to describe the invention as applied to cans, such, for instance, as those used for holding petroleum.

The object of the invention is to provide a cheap nozzle that shall possess the characteristic of a tap, and is secure against leakage, yet easily opened and closed, and provides for the discharge of the entire contents of the can; also, that admits of the can being refilled, said nozzle not being destroyed or impaired in opening, and, by a suitable location of the can, answering as a faucet to draw upon or from; likewise protecting the main body of the fluid in the can from exposure to light when pouring from the can.

The invention embraces, among others, three leading elements or features, namely, a valve, a nozzle, and an interposed chamber between the valve and the nozzle, with the stem of the valve arranged to project through the chamber to the exterior, and with the nozzle made to occupy a lateral position relatively to the valve and its stem or interposed chamber.

Referring to the accompanying drawing, A represents the can, in the one side or end of which is an opening covered by an outwardly-protruding curved plate, *a*, having an aperture, *b*, through it. Mounted on or over said plate is a chamber, B, which may be of a dome or other suitable shape, and which has attached to or provided on it, in lateral relation to the aperture *b*, a spout or bib, C, constituting the nozzle proper. D is a valve, here shown as arranged to close the aperture *b* from the inside of the can, by be-

ing made to bear against the inside face of the plate *a*, but which may be arranged to close in a reverse direction. Projecting from the valve D, through the aperture *b* and chamber B, is a stem, E, having a screw-thread cut upon it, on which is fitted a nut, F, arranged to lie on the outside of the chamber B, and taking its bearing on the exterior thereof, while a spring, G, is coiled around said stem on the interior of the chamber, B, said spring serving to open the valve when the nut F is turned to admit of the same, a reverse action or turning of said nut operating to close the valve. To prevent the turning of the valve and its screw-rod or stem, the valve may be steadied and guided by a flat or angular inside stem, H, arranged to work through a correspondingly-shaped slot in an interior bridge, I.

In some cases a bridge, with spout attached, may be substituted for the chamber B; but it is preferred to construct it in the form of a close chamber, as in such shape it not only serves as a bearing for the nut F, and for the one end of the spring G lying between it and the valve, and to carry the nozzle or spout, but constitutes a receiving-space for the oil or fluid from the can in its way to the spout; and, by making the aperture *b* of lesser area than the nozzle C, all bubbling at the nozzle when pouring is avoided, the oil or fluid being quieted before reaching the spot by its entry within the chamber B.

Exposure of the contents of the can to accident by light is also prevented by the interposed chamber B, the contents only of which are exposed, their being, in reality, two pourings from the can—that is, a first pouring into the chamber B, and a second pouring through the nozzle C. A vent-hole, *v*, should be made in the chamber B to facilitate pouring from the bib.

It is preferred to make the nut F dish-shaped, to facilitate the sealing of the tap-nozzle after the valve has been closed, and to construct the valve D so as to receive within its face, that closes against the plate *a*, an extended cork facing, *s*, arranged to project beyond the outside ledge that confines it, but only to a limited degree, whereby it is protected from injury by the contents of the can.

The curvature, as here shown, of the plate

a, secures the flow of the entire contents of the can through the aperture *b*, while the bib *C* affords every facility for directing the discharge, which may either be by inversion of the can, or by suitably locating it, as on a shelf, and drawing from the tap-nozzle as from a faucet.

What is here claimed, and desired to be secured by Letters Patent, is—

1. The combination, substantially as described, of the bib *C*, the valve *D*, the interposed chamber *B*, and the operating-stem *E*, arranged to project through said chamber.

2. The combination of the inside guide or stem *H* of the valve *D* with the bridge *I*, the chamber *B*, outer valve-stem or screw-rod *E*,

the spring *G*, and the nut *F*, substantially as specified.

3. The outwardly-projecting curved plate or valve-seat *a* at the back or base of the chamber *B*, in combination with the bib *C*, of larger area than the discharge-aperture *b* through said plate, essentially as herein set forth.

4. The arrangement relatively to each other of the bib *C*, the chamber *B*, the valve *D*, the operating-stem *E*, the nut *F*, spring *G*, the guide *H*, and the interior bridge *I*, substantially as shown and described.

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Witnesses:

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