L. F BETTS.

Combined Ventilating Nozzle and Spout.

No. 200,816. Patented March 5, 1878.

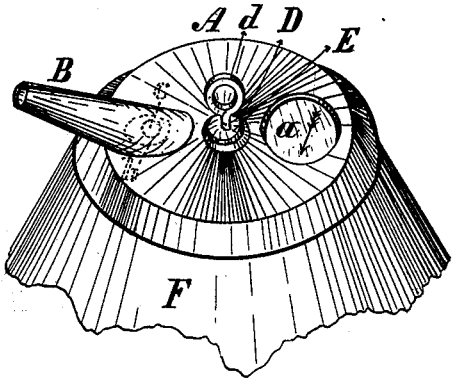

Fig. 1.

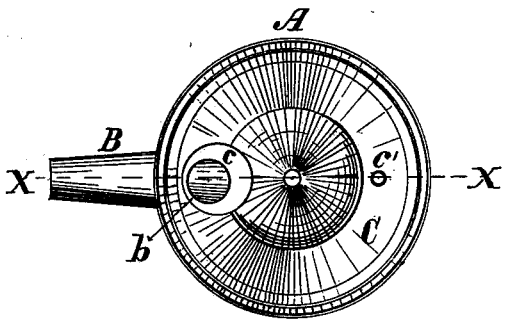

Fig 2

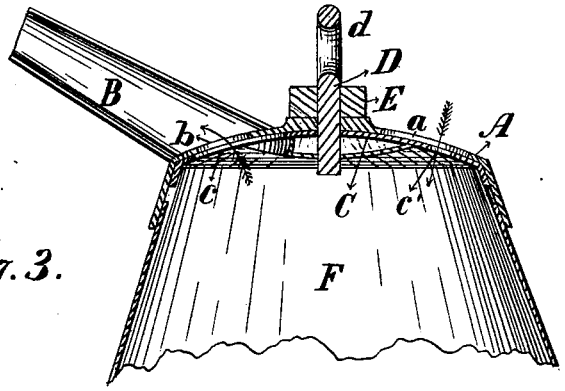

Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

LEWIS F. BETTS, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF HIS RIGHT TO JOSEPH S. DENNIS AND HENRY N. WHEELER, OF SAME PLACE.

IMPROVEMENT IN COMBINED VENTILATING-NOZZLE AND SPOUT.

Specification forming part of Letters Patent No. **200,816,** dated March 5, 1878; application filed August 9, 1877.

To all whom it may concern:

Be it known that I, LEWIS F. BETTS, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Combined Ventilating-Nozzle and Spout, which is fully described in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a perspective view of a small portion of the top of a can with my improved nozzle attached; Fig. 2, a plan view of the nozzle reversed; and Fig. 3, a sectional view of the parts represented in Fig. 1, taken on the line *x x*, Fig. 2.

The object of my invention is to provide a nozzle and spout which will permit the can to be filled and emptied without removing any of the parts, and which can be tightly closed to prevent all leakage.

The invention consists in a cap having two orifices, one of which is covered by the spout, and a perforated disk fitted within the cap, and provided with a device by means of which it can be rotated from the outside of the can.

In the drawings, A represents a circular cap, which may be struck up from any suitable metal, with its sides flaring, as shown in the drawings, or perpendicular, as may be desired, and according to the particular kind of can to which it is to be applied. In the top of this cap are two apertures, one of them, *a*, being quite large, so as to serve as a nozzle, and the other one, *b*, somewhat smaller, and covered by the spout B, into which it opens directly. These orifices *a* and *b* are arranged on different sides of the cap, and directly opposite each other. A disk, C, of any suitable material, is also struck up in a form similar to that of the cap A, so that it will exactly fit within the latter, as shown in Fig. 3 of the drawings. This disk is also perforated twice, being provided with a large aperture, *c*, corresponding in size to the larger orifice *a* in the cap, and a small aperture, *c'*, which operates as a vent. The two apertures *c* and *c'* are also arranged on opposite sides of the disk, and directly opposite to each other.

The disk is attached to the cap by means of a pin or post, D, which passes down through the center of the cap, and is rigidly fastened in any suitable manner to the disk C, but is free to turn in the cap. The upper end of the pin D is bent in any suitable manner, to form a kind of handle or thumb-piece, *d*, between which and the top of the cap is placed an elastic packing, E, which serves the double purpose of holding the disk and cap close together, and of packing the aperture through which the pin D passes, so as to prevent all leakage.

From the construction of the cap and disk above described, and the peculiar way in which they are connected together, it is evident that the disk may be turned within the cap by means of the pin D, so as to bring either aperture in the disk directly underneath either aperture in the cap, or so that neither of the apertures in the disk will be underneath or register with either one in the cap.

In the drawings the cap is represented as fitted to the top of a conical can, F. The attachment of the cap to the can is, of course, intended to be fixed or permanent, and the operation of the device is then as follows: When the disk is turned by means of the pin D, so that the apertures in it do not register with those in the cap, the can will be tightly closed and no liquid can escape therefrom. Whenever it is desired to pour from the can, the disk is turned so that its large aperture *c* will register with the spout-aperture *b* in the cap, in which position the vent-aperture *c'* will necessarily be brought to register with the large aperture or nozzle *a* in the cap. It is evident that the contents of the can may then be poured out through the spout B, air entering at the same time through the vent *c'* for the usual purpose. Whenever it is desired to fill the can, the disk is turned so as to exactly reverse the position of its apertures—that is, so that the large aperture *c* will register with the orifice *a* in the cap, and the vent *c'* with the spout-aperture *b*; and it is evident that the can may be filled through the opening *a* in the cap, which serves as a nozzle, the air being expelled through the vent and spout B as the can is filled.

It will be seen that by merely turning the disk, which is done from the outside of the

can, the latter may be entirely closed, or arranged for filling or emptying without the removal of a single piece.

The device is very simple and cheap in construction, and may be applied to cans of all descriptions. For small cans, or those with pitch tops, the cap may constitute the cover for the entire opening at the top of the can; but for flat-top cans it is preferable to cut an orifice in the top, and fasten the cap to it in any suitable manner, just over the orifice, or insert it in the latter.

It is evident that this cap may be applied to other vessels besides cans, such as jars, molasses-cups, jugs, &c.; but it is especially designed for oil-cans of various kinds. The peculiar form of the cap and disk herein described and shown may be changed without essentially modifying the operation of the device, and the special means for fastening the two together may be changed or modified without departing from the essential characteristics of my invention; and I do not, therefore, limit myself to the precise construction and form described.

It is possible even to arrange the apertures in a somewhat different manner than that described, and yet secure a practical device, especially in cases where the cap is large-sized, when, by making more than one vent-aperture in the disk, an operative device may be obtained without placing the apertures directly opposite to each other.

The disk might be used also without the vent-aperture, the latter being supplied in some other place outside of the disk. This construction might be employed, with tolerably satisfactory results, when the cap does not cover the entire top; but it is objectionable because providing an additional aperture, through which there may be accidental breakage, and because the vent is not controlled by the same mechanism as the other apertures. If this construction is used, however, the apertures in the cap need not be arranged directly opposite to each other.

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

1. A cap, A, provided with a nozzle-aperture, *a*, and a spout-aperture, *b*, in combination with a disk, C, fitted underneath the cap, and provided with a pouring and filling aperture, *c*, and a device whereby the disk may be rotated from the outside of the can, to register the under aperture with either of the upper apertures, or to close the apertures, substantially as and for the purpose set forth.

2. The cap A, provided with filling and pouring apertures, and a spout, as described, in combination with the disk C, having the large filling and pouring and small venting apertures *c* and *c'*, substantially as and for the purpose set forth.

3. The disk C, having the filling and pouring aperture *c* and the vent-hole *c'* arranged directly opposite each other, in combination with the cap A, provided with filling-aperture *a* and pouring-aperture *b*, similarly arranged, and the spout B, arranged and operating substantially as and for the purpose set forth.

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Witnesses:
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