

(No Model.)

E. NORTON.
POURING NOZZLE FOR CANS.

No. 485,296.

Patented Nov. 1, 1892.

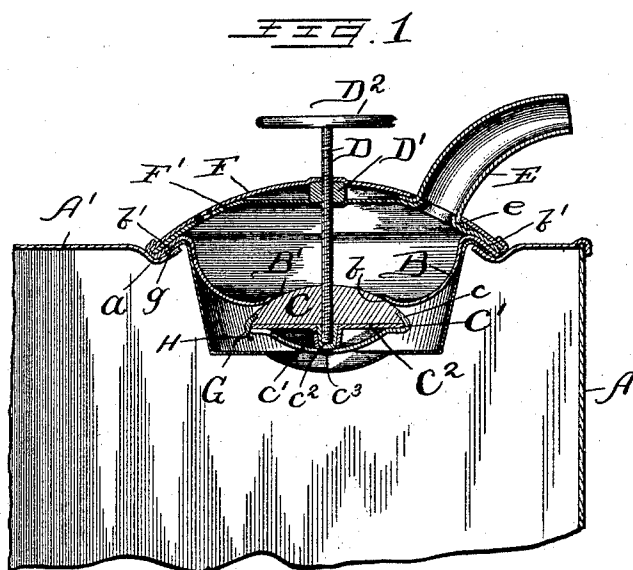
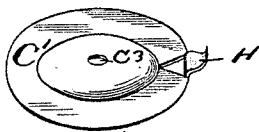


FIG. 2.



Witnesses:

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his attys.

UNITED STATES PATENT OFFICE.

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POURING-NOZZLE FOR CANS.

SPECIFICATION forming part of Letters Patent No. 485,296, dated November 1, 1892.

Application filed July 16, 1892. Serial No. 440,233. (No model.)

To all whom it may concern:

Be it known that I, EDWIN NORTON, a citizen of the United States, residing at Maywood, in the county of Cook, in the State of Illinois, have invented a new and useful Improvement in Pouring-Nozzles for Cans, of which the following is a specification.

My invention relates to pouring-nozzles for sheet-metal cans.

10 The object of my invention is to provide a pouring-nozzle for use on petroleum or other cans, which may be closed by a hermetically-sealing disk and also by the valve during storage or shipment and in which, when the contents of the can are to be used, the act of moving the valve to open it will serve to cut or open the sealing-disk. By this means the valve and sealing-disk are both utilized and afford double security during the storage or shipment of the can, while at the same time the mere act of turning the valve-screw to open the valve itself serves to cut or open the sealing-disk. After the sealing-disk has thus been cut the pouring-nozzle is opened and
25 closed by the valve alone.

A further feature of my improvement consists in the combination of the can, the sealing-disk, and nozzle together in such manner that the rim of the sealing-disk and the rim of the nozzle both fit in the same cap-groove in the head of the can, the one over the other, so that both may be soldered in place by the same operation, the sealing-disk being of such shape or construction as to adapt it to be so
35 combined with the nozzle and can.

A further feature of my improvement consists in making the knife or cutter point, by which the sealing-disk is opened, by simply forming an angular lip out of the valve-disk.

40 In the accompanying drawings, which form a part of this specification, and in which similar letters of reference indicate like parts, Figure 1 is a vertical sectional view of a device embodying my invention; and Fig. 2 is a detail perspective view of the valve-disk, showing the knife or cutter formed by cutting and turning out a lip therein.

In the drawings, A represents a can or portion thereof, to which the nozzle is applied, A' its head, and *a* the usual cap-groove formed around the nozzle-opening in the head A'.

B is the nozzle or cap disk which closes the opening in the head of the can. This nozzle or cap disk B has a central valve-opening B' therein, which is closed by the valve C, fitting
55 against the valve-seat *b*.

D is the screw-threaded valve-stem, which turns in a nut D', secured between the dome-disks F F'.

E is the spout, having a flange *e* secured between the dome-disks F F'.

D² is the handle or thumb-disk at the end of the valve-stem D and by which the valve-stem is turned in the nut D' to open and close the same. The valve C is preferably made
65 of cork or other yielding material and is secured to the sheet-metal disk C' by the flange *c* thereof, which engages the rim of the cork disk C. To better secure the valve to the valve-stem, a supplemental valve-disk C² is
70 provided, furnished with a tubular socket *c'* to receive the end of the valve-stem and in which the valve-stem is secured by solder *c²*. The socket *c'* is formed in the disk C² by
75 stamping, and the valve-disk C' is hollowed out at its center to give room for this socket. An opening *c³* is formed in the valve-disk C' to admit of the parts being readily soldered together.

G is the hermetically-sealing disk, the same
80 being preferably made of very soft and thin sheet metal, so that the same may be easily cut or broken open.

H is the cutter, the same being preferably formed integral with the sheet-metal valve-disk C' by simply cutting and turning a lip
85 out of the same so that its angular point will project downward, as clearly shown in the drawings. This cutter blade or lip is also preferably turned out so that its point will
90 project beyond the rim or circumference of the valve and thus make an opening in the sealing-disk G, when the valve is revolved, larger than the valve, and thus prevent the edge of the sealing-disk interfering with the
95 subsequent tight closure of the nozzle by the valve, as it might do if the edge of the sealing-disk should get between the surface of the valve and the valve-seat. The sealing-disk G is furnished with an annular rim *g*,
100 adapted to fit in the cap-groove *a* of the can-head under the rim *b'* of the nozzle.

In my invention it will be observed that the valve is located between the valve-seat *b* and the sealing-disk G, so that the movement of the valve to close the same firmly against the valve-seat will have no tendency to cut or injure the sealing-disk G. By this construction of the parts both the valve and the sealing-disk are utilized for the closure of the can during shipment or storage, and a double security is thus afforded. By reason of the valve being located between the valve-seat and the sealing-disk it will also be observed that the act of turning the valve-stem to open the valve will also serve to bring the cutter H in contact with the sealing-disk G and thus cut or open the same.

I claim—

1. In a pouring-nozzle, the combination, with the nozzle or cap disk B, having valve-opening B' and valve-seat *b*, of a thin hermetically-sealing disk G and a revoluble screw-valve located between said valve-seat and sealing-disk and furnished with a cutter, substantially as specified.
2. The combination, with a can having a head furnished with a cap-groove, of a valved nozzle having a rim fitting in said cap-groove and a hermetically-sealing disk also having a rim fitting in said cap-groove, substantially as specified.
3. The combination, with a can having a head furnished with a cap-groove, of a valved pouring-nozzle having a rim fitting in said groove and provided with a cap-disk B, furnished with valve-seat *b*, and valve C, furnished with cutter H, and a thin hermetically-

sealing disk G, having a rim *g* fitting in said cap-groove, substantially as specified.

4. In a pouring-nozzle, the combination, with the nozzle or cap disk B, having valve-opening B' and valve-seat *b*, of a thin hermetically-sealing disk G and a revoluble screw-valve located between said valve-seat and sealing-disk and furnished with a cutter, said valve having a sheet-metal valve-disk C', and said cutter being formed integral with said disk C', substantially as specified.

5. In a pouring-nozzle, the combination, with cap or nozzle disk B, having valve-seat *b*, of a thin hermetically-sealing disk G and a revoluble valve furnished with a cutter projecting out beyond the rim of the valve so as to form an opening in said sealing-disk G of larger diameter than the valve, substantially as specified.

6. The combination, in a pouring-nozzle, of the valve-seat disk B and dome-disks F F' and nut D', of screw-threaded valve-stem D, valve C, and valve-disks C' C², the latter furnished with socket *c*² to receive the end of the valve-stem, substantially as specified.

7. In a valved pouring-nozzle, the combination, with the valve and valve-seat, of a sealing-disk G and a cutter H on said valve made integral with a metal disk thereof, said cutter consisting of an integral lip cut and turned on the sheet-metal disk of the valve, substantially as specified.

EDWIN NORTON.

Witnesses:

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