E. E. ANDREWS.

CAN NOZZLE CAP.

APPLICATION FILED SEPT. 9, 1915.

1,359,651.

Patented Nov. 23, 1920.

Fig. 1.

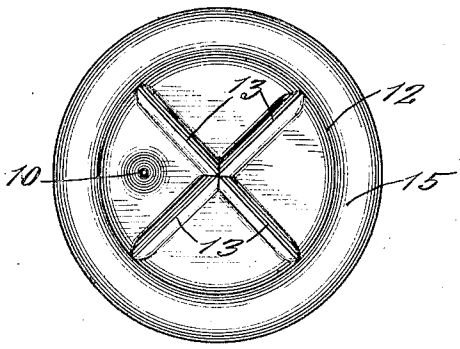


Fig. 2.

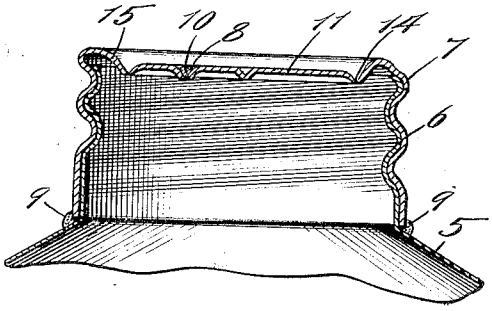


Fig. 4.

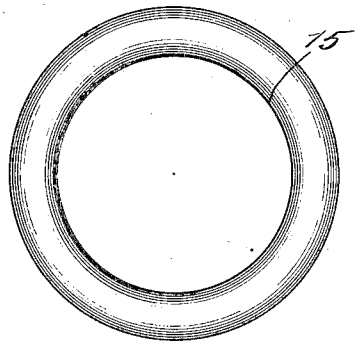
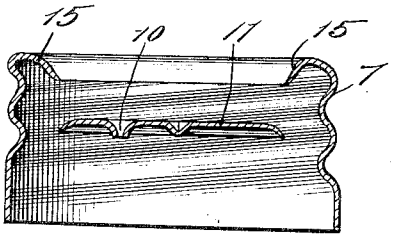


Fig. 3.



Witnesses:
Ira D. Perry
S. C. Carpenter

Inventor:
Edward E. Andrews
By Thurman, Evarts, Adcock & Clarke
Attys.

UNITED STATES PATENT OFFICE.

EDWARD E. ANDREWS, OF DETROIT, MICHIGAN, ASSIGNOR TO AMERICAN CAN COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

CAN-NOZZLE CAP.

1,359,651. Specification of Letters Patent. Patented Nov. 23, 1920.

Application filed September 9, 1915. Serial No. 49,694.

To all whom it may concern:

Be it known that I, EDWARD E. ANDREWS, a citizen of the United States, residing in Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Improvement in Can-Nozzle Caps, of which the following is a specification.

This invention relates to can nozzle caps and has more particular reference to caps of this character provided for the closing of the nozzles of cans for gasolene and the like.

A principal object of this invention is the provision of a cap which may be utilized upon a gasolene or other can without danger of leakage of material and which may not be again used after having once been opened.

Automobile owners frequently buy gasolene in quantity justified by the size of the tanks upon their machines and my present invention permits the packaging of gasolene in suitable and relatively large units, the packages of which are so constructed that they may be readily opened and their entire contents poured into the tanks. This invention has for one of its objects the provision of a can which, if having once been emptied in this manner cannot readily be again filled and sold, causing the automobile owner to obtain the gasolene as it comes from the packer without dilution and without possible substitution.

A still further object of the invention is the provision of a package of this character which may be safely packaged by the packer and which may be safely handled in transit and in selling.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description when considered in connection with the accompanying drawing illustrating a preferred embodiment thereof.

On the drawing,

Figure 1 is a top plan view of a nozzle can embodying my invention;

Fig. 2 is a sectional view through the nozzle and cap showing also a part of a suitable can;

Fig. 3 is a similar view of the nozzle showing the frangible center in process of being removed; and

Fig. 4 is a top plan view of the cap after removal of the center.

For the purpose of illustrating my invention I have shown on the drawing a part of a can 5 which is provided with a suitable screw or threaded nozzle 6 adapted for the reception of a screw nozzle cap 7. This cap has as its top a small cupped vent opening 8 and it is intended that the cap shall be soldered in place after the can has been filled through the nozzle opening. Although caps may be used which are not threadedly engaged with the nozzle without departing from the spirit and scope of my invention I deem it decidedly advisable to use this form of cap for a reason which will be presently described.

The cap is soldered in place as indicated at 9 and the soldered connection together with the entire engagement of the threads of the nozzle and cap form a tight permanent closure which prevents little opportunity for the escape of the gasolene in handling and which is well adapted to resist any increase of internal pressure in warmer weather. The vent 8 permits the expansion of the gasolene under the slight heat necessary in providing the solder 9 and also the escape of any gases generated in the soldering operation. This opening is subsequently closed by a drop of solder 10 after the nozzle has been soldered in place on the filled can.

The can is adapted to be opened through external pressure applied to the center 11 of the nozzle cap. This center is set off by a score line 12 of circular form and arranged concentric with the nozzle cap. It preferably occupies a material part of the top of the nozzle. It is reinforced by a number of radially extending depressions 13 which serve to sufficiently stiffen it to prevent bending under the pressure necessary to sever the center of the cap at the score line 12. The central part of the cap is located in a valley or further depression 14. The part 15 of the top of the nozzle which is located between the center and the side wall is given a sweeping curve and when the center is removed presents a relatively sharp edge at the line of severance. This arrangement prevents the use of the package again as it renders it difficult for a cork to be positioned with sufficient tightness to permit shipping of the package, although a cork may be positioned by the purchaser to temporarily close the can should he not care to pour out all of its contents at one time.

It will be manifest that in any event the can cannot be used again without evidence of the removal of the center or without the provision of a new nozzle cap, such provision requiring the removal of the solder 9 and the part of the cap left after tearing out the frangible center and also that no dilution or substitution of the contents of the can can be made without leaving such marks as will indicate that the can has been tampered with.

Although the invention has been hereinbefore described in connection with a gasolene can, it will be manifest that it may have many other uses and be used in many other connections and it will be obvious that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing any of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:—

1. A can nozzle cap formed of sheet metal and having a frangible center portion of small diameter adapted to form a round opening in which a plug may be inserted after the can has been opened, the material about said removed part presenting a relatively sharp downwardly tapered edge whereby to prevent effective tight engagement by a closing plug or cork, said center being formed by a depressed weakened line adapted to be broken by a downward blow thereon, said cap being carried elevated above the body of the can.

2. A cap for can nozzles formed of sheet metal and having a depressed central portion and a depending marginal screw-threaded flange adapted to embrace a nozzle and formed with a peripheral strengthening bead around its top corner, said depressed portion being formed with a weakened line extending around at the base of the stiffening bead, so that the cap is strong and stiffened to resist deformation when the central portion is severed from the bead and driven down within the can, said central portion being further formed with stiffening depressions terminating within said weakened line.

Signed in the presence of two subscribing witnesses.

EDWARD E. ANDREWS.

Witnesses:
LEO D. HEAPHY,
FRANK M. LEMKE.