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COLLAPSIBLE TUBE WITH SEALING PLUG AND DECORATIVE FLOW NOZZLE

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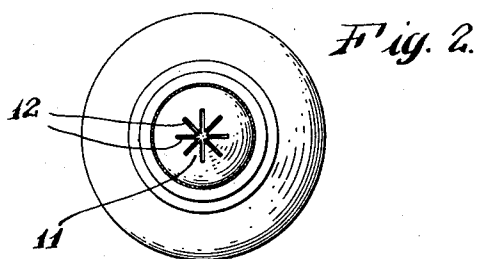


Fig. 2.

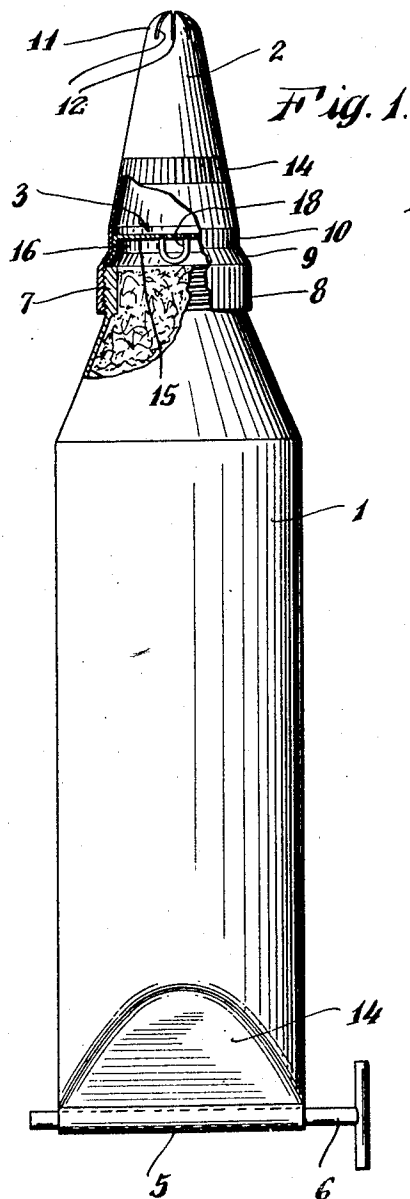


Fig. 1.

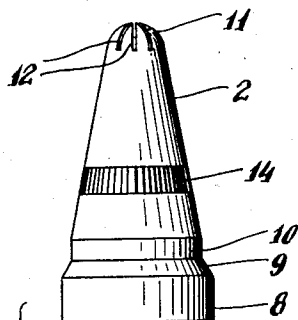


Fig. 3.

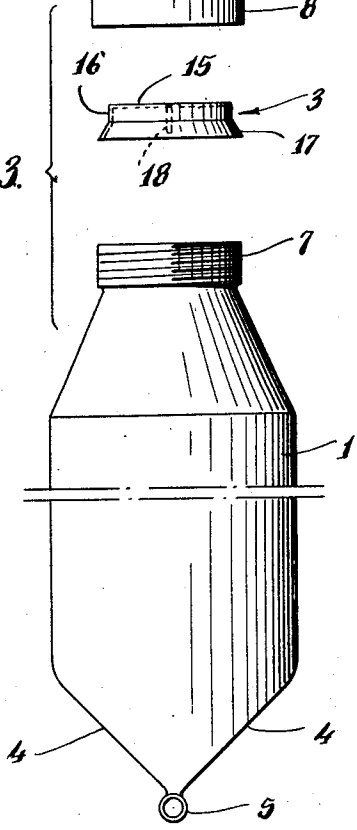
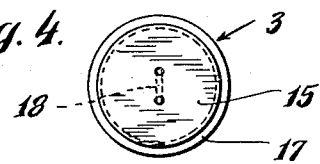


Fig. 4.



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COLLAPSIBLE TUBE WITH SEALING PLUG
AND DECORATIVE FLOW NOZZLE

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2 Claims. (Cl. 222-92)

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This invention relates to a collapsible tube which is particularly adapted for holding and dispensing mayonnaise, but may be used for holding other products which are customarily sold in tubes and dispensed from the tubes for use.

One object of the invention is to provide a tube of this character having an improved nozzle so formed that as the mayonnaise is discharged through the nozzle it will have an ornamental appearance imparted to it and thus serve to impart an ornamental appearance to a salad to which the mayonnaise is applied.

Another object of the invention is to provide the tube with a nozzle which is removably applied to the front end of the tube and thus allow the nozzle to be detached from the tube and a large quantity of mayonnaise quickly discharged from the tube into a mixing bowl for use as an ingredient when preparing food products in a kitchen.

Another object of the invention is to provide the nozzle with a removable closure plug which is fitted into the rear end of the nozzle and will serve very effectively to exclude air from the tube and thus prevent deterioration of mayonnaise in the tube during intervals between use of the mayonnaise.

Another object of the invention is to provide a plug which fits tightly in the rear end portion of the nozzle but may be very easily removed when mayonnaise is to be discharged from the tube.

Another object of the invention is to provide a tube having improved means for rolling the rear end of the tube and applying pressure for expelling the mayonnaise from the tube.

The invention is illustrated in the accompanying drawings wherein:

Figure 1 is a view showing the improved collapsible tube in elevation, portions of the nozzle and front end of the tube being in section;

Figure 2 is a top plan view of the improved dispensing tube;

Figure 3 is a group view showing the tube, its nozzle and the plug for the rear end of the nozzle separated from each other; and

Figure 4 is a view looking at the rear end of the plug.

The dispensing container constituting the subject matter of this invention consists briefly of a collapsible tube 1, a nozzle 2 and a plug 3 for blocking the rear end of the nozzle. The tube is formed of tin foil, or other suitable material, which may be subjected to pressure for expelling mayonnaise from the tube without fracturing the tube. The tube may be of any desired length and

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diameter and has its rear end portion formed with rearwardly converging flat wall portions 4 disposed in opposed relation to each other with their rear ends or edges meeting along a sleeve 5.

5 This sleeve extends transversely of the tube and open at both ends so that a winding rod or key 6 may be passed through the sleeve and the key then turned to roll the rear end of the tube about the sleeve to apply pressure to mayonnaise in the tube and expell it from the front end of the tube. At its front end, the tube carries a large neck or mouth 7 formed of stiff metal and externally threaded so that the cap 2 may have its internally threaded rear end portion 8 screwed upon the neck and the cap thus removably applied to the neck.

The cap is of special construction and forwardly of its internally threaded rear end portion is tapered forwardly to form a seat 9. In front of the seat 9, the cap has a portion 10 which is of short length and of an even diameter throughout its length. This portion 10 forms a cylindrical socket open at both ends and starting with the portion 10, the cap tapers towards its front end where it terminates in a rounded tip 11 which is cut to form a plurality of diametrically extending outlet slits 12 which meet in crossed and intersecting relation to each other at the center of the tip of the cap, as shown at 13 in Figure 2. By so forming the outlet slits, mayonnaise will be discharged in the form of a ribbed stream or strip which will be of ornamental appearance and serve as a decoration for a salad. Intermediate its length, the cap is formed with a circumferentially extending roughened or milled surface or band 14 by means of which the cap may be firmly gripped when it is to be removed or screwed tightly into place upon the neck 9 of the tube. It will thus be seen that the cap not only serves as a closure for the neck of the tube but also as a nozzle through which the mayonnaise is discharged from the tube and onto a salad.

When the tube is initially filled with mayonnaise at a factory, it is necessary to have the tube tightly sealed and thus prevent air from entering the tube and causing the mayonnaise to be spoiled by contact of air with the mayonnaise. This is also necessary during intervals between use of the mayonnaise and in order to do so the plug 3 has been provided. This plug is formed of metal or other suitable material, and upon referring to Figure 1, it will be seen that the plug has a flat circular head 15 surrounded by a wall 16. The wall is of an even diameter for a portion of its depth so that it will

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fit snugly into the open-ended socket 10 of the cap and for the remainder of its depth the wall is flared to form a flange 17 disposed at such an incline that it will fit flat against the tapered seat 9. When the plug is fitted within the cap and the cap screwed onto the neck 7, the neck engaged the outer or lower marginal edge of the flange 17 and the plug will be forced tightly into face to face engagement with the seat 9 and a sealed joint formed between the cap and the neck of the tube.

An eye 18 is mounted at the center of the head of the plug so that by passing a hooked wire, or the like, through this eye, or grasping the eye with a thumb or finger, pull may be exerted to remove the plug after the cap has been unscrewed from the tube. The cap may then be replaced upon the tube and mayonnaise squeezed from the tube and through the cap until a desired quantity has been expelled through the slits 12 at the front end or tip of the cap. The cap is then removed from the tube and thoroughly cleaned, the plug thrust into the rear end of the cap, and the cap again screwed upon the neck of the tube. The closed tube may then be placed in a refrigerator and since air is excluded from it, the mayonnaise in the tube will be prevented from becoming rancid or otherwise spoiled.

From the foregoing description of the construction of my improved container, the operation thereof will be readily understood and it will be seen that I have provided a comparatively simple, inexpensive and efficient means for carrying out the various objects of the invention.

While I have particularly described the elements best adapted to perform the functions set forth, it is apparent that various changes in form, combination and arrangement of parts may be resorted to, without departing from the spirit or sacrificing any of the principles of the invention.

Having thus described the invention, what is claimed is:

1. A dispensing container comprising a collapsible tube having its front end open and surrounded by an externally threaded neck formed of stiff material, a cap having an open rear end internally threaded and screwed upon the threaded neck, a portion of the cap forwardly of its threaded connection with the neck being reduced

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in diameter to form a forwardly tapered annular seat and an open-ended socket surrounded by the seat, said cap being tapered forwardly from the socket to its front end and terminating at its front end in a rounded tip formed with diametrically extending slits meeting in intersecting and crossed relation at the center of the tip and forming an outlet for the cap, and a removable plug for the rear end of the cap having a flat circular head surrounded by a rearwardly extending annular wall fitting snugly into said socket and having its rear portion flared to form a flange conforming to the slope of the seat and disposed in face to face contact with the said seat, the outer marginal edge of the flange having engagement with the outer end edge of the neck of the tube to hold the plug tightly in place and form a tight joint between the cap and the neck of the tube, and an eye extending rearwardly from the center of the head of the plug and constituting a member for removal of the plug from the cap.

2. A dispensing receptacle comprising a collapsible tube having a neck at its front end, a cap removably applied to said neck and projecting forwardly therefrom, said cap being tapered towards its front end for the major portion of its length and at its front end being formed with a tip having outlet slits extending diametrically thereof, the cap being formed about the rear end of its tapered portion with a socket open at front and rear ends and formed at its rear end with a rearwardly flared seat, and a removable plug in said cap having a forward portion fitting snugly into said socket and a rearwardly flared rear portion having flat face to face engagement with the seat, said plug being held tightly against the seat by engagement with the front end of the neck, and means for withdrawing the plug from the cap.

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