R. R. RITZ.

COMBINED CONTAINER AND LIQUID SPREADER.

APPLICATION FILED MAR. 22, 1920.

1,374,236. Patented Apr. 12, 1921.

Fig. 1.

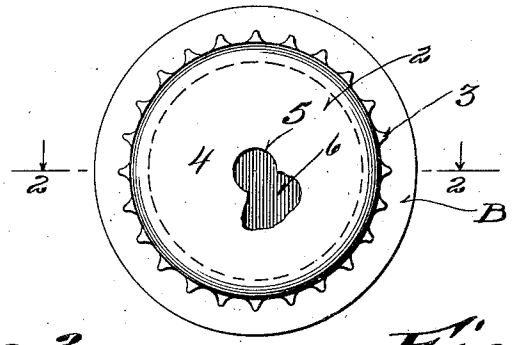


Fig 2.

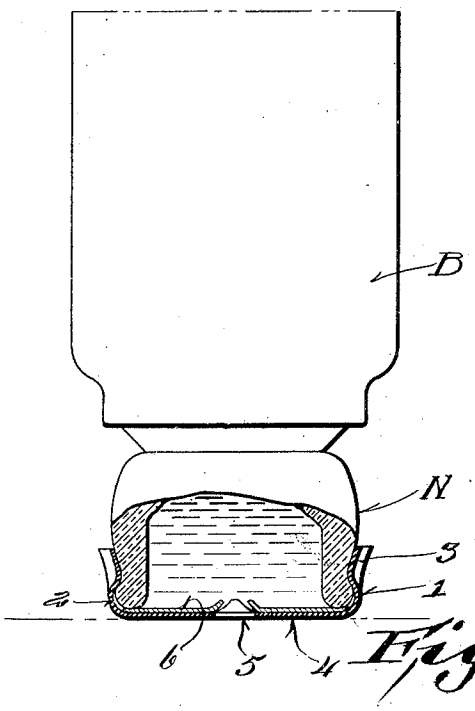


Fig. 3.

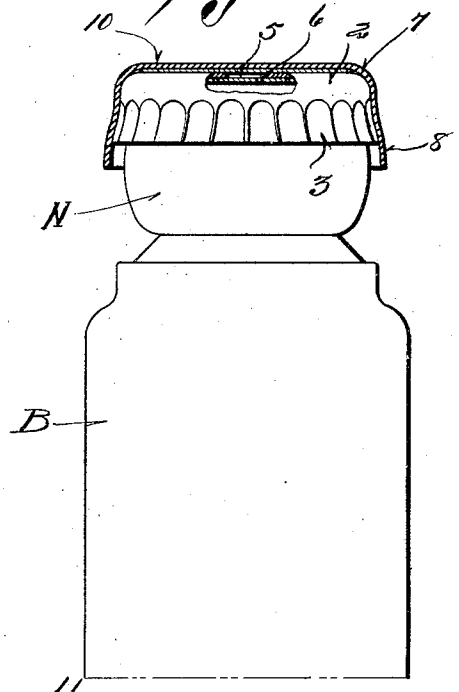
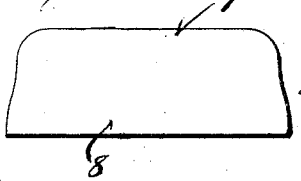


Fig. 4.



Witness

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COMBINED CONTAINER AND LIQUID-SPREADER.

1,374,236. Specification of Letters Patent. Patented Apr. 12, 1921.

Application filed March 22, 1920. Serial No. 367,343.

To all whom it may concern:

Be it known that I, ROBERT R. RITZ, a citizen of the United States, and resident of Milwaukee, in the county of Milwaukee, and State of Wisconsin, have invented certain new and useful Improvements in Combined Containers and Liquid-Spreaders; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to new and useful improvements in containers, particularly those used for liquids, such as ink and mucilage or bluing, which are adapted to be spread upon material with which they are used or dropped therefrom drop by drop as desired.

The primary object of the invention is to provide a suitable container with which means for spreading the liquid therein may be associated. In this way several articles which are necessary in the application of ink for inking pads and the like and mucilage may be dispensed with and the liquid coated upon the material designed to receive the same by means of parts carried by the container itself.

It is further an object of the invention to provide a container closure structure which, in addition to serving its usual functions is adapted to serve as a liquid applying means or a liquid dropper.

Still another object of the invention is to provide a simply constructed combined closure and spreader structure for containers which can be very inexpensively manufactured and will be thoroughly efficient in operation.

With these objects in view the invention consists in the novel features of construction, combination and arrangement of parts which will be hereinafter more particularly described and claimed.

In the accompanying drawings:

Figure 1 represents a plan view of my improved combined closure and spreader for containers, a portion thereof being broken away.

Fig. 2 is a side elevational view of a portion of a bottle showing the application of the invention to the mouth thereof, said mouth and associated parts being in section, which section is taken upon the plane of the line 2—2 of Fig. 1.

Fig. 3 is a similar view of a bottle with the invention applied thereto, the parts of which are broken away or in section, this view illustrating the normal condition of the parts of the invention, whereas Fig. 2 shows the invention used as a spreader, and

Fig. 4 is a side elevational view of the preferred form of sheet metal cap which forms the outside cover of the container mouth and the combined closure and spreader.

Referring more particularly to the several figures of the drawings, it will be noticed that reference character B denotes a bottle of conventional design and which has a neck N, the mouth thereof being provided with an annular shoulder 1. This bottle B, or any other container with which the invention may be used, is adapted to receive and contain ink-pad ink or mucilage or similar viscous liquids.

Secured over the mouth of the bottle B, and around the neck N thereof is a closure preferably in the nature of a crown seal 2 which is provided with the usual crimped portion 3, this portion together with the annular shoulder 1 coöperating to make a fluid tight joint. As usual in such forms of closure, the top 4 thereof is flat and in the present instance is adapted to provide a spreader surface whereby the ink or other liquid from the bottle may be evenly applied upon such a surface as that of a stamp pad. This flat top portion of the closure 2 has a central aperture 5 through which the liquid in the bottle B may flow when the same is inverted as in Fig. 2.

Before the bottle has been placed in use as an original package, the liquid is permanently sealed against evaporation by a membrane 6 of puncturable material which is disposed over the aperture 5 and is held against the mouth of the bottle by the closure 2. In other words this membrane 6 not only covers the aperture 5, but also coöperates with the closure 2 to provide a permanent fluid tight joint between it and the bottle mouth.

The bottle is also supplied with a cap 7 which completely covers the closure 2 and is adapted to provide a removable cover for closing the aperture 5 after the membrane has been punctured as in Fig. 2. The skirt 8 of this cap 7, is formed of sheet metal or the like, to procure sufficient spring action to permit said skirt to tightly clamp the annular portion of the crown seal 2. If neces-

sary or desirable a liner 10 may be placed inside the cap 7 to engage with the flat surface 4 of the closure 2.

When a container filled with ink or other liquid and provided with my invention is placed on sale, the several parts of the latter are arranged as shown in Fig. 3 and the puncturable membrance 6 is unbroken. When, however, it is desired to use the liquid within the container, the cap 7 is removed and a suitable instrument inserted through the aperture 5 to puncture the membrane 6, after which the container is inverted to permit the desired quantity of liquid to flow or drop through the aperture 5. This discharged liquid is spread upon the surface to receive the same by means of the flat portion 4 of the closure 2 or otherwise disposed of as hereinbefore mentioned. After the application of a suitable quantity of liquid, the cap 7 is again placed over the closure 2 to cover the aperture 5 and the opening through the membrane 6.

An important feature of my invention is the provision whereby the permanent membrane is punctured to produce burs or broken edges, which assume the form of "ragged inturned ears." These ears are adapted to drop or fold back toward the center of the puncture when the container is inverted to provide flow of its contents. The ears are thus utilized to materially restrict the feed opening, which cannot be predeterminingly regulated as to size. Hence, said ears in effect form a partial flat valve for the aperture, whereby flooding of the contents is avoided. The restriction of the punctured membrane is necessary to the successful operation of the device.

From the foregoing description taken in connection with the accompanying drawing, it will be seen that I have invented a very simply constructed and novel article which will have a material advantage over present analogous structures. Various changes may be made in the form and proportions and in the general association of the above parts of the invention without departing from the principles thereof or sacrificing any of the above pointed out advantages.

I claim:

In an original package comprising a container having a discharge mouth, a permanent puncturable membrane fitted over the mouth of the container, an apertured sealing cap permanently secured about the mouth of the container over the membrane, the membrane being adapted to be broken by the introduction of a suitable instrument through the sealing cap aperture to produce ragged ears about the membrane puncture, whereby the opening thus formed in the membrane is materially restricted by contraction of the ears, when the container is inverted to thus retard flow of the container contents.

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee, in the county of Milwaukee and State of Wisconsin.

ROBT. R. RITZ.