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F. ROSENTHAL
BOTTLE CAP AND DISPENSING STRAW

Filed Sept. 3, 1926

Fig. 1.

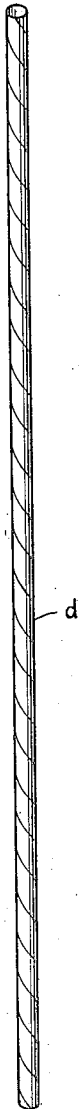


Fig. 2.

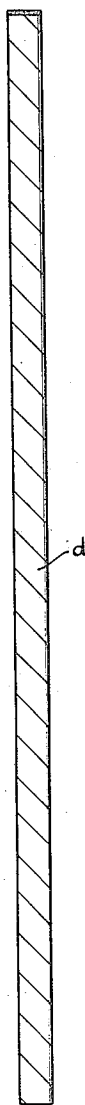


Fig. 3.

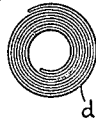


Fig. 4.

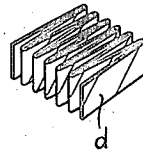


Fig. 5.

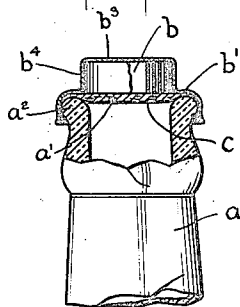
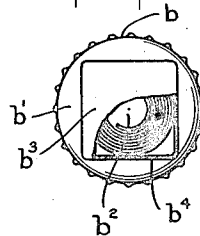


Fig. 6.



Inventor
F. Rosenthal

By

Attorney

William S. Green

UNITED STATES PATENT OFFICE.

FRANK ROSENTHAL, OF NEW YORK, N. Y.

BOTTLE CAP AND DISPENSING STRAW.

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This invention relates generally to fluid containers and more particularly to the association therewith of a member through which the fluid can be withdrawn.

5 The principal object of the invention is the provision of an instrumentality adapted to accompany the container whereby its contents may be consumed or imbibed in a convenient and sanitary manner. Fluids, such as soda, beer and the like, are frequently dispensed in bottles provided with what is known as a "crown" cap as a hermetical seal for the bottle. Such caps generally comprise a metal shell adapted to be crimped over a bead formed about the mouth of the bottle and a cork sealing disk within the shell.

15 In the ordinary sale of soda and the like at roadside stands, for instance, a bottle is frequently served to a patron with the cap removed and accompanied by a paper drinking cup or with one or more drinking straws whereby the contents may be withdrawn and consumed. Often in the interest of sanitation the straws are enclosed, individually or in pairs, within a paper casing prior to use.

25 According to my invention, the straw and metallic closure hitherto employed are so constructed and associated that the straw can be sealed as the bottle is sealed within the metallic closure that upon removing the closure, the straw will be made available to use. In this manner, I not only obtain the advantages which obviously follow from the arrangements set forth, but in addition, eliminate the straw as a factor by separate handling, packaging and shipping. Furthermore, the straw is fully protected against handling by anybody except that person who drinks from the bottle with which the straw is associated.

40 For the attainment of these objects, and such objects as may hereinafter appear or be pointed out, I have illustrated embodiments of my invention in the drawings wherein:

Figure 1 is a view, in side elevation, showing a conventional drinking straw.

45 Figure 2 is a view similar to Figure 1, but showing the straw or tube flattened, preparatory to folding or coiling it for insertion within the receiving space of a container closure.

50 Figure 3 is a view showing a drinking tube coiled in accordance with the invention preparatory to its association with the closure of a fluid container.

Figure 4 is a view showing a modified manner of compacting the straw.

Figure 5 is a side elevational view partly in section showing a fragmentary portion of the mouth of a fluid container, in this instance a bottle neck, to which a closure according to the present invention has been applied, a coiled straw being illustrated as disposed within the receiving recess.

60 Figure 6 is a top view of the "crown" cap shown in Figure 5, a portion of the top of the receiver being removed to show a drinking straw disposed therewithin.

Referring first to Figure 5, there is there illustrated the neck a of a bottle, serving as the fluid container, which bottle is formed about its mouth a^1 with a bead a^2 over which a metal crown cap b may be crimped. As usually constructed the cap b is formed with a flat surface to overlies the walls of the mouth and clamp therebetween a disk c which seals the joint between the cap and bottle and prevents the entrance of air or the escape of the fluid contents and in addition seals the metal cap against contact with the fluid contents of the bottle.

65 The present invention seeks to associate with the sealing means of the character referred to, a tube or straw whereby the contents may be imbibed so that the dispensing straw or tube is sealed as long as the bottle is sealed, and is automatically made available only as and when the bottle is unsealed for consumption of the contents. In accordance with the embodiment herein illustrated a recess or receiving space b^2 is provided in the closure by pressing outwardly a portion of the top surface of the cap to form the end face b^3 and the side walls b^4 , there remaining sufficient surface b^1 to clamp the sealing disc c .

70 While any means for imbibing the fluid content of the container may be availed of, provided such means is capable of contraction into the receiving space b^2 , it is preferred to take advantage of the characteristics of a drinking tube or straw which is capable of being flattened and coiled or otherwise laid upon itself to occupy little space. In the illustrated embodiment the straw d shown in Figure 1 in side elevation is formed of a helically wound strip of a fibrous material, although any other material capable of permitting the straw to be collapsed is equally serviceable. The straw is then flattened, as shown in Figure 2, to

have two superposed parallel sides and is then laid upon itself by being coiled or wound spirally as seen in Figure 3 or given an accordion fold as depicted with the loops somewhat separated in Figure 4. The compact straw is then placed within the recess b^2 of a crown cap b and the sealing disk c placed thereover to retain the straw in place and prevent the fluid from affecting the same. The cap is then ready to be placed in position as a closure for the mouth of the bottle as illustrated in Figure 5.

To make use of the invention, the cap is first removed from the bottle by the usual opener. The sealing disk is then removed from the cap thereby permitting the extraction of the straw. It will be found that the straw may be easily straightened and caused to assume its cylindrical form when it can be inserted in the bottle and the contents thereof withdrawn therethrough.

It will thus be seen that a convenient arrangement has been provided wherein the drinking tube or straw virtually is eliminated as a factor in handling, shipping, etc., until it is actually to be used, when it is made automatically available upon opening the bottle.

Various modifications may be made in the configuration and composition of the means for imbibing fluid as well as in the receiver therefor and also in the manner of its association with any kind of closure for a fluid container and no limitation is intended by the phraseology of the foregoing description or illustrations in the accompanying drawings except as indicated in the appended claims.

Having thus described my invention and illustrated its use, what I claim as new and desire to secure by Letters Patent is:

1. The combination with a sealing means

for a bottle closure, of a folded dispensing tube, the two being so arranged and associated, that the latter means is received within the former means.

2. A closure for a container comprising, in combination, a metal cap formed with a receiver, a sealing disk adapted to close the receiver and a drinking tube disposed within the receiver.

3. A closure for a container comprising, in combination, a metal cap formed with a receiver, a sealing disk adapted to close the receiver and a collapsed drinking tube disposed within the receiver.

4. A closure for a container comprising, in combination, a metal cap formed with a receiver, a sealing disc adapted to close the receiver and a drinking tube flattened and laid upon itself and disposed within the receiver.

5. A closure for the mouth of a bottle comprising, in combination, a metal cap formed with an outwardly pressed receiver, a sealing disk normally closing the receiver and a flattened and folded drinking tube disposed within the receiver.

6. A closure for the mouth of a bottle comprising, in combination, a metal cap formed with an outwardly pressed receiver, a sealing disk normally closing the receiver and a drinking tube flattened and coiled and disposed within the receiver.

7. A closure for a container comprising, in combination, a metal cap pressed outwardly to form a receiver, a sealing disc normally closing the receiver and means within the receiver to imbibe the contents of the container.

In witness whereof, I have hereunto signed my name.

FRANK ROSENTHAL.