

1,024,584.

Fig. I.

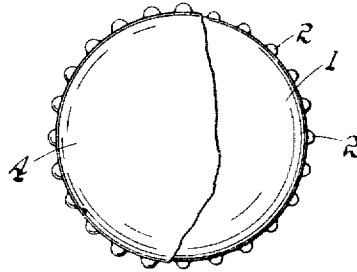
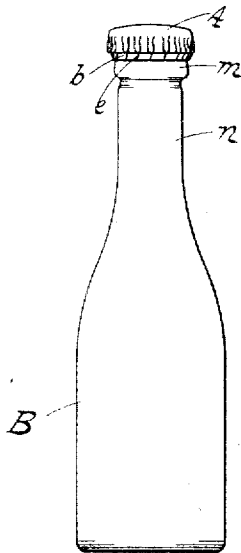


Fig. 2.

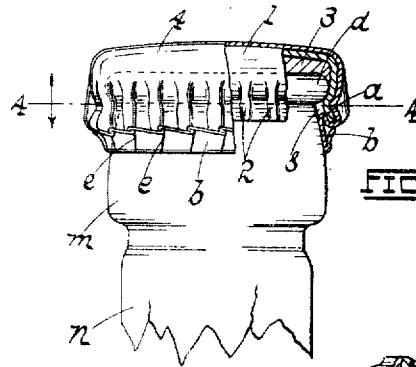


FIG. 3.

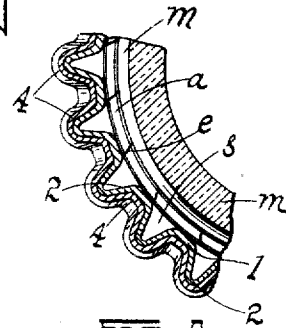


FIG. 4.

Fig. 5.

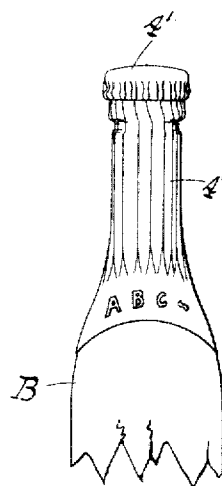
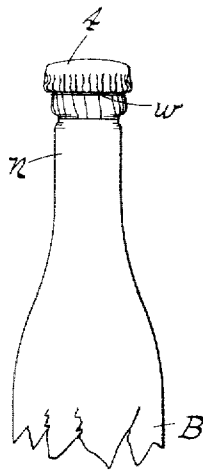


Fig. 6.

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HENRY E. KNAUST, OF ST. LOUIS, MISSOURI.

BOTTLE-CROWN SHIELD.

1,024,584.

Specification of Letters Patent.

Patented Apr. 30, 1912.

Application filed November 22, 1911. Serial No. 661,717.

To all whom it may concern:

Be it known that I, HENRY E. KNAUST, citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Bottle-Crown Shields, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has relation to improvements in bottle-crown protecting caps; and it consists in the novel construction of cap more fully set forth in the specification and pointed out in the claims.

In the drawings, Figure 1 is an elevation of a bottle showing my invention applied thereto; Fig. 2 is an enlarged top plan of the neck of the bottle showing my invention applied, the outer cap being partly removed; Fig. 3 is an elevation of Fig. 2, parts being in section; Fig. 4 is a horizontal section of a portion of the mouth of the bottle on the line 4-4 of Fig. 3; Fig. 5 is an elevation of a bottle showing a slight modification of my invention; and Fig. 6 is an elevation showing another modification.

The object of my invention is to provide a cap-piece or shield for the usual crown stopper of bottles containing beverages and other liquids, whereby a perfectly sanitary stopper is produced. The ordinary crown as well understood is so crimped about the mouth of the bottle as to leave interstices between the ribs resulting from the crimping operation, these interstices forming receptacles for foreign matter which usually lodges therein where the bottles are packed in straw, excelsior, or other loose material.

The advantages of the present shield will be better apparent from a detailed description of the invention, which is as follows:—

Referring to the drawings, and for the present to Figs. 1 to 4 inclusive, B represents the body portion of a bottle containing a beverage or other liquid, and *a* the neck thereof, the mouth *m* of the bottle terminating in a bead formation *d*, a construction well understood in the art. Over the mouth is passed and crimped the usual metallic crown 1 the edge of the crown being crimped under bead *d*, the crimping resulting in a series of scallops or ribs 2 alternating with the portions crimped to and under the bead *d*. Interposed between the cap or crown 1 and the upper edge of the

bead *d* is a cork or other filler 3. In the crimping of the crown about the bead *d*, the edge of the crown does not come in contact with the outer face of the neck, an annular space *s* or clearance being left between the neck and the lower portion of the crown, this space forming a receptacle for the accumulation of foreign matter. This foreign matter consists of dust, dirt, and germs which become separated from the packing in which the bottles are shipped, said packing as a rule consisting of straw, excelsior, and similar loose material. Of course, the foreign matter and dirt accumulating in this clearance may come from any source and not exclusively from the loose straw or excelsior in which the bottles are packed. To prevent access of such foreign matter into this clearance is the object of my invention. Where dirt and fine straw particles lodge in this clearance, such foreign matter usually adheres to the neck of the bottle below the bead *d*, this adhesion being favored by the condensation of aqueous vapor on the bottle when the bottle is taken from a refrigerator or out of a packing of ice into a warm room. The sweat or water of condensation forms an adhesive for the dirt, and when the contents of the bottle is poured into a glass, it takes this dirt with it. The objection is remedied by my invention, which assumes the form of a guard or shield crimped over the crown. In the figures referred to this shield is in the form of a paper (or equivalent) cap 4 which is crimped over the crown 1, the terminal portions of the cap hugging the neck of the bottle and being formed into an intermediate upwardly directed circular fold *a* which is tucked or forced in between the crown and neck of the bottle, thus sealing the clearance *s* and preventing the lodgment of dirt therein. The free edge of the cap 4 is finally folded against the portion or section engaging the bottle, a fold *b* being formed to bring about this result (Fig. 3). The folding of the portion *b* and the crimping of the cap as a whole naturally forms creases or seams *c* both in the fold *a* and in the portion *b*. The crimping of the paper cap 4 is preferably done after the crown 1 has been attached to the bottle.

It is of course, essential that the edge of the cap 4 shall be brought below the crown 1 and hug the neck of the bottle so as to form a seal for the clearance *s*. In the form

described the crimping of the cap to the crown produces sufficient frictional contact between them to hold the cap in place. In some cases it may be desirable to additionally secure the cap by means of a wire band *w* tied around the cap immediately beneath the crown as shown in the modification in Fig. 5. In other cases it may be desirable to extend the cap to the base of the neck *n* when the bottom of the cap may serve as a label and be pasted to the bottle at that point. Such a modified cap is shown at 4' in Fig. 6 in which form the wire *w* is omitted. Obviously other forms of cap may be devised, but in all cases a sealing of the clearance *s* is necessary, the preferred position of this seal being at the mouth of the clearance. Of course in the form shown in Fig. 6, the pasting of the cap to the bottle at the label portion serves as an additional seal, though the pasting is not indispensable.

It will be seen from the foregoing that no possible foreign matter can lodge in the clearance *s*, and none can thus adhere to the bottle to be washed off by the outflowing contents when the crown is removed, and the beverage poured into a tumbler to be drunk. The presence of the cap 4 keeps the clearance *s* clean and when the cap is removed and the bottle uncorked, there is no danger of the beverage being contaminated by dirt, dust, or germs.

Having described my invention, what I claim is:—

35 1. In combination with a bottle provided with a crown crimped over the mouth thereof, and having its free edge spaced from the outer walls of the bottle, a shield crimped

to the crown and having its lower edge extending beyond the corresponding edge of the crown and in engagement with the walls of the bottle, and having an intermediate fold formed behind the edge of the crown spaced from the bottle and sealing said space.

2. In combination with a bottle having a beaded mouth, and provided with a crown crimped over the mouth and brought under the bead and having its free end projecting beyond the bead and spaced from the walls of the bottle below the bead, a shield crimped over the crown and provided with an intermediate fold sealing the clearance between the free end of the crown and the bottle-wall, the shield being extended beyond the sealing fold and hugging the bottle wall, and an outer terminal fold on the shield folded against the portion hugging the bottle-wall.

3. In combination with a bottle having a beaded mouth, a crown crimped over the mouth and brought under the bead, the free edge of the crown extending beyond the bead and spaced from the bottle-wall, thereby leaving a clearance below the bead between the crown and bottle-wall, and a shield crimped over the crown and having a portion brought into said clearance thereby sealing the same against access of dirt thereinto.

In testimony whereof I affix my signature, 70 in presence of two witnesses.

HENRY E. KNAUST.

Witnesses:

EMIL STAREK,
JOS. A. MICHEL.