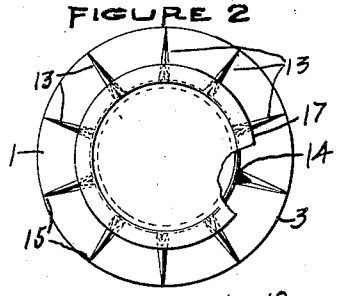
W. J. COSTELLA.

BOTTLE.

APPLICATION FILED AUG. 18, 1919.

1,362,233. Patented Dec. 14, 1920.

FIGURE 2



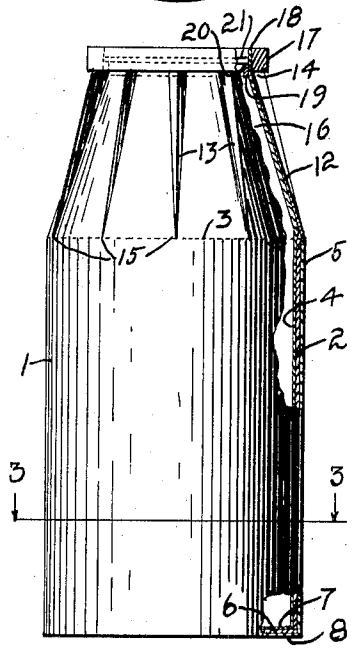


FIGURE 1

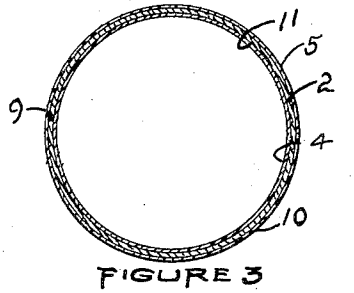


FIGURE 3

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BOTTLE.

1,362,233. Specification of Letters Patent. Patented Dec. 14, 1920.

Application filed August 18, 1919. Serial No. 318,291.

To all whom it may concern:

Be it known that I, WILLIAM J. COSTELLA, a citizen of the United States, and resident of Santa Cruz, in the county of Santa Cruz and State of California, have invented certain new and useful Improvements in Bottles, of which the following is a specification.

My invention relates to bottles formed mainly or entirely of paper treated with paraffin, ceresin or similar material, and it is the object of my invention to provide a bottle of the character indicated so treated, formed, proportioned and constructed as to be strong, durable, light, sanitary, and cheap to manufacture.

In the drawing:

Figure 1 is a side elevation of my improved bottle, parts being broken away.

Fig. 2 is a top plan view of the bottle shown in Fig. 1, parts being broken away.

Fig. 3 is a sectional view on line 3—3 of Fig. 1.

Referring more particularly to the drawing, 1 indicates the body portion of the cylindrical bottle formed of a strip of heavy cardboard as 2, extending from the bottom to the shoulder 3, lined with a suitable lining 4 and covered with a sheet of heavy paper 5. The bottom is in the present case also formed of a middle cardboard member 6, the inner lining 7 being continuous with lining 4 and the covering 8 being continuous with covering 5. The joints of these three parts overlap as shown at 9, 10 and 11 respectively, that is no two of these joints are in alinement.

The covering 5 is continued upwardly above shoulder 3 as at 12 and formed into a plurality of ribs 13 triangular in cross-section and of considerable depth as at 14 and tapering downwardly and merging with the general surface of the bottle at shoulder 3 as indicated at 15, thereby forming a reinforced neck. Glued or otherwise secured to the flat top of neck 16 is a ring or cap member 17 having its inner edge in alinement with the narrowest part of neck 16, the said cap member extending outwardly a distance to or beyond the outer edges of the upper ends of ribs 13, the lining 4 being carried upwardly past shoulder 3 to the upper edge of cap member 17 as shown at 18 to form a smooth surface for the interior of the bottle. A light ring of suitable material is inserted in the upper portion of neck 16 as shown at 19 to form a shoulder 20 to support closure 21.

The several parts forming the bottle above described, with the exception of the lining 4, are treated with melted paraffin so as to form a bottle impervious to air or moisture of any kind and to stiffen the several parts and bind the same together in one integral whole. The lining, when used, is of any suitable material that will not absorb moisture or, in the case of a milk bottle, that will not taint the milk contained therein, such as ceresin or ceresin treated paper.

In filling milk bottles and capping the same by machinery they are subjected to considerable pressure and the form herein shown and described is such that no pressure to which they may be ordinarily subjected is sufficient to collapse them, the ribs 13 joined to ring 17 effectively preventing the collapse of the upper portion of the bottle and transmitting the pressure to the upper portion of the cylindrical body in such a manner that the full resisting power of the said cylindrical body is utilized.

While I have herein shown and described the preferred embodiment of my invention, it is understood that changes in form, proportion, construction and arrangement of the several parts, members and features may be made within the scope of the appended claim.

I claim:

A paper bottle comprising a body portion, a converging neck portion formed into a plurality of outwardly extending and spaced ribs arranged longitudinally thereof and triangular in transverse cross-section, each rib tapering toward the bottom thereof and merging with said body portion, said neck portion and said ribs forming a seat for a cap member, a cap member seated on said neck portion and ribs with its inner edge in alinement with the inner edge of the narrowest portion of said neck portion and extending outwardly to the outer edges of the upper ends of said ribs, a lining for said body portion, neck and cap member extending upwardly to a point flush with the top surface of the cap member to form a smooth interior for said bottle, and a ring inserted in the upper part of the neck portion in contact with the lining to form a shoulder to support a disk closure.

WILLIAM J. COSTELLA.