July 10, 1928. 1,677,040

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PAPER RECEPTACLE

Original Filed Oct. 19, 1923

Fig. 1

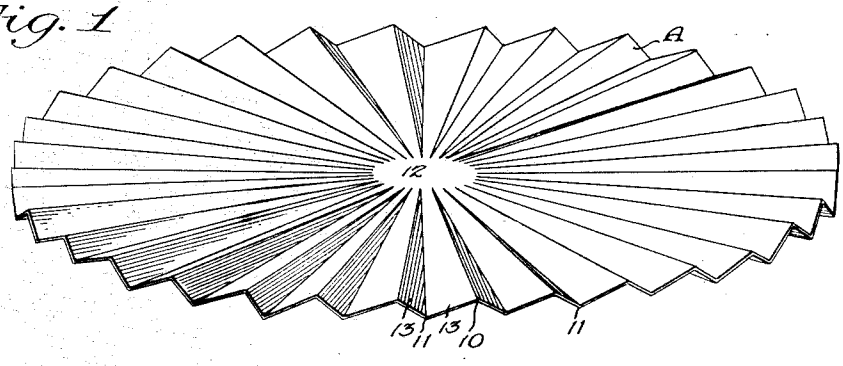


Fig. 2.

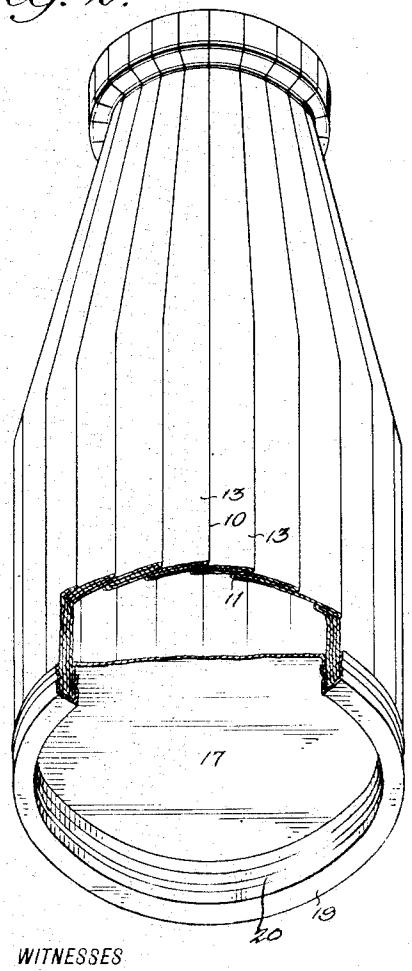


Fig. 3.

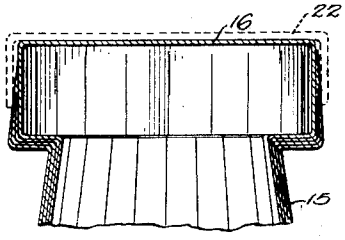


Fig. 4.

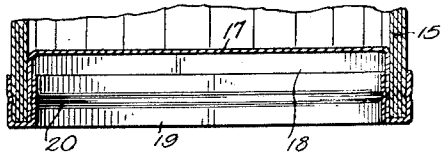
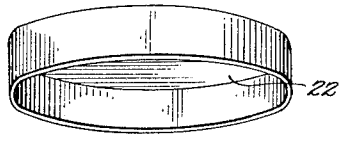


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

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PAPER RECEPTACLE.

Application filed October 19, 1923, Serial No. 669,604. Renewed May 17, 1928.

The present invention relates to new and useful improvements in receptacles, and it pertains more particularly to receptacles constructed from paper, cardboard and similar materials.

It is one of the primary objects of the invention to provide a bottle, such, for example, as a milk bottle, which is formed from paper.

It is a further object of the invention to construct a receptacle of this character in such a manner that the contents are introduced thereinto through the bottom of the bottle and sealed therein, subsequent removal of the contents being through the fragile top end of the bottle.

It is a further object of the invention to construct a milk bottle body from a single blank of folded material, such as paper or the like.

It is a still further object of the invention to provide a new and improved means for closing the bottom of the bottle.

With the above and other objects in view, reference is had to the accompanying drawings, in which

Figure 1 is a perspective plan view of the blank from which the body of the bottle is formed;

Figure 2 is a perspective view of the finished bottle, a portion thereof being broken away;

Figure 3 is a detail sectional view of the upper end of the bottle;

Figure 4 is a detail sectional view of the bottom portion of the bottle; and

Figure 5 is a perspective view of the cap employed to close the bottle.

Referring more particularly to the drawings, the bottle is formed from a blank of paper, cardboard or the like designated by the reference character A in Figure 1.

This blank is substantially circular in form and is folded radially in opposite directions, the crease of one set of folds being designated by the reference character 10, the creases of the opposite folds being designated by the reference character 11. There is a centrally disposed area 12 which is not creased or folded, as shown in Figure 1, and this area is preferably circular in form and forms the closed upper end of the bottle when the same is completed.

The areas separated by the creases or folds 10 and 11 and designated by the reference character 13 are adapted to be brought in contact with each other, the upper faces of said areas 13 contacting and the lower faces of said areas contacting, as clearly shown in Figure 2.

After the blank has been thus folded, it is placed around a suitable form in order that it may take the finished shape desired. After it has been shaped on the form, the several folds are sealed together by means of hot wax or other suitable sealing medium.

When the bottle has been thus formed, it will be seen that the side walls 15 of the bottle comprise several thicknesses of the blank A due to folding the areas 13 one upon the other, and the increased or folded area 12 forms a sealed top for the bottle, as designated by the reference character 16 in Figure 3.

When the bottle is removed from the form, the bottom thereof is open, and the bottle is inverted in this condition in order that the contents thereof may be introduced. After the contents have been introduced, a bottom member 17 having an annular flange 18 is inserted in the bottom of the bottle and forms a closure therefor. In order to retain this bottom member 17 in position in the bottle, a metallic band 19 substantially U-shaped in cross sectional form is passed into or over the lower end of the bottle, as shown in Figure 4, and said metallic band 19 is crimped as at 20 in order to retain it and the bottom member 17 in place.

When it is desired to remove the contents from the bottle, the cover member 16 is cut away and removed. If it is desired to remove only a portion of the contents, a closing cap as shown in Figure 5 and comprising a flanged member 22 is adapted to be inserted over the end of the bottle, as shown by dotted lines in Figure 3.

From the foregoing, it is apparent that the present invention provides a new and improved paper receptacle in the form of a bottle and that provision is made for the filling of the bottle through an opened bottom, subsequently closing said bottom and removing the contents of the bottle from the opposite end thereof in the usual manner.

Having thus described the invention, what is claimed is:

As a new article of manufacture, a milk

bottle formed of a circular sheet of paper crimped to form a plurality of folds, the sheet being pressed into the shape of a bottle, the relatively thick multi-ply side walls of which are formed by the folded portion of the sheet, the central uncrimped portion of the sheet constituting a relatively thin fragile top of a single thickness of paper integral with the side walls, the bottom of said bottle constituting a filling opening, and a closure element for permanently sealing said filling opening after the contents of the bottle have been introduced.

CORNELIUS HENRY McGIEHAN.