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FOLDING CONTAINER

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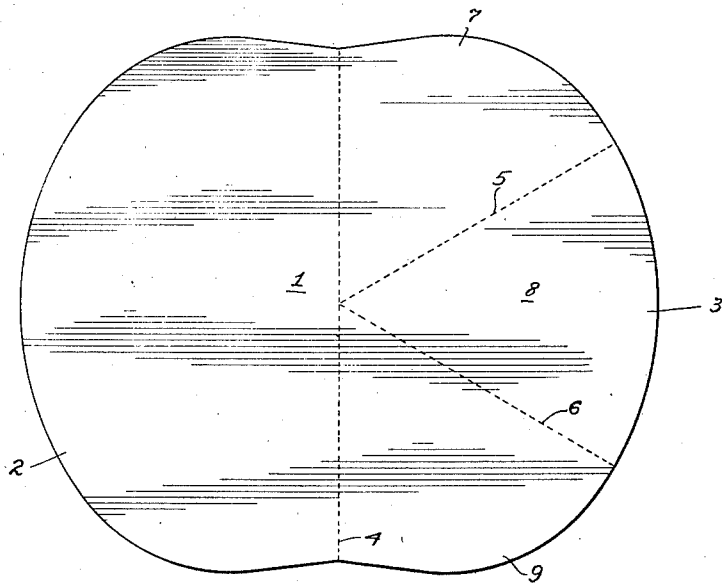


Fig. 1.

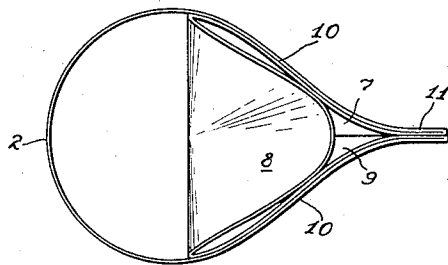


Fig. 2.

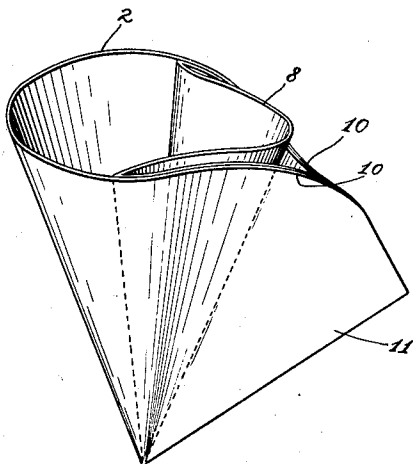


Fig. 3.

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## FOLDING CONTAINER

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14 Claims. (Cl. 229—1.5)

My invention relates to a container, and more particularly to a folding paper container intended for use as a drinking cup.

It is an object of my invention to provide a folding container which is of simple construction and which can be economically manufactured.

Another object of my invention is to provide a container for drinking purposes, which may be readily folded from a single blank.

A further object of my invention is the provision of a container which may be folded from a single blank and which has a handle by which it may be firmly grasped by the user.

An additional object of my invention is the provision of a container which may be readily folded from a single blank and which is reinforced about one side for stability.

Other objects of my invention will be apparent or will be specifically pointed out in the description forming a part of this specification, but I do not limit myself to the embodiment of my invention herein described, as various forms may be adopted within the scope of the claims.

Referring to the drawing:

Figure 1 is a plan view of the blank from which the container is formed.

Figure 2 is a top plan view of the container as produced from the blank illustrated in Figure 1.

Figure 3 is a perspective view of the container as folded for use.

In broadly descriptive terms, my invention comprises a folding container of substantially conical form having oppositely disposed wings formed integrally therewith; said wings being folded backwardly about one side of the container body and outwardly in contact with each other at their free sides, thereby serving to reinforce and support the body of the container and provide a handle by which the same may be firmly grasped by the user.

In greater detail, the preferred embodiment of my invention, as illustrated in the drawing, comprises a single blank 1 of foldable material which in practice may be treated with paraffin or other suitable moisture-proofing substance, in order to preclude the absorption of fluid. This blank is formed with two equal crown-shaped portions 2 and 3 adapted to fold upon each other in matching relation; and, to facilitate this folding, the blank is transversely scored along the medial line 4. Portion 3 of the blank is scored along the radial lines 5 and 6 which are so positioned as to divide such portion into three substantially equal triangular sectors 7, 8 and 9, each radiating from the center to the margin of the blank. It is to be observed that the central sector 8 forms the rear side of the container body and that the outer sectors 7 and 9, in cooperation with corresponding equal sectors of the portion 2 of the blank, form

side wings extending the full length of said side for a purpose to be later described.

To form the container, blank 1 is first folded along the medial line 4 so that the portions 2 and 3 are brought together in matching relation. These portions are then cooperatively folded along the scored and radiating lines 5 and 6. As illustrated in Figures 2 and 3, the folds or wings 10, comprising the sectors 7 and 9 of portion 3 together with corresponding areas of the adjacent sections of the unscored portion 2, are folded backwardly about sector 8, which forms the rear side of the container body, and then bent outwardly in contact at their free sides, thus forming a handle 11 by which the container may be firmly held by the user. It will thus be observed (see Figure 3) that a container of substantially conical form is provided, which is adequately reinforced and supported about one entire side and which is provided with a handle by which it may be held.

It should be noted that when the cup is fully formed, as shown in Figure 3, there is no scoring of the material on the outside of either the cup or handle. The resiliency of this outside material, together with the tendency of the bent portion 3 to straighten, keeps the cup open even when there are no contents therein. When the fingers are placed on the handle 11, in order to lift the cup, the entire device is firmly interlocked. The material of the wings 10—10, where it passes from the handle 11 into the main body of the cup, is not scored or broken; and there is a definite cooperation between the outwardly bending wings at this point and the adjacent curve of portion 3, which effectively prevents any rocking or hinging of the cup portion on the handle portion, thus greatly adding to the stability and usefulness of the device as a whole. Furthermore, the insertion of any contents into the cup will increase this stability rather than decrease it, as the portion 3 will be forced by the contents into a firmer engagement with the bends of the wings. This action also automatically compensates for different finger positions on the handle 11, and, even if the handle be grasped near its outer edge, the engagement and locking of the container portion to the handle portion is still effective.

It will be understood that no adhesive is required for securing the folded blank in position, since the wings 10, when folded, form a tight closure for the sides of the container body and serve to hold the same in shape for use. By dispensing with the use of adhesives and forming the container from a single blank on which the scoring is confined to a transverse score and two straight radial scores upon one half only of the blank, manufacturing costs are reduced to a minimum.

While it is preferred that no adhesive be used

in connection with my container, nevertheless in practice and with certain types of material it may be desirable that an adhesive be applied to the adjacent walls of each wing and the same stuck together, thus strengthening the wings and simplifying the folding operation.

The ease and simplicity with which my container may be folded for use permits the same to be conveniently packed in flat and unfolded position or in flat position with portions 2 and 3 folded upon each other. When so packed, the container blanks require relatively small space, thus particularly adapting them for distribution through vending machines.

I claim

1. A folding container having side wings, said wings being adapted to fold backwardly to positions adjacent one side of the container and bend outwardly at their sides to provide a handle for the container.

2. A folding container of substantially conical form having oppositely disposed wings, said wings being adapted to fold backwardly to positions adjacent one side of the container and bend outwardly at their sides to provide a handle for the container.

3. A folding container of substantially conical form having oppositely disposed double walled wings of substantially triangular shape extending the full length of the container, said wings being adapted to fold backwardly to positions adjacent one side of the container and bend outwardly at their sides to provide a handle portion and serving to reinforce the body of the container.

4. A folding container of substantially conical form having oppositely disposed wings, each extending the full length of the container, said wings being adapted to fold backwardly to positions adjacent one side of the container and bend outwardly at their sides to provide a handle for the container.

5. A folding container of substantially conical form having oppositely disposed wings, each extending the full length of the container, said wings being adapted to fold backwardly to positions adjacent one side of the container to form a substantially V-shaped trough within which the container is supported, and the outer sides of said wings being bent outwardly to provide a handle for the container.

6. A folding container of substantially conical form having oppositely disposed wings, said wings being adapted to fold backwardly to positions adjacent one side of the container and converge upon each other at their free sides to provide a handle which stands at substantially right-angles to the body of the container.

7. A folding container of substantially conical form having oppositely disposed double walled wings, said wings being adapted to fold backwardly to positions adjacent one side of the container to reinforce the same, and the outer sides of said wings being bent outwardly in contact with each other to provide a four-ply handle for the container.

8. A folding container made from a single blank, said blank being folded transversely to form the front and rear sides of the container, each of said sides having integral opposing side wings, said wings being adapted to fold backwardly about the rear side of the container and bend outwardly at their free sides to provide a handle portion and serving to reinforce the body of the container.

9. A folding container of substantially conical form made from a single blank, said blank being folded transversely to form front and rear sides, each of said sides having integral opposed wings extending the full length thereof and adapted to fold backwardly about the container body whereby the adjacent edges of said front and rear sides are firmly closed upon each other to prevent leakage of fluid therebetween, and the outer sides of said wings being bent outwardly in contact with each other to provide a handle for the container.

10. A folding paper container comprising a single blank having two equal crown-shaped portions adapted to fold upon each other, one of said portions being scored to provide three substantially equal triangular sectors radiating from the center to the margin of the blank, and said sectors being cooperatively folded with said unscored portion to form a substantially cone-shaped body portion having a double walled support extending about one full side of the container body and terminating in a handle.

11. A folding container comprising an integral sheet of material having opposed portions thereof adapted to be folded into positions to provide a substantially conical receptacle, and each of said portions having integral extensions thereof foldable into mutual engagement adjacent one side of said receptacle to provide a handle for said container.

12. A folding container comprising a sheet of material having a pair of like sections foldable upon each other, one of said sections having scored lines thereon defining an area thereof foldable to provide a portion of a substantially conical receptacle and defining side wings extending from said receptacle portion, the other of said sections being adapted to be flexed to provide another portion of said receptacle and having portions cooperating with said side wings to provide a handle for said container.

13. A folding container comprising a substantially circular sheet of material having portions thereof adapted to fold upon each other, each of said portions having sections thereof cooperating to provide a substantially conical receptacle, one of said portions having side wings foldable upon its receptacle-forming portion and mutually engageable to provide a portion of a handle for said container, and the other of said sections having portions coextensive with the receptacle-forming portion thereof and cooperative with said side wings to provide said handle.

14. A folding container comprising a substantially circular sheet of material having portions thereof adapted to be folded upon each other, one of said portions being provided with scored lines, the other of said portions being unscored, said scored lines defining a plurality of sectors comprising a central receptacle-forming sector and wing sectors bordering thereon, said central sector being adapted to be flexed outwardly to provide a portion of the side wall of a receptacle and said wing sectors being adapted to be bent along said scored lines to positions overlying said flexed central sector and with portions thereof in engagement with each other, and said unscored portion being adapted to be flexed in its entirety to provide the remainder of the side wall of said receptacle and having portions thereof cooperative with said wing sectors to provide a handle for said container.