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E. G. MAXWELL

METHOD OF MAKING PAPER DISHES

Filed Feb. 15, 1923

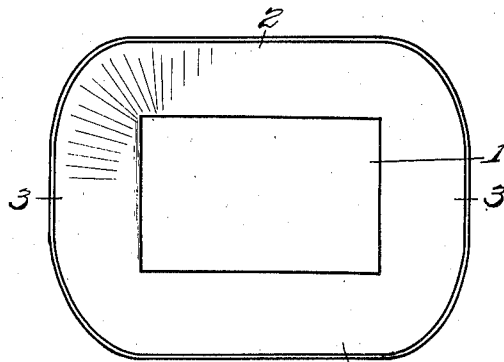


FIG 1

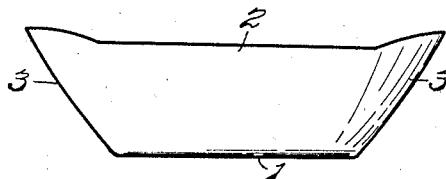


FIG 2

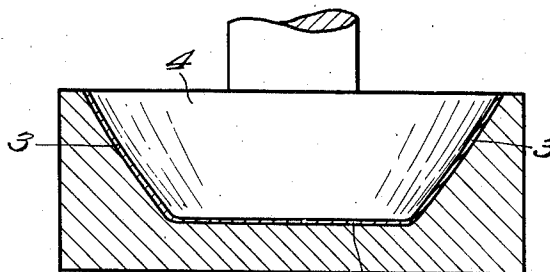


FIG 3

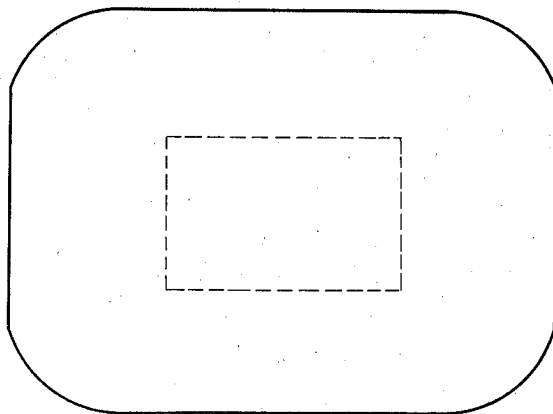


FIG 4

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METHOD OF MAKING PAPER DISHES.

Application filed February 15, 1923. Serial No. 619,320.

To all whom it may concern:

Be it known that I, ETHEL GRACE MAXWELL, a citizen of the United States of America, and resident of Wheeling, county of Ohio, and State of West Virginia, have invented certain new and useful Improvements in Methods of Making Paper Dishes, of which the following is a specification.

This invention relates broadly to a method of making paper dishes, and more particularly to a paper receptacle of the type commonly employed by dealers in groceries and packing house products as containers for butter, lard and other semi-fluid commodities.

The primary object of the invention is to provide a method of making a substantially rectangular container or dish which is permanently formed of a single sheet or blank of paper without folds; gussets or other overlapping parts.

A further object is to provide a method of making a dish of the character mentioned having an oblong form and which possesses such shape that its sides may be pressed or partially collapsed inward into closely approaching relation without inducing a resultant lowering of its ends to a level below that of its sides.

A still further object is to provide a method of making a flexible paper container which is pressed into permanent dish form and which presents perfectly plain and smooth interior and exterior surfaces.

In describing the invention in detail, reference is herein had to the accompanying drawings, in which—

Figure 1 is a top plan view of my improved dish;

Figure 2 is a side elevation of the same;

Figure 3 is a sectional view of the forming dies illustrating the means employed in shaping the dish; and

Figure 4 is a plan view of the blank from which the dish is formed.

The dish composing the invention is formed from a single blank of heavy pulp-board paper and has a flat bottom 1 of rectangular form from which the sides 2 and ends 3 incline upward and outward. Said ends 3 are preferably made of materially greater height than the sides 2, so that when the latter are pressed toward each

other, or partially collapsed, as in handling when filled, the ends will not thereby be lowered to a level below that of said sides and, consequently, will not permit the contents to overflow said ends.

The dish is formed by means of a male die 4 and a female die 5 which coact to effect stretching displacement and redistribution of the fibers of the ends of the blank without any compressing or stretching of the rectangular bottom of the blank and, with relatively slight, if any, compressing or stretching of the sides. To render such redistribution of the fibers readily accomplishable, the paper stock, preferably composed of a combination or mixture of mechanically and chemically treated wood pulp, is thoroughly steamed and paraffined, so that slight displacement of the cohering mass of fiber-like matter may be effected under the compressing and drawing action which is exerted between the curved end portion of the companion dies. It will be understood that, since the displacement of the fibrous material of the blank occurs almost wholly in the end portions of the latter, the end portions of the dies, when fitted together, are separated a distance slightly greater than the thickness of the paper stock acted upon, so that in approaching its seat within the female die the male die acts to so displace and rearrange the fibers of the end portions of the blank that the latter possesses the relatively different form or shape required.

As used in the appended claims, the expression "plain and smooth surface" is intended to mean unbroken or free from folds, corrugations, pleats or overlapping portions.

What is claimed is—

1. The herein described method of making a rectangular paper dish having its ends of greater height than its sides, which consists in steam heating and paraffining a paper blank, then in subjecting the blank to pressure to shape the dish and to form the ends thereof of a thickness exceeding that of the sides, the excess paper stock in the sides of the blank being displaced under the pressure and caused to flow inwardly across said ends and supplementing the stock in the latter.

2. The herein described method of making a rectangular paper dish which consists in moistening a paper blank, and then subjecting the blank to pressure on its opposite faces to shape the dish and to cause
5 stock in the opposite sides of the dish to be displaced and to flow inwardly for supplementing the stock in the dish ends, so as to

provide the dish with plain ends of a thickness exceeding that of its sides. 10

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

ETHEL GRACE MAXWELL.

Witnesses:

E. T. MAXWELL,

H. E. DUNLAP.