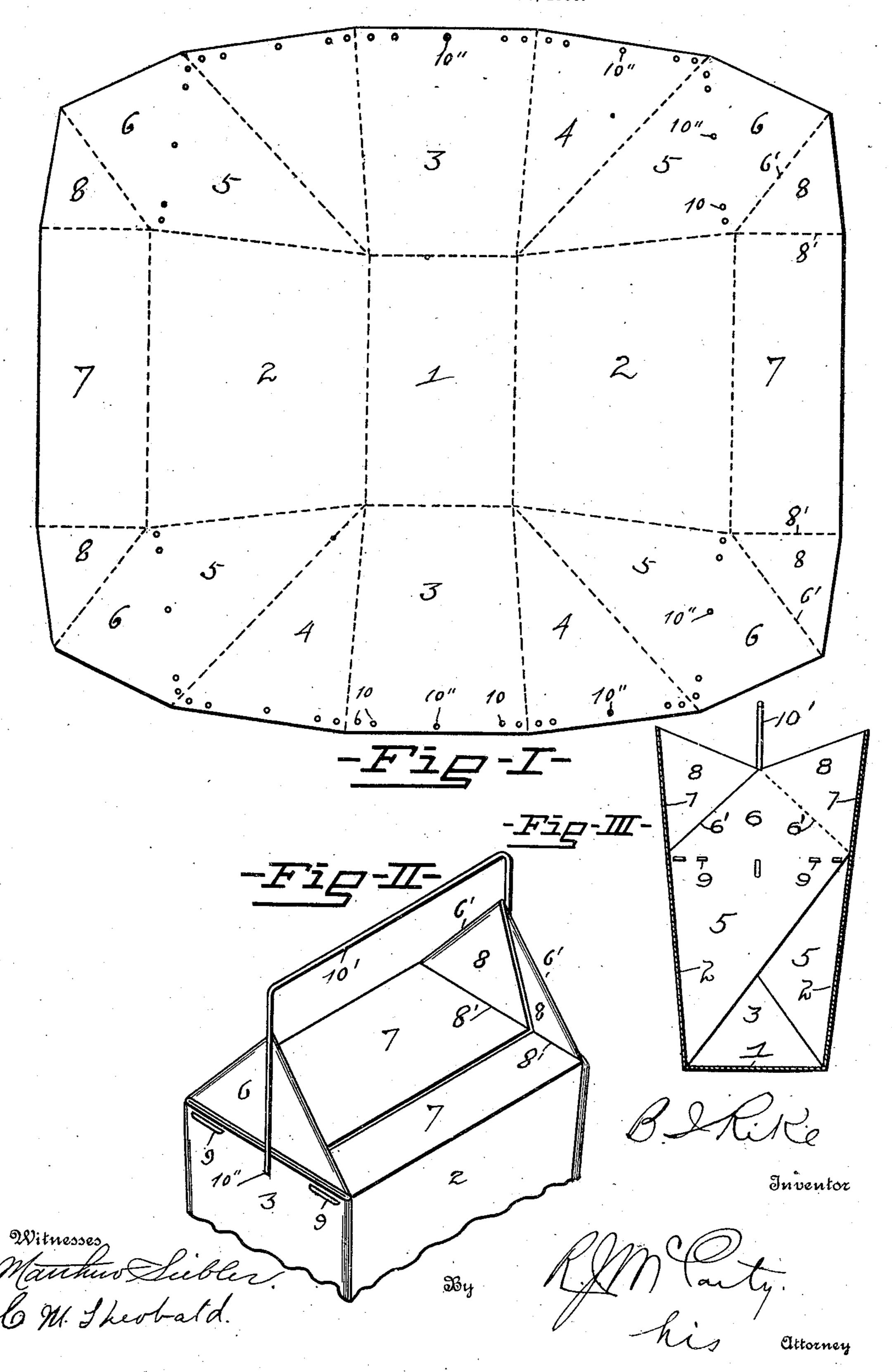
B. I. RIKE.

PAPER VESSEL.

APPLICATION FILED MAR. 7, 1906.



## UNITED STATES PATENT OFFICE.

BERTON I. RIKE, OF DAYTON, OHIO.

## PAPER VESSEL.

No. 877 001.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, Berton I. Rike, a citizen of the United States, residing at Dayton, in the county of Montgomery and State 5 of Ohio, have invented certain new and useful Improvements in Paper Vessels; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to 10 which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful

improvements in paper vessels.

The object of the invention is to provide a paper vessel so constructed that the mouth thereof will remain closed in a most effectual 20 manner without the employment of eyelets or other retaining means. The closure flaps consist of folds of substantially uniform dimensions which overlap each other in closing the mouth of the vessel, and join end exten-25 sions the natural resiliency of which exert a pressure on said closure flaps to maintain them snugly in their overlapped positions, and also the end extensions are likewise overlapped in a substantial manner so that 30 leakage through the mouth of the vessel at any point is prevented.

In the accompanying drawings,—Figure I, is a plan view of the blank from which the vessel is formed. Fig. II, is a perspective 35 view of the upper end of the mouth of the vessel showing the same closed by the overlapping closure flaps which join the end extensions which are likewise overlapped in a substantial manner. Fig. III, is an eleva-40 tion of the inner side of the vessel showing the triangular folds on the inner side and the closure flaps and end extensions open.

In a detail description of the invention, similar reference characters indicate corre-

45 sponding parts.

The vessel is constructed of a suitable quality of manila paper cut and scored in a manner to form the vessel as shown in the view of the blank given in the drawings.

When folded, 1 designates the bottom; 2 2 the outer opposite side walls, and 3 3 the outer opposite end walls. The side walls 2 2 and the end walls 3 3 are brought together by inwardly-breaking bellows folds 55 4 and 5 which break upon intervening score lines to bring the walls 3 3 on the outside

of the vessel. The score lines between the triangular folds 4 and 5 break inwardly, and when the blank is folded to form the vessel, these triangular folds 4 and 5 lie on the inside 60

of and against the side walls 3 3.

Extending from the triangular folds 5 5 are extension folds 6 6 which form continuations of said triangular folds 5 5 to the top or mouth of the vessel, so that when the folds 65 4 and 5 are placed against the inner sides of the walls 3 3, there is a continuous unbroken surface or wall extending from the bottom of the vessel to the top of the end extensions 6 6 and thereby the contents of the vessel are 70 prevented from leaking through the top of the folds 5 5.

7 7 designate the closure flaps which extend across the mouth of the vessel and are folded over the mouth of the vessel one upon 75 the other, and are reinforced to strengthen them. These closure flaps 7 7 overlap a substantial distance in closing the mouth of the vessel and are maintained closely together when so overlapped without the usual ad- 80 ditional fastening means. The said closure flaps 7 7 have end extension folds 8 8 extending from each end and which join the extension folds 6 6 by an intervening score line, and the extension folds 8 8 are likewise over- 85 lapped to a substantial extent to form a complete closure at the top of the vessel on each side or end of the overlapping closure flaps 7.7. When the closure flaps 7.7 are folded inwardly, as in Fig. II, the folds 6 and 8 bend 90 upon score lines 6' 6' and lie against each other snugly, and the folds 8 8 and 6 6 form upright extensions which join as before stated the ends of the closure flaps 77. These upright extensions so formed by overlapping 95 triangular folds 6 and 8 reach above the end walls 3 3, and are not bent over the mouth of the vessel as is customary, but stand upright when the vessel is in a serviceable condition and exert a certain amount of inward pres- 100 sure upon the overlapping folds or flaps 7 7 to maintain them in snug contact. It will be seen from Fig. II, that the bail or handle 10', when placed in an upright position, presses against the outer sides of said upright or end 105 extensions and exerts a certain amount of inward pressure upon said upright extensions which is instrumental in causing the pressure on the overlapping closure flaps 7 7 before stated. This inward tension upon said up- 110 right or end extensions is increased when the vessel is made to contain a weight, such as the

commodity placed therein, and while the vessel is being carried in the hand. The folds between the cover flaps 77 and the extension folds 8 8 are upon the score lines 8' 8' and 5 said score lines impart a constant outward pressure which maintains the overlapping folds 8 8 in close contact with the outer folds 6 6, and renders unnecessary any means other than this pressure for maintaining said 10 folds in close contact. The same outward pressure along the score lines 8' 8' also serves to hold one closure flap, for example, the outer closure flap 7, in close contact with the inner closure flap 7. The natural resiliency 15 of the material manifests itself readily in the initial operation of closing or overlapping the flaps 77.

The side walls 3 3 may be united to the inner rectangular folds 4 and 5 in any suitable manner, but the most desirable means consists of a suitable number of wire fasteners 9 which penetrate said parts through openings 10 and are clenched on the inner sides of the triangular folds at the top of the vessel. The wire bail or handle 10' before referred to, is employed and is united to the top of the side walls 3 3 through central openings 10"; the ends of said bail 10' also pass through similar openings 10" in the triangular folds 4 and 5.

From an inspection of the blank as illustrated in Fig. 1, it will be seen that the closure-

flaps 67 and 8 are of the same area and shape |

respectively, at both ends of the blank; this is of much importance in the construction of these closure flaps, as by reason of this similarity of these parts, a uniform resiliency is imparted to the closure flaps when the extension flaps 6 and 8 are bent at right angles to the flaps 7.

I claim: A four-sided paper vessel, the side walls of which consist of a single thickness of the blank and terminate in extensions which form an overlapping cover for the mouth of the vessel, and the end walls of said vessel 45 consisting of two two-ply overlapping folds which fold against a single thickness of the blank and terminate in top extensions which stand upright and join on their inner sides the overlapping cover extensions, the folds of 50 said top extensions overlapping on their inner sides throughout the lengths of said top extensions and thus forming a complete overlapping closure for the mouth of the vessel from the upper extremity of one of said top 55

other of said top extensions.
In testimony whereof I affix my signature,

extensions to the upper extremity of the

in presence of two witnesses.

BERTON I. RIKE.

Witnesses:

R. J. McCarty, C. M. Theobald.