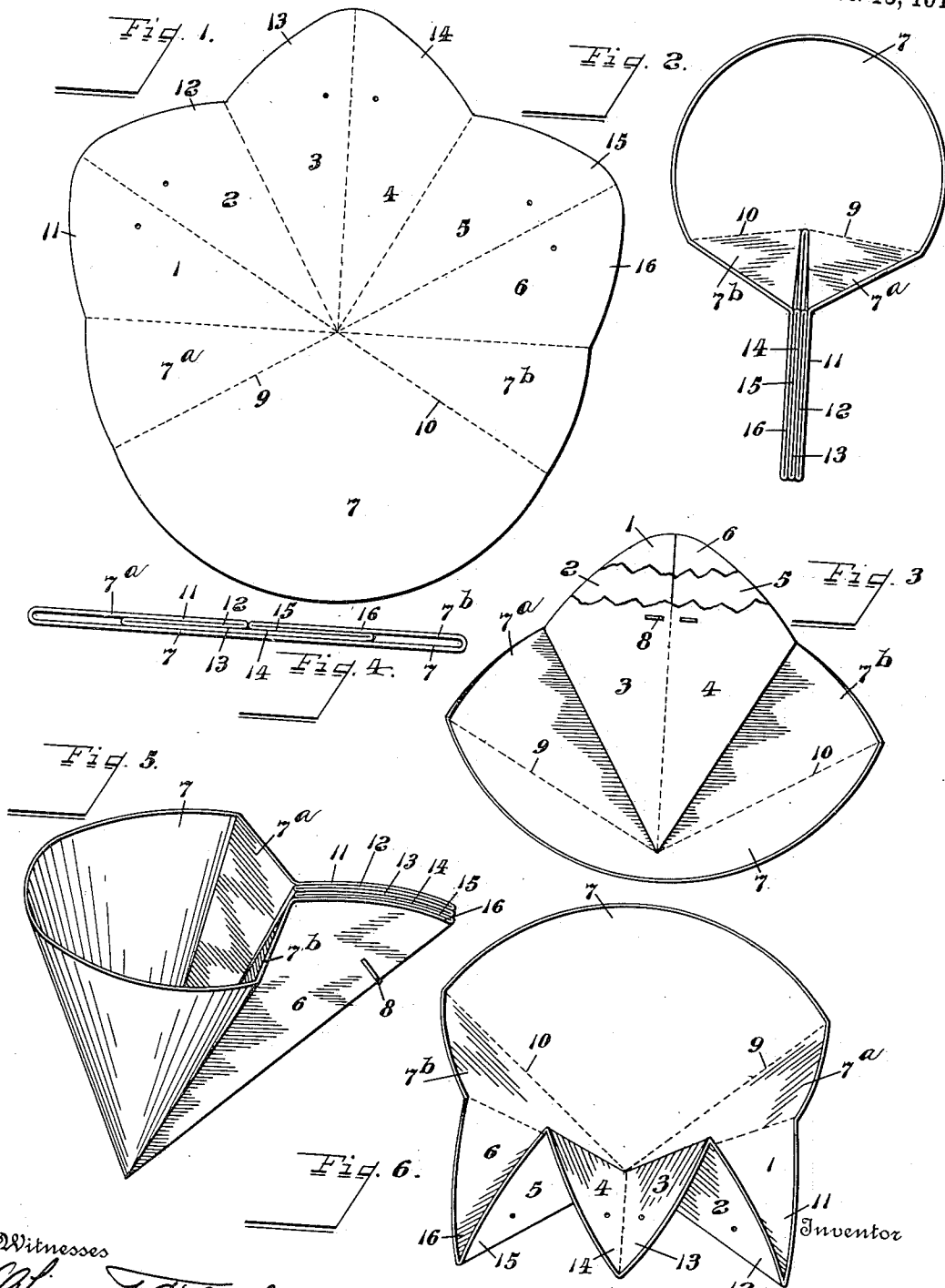


A. M. KLIN.
FOLDING PAPER VESSEL.
APPLICATION FILED JUNE 16, 1911.

1,121,259.

Patented Dec. 15, 1914.



Witnesses
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UNITED STATES PATENT OFFICE.

AGNES M. KLIN, OF DAYTON, OHIO, ASSIGNOR TO THE GERMLESS PAPER CUP
COMPANY, OF DAYTON, OHIO, A CORPORATION OF OHIO.

FOLDING PAPER VESSEL.

1,121,259.

Specification of Letters Patent.

Patented Dec. 15, 1914.

Application filed June 16, 1911. Serial No. 633,539.

To all whom it may concern:

Be it known that I, AGNES M. KLIN, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Folding Paper Vessels, of which the following is a specification.

My invention relates to improvements in folding paper vessels and especially to vessels adapted for drinking purposes; the invention particularly relating to improvements upon the folding cup described in my pending application, Ser. No. 576,117, filed August 8th, 1910.

The object of my invention is to provide a cup of the kind described which may be filled to its utmost capacity without danger of leakage at the handle folds.

In the drawings: Figure 1 is a plan view of the blank from which my cup is formed. Fig. 2 is a top plan view of the cup in complete folded condition. Fig. 3 is a view in perspective of the cup in partially folded position, or in that condition in which it is folded for shipment, some of the parts being broken away. Fig. 4 is a top plan of the cup in folded knock-down condition. Fig. 5 is a perspective view of the cup in complete folded position, or in that position to which it is folded for use. Fig. 6 is a top plan view of the blank in partially folded condition.

Like parts are represented by similar characters of reference in the several views.

In Fig. 1 of the drawings is represented the blank from which the cup is formed, this blank being creased or scored as indicated by dotted lines to form triangular shaped sections 1, 2, 3, 4, 5 and 6 arranged in pairs, the sections 1 and 2 constituting one pair, 3 and 4 another pair, and 5 and 6 a third pair; these triangular-shaped portions being adapted to be folded back upon themselves to form a handle which stands at right-angles to the main conical-shaped body 7 of the cup as described in my pending application referred to.

For the purpose of facilitating shipment of these cups they are first folded in the manner illustrated in Fig. 3, in which the sections 1 and 2 are folded together and then back against the section 3, and the sections 5 and 6 folded together and thence back

against the section 4; all of the sections being then secured together by a wire staple 8. The main conical-shaped portion is creased upon the lines 9 and 10 so that the front portion thereof may be folded up against the portions 7^a and 7^b and also against the folded sections of the handle, so as to collapse or knock-down the cup, as shown in Fig. 4. In addition to facilitating shipment, this manner of collapsing the cup also adapts it for use in coin operating machines. When it is desired to put the cup into use all that is necessary is to fold the sections 3 and 4 in a forward direction upon themselves, in the manner illustrated in Figs. 2 and 5; the staple 8 readily bending at the rear edge of the handle folds to permit of this.

The main feature of my invention consists in improving the handle portion so that leakage at the folds is prevented. In my former application a circular blank was employed, which when folded brought the upper outer corner of the handle well below the top of the cup so that, if the cup was filled with water above a certain point, the water, seeking its level in the folds of the handle, would overflow these folds.

In my improved construction, I form that part of the perimeter of the blank which forms the bases of the triangles 1 to 6 inclusive of an irregular or rosette shape, so as to form in effect a series of mixtilinear triangles, the score lines forming the straight sides and the perimeter of the blank a curved side for each triangle. The contour of the perimeter of the blank is such that the altitude of the respective triangles will be along the score line which separates the sections of each pair so that the bases 11 and 12 of the pair of sections 1 and 2 will meet at a point farthest removed from the center of the blank, and the same will be true of the bases 13 and 14 and also of the bases 15 and 16 of the other pairs of sections. As a result of this, when the triangular-shaped sections are folded together in the manner heretofore described, the upper outer corner of the handle will be in line with the top of the cup proper as shown, thus preventing any leakage through the folds of the handle even though the cup should be completely filled.

Having thus described my invention, I claim:

1 In a folding paper vessel, a blank hav-
ing a portion thereof forming a sector of
5 a circle and also a portion scored from the
center of the blank to the perimeter, the
scores together with the perimeter forming
triangular-shaped sections, said triangular-
shaped sections being arranged in pairs, the
10 perimeter of the scored portion of the blank
being of such shape that portions of the
bases of said triangular-shaped sections will
lie a greater distance from the center
15 tion of the blank forming the sector of a

circle, the construction and arrangement be-
ing such that when the blank is in folded
position that portion thereof forming the
sector of a circle will form a conical-shaped
receptacle and the triangular-shaped por- 20
tions a handle which will stand at substan-
tially right-angles to the receptacle portion
and substantially as high as the rim thereof.

In testimony whereof, I have hereunto set
my hand this 5th day of June 1911.

AGNES M. KLIN.

Witnesses:

JOHN SHORTELL,
CHARLES F. SAETTEL.