J. V. WECKBAUGH.

CUP.

APPLICATION FILED JULY 15, 1920.

1,421,114. Patented June 27, 1922.

Fig. 1.

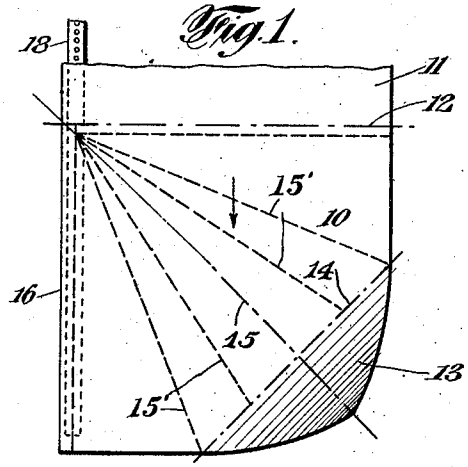


Fig. 3.

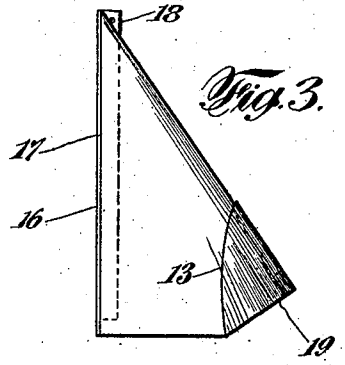


Fig. 2.

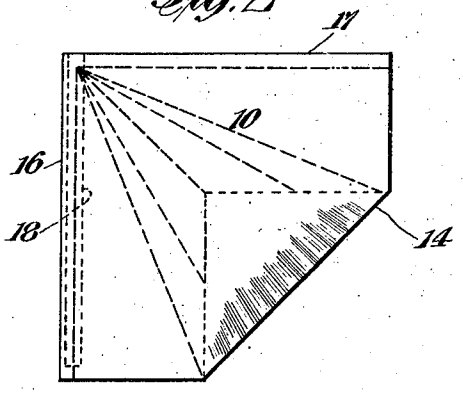


Fig. 4.

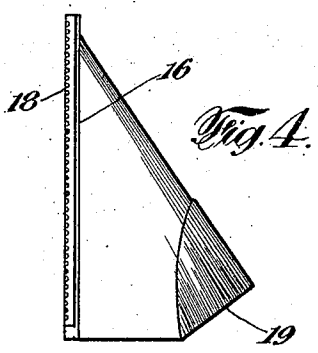
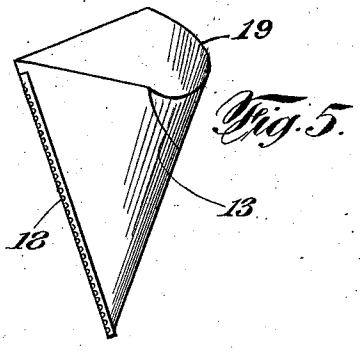


Fig. 5.



Inventor

Joseph V. Weckbaugh

By his Attorney Edik Schuetz

UNITED STATES PATENT OFFICE.

JOSEPH V. WECKBAUGH, OF NEW YORK, N. Y.

CUP.

1,421,114. Specification of Letters Patent. Patented June 27, 1922.

Original application filed May 17, 1919, Serial No. 297,762. Divided and this application filed July 15, 1920. Serial No. 396,342.

To all whom it may concern:

Be it known that I, JOSEPH V. WECKBAUGH, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Cups, of which the following is a specification.

The invention relates to a sanitary drinking cup or container designed for temporary use, and constructed of flexible material such as a suitable grade of paper, the cup being intended, generally, to be discarded after having been used. The construction admits, also, of the cup being flattened by pressure to occupy a minimum space, and to be suitable for packing and sale.

The invention has for its object to provide a cup of this type from a suitable blank as of paper which is folded in an extremely simple manner to provide a liquid-tight container having a large capacity for the amount of material employed. A further object of the invention consists in providing a substantially rigid mouthpiece or lip therefor and the edge of which shall not be sharp, as is the case usually with cups of the types heretofore produced. The cup, moreover, lends itself readily to manufacture in a sanitary manner. For example, it may be produced from a continuous strip of material which will require no handling, the said material, also, remaining sealed or enclosed until the actual time of manufacture, and the cup being capable of being manufactured and dispensed entirely by mechanical means. The present application is a division of my U. S. Letters Patent No. 1,359,772, granted November 23, 1920.

In the accompanying drawings, which illustrate the invention—

Figs. 1 to 4 are diagrammatic views illustrating the different stages in the manufacture of a cup.

Fig. 5 is a perspective view of a completed cup.

Similar characters of reference designate corresponding parts throughout the several views.

Referring to the drawings, 10 designates a blank composed, for example, of a suitable grade of paper of the required thickness and stiffness. This blank may be obtained in desired lengths as from a continuous strip 11, being cut therefrom along the line 12 to provide a parallelogram of substantially equal sides and generally in the form of a square. One of the corners, for example, the corner 13, of the blank is turned backwardly along a line 14 perpendicular to the diagonal 15 of the parallelogram, and the blank itself is then turned over about the said diagonal 15 as an axis or folded along same, whereupon the full-length edges 16 and 17 are secured to each other in any suitable manner, for example by folding same inwardly. I prefer, in order to facilitate the turning and folding operations and final shaping of the cup, to crease or provide line impressions along the said diagonal 15 and line 14 perpendicular thereto as well as along the edges 16 and 17. Also additional radial line impressions 15′ may be provided at either side of the diagonal. The edges may be secured to each other by means of a suitable adhesive, or may be folded over again, or preferably, are secured by means of a suitable binding strip or metal tape 18 which is bound over same, Fig. 4. This completes the cup which is thus securely sealed approximately from bottom to top along the lengthwise edges 16 and 17, in manner indicated, providing, also, a suitable mouthpiece 19. The latter is reenforced and stiffened by the backwardly turned corner 13, which serves, also, to hold the cup open as well as to round off that portion of the cup coming in contact with the mouth, thus obviating the sharp edges now found in the paper cups in general use. It is to be noted, in this connection, that if the paper for manufacturing the cup be taken from a strip supplied in the form of a roll, the inside surface is not exposed to dust and air and also need not be handled during the process of manufacture, thus insuring a sanitary product.

In the manufacture of these cups in quantity and by mechanical means, the material for the blank 10 is provided by feeding forward the strip 11 of paper and simultaneously therewith a strip 18 of binding material such as metal. The latter is preferably arranged to be fed beneath the paper 11 along one edge thereof and at a slightly lesser rate than that of the strip in order to make use of the same feed rolls for both and to effect a saving of metal. When the requisite quantity has been fed forward, both paper and metal strip are

cut along the line 12 to provide the blank 10. Thereupon, or simultaneously with the feeding of the material, suitable means are caused to deflect the corner 13, preferably at an angle of forty-five degrees to the direction of travel of the paper, after which the deflected portion is gripped and turned under, and the line impressions made therein. The entire blank is thereupon turned over about the diagonal 15 as an axis, or folded along said diagonal. The strip of metal 18, together with the coacting lengthwise edges 16 and 17, is then folded over and secured or bound together.

When a metal strip, as the strip 18 is employed, the same is designed to be clamped over the said edges; and to this end is preferably formed with perforations equally spaced along its median line, the same facilitating the bending of the strip in order to clamp the material. Moreover, the edges of said perforations are left rough upon the inner side, thereby insuring a maximum hold on the paper or flexible material.

I claim:

1. A pliable metal clamping strip for the registering edges of a paper container, adapted to be fed by a sprocket wheel and having perforations arranged longitudinally thereof to afford accurate feed of the strip and to insure bending of the strip most readily along the line of perforations.

2. A pliable metal clamping strip for the registering edges of a paper container, adapted to be fed by a sprocket wheel and having perforations arranged along its median line to afford accurate feed of the strip and to insure bending of the strip most readily along the said median line.

3. A pliable metal clamping strip for the registering edges of a paper container, adapted to be fed by a sprocket wheel and having perforations arranged longitudinally thereof to afford accurate feed of the strip and to insure bending of the strip most readily along the line of perforations, the same being roughened along their edges to provide a secure hold by the strip.

4. A pliable metal clamping strip for the registering edges of a paper container, adapted to be fed by a sprocket wheel and having perforations arranged along its median line to afford accurate feed of the strip and to insure bending of the strip most readily along the said median line, the said perforations being roughened along their edges to provide a secure hold by the strip.

5. A drinking cup consisting of a paper blank substantially in the form of an equilateral parallelogram, folded backwardly at one corner along a line perpendicular to the diagonal of the parallelogram and turned about said diagonal, and having its lengthwise edges secured to each other.

6. A drinking cup consisting of a paper blank substantially in the form of a square, folded backwardly at one corner along a line perpendicular to the diagonal of the square and turned about said diagonal, and having its lengthwise edges secured to each other.

7. A drinking cup consisting of a paper blank substantially in the form of a square, folded backwardly at one corner along a line perpendicular to the diagonal of the square and turned about said diagonal, and having its lengthwise edges secured to each other, and a metal strip turned over the lengthwise edges.

8. A drinking cup consisting of a paper blank substantially in the form of an equilateral parallelogram, folded at one corner along a line perpendicular to the diagonal of the parallelogram and turned about said diagonal, and having its lengthwise edges secured to each other.

9. A drinking cup consisting of a paper blank substantially in the form of an equilateral parallelogram, folded at one corner along a line perpendicular to the diagonal of the parallelogram, said corner having a series of impressions along its folded edge, the blank being also turned about the said diagonal and having its lengthwise edges secured to each other.

Signed at New York, in the county of New York and State of New York this 12th day of July, A. D. 1920.

JOSEPH V. WECKBAUGH.