June 23, 1942. H. SCHACHT 2,287,644

HANDLED CUP

Filed Dec. 11, 1939 2 Sheets-Sheet 1

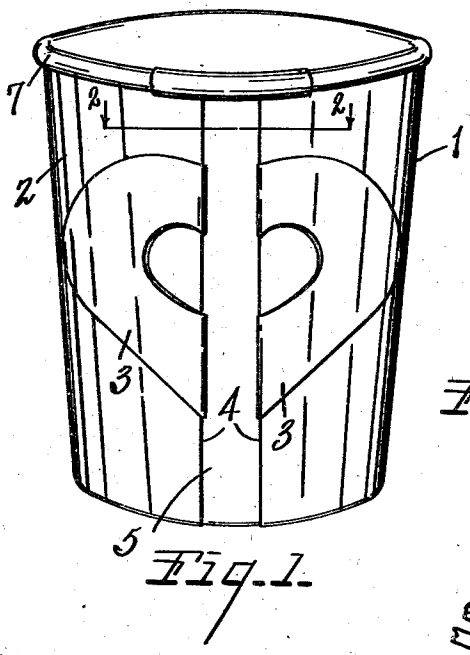


Fig. 1.

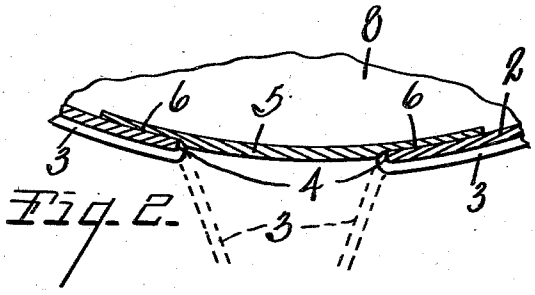


Fig. 2.

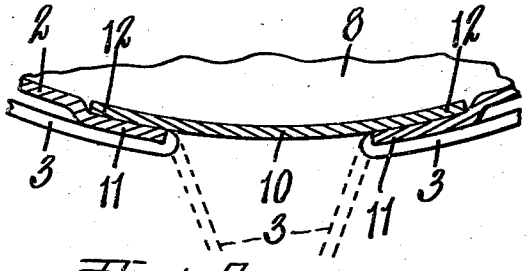


Fig. 8.

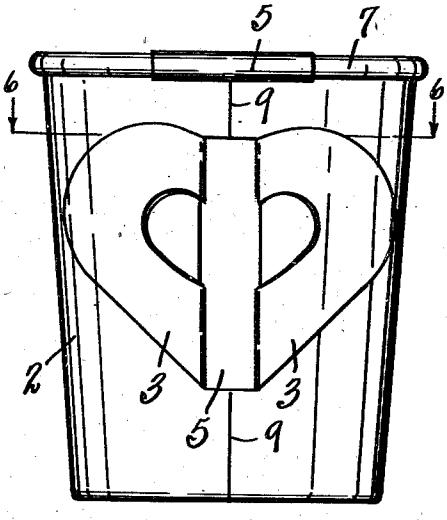


Fig. 7.

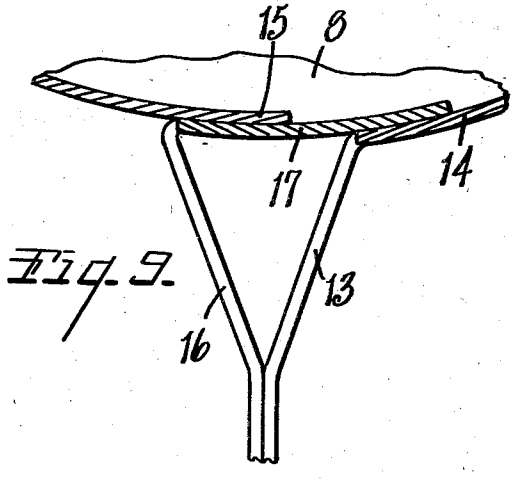


Fig. 9.

INVENTOR.
Henry Schacht

BY Earl & Chappell
ATTORNEYS

June 23, 1942. H. SCHACHT 2,287,644

HANDLED CUP

Filed Dec. 11, 1939 2 Sheets-Sheet 2

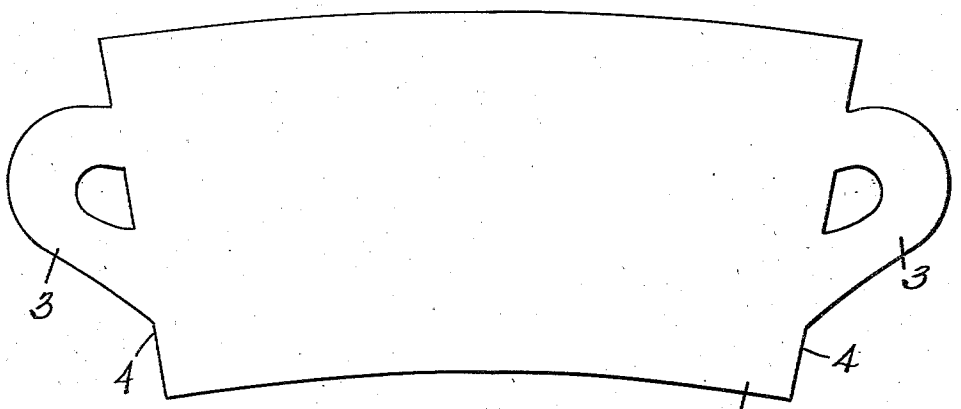


Fig. 4.

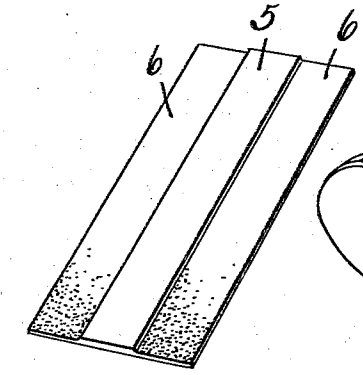


Fig. 5.

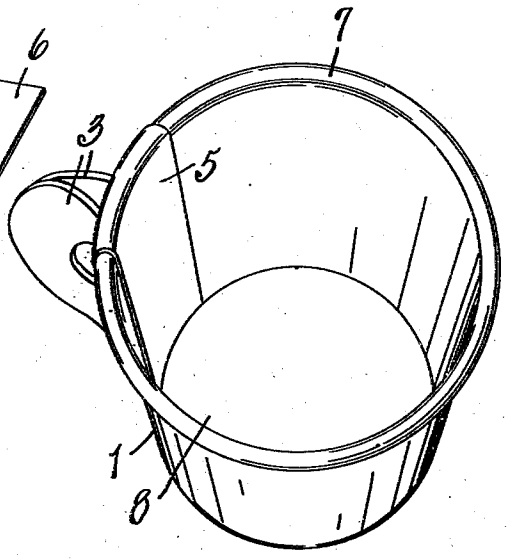


Fig. 3.

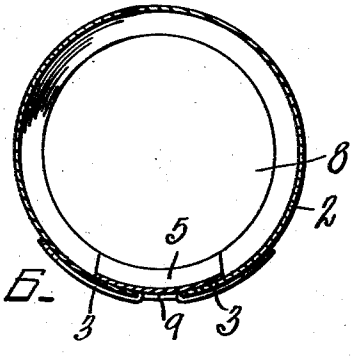


Fig. 6.

INVENTOR.
Henry Schacht

BY Earl F. Chaffee

ATTORNEY.

Patented June 23, 1942 2,287,644

UNITED STATES PATENT OFFICE

2,287,644

HANDLED CUP

Henry Schacht, Kalamazoo, Mich., assignor to Sutherland Paper Company, Kalamazoo, Mich.

Application December 11, 1939, Serial No. 308,686

11 Claims. (Cl. 229—4.5)

This invention relates to improvements in handled cups.

The main objects of my invention are:

First, to provide an improved handled cup of paper or fibrous construction throughout.

Second, to provide a cup of the type described wherein the handles are collapsible concentrically of the wall of the cup in inoperative position to permit compact nesting and may be erected to an outwardly converging relation in operative position.

Third, to provide a cup of the type described having the handles secured thereto in a manner to maintain as much as possible a uniformity of thickness of the cup wall throughout the periphery thereof whereby effective rolling of the same in an automatic cup making machine is facilitated.

Fourth, to provide a handled cup of the type described wherein the thickness of the materials employed may be chosen so as to produce an article of improved strength and rigidity.

Fifth, to provide a cup having a handle member and a supplemental reinforcing strip associated therewith and attached thereto in a manner to improve and strengthen the cup in all respects.

Sixth, to provide a cup which may be formed of light stock and which is at the same time strong and quite rigid.

Further objects relating to details and economies of my invention will definitely appear from the description to follow. The invention is defined in the claims.

A structure embodying the features of my invention is illustrated in the accompanying drawings, wherein:

Fig. 1 is a perspective view illustrating the cup of my invention in accordance with a preferred embodiment thereof.

Fig. 2 is an enlarged fragmentary view in section on a line corresponding to line 2—2 of Fig. 1 and showing the relation of the handle of the cup to other parts thereof, the operative position of the handle elements being illustrated in dotted lines.

Fig. 3 is a top perspective view further illustrating the cup with the handle members erected to operative position.

Fig. 4 is a view illustrating the handle carrying blank which serves as a body or wall member for the tubular cup of my invention.

Fig. 5 is a perspective view illustrating the supplemental skived reinforcing strip employed in forming the cup.

Fig. 6 is a view illustrating details of the construction of a cup in accordance with a somewhat modified embodiment of my invention, the view being in horizontal section on line 6—6 of Fig. 7.

Fig. 7 is a front elevation of the cup illustrated in Fig. 6.

Figs. 8 and 9 are enlarged fragmentary views in section generally similar to that of Fig. 2, illustrating other modified embodiments of my invention.

The present invention relates to a fibrous or paper cup having handles which are capable of being erected from inoperative nesting position concentric of the outline of the cup to operative gripping position in an outwardly converging relation thereto. Difficulty in manufacturing cups of this type on automatic cup making machinery has heretofore existed due to the fact that the combined thickness of the handle and cup wall at a portion of the periphery of the latter differed from the thickness of the cup wall and detracted from the effective rolling thereof at certain stages in the operation of the cup making machine. It is therefore a purpose of my invention to provide a fibrous cup of the type described having an improved handle associated therewith in which the aforesaid difficulty caused by inequality or non-uniformity of thickness of the material is reduced as far as possible. It is a further general object to produce such a cup which is of improved strength so as to resist bursting and wherein the handles are strongly attached and provide a firm stable support for the cup and its contents when grasped in using the cup.

Referring to the drawings, the reference numeral 1 indicates the cup of my invention in accordance with the preferred embodiment thereof, which cup has the body or wall thereof formed from the blank 2 illustrated in Fig. 4. This blank consists of an arcuate length (in the case of a tapered body) of a suitable flexible grade of paper or container stock having integrally formed on the ends thereof the handle elements 3. It should be noted, as illustrated in Fig. 1, that the length of the blank 2 is somewhat less than the length of the periphery of the cup, so that when formed to circular outline the ends 4 of the blank are spaced a substantial amount. To complete the circular tubular body, I utilize a separate supplemental bridging 5 of stock which is preferably somewhat thicker than the stock of the blank 2. This strip has the sides thereof skived at 6, which skived portions are ad-

hesively secured along the ends 4 of the blank in the manner illustrated in Fig. 2. It should be understood that at this time the handles 3 are collapsed around and in contact with the periphery of the tubular wall, see Fig. 2, and when used are brought together to the outwardly converging position illustrated by dotted lines in Fig. 2. In the collapsed position of the handles, the cups may be very compactly nested.

As illustrated in Figs. 1 and 3, the upper end of the strip 5 is rolled with the bead 7 of the cup in forming the latter while the lower end of the strip is interiorly engaged, along with the wall of the cup, by the bottom 8 of the latter, being rolled or bent inwardly of the bottom in well known manner during the forming steps.

By the foregoing procedure, it will be apparent that I have eliminated the usual double thickness overlap of the ends of the blank in forming the cup, substituting therefor the intermediate or supplemental securing strip 5 which is actually of a thicker grade of stock than the wall blank 2, but whose skived ends 6 secure the latter in tubular form while maintaining the overall thickness of the wall at the point of securement less than the thickness which would result were the ends of the blank 2 overlapped. It follows that the wall of the cup as a whole is rigidified while the operation of rolling the wall is facilitated and improved by the elimination or substantial reduction of irregularities in thickness around the periphery thereof, which cause a bumpy, inefficient operation in rolling, making it impossible to get an effective union of cemented joints.

In Figs. 6 and 7, I illustrate a modified embodiment of my invention, wherein the ends of the blank 2 are extended at points above and below the handle elements 3 so as to meet with a butt joint 9 when the blank is formed to tubular outline, thereby furnishing a still greater area of adhesive connection of the blank ends with the strip 5 and improving the appearance somewhat, and also permitting continuous printing around the cup of either ornamental designs or advertising legends. In other respects, the article is similar to that illustrated in Figs. 1 to 5.

In Fig. 8, I illustrate a still further modified embodiment of my invention, wherein the intermediate or supplemental bridging strip, which is in this case indicated by the reference numeral 10, is of approximately the same gauge stock as the blank 2 forming the body of the cup, though of course its thickness may be greater if desired. In this case, the ends 11 of the body blank are offset outwardly by suitably bending the stock to receive the unskived ends 12 of the strip. In other respects, the relation of the strip 10 to the blank 2 and the method of securement thereof are similar to the constructions already discussed.

In Fig. 9, I illustrate a still further modified embodiment of my invention, wherein one of the handle elements, in this case designated 13, is integrally formed on the end of the body blank 14 while the opposite end 15 of the blank is left plain. The second handle element 16 is formed on one side of the intermediate or supplemental bridging strip 17. This strip is interleaved or overlapped with and adhesively secured to the spaced ends of the blank 14 to provide a stepped or fanned construction which has the effect of eliminating excessive thickness at any one point, or rendering the radial thickness of the blank more uniform and thereby facilitating rolling of the article in the automatic machine as described above.

I have illustrated and described my improvements in embodiments which are very practical. I have not attempted to illustrate or describe other embodiments or adaptations as it is believed this disclosure will enable those skilled in the art to embody or adapt my improvements as may be desired.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A handled cup of fibrous material throughout, comprising a body member formed from a blank disposed in tubular form with the ends of the blank spaced substantially from one another, said blank having handle members formed integrally on said ends and normally disposed in concentric relation to the body member, and a supplemental strip bridging the space between said ends, said strip being of a substantially heavier grade of stock than said blank and having the sides thereof skived and adhesively secured to said spaced ends whereby to complete the circular outline of the cup, said skived portions minimizing the thickness of the wall of the cup at the points of securement thereof to the blank, said handle members being capable of being erected from said concentric position to an outwardly converging relation to one another to thereby provide a stable handle for the cup.

2. A handled cup of fibrous material throughout, comprising a body member formed from a blank disposed in tubular form with the ends of the blank spaced substantially from one another, said blank having handle members formed integrally on said ends and normally disposed in concentric relation to the body member, and a supplemental strip bridging the space between said ends, said strip having the sides thereof adhesively secured to said spaced ends whereby to complete the circular outline of the cup, said handle members being capable of being erected from said concentric position to an outwardly converging relation to one another to thereby provide a stable handle for the cup.

3. A handled cup of fibrous material throughout, comprising a body member of tubular form including a body sheet having ends spaced substantially from one another, said sheet having handle members on said ends normally disposed in concentric relation to the body member, and a supplemental strip bridging the space between said ends, said strip having the sides thereof adhesively secured to said sheet adjacent said spaced ends whereby to complete the circular outline of the cup, said handle members being capable of being erected from said concentric position to an outwardly projecting position for use.

4. A handled cup of fibrous material throughout, comprising a body member formed from a blank disposed in tubular form with the ends of the blank adjacent but spaced from and unsecured to one another, said blank having handle members formed integrally on said ends, and a supplemental strip bridging said ends, said strip being of a substantially heavier grade of stock than said blank and having portions thereof skived and secured to said ends whereby to complete the circular outline of the cup, said skived portions minimizing the thickness of the wall of the cup at the points of securement thereof to the blank, said handle members being

capable of being disposed in an outwardly converging relation to one another to thereby provide a stable handle for the cup.

5. A handled cup of fibrous material throughout, comprising a body member formed from a blank disposed in tubular form with the ends of the blank adjacent but spaced from and unsecured to one another, said blank having handle members formed integrally on said ends, and a supplemental strip bridging said ends, said strip having portions thereof skived and secured to said ends whereby to complete the circular outline of the cup, said skived portions minimizing the thickness of the wall of the cup at the points of securement thereof to the blank, said handle members being capable of being disposed in an outwardly converging relation to one another to thereby provide a stable handle for the cup.

6. A handled cup of fibrous material throughout, comprising a body member formed from a blank disposed in tubular form with the ends of the blank adjacent but substantially spaced from one another, said blank having handle members formed integrally on said ends, and a supplemental strip bridging said ends, said strip being of a substantially heavier grade of stock than said blank and being secured to said ends whereby to brace and secure the same together, said handle members being capable of being disposed in an outwardly converging relation to one another to thereby provide a stable handle for the cup, said body member and strip being rolled at the top thereof to form a bead for the cup.

7. A handled cup of fibrous material throughout, comprising a body member formed from a blank disposed in tubular form with the ends of the blank adjacent but substantially spaced from one another, said blank having handle members formed integrally on said ends, and a supplemental strip bridging said ends, said strip being secured to said ends whereby to brace and secure the same together, said handle members being capable to being disposed in an outwardly converging relation to one another to thereby provide a stable handle for the cup, said body member and strip being rolled at the top thereof to form a bead for the cup.

8. A handled cup of fibrous material throughout, comprising a body member formed from a blank disposed in tubular form with the ends of the blank adjacent but substantially spaced from one another, said blank having handle members formed integrally on said ends, and a supplemental strip bridging said ends, said strip being secured to said ends whereby to brace and secure the same together, said handle members being capable of being disposed in an outwardly converging relation to one another to thereby provide a stable handle for the cup.

9. A handled cup of fibrous construction, comprising a body member formed of a blank having an integral handle element on one end thereof, the opposite end of the blank when formed to tubular outline being spaced substantially from but unsecured to the first named end, and a supplemental bridging strip disposed between and adhesively secured to said ends, said bridging strip having a handle element integrally formed thereon at a point spaced circumferentially of said body member from the connection of said first named element to the blank said handle elements in inoperative position being disposed concentrically of said body on the exterior side thereof and being swingable to outwardly converging relation to provide a stable handle for the cup.

10. A handled cup of fibrous construction, comprising a body member formed of a blank having a handle element on one end thereof, the opposite end of the blank when formed to tubular outline being spaced substantially from the first named end, and a supplemental bridging strip having a handle element spaced circumferentially of said body member from said first named handle element, said handle elements in operative position being disposed in outwardly converging relation to provide a stable handle for the cup.

11. A handled cup of fibrous material comprising a body member of generally tubular form including a body sheet having ends spaced substantially from one another, said sheet having handle members on said ends normally disposed in concentric parallel relation to the body member, and a supplemental strip bridging the space between said ends to complete the peripheral outline of the cup, said strip having the sides thereof adhesively secured to said respective spaced ends with at least one of said sides disposed internally of the adjacent sheet end with which it is associated, said handle members having free extremities separate from one another and being capable of erection from said concentric position to an outwardly projecting position for use.

HENRY SCHACHT.