

May 13, 1958

H. CAREW

2,834,533

PAPER CUP WITH REMOVABLE HANDLE

Filed March 8, 1954

3 Sheets-Sheet 1

Fig 1

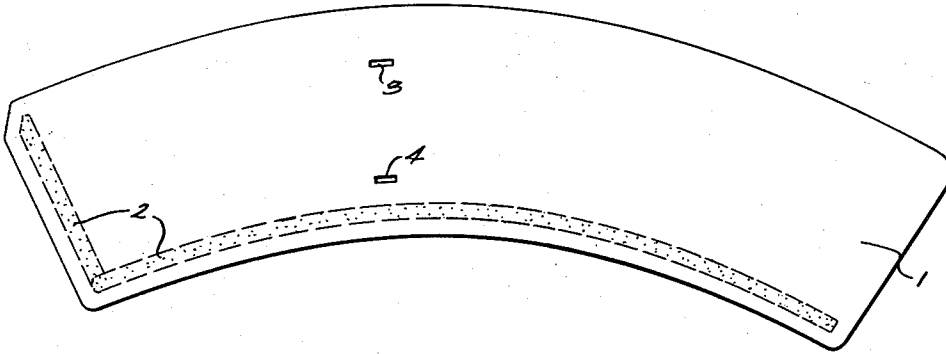


Fig 2

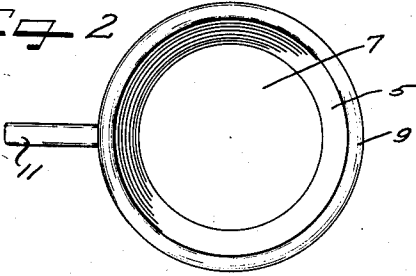
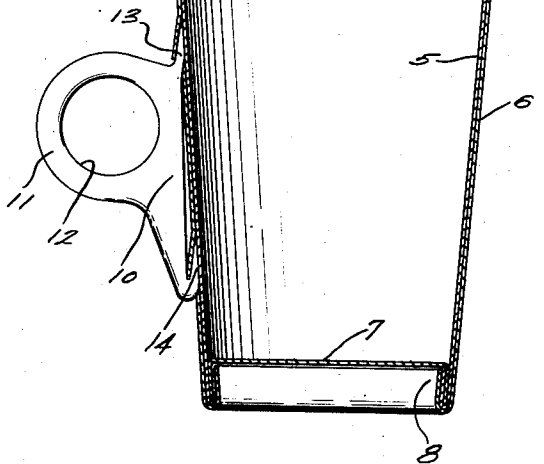
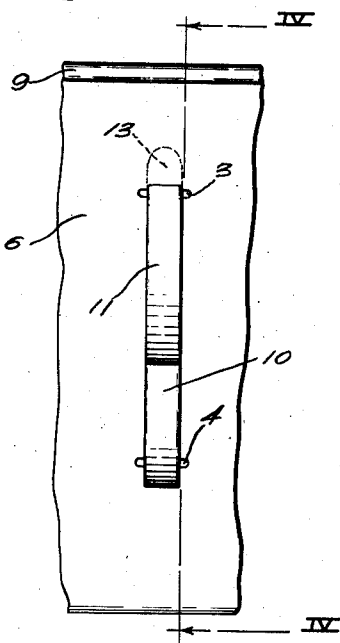


Fig 4

Fig 3



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Fig 1

Fig 2

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Fig 5

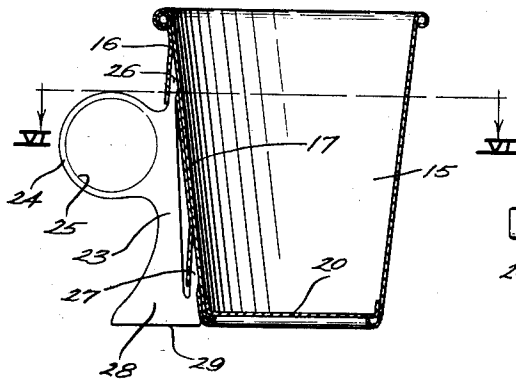


Fig 6

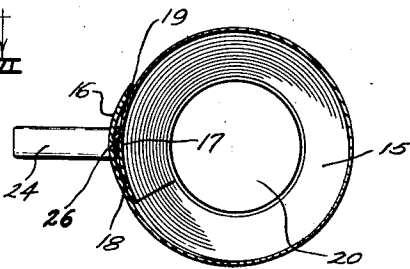


Fig 7

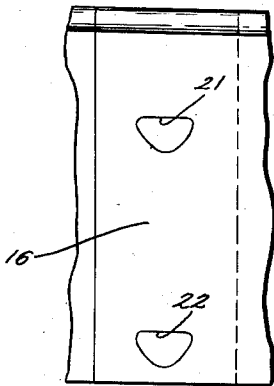
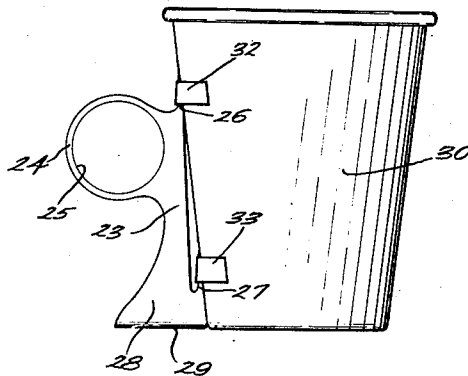


Fig 8



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Fig

Fig

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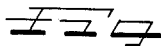
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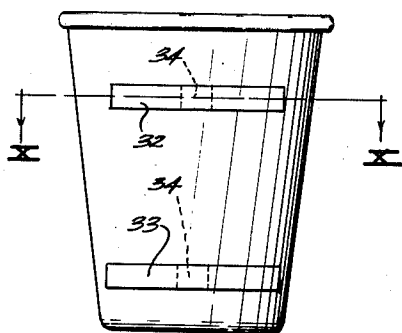
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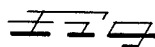
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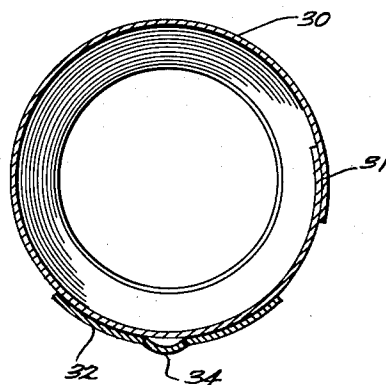
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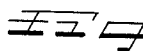
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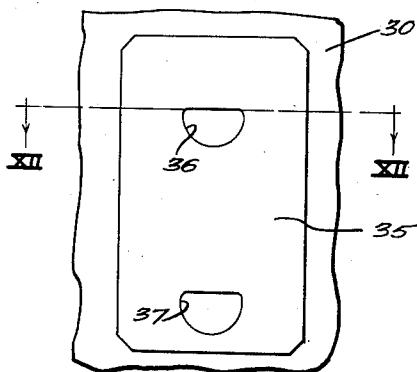
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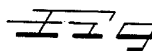


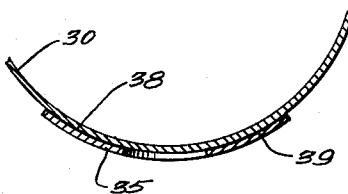
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2,834,533

PAPER CUP WITH REMOVABLE HANDLE

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Application March 8, 1954, Serial No. 414,841

9 Claims. (Cl. 229—52)

The instant invention relates to improvements in a paper cup with removable handle, and more particularly to a paper cup so constructed that a handle of different material may readily and easily be attached and disengaged from the cup, although the invention may have other uses and purposes as will be apparent to one skilled in the art.

In the past, it has many times been found desirable to have a handle on a paper cup, such for example, as a paper drinking cup. This was especially true when the cup was utilized to contain a hot liquid when the temperature of the contents might prove uncomfortable to the fingers of the user. It was also found desirable, when drinking from a paper or temporary cup in moving vehicles, such as trains and airplanes, when a handle would not only avoid contact with a hot surface, but would also provide means for holding the cup or container steadier, or would steady the container to a greater extent when resting upon a surface.

In the past, several attempts have been made to provide handle means for temporary cups or containers. Frequently, a handle made of the same material as the cup or container was glued to the body of the container, but with a hot liquid content, there was extreme danger of that glue giving way. Again, handles were formed in the wall of the container, to be bent outward when used, but such construction is prohibitively expensive for most practical purposes, and at best furnished only an unsteady and insecure engagement for the hands of the user. In other instances, complete holders were provided, but such a holder is highly expensive, has material weight and takes up considerable storage room. Consequently, for vehicle use a holder would be highly objectionable due to the added weight and storage room necessary, and the expense of the holder renders it objectionable for many other locations.

With the foregoing in mind, it is therefore an important object of the instant invention to provide a paper cup or temporary vessel and a removable handle therefor, the handle being preferably made of different material, and while the cup or vessel may be discarded after a single usage, the handle would be retained for repeated usages.

Another object of the invention resides in the provision of a paper cup or other temporary vessel provided with means whereby a substantially permanent handle may be easily and positively engaged with the cup or vessel and is easily removed therefrom, only one simple movement being necessary in either case.

A further feature of the invention resides in the provision of a temporary container embodying means to slidably receive a portion of a lightweight relatively rigid and substantially permanent handle, which handle alone occupies very little space when not in use.

A further feature of the invention resides in the provision of a paper cup so constructed as to accommodate a

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simple form of handle which may be easily slipped on the cup or container and as easily slipped off.

Another object of the invention resides in the provision of a temporary container designed to accommodate a simple form of handle which may be easily engaged with the container, and which handle has a depending portion with a flat undersurface to rest against a surface upon which the container may be seated.

It is also a feature of this invention to provide a combination of a temporary container with a removable handle therefor, the handle being of substantially permanent character.

Still another object of the invention resides in the provision of a paper cup or other temporary vessel provided on its side wall with socket means for receiving projecting means on a simple form of handle, the arrangement being such that the elevation of the container and its contents by the handle only tends to tighten the engagement of the handle with the container.

A still further object of the invention resides in the provision of a paper cup equipped with means to removably accommodate a handle of different material.

Also an object of the invention is the provision of a new and novel handle readily attachable to a temporary vessel.

While some of the more salient features, characteristics and advantages of the instant invention have been above pointed out, others will become apparent from the following disclosures, taken in conjunction with the accompanying drawings, in which—

Figure 1 is a plan view of a body blank utilized in making one form of container embodying principles of the instant invention;

Figure 2 is a top plan view of a container made from the blank of Fig. 1, and equipped with a removable handle embodying principles of the instant invention;

Figure 3 is a fragmentary enlarged side elevational view of the structure of Fig. 2 illustrating the application of the handle;

Figure 4 is a transverse vertical sectional view taken substantially as indicated by the line IV—IV of Fig. 3, looking in the direction of the arrows;

Figure 5 is also a vertical sectional view taken substantially in the same location as Fig. 3, but illustrating a different form of container and a differently shaped handle;

Figure 6 is a plan sectional view of the structure of Fig. 5 taken substantially as indicated by the line VI—VI of Fig. 5;

Figure 7 is an enlarged fragmentary side elevational view of the cup of Figs. 5 and 6, with the handle removed;

Figure 8 is a side elevational view of a cup of somewhat different construction, equipped with the handle of Figs. 5 and 6;

Figure 9 is a side elevational view of the cup of Fig. 8 with the handle removed;

Figure 10 is a plan sectional view taken substantially as indicated by the line X—X of Fig. 9;

Figure 11 is a fragmentary side elevational view of a cup of still different construction to provide handle engaging means; and

Figure 12 is a fragmentary vertical sectional view taken substantially as indicated by the line XII—XII of Fig. 11.

As shown on the drawings:

It should be clearly understood that while several forms of temporary containers are herein illustrated and described, and two different forms of handles therefor, either handle may be utilized with any of the containers, if so desired.

In that form of the invention illustrated in Figs. 1 to 4

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inclusive, the container is a flat bottom paper cup having a double thickness wall or body portion. The body part of the cup is made from a single elongated blank of stock, seen in Fig. 1 and designated numeral 1. This blank prior to being rolled into the body part of the cup is provided with stripes of adhesive as indicated at 2. In the present instance the blank is also provided with a pair of vertically spaced apertures or slots 3 and 4. With a container of this type, the provision of the two openings 3 and 4 is all that is necessary in order to adapt the container for ready accommodation of a handle. The blank illustrated in Fig. 1 will be rolled from right to left to form a container body portion having inner and outer plies or layers 5 and 6. The adhesive 2 not only secures the wrapped body portion in proper position, but also adhesively unites a downwardly flanged bottom 7 to the body of the container, and the lower end portion of the body is turned upwardly as indicated at 8 around the flange of the bottom. A rim roll 9 is preferably provided around the mouth of the container.

It will be noted that when the container is formed the slots 3 and 4 occur in the outer layer 6, in a region where this layer is not secured to the inner layer 5. The slots are therefore open and form wall sockets for the ready reception of projecting means on a handle.

The handle itself may be made of any suitable material, and may be cut from a lightweight metal, may be satisfactorily cut or molded from a lightweight thermosetting plastic, or provided in any suitable manner. The handle illustrated in these figures of the drawings, as best seen in Fig. 4, comprises a body part 10 from which the hand engaging portion 11 projects laterally, and this portion is preferably provided with a finger opening 12. On the inner edge thereof, the body part of the handle is preferably provided with upper and lower upwardly extending projections 13 and 14. It will be noted that each of these projections taper from the place of securement to the body part 10 to a relatively fine or sharp edge, and it will also be noted that the inner faces of the projections are substantially flat and conform to the slope or taper of the container wall. It is a simple expedient, therefore, to grasp the handle by the projection 11, place the projections 13 and 14 against the wall of the container immediately below the slots 3 and 4, and slide the handle upwardly in contact with the container wall so that these projections 13 and 14 enter the openings 3 and 4, and interlock behind the outer layer 6 above the openings, as seen best in Fig. 4. A single movement of the handle is all that is necessary to effectively engage it with the container.

It will be noted that after the handle is attached to the container, and the container filled, any movement of the handle to elevate the container tends to tighten the engagement of the handle with the container. The handle therefore holds the container very firmly and the container and handle are so well engaged as to function as though they were integral parts.

After the contents of the container have been consumed, a simple downward movement of the handle frees it from the container, the container may be discarded, and the handle occupies little space when put in storage for its next usage. Obviously, the handle not only affords the user a more comfortable and stable grip, but maintains the user's fingers out of contact with the container wall, which is particularly desirable where a hot liquid is being consumed.

In Figs. 5, 6 and 7, I have illustrated an arrangement whereby a handle may be utilized with a single wall container, the body portion of which may be made of a blank similar in character to that seen in Fig. 1, but of less length. When rolled, the blank produces a container body 15 of a single thickness except for a relatively wide seam formed by overlapping marginal portions 16 and 17. These marginal portions are preferably secured to-

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gether adjacent their outer edges as indicated at 18 and 19, but not in the intermediate region.

The container is, of course, provided with a bottom 20 cemented to the body part and held in place additionally by a rolled margin of the body part at the bottom thereof.

The outer marginal flap 16 is provided with a pair of openings 21 and 22 therein, and these openings are, of course, made in the blank prior to the forming of it, as is the case with the structure of Fig. 1, and form slot-like wall sockets for the reception of the handle projections as above described.

In this instance, the handle, which may be made of the same material as the handle previously described, comprises a body 23, a hand gripping extension 24, preferably provided with a finger opening 25, and a pair of upwardly extending projections on the inner edge portion of the body part, 26 and 27, of substantially the same character as the projections 13 and 14 above described. In this instance, however, the handle also includes a depending portion 28 having a flat undersurface 29, which rests upon the same surface as the bottom of the container. Thus, when the handle is applied, and the container and handle are seated upon a surface, the handle steadies the container, and this is particularly desirable where a relatively small container, such as a sample cup, is utilized to eliminate the possibility of the container and its contents accidentally being knocked over. In this instance, the handle is applied and removed in the same manner as the previously discussed embodiment.

In Figs. 8, 9 and 10 I have illustrated a construction whereby a previously known form of container may be adapted for the reception of a handle. In this instance, a flat bottom container 30 is illustrated which has a relatively narrow seam as indicated at 31 made by a marginal overlap of parts of the blank, and this seam is fully secured together by adhesive. In this instance, a pair of spaced straps 32 and 33 of any suitable material, such for example as paper, are glued or equivalently secured in transverse disposition to the outer wall of the container 30. The straps are secured at the end regions only, and not in the intermediate region, to leave a central free loop or stirrup portion 34, which is shown in a rather exaggerated manner in Fig. 10. Either of the handles above described may be placed against the wall of the container, slid upwardly, and the projections thereon will readily engage in the stirrups or slot-like wall sockets 34-34 to effectively secure the handle to the container.

In Figs. 11 and 12 I have illustrated a still different structure for the attachment of a handle. In this instance the same container 30 may be utilized, and a strip of paper or other suitable material 35 is attached to the side wall of the container, this strip having upper and lower apertures or openings 36 and 37 therein to provide wall sockets. The strip is of course glued to the container along its side margins as indicated at 38 and 39 in Fig. 12, but is not secured to the container wall in the intermediate region or the region wherein the apertures 36 and 37 are located. It will be noted that where specific apertures are provided in a strip of the character of the strip 35, the apertures preferably have flat top bounding edges to better facilitate the entrance of the handle projections. With the structure of Figs. 11 and 12, either handle is connected with the container in the same manner as above described and is easily removed therefrom.

From the foregoing, it is apparent that I have provided a novel and highly economical container adapted for the ready securement and ready removal of a substantially permanent handle which may be repeatedly used, and which can be attached to the container by a simple upward movement, and removed therefrom by a simple downward movement. The handles are extremely economical, and highly durable, light in weight, occupy little room, and may be very carelessly handled without injury.

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It will be understood that modifications and variations may be effected without departing from the scope of the novel concepts of the present invention.

I claim as my invention:

1. In combination, a paper cup having at least one external slot-like wall socket, a reusable rigid handle for removable attachment to said cup, and an upward projection on said handle gradually decreasing in thickness away from the point of connection with the handle to enter said wall socket in an upward direction and establish a frictional wedging engagement therein.
2. In combination, a paper cup having at least one external slot-like wall socket, a reusable rigid handle for removable attachment to said cup, said handle having a body part and a projecting hand engaging portion, the body part insulating the user's hand from contact with the cup wall, and a projection on the opposite side of the body part from the hand engaging portion which projection decreases in thickness toward its free end for upward wedging engagement in said wall socket.
3. In combination, a paper cup having at least one external slot-like wall socket, a reusable rigid handle for removable attachment to said cup, said handle having a body part and a projecting hand engaging portion, the body part insulating the user's hand from contact with the cup wall, and a projection on the opposite side of the body part from the hand engaging portion which projection decreases in thickness toward its free end for upward wedging engagement in said wall socket, and said body part being shaped to contact the cup wall at a point spaced from said projection to stabilize the engagement of the handle and cup.
4. In combination, a paper cup having at least one external slot-like wall socket, a reusable rigid handle for removable attachment to said cup, and an upward projection on said handle gradually decreasing in thickness away from the point of connection with the handle to enter said wall socket in an upward direction and establish a frictional wedging engagement therein, and a depending portion on said handle extending outwardly from the cup when the handle is attached and having a flat undersurface to rest on the same surface as the cup bottom for stabilizing purposes.
5. In combination, a paper cup having upper and lower wall sockets, and a rigid reusable handle comprising a body part, a hand engaging portion extending from said body part and insulated from the cup by said body part, and a pair of upwardly extending spaced projections on the opposite side of said body part from said hand engaging portion for slidable engagement upwardly in said wall sockets, said projections each decreasing in thickness toward its free end to establish a wedging engagement tending to tighten as the cup is lifted by said handle.
6. A handle for removable attachment to the side wall of a paper cup having upper and lower wall sockets, said handle comprising a body part of rigid material, a hand engaging portion projecting laterally from said body part and having a finger opening therein whereby the body

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part of the handle insulates the hand from contact with the cup, and upper and lower projections on the opposite side of said body part from said hand engaging portion extending in an upward direction for insertion in the wall sockets of the cup.

7. A handle for removable attachment to the side wall of a paper cup having upper and lower wall sockets, said handle comprising a body part of rigid material, a hand engaging portion projecting laterally from said body part and having a finger opening therein whereby the body part insulates the hand from contact with the cup, and upper and lower projections on the opposite side of said body part from said hand engaging portion extending in an upward direction for insertion in the wall sockets of the cup, said projections gradually decreasing in thickness away from the point of securement to said body part to cause a frictional wedging engagement when inserted in the wall sockets of the cup.

8. A handle for removable attachment to the side wall of a paper cup having upper and lower wall sockets, said handle comprising a body part of rigid material, a hand engaging portion projecting laterally from said body part and having a finger opening therein whereby the body part of the handle insulates the hand from contact with the cup, and upper and lower projections on the opposite side of said body part from said hand engaging portion extending in an upward direction for insertion in the wall sockets of the cup, the lower projection extending from the body part farther than the upper projection to accommodate said handle to a tapering cup wall.

9. A handle for removable attachment to the side wall of a paper cup having upper and lower wall sockets, said handle comprising a body part of rigid material, a hand engaging portion projecting laterally from said body part and having a finger opening therein whereby the body part insulates the hand from contact with the cup, and upper and lower projections on the opposite side of said body part from said hand engaging portion extending in an upward direction for insertion in the wall sockets of the cup, and a depending portion on said body part provided with a flat undersurface disposed sufficiently below the body part to contact and rest upon the same surface as the cup bottom for stabilizing purposes.

References Cited in the file of this patent

UNITED STATES PATENTS

1,143,898	Fournier	June 22, 1915
1,920,330	Towns	Aug. 1, 1933
2,024,294	Kirsch	Dec. 17, 1935
2,082,005	Jenett	June 1, 1937
2,128,466	Machotka	Aug. 30, 1938
2,222,741	Bush	Nov. 26, 1940
2,306,168	Jopson	Dec. 22, 1942
2,424,277	Klein	July 22, 1947
2,459,658	Klein	Jan. 18, 1949
2,652,971	McFarland et al.	Sept. 22, 1953
2,723,075	Mitchell	Nov. 8, 1955