C. W. MERGI

CUP CARRYING CONTAINER

Filed June 26, 1964

INVENTOR.

Carlton W. Mergi

BY

Joseph P. _____

ATTORNEY.
The present invention relates to an improved cup carrying container.

As is well known, the coffee break is a common phenomenon of our present day society. Frequently the coffee is not consumed where it is poured and therefore has to be carried to another area, usually in paper cups. In the past the carrying of paper cups was highly impractical and a nuisance. In this respect the cups had to be carried by gently holding the rims thereof to avoid burning the fingers or instead the cups were packed into paper bags which had to be handled delicately and held with both hands to avoid spilling. It is with a cup carrying container which provides an entirely new concept of carrying cups and which overcomes the above enumerated shortcomings that the present invention is concerned.

It is accordingly the primary object of the present invention to provide a cup carrying container which is capable of mounting a plurality of liquid carrying cups in an extremely stable manner during transit. A related object of the present invention is to provide a cup carrying container into which cups may be easily inserted and from which they may be easily removed, notwithstanding that they are held in an extremely stable manner during transit.

Another object of the present invention is to provide an improved cup carrying container which permits it to be set down on a surface while mounting cups therein without tipping.

A further object of the present invention is to provide an improved cup carrying container which can be used equally well both with cups having projecting lower rims and with cups in which the lower portions do not have such rims.

A still further object of the present invention is to provide an improved cup carrying container which may be fabricated at relatively low cost in an extremely simple and expedient manner from planar sheets of material without the requirement for complex gluing, bending, or forming operations.

Yet another object of the present invention is to provide an improved cup-carrying container which lies flat for storage and can be formed to mount cups by mere bending. Other objects and attendant advantages of the present invention will readily be perceived hereafter.

The present invention relates to an improved cup carrying container which is fabricated from a sheet of substantially planar material, such as light cardboard, which has scoring therein for facilitating it to be bent to a desired configuration prior to use, and has configurations of cups to be carried therein cut out therefrom. Each of the cutout portions for receiving a cup has a configuration including an upper tab which acts not only to retain the cup mounted on the cardboard but also firmly maintain the cup cover in its seated position to thereby tend to obviate spillage. In addition each of the cutouts has a lower tab in opposition to the upper tab for either providing latching engagement with a cup having a rim or for providing a shelf for supporting the lower edge of a cup which is rimless. The vertical sides of the cutout tend to engage the sides of the cup to provide a stabilizing effect on the cups in transit. In addition, a handle is provided in the container by punching out a portion of the planar sheet to permit the hand to be inserted therethrough. However, the punched out portions are not completely severed but are hinged to provide a blunt bearing surface against a person's fingers, thus enhancing the comfort with which the container may be carried. Furthermore, the openings in the planar sheet-like member for receiving the cups may have scored portions associated therewith for permitting the height of the cutout to be varied to accommodate cups of different sizes. Various arrangements are provided for causing the cup carrying container to be self-standing.

The present invention will be more fully understood when the following portions of the specification are read in conjunction with the accompanying drawings wherein:

FIGURE 1 is a plan view of a planar sheet-like member in an unfolded storing condition in accordance with a first embodiment of the present invention;

FIGURE 2 is an end elevational view of the container of FIGURE 1 in its folded condition and showing how cups are mounted therein;

FIGURE 3 is a side elevational view of the cup carrying container shown in FIGURE 2;

FIGURE 4 is a plan view of the container shown in FIGURES 1–5;

FIGURE 5 is a fragmentary cross sectional view taken substantially along line 5–5 of FIGURE 3 and showing the manner in which a lower tab supports a cup having a rim on the bottom thereof;

FIGURE 6 is a fragmentary view of an alternate embodiment of the present invention showing how the lower tab may be bent to provide a ledge for supporting a cup which does not have a rim on the lower edge thereof;

FIGURE 7 is a view taken substantially along line 7–7 of FIGURE 6 and showing how a cup without a pronounced lower rim may be supported;

FIGURE 8 is an alternate modification of the present invention showing a construction which may be utilized to vary the size of the cutout to accommodate cups of different heights;

FIGURE 9 is a view of an alternate modification of the present invention showing how the container of FIGURE 1 may be modified to permit it to be self-standing;

FIGURE 10 is a view taken substantially along line 10–10 of FIGURE 9;

FIGURE 11 shows a modified embodiment of the present invention wherein the container is self-standing;

FIGURE 12 is a view of still a further modified type of self-standing type of container;

FIGURE 13 shows a modified form of cup receiving cutout which may be utilized in conjunction with all of the embodiments of the present invention; and

FIGURE 14 shows an adjustable modification similar to FIG. 13.

In FIGURES 1–5 a first embodiment of the present invention is disclosed. In its normally flat storing condition the container 10 consists of a flat sheet of cardboard or the like 11 which is substantially rectangular in form except that the end portions are cut away as at 12 to make handle portions 13 stand out more prominently (FIG. 3). Spaced equal amounts from the centerline of sheet 11 are scored lines 14 and 15 which permit sheet 11 to be folded from its condition shown in FIGURE 1 to its condition shown in FIGURES 2, 3, 4 and 5.

A plurality of cup receiving cutouts 16 are provided in sheet 11 and each of these are preferably identical and therefore the description of one will suffice. Each cutout 16 includes a downwardly extending upper tab 17 and an upwardly extending lower tab 18. At each side of tab 17 is a laterally extending slot 19 for receiving the rim 20 of cover 21 mounted on cup 22. When cup 22 (FIGURE 5) having a pronounced lower rim 23 is to be mounted into cup carrying container 10, it is merely
necessary to slip rim 23 over upstanding tab 18 so that the rim rests within downwardly extending cutout portions 24 and thereafter push the cup so that the upper rim 20 is received within slots 19 and is held in latching engagement by downwardly extending tab 17 which, in combination with slots 19, performs the dual function of retaining cup 22 in position and also maintaining cover 20 firmly seated on the edge of cup 22. When cup 22 is in the position shown in FIGS. 2, 5–2, the sides 25 of cutout 16 tend to engage the side surface of cup 22 to thereby further stabilize said cup in its mounted position.

It is to be noted from FIGURES 1–5 that cutouts 16 on one side of container 10 are staggered with respect to cutouts 16 on the other side. This not only permits the container in its folded cup carrying position to be relatively thin but also tends to cause the sides of opposed cups 22 to engage each other (FIGURE 4) to thereby further stabilize the mounting of said cups in said container.

The cup carrying container 10 is provided with a handle 26 which consists of opposed handle portions 13 (FIGURE 1). More specifically, each handle portion 13 is formed by shearing an elongated section 27 at each end of sheet 11 along line 28 while merely scoring the portion 29 between the ends of line 28. This permits portions 27 to be turned inwardly as shown in FIGURE 2 to thereby provide an aperture 30 at each end of sheet 11 for receiving a person's fingers. In addition, it will be noted that the bending of portions 27 inwardly provides a relatively large bearing area for resting on a person's fingers to thereby prevent the edges of opening 30 from cutting into a person's hand.

It will be readily appreciated that sheets such as 11 may be very conveniently stored because they occupy relatively little space and in addition can be set up for use by merely bending sheet 11 as described in detail above. Furthermore, the container of FIGURES 1–5 can be very easily carried with one hand thereby permitting a person to use his other hand for opening doors and the like, which is difficult with the other types of carrying arrangements described above.

To withdraw a cup 22 from container, it is merely necessary to reverse the insertion procedure by slipping the rim of the cup past tab 17 and thereafter lifting it from tab 18.

A modified form of the present invention is shown in FIGURES 6 and 7. The entire container may be identical to that shown in FIGURES 1–5 except that a scored line 31 is provided along the lowermost portion of cutouts 24 so that lower tabs 18 may be bent outwardly as shown in FIGURE 7 to support a cup 22 which does not have a pronounced rim at its lower edge. It will be appreciated however that the embodiment of FIGURES 1–5 may also function in this manner without scoring 31 but that the scoring enhances the ease with which tab 18 may be formed into a shelf to support cups which do not have a pronounced rim.

In FIGURE 8 a still further modification of the present invention is disclosed which may be applied to any of the foregoing embodiments. In this embodiment a plurality of scored lines 32 and 33 are provided below tab 18 at the edge of cutout 16. The purpose of the scored line is to cause cutout 16 to be capable of receiving a plurality of different size containers. More specifically, if the height of the containers should exceed the distance between the upper tab 17 and lower tab 18, a downward force on lower tab 18 as a result of the upper rim of the container moving under upper tab 17 will cause tab 18 to fold along line 32 or 33 to thus increase the distance between tabs 17 and 18. Furthermore, the lower rim of the container will enter the slots formed by the separation of sheet 11 along portions of scoring lines 32 and 33 underlying cutouts 24.

In FIGURES 9 and 10 a still further embodiment of the present invention is shown wherein a hole 34 is provided adjacent the lower scored line 14 of the folded container and scored lines 35 and 36 are caused to extend laterally therefrom and terminate at downwardly extending score lines 37 and 38. This embodiment is utilized for permitting the carrying container 10' which may be identical to that shown in FIGURES 1–5. In all other respects, to be self-standing in the event that the person desires to place the container on a supporting surface. By merely inserting a finger into hole 34 and pulling tabs 39 (FIGURE 10) outwardly to thereby underlie the lower edges of the cup within cutouts 16 many points of support will be provided for the cups in the container. The foregoing structure will be stable, especially considering that it rests both on the lower edges of tabs 39 and the portion of sheet 11 between scored lines 14 and 15. It will be appreciated that when tabs 39 are pulled outwardly the sheet 11 will tear along scored lines 14 and 35 and 14 and 36 and the tabs 39 will bend relative to sheet 11 along lines 37 and 38. It will be appreciated that the foregoing structure is associated with both sides of the container, as can be seen from FIG. 10.

In FIGURE 11 a still further embodiment of the present invention is shown which is also self-standing. In this embodiment of the invention the cutouts 16" may be identical to cutouts 16 of FIGURES 1–5 and handle portions 13' may be identical to handle portions 13 of FIGURES 1–5, including inwardly extending tabs, not shown, corresponding to tabs 27. However, in this embodiment scored lines 14' and 15' are provided in sheet 11' in such a manner that they extend in a direction which is substantially perpendicular to the direction of the cutout handle rather than parallel thereto as in FIGURES 1–5. It will be readily appreciated that the cup carrying container 10" of FIGURE 11 may be carried in the same manner as that of the embodiment of FIGURES 1–10. However, if it is desired to set the container down on the surface while it is loaded with cups, it is merely necessary to spread halves 40 and 41 apart so that the container 10" will be self-standing along its lower edges. It will be appreciated that the embodiment of FIG. 11 may include the subject matter of FIGS. 6, 7 and 8, if desired.

In FIGURE 12 a still further type of self-standing container 10"" is shown which consists of a substantially frusto-pyramidal shell 42 having sides 43, 44, 45 and 46 each containing a cutout 16"" for receiving a cup. Cutout 16"" may be identical to cutouts 16 of FIGURES 1–5, or may be modified as in FIGURES 6, 7 or 8. In addition, cutouts 30" are provided in each side wall so that a person may span the top edges of the container to carry it. This container, because of its frusto-pyramidal configuration may be nested with like containers to thereby save space when the containers are stored prior to use. As noted above, the advantage of this particular container resides in its ability to be self-standing. If desired, a cardboard bottom 47 may be attached to the lower edges of each of the side walls so that the internal portion of the container may be used to carry other food products, such as sandwiches or the like. However, it will be noted that if the container is utilized in this manner with a permanently installed bottom, its nesting capacity is destroyed.

In FIGURE 13 a still further embodiment of the present invention is shown. This embodiment can be applied to any of the preceding embodiments and relates to a different type of cutout arrangement for receiving cups.

More specifically, the cutout is made by actually shearing sheet 11" along lines 49, 50, 51, 52 and 53, as shown. However, the ends of lines 51 and 52 are connected by scoring 54 and the ends of lines 50 and 53 are connected along scoring 55. Essentially, therefore, there are two cutout halves 56 and 57 hinged to sheet 11" by scored
portions 54 and 55. Thus when the cup 22 is mounted on lower tab 58 in the same manner as noted above with respect to tab 18 of FIGURES 1–5, cutout halves 56 and 57 will swing backwardly as the cup is pushed into position. However, halves 56 and 57 may bear against the sides of the cup to further stabilize it. In addition, it is to be noted that since the actual cutaway portions are not formed in sheet 11” until such time as the cup is inserted into position, the face of sheet 11 may be used as uninterrupted advertising surface.

If desired, the spacing between scored lines 14 and 15 of FIG. 1 may be increased so that the inside space between the folded halves of sheet 11 may be used to carry sandwiches, or the like. Also, while the containers have been shown with four cutouts, it will be appreciated that any desired number of cutouts may be provided.

In FIGURE 14 a cutout similar to that of FIGURE 13 is shown wherein lines 60, 61, 62, 63 and 69 are sheared, and scored lines 64 and 65 are provided between the ends of sheared lines 61–62 and 60–63, respectively. Thus, the embodiment of FIGURE 14 is provided with cutout halves 66 and 67 which are similar to cutout halves 56 and 57 of FIGURE 13. However, in addition scored lines 78 and 79 are provided underlying sheared lines 62 and 63, respectively, so that if the cup is of greater height than can be accommodated by the opening of flaps 66 and 67, the scored lines 78 and 79 will permit flaps 68 to yield to accommodate said cup of greater height.

If desired, the planar sheet-like members utilized in fabricating the improved cutout carrying containers of the present invention may consist either of pure plastic, instead of the cardboard noted above, or may consist of cardboard which is coated with a plastic-like material for the purpose of water proofing the cardboard and imparting greater strength and durability to the material to thereby permit it to be reused if desired.

While preferred embodiments of the present invention have been disclosed, it will be appreciated that it is not restricted thereto but may be otherwise embodied within the scope of the following claims.

What is claimed is:

1. A cup carrying container for carrying a cup having an upper rim and a removable cover mounted on said upper rim, comprising a planar sheet-like member having a cutout receiving cutout therein of substantially the configuration of a cross section of a portion of said cups, each of said cup receiving cutouts including an upper downwardly extending tab being flanked at its extremities by substantially vertically extending slots having upper horizontally extending peripheral edges for bearing down on the removable cover mounted on said upper rim of said cup, said cup receiving cutout including substantially vertical opposite edge portions spaced substantially from each other and lying inwardly of the outer extremities of said laterally extending slots for tending to exert lateral stabilizing pressure on the side of said cup, and a lower tab extending upwardly in opposition to said upper tab for either providing an interlocking latching engagement with a lower rim of said cup or for being deflected laterally for supporting the bottom of a substantially rimless cup, and handle means in said planar member located above said cup receiving cutout for permitting insertion of a person’s fingers to permit said container to be carried.

2. A cup carrying container for carrying a plurality of cups individually comprising a planar sheet-like member having a plurality of cutout receiving cutouts therein of substantially the configuration of a vertical cross section of a portion of said cups, each of said cup receiving cutouts including an upper downwardly extending tab lying in the plane of said sheet-like member for providing latching engagement with said upper rim of said cup, said cup receiving cutouts including substantially vertical opposite edge portions lying inwardly of the outer extremities of said cutouts for tending to exert lateral stabilizing pressure on the side of said cups, a lower tab extending upwardly in opposition to said upper tab and lying in substantially coplanar relationship with said planar sheet-like member for providing an interlocking latching engagement with lower rims of said cups or for being deflected laterally for supporting the bottom of substantially rimless cups, scoring extending across a midportion of said planar sheet-like member for permitting it to be folded substantially in half to provide two opposed sides, handle means formed by handle cutouts lying in substantially facings relationship above said cup receiving cutouts for permitting insertion of a person’s fingers to permit said container to be carried when said planar sheet-like member is folded along said scoring, at least one of said cup receiving cutouts being located in each of said opposed sides, said cup receiving cutouts in said opposed sides being staggered relative to each other to permit cups carried by said cup receiving cutouts to lie in staggered relationship with respect to each other.

3. A cup carrying container as set forth in claim 2 wherein said cup receiving cutouts are staggered an amount which permits the sides of said cups to tend to contact each other to thereby tend to provide a stabilizing contact with each other when said container is being carried.

4. A cup carrying container as set forth in claim 3 wherein at least one of said handle cutouts includes a hinge portion for permitting a portion of said planar sheet-like member originally within said cutout to be folded inwardly to provide a relatively blunt bearing surface for bearing engagement with a person’s hand.

5. A cup carrying container as set forth in claim 4 wherein each of said opposed handle cutouts includes a hinge portion and a cutout portion for permitting each of said portions of said planar sheet-like member within said cutout portion to be bent out of the plane of said sheet-like member for providing a relatively blunt surface for bearing on a person’s hand.

6. A cup carrying container of the general type comprising a plurality of cups each having an upper rim comprising a planar sheet-like member having a plurality of cutout receiving cutouts therein of substantially the configuration of a vertical cross section of a portion of said cups, each of said cup receiving cutouts including an upper downwardly extending tab lying in the plane of said planar sheet-like member for providing latching engagement with said upper rim, said downwardly extending tab being flanked at its extremities by substantially vertically extended slots having upper horizontally extending peripheral edges for bearing down on the removable cover mounted on said upper rim of said cup, said cup receiving cutout including substantially vertical opposite edge portions spaced substantially from each other and lying inwardly of the outer extremities of said laterally extending slots for tending to exert lateral stabilizing pressure on the side of said cup, and a lower tab extending upwardly in opposition to said upper tab for either providing an interlocking latching engagement with a lower rim of said cup or for being deflected laterally for supporting the bottom of a substantially rimless cup, and handle means in said planar member located above said cup receiving cutout for permitting insertion of a person’s fingers to permit said container to be carried.

7. A cup carrying container for carrying a plurality of cups individually comprising a planar sheet-like member having a plurality of cutout receiving cutouts therein of substantially the configuration of a vertical cross section of a portion of said cups, each of said cup receiving cutouts including an upper downwardly extending tab lying in the plane of said sheet-like member for providing latching engagement with said upper rim of said cup, said cup receiving cutouts including substantially vertical opposite edge portions lying inwardly of the outer extremities of said cutouts for tending to exert lateral stabilizing pressure on the side of said cups, a lower tab extending upwardly in opposition to said upper tab and lying in substantially coplanar relationship with said planar sheet-like member for providing an interlocking latching engagement with lower rims of said cups or for being deflected laterally for supporting the bottom of substantially rimless cups, scoring extending across a midportion of said planar sheet-like member for permitting it to be folded substantially in half to provide two opposed sides, handle means formed by handle cutouts lying in substantially facings relationship above said cup receiving cutouts for permitting insertion of a person’s fingers to permit said container to be carried when said planar sheet-like member is folded along said scoring, at least one of said cup receiving cutouts being located in each of said opposed sides, and tab members which may be pulled outwardly from...
said planar sheet-like member to rest on a surface and to provide support for the lower sides of said cups to thereby support said cup carrying container in an upright standing position with cups mounted in said cup receiving cutouts.

7. A cup carrying container for carrying a plurality of cups each having an upper rim comprising a planar sheet-like member having a plurality of cup receiving cutouts therein of substantially the configuration of a vertical cross section of a portion of said cups, each of said cup receiving cutouts including an upper downwardly extending tab lying in the plane of said sheet-like member for providing latching engagement with said upper rim, said downwardly extending tab being flanked at its extremities by slots for receiving said upper rim, said cup receiving cutouts including substantially vertical opposite edge portions lying inwardly of the outer extremities of said slots for tending to exert lateral stabilizing pressure on the side of said cups, a lower tab extending upwardly in opposition to said upper tab and lying in substantially coplanar relationship with said planar sheet-like member for providing an interlocking latching engagement with lower rims of said cups or for being deflected laterally for supporting the bottom of substantially rimless cups, scoring extending across a midportion of said planar sheet-like member for permitting it to be folded substantially in half to provide two opposed sides, handle means formed by handle cutouts lying in substantially facing relationship above said cup receiving cutouts for permitting insertion of a person's fingers to permit said container to be carried when said planar sheet-like member is folded along said scoring, at least one of said cup receiving cutouts being located in each of said opposed sides, and means for supporting said cup carrying container in an upright standing position with cups mounted in said cup receiving cutouts, said last mentioned means including said scoring extending in a vertical direction between said opposite sides of said container to permit opposite sides of said container to be opened outwardly a sufficient amount to cause the lower edges thereof to be mounted in a stable condition on a surface.

8. A cup carrying container as set forth in claim 7 including scoring underlying said bottom tab to permit said container to accommodate cups of different heights.

9. A cup carrying container fabricated entirely from a planar sheet-like member for carrying a plurality of cups comprising means for permitting said planar sheet-like member to be folded substantially into two side portions each having upper and lower edges, said side portions including cup receiving cutouts therein of substantially the configuration of vertical cross sections of cups to be received therein, each of said cup receiving cutouts including an upper downwardly extending tab lying in the plane of said sheet-like member for providing latching engagement with the upper rim of said cup, said downwardly extending tab being flanked at its extremities by upper slots for receiving said upper rim, said cup receiving cutouts including a lower tab extending upwardly in opposition to said upper downwardly extending tab, said lower tab being flanked by lower slots for either receiving the lower rim of a cup having a pronounced lower rim or for permitting said upwardly extending tab to be bent outwardly to serve as a shelf for a cup which does not have a pronounced lower rim, edge portions in each of said cutouts extending between said upper and lower slots, and handle cutouts in each of said side portions of said planar member located above said cup receiving cutouts for permitting insertion of a person's fingers to thereby permit said container to be carried when it is folded, said means for permitting said planar sheet-like material to be folded comprising scoring extending substantially perpendicularly to said lower edges of said side portions, said scoring permitting said opposite halves to be spread apart to in turn permit said container to be self-standing on said lower edges of said side portions.

10. A cup carrying container fabricated entirely from a planar sheet-like member for carrying a plurality of cups comprising means for permitting said planar sheet-like member to be folded substantially into two side portions each having upper and lower edges, said side portions including cup receiving cutouts therein of substantially the configuration of vertical cross sections of cups to be received therein, each of said cup receiving cutouts including an upper downwardly extending tab lying in the plane of said sheet-like member for providing latching engagement with the upper rim of said cup, said downwardly extending tab being flanked at its extremities by upper slots for receiving said upper rim, said cup receiving cutouts including a lower tab extending upwardly in opposition to said upper downwardly extending tab, said lower tab being flanked by lower slots for either receiving the lower rim of a cup having a pronounced lower rim or for permitting said upwardly extending tab to be bent outwardly to serve as a shelf for a cup which does not have a pronounced lower rim, edge portions in each of said cutouts extending between said upper and lower slots, and handle cutouts in each of said side portions of said planar member located above said cup receiving cutouts for permitting insertion of a person's fingers to thereby permit said container to be carried when it is folded, said means for permitting said planar sheet-like material to be folded comprising scoring extending substantially perpendicularly to said lower edges of said side portions, said scoring permitting said opposite halves to be spread apart to in turn permit said container to be self-standing on said lower edges of said side portions.

References Cited by the Examiner

UNITED STATES PATENTS

733,441 7/1903 Wade et al. 206—79
1,687,138 10/1928 Myers 211—73
2,058,542 10/1936 Wise 206—79
2,671,384 3/1954 Taylor 211—73
2,845,758 8/1958 Lowthian 206—79
2,860,774 11/1958 Ball 260—80
3,094,259 6/1963 Diehl 224—48.2

FOREIGN PATENTS

356,067 9/1931 Great Britain.

GERALD M. FORLENZA, Primary Examiner.
HUGO O. SCHULZ, Examiner.
J. E. OLDS, Assistant Examiner.