Feb. 19, 1952 A. R. BACKUS 2,586,199

HANDLE FOR VESSELS

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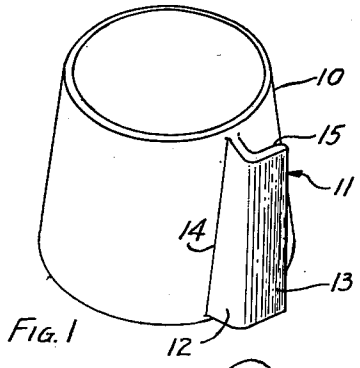


FIG. 1

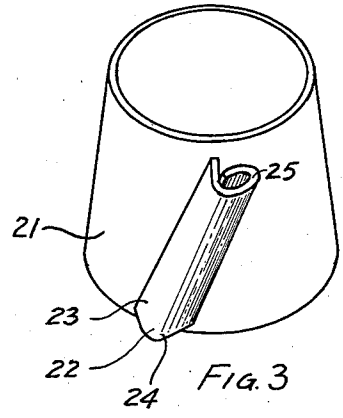


FIG. 3

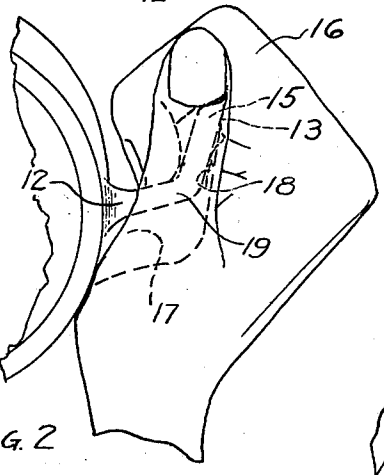


FIG. 2

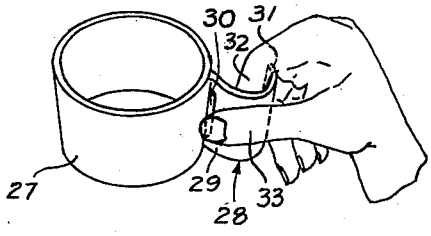


FIG. 4

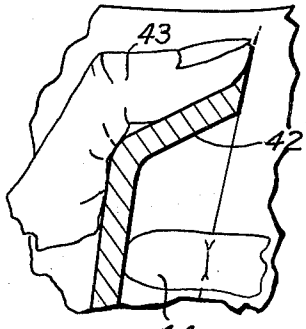


FIG. 6

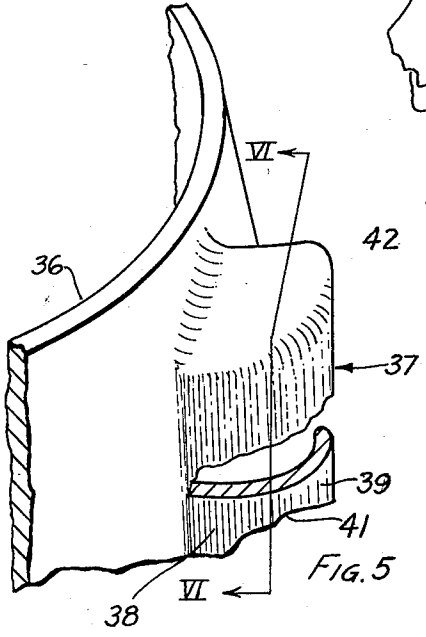


FIG. 5

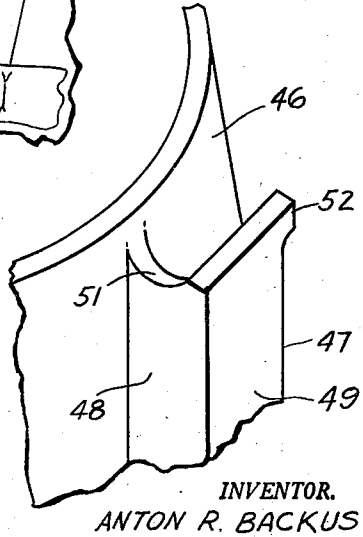


FIG. 7

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HANDLE FOR VESSELS

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7 Claims. (Cl. 65—13)

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My invention relates to table vessels such as cups, mugs and pitchers and has particular reference to a novel type of handle for vessels of this type.

The common type of handle for cups wherein a finger hole is provided is not the most desirable from a stability standpoint. When the cup is full and heavy the cup has a tendency to rotate about the finger of the user in one direction or the other, spilling the contents. This type of handle is inherently unstable and only the skill of the user makes it acceptable. Furthermore, this common type of handle is quite fragile, frequently getting broken in use and resulting in loss of the cup. Handles for pitchers commonly employ the same loop construction as in cup handles and are unstable for the same reason: the pitcher can rotate in the hand grasp of the user. Thus when pitchers are heavily loaded and full it is often difficult to maintain the pitcher in the desired position.

I have devised a handle for vessels that is inherently stable. The act of grasping the handle prevents rotation toward or away from the user. The handle is so designed that rotation of the vessel in a vertical plane is positively controlled, being as steady as the rotative movement of the user's forearm.

This handle, accordingly, is constructed to bring about maximum use of the physiologic construction of the human hand and wrist, giving a control of vessels that is not only positive and certain but is comfortable and natural to use, as well. Generally, my handle is an angle member, or L cross section member that has one edge secured to the vessel and which extends vertically. The user wraps his fingers about the outer flange of the angle pressing the attached flange into the palm or heel of the hand. This gripping of the handle by the fingers, and pressing the handle between fingers and heel gives great rigidity of grasp, and rotation in a vertical plane is possible only by rotating the wrist. In addition my handle is possessed of great design strength and hence is very durable.

It is therefore a general object of my invention to provide an improved handle for table vessels that prevents rotation of the vessels in the user's hand.

It is another object of my invention to provide a handle for cups and similar table vessels which handle utilizes a plurality of the fingers of the hand to thereby obtain a firmer grasp upon the handle and the vessel.

It is a further object of my invention to provide

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a handle wherein the fingers of the user encircle part of the handle and press another part of the handle into the palm of the hand of the user.

It is yet another object of my invention to provide an angle type of vertically extending handle that may be grasped by the hand of the user to prevent rotation in a vertical plane of the vessel to which the handle is attached.

Another object is to provide a handle for vessels wherein the handle is of pleasing appearance.

A still further object of my invention is to provide a handle for cups and similar table vessels that is rugged in construction and simple to manufacture.

Other objects and advantages of my invention will be apparent in the following description and claims considered together with the accompanying drawings in which:

Fig. 1 is a perspective view of a cup or mug provided with a handle embodying my invention;

Fig. 2 is a plan view of the cup of Fig. 1 illustrating the grasp of the hand of the user thereof;

Fig. 3 is a perspective view of a modified form of the invention wherein the outer end of the handle has a looped shape;

Fig. 4 is a perspective view of a modified form of the invention designed for gripping primarily between the forefinger and the thumb of a user;

Fig. 5 is a perspective view of a fragment of a pitcher or similar vessel provided with a modified form of the handle of my invention;

Fig. 6 is a sectional view along the line VI—VI of Fig. 5 showing the thumb and one of the fingers of the user, and

Fig. 7 is a fragmentary perspective view of still another modified form of the invention as applied to a pitcher or similar vessel.

Referring to Figs. 1 and 2, a vessel 10 may be of any desired shape or size and for illustrative purposes only there is shown a mug such as that employed for coffee, beer, or similar beverages to which may be secured a handle 11 embodying my invention. Basically, my invention may employ a generally vertically extending member that is angular or L shaped in cross section and hence may be referred to as an angle member. This term angle or angle member is well known in the mechanical structural arts and may include an inner flange 12 and an outer flange 13 and may have a generally transverse flat top portion 15. The edge of the inner flange 12 may be secured to the vessel 10 as along the line 14.

It will be appreciated by those skilled in the ceramic arts and the various other fluid plastic arts, such as the organic plastic fabricating arts,

that the handle 11 and the vessel 10 are preferably formed at the same time from homogeneous substances so that the handle is an integral part of the vessel. While for descriptive purposes it is convenient to refer to the handle as being attached or secured to the vessel, this is actually misdescriptive with respect to the usual fabricating processes. However, metal handles, wooden handles and others may be secured to a vessel separately as by rivets, screws, encircling bands, or other means.

Illustrated more particularly in Fig. 2 is the mode in which the hand of a user grasps the handle. There it will be noted that the fingers 16 encircle the outer flange 13 of the angle member and press against the inner surface of the inner flange 12. The tips of the fingers 16 press the inner flange member 12 against the heel 17 of the user's hand or palm and hence cause the handle 11 to be securely grasped with respect to direction toward and away from the user. Also the tips of the fingers press the outer flange member 13 outwardly into the palm or cup 18 of the user's hand. This provides great rigidity of grasp in a direction parallel to the inner flange 12. The vertically extending direction of the handle 11 as illustrated in Fig. 1 provides great rigidity of control in a direction parallel to the forearm of the user since the handle and vessel are in effect locked to the wrist action of the user. An additional element of rigidity is provided in that the thumb 19 of the user may be disposed across the top surface 15 of the handle.

While the angle member 11 may be attached to the vessel 10 in a direction parallel to the axis of the vessel 10, I have found that a more natural grip is obtained if the handle is canted with respect to this axis so that the top part of the handle is disposed away from the user as compared to the bottom part of the handle. This canting is particularly useful when the vessel 10 is rotated to deliver its contents in the usual manner reducing the amount of forearm bending required. While this handle may be described as generally vertically extending, I have found that inclinations of as much as 30° from vertical are practical and this figure is not critical or limiting but merely illustrative.

Illustrated in Fig. 3 is a vessel 21 provided with a handle 22 embodying a modified form of my invention. Again the handle is basically L shaped or angular, having an inner flange 23 and an outer flange 24 except that the outer-most tip of the outer flange 24 may be curled inwardly as at 25. The actual cross section of the handle is, therefore, in the shape of the numeral 6. It will be appreciated, however, by those skilled in the art that the entire tip of the handle could be solid and that the hole is provided for artistic effect and to conserve material. The net effect from a practical standpoint is that the outer-most leg of the L shape is fat or thick compared to the other leg of the L shape. The purpose is to provide a round outer portion which the fingers may grasp over a greater area since the grasp of the round part is essentially the same as when grasping a rod of similar diameter. For example, the radial dimension of the looped outer portion may be approximately an inch to obtain good grasp by the average man. This handle also may be canted, as explained in connection with Fig. 1, to facilitate tipping of the vessel 21.

Illustrated in Fig. 4 is still another modification of my invention which is particularly useful for small tea cups or demitasse cups wherein the

vertical extent of the cup is less than the normal vertical dimension of the user's hand. Accordingly, a small cup 27 may be provided with a handle 28 having an inner flange 29 and an outer flange 31. While this handle could, for utilitarian purposes, be strictly angular, as illustrated in Fig. 1, for decorative purposes I prefer to make the handle somewhat curved so that the cross section thereof may be described as J shaped. Also for decorative effect the handle 28 may be attached only at the top and bottom thereof to the vessel 27 providing an aperture 30.

While the entire hand of the user cannot encircle the handle 28 of Fig. 4, the same rigidity of grasp is obtained by virtue of the user's forefinger 32 being inserted inside of the loop of the handle, pressing the handle toward the thumb 33 of the user. This obtains rigidity in a direction toward and away from the user. Also the forefinger will press the curved part of the handle toward the adjacent finger obtaining rigidity in a direction transverse to this first direction. Rigidity against tipping is obtained due to the forefinger 32 fitting within the angle or bend of the handle 28 thus locking the motion of the cup directly to the position of the forefinger 32 and in turn locking the rotating motion of the cup to the hand of the user.

Illustrated in Figs. 5 and 6 is a modified form of my invention which I have found particularly suitable for pitchers and other heavy weight vessels that are lifted by a single hand of the user. A vessel 36, such as a pitcher or similar vessel, may have a handle 37 formed thereon constructed particularly in accordance with my invention. This handle may include an inner flange 38 as well as a curved outer flange 39, the two flanges being joined by a continuous, smooth curve at the region 41. At the top of the curved or J shaped member there may be disposed a bridge member 42 which spans the region from the vessel 36 to the outer-most flange 39 of the handle. This bridge 42 is preferably inclined at a substantial angle so that the user's thumb 43 may bear thereagainst. The fingers of the user may encircle the outer flange 39 and bear against that flange to urge the handle against the palm while the tips of the fingers 44 may press the flange 38 against the heel of the hand and the pad at the base of the thumb.

The provision of the inclined bridge 42 gives a wider area upon which the thumb may rest than is possible with the open ended constructions of Figs. 1 and 2. This gives greater bearing area for the thumb and consequently increased rigidity of grasp. While the cross section of the angle member of Fig. 5 is illustrated as curved or J-shaped, this again is a matter of design taste inasmuch as the strictly angular construction of Fig. 1 would suffice.

In Fig. 7 there is illustrated a still further modification of my invention wherein the thumb of the user does not bear against the whole top of the handle but instead, the outer side of the thumb bears against the outer flange. In that figure there is illustrated a fragment of a vessel 46 which may be a pitcher or similar heavy vessel and which is provided with a handle 47 of generally angular cross section, including an inner flange 48 and an outer flange 49. The top of the inner flange 48 may be circularly recessed as at 51 so that the user's thumb may rest in the recess and bear its outer edge against the inside of the outer flange 49. If desired, a projection 52 may be formed on the outer edge of the outer

projection 49 so as to limit the amount of upward movement of the fingers of the user grasping the handle 47. The handle of Fig. 7 is designed primarily to resist rotation of the vessel 46 toward the user as it is being used; for example, to pour liquid into glasses or similar containers.

As mentioned previously, various materials of construction and methods of construction of vessels embodying my invention may be employed as well as methods of attachment of handles thereto. Ceramics and organic plastics may be used as suitable materials from which to form the handle integrally with the vessel. Various castings may also be employed; such as from metal, plastic, or other material. The handles may be separately attached as previously mentioned, if this is deemed desirable. The various modifications illustrated have been inserted to indicate that large numbers of deviations in design may also be employed without departing from the true spirit and purpose of the invention. While the angle or angular shape is made up of flat or planar members joined together, this junction between the two angle portions need not be a severe angle as demonstrated. This junction between the planar members may be curved. In fact the whole handle may be curved, even to the point of having a cross section like a quarter of a circle. The basic consideration is a grip that forces the handle into the heel of the hand, also into the cup of the palm when gripped by the fingers.

For these and other reasons I do not limit myself to the precise embodiments illustrated, nor otherwise but claim herein all modifications as come within the true breadth and disclosure of my invention.

I claim:

1. In combination with a hollow receptacle having a continuous outer wall, a handle for said receptacle comprising an angle member having a pair of angularly related flanges having vertical dimensions greater than the horizontal dimensions, one edge of one flange being secured directly to said outer wall of the receptacle and with the angle apex of the angle member arranged in a generally vertically extended position, said one flange extending outwardly substantially perpendicularly to said outer wall, the other flange extending at an angle to the first flange and having an edge connected thereto along the apex of the angle, said other flange being spaced from the receptacle wall a distance sufficient to permit insertion of the finger tips of the user between the flange and the wall, the outer edge of said other flange being free of said outer wall.

2. A handle as defined in claim 1 wherein the angle apex of the flanges is rounded.

3. A handle as defined in claim 1 wherein a bridge is formed between the receptacle and the upper end of said outer flange to act as a thumb rest.

4. A handle as defined in claim 1 wherein a projection is formed on the outer edge of said other flange to act as a finger stop.

5. A handle as defined in claim 1 wherein the upper end of said one flange is notched to act as a thumb rest.

6. A handle as defined in claim 1 wherein the angle apex of the flanges is rounded and a bridge is formed between the receptacle and the upper end of said other flange.

7. A hollow receptacle having a continuous outer wall and a handle comprising an angle member formed from a pair of angularly related elongated flanges, one edge of one flange being secured directly to said outer wall of the receptacle, the angle apex of the angle member being arranged in a generally vertically extended position in the direction of the vertical axis of the receptacle, the other flange extending at an angle to the first flange and having an edge connected thereto along the apex of the angle, said other flange being spaced from the receptacle wall a distance sufficient to permit insertion of the finger tips of the user between the flange and wall, the outer edge of said other flange being free of said outer wall.

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