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Bernazzani

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[54] **FOLDING WIRE HANDLE FOR CUPS**

[75] Inventor: **Richard J. Bernazzani,** Roslindale, Mass.

[73] Assignee: **The United States of America as Represented by the Secretary of the Army,** Washington, D.C.

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[52] **U.S. Cl.** ..... **220/94 R,** 224/45 W

[51] **Int. Cl.**..... **B65d 25/28**

[58] **Field of Search**..... 220/94 R, 94 A, 95; D7/9, D7/70; 16/110 A, 114 A, 110 R; 294/27 H; 224/45 R, 45 P, 45 C, 45 W; 229/52 AW

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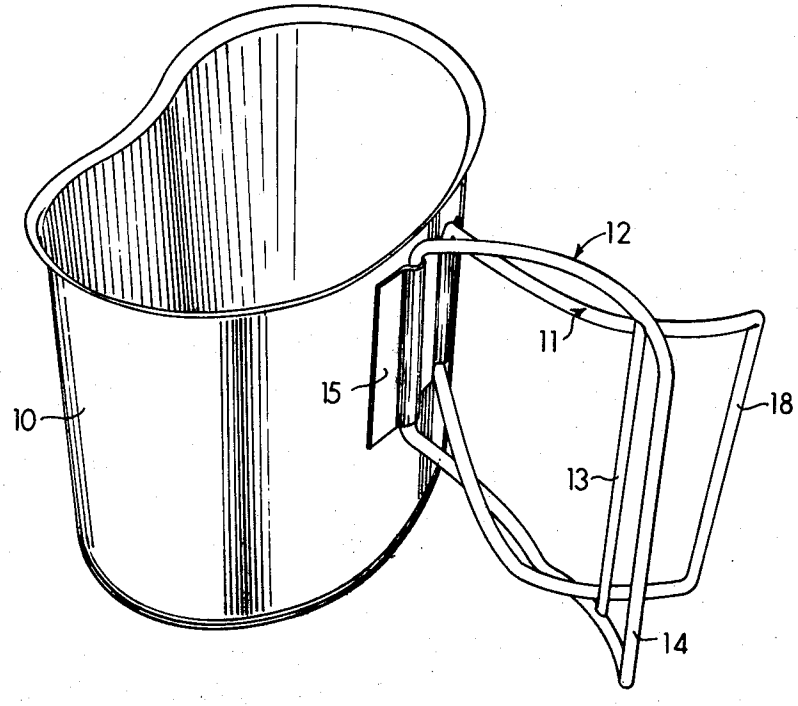
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Primary Examiner—William I. Price
Assistant Examiner—Allan N. Shoap
Attorney, Agent, or Firm—Edward J. Kelly; Herbert Berl; Charles F. Murphy

[57] **ABSTRACT**

A folding wire handle for a canteen cup or the like comprising two wire loops which may be swung from a stowage position closely abutting the sides of the cup to an extended position to form a handle for the cup, one of the loops having an additional wire member extending from the top to the bottom thereof to provide a stop means to limit movement of the loops relative to one another and to form a triangular gripping handle with the outer portions of the two loops.

4 Claims, 2 Drawing Figures



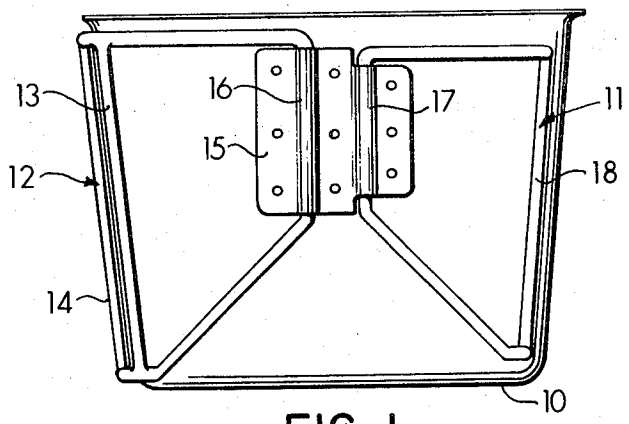


FIG. 1

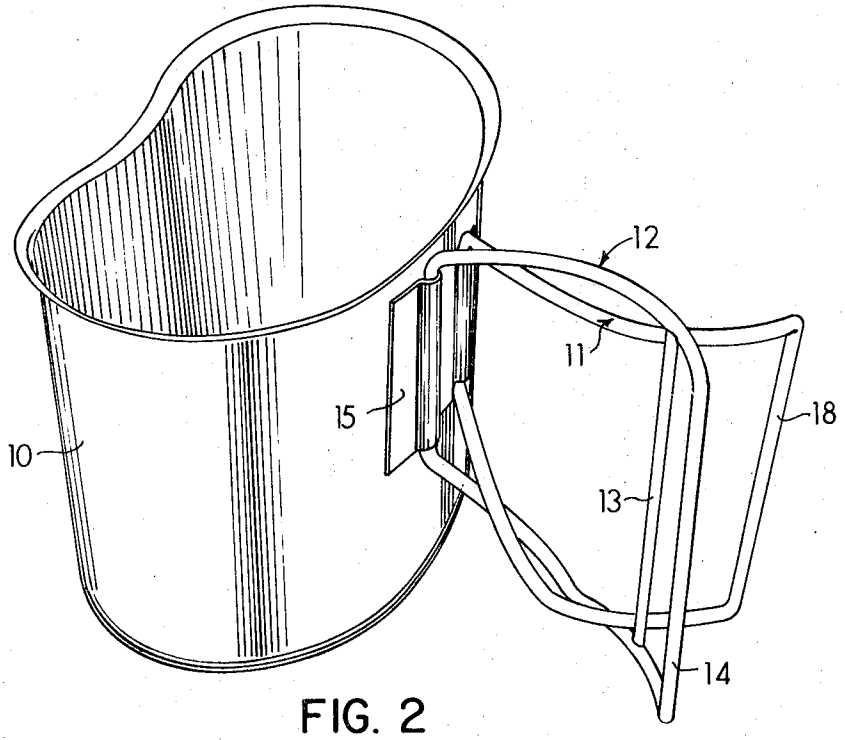


FIG. 2

FOLDING WIRE HANDLE FOR CUPS

BACKGROUND OF THE INVENTION

This invention relates to an improvement in folding handles for a canteen cup or the like and, more particularly, to a folding wire handle which provides a firm, positive gripping member which is not subject to inadvertent collapse or undesired movement.

Cups with folding handles have long been used by both military personnel and outdoosmen in situations where they will be away from normal eating and drinking facilities for any extended period of time. Under such circumstances, a canteen is used to carry a personal supply of drinking water or other beverage. In order to minimize the bulk of the equipment which must be carried, cups and other similar utensils are frequently provided with folding handles, while the cups themselves are often conformed to fit over the exterior of the canteen. The cup can then be carried in the same carrier as the canteen while occupying an absolute minimum of space.

For a number of years the standard military canteen cup has included a folding handle member comprising a flat strip of metal formed generally in a U-shape. One end of this U-shaped handle is hinged to the canteen cup in such a manner that the handle may be swung from its extended position to a stowage position wherein it extends down one side of the cup under the bottom and up the other side. A sliding keeper element is provided on the handle to engage prongs on the hinge to lock the handle in its extended or operating position. Numerous difficulties have been encountered with this handle configuration through inadvertent collapse of the handle when the sliding keeper has not been properly engaged or works itself loose from proper engagement during use. Too often such collapse seems to occur when the cup is filled with hot liquid, creating the possibility of burn injury and discomfort to the user in addition to the inconvenience of loss of the contents of the cup.

Other types of folding handles, including wire handles, have been used on canteen cups and the like but have been found lacking in stability or in the ability to provide a firm, positive gripping means. Still other types have been found to perform adequately but to be too complex to be acceptable from a cost, sanitation, weight or bulk standpoint.

SUMMARY OF THE INVENTION

The present invention provides an improved folding handle for a canteen cup or the like comprising two wire members of generally similar size and shape which are mounted on the exterior side wall of the cup for swinging movement from a stowage position wherein each of the loops closely abuts separate portions of the exterior of the cup to an extended position wherein the wire loops form a handle for the cup. One of the wire loops is slightly smaller than the other, such that it can pass at least partially through the other loop when both loops are in the extended position while the other loop includes an additional wire member which extends substantially vertically from the top of the loop to the bottom thereof near the outer portion of the loop. This additional member provides a stop means to limit movement of the smaller loop through the larger loop and forms a generally triangular gripping means with the outer portions of the two loops in their extended positions.

It is therefore an object of this invention to provide a folding wire handle for a canteen cup or the like which is not subject to inadvertent collapse. Another object is to provide a folding wire handle which forms a firm, positive gripping means for the cup. Still another objective is to provide a folding handle which is simple and inexpensive to manufacture, includes a minimum of parts and is easy to use, even when wearing gloves or mittens.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is an elevation view of a canteen cup showing the improved folding handle of the present invention in the stowage position.

FIG. 2 is a prospective view of a canteen cup showing the folding handle of the present invention in the extended or operating position.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to FIG. 1, a canteen cup **10** is shown with two folding handle members **11** and **12** in accordance with the present invention in their closed or stowage position closely abutting the curved exterior surface of cup **10**. The handle members **11** and **12** comprise closed wire loops formed generally in the shape of the letter D and formed to conform to the curvature of the exterior sidewall of cup **10** when the handle members are in their stowage position. As can be readily seen in FIG. **1**, the wire loops **11** and **12** are of generally the same shape and outline, although loop **11** is slightly smaller than loop **12** for a purpose to be described. Loop **12** is provided with an additional member **13** which extends substantially vertically from the top to the bottom of loop **12** near the outer portion thereof and parallel to the substantially vertical, straight outer member **14** of loop **12**.

Loops **11** and **12** are mounted on the exterior wall of cup **10** by mounting bracket **15** which is preferably spot-welded to the cup wall. Mounting bracket **15** supports the two loops in spaced relation and is formed to receive the inner portions of the loops in channels **16** and **17** therein. Channels **16** and **17** are sized to permit rotation of the loop portions therein such that the loops may be easily swung from their stowage position as shown in FIG. **1** to their extended position as shown in FIG. **2**. As can be seen in FIG. **1**, channel **17** in mounting bracket **15** is shorter than channel **16** therein to conform to the slightly smaller size of loop **11** and to locate loop **11** in proper alignment with loop **12** for a purpose to be described.

FIG. **2** shows the improved handle of the present invention in its extended or operating position. Wire loops **11** and **12** have been swung outwardly of the cup **10** with the curved portion of smaller loop **11** passing through loop **12** until it contacts the additional member **13** in loop **12**. At this point, further movement of loop **11** through loop **12** is prevented by member **13** and a generally triangular gripping means is formed by member **13**, outer member **14** of loop **12** and substantially vertical, straight outer member **18** of loop **11**. Again, as can be readily seen in FIG. **2**, grasping of this generally triangular gripping means will provide a firm, positive grip on the canteen since any movement of loops **11** and **12** is prevented by member **13** and the spacing

of member **13** and outer loop members **14** and **18** assures a gripping means having a substantial perimeter and thereby affording a comfortable, firm and positive grip thereon. Further, the spacing of channel members **16** and **17** in mounting bracket **15** serves to prevent any movement of the canteen cup relative to the handles when the latter are gripped as described.

It will be apparent that the only steps required to make the handle operable are to swing the loops **11** and **12** to their extended position generally perpendicular to the exterior of the cup **10** and to then grasp the gripping means formed by members **13, 14** and **18.** No keeper or other movable element is required and thus, no additional operation is necessary to lock the handle in its operating position. So long as the handle is grasped in this manner, there is no possibility of collapse, or indeed, of any movement of the handle loops relative to each other or of the cup relative to the handle. When it is desired to return the handle to its stowage position, it is merely necessary to swing the loops **11** and **12** back to their position abutting exterior wall of the cup **10.**

A further advantage may be obtained by proper sizing of loop **11** and the length of channel **17** in mounting bracket **15** in relation to the size of loop **12** to provide a slight degree of interference between the lower portion of loop **11** and the lower portion of loop **12** when the two loops are swung to their extended position. The lower portion of loop **11** will then frictionally engage the corresponding portions of loop **12** as the two loops come together in the extended position and this frictional engagement will maintain the two loops in their proper gripping position even when the handle is not being grasped by a hand. The cup may thus be put down as desired during use and the handle will remain ready to be grasped without any need to insure that it is in its proper operating position. This frictional engagement of the two loops offers no significant resistance when it is desired to swing the loops back to their stowage position.

It will therefore be evident that the present invention provides an extremely simple and uncomplicated folding handle means, while at the same time providing a handle means which is not subject to inadvertent collapse or undesired movement and which provides a comfortable and substantial gripping structure for the human hand. The large open area defined by the loops and the absence of any locking element to be manipulated make this handle easy to use even when gloves or mittens are being worn. These advantages, together with the minimum number of parts, low cost and ease of manufacture, afford a simple, but significant improvement in the art.

It is understood that various changes in the details, materials and arrangement of parts which have been herein described and illustrated in order to explain the nature of the invention may be made by those skilled in the art within the principles and scope of the invention as expressed in the appended claims.

We claim:

1. An improved folding handle for a cup having curved exterior sidewalls comprising two wire loops of generally similar size and shape which are mounted in spaced relation on the exterior side wall of said cup for swinging movement from a closed position wherein each of said loops closely abuts separate portions of said exterior sidewall of said cup to an extended position wherein said loops form a handle for said cup, one of said loops being adapted to pass at least partially through the other of said loops when both loops are in the extended position and the other of said loops having abutment means to limit movement of said first loop therethrough, whereby when said loops are in the extended position, said abutment means prevents relevant movement of said loops when the outer portions thereof are firmly gripped by a human hand.

2. An improved folding handle as in claim **1** wherein said abutment means comprises a wire member extending substantially vertically from the top of said loop to the bottom of said loop near the outer portion thereof.

3. An improved folding handle as in claim **2** wherein the outer portions of said loops and said abutment means are substantially parallel whereby said outer portions and said abutment means form a generally triangular gripping member when said loops are in their extended positions.

4. An improved folding handle as in claim **1** wherein at least a portion of said first loop is conformed to frictionally engage at least a portion of the other of said loops when said first loop is passed at least partially through said other loop whereby said loops are retained in said extended position by said frictional engagement.

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