July 11, 1961 D. C. KINNISON 2,991,907

HANDLE FOR PAPER CUPS

Filed Oct. 21, 1958

Fig.1

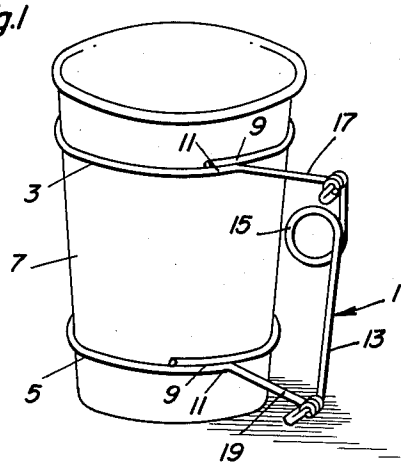


Fig.2

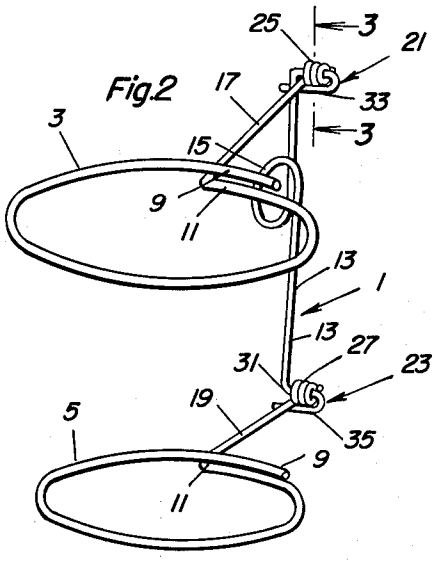


Fig.3

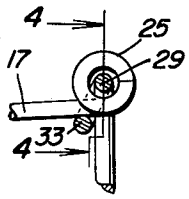


Fig.4

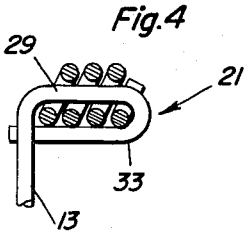
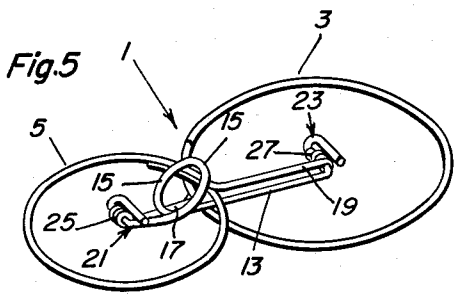


Fig.5



Daniel C. Kinnison

INVENTOR.

BY Clarence A. O'Brien and Harvey B. Jacobson

Attorneys

United States Patent Office 2,991,907 Patented July 11, 1961

2,991,907

HANDLE FOR PAPER CUPS

Daniel C. Kinnison, Briggsdale, Colo.

Filed Oct. 21, 1958, Ser. No. 768,736
3 Claims. (Cl. 220—85)

This invention relates to improvements in handles for paper cups of commerce.

The primary object of this invention is to provide a handle which is easy to apply to paper cups of different sizes, without crushing the cups, and by means of which the cups may be easily handled especially by children, and the likelihood of burning the hands is consequently prevented when, for example, a cup containing hot food or liquid is held in the hand.

Another object is to provide a paper cup holding handle in accordance with the foregoing which is foldable into compact form for storing in a small space and which is inexpensive to manufacture and will not slip out of a hand gripping the same.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a perspective view of the improved handle applied to a paper cup;

FIGURE 2 is an enlarged view of the handle in perspective;

FIGURE 3 is an enlarged fragmentary view in vertical section taken on the line 3—3 of FIGURE 2;

FIGURE 4 is an enlarged fragmentary view in vertical section taken on the line 4—4 of FIGURE 3, and

FIGURE 5 is a perspective view of the handle folded.

Briefly summarized, the folding handle is characterized by a hand-grip member on the one hand and upper and lower cup embracing and supporting rings. More particularly, the hand-grip member is constructed from a single length of wire of requisite rigidity and has an upper end provided with a right angularly bent U-shaped portion defining an upper loop. It also has a lower end provided with a correspondingly bent U-shaped portion providing a lower loop. These loops are parallel to each other and in the same plane and extend from one side of the hand-grip member. Each loop embodies spaced parallel upper and lower portions. The upper portions constitute hinging journals and the lower portions constitute limit stops. The hand-grip member is provided on an intermediate portion between the loops with an eye projecting from one side and constituting a suitable finger-grip. The upper and lower supporting rings are made from wire and are of split construction and are circumferentially expansible and contractible. Each ring has a radial outstanding shank on one side with a free terminal end bent upon itself to provide aligned helical coils which in turn define hinge knuckles, the knuckles being hingedly mounted on the respective hinging journals so that adjacent portions of the shanks may rest upon their respective limit stops.

Referring to the drawing by numerals, the handle, designated generally by the numeral **1**, comprises upper and lower relatively large and small rings **3**, **5**, respectively, for encircling a downwardly tapered paper cup **7** and frictionally gripping the cup adjacent its top and bottom. The rings **3**, **5** are each formed of resilient wire, preferably, and are split with lapped ends **9**, **11** so that said rings are expansible and contractible to encircle and frictionally grip cups **7** of different sizes.

The cup embracing and holding rings **3**, **5**, are carried by a substantially rigid wire, elongated hand-grip member

13 transverse thereto with a finger-grip eye **15** formed thereon at one side thereof, and the rings **3** and **5** are hingedly connected to the hand-grip member **13** by the folding means. The eye is situated between the ends of the hand-grip member **13**.

Radial shanks **17**, **19** are formed on the ends **11** of the rings **3**, **5** coplanar with the rings and integral therewith. The hand-grip member **13** is formed with terminal upper and lower, lateral, straight sided loops **21**, **23** at a normal angle to the remainder of the member **13** and at one and the same side of said member **13**. The shanks **17**, **19** extend into the loops **21**, **23** respectively, and are provided with terminal helical coils **25**, **27** respectively, surrounding and hingedly mounted on upper sides **29**, **31** of the loops **21**, **23**, the arrangement being such that the shanks **17**, **19** abut and rest directly on the lower sides **33**, **35** of said loops **21** ,**23** when the hand-grip member **13** is held upright with the loop **21** uppermost, and thereby hold the rings **3** and **5** extended forwardly from the hand-grip member **13** in parallel vertically spaced relation and transverse to the hand-grip member **13** and against downward swinging on said hand-grip member **13**, so that a cup inserted downwardly in the rings **3**, **5** will be held upright. However, the rings **3**, **5** may be swung on the loops **21**, **23** against opposite sides of the hand-grip member **13** into opposite overlapping relation, as shown in FIGURE 5, to fold the handle **1** compactly.

As will be seen, the described hinged connections provide one-way hinge joints between the rings **3**, **5** and the hand-grip member **13** breaking in a direction to permit the rings **3**, **5** to be swung on the hand-grip member **13** into a limit of movement in one direction and in which said rings **3**, **5** extend from one side of the hand-grip member **13** transversely thereof, while permitting the rings **3**, **5** to be swung to fold the handle **1** in the manner described. When the rings **3**, **5** are swung into their limit of movement in the one direction to extend transversely of the hand-grip member **13**, said member **13** may be gripped by a hand with one finger of the hand inserted through the eye **15** for a firm grip on the hand-grip member which may then be held upright so that a cup **7** may be inserted downwardly into the rings **3**, **5** for holding upright and manipulation easily and safely by the handle **1**.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A folding handle for a cup comprising a rigid elongated wire hand-grip member having an upper end provided with a right angularly bent U-shaped portion providing an upper loop, said hand-grip member having a lower end provided with a correspondingly bent U-shaped portion providing a lower loop, said loops being parallel and coplanar and extending from one side of the hand-grip member, each loop embodying spaced parallel upper and lower portions, the upper portions constituting hinging journals and the lower portions constituting limit stops, said hand-grip member being provided intermediate said loops with an eye projecting from one side and constituting a finger-grip, said finger-grip being disposed in a plane at right angles to the plane of the aforementioned loops, upper and lower cup embracing and supporting wire rings, each ring having an outstanding radial shank on one side extending toward the respective upper and

lower loops, said shanks having free end portions provided with hinge knuckles, said hinge knuckles being hingedly mounted on their respective hinging journals, adjacent portions of the shanks resting upon their respective limit stops.

2. The structure defined in claim 1 and wherein said hand-grip member comprises a single length of wire, each ring being circumferentially expansible and contractible, each shank constituting a radial extension of one end of the wire, from which the rings are made and wherein each hinge knuckle embodies helical coils.

3. A folding handle for a cup comprising an elongated wire hand-grip member having an upper end provided with a right angularly bent U-shaped portion providing an upper loop, an upper cup embracing and supporting wire ring, said ring being of split wire construction and radially expansible and contractible, said ring being provided on one side with a radial shank having a free end terminating in a plurality of aligned helical coils cooperating with each other in defining a hinge knuckle, said loop embodying spaced parallel upper and lower portions, the upper portion constituting a hinging journal and the lower portion constituting a limit stop, said hinge knuckle being hingedly mounted on said hinging journal and an adjacent portion of the shank being adapted to rest upon the adjacent limit stop when said ring is being used, a lower cup embracing and supporting ring complemental to said upper ring and

adapted to assume a position of use directly beneath the upper ring and in alignment therewith so that the two rings may receive and embrace the cup to be supported, said lower ring being of split wire construction and radially expansible and contractible and also having an outsanding radial shank on one side to assume a position of use directly beneath the first named shank and having a free end joined to a lower end of said hand-grip member by a one-way hinge joint permitting the rings to stay, when in use, in horizontal parallel relationship.

References Cited in the file of this patent

UNITED STATES PATENTS

52,373	Ireland	Jan. 30, 1866
445,006	Munson	Jan. 20, 1891
679,742	Goddard	Aug. 6, 1901
785,660	Brown	Mar. 21, 1905
1,282,343	Wilcox	Oct. 22, 1918
1,795,615	Parran	Mar. 10, 1931
1,894,895	Steele et al.	Jan. 17, 1933
2,300,744	Jenkins	Nov. 3, 1942
2,744,668	Henigman	May 8, 1956

FOREIGN PATENTS

16,060 of 1911	Great Britain	Oct. 12, 1911