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M. E. & W. GRAY.

HANDLE FOR DIPPERS.

APPLICATION FILED NOV. 13, 1905. RENEWED SEPT. 19, 1907.

FIGURE 1.

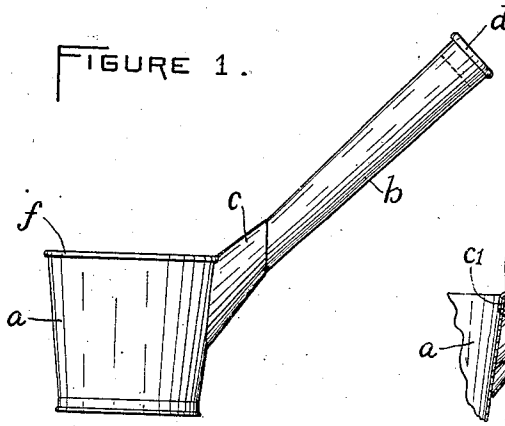


FIG. 2.

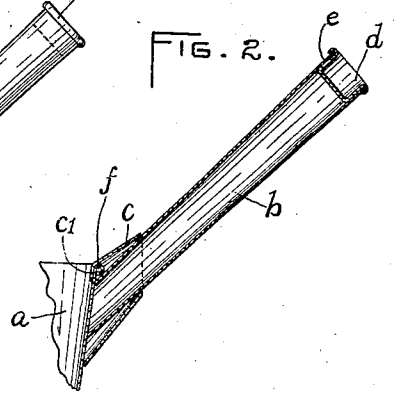


FIG. 3.

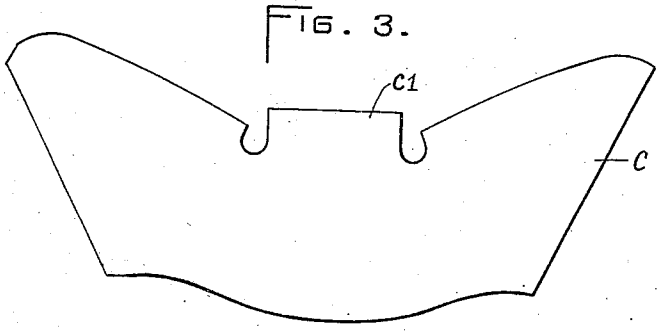
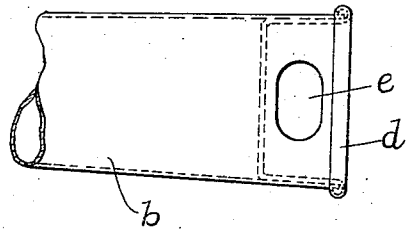


FIG. 4.



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HANDLE FOR DIPPERS.

No. 884,485. Specification of Letters Patent. Patented April 14, 1908.

Application filed November 13, 1905, Serial No. 286,986. Renewed September 19, 1907. Serial No. 393,691.

To all whom it may concern:

Be it known that we, MALCOLM E. GRAY and WILLIAM GRAY, citizens of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented an Improved Handle for Dippers, &c., of which the following is a specification.

This invention relates to handles for dippers and such like articles, and particularly to that class of handles comprising a tube of sheet metal formed up and secured, preferably by soldering, to the body of the dipper or other articles to which it is attached.

The object of our present invention is to provide a more economical and efficient construction for such handles. In carrying out this purpose we provide the upper or outer end of the dipper hamdle with a cup-shaped re-inforcing member, with the outer edge thereof turned down over and around the outer edge of the tube comprising the handle proper, and through the wall of this tube near the end and also through the wall of the re-inforcement we provide a hole by means of which the dipper may be hung up.

Where the handle is attached to the body of the dipper we make use of the following arrangement, viz.—The lower end of the handle is trimmed to fit the body of the dipper to which it is soldered directly, and for re-inforcing and strengthening the connection of the handle to the body of the dipper we provide a re-inforcing member formed to engage, by means of a lip thereon, over the bead at the top of the bowl of the dipper and extending down a short distance into the inside of the dipper. This re-inforcing member is so formed that, when in place, it constitutes a portion of an oblique cone with the larger end conformed to fit the bowl of the dipper on the outside, to which it is directly soldered as well as also around the lip extending within the bowl of the dipper, while the upper end of this re-inforcement is also soldered directly to the tube comprising the handle of the dipper proper. This re-inforcing member is struck from a single sheet and arranged to be seamed together at the bottom or under side of the handle.

The accompanying drawings illustrating our invention are as follows:—Figure 1 is a side view of a dipper having a handle thereon embodying our invention. Fig. 2 shows a vertical central section through the handle. Fig. 3 is a development of the re-inforcing member at the lower end of the handle where it is attached to the dipper, showing the same in an enlarged view, while Fig. 4 is an enlarged view of the outer end of the handle showing the reinforcing member therein partially in dotted lines and showing also the hole in the handle for hanging up the dipper.

Similar letters refer to similar parts throughout the several views.

Referring to the drawings *a* is the body of the dipper, *b* the tubular handle therefor and *c* the re-inforcing member at the lower end of the handle where it is attached to the body of the dipper. This re-inforcing member *c* is formed by cutting a blank to the shape indicated in Fig. 3 and when bent up to form the frustum of an irregular oblique cone the lip c^1 is arranged to extend over the bead *f* at the top of the dipper as seen in Fig. 2 and a short distance down on the inside of the bowl of the dipper, where it is firmly soldered, and the lower end of this re-inforcing member *c* is soldered all around to the body of the dipper and the overlapping free ends are soldered together and the upper end edge is soldered to the handle *b*. It should be borne in mind, however that before applying the re-inforcing member *c*, in the manner just above described, the handle *b*, after the lower end thereof has been fitted to the body of the dipper, is soldered to the dipper in the usual way.

Referring to Figs. 1—2 and 4, for closing the opening in the outer end of the tubular handle *b*, we form a cup-shaped member *d* of such a size that it may be forced into the outer end of the tube *b* the proper distance, and the outwardly extending free edge of the cup *d* is formed over, around and down upon the free edge of the tube as indicated, thus effectually closing the tube-like handle *b* at its outer end and forming a finish for the free end of the handle as well.

A hole *e* is formed in the outer end of the handle just outside of the bottom of the cup-shaped re-inforcement *d* and also through the wall of this re-inforcing member *d* to provide means for hanging up the dipper.

We desire to call attention to the fact that the re-inforcing member *c* engaging over on the inside of the dipper, by means of the lip c^1, helps greatly to sustain the thrust or strain upon the parts in carrying the dipper by the handle, and also that the tube *b* being first soldered directly to the body of the dipper *a* and then also to the re-inforcing member *c* at its upper end, the re-inforcing

member *c* being further soldered to the body of the dipper all around, results in the formation of a very rigid and durable handle while the re-inforcing member *d* provides a finish for the outer end of the handle, and constitutes a strengthening medium for the wall of the handle through which the hole *e* is formed for hanging the dipper up. This hole *e*, for hanging the dipper up is formed preferably on the upper side of the handle so that when the dipper is hung up against a wall or other suitable support the contents of the bowl will be drained out and any water on the handle will have a tendency to run down on that edge of the handle which is uppermost when the dipper is used, and there being no seam on this edge of the handle there is no tendency for the accumulation of moisture resulting in the rusting of the handle, and especially is this desirable at the point where the handle is secured to the dipper, the lip c^1 serving to carry off the water or moisture into the inside of the dipper. The conformation of the re-inforcement *c* on the finished handle is such, as will at once be understood, as to afford ready means for wiping or cleaning as there are no sharp or reëntrant angles or corners where dirt or water may settle or accumulate.

What we claim is:—

1. In a handle for dippers, etc., a re-inforcement for the outer end of such handle comprising a cup-shaped member secured in the outer end of such handle, and an opening through the wall of such handle and also through the wall of such re-inforcement for hanging the dipper up by.

2. A handle for a dipper comprising a tube secured to the bowl of the dipper on the outside and a re-inforcing member therefor comprising a sheet of metal struck to the proper shape to form a cone-like re-inforcement when bent around the handle of the dipper with the small end uppermost and with its lower or larger end cut to fit the dipper bowl and provided with a lip extending over the roll of the dipper bowl at the top and partway down on the inside thereof, the larger end of such conically formed re-inforcement secured to the bowl of the dipper and the upper or smaller end secured to the tube comprising the handle proper.

3. A handle for a dipper comprising a tube secured to the bowl of the dipper on the outside and a re-inforcing member therefor comprising a sheet of metal struck to the proper shape to form a cone-like re-inforcement when bent around the handle of the dipper with the small end uppermost and with its lower or larger end cut to fit the dipper bowl and provided with a lip extending over the roll of the dipper bowl at the top and partway down on the inside thereof, the larger end of such conically formed re-inforcement secured to the bowl of the dipper and the upper or smaller end secured to the tube comprising the handle proper, such conically-formed re-inforcing member having adjoining edges seamed together on the under side of the handle.

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