No. 648,017. Patented Apr. 24, 1900.

W. G. AVERY.

HOD.

(Application filed Apr. 4, 1898. Renewed Mar. 13, 1900.)

(No Model.)

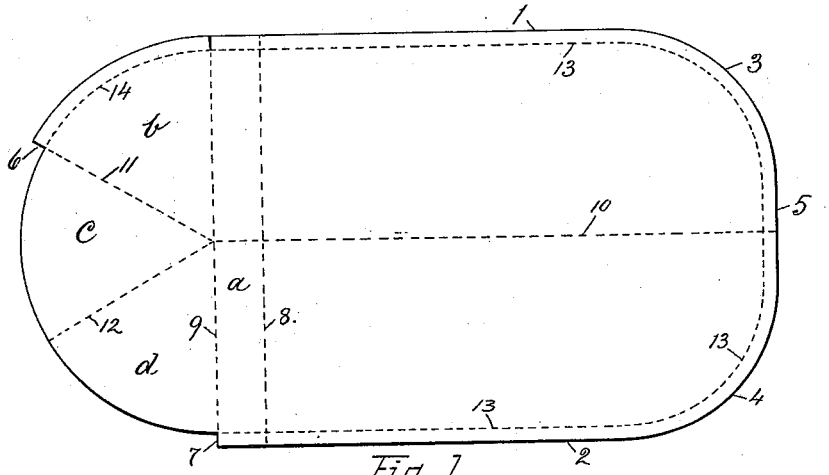

Fig. 1.

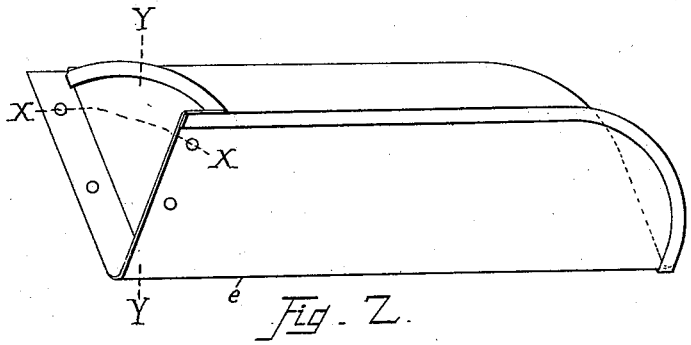

Fig. 2.

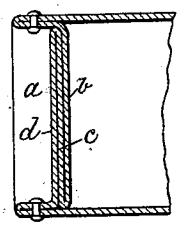

Fig. 3.

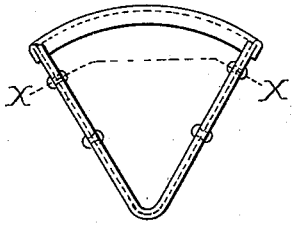

Fig. 4

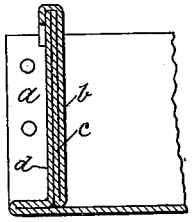

Fig. 5.

Witnesses.
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UNITED STATES PATENT OFFICE.

WILLIAM G. AVERY, OF CLEVELAND, OHIO.

HOD.

SPECIFICATION forming part of Letters Patent No. 648,017, dated April 24, 1900.

Application filed April 4, 1898. Renewed March 13, 1900. Serial No. 8,556. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM G. AVERY, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga, State of Ohio, have invented certain new and useful Improvements in Hods, of which the following, with the accompanying drawings, is a full, clear, and exact specification.

The principal object of my invention is an improved construction of sheet-metal hod made of a single piece of metal, whereby great strength is secured with a comparative degree of lightness and that avoids soldering or brazing to make the joints water-tight.

Other objects of the invention will be apparent from a detailed description thereof.

My invention consists of the details of construction described herein and defined in the claims.

In the drawings, Figure 1 is a form of blank from which my improved hod is made. Fig. 2 is a perspective view of the preferred form of my improvement. Fig. 3 is a section of Fig. 2 on the line $x x$. Fig. 4 is an end view, and Fig. 5 is a broken vertical section on the line $y y$ of Fig. 2.

The blank has parallel straight edges united at what forms the open end of the hod by the curved corners 3 and 4 and the straight end section 5. The opposite end of the blank, which forms the closed end of the hod, is a curve whose radius is substantially the depth of the completed hod. A part of that end of the blank which forms the closed end of the hod is cut away on a curve between the points 6 and 7, as illustrated, Fig. 1. In the preferred construction a flange is formed down the two sides of the closed end to provide a means for grasping the hod when emptying it and to give to it greater strength.

To form the flange upon the closed end of the hod, the blank is first folded over upon itself along the line 8. It is then bent upwardly on the line 9. The metal forming the space a between the lines 8 and 9 makes the flange. Said lines 8 and 9 are at right angles to the line 10 herein described. The sides are then bent upwardly along the line 10, and the part of the blank that forms the closed end of the hod is lapped upon itself on the lines 11 and 12. Said lines 11 and 12 are at an angle of sixty degrees, respectively, from the line 9, leaving the parts marked b, c, and d each sixty degrees of a circle. The metal b in the space between the lines 9 and 11, the metal c in the space between the lines 11 and 12, and the metal d in the space between the lines 12 and 9, respectively, form three thicknesses or folds of metal at the closed end of the hod.

To stiffen the edges of the hod and to relieve it of rough or cut edges, the edge of the metal is folded outwardly and downwardly on the dotted line 13 along the two sides and the open end, and the metal is bent outwardly and downwardly over the end laps on the dotted line 14 between the point 6 and the line 9.

The bottom e of the hod is preferably rounded instead of sharp or V-shaped, as that form avoids the necessity of a wooden block or additional piece of any kind being secured thereto to present a suitable bearing-surface for a shoulder of the user. The bottom of the hod may be made V-shaped, however, in which case the usual rest-block (not shown) will be added thereto.

The hod may also be made without the flange, in which case the blank will be bent upwardly on the line 9 and the hod then completed, as in the case hereinbefore described.

The hod having been made, as described, with a flange along the sides at its closed end, the laps of metal on the flange are then riveted together, or if the hod shall be made without said flange the three laps of metal closing the back end of the hod are suitably riveted together.

What I claim as my invention is—

1. As a new article of manufacture, a hod formed of a single piece of sheet metal, said metal being bent upwardly on a line longitudinally of its length to form the sides of a hod, and bent at right angles to the said longitudinal line and said last-mentioned bent portion folded over upon itself upon lines that diverge sixty degrees from the second-named line to form the end of the hod, substantially as described.

2. As a new article of manufacture, a hod formed of a single piece of sheet metal, the metal being folded over upon itself to form a flat flange along the upper edges and around the open end of the hod, the sheet metal then

being bent upwardly on a line longitudinally thereof to form the sides of the hod, and being further bent on two lines at right angles to the said longitudinal line to form a projecting flange for the hod around its end, and being bent on lines that diverge sixty degrees, respectively, from a line at right angles to the said longitudinal line, to form the end of the hod of three thicknesses of metal, as described.

In testimony whereof I affix my signature in the presence of two witnesses.

WILLIAM G. AVERY.

Witnesses:
J. A. OSBORNE,
A. M. POLLEY.