(No Model.)

E. SMALL

SHEET METAL VESSEL.

No. 263,068. Patented Aug. 22, 1882.

Fig. 1.

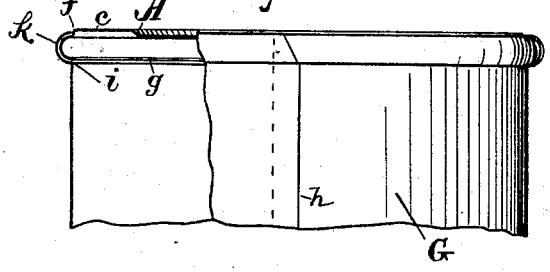


Fig. 2.

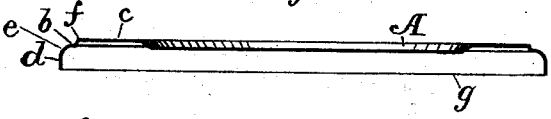


Fig. 4.

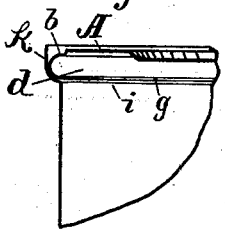


Fig. 3.

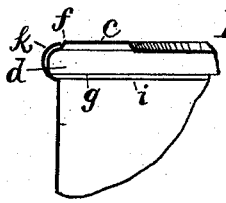
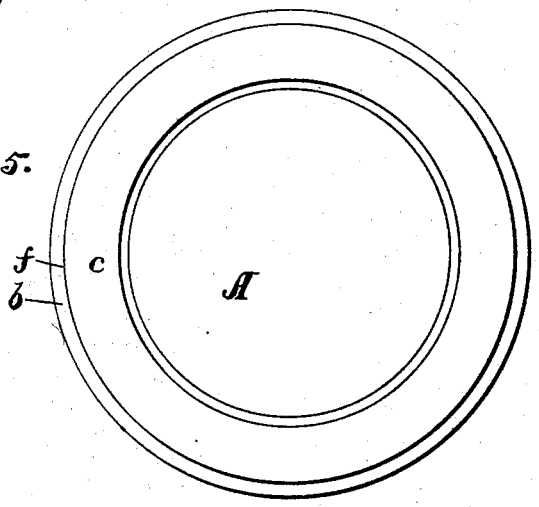


Fig. 5.



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UNITED STATES PATENT OFFICE.

EDWARD SMALL, OF BALTIMORE, MARYLAND.

SHEET-METAL VESSEL.

SPECIFICATION forming part of Letters Patent No. 263,063, dated August 22, 1882.

Application filed June 16, 1882. (No model.)

To all whom it may concern:

Be it known that I, EDWARD SMALL, a citizen of the United States of America, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Sheet-Metal Vessels, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to a certain improvement in sheet-metal cans of that class in which the heads fit inside of the body.

In some cans of this description the edge of the body around the head is so sharp and prominent as to amount to a serious objection. It is apt to cut the hands of workmen when handling the packed cans rapidly. This edge on one can will scrape and tear the labels of other cans when they are being packed in a case, and in other ways is objectionable. It is therefore one object of my invention to provide a can with a prominent angular edge on the head, and with a seam which in cross-section shall be partly rounded or have the curve of a circle, whereby the cut edge at the end of the body shall face inward, and at same time be guarded by the more prominent edge on the head.

Leaks are frequently occasioned in consequence of the imperfect manner in which the solder takes effect on the iron at the cut edge. This fact makes it very desirable to so shape the head-seam as to avoid the contact or proximity of the cut edge of the head with that of the side seam of the body. It is therefore another object of my invention to provide a can whose head shall have its flanged rim turned inward, whereby the cut edge of the said head-rim will not be in contact with the body.

In the drawings hereto annexed, Figure 1 is a view of the end of a can, one part of which is in section, and one part shows the outside. Fig. 2 shows a view of the head as first stamped out. Fig. 3 shows the finished seam, which embodies a head having the shape as first stamped. Fig. 4 shows the head after it has been through the second operation and the body as it appears previous to crimping the end of the body against the head. Fig. 5 shows the entire outer surface of the head.

The head A is cut from the sheet and stamped in the form shown in Fig. 2—that is, a shoulder, *b*, is formed around or near the rim and is depressed away from the outer surface, *c*. Outside of the said shoulder is a flange, *d*, which, as the head is first stamped out, leaves between the flange and the shoulder a rounded edge, *e*, and between the shoulder and the outer surface, *c*, is an angular edge, *f*. In order to show plainly the features of the invention, these parts are somewhat exaggerated as to size.

The head may be employed, so far as concerns the first part of my invention, as thus shaped, (see Fig. 3;) but to carry out the second part of my invention the cut edge *g* of the flange *d* is crimped or slightly turned inward, as shown in Figs. 1 and 4, and thereby the flanged rim or edge of the head forms, as seen in cross-section, a partial circle.

The cylindrical body G has a side seam, *h*, which may be made in any suitable form and soldered. Each end of the body is provided on its inner side with an annular curved shoulder, *i*, which serves as a seat, on which the circular-shaped flanged rim *d* of the head sets. When both heads are in this position the edge *k* of each end of the body is crimped inward, forming a curve or partly-circular lap, and said edge *k* is bent down against the shoulder *b* of the head, as in Fig. 1.

It will be seen that the cut edge of the inward-crimped part *k* faces toward the angular edge *f* of the head, and the sharp part of said inward crimped edge is guarded by the more prominent edge *f*, and thereby one object of the invention is accomplished, as the can presents only smooth edges to the touch.

By means of the rounded or partly-circular shaped inward-turned flanged rim of the head two important advantages are derived—first, the cut edge *g*, being turned inward, does not rest against the body nor come in proximity to the cut edge of the side seam, *h*, at the shoulder *i*, and thereby there is less liability of leaks in consequence of imperfect soldering; second, the rounded inward-curved shape of the flange may be effected by treatment which is very easy on the cheap grade of tin-plate employed in making cans.

As the cut or untinned edge of each end of the can-body faces toward the angular edge *f* of the head, it (the said cut edge) is in favorable position to be covered by the solder, for the reason that the solder is to be applied on the outside around the angular edge. When

the solder is applied at the place indicated, accompanied by the application to the seam or joint of the requisite heat, it (the solder) will sweat or flow into the seam and unite the outer surface of the flanged rim *d* of the head with the inner surface of the body between the shoulder and the edge K. Now, inasmuch as the cut edge *g* of the head is turned inward and away from the shoulder of the body, it cannot be in contact with the inner cut edge of the lap of the side seam, *h*, and the result is a more perfect seam and an avoidance of a large percentage of the leaks heretofore occurring at that point. A seam of this form is adapted for sheet-metal ware of many descriptions.

Having described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a sheet-metal vessel having an inside-fitting head, the combination of the head having a prominent angular edge, *f*, and a rounded or curved flange, *d*, outside and around the angular edge, and the body having an inside shoulder, *i*, on which the flange of the head sets, and the ends K of the body, crimped inward, forming a rounded or partly-circular lap over the curved flange, and having its cut edge faced toward the angular edge on the head, as set forth.

2. In sheet-metal vessels, the combination, with a body having an inside shoulder, of a head having a round inward-crimped flanged rim, *d*, the cut edge *g* of which is turned away from the said inside shoulder, as set forth.

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

EDWARD SMALL.

Witnesses:

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