

C. HOFF.  
Sheet-Metal Bucket.

No. 160,674.

Patented March 9, 1875.

FIG. 1.

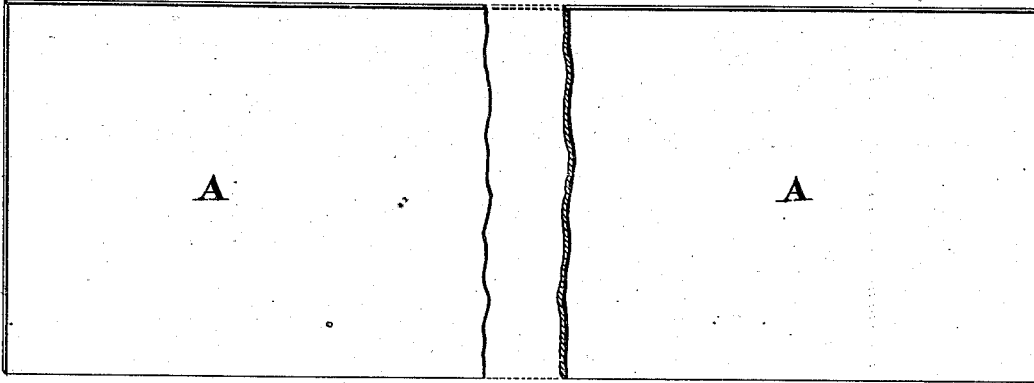


FIG. 2.

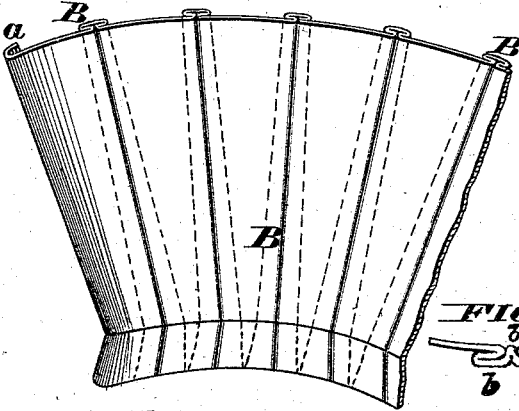


FIG. 3.

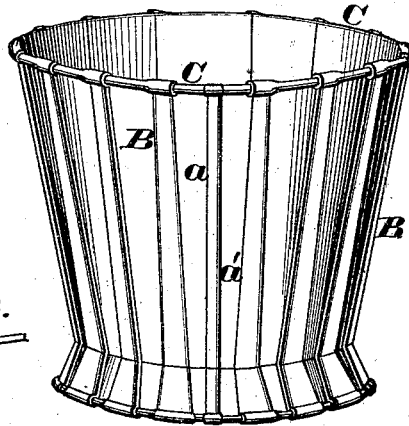


FIG. 4.

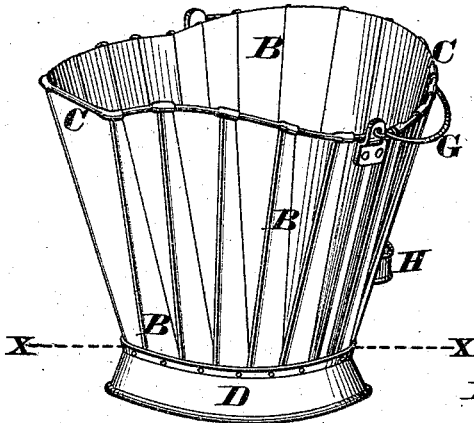


FIG. 5.

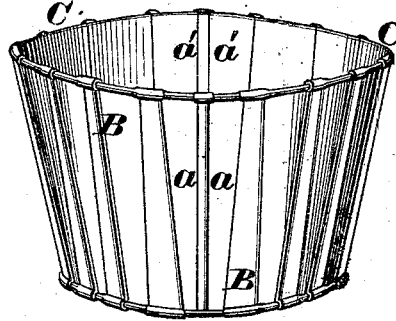


FIG. 7.



FIG. 6.



Attest.  
Jas. H. Layman,  
Henry Tanner.

Charles Hoff  
By Knight Bros.  
Att'ys.

# UNITED STATES PATENT OFFICE.

CHARLES HOFF, OF CINCINNATI, OHIO.

## IMPROVEMENT IN SHEET-METAL BUCKETS.

Specification forming part of Letters Patent No. **160,674**, dated March 9, 1875; application filed January 13, 1875.

*To all whom it may concern:*

Be it known that I, CHARLES HOFF, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Manufacture of Sheet-Metal Buckets, of which the following is a specification:

My invention is an improved manufacture of all such sheet-metal pails and buckets as have a non-cylindrical or flaring body, and is more particularly designed for coal hods or scuttles.

In my improved manufacture the body of the bucket or vessel is formed by folding, lapping, or plaiting a rectangular piece of sheet metal.

In addition to the economy of material, my manufacture possesses the advantages of presenting a stiffer and more enduring body out of a comparatively light material, the substance of the body being at the same time increased toward its lower edge, where strength and endurance are more needed, compensating for the holes made by the screws, spikes, or rivets, whereby the bottom is commonly attached, the wearing effects of moisture and rust, and the attrition of the contents.

In the accompanying drawing, Figure 1 is a perspective view of the rectangular plate of sheet metal previous to being folded, lapped, or plaited, the middle of said sheet being broken away. Fig. 2 is a perspective view of a portion of the sheet after being folded, that form of my manufacture being selected in which the body and the foot or base are formed in one piece. Fig. 3 is a perspective view of the same lapped sheet, having its ends joined so as to constitute a double flaring tube. Fig. 4 is a perspective view of a coal-scuttle, whose body flare has been created by my mode of manufacture, the foot being a separate piece and of the common form. Fig. 5 shows, by perspective view, a simple conical body plaited on my plan. Fig. 6 is a section through the bottom of the coal-bucket, taken at the line *x x*. Figs. 7 and 8 represent modifications of the form of folds.

Of the above representations Figs. 6, 7, and 8 are on an enlarged scale.

I take a rectangular piece or strip, A, of sheet-iron or other sheet metal, and by means

of suitable machinery, which I design to make the subject of a separate patent, I create in said sheet a series of folds, B, which deepen to the waist or narrowest part of the body. This narrowest part may be at the junction of the body proper and the foot or base, where these members are constituted of one piece, as at Figs. 2 and 3, or may be at the lower edge of the sheet, for combination with a common unfolded foot, as in Figs. 4 and 5.

The folds may be similar from end to end of the sheet for a circular body, as in Figs. 3 and 5, or may be dissimilar in size, proximity, or angle when intended for an irregular form, as in Fig. 4.

The laps may be flattened down upon the body to right and left, as in Figs. 2, 3, 4, 5, 6, and 8, or in one direction only, as in Fig. 7.

While generally, and preferably, formed of a single sheet, as in Figs. 3 and 4, yet more than one piece may be occasionally employed, as in Fig. 5.

Finally, the top edge of the body is protected by customary wired rim C, and a bottom, E, is secured by means of spikes F, screws F', or other customary or approved means, and suitable bail G and handle H are added when desired.

Folded or lapped bodies, made without bases, as in Fig. 5, may be very compactly nested in dozen or other packages, and shipped to a distance, with detached feet and bottoms, and the buckets put together by the maker or dealer at the place of their destination.

Waste of material may obviously be, on my plan, wholly avoided by cutting the strips, Fig. 1, from sheets whose width is that of the length of the strip, and whose length is a multiple of the width of the strip.

The mode of attaching the bottom to the vessel is illustrated in Fig. 6. The spikes or screws are inserted centrally through the laps, and, passing through three thicknesses of metal, enter the bottom, and attach it very securely.

It will be seen that the shanks and heads of the spikes or screws have an unusually substantial bearing, not obtained in the manner ordinarily manufactured.

Figs. 7 and 8 represent two forms of laps that I use. That represented in Fig. 8 is a

flattened fold, whose laps *b b'* extend equally on both sides of the main seam or crease, and has a central longitudinal rib, *b''*, filling the space between said seam or crease, so as to impart additional rigidity.

I claim as my invention—

1. The lapped bucket-body B, formed from a rectangular piece of sheet metal, in the manner set forth.

2. The ribbed and flattened fold or lap *b b'* *b''*, substantially as and for the purpose set forth.

In testimony of which invention I hereunto set my hand.

CHARLES HOFF.

Attest:

GEO. H. KNIGHT,  
WALTER KNIGHT.