

(No Model.)

C. HOFF.

COAL HOD.

No. 303,011.

Patented Aug. 5, 1884.

Fig. 1.

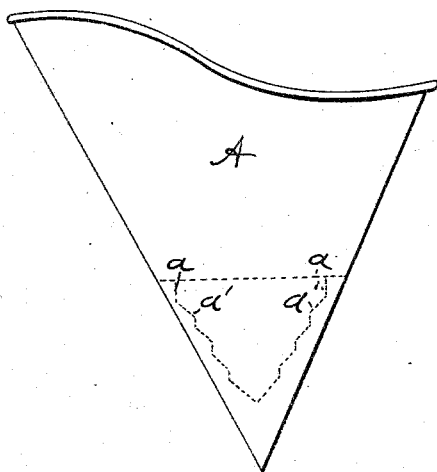


Fig. 2.

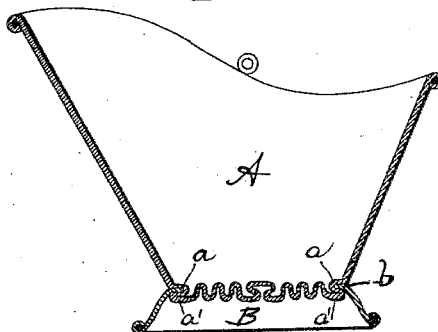
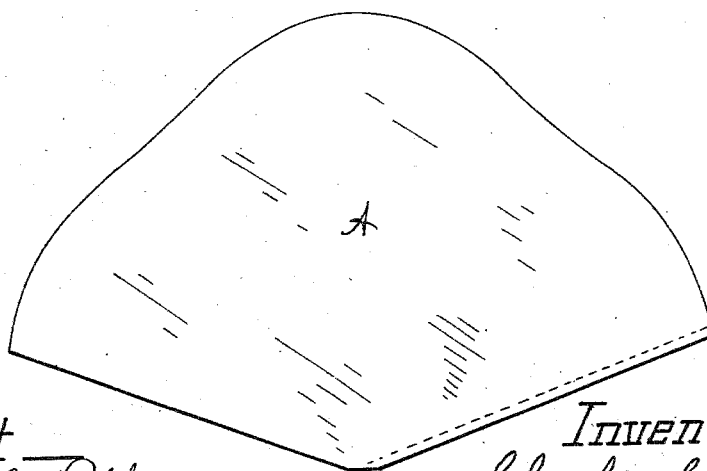
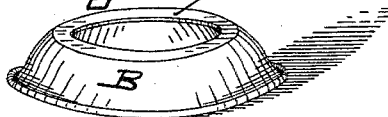


Fig. 3.



Attest  
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Fig. 4.

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# UNITED STATES PATENT OFFICE.

CHARLES HOFF, OF CINCINNATI, OHIO, ASSIGNOR OF ONE-HALF TO PETER  
RENNER, OF SAME PLACE.

## COAL-HOD.

SPECIFICATION forming part of Letters Patent No. 303,011, dated August 5, 1884.

Application filed February 9, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES HOFF, a citizen of the United States, residing at Cincinnati, county of Hamilton, State of Ohio, have invented certain new and useful Improvements in Coal-Hods and Similar Sheet-Metal Vessels, of which the following is a specification.

The object of my invention is a convenient means of securing the base or foot to sheet-metal vessels, and is especially applicable to the crimped-bottom vessels, such as shown in my patent, No. 279,871, dated June 19, 1883.

The invention consists in clamping the flange of the open top base in the folded crimp of the body without riveting or other extraneous fastening, as will clearly appear from the following description of the accompanying drawings, in which—

Figure 1 is a side elevation of the folded blank from which a coal-hod is to be formed, the preliminary crimps for forming the bottom being shown in dotted line. Fig. 2 is a central vertical section of the vessel completed, with the bottom secured in place. Fig. 3 is a perspective view of the base ready to be applied to the vessel. Fig. 4 is a view of the blank from which the coal-hod is formed.

Similar reference-letters represent like parts wherever they occur throughout the various views.

The cone-shaped vessel, Fig. 1, is formed from the blank A, Fig. 4, and the preliminary crimps formed in the bottom or cone end in substantially the same way as described in my said patent, No. 279,871, except that the upper or outer offset should be deep enough to extend out to near the side of the vessel when folded down, so as to securely clamp the upper and inwardly-turned flange upon the base B. The base B is formed with the flange *b*, turned inwardly, instead of being inclined outwardly, as is common when the bottom is to embrace the flaring side of the vessel.

To apply my base to the vessel, when the

bottom is formed with open crimps, as shown in Fig. 2, the flange *b* is placed up against first crimp or fold, *a*, Fig. 1, a former of the size and shape of the vessel being inside of the cone-shaped blank. A ring-plunger is brought against the second crimp, *a'*, pressing it against the under side of flange *b*, and clamping the flange firmly, as seen in Fig. 2. While the plunger is still in place, the bottom-forming plunger is brought down inside the ring-plunger, and the cone forced up to form the bottom, as seen in Fig. 2. This bottom with the open spaces between the crimps is formed by stopping the plunger before it is forced far enough to flatten the crimps down. The object of leaving the open crimps is to make the bottom noiseless, which I do by filling the spaces and covering the inside of the bottom with a plastic composition, which hardens and is held in place by the folds in the bottom.

It is evident that my method of attaching the bottom may be applied to the common vessels, or those made of several pieces, as well as to my patented vessel.

I am aware that it is common to make the base and bottom in one piece, and to make the bottom a part of the base; but in such case the joint between the bucket and base is difficult to form, and the vessel necessarily weak at the joint, while my joint strengthens the vessel, and the joint has no strain upon it when the filled vessel is being lifted or carried.

What I claim as new, and desire to secure by Letters Patent, is—

As a new article of manufacture, the vessel having a crimped or folded bottom and the open top base, B, having its flange *b* clamped and firmly held in place by the folded crimp of the vessel, substantially as hereinbefore set forth.

CHARLES HOFF.

Witnesses:

D. S. OLIVER,  
GEO. J. MURRAY.