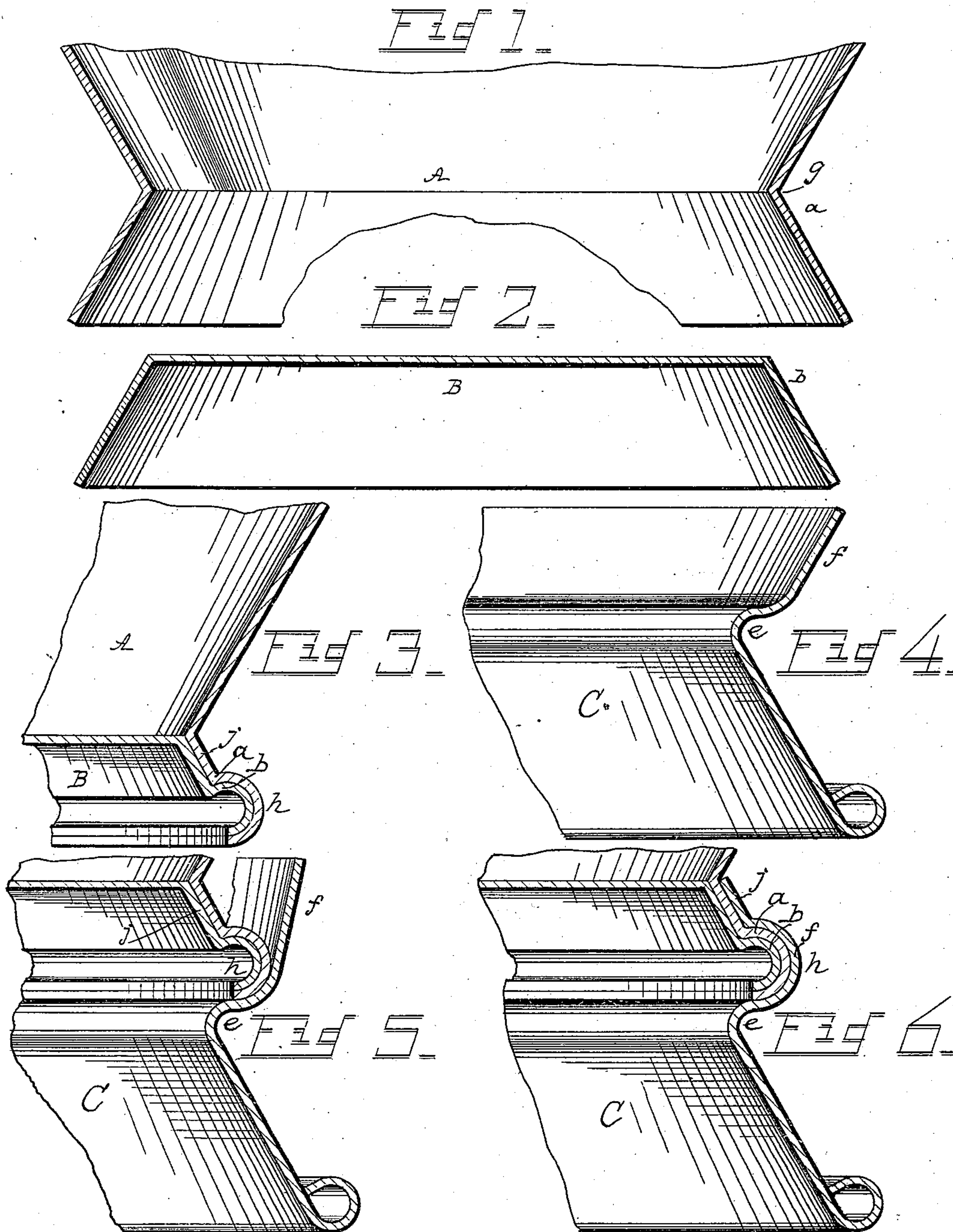


(No Model.)

J. WINSTANDLEY, G. L. SMITH & T. L. MELVEN.  
FOOT AND BOTTOM FOR VESSELS.

No. 355,495.

Patented Jan. 4, 1887.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## FOOT AND BOTTOM FOR VESSELS.

SPECIFICATION forming part of Letters Patent No. 355,495, dated January 4, 1887.

Application filed March 9, 1886. Serial No. 194,646. (No model.)

*To all whom it may concern:*

Be it known that we, JOHN WINSTANDLEY, GEORGE L. SMITH, and THEOPHILUS L. MELVEN, citizens of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented a new and useful Bottom and Foot for Coal-Hods, Buckets, Pans, and all Suitable Sheet-Metal Ware; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to sheet-metal ware; and its object is to provide means for securing bottoms and feet to coal-hods and other sheet-metal vessels.

To this end the invention consists in the construction and combination of parts forming the bottoms and feet of sheet-metal vessels, hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a central vertical section of the lower portion of the body of a vessel flanged to receive the bottom herein described. Fig. 2 is a central vertical section of a bottom adapted to fit the body shown in Fig. 1. Fig. 3 is a vertical section of a portion of one side of the same vessel and bottom secured together. Fig. 4 is a vertical section of one side of a foot adapted to be secured upon the same. Fig. 5 is a vertical section of a portion of one side of the said vessel and foot in position to be joined together, and Fig. 6 shows the same joined and completed.

A represents the body of a sheet-metal vessel tapering downward.

The first step of this invention consists in shaping upon the lower end of the body A a flange, *a*, flaring downward, forming an obtuse yet definite angle at *g*. Next, the bottom B is shaped with a downward-flaring flange, *b*, to fit up into the flange *a*. Next, the bottom is secured in place by shaping a bead, *h*, of semicircular cross-section, convex side outward, in both flanges *a* and *b* at once.

The characteristic difference between this bottom and some other vessel-bottoms consists in the portion *j* of the two flanges *a* and *b*, still left in their original conical form after the formation of the bead *h*, thereby interpos-

ing a circumferential arch or complete circle between the plane of the bottom and the bead *h*. This arch derives peculiar stiffness from being bounded at one edge by the inwardly-extending plate of the bottom and at the other edge by the outward extending flare of the bead, whereby the lower edge of the vessel is made very stiff and strong. A foot, C, of the petticoat style—that is, flaring downward—may be provided for this vessel, as follows: A flange, *f*, is first shaped in the upper end of the foot, having a curved or bead-shaped angle, *e*, at which point the foot is of less diameter than the bottom of the vessel at the bead *h*, so that the said bottom may be set completely on top of the foot at the shoulder of the flange above the bead *e*, as shown at Fig. 5. Then, to secure the foot, the flange *f* is pressed inward over the bead *h* and the conical portion *j*. By this means the foot is made much stiffer than if it were secured upon the bead *h* by a common shallow bead.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The combination, with the body A of a vessel, provided with the flaring flange *a*, of the bottom B, provided with the flaring flange *b*, adapted to fit within the flange *a*, and secured thereto by means of a bead, *h*, in both flanges, the upper edge of the said bead *h* being below the plane of the bottom B, leaving the conical portion *j*, substantially as shown and described.

2. The combination, with a vessel, A, having a flange, *a*, and the bottom B, having the flange *b* fitted within the flange *a*, and secured thereto by a bead, *h*, leaving a conical portion, *j*, below the plane of the bottom, of a downward-flaring foot, C, having an upward-flaring flange forming a shoulder at *e* of less diameter than the bottom edge, *h*, of the said vessel, and the said foot secured to the said vessel by fitting tightly upon the bead *h* and the conical portion *j*, substantially as shown and described.

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