

(No. Model.)

A. W. HAAG.
TROUGH.

No. 531,527.

Patented Dec. 25, 1894.

Fig 1.

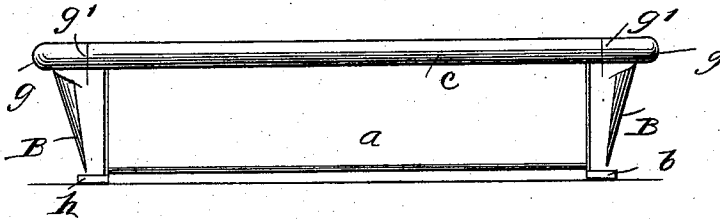


Fig 2.

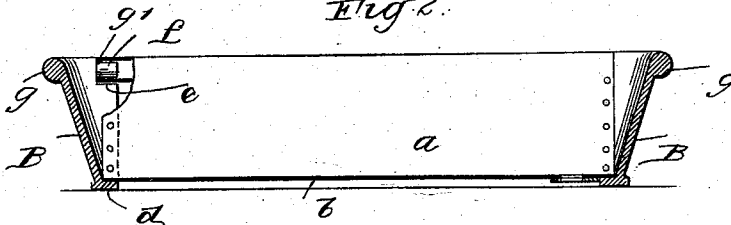


Fig 3.

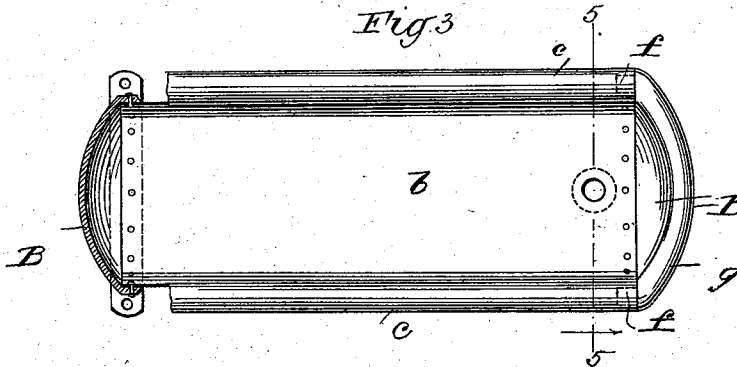


Fig 4.

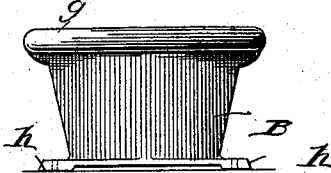
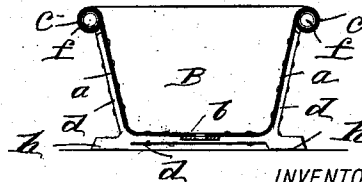


Fig 5.



WITNESSES:

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ADAM W. HAAG, OF FLEETWOOD, PENNSYLVANIA.

TROUGH.

SPECIFICATION forming part of Letters Patent No. 531,527, dated December 25, 1894.

Application filed April 26, 1894. Serial No. 509,122. (No model.)

To all whom it may concern:

Be it known that I, ADAM W. HAAG, of Fleetwood, in the county of Berks and State of Pennsylvania, have invented certain new and useful Improvements in Troughs, of which the following is a full, clear, and exact description.

The object of the invention is to provide an improved metallic trough of light and strong construction, more durable than the ordinary cast iron trough and less costly to manufacture, and less liable to be broken in transportation.

The invention consists in the novel construction hereinafter particularly described, and defined in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1, is a side elevation of a trough constructed in accordance with my invention. Fig. 2, is a longitudinal vertical section, a part being broken away. Fig. 3, is a plan view with parts in section and others broken away. Fig. 4, is an end elevation; and Fig. 5, is a cross section on line 5—5, Fig. 3.

In constructing a metallic trough in accordance with my invention, the sides *a*, *a*, and the bottom *b* are formed from a single piece of sheet steel or wrought iron, bent to give an upward flare to the sides, and in order that the sides may have the necessary rigidity and proper finish, the upper longitudinal edges are rounded outward into scroll form as at *c*, and these scroll formations are availed of in securing the end pieces as next described. Thus the end pieces *B*, *B*, are ordinarily formed of cast metal, though sheet metal may be employed, and they are of curved horizontal section, as will be understood from the several figures, and are upwardly flared to prevent them from being forced outwardly should liquid contents of the trough become frozen.

The ends *B* are formed with flanges *d* which project at the bottom and sides in the longitudinal direction of the trough, for securing the ends to the sides and bottom *a*, *a*, *b*, and such flanges terminate below the top edges

of the ends, as indicated most clearly at *e*, Fig. 2, and there are produced on the ends *B*, above such flanges, at the sides, projections or lugs *f*, said projections being slightly spaced from the top edges *e*, and projecting in the same direction as the latter. In securing the ends thus formed to the sheet metal sides and bottom, the latter are made to overlap the flanges *d*, and are riveted to the latter, as shown, and in addition, the projections *f*, are entered in the ends of the scrolls *c*, the edge of the scroll at each end being received between the projections *f* and the edges *e*, and when thus secured, the scrolls *c*, will form practically a continuation of the rounded upper edges *g*, of the ends *B*, and be flush therewith and abut the shoulders *g'* formed by the edges *g*, at the base of the projections *f*. Thus with the rivets and the interlocked engagement of the projections and scrolls, the ends will be securely united to the sides and bottom. This construction enables the sides at their upper edges, to withstand all rough usage that would tend to cause a separation of the parts. Suitable feet *h* are provided on the ends *B* as shown.

By the construction described, I am therefore enabled to produce a very durable trough at reduced cost and of very light construction.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

The herein described trough comprising a sheet of metal bent to form the bottom and side portions of the trough, and having the upper edges of said side portions formed with hollow scrolls and separate end pieces, each provided with bottom and side flanges adapted to be secured to the sheet metal bottom and sides, and having about its upper edge a bead corresponding in arrangement to the scrolls of the sheet metal sides, and projections at the ends of the said bead arranged inside and adapted to fit the end portions of the hollow scrolls on the sheet metal sides, substantially as set forth.

ADAM W. HAAG.

Witnesses:

HARVEY F. HEINLY,
W. Z. DECK.