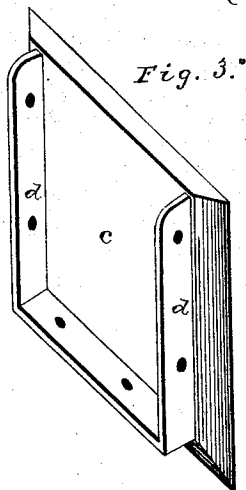
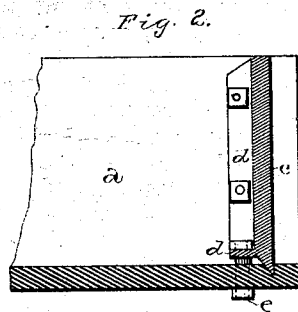
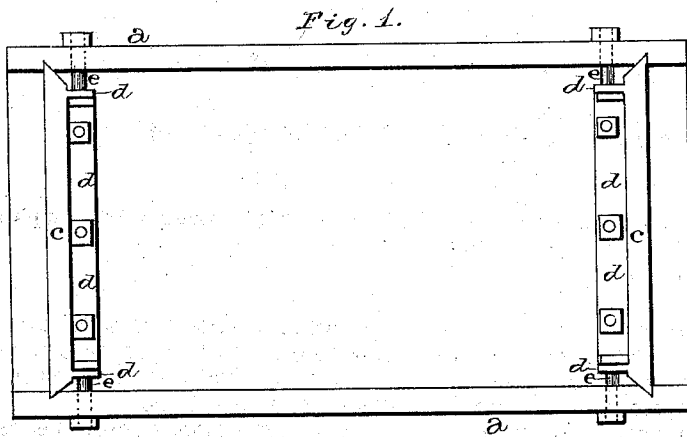


F. J. GOLDSMITH.  
Stock-Troughs.

No. 155,608.

Patented Oct. 6, 1874.



WITNESSES.

*J. W. Garner.*  
*Edward L. Haised*

INVENTOR.

*F. J. Goldsmith*  
*per*  
*J. A. Lehmann, atty.*

# UNITED STATES PATENT OFFICE.

FRANCIS J. GOLDSMITH, OF PAINESVILLE, OHIO.

## IMPROVEMENT IN STOCK-TROUGHS.

Specification forming part of Letters Patent No. **155,608**, dated October 6, 1874; application filed January 12, 1874.

*To all whom it may concern:*

Be it known that I, FRANCIS J. GOLDSMITH, of Painesville, Lake county, Ohio, have invented certain Improvements in Metallic Heads for Wooden Troughs, of which the following is a specification:

The nature of my invention relates to metallic heads for troughs; and it consists in a head made entirely of metal, and which is provided with flanges or other means of securing it in position in the trough.

Figure 1 is a plan view of my invention. Fig. 2 is a part sectional view of the same. Fig. 3 is a perspective of the same.

*a* represents an ordinary wooden trough, which will be made of any shape or size desired, according to the use for which it is designed. Placed in each end of the trough is an iron head, *c*, which has a flange, *d*, formed upon one side, by means of which it is secured in position by the bolts *e*, and each head has its side and bottom edges preferably beveled away, so as to form a sharp edge for the purpose of making a tight joint. These sharp edges are set in a suitable groove formed in the boards of the trough, and then, by screwing up the bolts which pass through the flanges on the heads and boards of the trough, the head and boards are bound firmly and securely together. The flanges on the head are set some little distance in from the edge, so that

a space is left between them and the inside of the trough, to allow, in case of necessity, the sides to be tightened up in case they should warp or become loose.

The advantages of iron heads in wooden troughs are many.

In wooden troughs used for watering animals, and where they are kept constantly filled, the heads always decay first. If the water is let out and the trough allowed to dry, the sides warp and get out of shape, and can then only be gotten back into position by means of long screw-bolts which pass through from side to side. Commoner and cheaper kind of lumber can be used in making the troughs when iron heads are used, and, when desired, gudgeons or journals can be formed with the heads, so that the troughs can be made to revolve.

Having thus described my invention, I claim—

An iron head for wooden troughs, provided with flanges and bolts as a means for holding the head in position and against the internal surfaces of the trough, substantially as shown and described.

FRANCIS J. GOLDSMITH.

Witnesses:

E. E. JOHNSON,  
A. R. JOHNSON.