W. Yapp,

Eaves Trough,

No. 49,466. Patented Aug. 15, 1865.

Fig. 1.

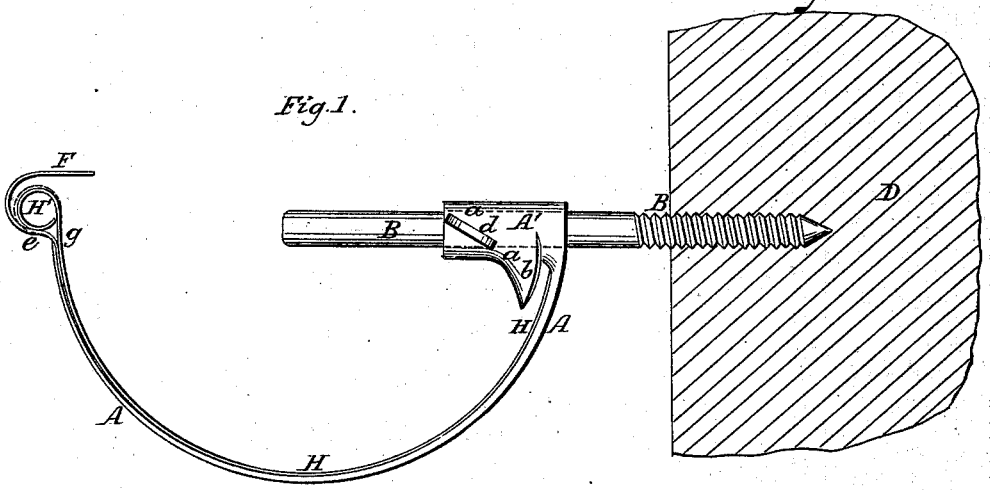
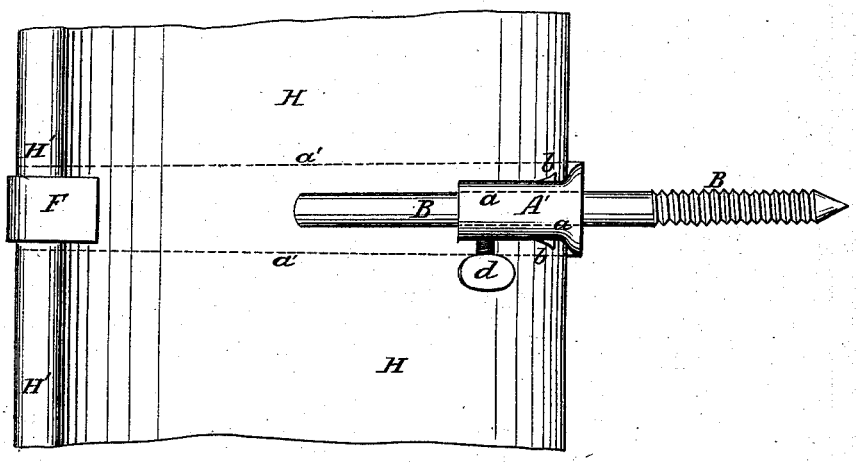


Fig. 2.



Witnesses.

W. H. Burridge.

A. W. McClelland.

Inventor.

Wm Yapp

UNITED STATES PATENT OFFICE.

WILLIAM YAPP, OF CLEVELAND, OHIO.

IMPROVED EAVES-TROUGH BRACKET.

Specification forming part of Letters Patent No. **49,466**, dated August 15, 1865.

To all whom it may concern:

Be it known that I, WM. YAPP, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Eaves-Trough Brackets; and I do hereby declare that the following is a full and complete description of the same, reference being had to the the accompanying drawings, making a part of this specification, in which—

Figure 1 is a view of the bracket and screw-pin, with the trough in place. Fig. 2 is a top view of the same.

Like letters of reference denote like parts in the views.

My improvement relates to the manner of securing an eaves-trough bracket to the cornice or building, and of connecting the trough to the bracket, as hereinafter described.

A represents the bracket, cast or formed in one piece, at one end of which is a socket, A′.

B is a screw-pin that extends through the socket, as indicated by the dotted lines *a*, and the socket is fastened on the screw-pin in the desired position by a set-screw, *d*, or a key or its equivalent driven in at the end of the socket. Extending round on the under side of the socket is a projecting lip, *b*, as represented. To the other side or outer end of the bracket is attached a strip or fastener, F, made of copper or other flexible metal. The bracket from the socket A′ is curved round, as shown in Fig. 1, and is the width across indicated by the dotted lines *a′* in Fig. 2.

The trough H, curved into the desired form, as represented, is turned or curled round at the outside edge, as at H′, rendering it strong, and round which the strip F, when the trough is put in place in the bracket, is bent, as indicated by the dotted lines *g* in Fig. 1. The trough, when made in the proper form, is put in the bracket, the inside edge fitting up under the lip *b* of the socket, and the other part rests down on the bracket, the outside edge being on a shoulder, *e*, of the strip F, when the strip or fastener F is bent round close up to the curve H′ of the trough and down on the inside, holding it most securely. The trough can be adjusted thus in as many brackets as may be required to support it.

In connecting the brackets, with the trough, to the building the screw-pins B are first inserted in the cornice or wood D the desired distance to hold the trough firm in place, when the trough, connected to the brackets as before described, is elevated, and the sockets adjusted on the pins and secured to them by a set-screw or key, as before stated, fastening the brackets firmly to the pins. In attaching the trough to the building in this way by screw-pins, it can be adjusted in or out from the building, according to the distance that the eaves project, by means of screwing the pins a greater or less distance into the wood, and by securing the sockets on the pins nearer or farther from the building in either or both these ways, as may be desired.

This bracket is an improvement on my former patent, in which there were cross-stays on the inside of the trough to hold it in the desired form, and to the manner of connecting it to the building. The cross-stays would not allow the trough to expand or contract laterally, as it is liable to do by the action of heat, frost, snow, &c., without breaking the joints, when the outside of the trough would drop down more or less; and, as the side of the trough was attached rigidly to the building, the trough could not expand or contract longitudinally without bending or breaking the cross-stays or connections for holding the trough to the building. With this bracket these difficulties are entirely removed, the trough being supported by the bracket, and the strip F need not be so closely bent down over the outer edge, and likewise the distance between the lip *b* and back part of the bracket will be sufficient to allow any lateral expansion or contraction of the trough; and as the trough is in no way rigidly attached lengthwise either to the bracket or building, it can expand or contract longitudinally as much as it will without any injury whatever. Besides, the trough is clear on the inside for the water to run freely, there being no cross-stays or obstructions for leaves, snow, &c., to lodge against, that would have to be removed from time to time, for snow and rubbish thus collecting and freezing are liable to break the joints, and the water, too, will flow over on the outside if the obstruction

is not removed; but this is accompanied with so much trouble, being difficult to gain access to it and to get it out if frozen in, as is well known.

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

The bracket A, arranged with a socket, A′, to receive the pin B, lip *b*, and metallic fastener F, substantially as and for the purpose set forth.

WM. YAPP.

Witnesses:
W. H. BURRIDGE,
A. W. MCCLELLAND.