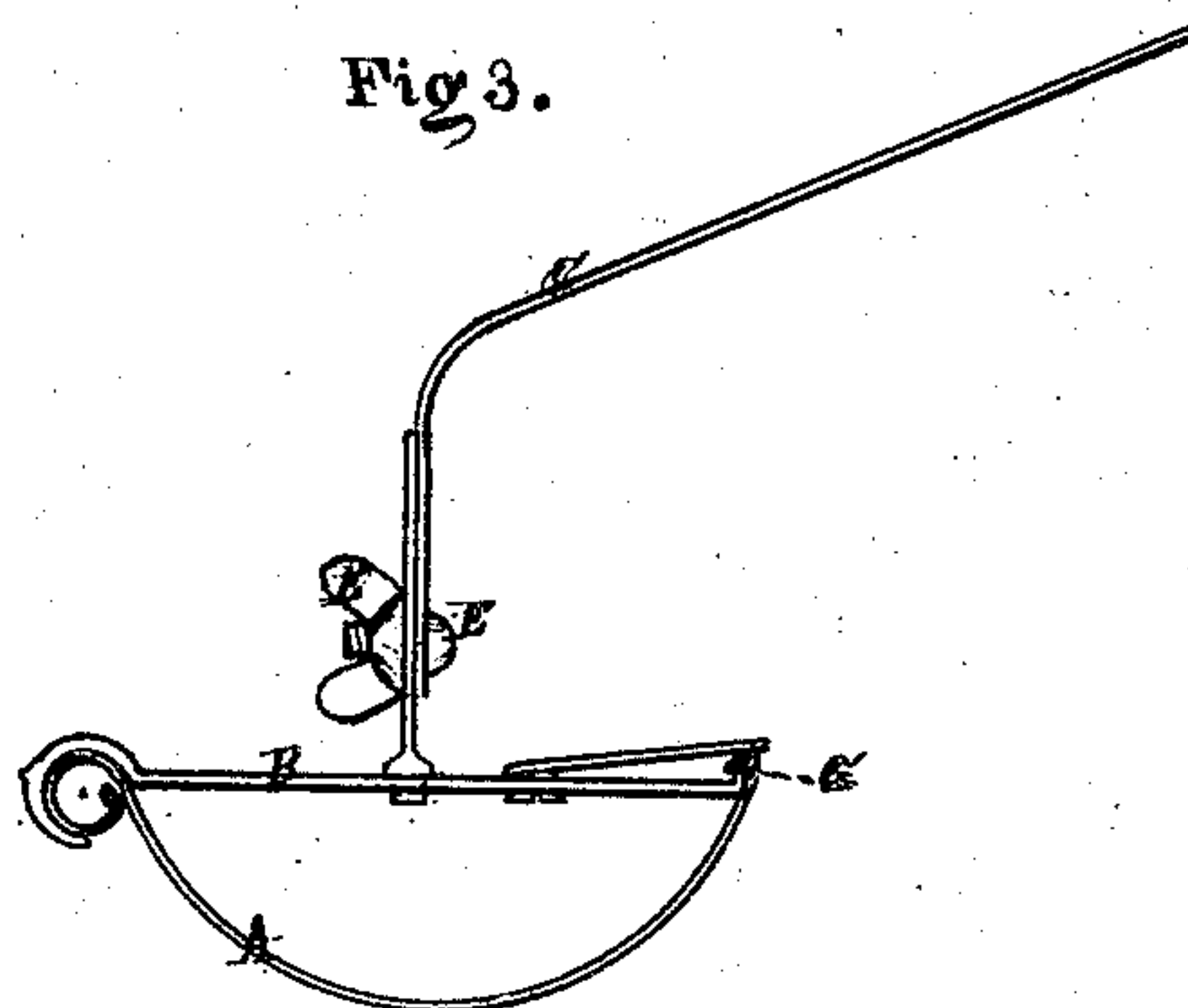
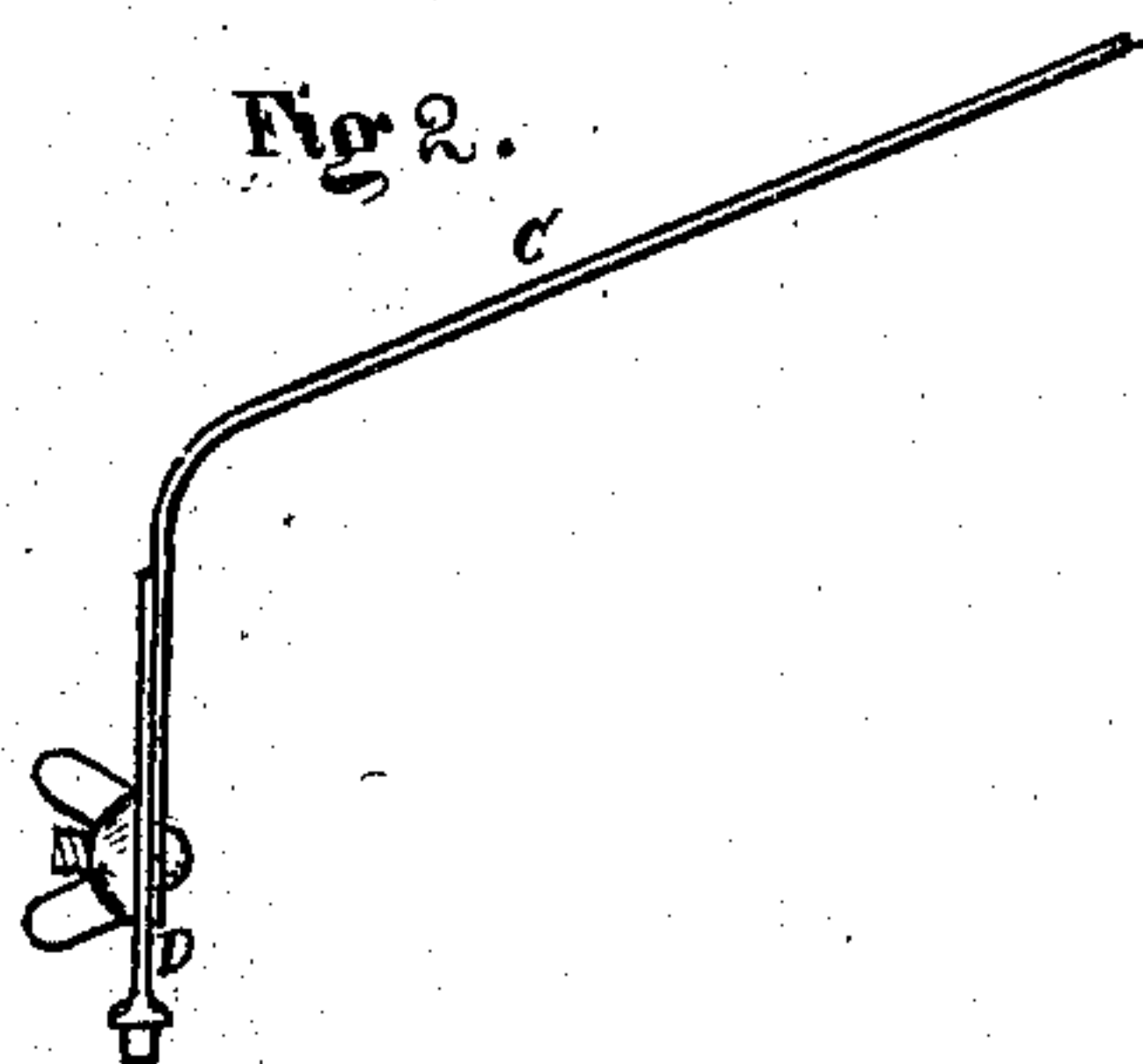
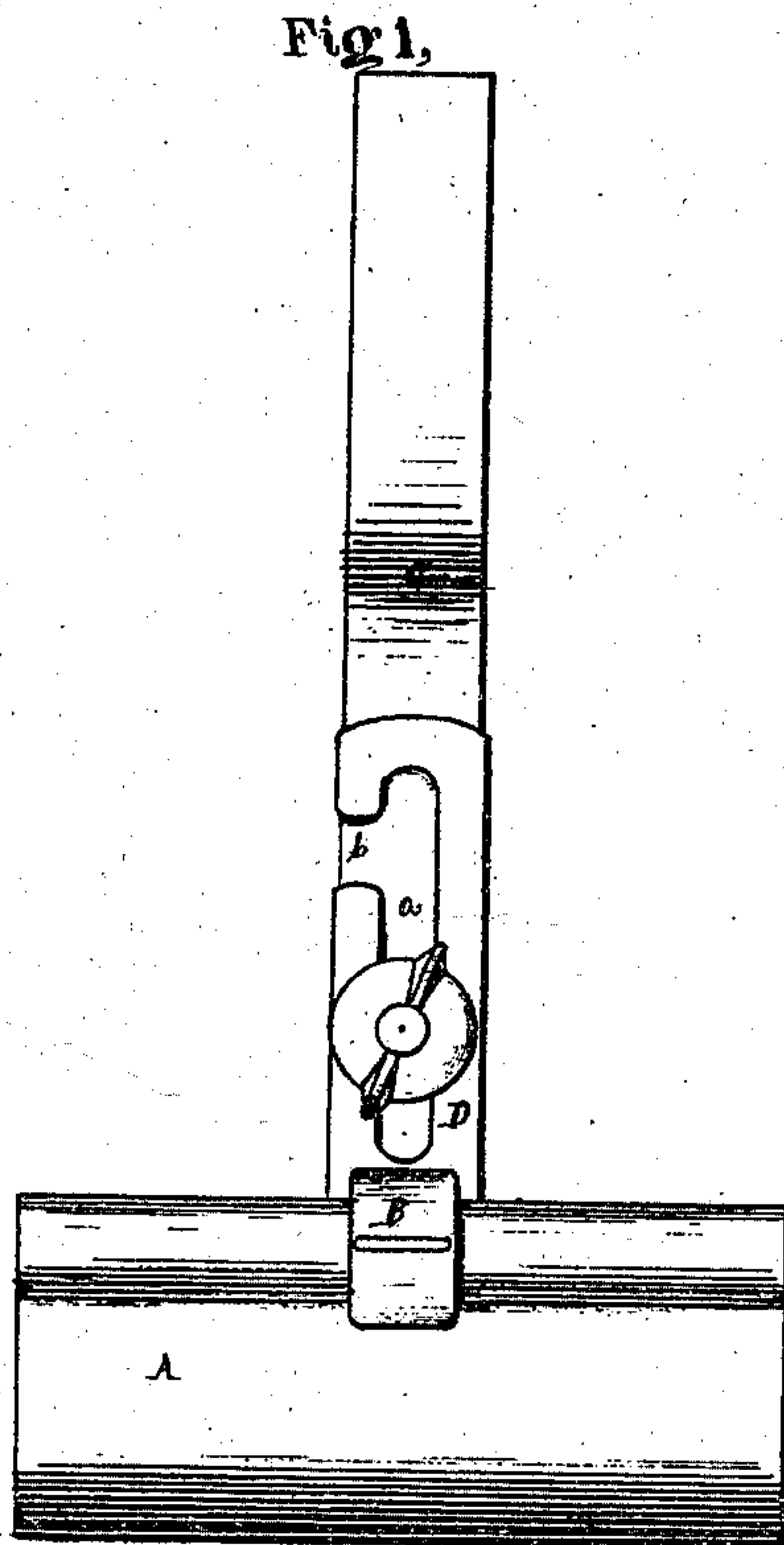


*J. J. Kauffman,*

*Eaves-Trough.*

*No. 105,947.*

*Patented Aug. 2, 1870.*



Inventor,

*Jacob J. Kauffman*  
*Per Quiridge & Co.,*  
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Witnesses,

*D. S. Winthrop*  
*Frank Alden*



# UNITED STATES PATENT OFFICE.

JACOB J. KAUFFMAN, OF ASHLAND, OHIO.

## IMPROVEMENT IN EAVES-TROUGH HANGERS.

Specification forming part of Letters Patent No. **105,947**, dated August 2, 1870.

*To all whom it may concern:*

Be it known that I, JACOB J. KAUFFMAN, of Ashland, in the county of Ashland and State of Ohio, have invented a certain new and Improved Eaves-Trough Hanger, of which the following is a specification.

In the drawings, Figure 1 is a side view of the eaves-trough hanger; Fig. 2, a detached section; Fig. 3, an end view.

Like letters of reference refer to like parts in the different views.

The nature of this improvement relates to certain devices in connection with eaves-troughs for the purpose of securing said trough in place, as hereinafter more fully described.

In Fig. 1, A represents the eaves-trough, an end view of which is shown in Fig. 3. B is a bar, whereby the trough is attached to the hanger C by means of a standard, D. In said standard is a slot, *a*, in which is inserted a bolt, E, provided with a thumb-screw, F. By this means of connecting the hangers to the standard the trough can be adjusted for the purpose of giving to it the proper grade for the flow of the water, also to bring it as near to the eaves as may be necessary.

Eaves-troughs, as usually made, have the bar B made of a strip of ordinary wrought-iron, and the standard of the same material, and attached thereto by having its lower end turned out at a right angle, and thereby riveted to the bar. In this trough the bar is made of malleable cast-iron, having a hole therein in which the lower end of the standard, which is also made of cast malleable iron, is inserted and riveted, making a stronger and less expensive connection. So, also, in such trough the end of the bar next to the inner

side of the trough simply reached to the inside thereof, and was prevented from becoming lifted away therefrom by the edge of the trough being turned down inwardly, and against the edge of which the upper side of the bar rested, and thereby prevented from being detached from the trough, which, however, did not effectually prevent such disconnection, as the trough on being sprung out laterally would draw the downturned edge of the trough from off the bar and allow it to fall down. To prevent this I turn an angle, G, on the end of the bar and insert it under the lap or turned-down edge of the trough and the side thereof, as shown in Fig. 3. By this means the bar is securely retained in connection with the trough, thereby making the attachment more durable and the bar more effective as a brace.

By means of the lateral slot *b*, Fig. 1, in the side of the standard, the standard can be detached from the hanger without taking out the bolts by simply loosening the thumb-nut, which will allow the bolt to slide in the slot *a* and out of the slot *b*, leaving the bolt remaining in the hanger, thereby preventing it from being lost.

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

The cast-iron standard D, provided with a side slot, *b*, and attached to the bar B and hanger C, in the manner as described, and for the purpose specified.

JACOB J. KAUFFMAN.

Witnesses:

J. P. SMUCKER,  
JOHN S. CROMER.