J. F. & L. HESS.

Eaves-Trough Hangers.

No. 148,952. Patented March 24, 1874.

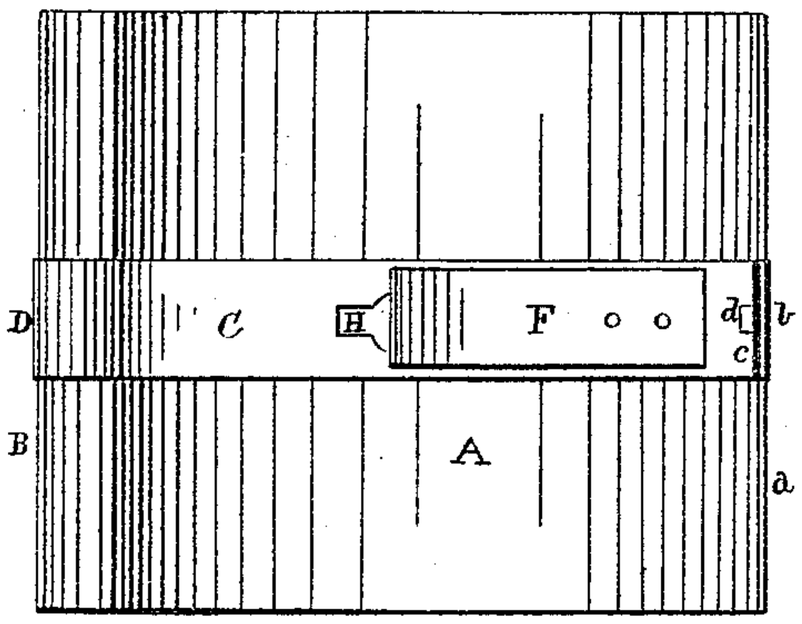

Fig. 1.

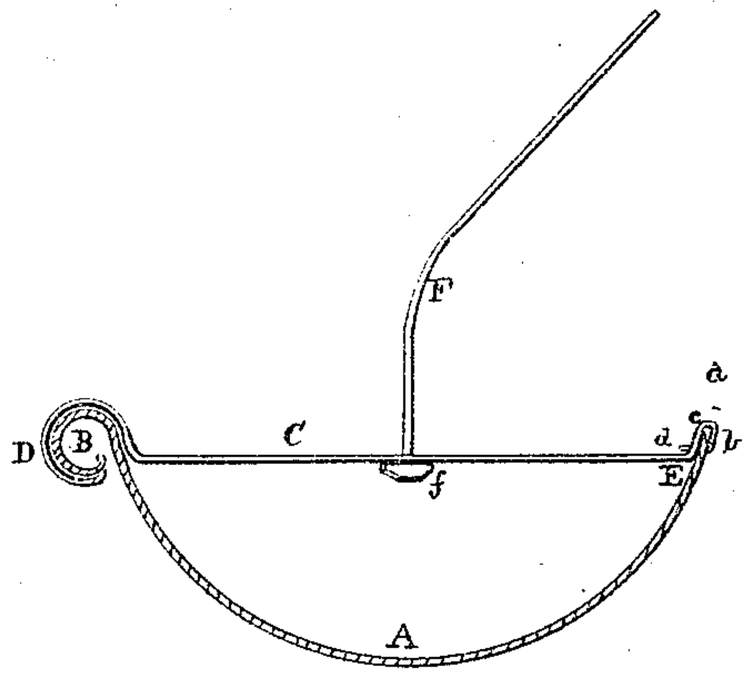

Fig. 2.

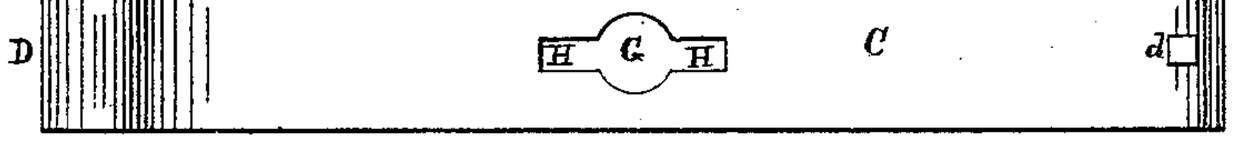

Fig. 3.

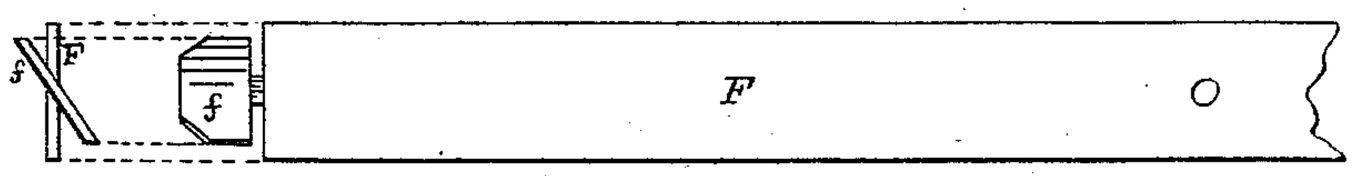

Fig. 4.

Witnesses:

James F. Tinsley.

Jennie M. Grant

Jacob F. Hess

Leonard Hess.

by Job Abbott

attorney.

UNITED STATES PATENT OFFICE.

JACOB F. HESS AND LEONARD HESS, OF MASSILLON, OHIO.

IMPROVEMENT IN EAVES-TROUGH HANGERS.

Specification forming part of Letters Patent No. **148,952**, dated March 24, 1874; application filed June 18, 1873.

To all whom it may concern:

Be it known that we, JACOB F. HESS and LEONARD HESS, of Massillon, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Eaves-Trough Hangers; and that the following is a full, clear, and exact specification thereof, which will enable others skilled in the art to make and use the said invention.

Our invention relates to certain improvements in hangers for suspending eaves-troughs from the roofs of buildings; said invention consisting, first, in the construction of a cross-bar for the eaves-trough united by a circular clasp to a roll on one edge of the trough, and extending across the trough to a point below the other edge thereof, and from thence extending up over the edge and down the outside, with a pin at its end extending through the side of the trough, and through the inner upturned part of the bar, thus forming an inner and outer brace to the trough, and uniting the bar and trough firmly to each other. Said invention also consists in the construction of a flat sheet-metal hanger having a button-head formed at its lower end, and bent at an angle with the body of the bar, which is used in connection with a cross-bar provided with a slot and circular hole in which the head of the hanger can be inserted, and there secured by turning the hanger, as hereinafter shown, thus forming a cheap and efficient connection for the hanger and cross-bar.

In the accompanying drawing, Figure 1 is a plan of a section of a trough and hanger embodying our invention; Fig. 2, a section of the same. Fig. 3 is a plan of the cross-bar, showing the slot and circular hole which receives the hanger; and Figs. 4 are side and end views of the hanger.

A is an eaves-trough of ordinary construction, having its outer edge B rolled, as shown in Fig. 2. C is the cross-bar having its outer end D rolled to fit over the rolled edge B of the trough A, and its inner end *b c* bent up and doubled over the inner edge *a* of said trough, and terminating in a pin, *d*, which projects inward through the edge *a* of the trough, and through the vertical part *c* of the cross-bar. At or near the center of said cross-bar C is a circular hole, G, crossed by a slot, H, extending lengthwise of the bar C. F is the hanger, consisting of a strip of sheet metal, having a button-head, *f*, at its lower end, the neck which connects said head to the hanger being slightly twisted so that the head *f* stands at an angle with the hanger F, as shown in end view in Figs. 4.

In applying this improved construction, we take the cross-bar C and insert the clasp D in the lower side of the roll B of the trough A, then turn the bar C down so as to extend across the trough A to a point, E, below the edge *a*. Here it is bent upward, and the part *c* is turned over the edge *a*, and the pin *d* is inserted in slots in the edge *a* and part *c* of the cross-bar C. The cross-bar C, with its two clasps D and *c b*, thus performs the twofold function of connecting the two edges of the eaves-trough, and also bracing them apart. The eaves-trough is secured to the roof by means of the hanger F, (Fig. 4,) the width of the head of which is less than the length of the slot H, and greater than the width of the circular opening G. The button *f* is inserted in the slot H of the cross-bar C, and the hanger F is then turned so that it stands cross-wise of the cross-bar. The hanger F must be curved or bent above the point of attachment to the bar C, in order to adapt it to the slope of the roof. The angle between the hanger F and its button *f* gives said hanger a firmer bearing on the cross-bar C than it would have if the two were parallel, thus preventing the trough from swinging on hanger, and holding it rigidly in a horizontal position. Said angle, however, must be less than a right angle, otherwise the head *f* will be parallel with the slot H, and the desired attachment cannot be made.

This device for securing the hanger F to the cross-bar C forms a very simple and effective means of hanging eaves-troughs to the roofs of buildings, and the peculiar mode of bracing the cross-bar C on the inner sides of the trough A, instead of across its top, resists the tendency which the weight of the water gives to the trough to double up, besides preventing the metal which forms the trough from straightening out.

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

1. The cross-bar C, united by the clasp D to the roll B on the trough A, and extending across the trough to a point, E, below the edge *a*, the end being united to said edge *a* by the clasp *c b*, with end pin *d* extending through the edge *a* and part *c*, substantially as and for the purpose specified.

2. The flat sheet-metal hanger F, having the button-head *f*, turned at an angle with the body of the hanger, substantially as and for the purpose specified.

3. The combination of the flat sheet-metal hanger F, having an angular button-head, *f*, and the cross-bar C, with circular hole G and slots H H, the several parts being constructed and arranged substantially as is herein specified.

As evidence of the foregoing, witness our hands this 27th day of May, A. D. 1873.

JACOB F. HESS.
LEONARD HESS.

Witnesses:
W. N. RUDENSTEIN,
J. A. HUMBERH.