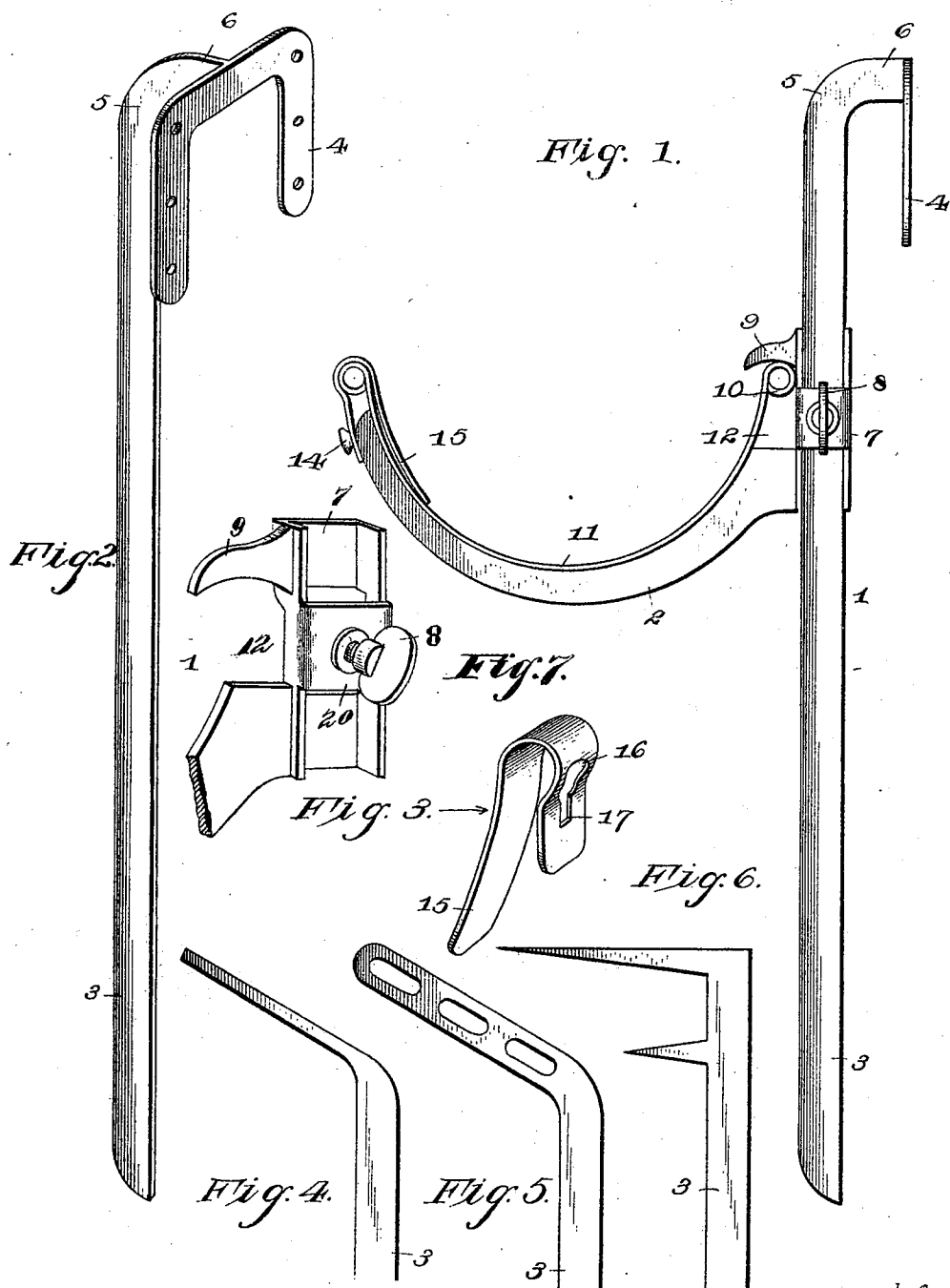


(No Model.)

O. T. ROBERTS.
EAVES TROUGH IRON.

No. 516,576.

Patented Mar. 13, 1894.



Inventor

Orville T. Roberts,

Witnesses

C. A. Ford.

By his Attorneys.

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UNITED STATES PATENT OFFICE.

ORVILLE T. ROBERTS, OF ALLENTOWN, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO WALTER E. ROBERTS, OF SAME PLACE.

EAVES-TROUGH IRON.

SPECIFICATION forming part of Letters Patent No. 516,576, dated March 13, 1894.

Application filed July 18, 1893. Serial No. 480,842. (No model.)

To all whom it may concern:

Be it known that I, ORVILLE T. ROBERTS, a citizen of the United States, residing at Allentown, in the county of Lehigh and State of Pennsylvania, have invented a new and useful Eaves-Trough Iron, of which the following is a specification.

My invention relates to improvements in eaves-trough irons or hangers, and it has for its object to provide a simple and serviceable device capable of adjustment to facilitate aligning the troughs, and so constructed as to separate the trough from the woodwork or eaves of the building to which it may be attached, and finally to prevent the accumulation of rust from destroying the adjustability of the hanger or iron.

With such objects in view the invention consists in certain features of construction hereinafter specified and particularly pointed out in the claims.

Referring to the drawings:—Figure 1 is a side elevation of an iron or hanger embodying my invention, showing the trough arranged in operative position therein. Fig. 2 is a detail view in perspective of the bracket. Fig. 3 is a similar view of the flexible clip or strap. Figs. 4, 5 and 6 are detail views illustrating modified forms of terminals for the brackets, whereby the latter may be secured to the roof or eaves. Fig. 7 is a detail in perspective of the movable sleeve at one end of the supporting arm.

Like numerals of reference indicate like parts in all the figures of the drawings.

My improved iron or hanger comprises a strap 1 and a supporting arm 2, which is vertically adjustable upon the shank 3 of the bracket. The bracket is provided at its upper end with a terminal attaching device 4, which in the construction shown in Figs. 1 and 2 consists of a vertical bifurcated plate having perforations for the reception of nails, screws, or other similar retaining devices, whereby the plate may be secured to the face of the eaves. The upper end of the shank adjacent to its junction with the securing-plate, is curved as shown at 5, thus producing a horizontal arm 6, whereby the vertical portion of the shank is projected upwardly from the wall of the building a sufficient distance.

The supporting-arm is provided at its rear or inner end with a vertically disposed sleeve 7, loosely embracing one side of the shank of the bracket. The said sleeve is of U-shape when viewed in cross section, and has its terminals connected by a narrow cross-strip 20 that embraces the opposite side of the shank and is of considerably less width than is the length of the sleeve. Arranged in this cross-piece is a thumb-screw 8 to engage the shank, in order that the supporting-arm may be locked at any desired vertical adjustment. Projecting forwardly from the upper end of said sleeve is a retaining-hook 9 that is adapted to take over the rear edge or bead 10 of the trough 11. The supporting arm terminates at its rear or inner end below the retaining-hook, thus forming an opening 12, in which the said bead 10 is seated. This arrangement of the retaining-hook above and separated from the inner end of the supporting-arm to provide the opening 12, enables the trough to conform accurately to the shape of the said supporting-arm, and thus is supported by the arm throughout its entire width in lieu of at one or more points only, whereby a sagging or bending of the trough might occur.

Integral with the front end of the supporting-arm is a headed pin 14, and the flexible clip or strap 15 is provided with an opening 16 and a communicating slot 17 to engage the shank of this pin, the inner end of the clip or strap being bent over the adjacent edge or bead of the trough. In applying the clip or strap the head of the pin is passed through the opening thereof, after which the clip or strap is drawn upwardly to cause the engagement of the slot with the shank of the pin.

Inasmuch as this class of devices are constantly exposed to the weather they soon become rusted, and though they have been made adjustable by various constructions, yet the rust accumulating has, so far as I am aware, rendered such adjustable features inoperative. By the construction of sleeve herein shown and described, I avoid this objection in that I form the sleeve so as to embrace the inner side of the shank for any material distance so as to render the connection firm and steady, and connect the terminals of the sleeve merely by a narrow cross-strip located at the

opposite side of the shank. The cross-strip does not impinge upon the shank, but the set-screw serves this function. By this arrangement it will be seen that even though the sleeve be rusted and therefore difficult to separate under ordinary circumstances from the shank, I am enabled by a loosening of the thumb-screw and a shaking of the supporting-arm to loosen or unseat the sleeve from the shank after which the arm may be adjusted to a desired point along the latter.

In Figs. 4, 5 and 6, I have illustrated different forms of terminal-attaching devices for the bracket. The construction of such devices being, however, common in the art and well known.

The form of attaching-devices shown in Figs. 1 and 2 is especially adapted for use when the roof extends a considerable distance beyond the face of the permanent portion of the structure to which an eaves-trough bracket can be secured. The form of adjusting device which I have illustrated and described, permits of accurate adjustment of the trough and at the same time provides a permanent and effective locking-device to prevent displacement after the parts have been adjusted, and it cannot become so rusted as to impair the adjustability thereof.

A special point of advantage to note over eaves trough irons heretofore used, is, that in hanging the troughs with such irons, one hand is necessarily engaged in holding the trough in place, while with the other hand the hook of the iron must be adjusted to the shank of the bracket, the bolt inserted, and the nut screwed on, which is very tedious; whereas, with the present improvement all this is obviated, since it is simply necessary to slip the sleeve with the hook on the bracket shank,

and then turn the thumb screw, and the adjustment is complete.

Having described my invention, what I claim is—

In an eaves-trough iron or hanger, the combination with a bracket having a vertical shank and means for securing the same to a roof, of a curved supporting-arm provided at its inner end with the U-shaped sleeve loosely embracing one side of said shank, a cross-strip of less width than the length of the sleeve connecting the terminals of said sleeve, and located at the opposite side of the shank an adjusting-screw threaded in the cross-strip and bearing against the surface of the shank whereby the arm is locked at a desired elevation upon the shank, a retaining-hook 9 carried by and integral with the upper end of the sleeve, said supporting-arm terminating at its inner end below the plane of the hook and combining therewith to form a recess, the headed pin 14 at the outer end of the arm, a flexible clip or strap 15 provided with an elongated opening engaging said pin and bent upon itself to take at the inner side of the arm, and the eaves-trough seated in the arm and contacting throughout the curved portion of the same, said trough terminating in beads, the inner one of which takes within the opening between the hook and sleeve, and the outer one of which is embraced by the inner terminal of the clip, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ORVILLE T. ROBERTS.

Witnesses:

GEO. F. BRENING,
EDWARD RUHE.