

No. 118,061.

ALBERT B. SCHULZ.
Improvement in Gutter Straps.

Patented August 15, 1871.

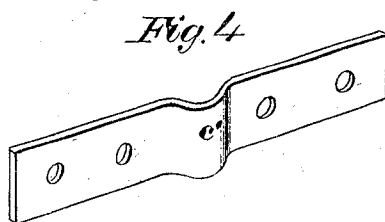
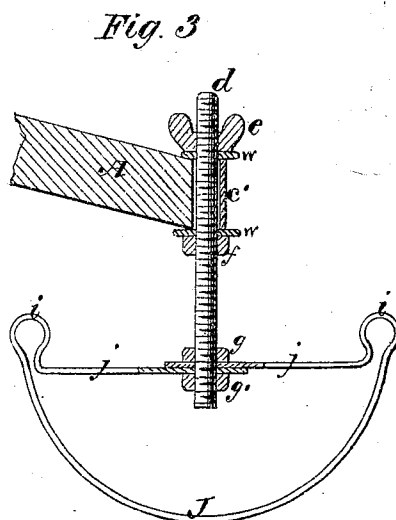
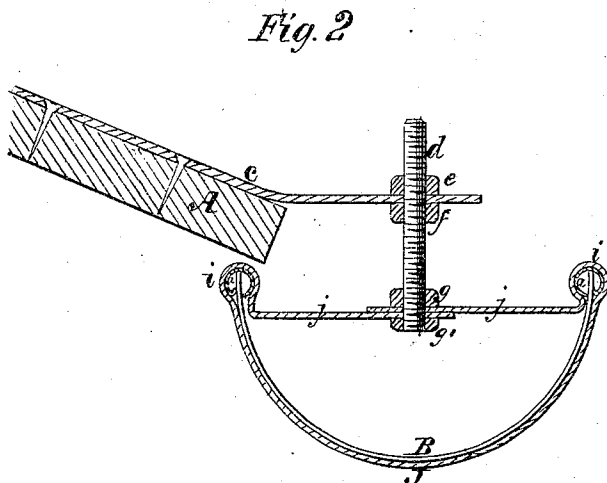
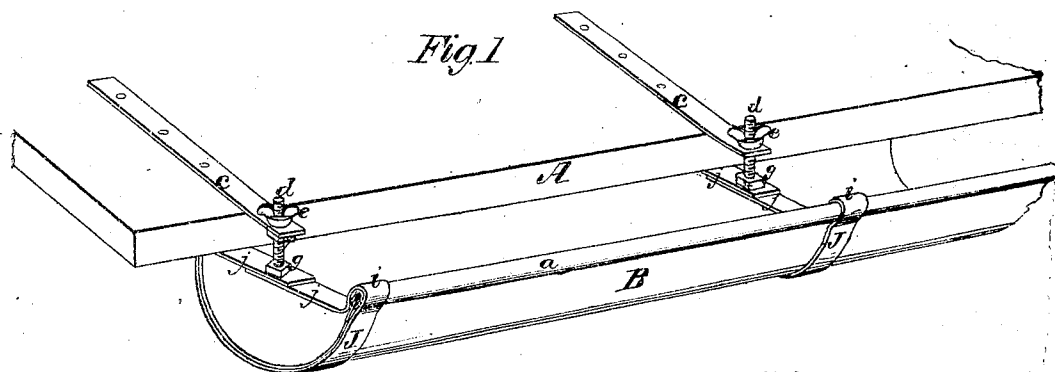
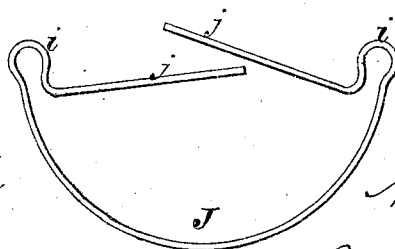


Fig 5



Witnesses
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UNITED STATES PATENT OFFICE.

ALBERT B. SCHULZ, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN GUTTER-STRAPS.

Specification forming part of Letters Patent No. 118,061, dated August 15, 1871.

To all whom it may concern:

Be it known that I, ALBERT B. SCHULZ, of Baltimore, in the county of Baltimore and State of Maryland, have invented a new and useful Improvement in Gutter-Straps; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a perspective, view showing part of a gutter or eaves-trough secured to the eaves of a roof by my improved strap. Fig. 2 is a vertical cross-section of the gutter, the strap, and overhanging bracket. Fig. 3 shows the strap secured to the eaves by means of an eye-bracket. Fig. 4 is a perspective view of the eye-bracket. Fig. 5 shows the strap with its end detached.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to an improved device for supporting eaves-troughs or gutters, and of securing them in a strong and durable manner to the eaves of roofs.

The following description of my invention will enable others skilled in the art to understand it.

In the accompanying drawing, A represents part of a roof, to which is secured an eaves-trough, B. This trough may be made in the usual well-known manner, with stiffening-ribs *a a* on its edges. J represents a strap, made of metal, of suitable thickness and width to afford strength and durability. This strap is bent in a semicircular or arched form, corresponding to the shape of the trough or gutter B in cross-section, and its ends *jj* are bent to form eyes at *ii* for receiving the beads, and the flattened portions are of such length as to overlap each other, as shown in the drawing. It will thus be seen that the strap J, when bent as described and shown, will completely embrace the gutter B, and that when applied to the gutter its flattened overlapping ends will afford a means for suspending the gutter from a point at the middle of its width, so that it cannot, under any circumstances, sag or tilt to one side or the other. The ends *jj* of the strap J are perforated to receive through them a screw-threaded suspension-rod, *d*, which is secured to the strap, and the ends *jj* clamped rigidly together by means of two nuts, *g g'*, shown

in Figs. 2 and 3. The suspension-screw may be made of any desired length, so as to admit of any desired inclination being given to the gutter. This screw is secured to a bracket, *e*, which is fastened in any suitable manner upon the roof, and two nuts, *e* and *f*, are employed for this purpose, the screw passing freely through a hole made through the said bracket. In cases where it is not practicable to secure the overhanging brackets to a roof, eye-brackets *e'*, shown in Figs. 3 and 4, may be secured to the edge of the roof and the screws *d* passed up through them, using as the fastenings the nuts *e* and *f* and washers *w w*.

It will be seen from the above description that my improved strap embraces the gutter firmly so that it cannot sag, and that said strap affords a means whereby the gutter can be suspended from points at the middle of its width, which will prevent any displacement of the gutter either to one side or the other. The clamping-nuts, by which the suspension screw-rods are secured to the brackets, will allow the gutter to be readily adjusted up or down, and set at any desired inclination. Another very important advantage attending my invention is that, by simply removing the nuts *e* from their screw-rods *d*, the gutter can be detached from the roof and be cleansed or repaired.

Where it is desired to apply my straps J to old gutters attached to roofs this can be readily done by bending one end of each strap outward and passing the other end behind and over the gutter, after which the outwardly-bent end is brought over and adjusted in its place, as shown in the drawing, Figs. 1, 2, and 3.

I do not claim, broadly, the suspending of a gutter by screw-brackets and straps, as this is shown in the rejected case of J. P. Abbott, filed in 1865; nor do I claim a strap which encircles the gutter and has its ends clamped by a screw to the vertical leg of a bracket, as this is shown in the rejected application of T. N. Fisher, filed in 1868. Neither do I claim as my invention a strap and bracket combined, made in a single piece, as this is also shown in the patent granted in 1868, above referred to; but

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

The combination of the screw *d*, which has a thread extending from end to end, the straps *j* *i* lapping over the top of the gutter, the under and upper nuts *g* and *g'*, *e* and *f*, and the brackets *c c*, all in the manner shown and described, whereby the gutter can be adjusted both at *g g'* and also at *f* and *e*, and the gutter, or a strap

thereof, may be removed without disturbing the screws, as set forth.

ALBERT B. SCHULZ.

Witnesses:

J. N. CAMPBELL,
EDM. F. BROWN.