No. 616,446. Patented Dec. 27, 1898.

J. W. BELL.

EAVES TROUGH HANGER.

(Application filed Feb. 17, 1898.)

(No Model.)

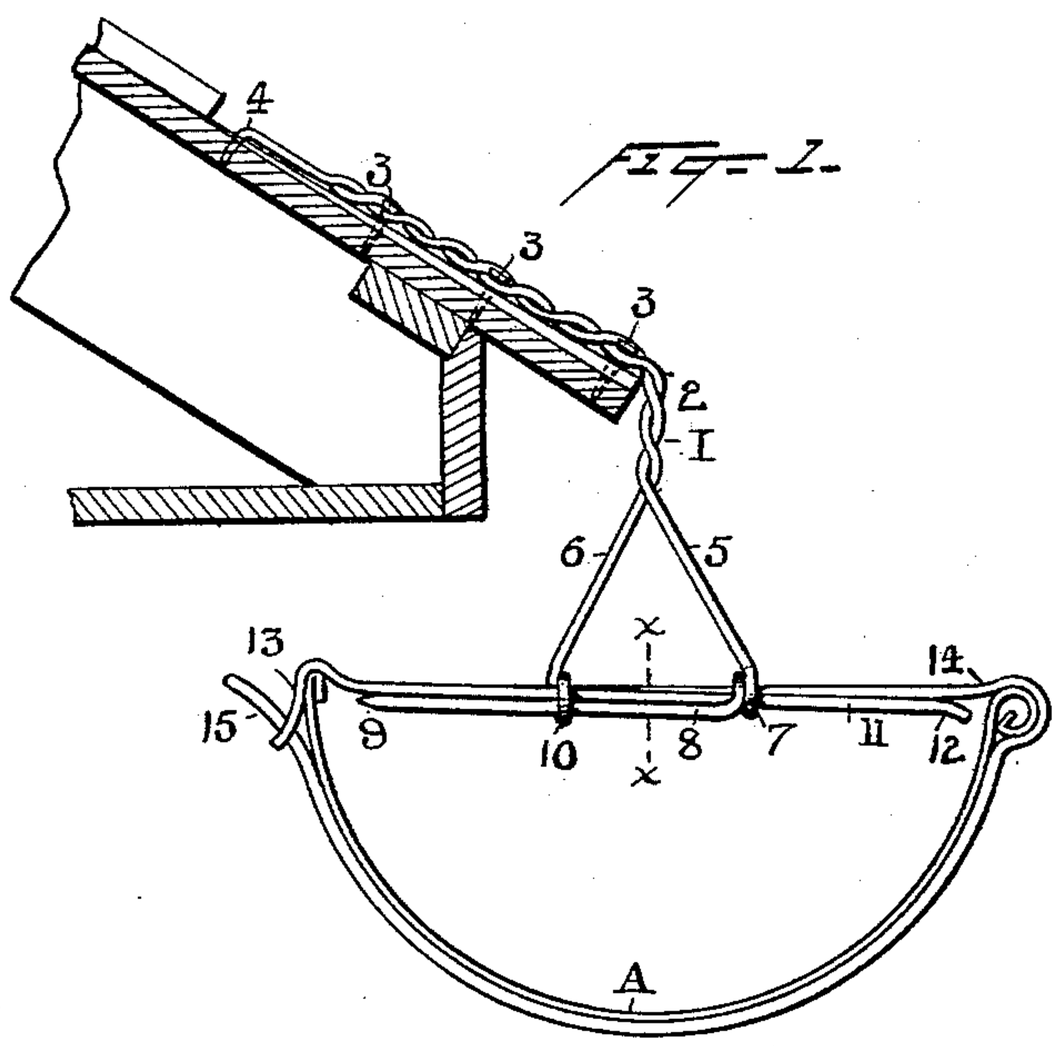

Fig. 1.

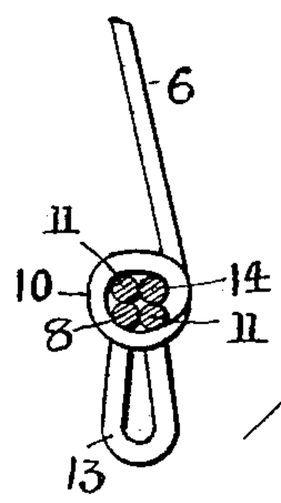

Fig. 2.

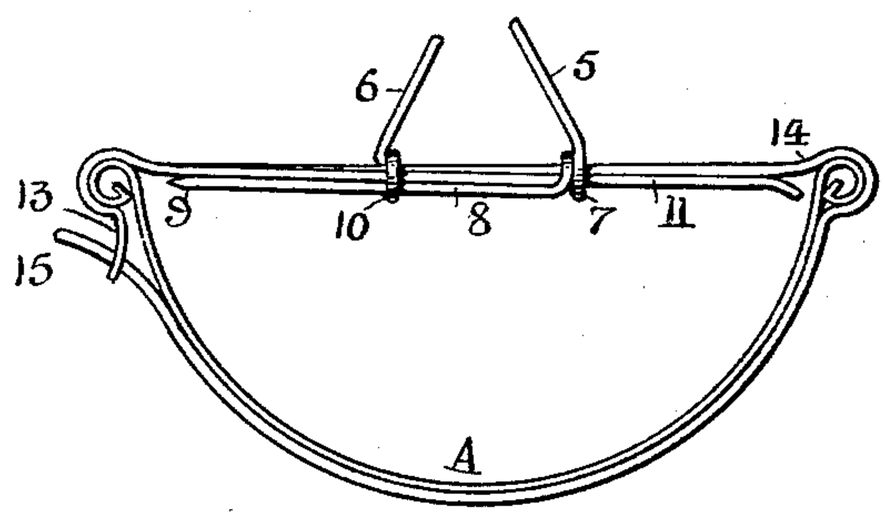

Fig. 3.

WITNESSES:

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JOHN W. BELL, OF MERCER, PENNSYLVANIA.

EAVES-TROUGH HANGER.

SPECIFICATION forming part of Letters Patent No. 616,446, dated December 27, 1898.

Application filed February 17, 1898. Serial No. 670,628. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. BELL, a citizen of the United States, residing at Mercer, in the county of Mercer and State of Pennsylvania, have invented certain new and useful Improvements in Eaves-Trough Hangers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My present invention relates to certain new and useful improvements in eaves-trough hangers, the object being to provide a simple, cheap, durable, light, and efficient hanger—one that is readily applied to the eaves-trough as well as to the building and one that will remain secure and stable; and the invention therefore consists, essentially, in the construction, arrangement, and combination of parts, substantially as will be hereinafter more fully described and claimed.

In the annexed drawings, illustrating my invention, Figure 1 is a side elevational view of my improved eaves-trough hanger in partial section, the same being represented as practically applied to the eaves-trough as well as to the roof of a building. Fig. 2 is a transverse section of the same on the line *x x* of Fig. 1. Fig. 3 is a modification showing a form of my invention adapted for use with a double-beaded trough.

Like letters and figures of reference indicate like parts in the different figures of the drawings.

My improved hanger consists of two pieces of wire. These two pieces are intertwisted for a certain distance to form the length 1, which is bent at 2 to fit over the edge of the roof, the twisting being at such a tension that a nail may be driven between the wires at any desired point—as, for instance, at 3 3—for the purpose of fastening the hanger to the roof. The extreme upper ends 4 4 of the two wires 5 6, at the point where the twisting begins, are separated, bent, and pointed to adapt them to be driven into the roof for the purpose of fastening the hanger. At the lower end of the twisted roof-piece length 1 the wires 5 and 6 separate at an angle to each other, as shown. One of them, as 5, is bent to form an eye 7, that surrounds the wires that form the bar across the top of the supported trough, and said wire 5 extends horizontally across the top of trough from the eye 7 in the form of the straight wire 8, which terminates at 9. The other wire, 6, of the roof-piece length 1 likewise is bent to form an eye 10, similar to eye 7, and surrounding wire 8 and the other wires that form the bar across the top of the trough. From eye 10 the wire leads, as wire 11, to the point 12, where it forms a loop and returns parallel to itself to 13, where another loop is formed, and then the wire returns horizontally again to 14, where it is bent to fit the bead of the trough, and it then is shaped into a semicircle to fit the outside of trough, terminating in the free end 15, which engages the loop 13, at a point below top of trough, so as not to interfere with the trough fitting against the cornice. The free end 15 is adapted to be bent down after the hanger has been fixed on the trough.

A denotes an eaves-trough. (Shown here to illustrate the application of my invention.) When the trough has but a single bead, the double wires are bent slightly upward just above the loop 13, as shown in Fig. 1; but when the trough has a double bead said wires are bent above loop 13, so as to provide a conforming curve for the bead the same as at 14.

Some of the points of merit of this hanger are—

First. Double hooks for driving in roof. These make a stiff strong fastening, much more rigid than nails driven through a loop or eye and are much more convenient to drive in or fasten, as they are always in position to be driven.

Second. The twisted wires form a stiff roof-piece, and being twisted to such a tension only as to allow a nail to be driven between the wires at any point is, I believe, a new and useful feature and a great convenience, as the place the nail should be driven varies with each hanger, according to the point at which the roof-piece has been bent to pitch of roof and to give proper "fall" to the trough.

Third. The spreading of the two wires of roof-piece length 1 and passing them around the wires that form the bar across trough at some distance apart makes a stiffer connection between roof-piece and cross-bar than if both wires attached to cross-bar at same point.

These roof-wires form a brace or support to the trough and prevent the trough sagging or tipping down at its outer edge in case of an accumulation of snow or ice on front side of trough.

Fourth. The bar across the top of trough is formed so as to get the combined strength of three wires, so adjusted and related to each other that they form a brace or support each to the other and give much greater strength than three times the strength of one wire, bound together, as they are, by the roof-pieces, thus making a very stiff strong hanger at the point where the weight is suspended and insuring that the trough will be kept in shape as well as place.

Fifth. The single wire that forms the bead and circle of the trough passes through the loop at 13 and can be drawn up until it fits the trough and then the loose end bent down, so as to hold firmly.

What I claim is—

1. The herein-described eaves-trough hanger, consisting of the two twisted wires that spread above the trough and are looped to surround the wires that form the bar across the trough, one of said wires having a free end to engage a loop in itself, substantially as described.

2. An eaves-trough hanger formed of two wires that are twisted for a certain distance and then spread and shaped with eyes to surround the wires that form the bar across the trough, one of the wires running from the eye horizontally and terminating, and the other running horizontally from its eye, then looping and returning upon itself, then looping again and returning, then circling for the shape of trough and terminating in a free end adapted to engage one of its loops at a point below the top of trough, substantially as described.

3. An eaves-trough hanger formed of two wires that are twisted for a certain distance and then spread above the trough and shaped with eyes to surround the wires that form the bar across the trough, one of the wires running from the eye horizontally and terminating, and the other being suitably bent as described and having a free end to engage a loop in itself, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN W. BELL.

Witnesses:
W. J. McKEAN,
FRANK B. BELL.