

W. H. THRIFT.  
EAVES-TROUGH HANGER.

No. 183,988.

Patented Oct. 31, 1876.

Fig. 1.

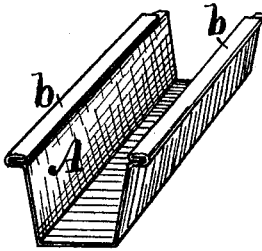


Fig. 2.

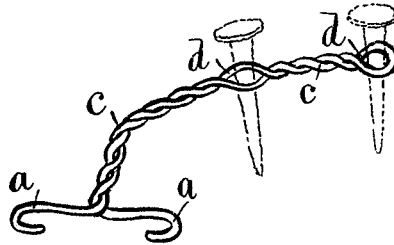
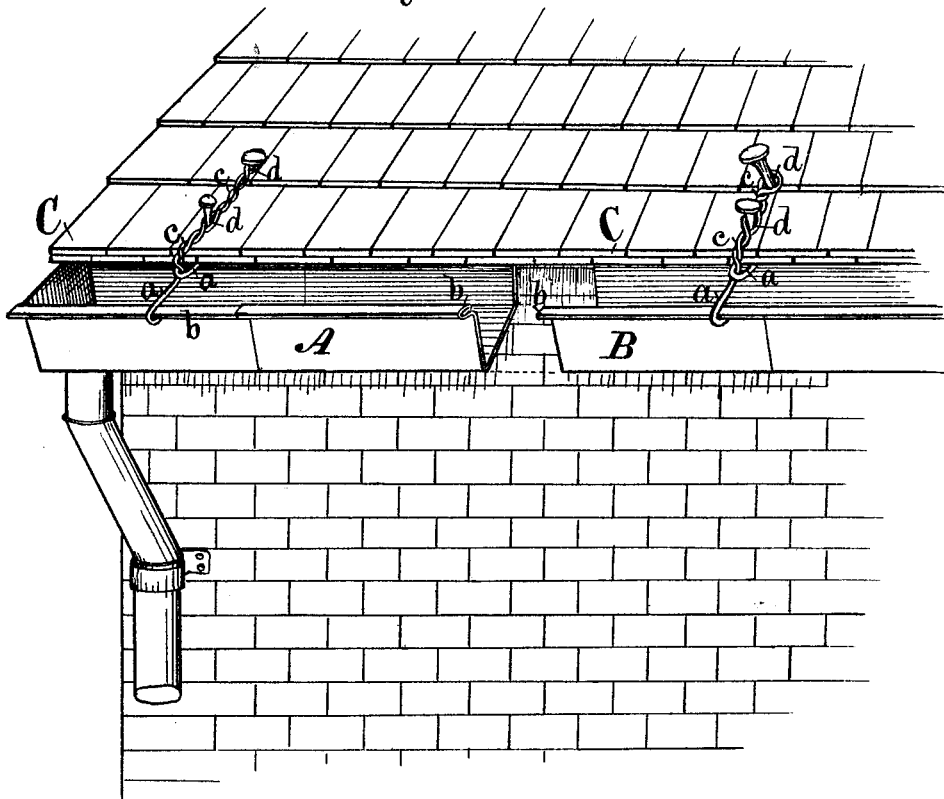


Fig. 3.



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# UNITED STATES PATENT OFFICE.

WILLIAM H. THRIFT, OF NEWTON, IOWA.

## IMPROVEMENT IN EAVES-TROUGH HANGERS.

Specification forming part of Letters Patent No. 183,988, dated October 31, 1876; application filed March 25, 1876.

*To all whom it may concern :*

Be it known that I, WILLIAM H. THRIFT, of Newton, Jasper county, Iowa, have invented a new and Improved Eaves-Trough Hanger and Fastener, of which the following is a specification:

The object of my invention is to form an eaves-trough in such a manner that it can be readily suspended to a building in sections, and adjusted in the hangers to form lap-joints, and to form hangers, complete in one piece, specially adapted for suspending and adjusting the trough-sections. It consists, first, in forming uniform flanges on the parallel top edges of the trough; second, in forming a flexible hanger complete in one piece, all as hereinafter fully set forth.

Figure 1 of my drawing is a perspective view of a trough-section, and illustrates my manner of forming uniform and parallel flanges on the top edges.

A is the body of the trough, made in a common way by bending a sheet-metal plate into trough form. The trough may be square and flat-bottomed or flaring and round-bottomed. *b b* are uniform and parallel flanges, standing outward, in reverse directions, from the top edge of the body A. These flanges are formed by simply doubling the edges either inward or outward several times, and pressing the folds together to form strong rigid edges and horizontal flanges. The corners of one end of each sheet may be advantageously cut away to form smooth lap-joints.

Fig. 2 is a perspective view, illustrating my manner of constructing a flexible eaves-trough hanger complete in one piece.

*a a* are the two ends of a single piece of wire. They stand out horizontally, and in opposite directions from the twisted and doubled wire body *c c*. These ends and arms *a* terminate in hooks designed to engage, slide upon, and clasp the horizontal flanges *b* of the trough A. *d d* are openings or eyes in the doubled and twisted elbow-formed body of the hanger, through which nails are designed to pass to fasten the hanger to the building. Flexible hangers can thus be readily formed by doubling and twisting a single wire into form as illustrated. They may vary in size and strength,

as required for troughs of different sizes and weight.

Fig. 3 is a perspective view, illustrating the application and combination of my improved trough and hanger.

A and B represent separate sections of a long trough, suspended independently, by means of my flexible hangers *a c d*, to the projecting eaves C C of a building. The trough, formed in separate sections of uniform shape and size, and with uniform horizontal flanges *b b*, has one or more of my hangers slipped over the open end of each section, to clasp the flanges *b b* with its hooked arms *a a*. If the hooks of the arms do not fit and clasp tight enough they can be readily shrunk and made to fit closer by giving the body of the hanger an additional twist to shorten the arms *a a*. The separate sections of trough carrying the adjustable hangers can then be readily and successively elevated to the eaves, and independently suspended along the projecting roof by bending the free ends of the hangers to the surface of the roof, and driving nails partly in through the eyes *d*. When the whole length of the trough is thus suspended in sections, the one end and first section is adjusted, as desired, to connect with the leader, and firmly secured in its place by nailing down the twisted end of the hangers to the roof. The adjoining suspended section of trough is then adjusted by sliding it through the arms of the hangers, to lap over the end of the first and fixed section, where it will remain held securely by the hangers, to allow the joint to be soldered. All the separate sections can be thus successively and advantageously joined, and the difficulties usually attending the hanging of a long and heavy trough thereby avoided.

I am aware that an eaves-trough has been formed with uniform grooves in its parallel top edges, in which grooves hangers were introduced and adjusted; but I claim that my manner of forming flanges *b b*, adapted to receive the overlapping and clasping hooks on the ends of the arms *a a* of the hangers, is novel, and prevents the trough from being spread when suspended by the clasping-hangers, as required in practical use. I am also aware that eaves-troughs have been suspended

by forming hangers from single pieces of wire; but I claim that my manner of forming a hanger complete in itself, by doubling and twisting a single piece of wire to form the body, and then spreading the ends of the same wire to form clasping-arms to engage the opposite edges and flanges of a trough, is novel and greatly advantageous.

I claim as my invention—

1. A sheet-metal eaves-trough, A, having uniform parallel and horizontal flanges *b b* at its top edges, substantially as and for the purposes shown and described.

2. As an improved article of manufacture, a flexible eaves-trough hanger, having clasping-

arms *a a*, a doubled and twisted body, *c c*, and eyes *d d*, constructed from a single piece of wire, substantially as and for the purposes shown and described.

3. The combination of a section of trough A, having parallel horizontal flanges *b b*, and one or more adjustable hangers, having a twisted body, *c c*, eyes *d d*, and arms *a a*, said arms terminating in hooks to engage the trough-flanges *b b*, substantially as and for the purposes shown and described.

WILLIAM H. THRIFT.

Witnesses:

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