

No. 626,757.

Patented June 13, 1899.

J. H. HORAN.

GUTTER STAY AND HANGER STRAP.

(Application filed Sept. 29, 1898.)

(No Model.)

Fig. 1.

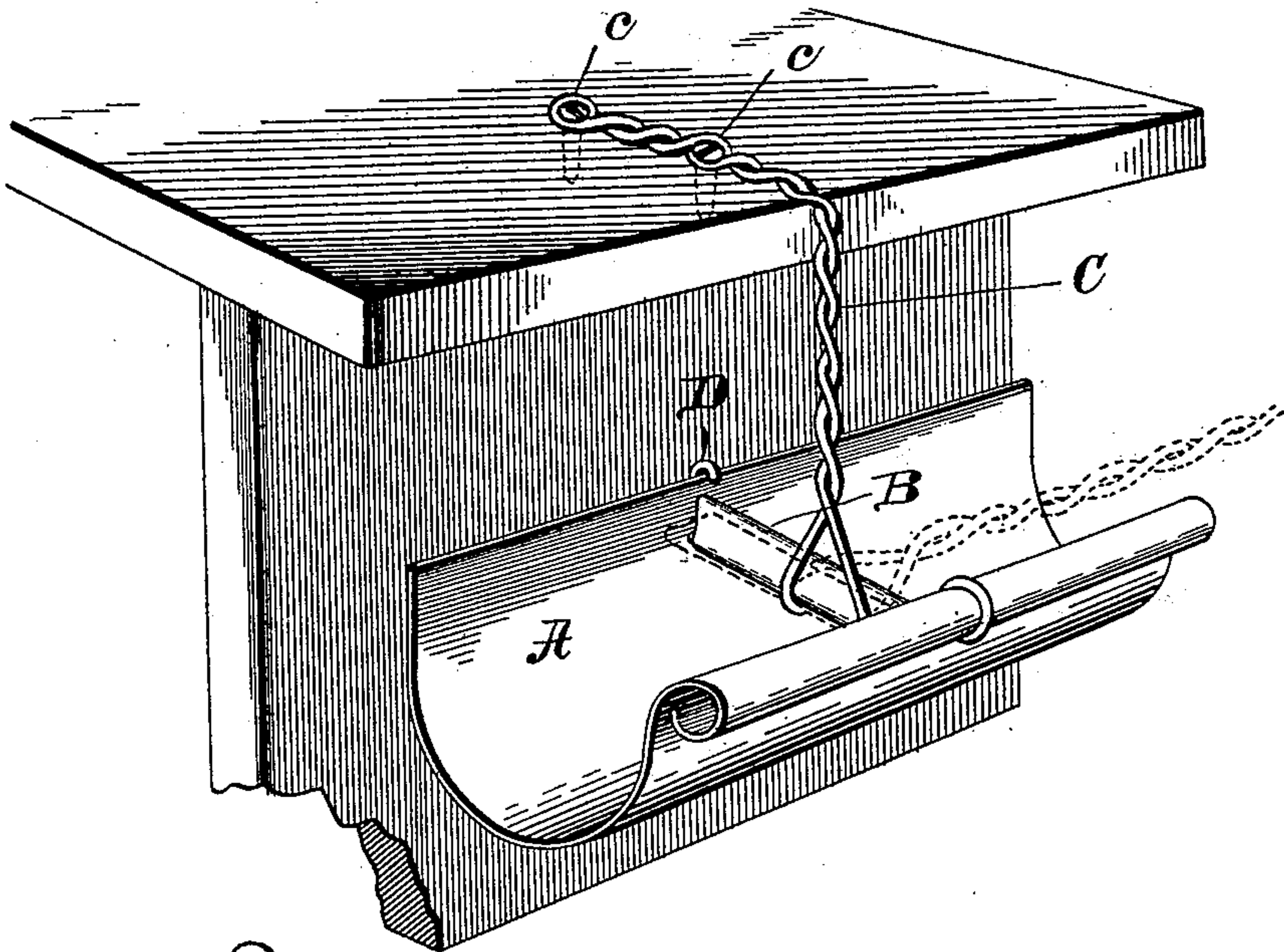


Fig. 2.

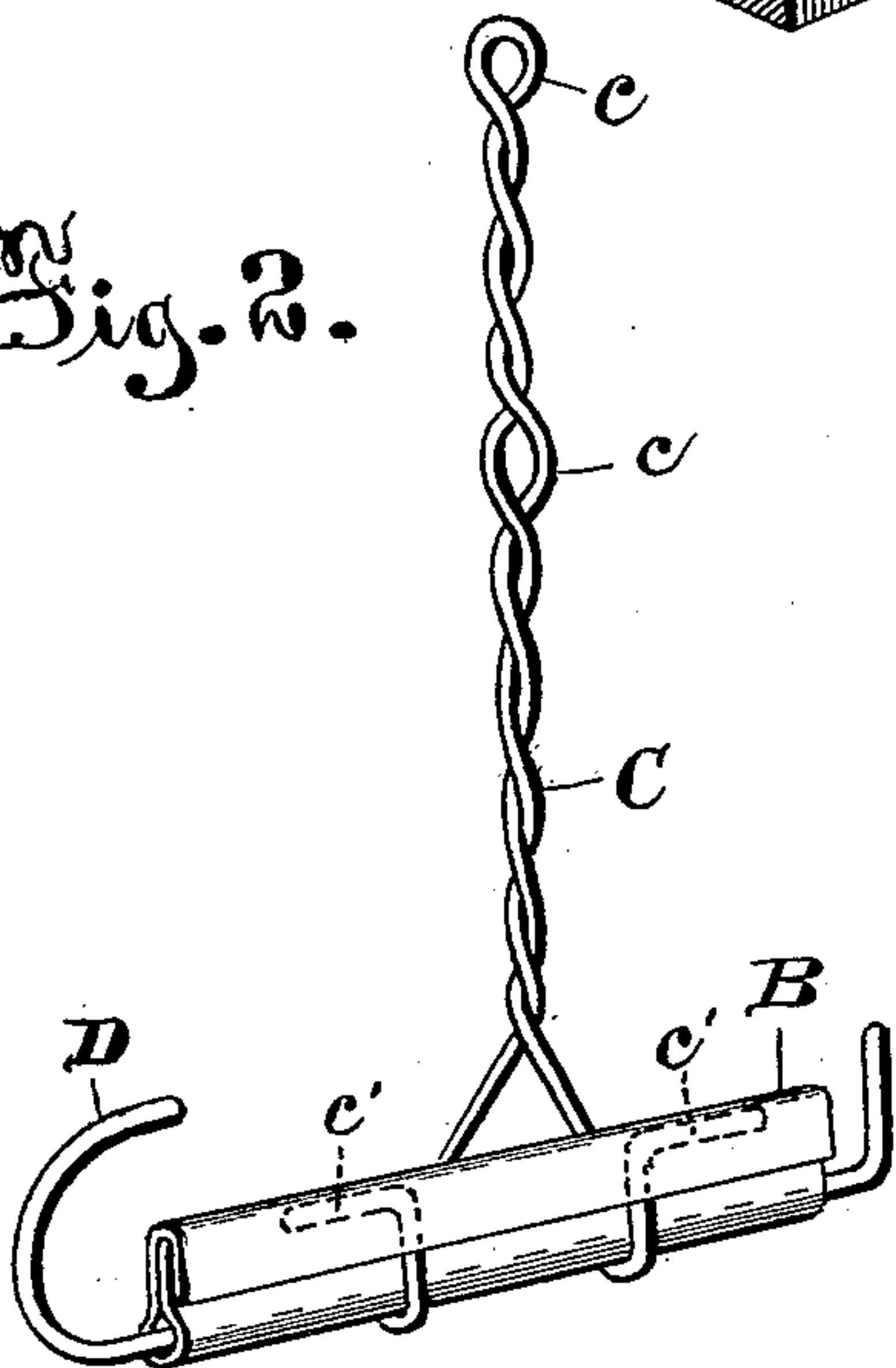
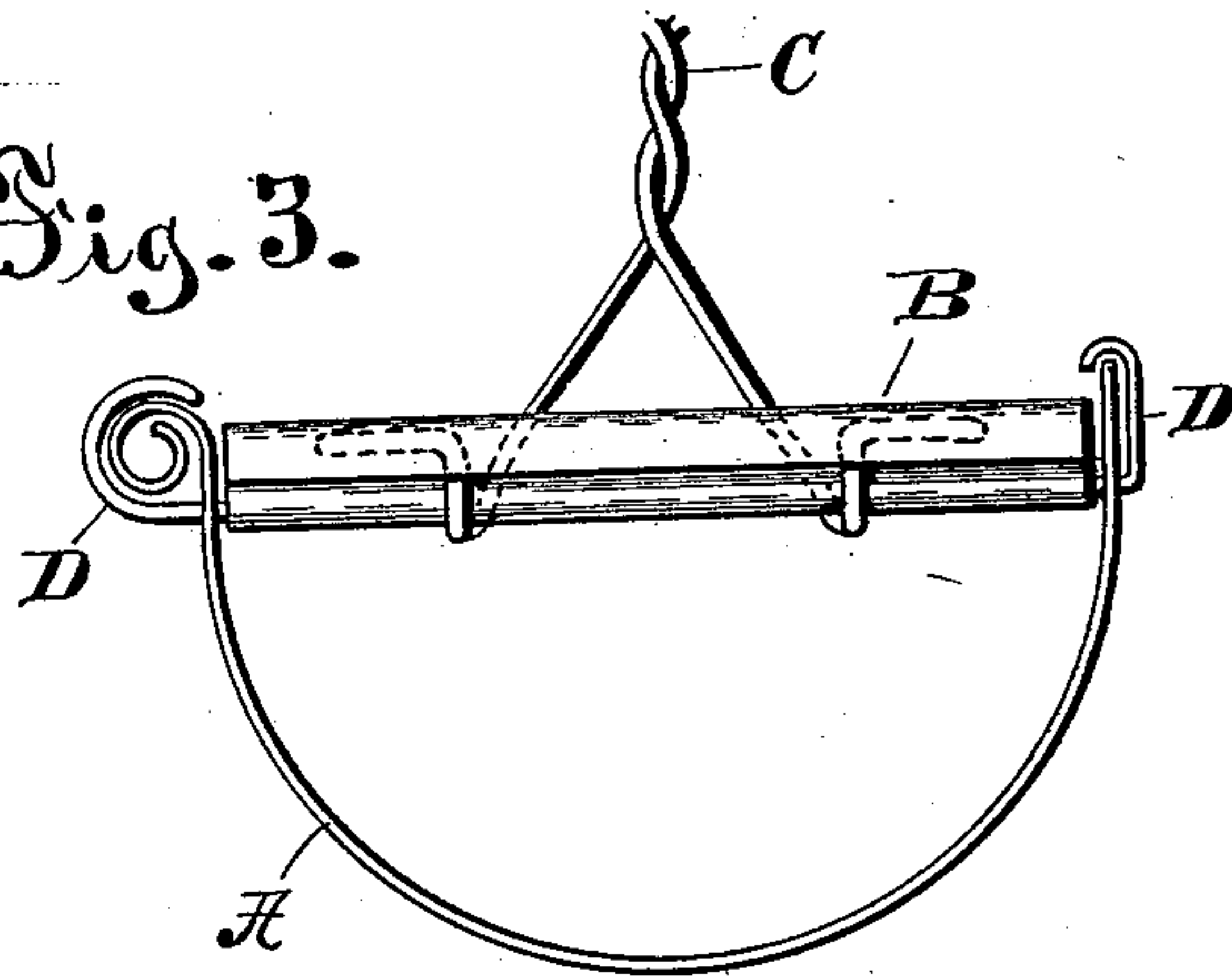


Fig. 3.



WITNESSES

Marcus L. Byng.  
Edwin Cruise.

INVENTOR

James H. Horan  
By J. Stockman  
Associate Attorney



# UNITED STATES PATENT OFFICE.

JAMES H. HORAN, OF LOUISVILLE, KENTUCKY.

## GUTTER-STAY AND HANGER-STRAP.

SPECIFICATION forming part of Letters Patent No. 626,757, dated June 13, 1899.

Application filed September 29, 1898. Serial No. 692,161. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES H. HORAN, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented new and useful Improvements in Gutter-Stays and Hanger-Straps, of which the following is a specification.

My invention relates to the methods of supporting and keeping in shape the gutters or eaves-troughs designed to catch and carry off the rain-water that falls from the eaves of houses; and the object of my invention is to provide a combined stay and hanger which is strong, simple, easily applied, and avoids soldering to the gutter. I accomplish this object by the means illustrated in the accompanying drawings, in which—

Figure 1 represents a portion of a roof and house-wall with a section of guttering attached by my improved stay and strap. Fig. 2 is a detail view of my stay and hanger-strap. Fig. 3 is an end view of a section of guttering with my stay and hanger in place.

In the drawings, A represents a section of gutter of the usual style with a bead on the outer edge.

B represents my improved stay, C the strap or hanger, and D the hinge-wire, by which the stay is fastened to the guttering.

The stay B consists of a strip of metal of length sufficient to extend across the inside of the gutter from side to side. This strip is folded longitudinally from the bottom and the fold clamped down firmly on the sheet, leaving a bead at the bottom, through which is inserted the hinge-wire D, by which the stay is attached to the gutter.

The hanger-strap C consists of a piece of wire of suitable length doubled in the middle, spread apart in the lower portion, and the ends bent outwardly at right angles, as shown by the dotted lines *c' c'* in Fig. 2. The upper part of the metal strip forming the stay B is then folded down over the spread and bent ends *c' c'* of the hanger-strap C and clamped down firmly upon them. The wire strap C is then bent around the bead at the bottom of B and up the back of B, bringing it to the position shown in Fig. 2, and twisted, leaving two holes *c* and *c* in the twist for the insertion of the nails that fasten the strap to the roof. The strap can be twisted before the ends *c c* are clamped to the stay B, and

the hinge-wire D can be inserted after the bead is formed along the bottom of B by the first fold, or the fold can be made over it and clamped, as is most convenient.

When it is desired to attach my improved stay and hanger to guttering, a hole is pierced through the gutter just under the outer bead and one through the other side of the gutter just opposite. The stay is then placed inside the gutter between the two holes, and the hinge-wire D is passed through one side of the gutter, through the bead in the lower part of B, and then through the hole in the other side of the gutter. One end of D is then bent over the bead of the gutter and the other over the opposite edge, as shown in Fig. 3, and the gutter is then ready to be fastened to the roof, as shown in Fig. 1.

The stay B being placed edgewise across the gutter instead of flat can be made of light metal the same as the gutter and keeps the gutter from flattening inwardly, while the hinge-wire D keeps it from spreading or flattening outwardly. The advantage of using the hinge-wire D is that when my stay and hanger are attached to guttering which is to be packed for shipment the strap can be turned down into the bed of the gutter, as indicated by the dotted lines in Fig. 1, the stay turning on D as a hinge.

By my improved stay and hanger I avoid soldering and riveting.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

The combination with a gutter, of a support therefor, consisting of a stay arranged transversely of the gutter and folded to provide a longitudinally-extending opening at its lower end, and having one side of its upper end folded over the top of the other side thereof, a hinge-wire extending through said opening and constructed to pivotally attach the stay to the gutter, and a hanger-strap having one end bent to extend around the lower end of the stay and with its extremity located between the folds of the latter.

Subscribed by me in the presence of two witnesses.

JAMES H. HORAN.

Witnesses:

GEORGE A. JONES, Jr.,  
ALFRED E. BECKMAN.