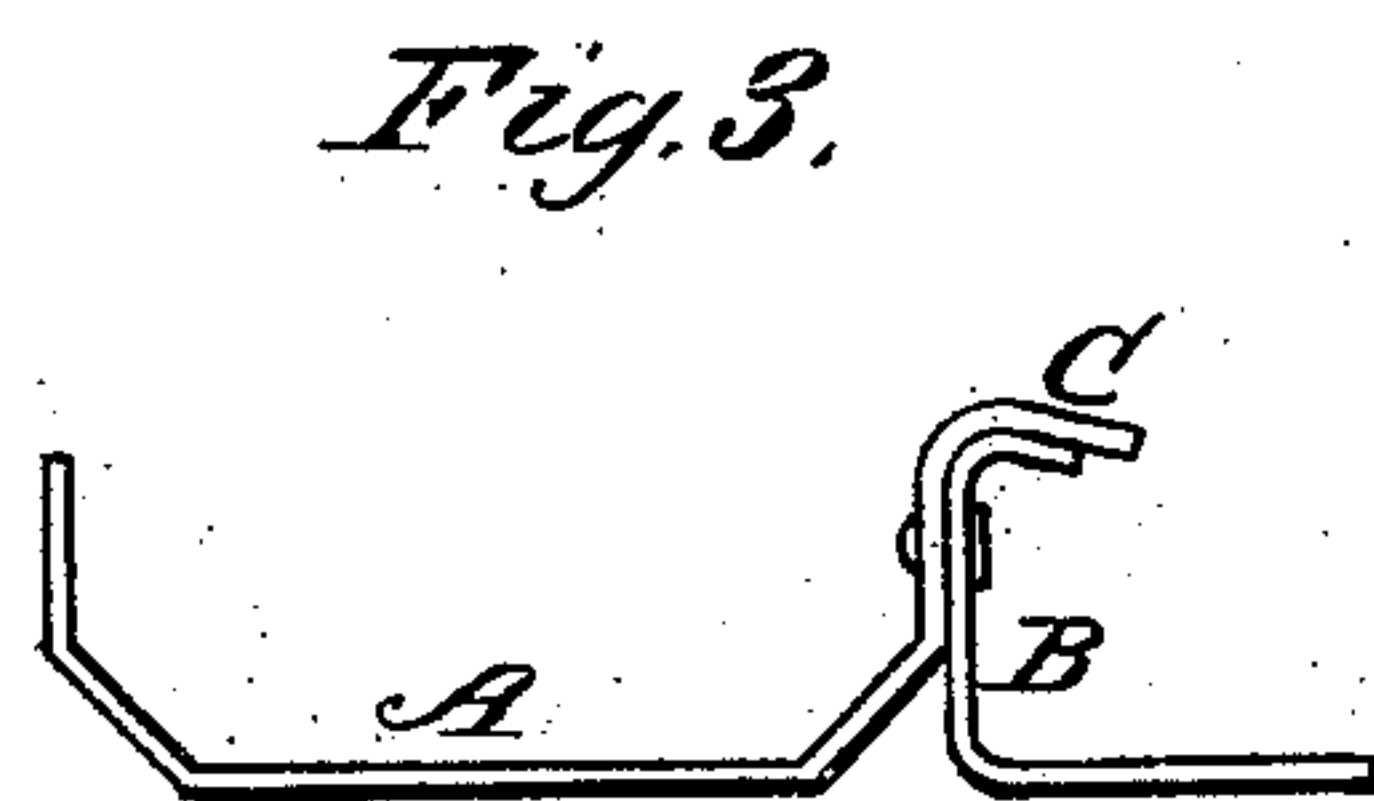
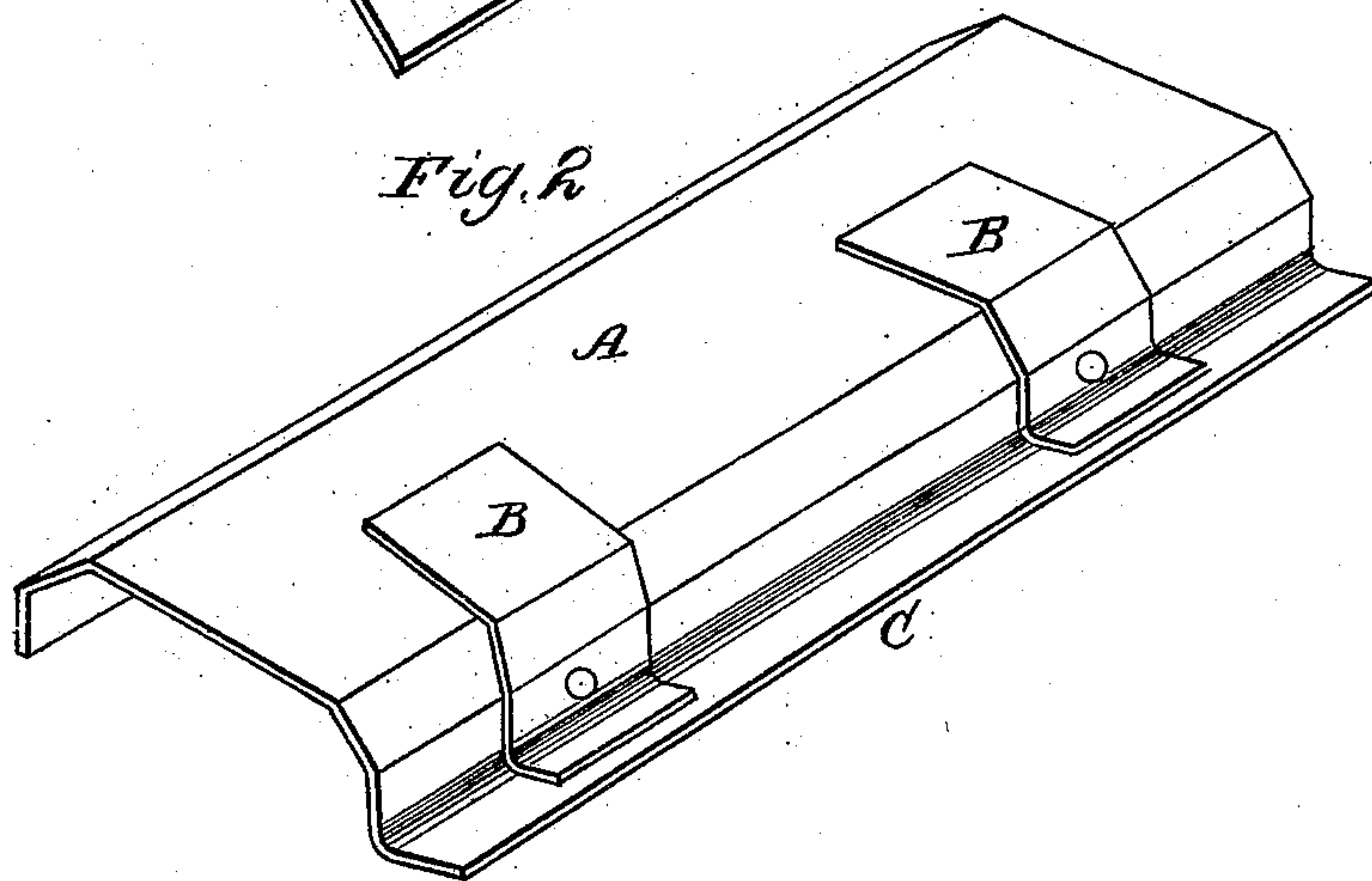
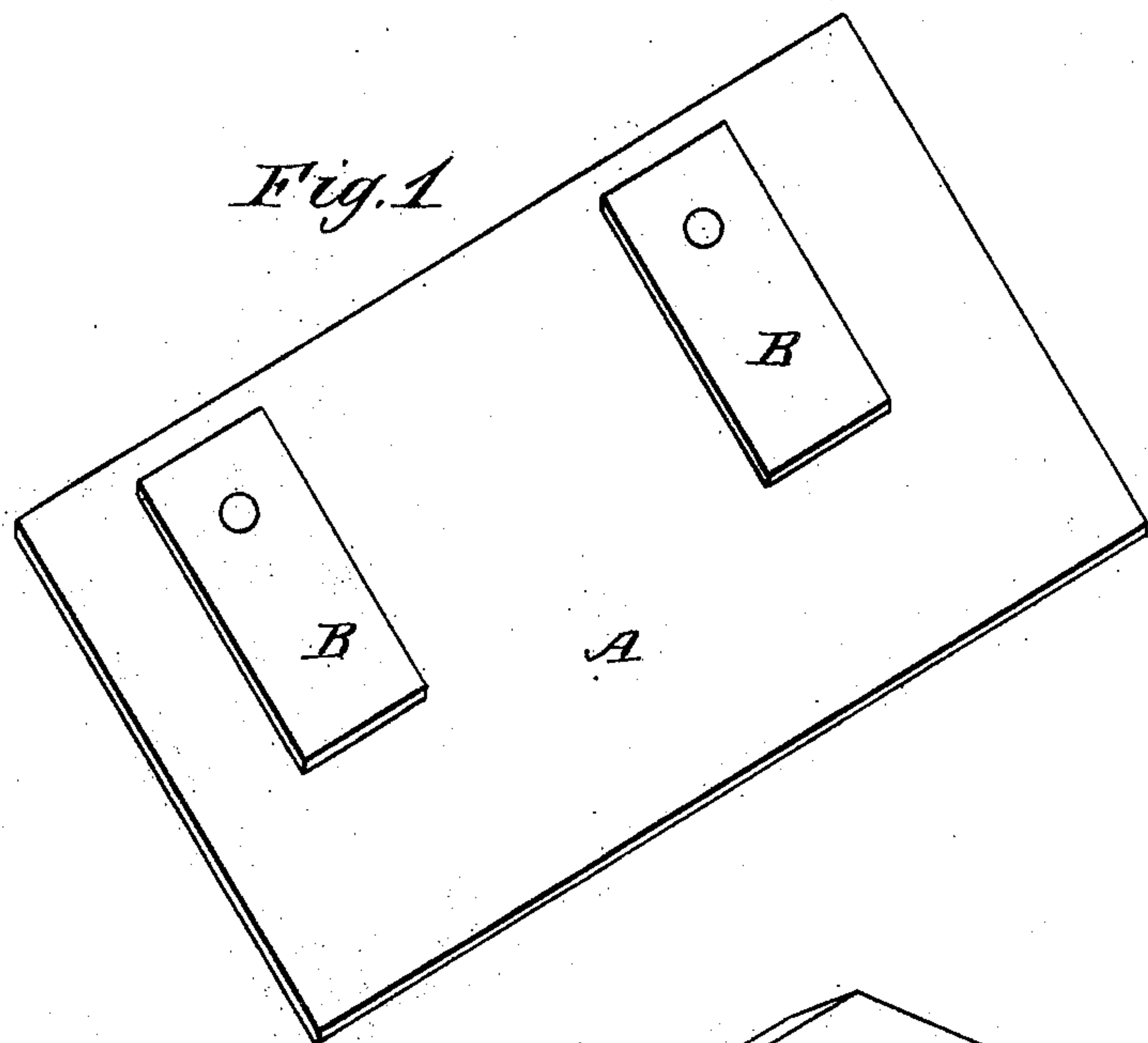


W. G. HYNDMAN.
Sheet-Metal Roofing.

No. 210,613.

Patented Dec. 10, 1878.



WITNESSES

Nat. E. Oliphant
Geo. R. Porter

INVENTOR

William G. Hyndman
per *Chas. H. Fowler*
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM G. HYNDMAN, OF CINCINNATI, OHIO.

IMPROVEMENT IN SHEET-METAL ROOFING.

Specification forming part of Letters Patent No. **210,613**, dated December 10, 1878; application filed November 11, 1878.

To all whom it may concern:

Be it known that I, WILLIAM G. HYNDMAN, of Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and valuable Improvement in Sheet-Metal Roofing; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a perspective view of the sheet before it is stamped, with the anchors connected thereto. Fig. 2 is a similar view of the sheet and anchors ready for packing. Fig. 3 is an end view of the plate and anchor.

This invention has relation to sheet-metal roofing-plates; and consists, in the metal plate and cap formed from one and the same sheet of metal, of an anchor or anchors secured thereto by rivets, solder, or other suitable means, as will be hereinafter described.

In the accompanying drawings, A represents the roofing-plate, of any suitable metal, to which are secured, by rivets, solder, or in any other suitable manner, anchors B, which may be done before the roofing-sheet is bent into form for attaching to the roof. After the anchors are thus secured to the sheet, the sheet and the anchors are bent by suitable tools or implements in the form as illustrated in Fig. 2 of the drawings, for convenience of packing and transportation.

The edge of the sheet A, upon the side to which the anchors are secured, is turned at an angle to form a cap, C, which is afterward turned down upon and over the edge of the adjoining plate after being placed upon the roof, thereby forming the roofing-sheet and cap from one and the same piece of metal, and greatly facilitating the manufacture of the

same, as well as saving time and labor in securing the plates upon the roof.

The great difficulty heretofore experienced in forming the anchor from the same sheet of metal that formed the roofing-sheet and cap was the care with which they had to be connected to the roof, and as the anchor runs the entire length of the sheet the contraction and expansion of the metal would be unequal, and tend to loosen the nails which secure the anchors to the roof; and, further, where the anchor is one continuous piece running the entire width of the sheet, it is extremely difficult to secure the anchor to a roof having an uneven or not perfectly flat surface.

By securing the anchors to the plate and having them of the ordinary width the above difficulties are removed, as the plates and anchors can be secured to the roof, however uneven, and the anchors being independent of each other allow of contraction and expansion without danger of loosening the nails, and one very essential and important feature is the economy of metal resulting from securing the anchors to the sheet in place of forming them from the same sheet of metal which forms the roofing-sheet and cap.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A sheet-metal roofing-plate and cap formed from one and the same piece of metal, and an anchor riveted or soldered thereto, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM G. HYNDMAN.

Witnesses:

R. J. HYNDMAN,
JAMES LOVE.