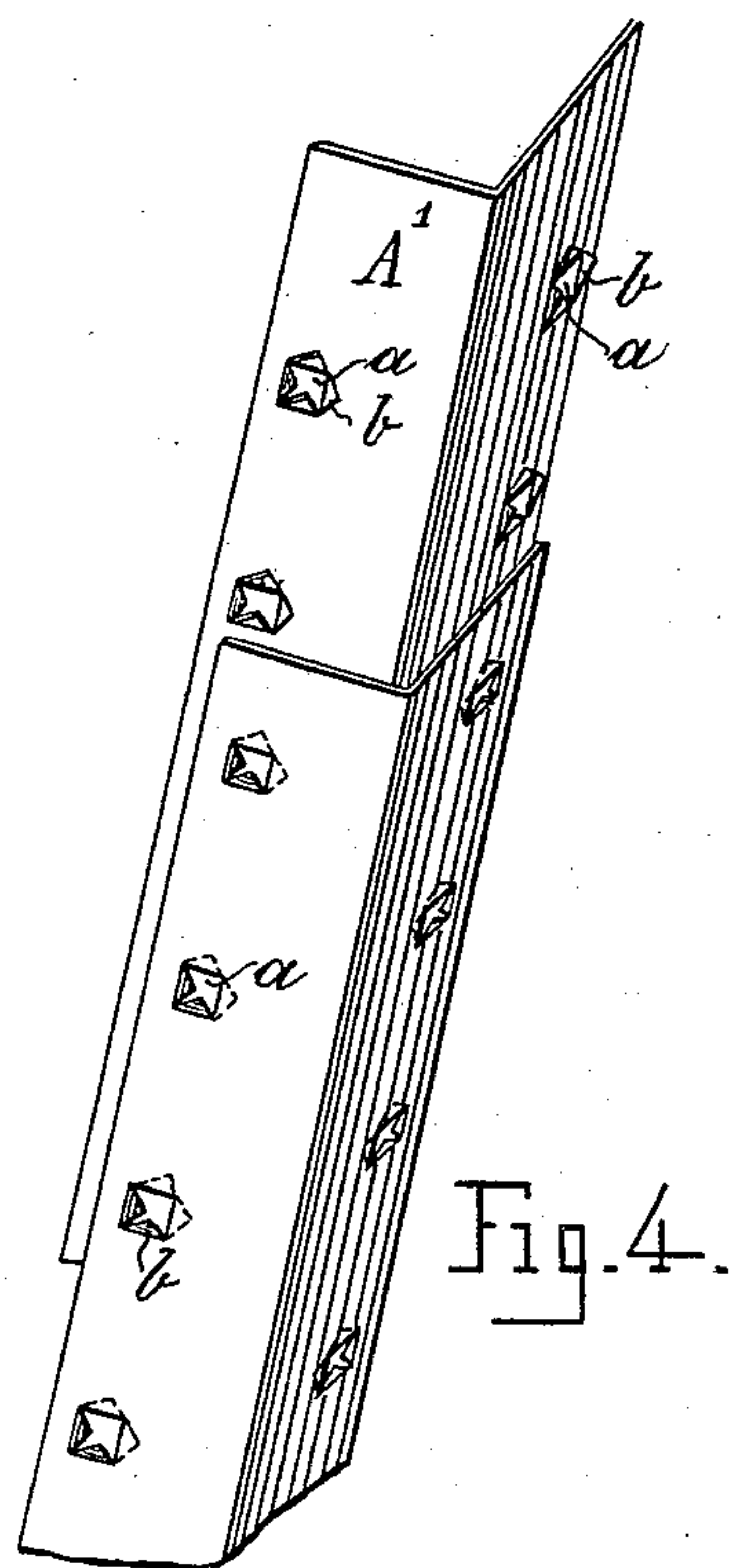
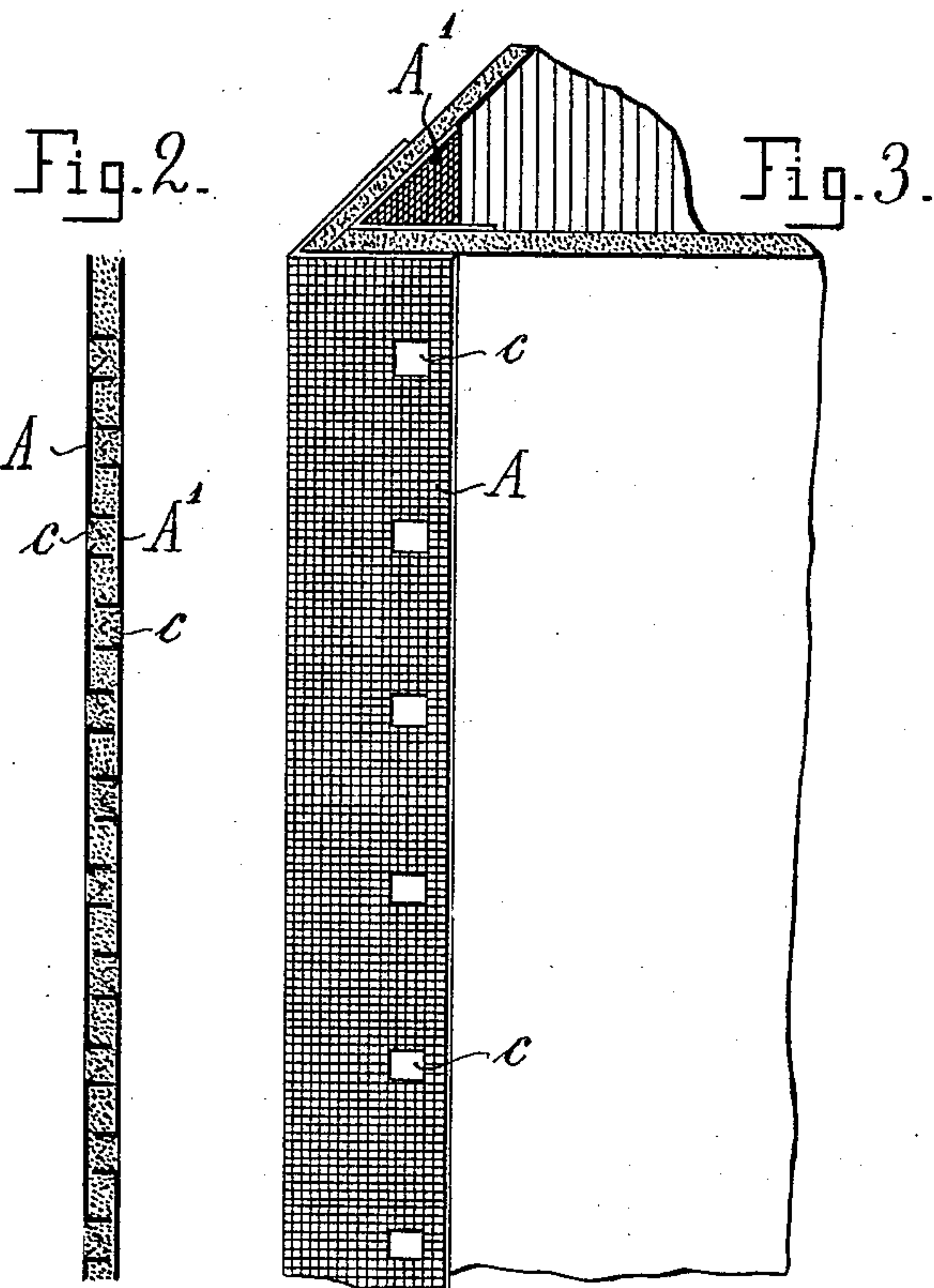
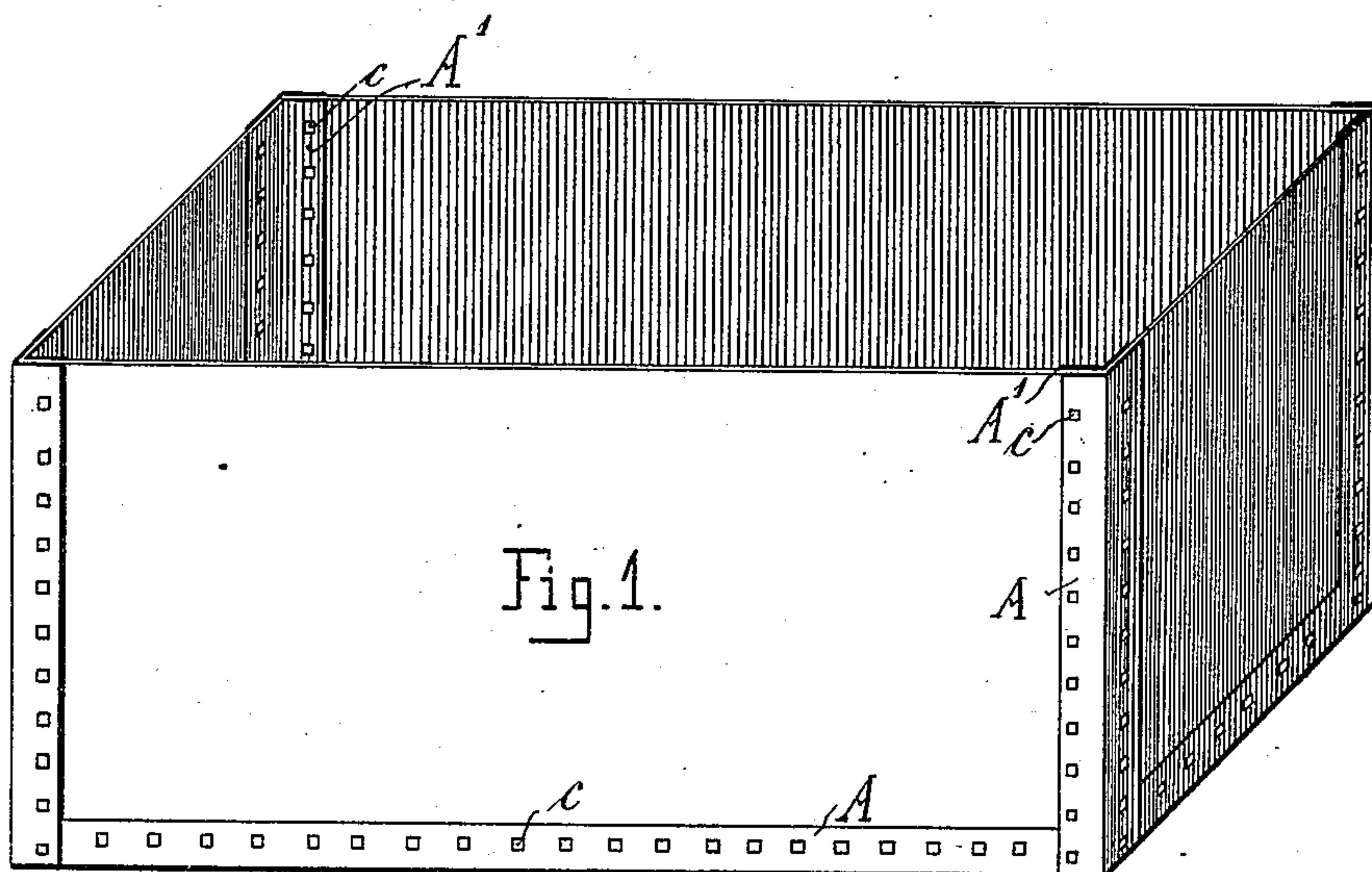


(No Model.)

M. HEINEMANN.
BOX.

No. 426,810.

Patented Apr. 29, 1890.



Attest
W. E. Bowen
E. R. Brown

Inventor
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UNITED STATES PATENT OFFICE.

MORITZ HEINEMANN, OF BIELEFELD, PRUSSIA, GERMANY.

BOX.

SPECIFICATION forming part of Letters Patent No. 426,810, dated April 29, 1890.

Application filed March 9, 1888. Serial No. 266,744. (No model.) Patented in Belgium December 15, 1887, No. 79,656; in England December 30, 1887, No. 16,149; in France February 10, 1888, No. 187,775, and in Austria-Hungary March 24, 1888, No. 46,189 and No. 6,485.

To all whom it may concern:

Be it known that I, MORITZ HEINEMANN, of Bielefeld, in the Empire of Germany, have invented certain new and useful Improvements in the Manufacture of Boxes, (patented in Austria-Hungary March 24, 1888, No. 46,189 and No. 6,485; in France, February 10, 1888, No. 187,775; in Belgium, December 15, 1887, No. 79,656, and in England, December 30, 1887, No. 16,149;) and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to certain improvements which are more particularly adapted to the manufacture of wooden boxes such as are used for holding cigars; but the invention is also applicable to the manufacture of boxes and various other articles from pasteboard or other suitable material.

The invention consists, essentially, in the employment of strips of metal at the corners of the box or other article and in the manner of attaching said metallic strips to the wood or other material, so as to connect the parts firmly and securely together and form a perfect and complete box or other article, as hereinafter more particularly described, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective of a box constructed according to my invention. Fig. 2 is a longitudinal section of the metal strips. Figs. 3 and 4 are detail perspective views, hereinafter more particularly referred to.

The box B (shown in the drawings) has its corners rectangular, and the metal strips A A' are bent longitudinally to correspond with said corners. In each metal strip at suitable distances apart holes *a* are formed by punching, so as to force the metal inward and form a rim or flange surrounding the hole thus made. These holes may be either circular, elliptical, or polygonal, so that the turned-in portion of the metal may be either a continuous edge or a series of tongues or spurs *b*. The metal strip thus bent to form a corner-piece is applied to the joint where the edges of two boards are placed together to form a corner of the box. The strip may be placed

either on the inside or outside of the box, and in either case the hole is so formed that when the strip is against the box the turned-in portion *b* is against the surface of the wood or other material of which the body of the box is made. Then by means of a suitable apparatus sufficient pressure is applied to force the turned-in portions *b* into the wood or other material, so as to partially separate from the main portion thereof a portion sufficient to form a plug *c*, which completely fills the hole and is flush and even with the surface of the metal, as shown in Fig. 3. If desired, there may be two of these metal strips or corner-pieces applied to each corner of the box—one on the inside and one on the outside. In such cases the holes in one strip are made at points intermediate between the holes in the other strips, and in both pieces the turned-in portions *b* are pressed into the material of the box toward each other, as shown in Figs. 2 and 4.

In some cases the metal strip may be of twice the length hereinabove described and bent double midway of its length, so that one half will apply to the inner surface and the other half to the outer surface of the corner of the box.

In the manufacture of small wooden boxes—such as cigar-boxes—as heretofore constructed the edges of the boards which form the corners are secured by nails, and these corners are covered by strips of paper pasted thereon, which strips of paper are intended to cover the heads of the nails to give the box an ornamental appearance and to add to its strength and prevent warping of the wood. Moreover, the wood must be thicker than would otherwise be necessary, in order to provide for the proper engagement of the nails without splitting the wood.

In a box constructed according to my invention the wood or other material need be only thick enough to allow the turned-in edges *b* to engage with the wood or other material sufficiently to form the plugs *c* and fill the holes *a*, and by this means a firm, strong, and durable box is formed and the necessity for pasting strips of paper at the corners is

obviated, as the metal strips or corner-pieces are much stronger and may be made as ornamental as desired by using the ornamental sheet metal well known in the market.

5 What I claim as new, and desire to secure by Letters Patent, is—

1. A box or similar article made of wood or other suitable material, having its corners secured by metal strips applied thereto either
10 on the inner or outer surface, said metal strips being bent longitudinally to conform to said corners and being provided with holes and with inturned portions adjacent to the holes and engaging the material of the box, portions of the material of the box being de-
15 tached and filling the holes, substantially as herein described.

2. A fastening device consisting of a metal

strip or plate bent longitudinally to conform to the corners of a wooden or other box or
20 similar article, said strip or plate being provided with holes and with inturned portions adjacent to the holes, said inturned portions forming flanges, tongues, or spurs so arranged
25 that when said fastening device is applied to a box or similar article portions of the material of the box will be detached and fill said
holes, substantially as herein described.

In testimony whereof I have signed my name to this specification in the presence of
30 two subscribing witnesses.

MORITZ HEINEMANN.

Witnesses:

B. ROI,

ALEX SCHOLZE.