

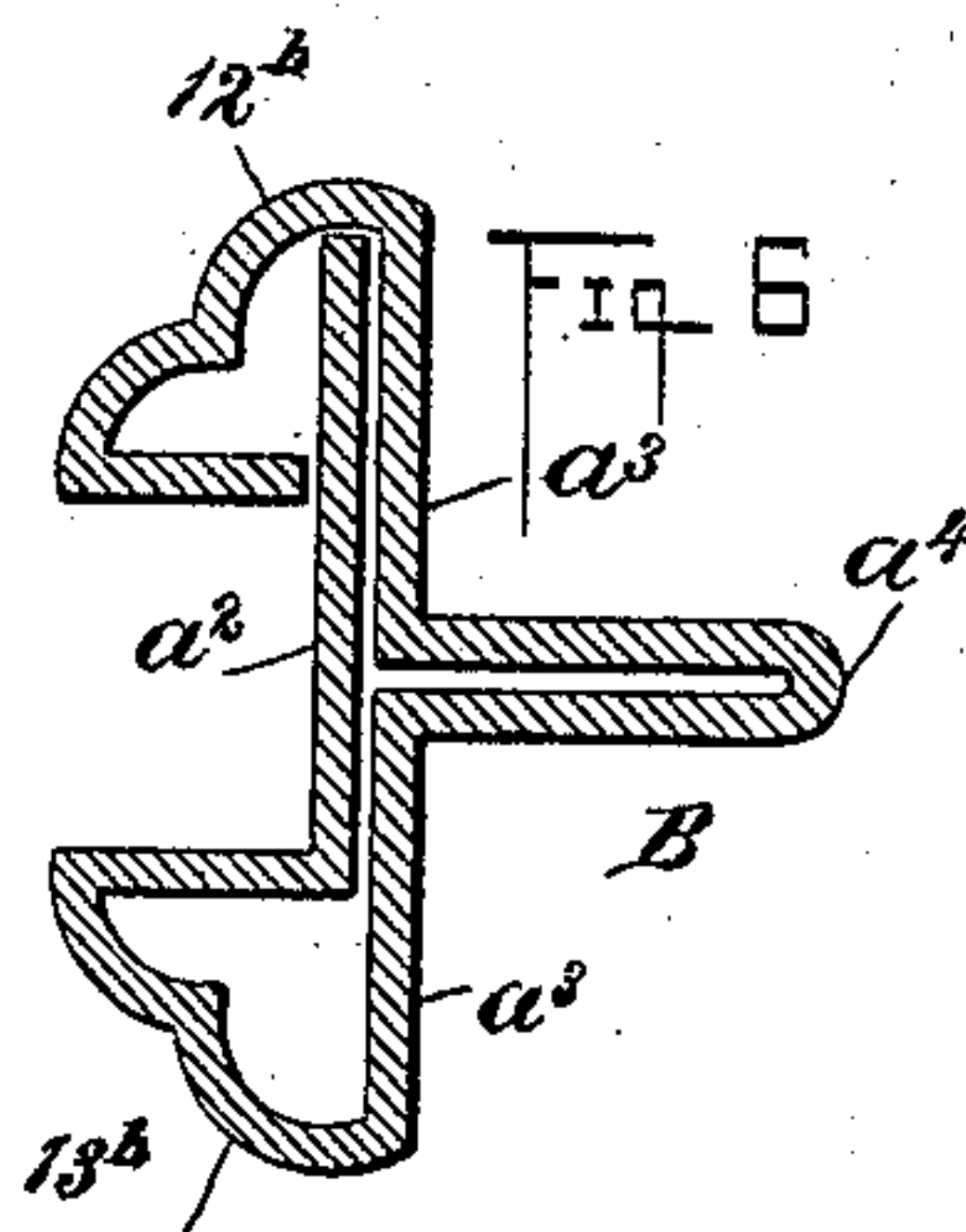
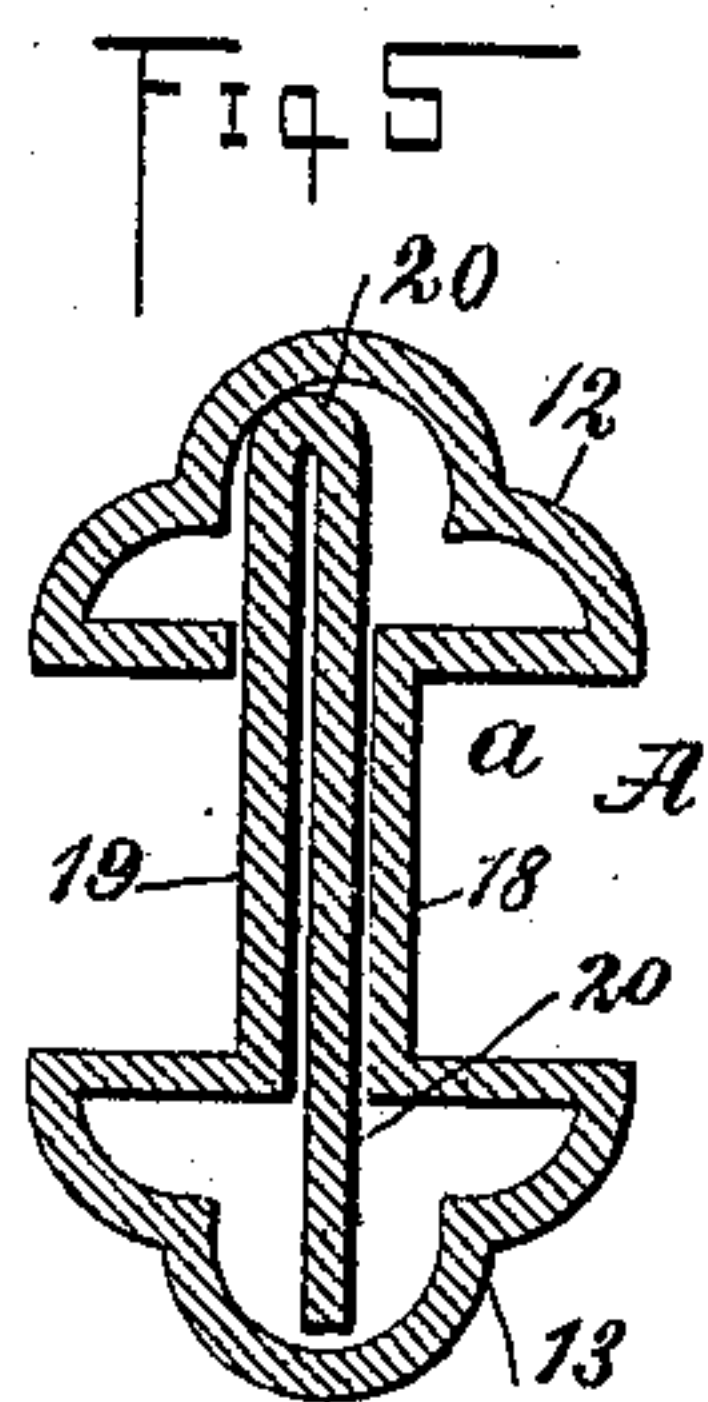
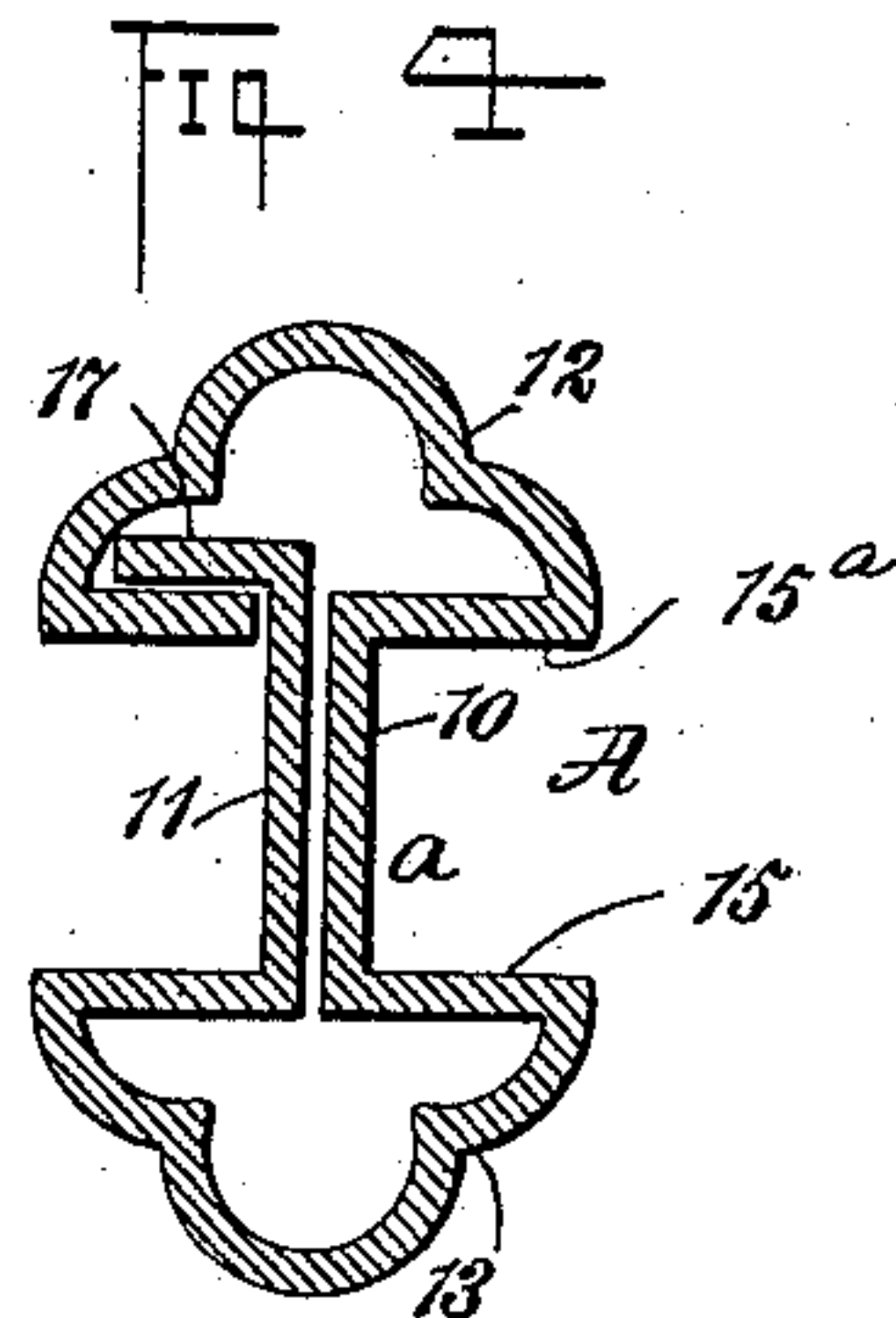
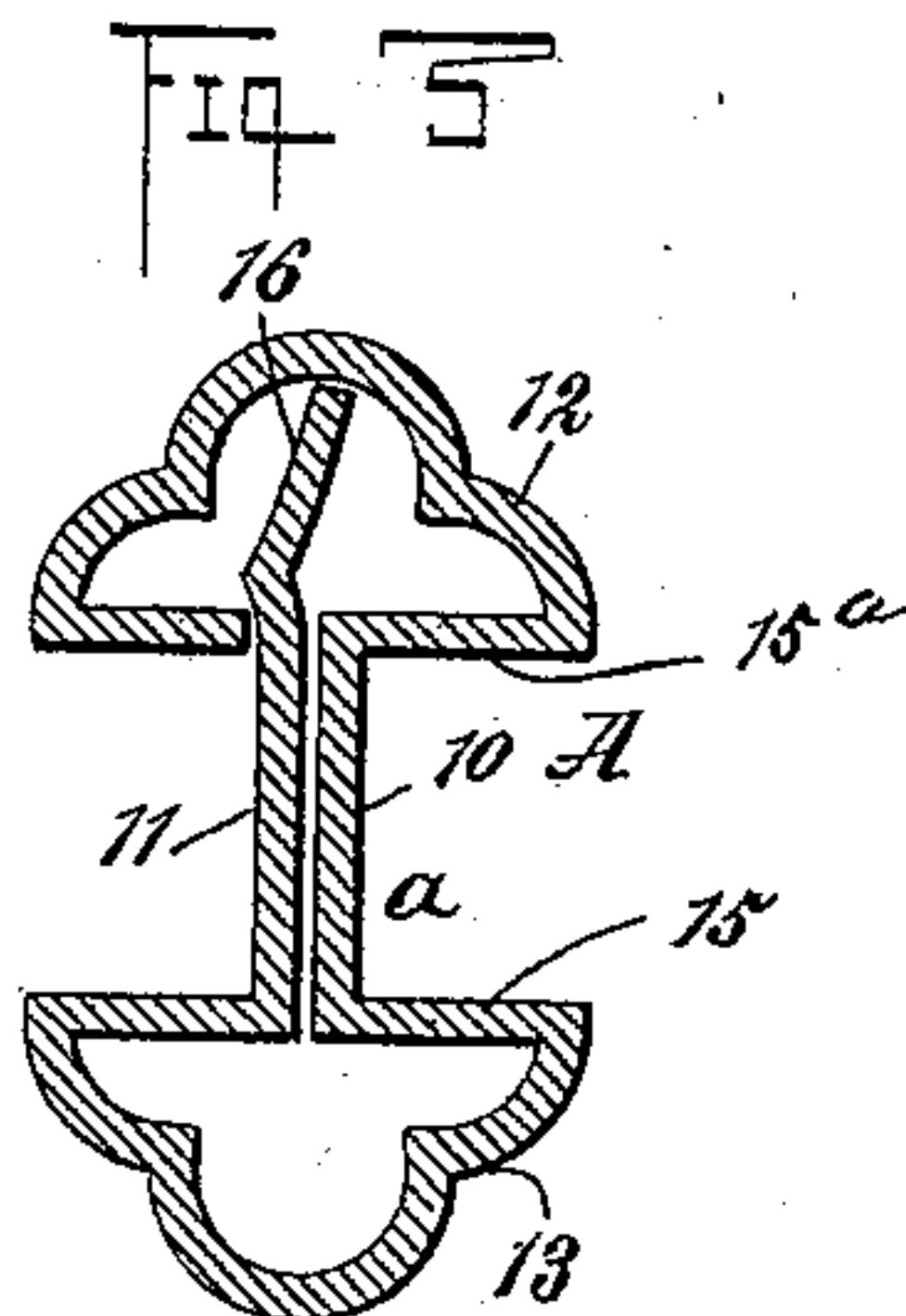
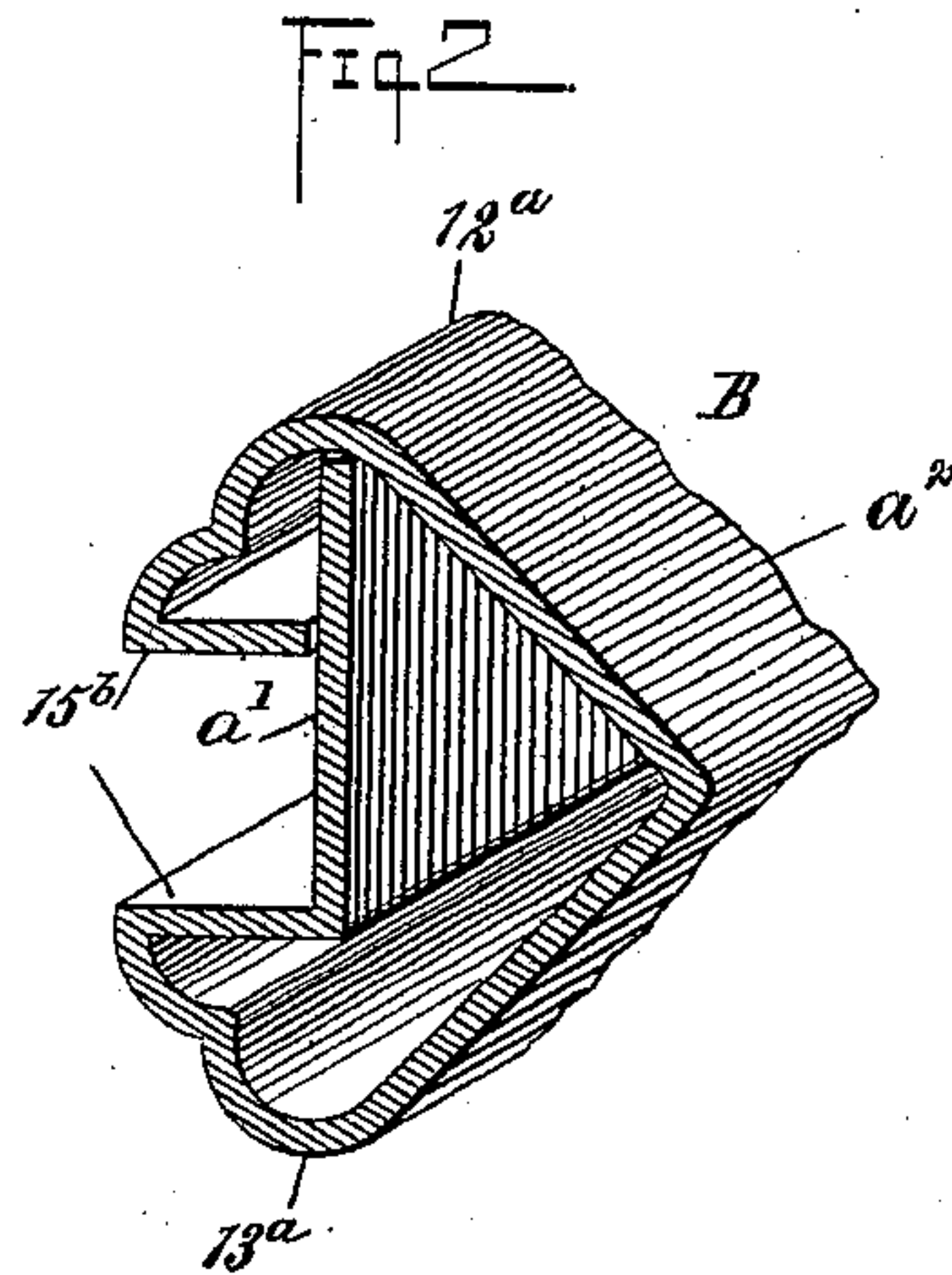
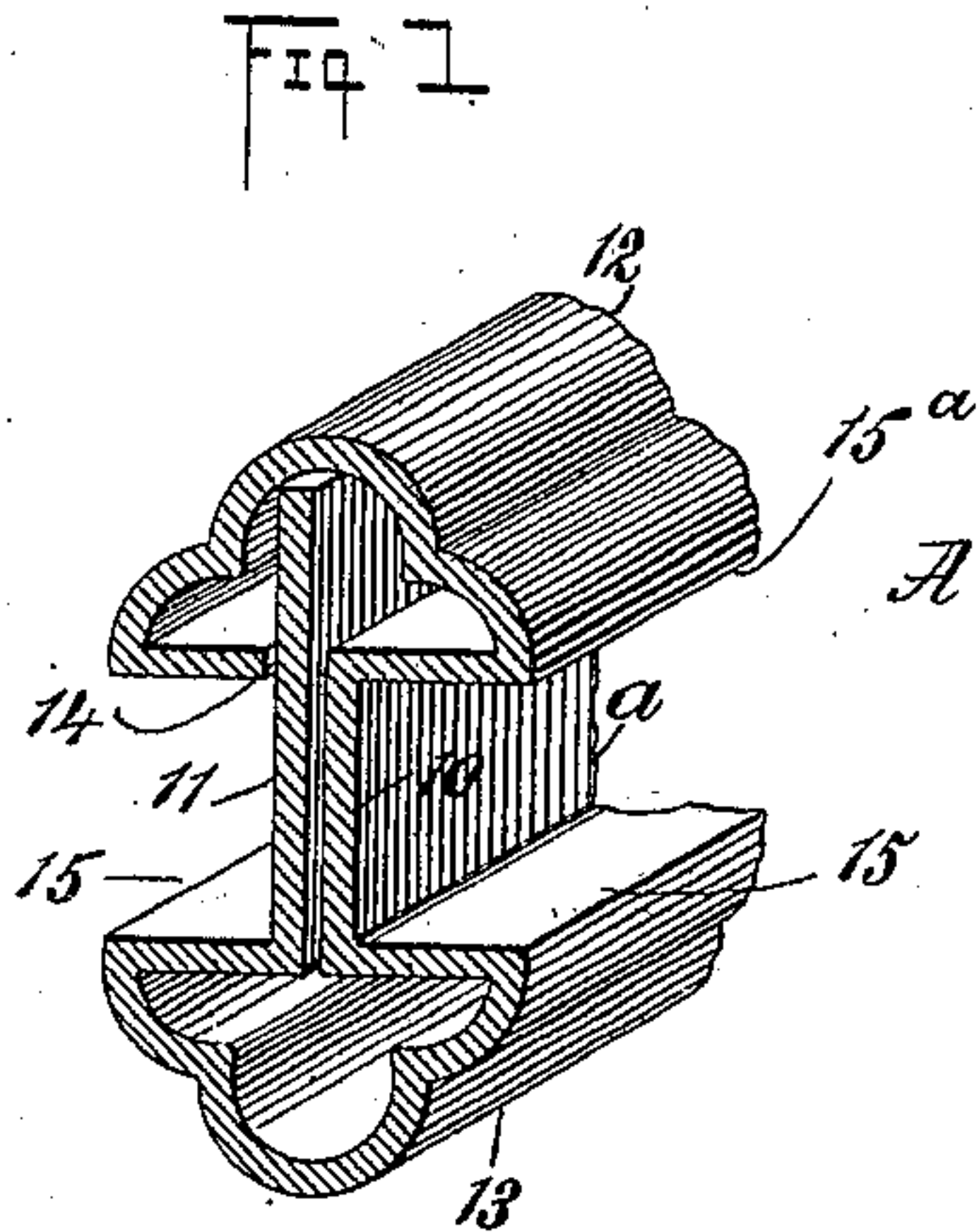
No. 685,647.

Patented Oct. 29, 1901.

L. SBORIGI.  
SUPPORTING BAR FOR GLASS OR TILING.

(Application filed Aug. 30, 1901.)

(No Model.)



WITNESSES:

*James H. [Signature]*  
*John [Signature]*

INVENTOR  
Leonard Sborigi.

BY *Munn & Co.*

ATTORNEYS



# UNITED STATES PATENT OFFICE.

LEONARD SBORIGI, OF NEW YORK, N. Y.

## SUPPORTING-BAR FOR GLASS OR TILING.

SPECIFICATION forming part of Letters Patent No. 685,647, dated October 29, 1901.

Application filed August 30, 1901. Serial No. 73,795. (No model.)

*To all whom it may concern:*

Be it known that I, LEONARD SBORIGI, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and useful Improvement in Supporting-Bars for Glass or Tiling, of which the following is a full, clear, and exact description.

10 The purpose of the invention is to provide a supporting-bar for panes of glass or blocks or sections of tiling so constructed that said bar will withstand great strain and will firmly hug the material received under shock or  
15 pressure and to provide a construction of the character described which will be simple, durable, and economic and applicable to outside or sash bars as well as to inside or intermediate bars.

20 The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying  
25 drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of a portion  
30 of an inner or intermediate bar having the improvement applied. Fig. 2 is a perspective view of the improved outer or sash form of the bar. Figs. 3, 4, and 5 are transverse sections through inner or intermediate bars differing slightly in construction; and Fig. 6 is  
35 a transverse section through the outer or sash bar, varying slightly in construction from that shown in Fig. 2.

An intermediate or inner bar A is shown in  
40 Figs. 1, 3, 4, and 5, and under the construction shown in each of the said figures the bar A is made from a single piece of material, sheet metal being preferred, and preferably a metal such as brass, copper, or zinc. Each  
45 bar consists of a web  $\alpha$ , comprising two or more members, and in the construction shown in Figs. 1, 3, and 4 the members of the web  $\alpha$  are two in number, 10 and 11. In addition to the web in all of the figures above referred  
50 to the bar consists of an upper and a lower arched or dome-shaped cap-section, which sections are designated, respectively, the upper

section as 12 and the lower section as 13, and these sections are tubular, since they are produced by bending the material upon itself. 55 At the upper cap-section 12 a longitudinal opening 14 is provided, through which the member 11 of the web  $\alpha$  extends up into the central portion of the upper cap-section 12 to an engagement with the inner face of the longitudinal center thereof or to a point near  
60 said inner face, whereas the other or parallel section 10 of the web  $\alpha$  extends from the under face 15<sup>a</sup> of the upper cap-section to the upper face 15 of the lower cap-section, as is  
65 clearly shown in said Figs. 1, 3, and 4. It will thus be observed that the member 11 of the web strengthens the upper cap-section 12 to such an extent that it will withstand any ordinary strain that it may be called upon to  
70 bear, and the spaces between the lower faces 15<sup>a</sup> of the upper cap-section 12 and the opposing faces 15 of the lower cap-section 13 are adapted to receive the edges of the panes of glass or blocks of tiling material of any de- 75 scription, pottery, &c.

There is a slight difference in the construction shown in Figs. 1 and 3, which difference consists in that the upper portion 16 of the web member 11, which enters the upper cap- 80 section 12, is not straight, but is bent at an angle to the main or upright portion of the said member, the object of such bend being to strengthen the cap-section 12 under circumstances of use wherein the straight form of 85 the entering member of the said web-section 11 (shown in Fig. 1) would not be desirable or would not accomplish the desired end.

In Fig. 4 another slight deviation is observable, in that the entering-section 17 of 90 the web member 11 is carried at right angles to the main portion of said member within the cap-section 12 and parallel and immediately over and under the inner member of the said cap-section, and in some instances 95 this latter form of the device is to be preferred.

In Fig. 5 I have illustrated a form of the device in which both of the cap-sections 12 and 13 are given additional strength, and 100 under such construction the web  $\alpha$  is in three sections—two outer sections 18 and 19 and an inner section 20—the outer section 19 being carried up into the cap-section 12 and



then returned downward between the outer sections 18 and 19 and into the lower cap-section 13. It is obvious that under this form of the device the device can also be made of  
 5 a single piece of material properly bent and that the members of the web  $\alpha$  are parallel.

In Fig. 2 I have illustrated a form B of the device which is particularly adapted to be introduced into the sash-rails or the outer  
 10 rail of a frame for the purpose of holding in place an edge of a pane of glass or an edge of a block or piece of tiling or similar articles. To that end the web  $\alpha'$  extends from the upper or inner face of a hollow cap-section 13<sup>a</sup> and into an opposing hollow cap-section 12<sup>a</sup>, the pane of glass or other material being received between the opposing faces 15<sup>b</sup> of the two cap-sections at the outer side of the web member or section  $\alpha'$ ; but instead  
 20 of the web and cap sections or members being duplicated at both sides of this form of bar the bar is given an angular form  $\alpha^2$  at its outer side, whereby it may be introduced into a groove or socket in a channel-bar, for example.  
 25 ample.

In Fig. 6 I have illustrated a slight modification of the form of outside or sash bar shown in Fig. 2 and just described. Under the form of construction shown in Fig. 6 the  
 30 bar consists of a web member  $\alpha^2$ , which enters a hollow cap-section 12<sup>b</sup> and extends from the inner face of an opposing cap-section 13<sup>b</sup>. From the outer face of both cap-sections 12<sup>b</sup> and 13<sup>b</sup> members  $\alpha^3$  are carried  
 35 in direction of each other and then horizontally outward, forming a tongue or entering member  $\alpha^4$ , adapted to be introduced into a recess in the sash-bar of the member of a

frame to which the device is to be applied. These outer members  $\alpha^3$  are parallel with the web  $\alpha^2$ . 40

The constructions shown in all of the views are capable of being brought about readily by the manipulation of a single piece of material.

Having thus described my invention, I  
 45 claim as new and desire to secure by Letters Patent—

1. In a supporting-bar for glass, tiling, &c., a multiple web, opposing tubular arched or dome-shaped cap-sections integral with the  
 50 longitudinal portions of the web members, the web members being so formed that one will enter a cap-section to strengthen and stiffen the same, for the purpose described.

2. In a supporting-bar for glass, tiling, &c.,  
 55 a single piece of material bent upon itself to form a compound web and upper and lower hollow arched or dome-shaped cap-sections, a member of the web being carried into one of the cap-sections, as described. 6c

3. A supporting-bar for glass, tiling, &c., consisting of a strip of metal bent upon itself, forming a web, comprising a multiple of parallel members and opposing arched or dome-shaped cap-sections, members of the said web  
 65 extending within the said cap-sections, for the purpose of strengthening and stiffening the same, as described.

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

LEONARD SBORIGI.

Witnesses:

J. FRED. ACKER,  
 EVERARD B. MARSHALL.