

G. B. KOHLER.
 MEANS FOR ATTACHING GLASS TO WINDOW SASH.
 APPLICATION FILED JAN. 31, 1908.

919,887.

Patented Apr. 27, 1909.

Fig. 1.

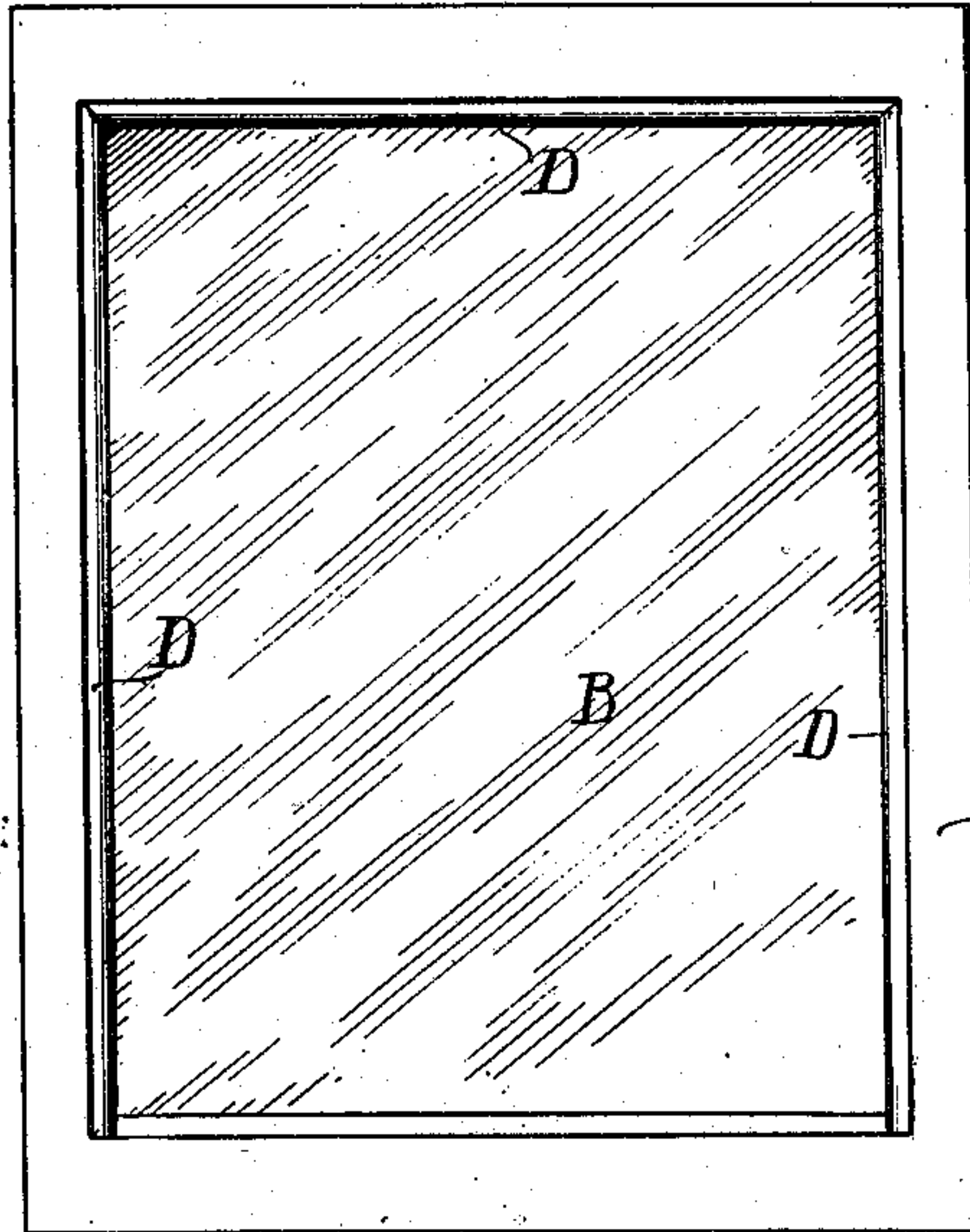


Fig. 10.

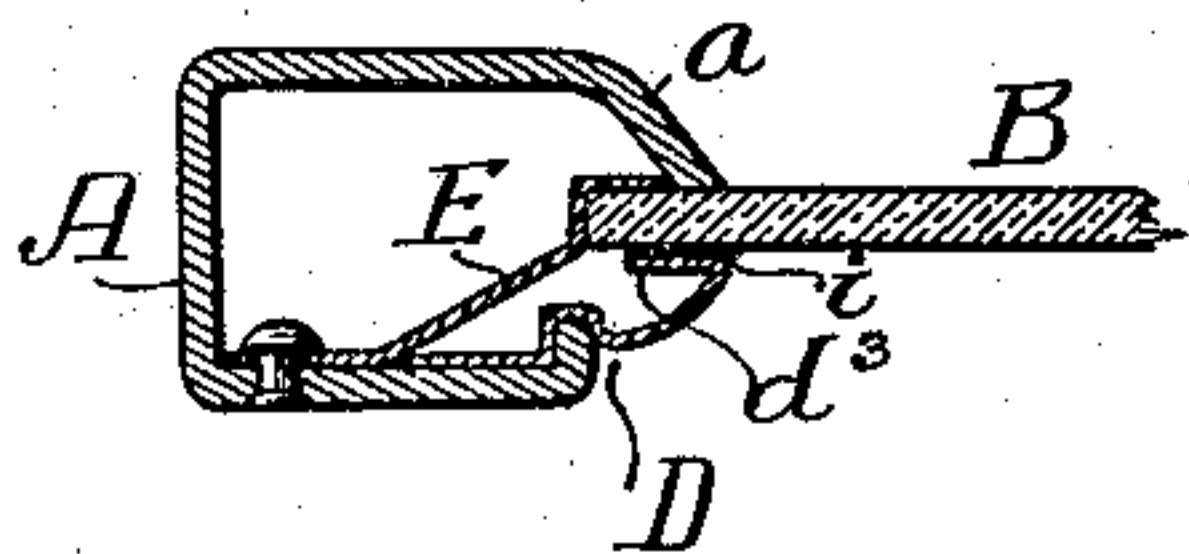


Fig. 11.

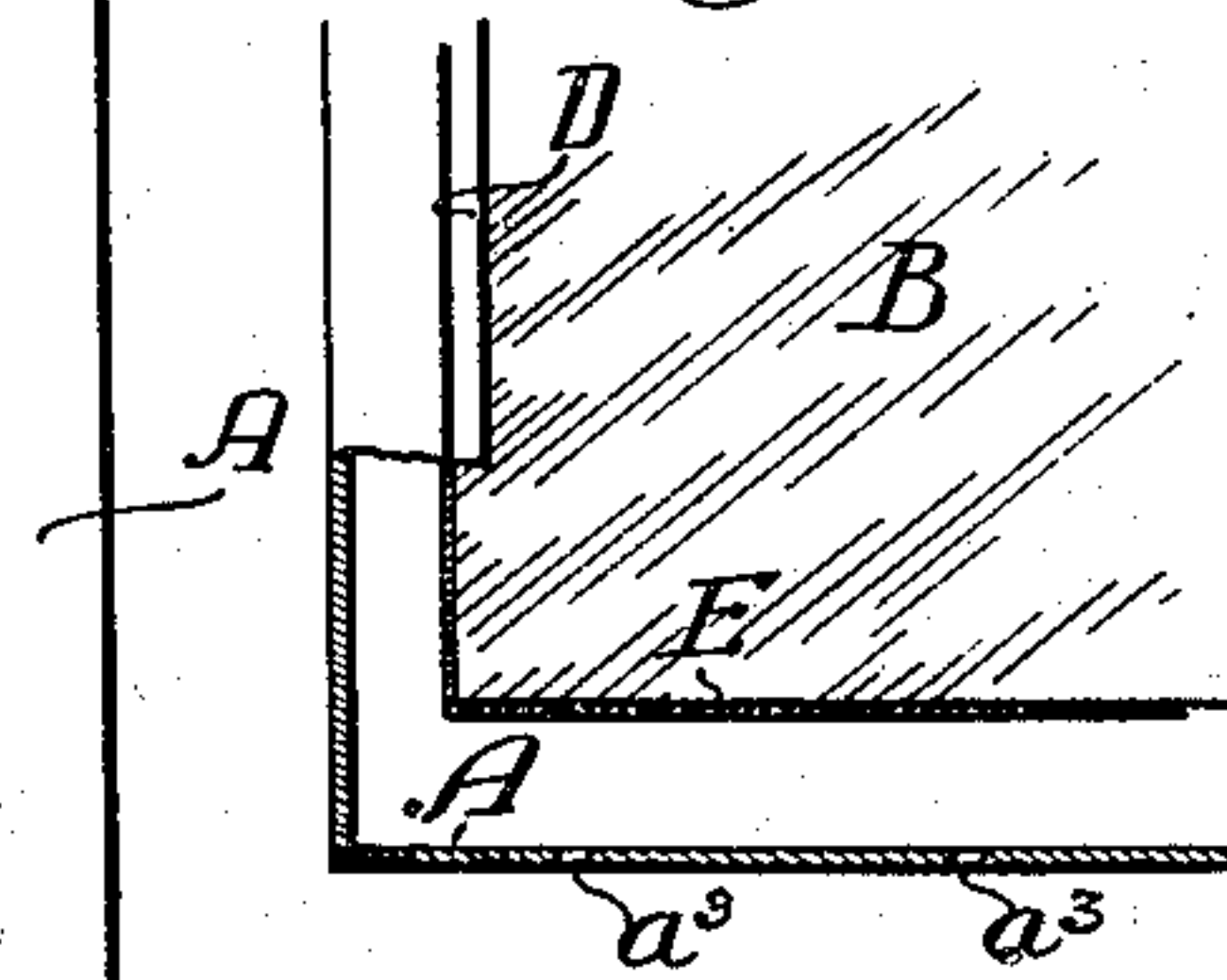


Fig. 2.

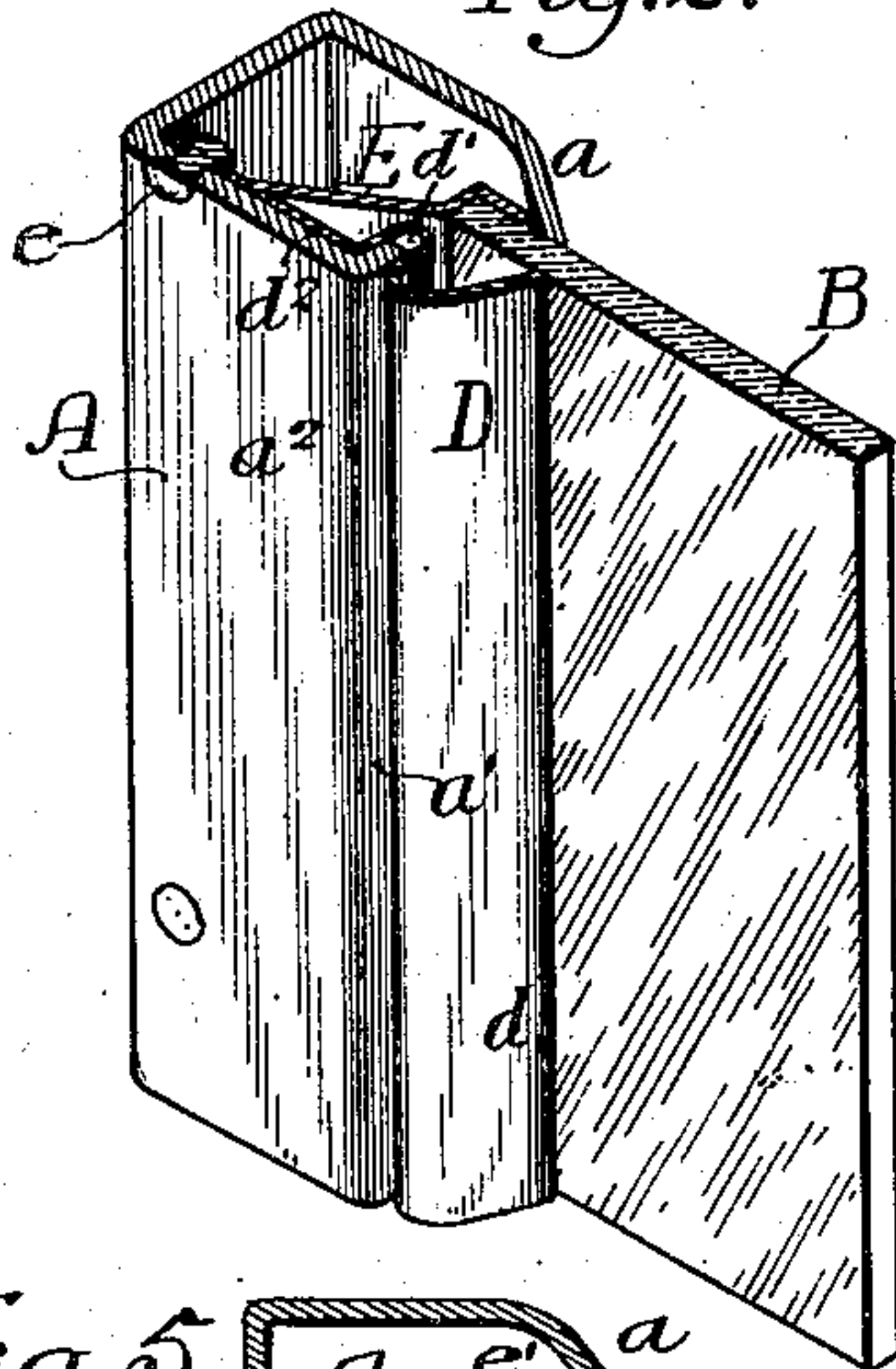


Fig. 3.

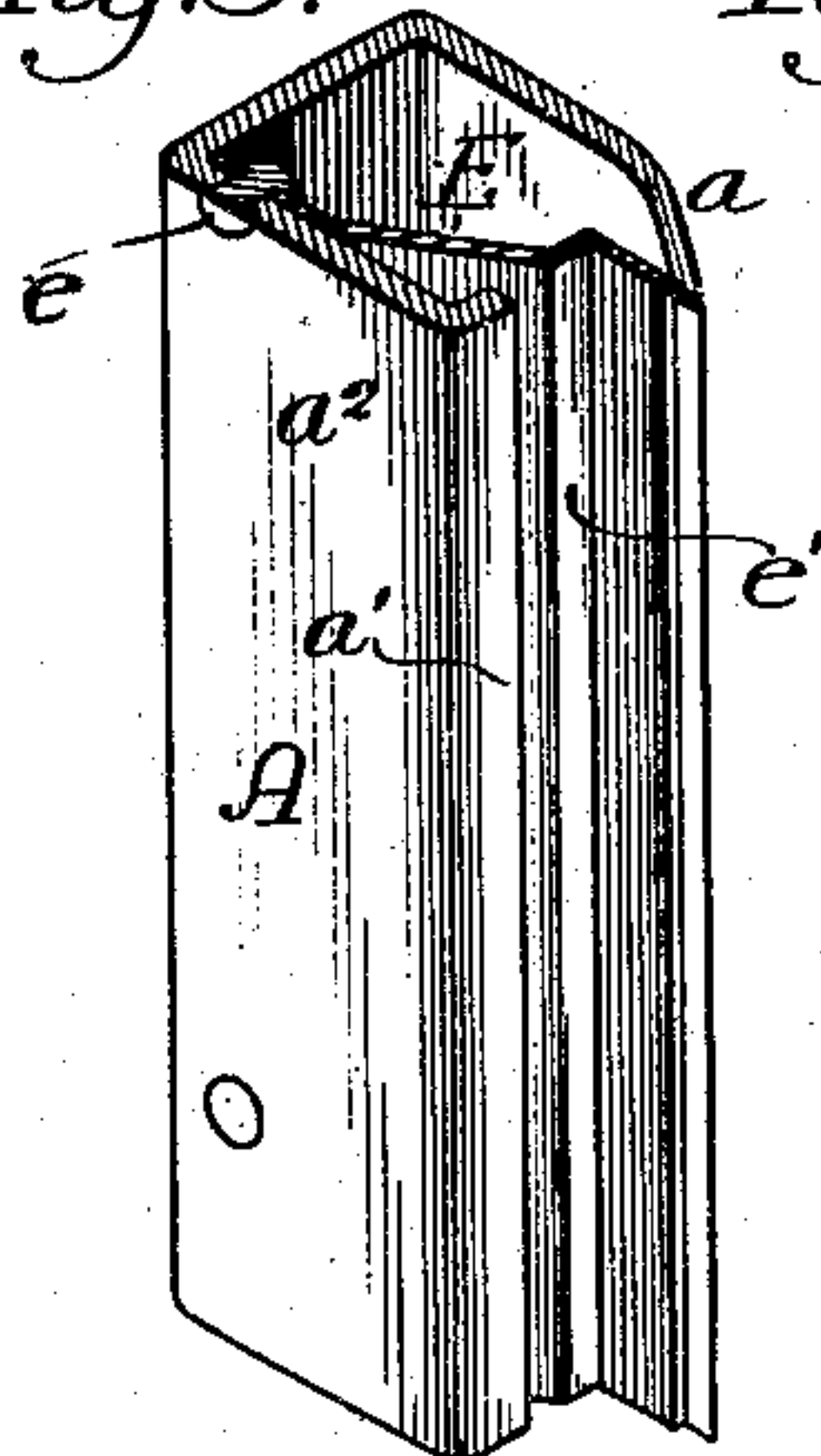


Fig. 4.

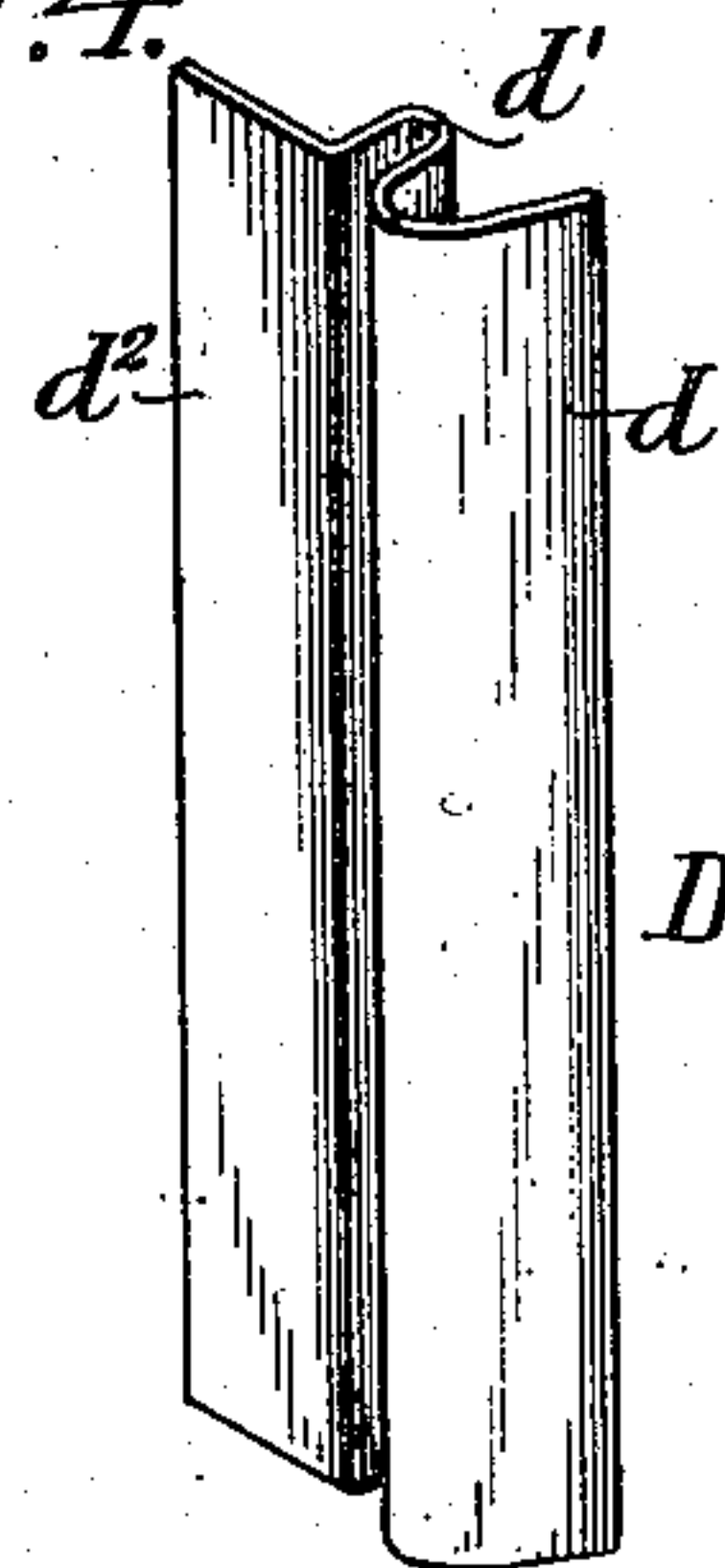


Fig. 5.

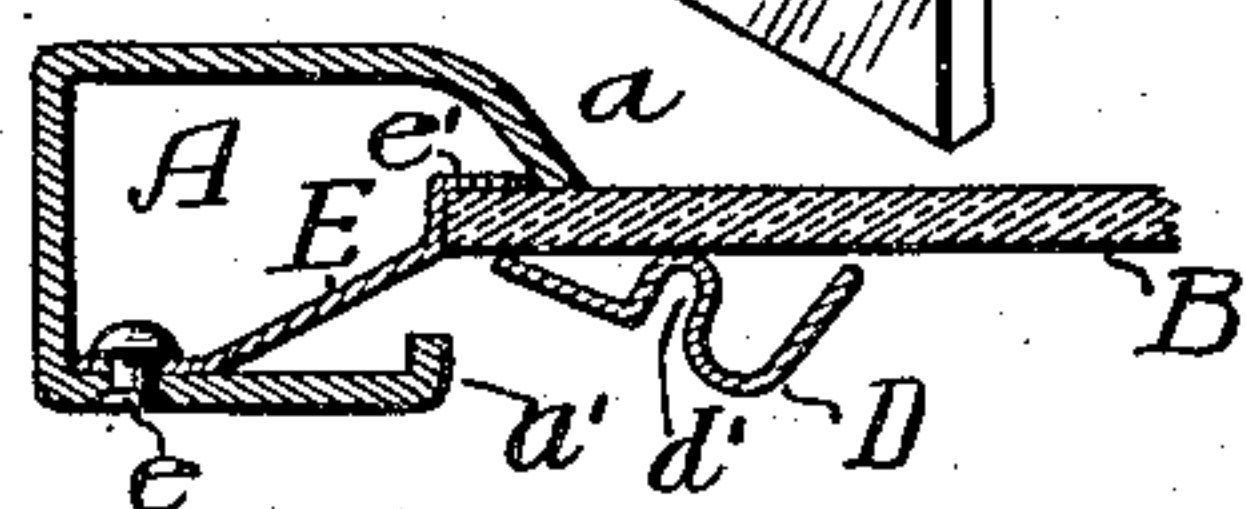


Fig. 8.

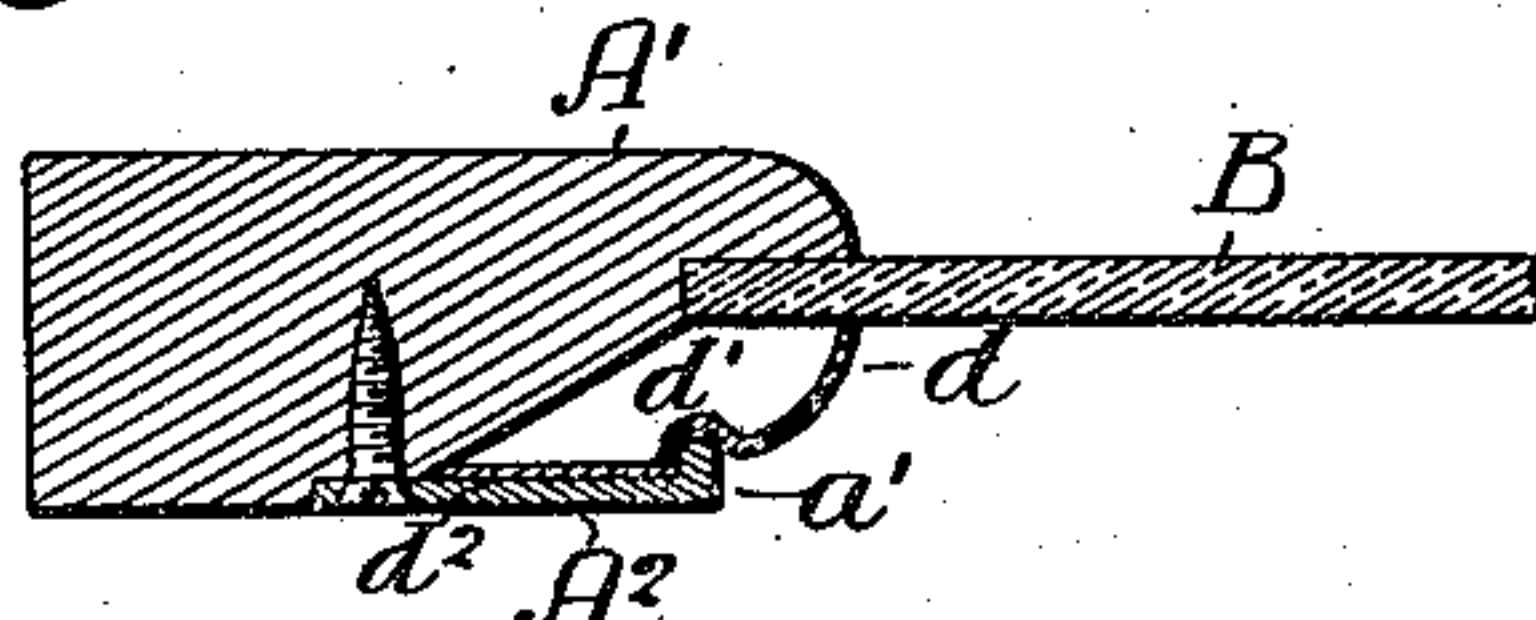


Fig. 6.

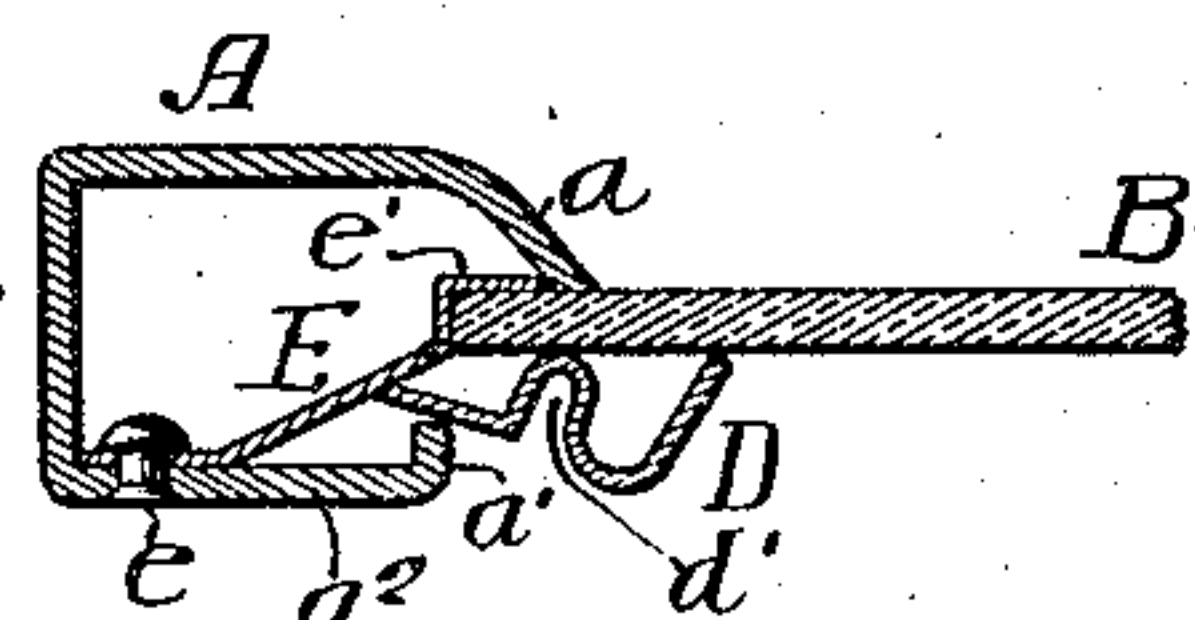


Fig. 9.

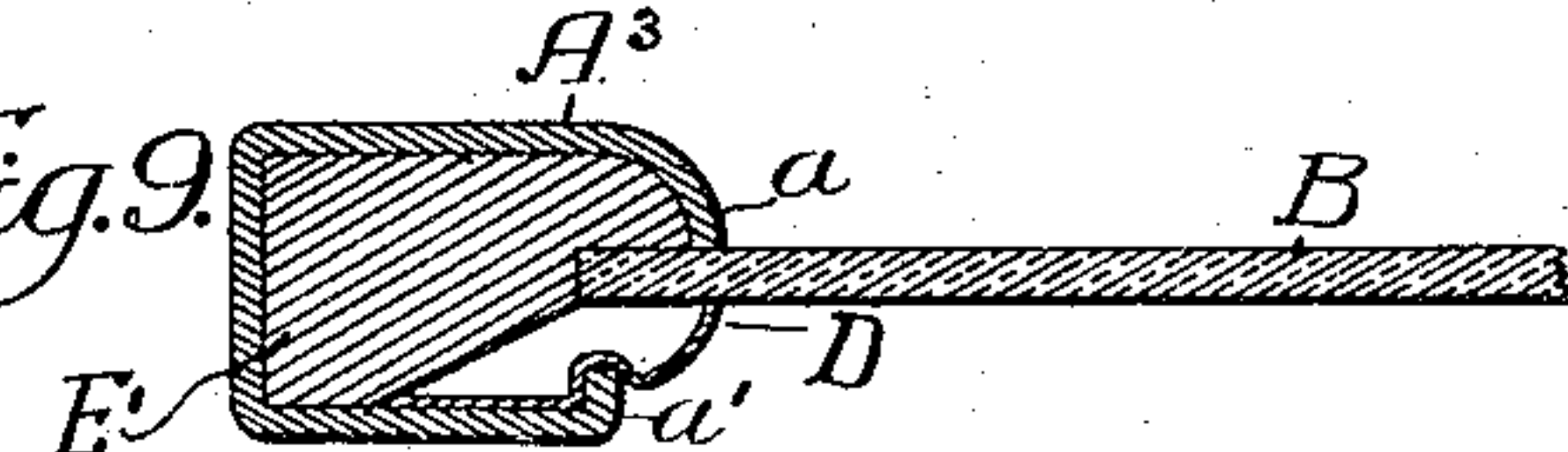
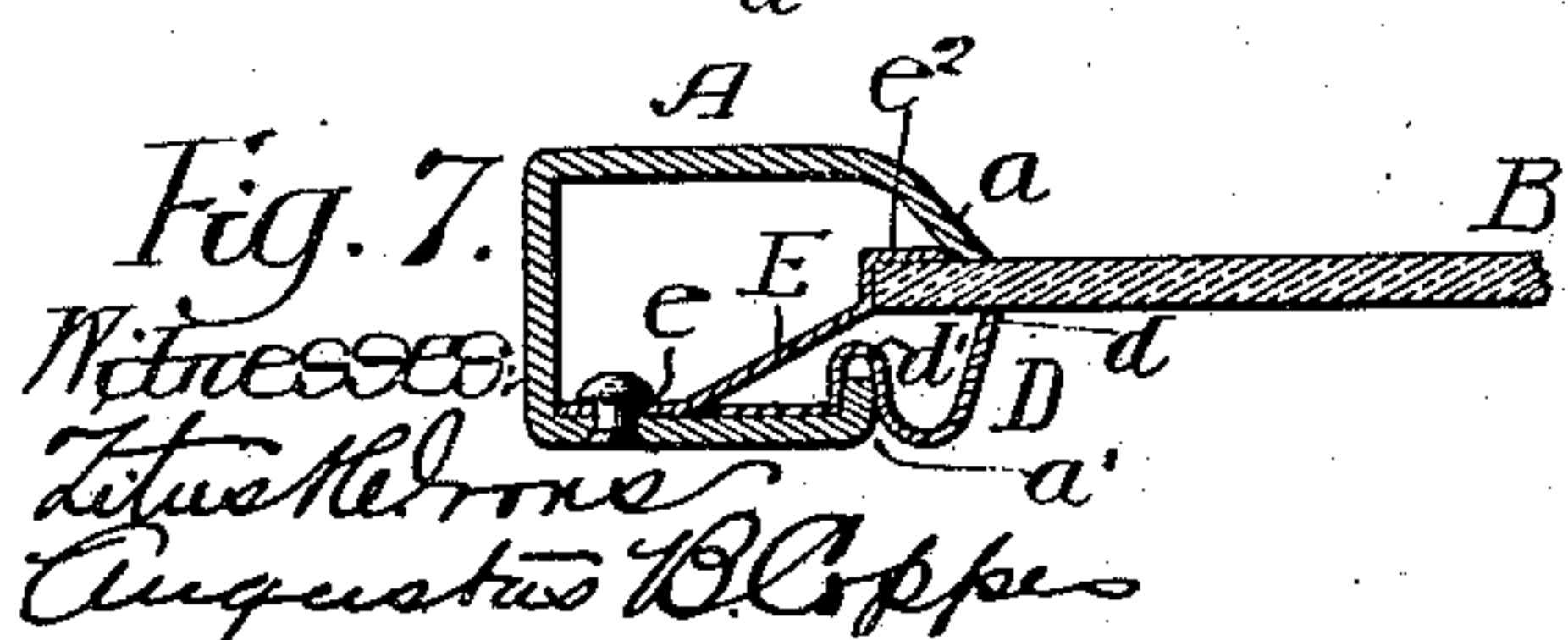


Fig. 7.



Inventor:
 George B. Kohler.
 by His Attorneys
 Howman & Howman

Witnesses:
 Augustus W. Cooper

UNITED STATES PATENT OFFICE.

GEORGE B. KOHLER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE J. G. BRILL COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

MEANS FOR ATTACHING GLASS TO WINDOW-SASH.

No. 919,887.

Specification of Letters Patent.

Patented April 27, 1909.

Application filed January 31, 1908. Serial No. 413,700.

To all whom it may concern:

Be it known that I, GEORGE B. KOHLER, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Means for Attaching Glass to Window-Sashes, of which the following is a specification.

The object of my invention is to provide a simple and effective means for attaching a sheet of glass to a window sash, particularly the sashes of car windows and doors, dispensing with the use of putty and strips of wood, making the device of metal and so arranging it that it can be readily detached when a new sheet of glass is to be inserted. This object I attain in the following manner, reference being had to the accompanying drawing, in which:—

Figure 1, is a view of a car window sash illustrating my invention; Fig. 2, is a detached perspective view of a portion of a sash showing the fastening means applied; Fig. 3, is a detached perspective view of a portion of the sash; Fig. 4, is a detached perspective view of a portion of the fastening means; Figs. 5, 6 and 7, are sectional views showing the method of attaching the glass to the sash; Figs. 8, 9 and 10, are views illustrating modifications of the invention; and Fig. 11, is a sectional view through the lower portion of the sash.

A is the sash.

B is the sheet of glass mounted in the sash A.

D is the fastening strip which secures the glass to the sash.

The sash, as shown in Figs. 2 to 7 inclusive, is made of metal so shaped as to form on one side a flange a against which the glass B rests when in position, and on the opposite side is a flange a^2 having a lip a' which is engaged by the fastening strip D.

Mounted in the sash is a metallic strip E secured to the sash by rivets or other fastenings e , and this strip is offset at e' forming a stop against which the edge of the sheet of glass rests when in position, and is arranged at an angle in respect to the flange a^2 forming a bearing surface.

The fastening strip D is made of sheet metal bent as clearly shown in Fig. 4 so as to form a bearing flange d and a groove d' . The inner portion d^2 of the fastening strip rides upon the inclined strip E when it is

forced in position. It will be noticed that when the fastening strip is in the position shown in Figs. 2 and 7, the flange d rests against the surface of the glass B and the device is engaged by the lip a' , the lip entering the groove d' while its inner end rests against the strip E as clearly shown.

The glass can be readily inserted in the sash so as to rest against the flange a and is held in position by the offset in the plate E. The strip D is then placed against the glass as indicated in Fig. 5 and forced into the recess in the sash, as shown in Fig. 6; being made preferably of thin spring metal it will yield so as to pass the lip a' at the same time forcing the glass hard against the flange a until the recess d' aligns with the lip a' of the sash, when it will spring in position as indicated in Fig. 7, retaining the glass securely to the sash, and while it holds the glass firmly it will allow it to yield a given extent under certain conditions. If it is desired to remove the glass all that is necessary is to force the strip D toward the glass and withdraw it from under the lip, when the glass can be readily detached. The strips at each side and at one end may be mitered, as illustrated in Fig. 1, and the other strip may be perfectly plain and inserted after the others are placed in position, if desired.

In Fig. 8, I have shown a sash A' made of wood and having secured to it a metallic strip A² provided with the lip a' ; the wooden portion of the sash is beveled and notched as shown.

In Fig. 9, I have shown a metallic sash A³ with a wooden filling block E' as a substitute for the metal plate E.

In Fig. 10, I have shown a modification of the fastening strip; a flange d^3 being bent in from one edge and preferably roughened, and a strip of felt or rubber i being inserted between the fastening strip and the sheet of glass. The strip may be on both sides of the glass in some instances if desired.

The sash, as illustrated in Figs. 1 and 2, is shown as made hollow and in beating rains water may, in some instances, pass the strip and settle in the lower part of the sash. In order to release this water I preferably make one or more perforations a^3 in the bottom of the sash, as shown in Fig. 11.

It will be seen that if the glass is broken it can be readily removed and a new sheet of

glass placed in its stead, and the spring retaining strip will accommodate itself to the thickness of glass used.

In the ordinary method of fastening great care must be exercised in having the new sheet of glass the same thickness as the sheet of glass removed, in order to use the same screw holes. If a thinner sheet of glass is used then it will rattle in the sash and if a thicker sheet of glass is used it binds so hard that in many instances the new sheet of glass is cracked in the endeavor to secure it in position. These objections are entirely overcome by the use of my improved glass retaining device.

I claim:—

1. The combination of a sash having a bearing flange and a stop against which the edge of the sheet of glass rests, and having an inclined bearing surface back of the stop, a lipped flange extending over the bearing surface, and an angular spring strip having a groove and adapted to be inserted between the lipped flange and the glass, the inner edge of said strip riding upon the bearing surface as it is forced into place.

2. The combination of a window sash

having a flange at each edge, one of said flanges forming a bearing for a sheet of glass, the other having a lip extending inwardly, said sash having an offset forming a stop to limit the lateral movement of the glass, and a spring retaining strip having a longitudinal groove adapted to be forced into the space between the lipped flange and the glass and to be engaged by the lip.

3. The combination of a metallic window sash having an inner and an outer flange, one of said flanges acting as a seat for the sheet of glass, the other flange having an inwardly extending lip, a sheet metal plate secured within the sash and offset to prevent lateral movement of the sash, with a spring retaining strip having a flange bearing against the glass and having a recessed portion adapted to receive the lip on the sash.

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

GEORGE B. KOHLER.

Witnesses:

A. C. WILD,

A. N. HARGROVE.