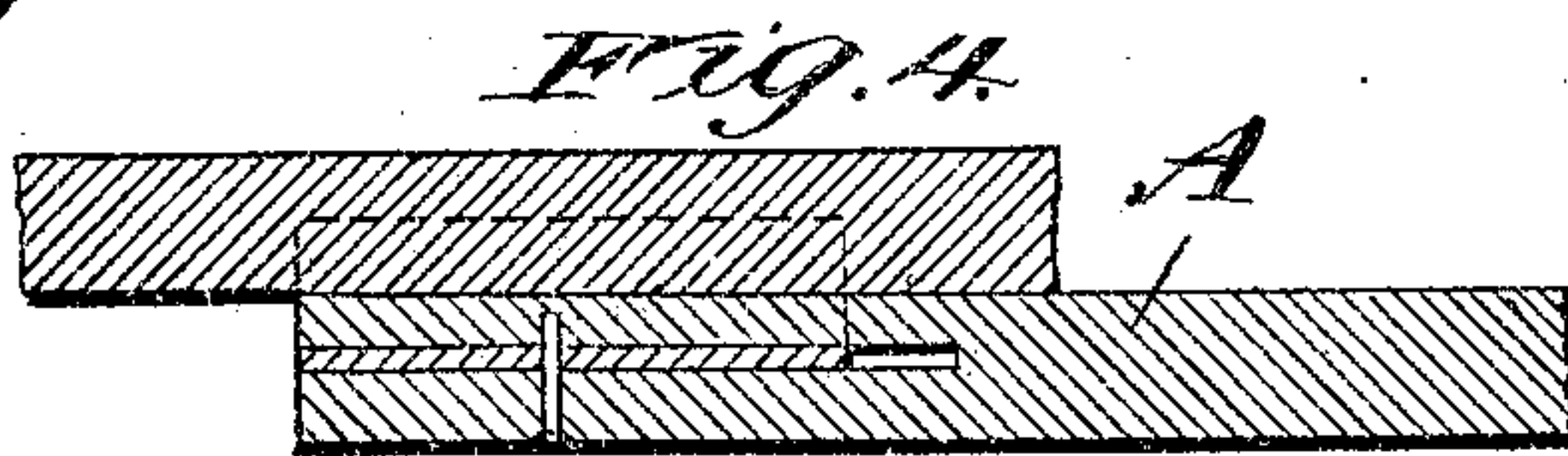
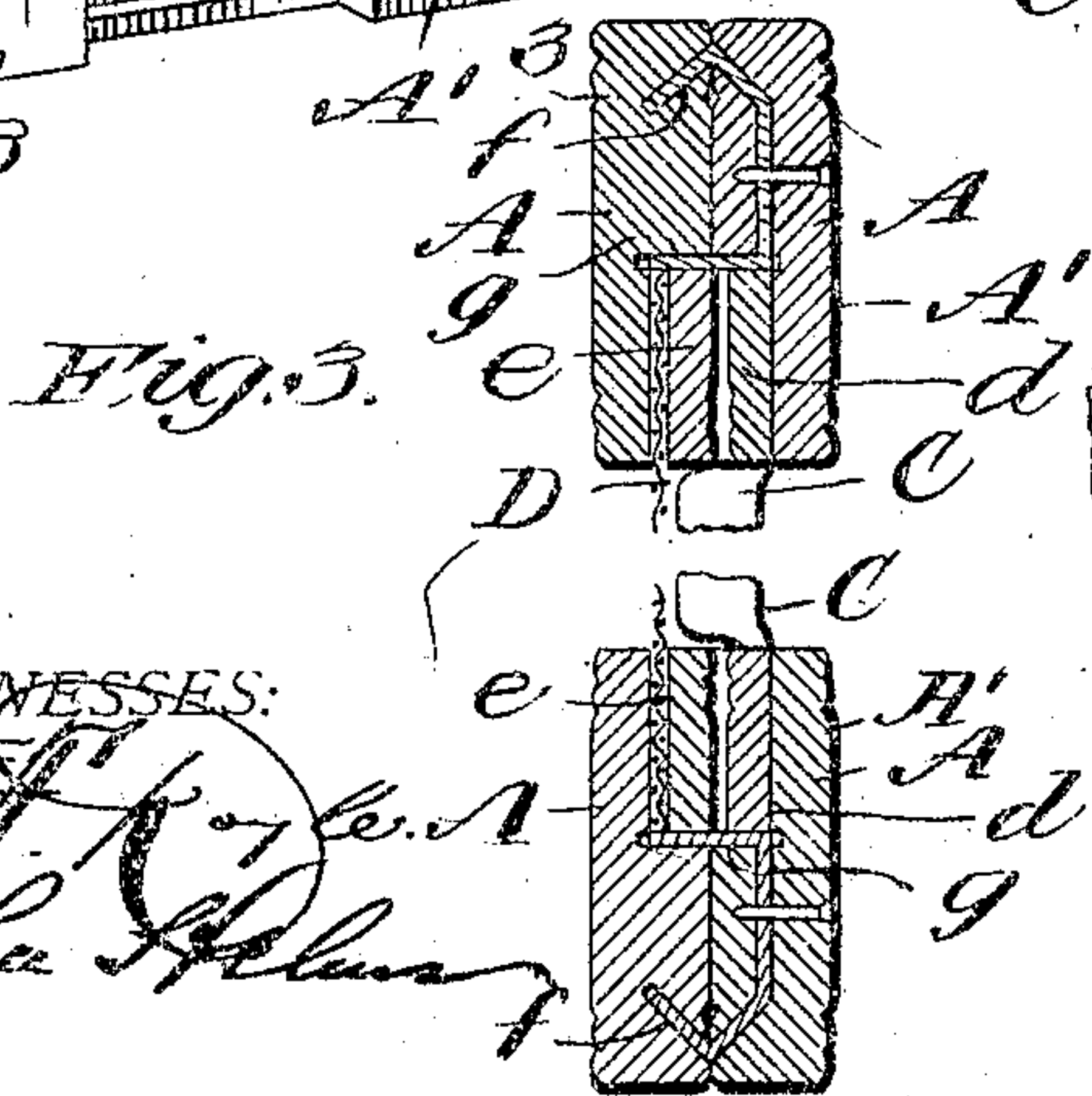
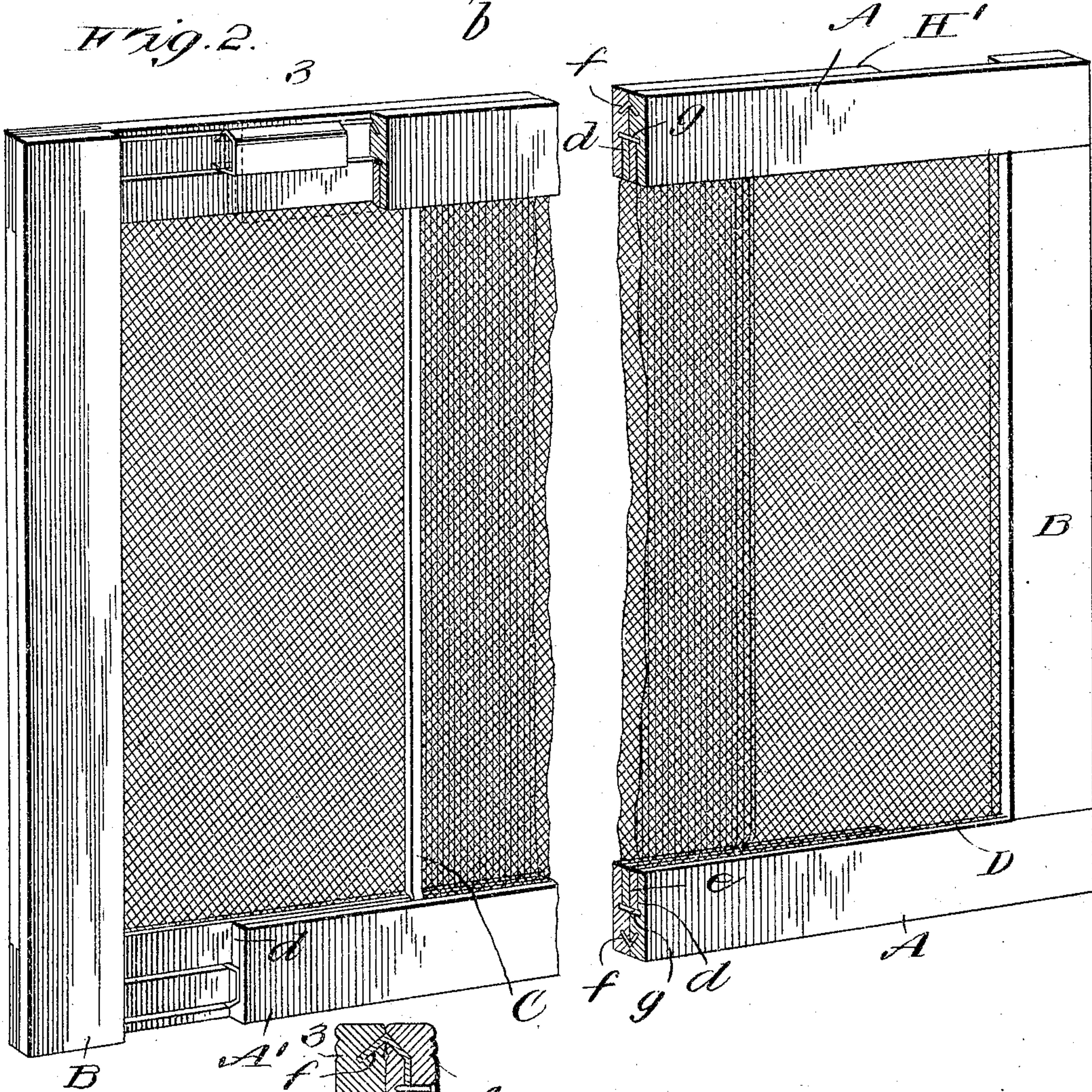
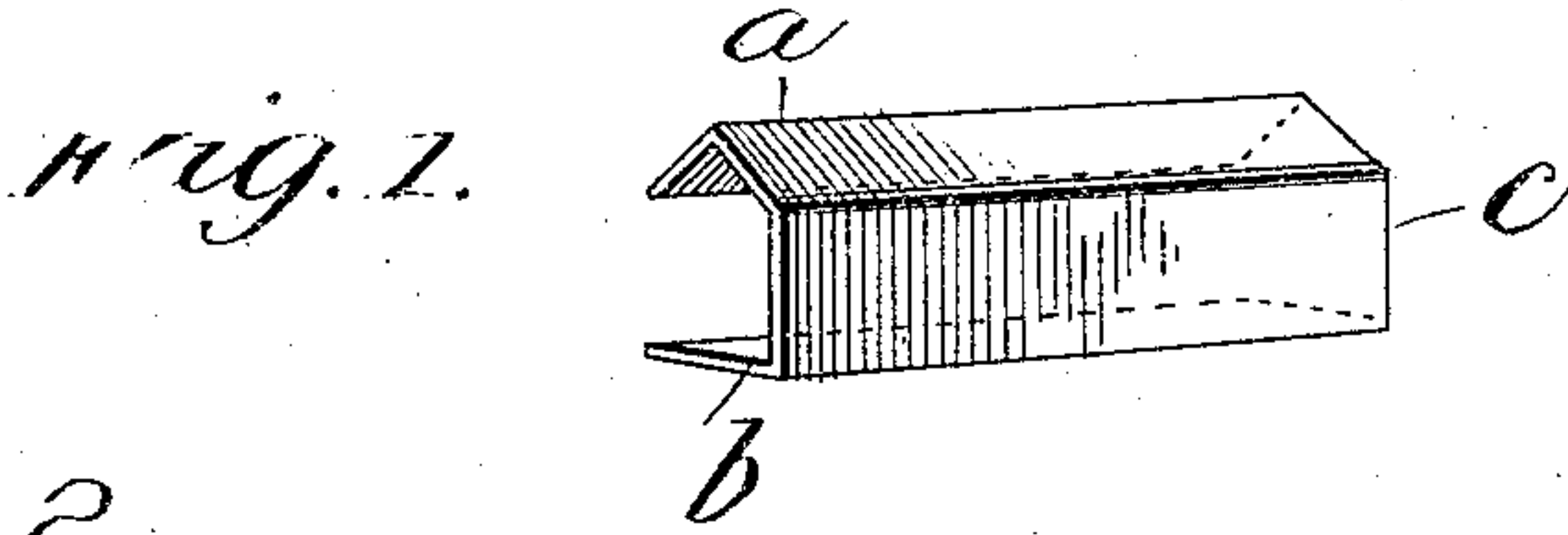


No. 788,439.

PATENTED APR. 25, 1905.

H. E. SOUTHWORTH.
WINDOW SCREEN.

APPLICATION FILED JAN. 30, 1905.



WITNESSES:

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his Attorney

UNITED STATES PATENT OFFICE.

HENRY E. SOUTHWORTH, OF COLCHESTER, VERMONT, ASSIGNOR TO
PORTER SCREEN MANUFACTURING COMPANY, OF BURLINGTON,
VERMONT.

WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 788,439, dated April 25, 1905.

Application filed January 30, 1905. Serial No. 243,247.

To all whom it may concern:

Be it known that I, HENRY E. SOUTHWORTH, of Colchester, in the county of Chittenden and State of Vermont, have invented a new and
5 useful Improvement in Window-Screens, of which the following is a specification.

This invention is directed to that class of extensible screens in which the clips that hold the screen-sections together are located in the
10 meeting faces of the overlapping rails of the screen-sections as to be practically concealed from view.

The invention consists of a screen of this class in which the overlapping screen-section
15 rails in their meeting faces have each two non-communicating longitudinal grooves, the one inclined, the other horizontal, separated from one another by a solid portion of the rail and are provided each with two projecting guides,
20 (preferably of metal,) the one inclined, the other horizontal, to engage the corresponding grooves in the opposite rail. It is this feature which characterizes the invention and which I believe to be new with me beyond its
25 preferred structural embodiment hereinafter described.

In the accompanying drawings, to which reference will now be made for a better understanding of the invention, Figure 1 is a
30 perspective view of the clip. Fig. 2 is a view of the screen. Fig. 3 is a section on line 3 3, Fig. 2. Fig. 4 is a horizontal section of the inner end of one of the overlapping section-rails.

The screen, except as to the clips and the parts with which it is more immediately associated, may be of any usual or suitable construction, it being composed in the present instance of two overlapping screen-sections consisting each of top and bottom rails A, an outer
40 end rail B, and inner end or center iron C and wire cloth or netting D, secured to the rails A B and iron C. The clips which hold the screen together are located in the ends A' of the rails, which extend inwardly beyond the irons C. In the meeting faces of the rails A are formed the usual longitudinal rabbets
45 *d* for reception of the edges of the wire-cloth D, which are covered, as is also usual, by the

wooden strips or moldings *e*. The clip itself, 50 which is made of sheet metal, consists of a limb *a* V-shaped in cross-section and a plain flat horizontal limb *b*, these two parts being connected together along one of their longitudinal edges by a vertical back *c*, from which 55 the two limbs project. One of these clips is secured in a suitably-shaped slot in the end A' of each rail A in such position that one-half of the horizontal limb *b* and one leg of the V-shaped limb *a* shall project from the inner face of the 60 rail, and these projecting portions, which constitute in the present instance the inclined and horizontal guides hereinbefore referred to, enter longitudinal grooves *f g*, formed for them in the inner face of the opposite rail A, as 65 seen in Fig. 3. The groove *f*, in which the leg of the V-shaped limb *a* is received and can slide, is inclined, as shown, and is located toward the outer edge of the rail. The horizontal groove *g* is located next to the inner 70 edge of the rail. One of its sides is formed by the body of the rail, and its other side in the present instance, as a matter of convenience incident to the fact that the rail is rabbeted to receive the wire-cloth, is formed by the mold- 75 ing or covering-strip *e*, which fills the rabbet, although the groove may be deeper than the rabbet, so as to extend a short distance beyond it into the body of the rail, as shown.

It will be noted that in each rail the two 80 grooves *f* and *g*, in which the projecting inclined and horizontal guides on the other rail slide, are absolutely separate and non-communicating, (except, of course, at the end where the clip is inserted,) there being inter- 85 posed between them a solid portion of the rail of considerable area, the two guides being separated by a corresponding interval. By this construction the strength and stability of the screen are materially enhanced, the 90 grooves may make a close fit with the guides, while at the same time the screen-sections will move smoothly on each other without liability to stick or jam. This I believe to be broadly new with me. 95

Having described my improvement, what I claim herein as new, and desire to secure by Letters Patent, is as follows:

1. In an extension-screen, two screen-sections the overlapping rails of which have in their meeting faces, each a longitudinal horizontal groove *g* and an inclined groove *f*,
5 the two being separated from one another by a solid portion of the rail, in combination with two guides projecting from each rail and separated from each other by a corresponding interval, the one horizontal the other inclined,
10 to engage the grooves *g*, *f*, respectively of the opposite rail, substantially as and for the purposes hereinbefore set forth.

2. In an extension-screen a sheet-metal clip consisting of the V-shaped limb *a*, the hori-

zontal limb *b* and the vertical back *c* interposed between and connecting the same along one of their longitudinal edges in combination with overlapping screen-section rails having separate grooves *f*, *g*, to engage the limbs *a*, *b*, respectively, substantially as and for the
20 purposes hereinbefore set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY E. SOUTHWORTH.

Witnesses:

F. H. BIGWOOD,
L. R. STINSON.