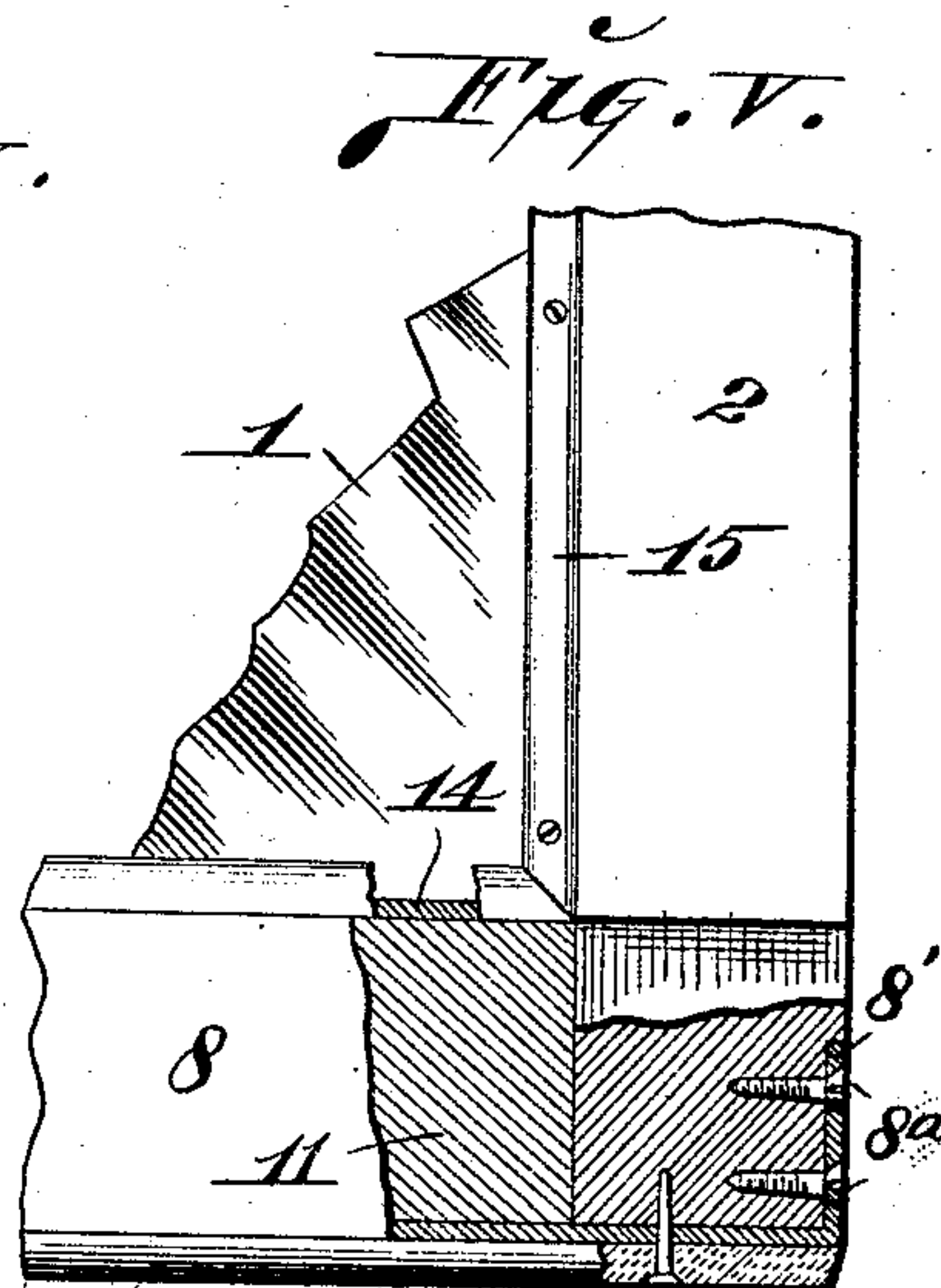
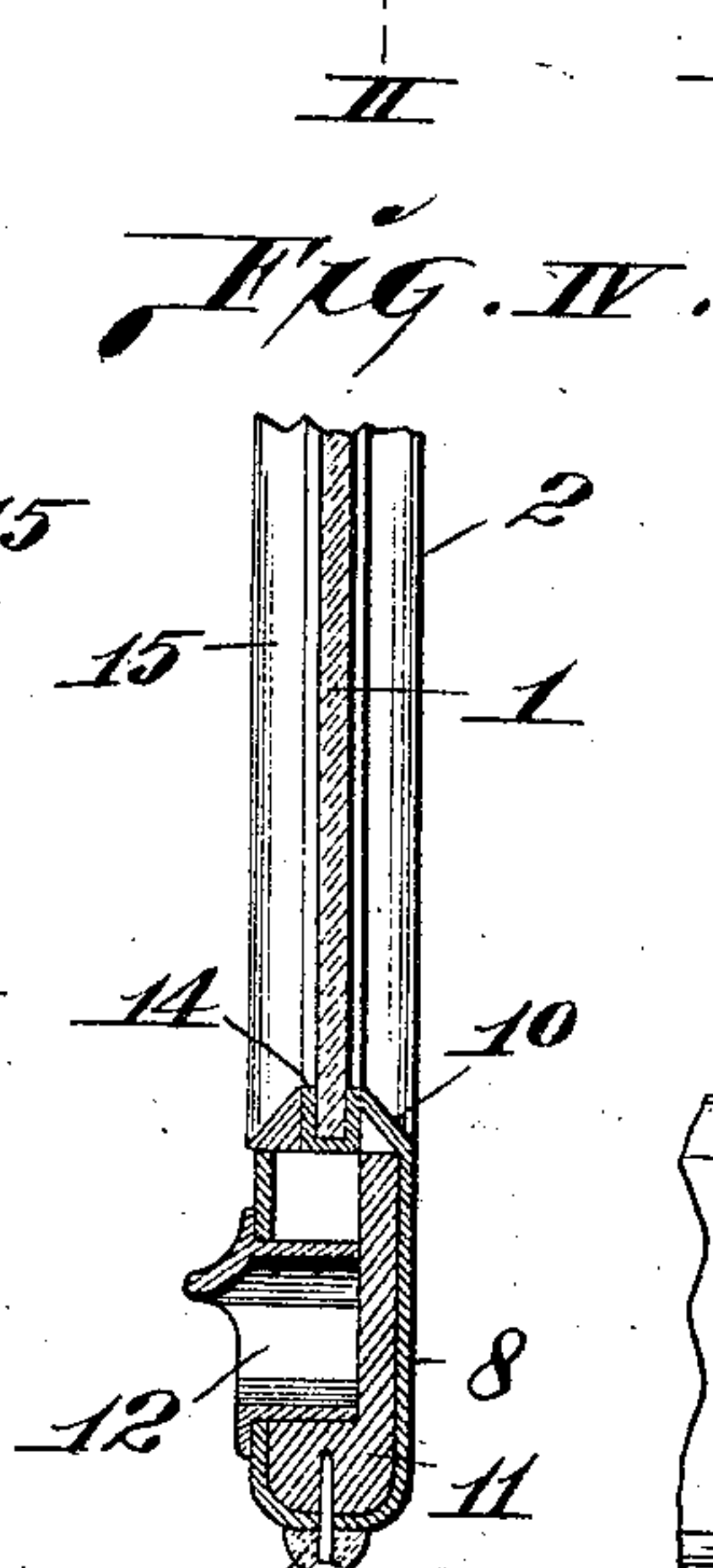
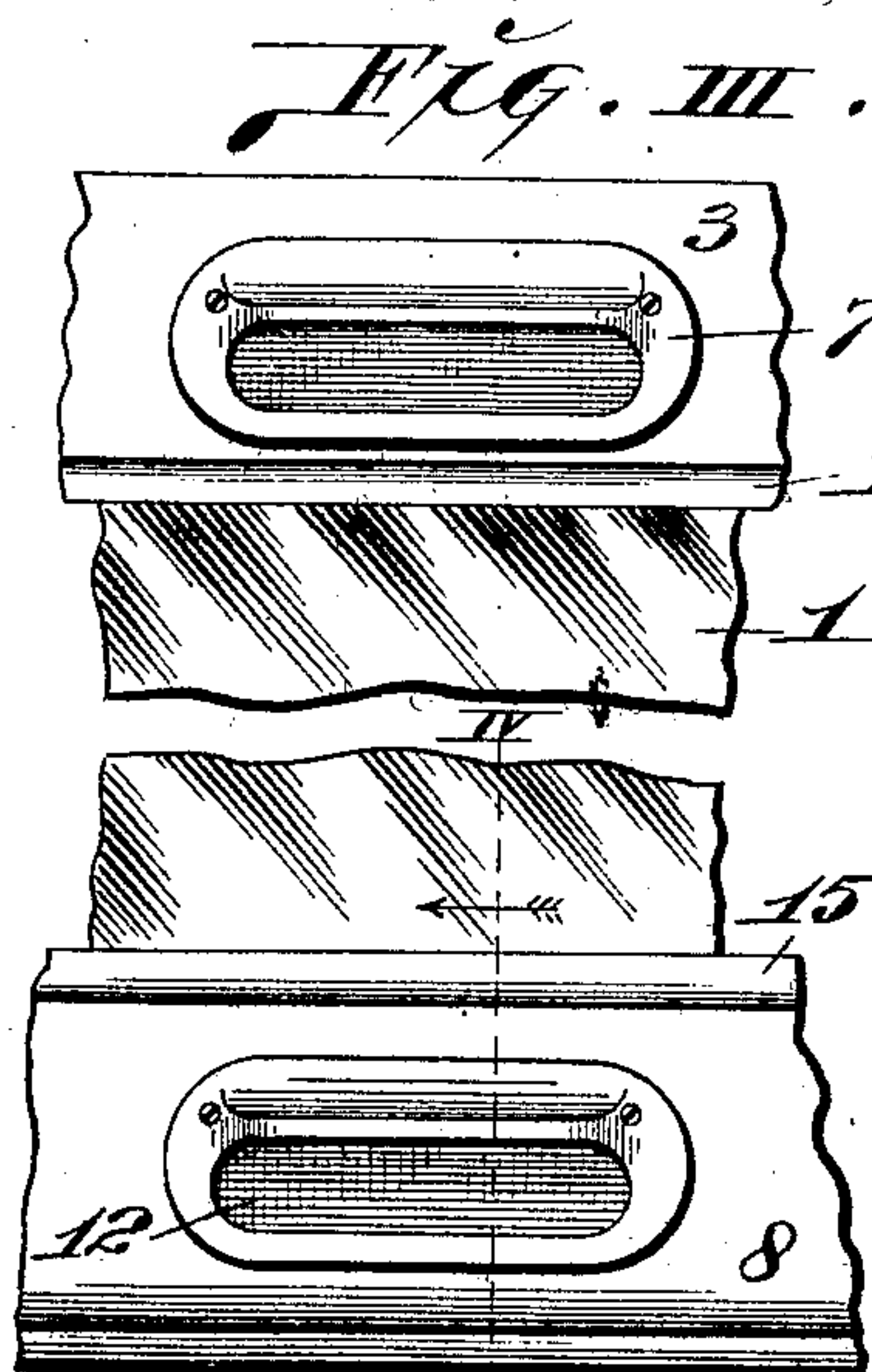
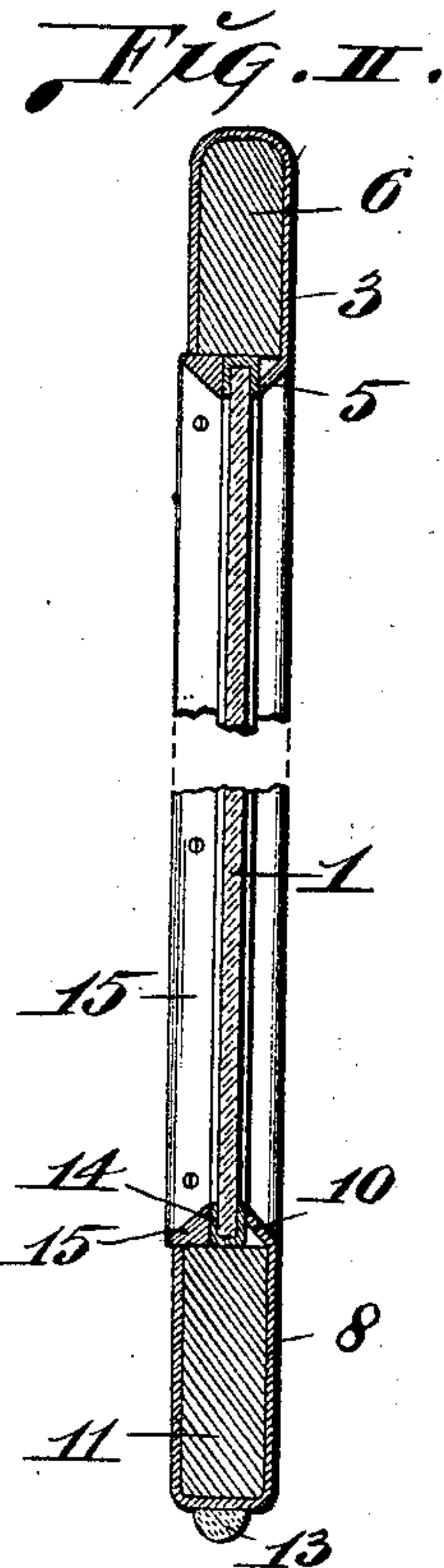
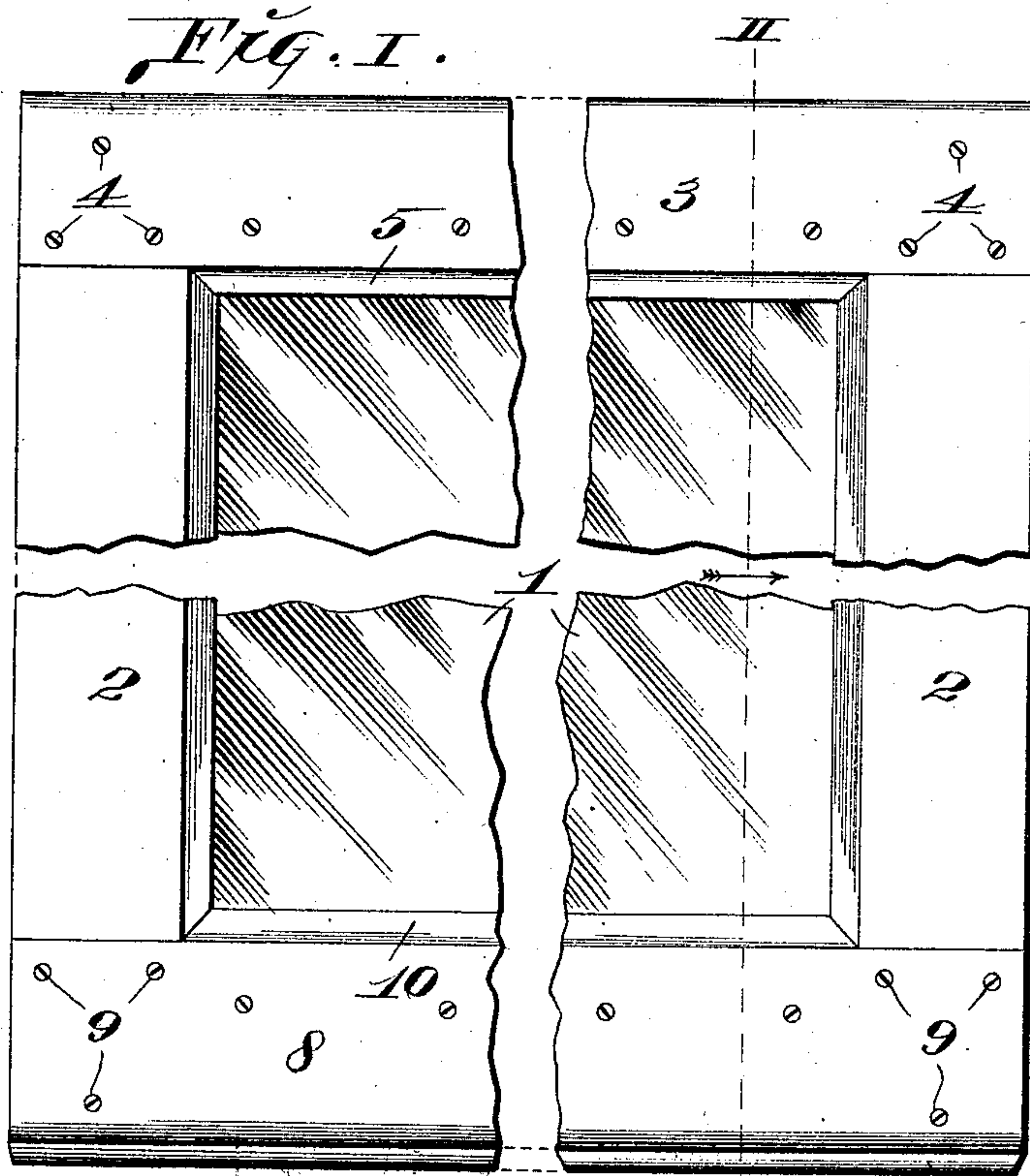


No. 842,493.

PATENTED JAN. 29, 1907.

E. T. ROBINSON.  
CAR WINDOW SASH.  
APPLICATION FILED MAY 3, 1905.



Attest, <sup>IV</sup>  
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# UNITED STATES PATENT OFFICE.

EDWARD T. ROBINSON, OF ST. LOUIS, MISSOURI, ASSIGNOR TO ST. LOUIS  
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## CAR-WINDOW SASH.

No. 842,493.

Specification of Letters Patent.

Patented Jan. 29, 1907.

Application filed May 3, 1905. Serial No. 258,717.

*To all whom it may concern:*

Be it known that I, EDWARD T. ROBINSON, a citizen of the United States, residing in the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Car-Window Sashes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a sash more particularly intended for street-car windows, the improvement, briefly stated, consisting of upper and lower sash-rails of metal, preferably pressed steel, as distinguished from such rails as usually constructed of wood.

The invention further relates to the provision of wood fillers within said upper and lower rails and sash-lifts positioned in the metal rails.

Figure I is an elevation of my sash, partly broken out and looking at the outer side thereof. Fig. II is a vertical section taken on line II II, Fig. I. Fig. III is an elevation of fragments of the sash at the center thereof, partly broken out and looking at the inner side of the sash. Fig. IV is a vertical section taken on line IV IV, Fig. III. Fig. V is a view, partly in elevation and partly in vertical section, of one of the lower corners of the sash.

1 designates a pane of glass, which constitutes the transparent portion of my sash, and 2 are the sash-stiles in which the pane 1 is seated. These stiles are preferably of wood.

3 designates the upper rail of the sash, which is of sheet metal, preferably pressed steel, and which is secured to the upper ends of the stiles 2 by screws 4 or other suitable means of fastening. At the outer side of the sheet-metal upper rail is an inturned flange 5, that extends inwardly from the lower edge of the rail toward the glass pane 1 and serves as a deflector to direct rain in a downward course onto the glass pane instead of permitting it to enter the sash above the glass pane. Within the sheet-metal upper rail is a wooden filler-strip 6, that extends longitudinally through the rail. At the longitudinal center of the rail and the filler-strip these parts are cut out from the inner side of the sash to

provide a pocket, and in said pocket is seated a sash-lift 7. This sash-lift is made of considerable depth in order to provide ample finger-space for a person's hand, so that the fingers may be introduced thereinto in raising and lowering the sash.

8 designates a lower rail of sheet metal, preferably pressed steel, which is secured to the lower ends of the stiles 2 by screws 9 or other suitable means of fastening. At the outer side of the sheet-metal rail 8 and extending inwardly from its upper edge is a flange 10, that serves as a deflector to shed rain downwardly onto the lower rail and also to receive water flowing downwardly on the glass pane 1 and shed it therefrom onto said lower rail.

11 is a wooden filler-strip extending longitudinally through the sheet-metal lower rail between the lower ends of the stiles 2. The inner portion of the sheet-metal lower rail and the wooden filler-strip are cut out, as seen in Fig. IV, to provide a pocket for the reception of a sash-lift 12, that is of considerable depth to accommodate the free introduction of the fingers of a person's hand in grasping the lift. At the ends of the sheet-metal lower rail are upturned arms 8', (see Fig. V,) which are bent at right angles to the bottom of the rail and fitted to the edges of the stiles 2 at their lower ends, to which they are secured by screws 8<sup>a</sup> or other suitable means or fastening.

13 is an elastic cushion-strip secured to the lower side of the lower rail 8, which serves to relieve jar upon the sash when it is lowered into the usual pocket in a street-railway car.

The glass pane 1 is surrounded by a channel cushion-strip 14, preferably of rubber, and this cushion-strip, together with the pane, is held in position within the sash stiles and rails by bead-strips 15, that rest against the cushion-strip, as most clearly seen in Figs. II and IV. These beads also serve to hold the cushion-strips 14 into close contact with the deflector-flanges 5 and 10 at the outer sides of the sheet-metal upper and lower rails.

I claim as my invention—

In a window, the combination with the pane, of a pair of stiles, a sheet-metal upper rail secured to the upper ends of said stiles, a

sheet-metal lower rail secured to the lower  
ends of the stiles and having upturned arms  
attached to the edges of the stiles, intumed  
deflector-flanges extending from the outer  
5 side of the rails to the pane, wooden filler-  
strips located within the rails, a channel-  
shaped cushion-strip surrounding the pane  
and against one side of which the deflector-

flanges bear, and bead-strips bearing against  
the other side of the cushion-strip, substan- 10  
tially as set forth.

E. T. ROBINSON.

In presence of—

A. DICKMANN,  
M. C. MURPHY.