

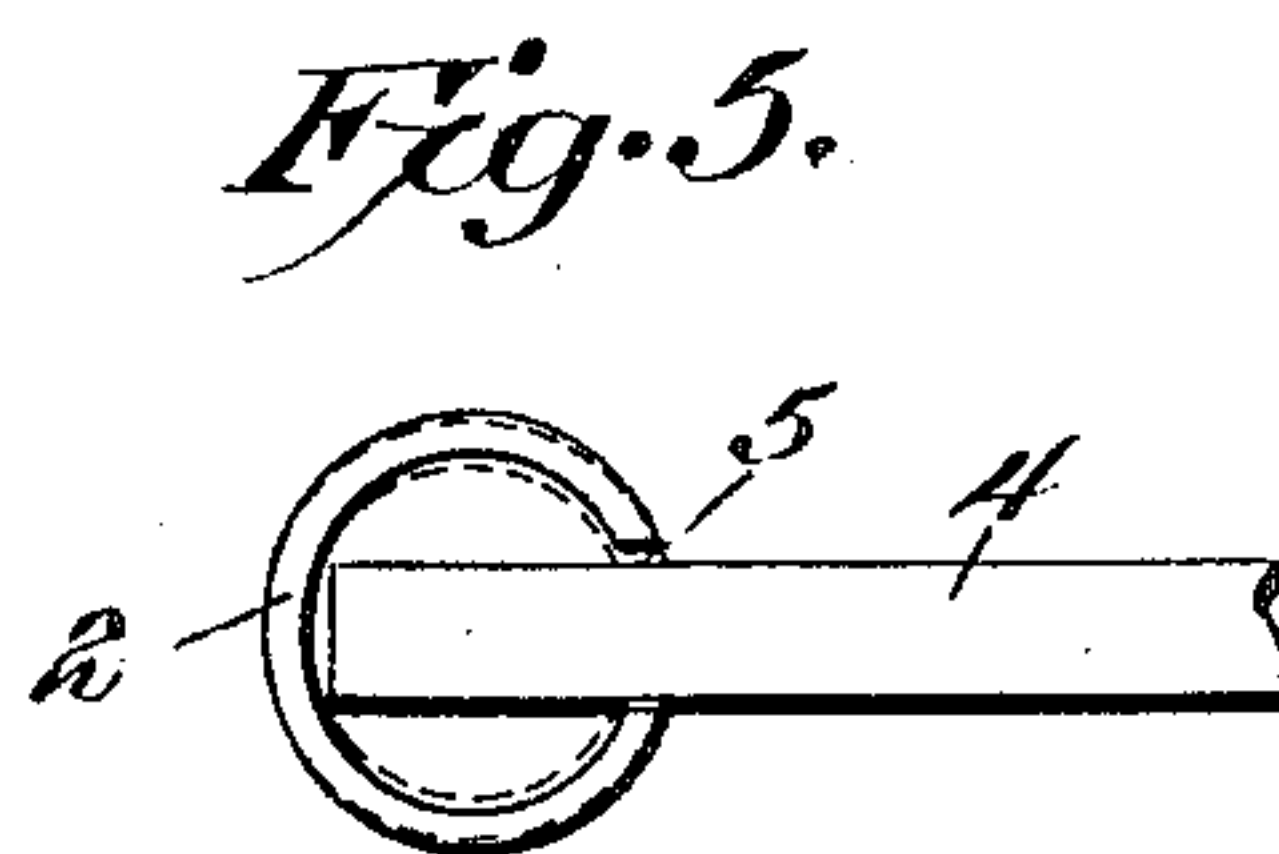
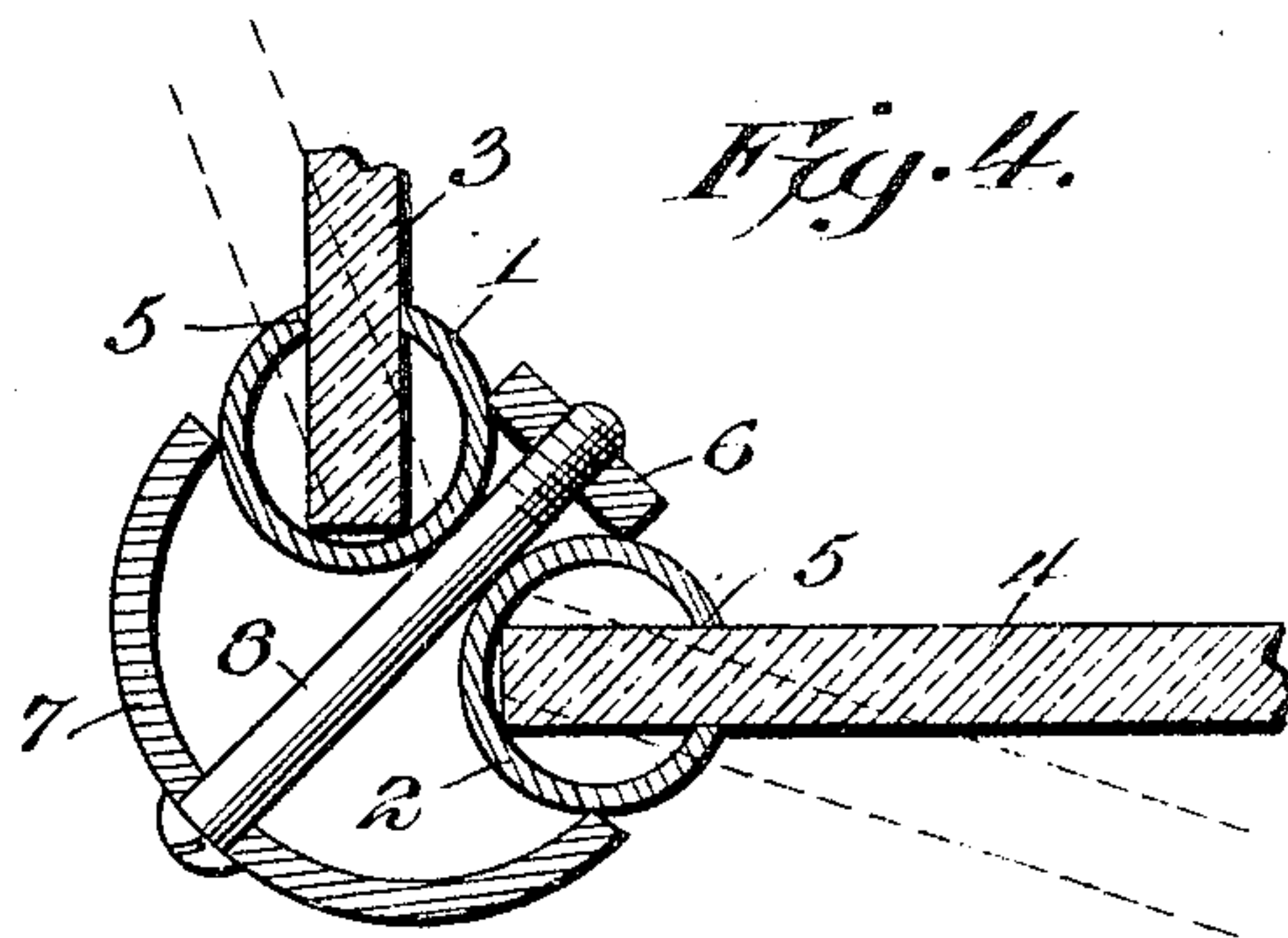
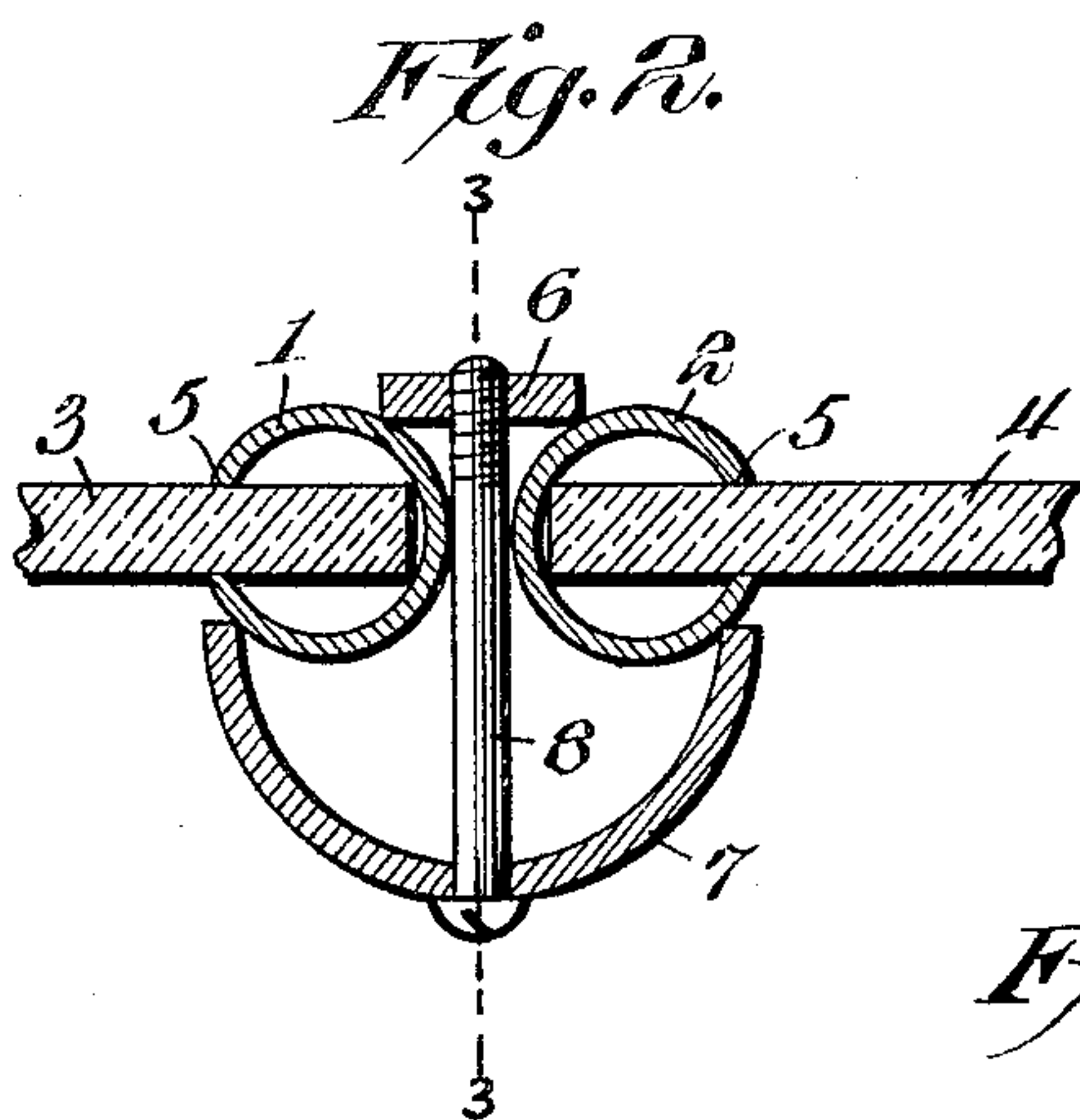
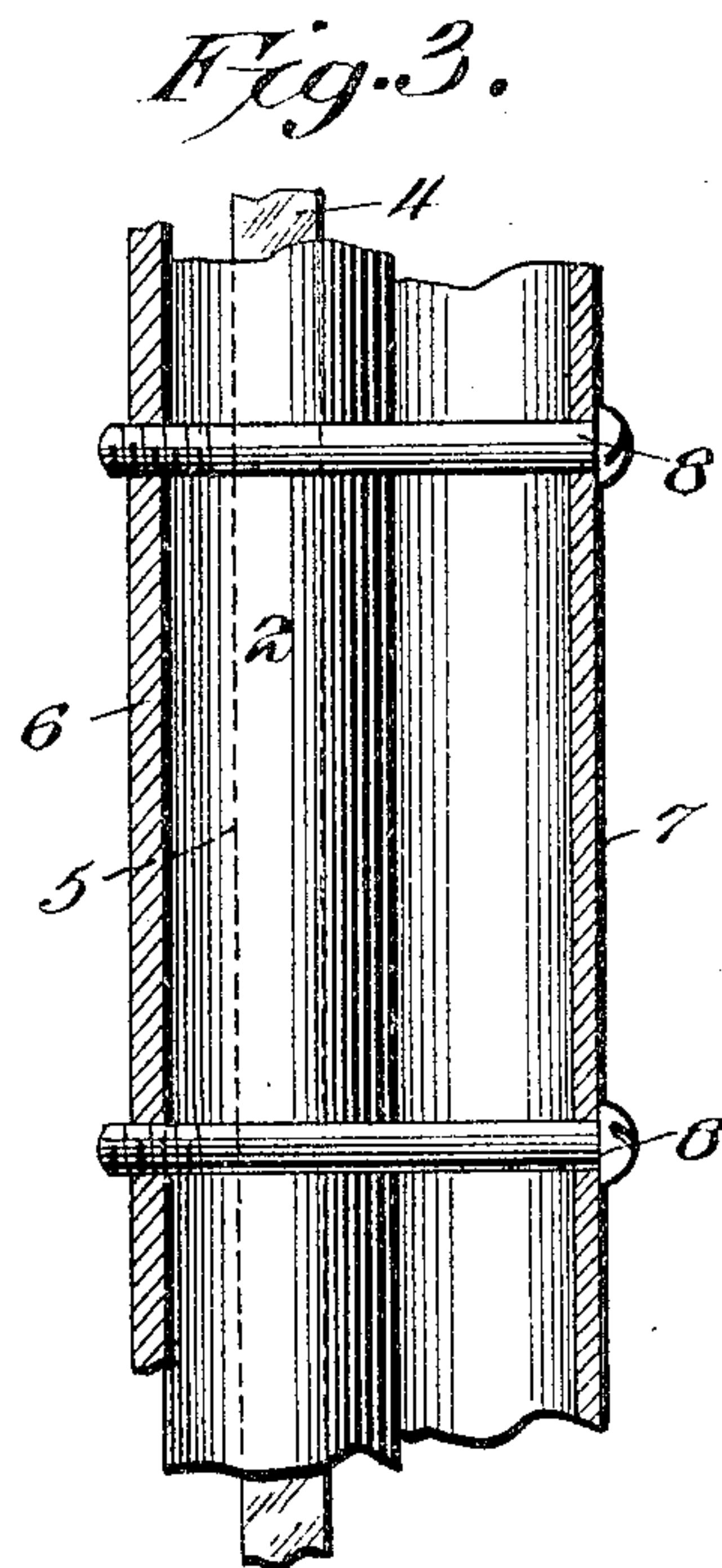
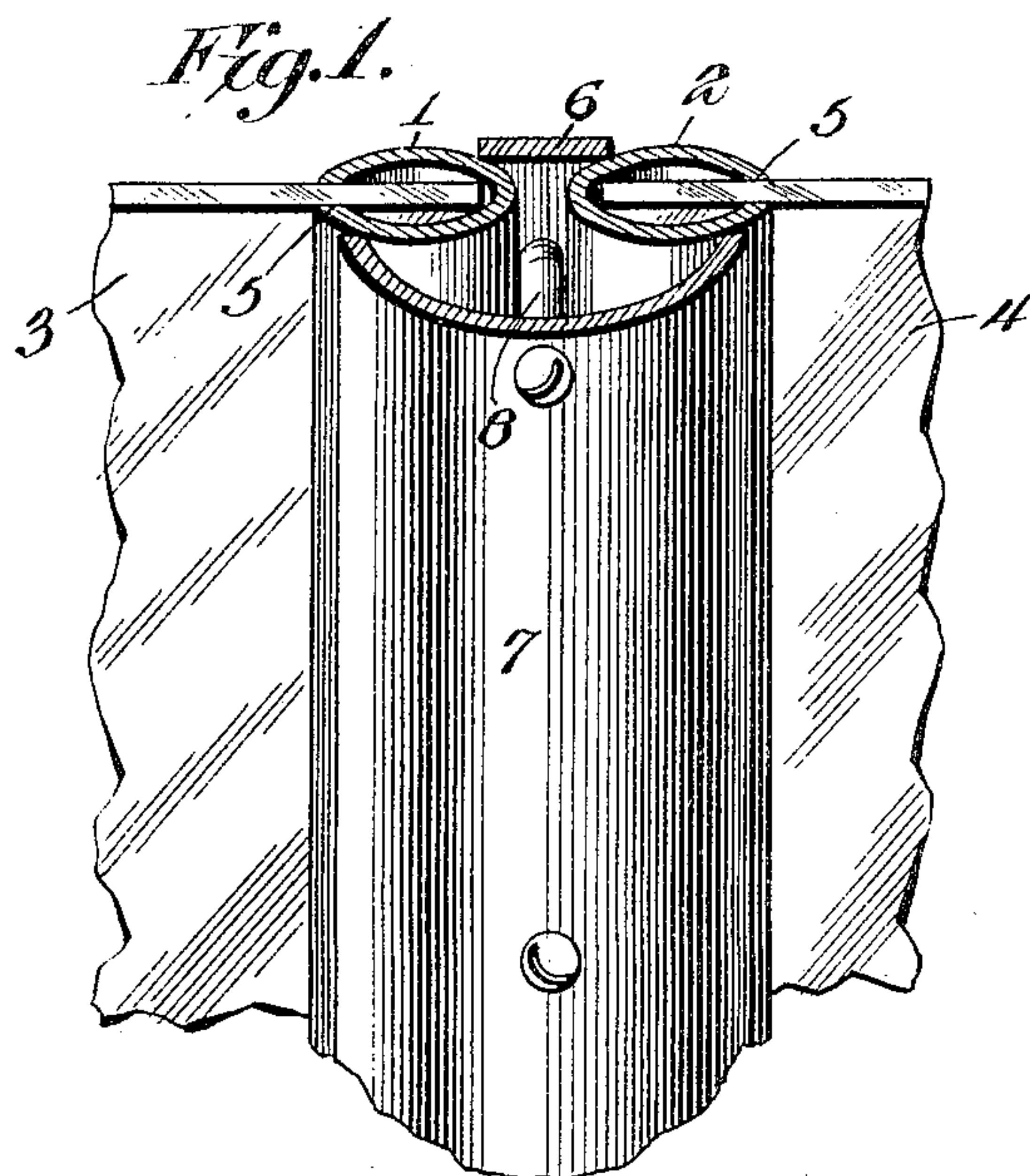
No. 798,309.

PATENTED AUG. 29, 1905.

G. M. VOLTZ.

SASH BAR.

APPLICATION FILED MAY 23, 1904.



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GEORGE M. VOLTZ, OF ST. JOSEPH, MISSOURI.

SASH-BAR.

No. 798,309.

Specification of Letters Patent.

Patented Aug. 29, 1905.

Application filed May 23, 1904. Serial No. 209,286.

To all whom it may concern:

Be it known that I, GEORGE M. VOLTZ, a citizen of the United States, residing at St. Joseph, in the county of Buchanan and State of Missouri, have invented a new and useful Sash-Bar, of which the following is a specification.

This invention relates to a novel sash-bar designed with special reference to its use as a window mullion, transom, or corner-post.

One object of the invention is to produce a simple inexpensive bar for effecting a rigid dust-proof connection between the edges of window-panes in general, and more particularly the heavy glass plates of show-windows.

Another object of the invention is to so construct the bar that it may be equally adapted for the connection of panes or plates disposed in the same plane or having various angular relations, so that the bar may be employed with equal facility as a mullion, transom, or corner-post.

A further object is to utilize relatively adjustable plate-clamps arranged to receive the contiguous edges of the plates and associated with strips arranged to be drawn together for the purpose of securing the clamps in their adjusted positions, as well as to operate the individual clamps to securely grip the glass plates.

A still further object is to construct the entire device of metal and to assemble the parts in a manner to insure a neat ornamental finish of the joint between the panes.

To the accomplishment of these and other objects the preferred embodiment of the invention resides in that construction and arrangement of parts to be hereinafter described, illustrated in the accompanying drawings, and succinctly defined in the appended claims.

In the accompanying drawings, Figure 1 is a sectional perspective view of a portion of my sash-bar applied as in use. Fig. 2 is a horizontal section of the same subject-matter. Fig. 3 is a vertical section on the line 3 3 of Fig. 2. Fig. 4 is a view similar to Fig. 2 with the plate-clamps adjusted to adapt the bar for use as a corner-post, the plates being indicated in obtuse angular relation in dotted lines; and Fig. 5 is a detail view showing the manner in which the clamps are contracted to grip the plates.

The same numerals are employed to designate corresponding parts throughout the views.

The sash-bar includes in its organization a

pair of plate-clamps 1 and 2, arranged to receive and clamp the contiguous edges of a pair of glass plates or panes 3 and 4. The members or clamps 1 and 2 may be constructed in a variety of forms; but by preference they are produced by forming a pair of metal tubes with slots or openings 5, through which the edges of the plates are passed into the tubes, as shown. In addition to the plate-receiving members or clamps 1 and 2 the bar includes inner and outer clamping-strips 6 and 7 and connecting-bolts 8, which latter are screwed into the inner strip 6 at intervals and are provided with slotted heads imposed against the outer face of the outer strip 7. The inner strip 6 is flat and preferably inflexible, while the outer strip is of substantially semicylindrical form and, while comparatively stiff, will flex slightly under the application of considerable pressure. The tubular members 1 and 2 are retained in place by the inner and outer strips 6 and 7, and, as shown in Fig. 2, they are backed by the intermediate bolts 8 and are engaged by the edges of the strips. The points at which the inner and outer strips 6 and 7 contact with the respective members 1 and 2 are substantially diametrically opposite, but not exactly so, since the major portions of the tubes are located within the confines of the strips in order that said tubes may not be withdrawn laterally, even when the strips 6 and 7 are separated sufficiently to enable the tubes to be turned on their individual axes for the purpose of disposing them for the reception of angularly-related plates, as shown in Fig. 4.

In applying the sash-bar the bolts 8 are loosened sufficiently to permit the tubes 1 and 2 to assume their normal expanded condition, as shown in full lines in Fig. 5. The tubes are then turned on their individual axes to properly dispose their openings 5 for the reception of the contiguous edges of the panes or plates to be connected. The contiguous edges of the plates are then passed into the tubes, and the bolts 8 are screwed up to draw the inner and outer strips together. This operation simultaneously effects two results. In the first place it contracts the tubes 1 and 2, as shown in dotted lines in Fig. 5, to cause them to securely grip the glass plates 3 and 4, and at the same time each tube is securely clamped between the strips in a manner to prevent accidental turning or displacement of the tube. Notwithstanding this secure clamping of the parts, however, crushing or scarring of the glass will be avoided, because the inherent re-

siliency of the parts—to wit, the tubes 1 and 2 and the outer strip 7—will insure a tight dust-proof connection of the parts without necessitating the application of sufficient force to endanger the integrity of the glass or of the elements of the sash-bar. It will be noted, furthermore, that the bar presents a neat finished appearance, since the semicylindrical outer strip 7 is of sufficient width to bring its opposite edges opposite the outer sides of the tubes, and thus the latter and the inner strip are obscured, except for slight intervals immediately adjacent to the glass.

Obviously the sash-bar constructed as described is applicable for use as a mullion for connecting the vertical edges of glass panes or plates, as a transom for connecting the horizontal edges thereof, or as a corner-post for connecting the contiguous edges of plates or panes disposed in angular relation, irrespective of whether the angle is acute, obtuse, or a right angle, as shown in Fig. 4.

It is thought that from the foregoing the construction, mode of manipulation, and many advantages of my sash-bar will be clearly apparent; but while the illustrated embodiment of the invention is thought at this time to be preferable I desire to reserve the right to effect such changes, modifications, and variations of the illustrated structure as will come fairly within the scope of the protection prayed. For instance, the members 1 and 2 may be square, hexagonal, or other form in cross-section, and the member 7 may likewise be modified.

What I claim is—

1. A sash-bar, comprising relatively adjustable members each having an opening arranged to receive one of the contiguous edges of a pair of plates.

2. A sash-bar, comprising relatively adjustable members each having an opening arranged to receive one of the two contiguous edges of a pair of plates or panes, and means for rigidly securing said members in their adjusted positions.

3. A sash-bar, comprising a pair of substantially parallel members having longitudinal openings, one of said members being adjustable to accommodate angularly-related plates designed for reception in the openings of the members.

4. A sash-bar, comprising a pair of members each having a longitudinal opening for the reception of the edge of a plate, and relatively adjustable strips retaining the members and permitting independent adjustment thereof to accommodate plates disposed at various angles.

5. A sash-bar, comprising a pair of slotted tubes arranged to receive the contiguous edges of a pair of plates, and means for contracting the tubes to clamp the plates.

6. A sash-bar, comprising a pair of strips, and a pair of slotted tubes retained by the

strips and rotatable to accommodate the slots to the plates to be connected.

7. A sash-bar, comprising inner and outer strips, means for adjustably connecting the same, and a pair of slotted tubes clamped between the strips.

8. A sash-bar, comprising inner and outer strips one of which is substantially semicylindrical, a pair of slotted tubes retained between the strips, and bolts connecting the strips and disposed between the tubes.

9. A sash-bar, comprising a plurality of members each having a longitudinal opening for the reception of the edge of a plate, one of said members being mounted to turn for the purpose of accommodating plates variously disposed with respect to the plate received by the other member, and means for retaining the members in proper relative positions.

10. A sash-bar, comprising a pair of members having longitudinal openings for the reception of the edges of plates, said members being mounted to turn for the purpose of disposing their openings in position to receive plates having various angular relations, and retaining means for said members.

11. A sash-bar, comprising a pair of parallel clamping members, rotatable on longitudinal axes, and each arranged to grip the edge of a plate.

12. A sash-bar, comprising separate clamping members each having a longitudinal opening for the reception of the edge of a plate, said members being arranged to turn for the purpose of presenting their openings in position to accommodate plates disposed at various angles, and means serving both to retain the members in their relative positions and to clamp the members upon the plates.

13. A sash-bar, including a slotted tube rotatable on a longitudinal axis, and means for retaining the tube in its adjusted positions.

14. A sash-bar, including a plate-retaining member having a longitudinal opening to receive the edge of a plate, said member being shiftable to change the direction of the opening.

15. A sash-bar, including a plate-retaining member rotatable on a longitudinal axis to retain plates disposed at various angles.

16. A sash-bar, including a plate-retaining member having a longitudinal opening to receive the edge of a plate, said member being shiftable to change the direction of the opening, and means for retaining the bar in its adjusted positions.

17. A sash-bar, including a compressible plate-retainer shiftable on a longitudinal axis to accommodate variously-disposed plates, and means for compressing the retainer to clamp the plate.

18. In a sash-bar, the combination with a strip, of a slotted tube extending along the strip and rotatable on its longitudinal axis to accommodate plates disposed at various angles.

19. In a sash-bar, the combination with clamping means extending longitudinally of the bar, of a resilient tube of cylindrical form retained by said clamping means and rotatable
5 on its vertical axis, said tube having a longitudinal slot to receive the edge of a plate.

20. In a sash-bar, the combination with two clamping-strips, of an interposed resilient tube of cylindrical form rotatable on its longitudinal axis and having a longitudinal slot
10 to receive the edge of a plate, and means for

relatively adjusting the strips to secure the tube in its adjusted position and to compress the tube to clamp the plate therein.

In testimony that I claim the foregoing as
my own I have hereto affixed my signature in
the presence of two witnesses.

GEORGE M. VOLTZ.

Witnesses:

JNO. F. KRAUSE,
REUBEN L. VOLTZ.