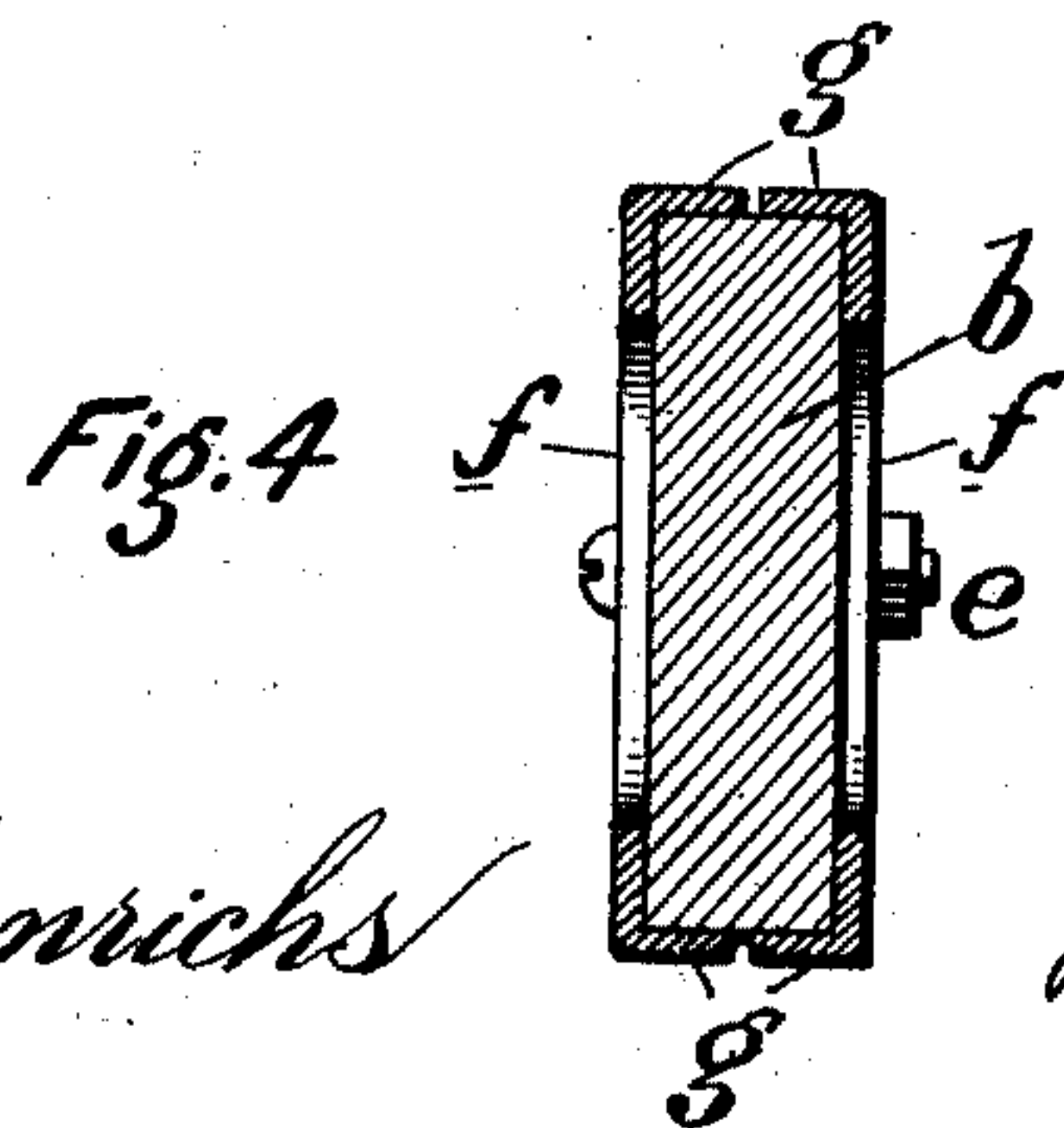
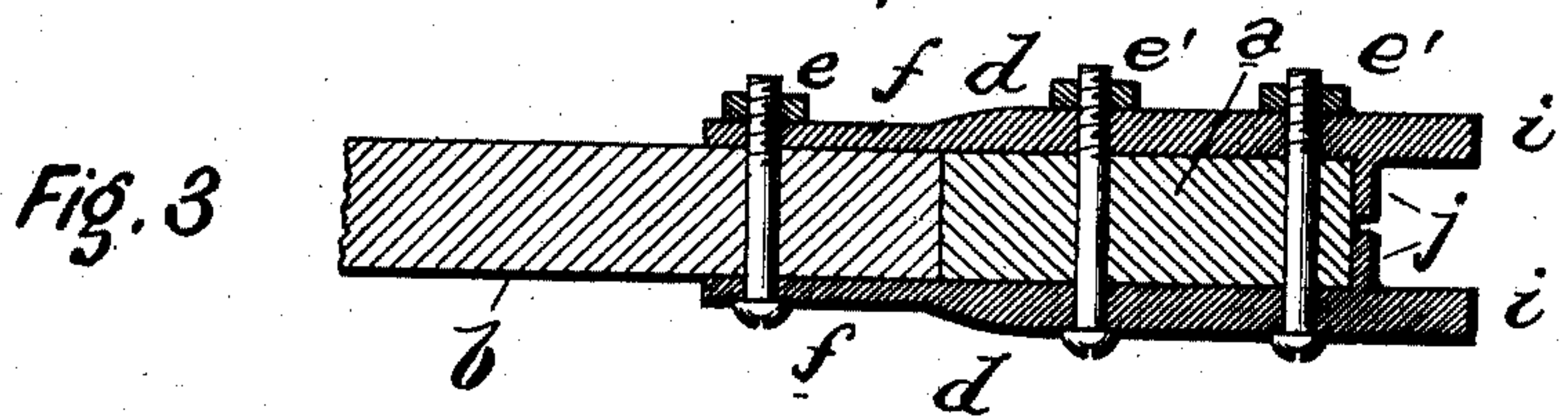
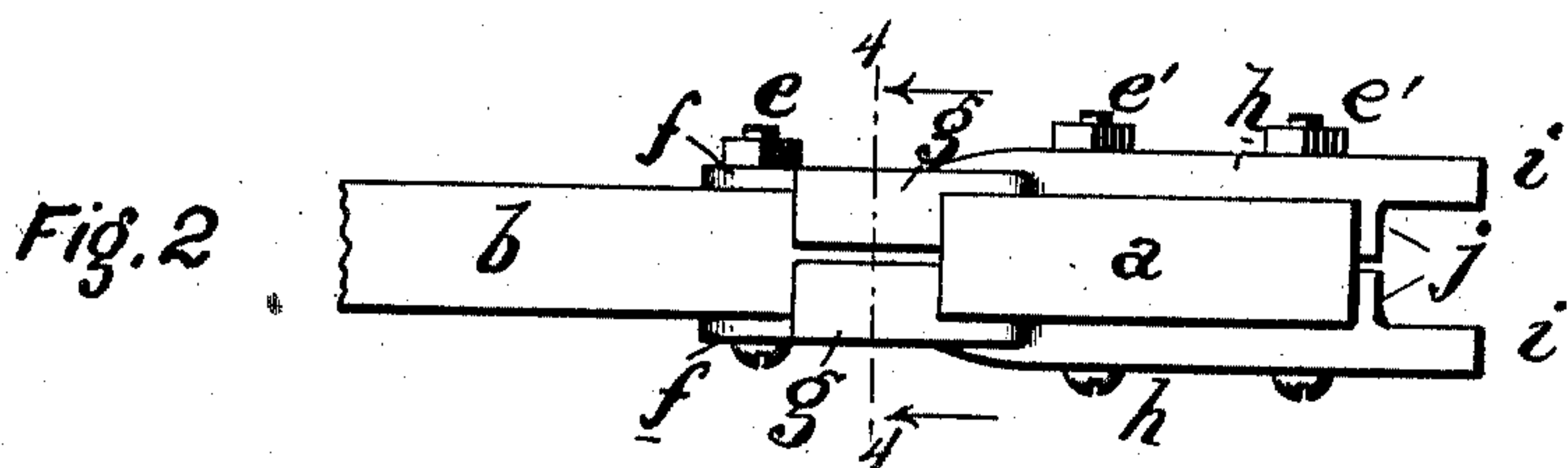
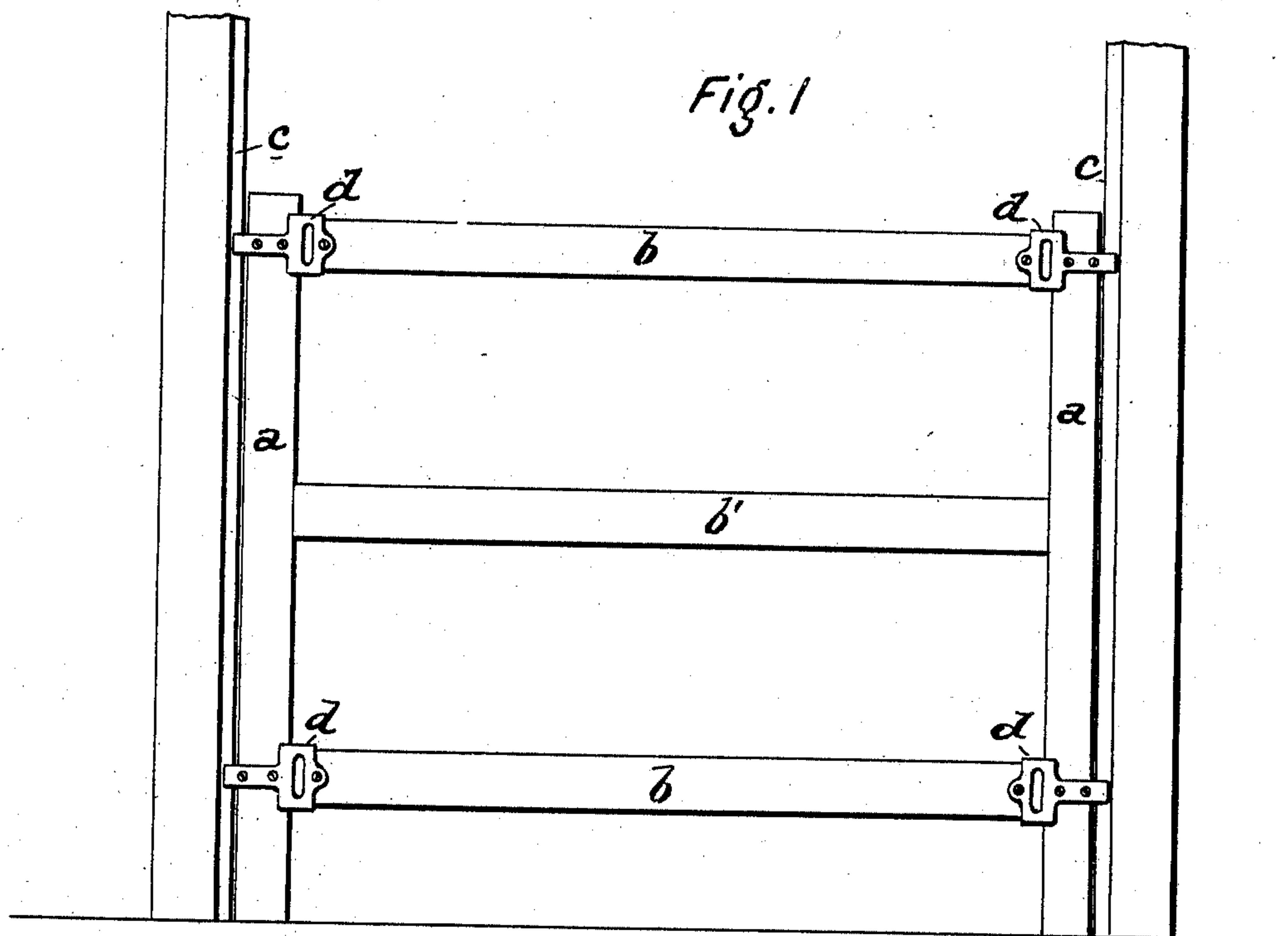


No. 759,929.

PATENTED MAY 17, 1904.

J. STEVENS.
JOINT FOR GATES, DOORS, &c.
APPLICATION FILED MAR. 25, 1903.

NO MODEL.



Witnesses:

Louis D. Henrichs
R. M. Kelly.

Inventor
John Stevens
By his atty *[Signature]*

UNITED STATES PATENT OFFICE.

JOHN STEVENS, OF PHILADELPHIA, PENNSYLVANIA.

JOINT FOR GATES, DOORS, &c.

SPECIFICATION forming part of Letters Patent No. 759,929, dated May 17, 1904.

Application filed March 25, 1903. Serial No. 149,413. (No model.)

To all whom it may concern:

Be it known that I, JOHN STEVENS, of the city and county of Philadelphia, State of Pennsylvania, have invented an Improvement in
5 Joints for Gates, Doors, &c., of which the following is a specification.

It is the object of my invention to provide a joint for gates, doors, and the like in which the pieces composing the gate may be firmly
10 and expeditiously united without the necessity of mortising or cutting the pieces or fitting them together. This object I accomplish by means of metal clamping-plates of special construction, which are secured to the faces of
15 the two pieces and united together.

My improved joint is especially adapted for sliding gates or doors, such as are used at elevator hatchways or openings, and to this end the clamping-plates are so constructed as to
20 form a running jaw for the gate. In swinging or hinged gates this jaw may also be used for the hinge connection.

In the drawings, Figure 1 is an elevation of an elevator-gate embodying my invention.
25 Fig. 2 is a plan view, enlarged, of a portion of the same. Fig. 3 is a longitudinal horizontal section of the portion of the gate shown in Fig. 2, and Fig. 4 is a vertical section on the line 4 4 of Fig. 2.

I have shown my invention applied to a sliding gate adapted to an elevator-hatchway. The gate is composed of the usual uprights
30 *a a* and cross-pieces *b* and is adapted to slide vertically on the usual ways *c c*. The ends of the cross-pieces *b* are butted upon the edges of the uprights *a*, and the pieces *b* and *a* are secured together by the clamping-plates *d d*,
35 placed upon the sides of the pieces *a b* and fastened to them by bolts or screws *e e'*. The plate *d* at one end is formed with a wide portion *f* of a breadth sufficient to extend partly over each of the pieces *a b* and having horizontal lateral lugs *g g* at the top and bottom,
40 which project over the top edges of the cross-piece *b*. The plate has a forward extension *h* from the portion *f*, which extends over the face of the upright *a* and projects beyond its edge, as shown at *i*. This projection *i* is
45 formed with a lateral vertical lug *j*, which pro-

jects over the edge of the upright. The two
50 plates *d d* are placed one on each side of the two pieces *a b* and are bolted or fastened together by the bolt *e* through the piece *b* and by the bolt or bolts *e'* through the piece *a*. The portions *f f*, with their four lugs *g*, form
55 a socket for the end of the cross-piece *b*, and the upright *a* is securely clamped against the end of the cross-piece between the side extension *h* and the lugs *j*, which with the projec-
60 tions *i i* form parallel jaws, which are guided on the way *c*. Thus the uprights and cross-bars are firmly clamped together without mortising, and the clamps themselves form the running jaws which engage the ways.

In practice it is usual to connect the top and
65 bottom cross-pieces *b b* with the uprights, as shown, thus forming two sets of running jaws on each side. When the gate is formed with an intermediate cross-bar *b'*, as shown, that bar may also be clamped to the uprights in the
70 same manner; but that is not necessary, and any usual means of securing said bar may be resorted to.

The particular use of the gate or door, whether as a sliding or other door or gate, is
75 not material to the invention.

What I claim as new, and desire to secure by Letters Patent, is as follows:

1. In a joint for gates, &c., the combination with two pieces to be united arranged with the
80 end of one piece butted against the edge of the other piece, of clamping-plates located on the opposite side faces of said pieces and having their outer ends extending beyond the outer edge of one of said pieces to form parallel jaws
85 said jaws being each provided with a lateral lug *j* located at a distance from the extremity extending part way over said outer edge of the latter piece, and means for securing said plates
90 together and to said pieces embracing a bolt passing through one of said pieces and holding said lugs *j j* in contact with the outer edge of the other piece, thereby clamping the latter piece between said lugs and the end of the first piece.

2. In a joint for gates, &c., the combination with two pieces to be united arranged with the
95 end of one piece butted against the edge of the

other piece, of clamping-plates located on the opposite side faces of said pieces and each provided on the upper and lower edges with lateral lugs *g g* extending part way over the upper and lower edges of the inner piece and having their outer ends extending beyond the outer edge of one of said pieces to form parallel jaws being each provided with a lateral lug *j* extending part way over said outer edge of the latter piece, and means for securing said plates together and to said pieces.

3. The clamping-plate for the purpose described having a flat inner face and formed at one end with a wide portion *f* having the lateral lugs *g g* projecting from its upper and lower edges and at the other end with a forward extension *h* having a lateral lug *j* at a distance from its extremity and from the lugs *g g*.

4. The clamping-plate for the purpose described having a flat inner face and provided adjacent to one end with the parallel lateral lugs *g g* and at a distance from said lugs *g g* and also from the extremity of the other end with a lateral lug *j* arranged at substantially a right angle to the lugs *g g*.

In testimony of which invention I hereunto set my hand.

JOHN STEVENS.

Witnesses:

ERNEST HOWARD HUNTER,
R. M. KELLY.