

No. 631,284.

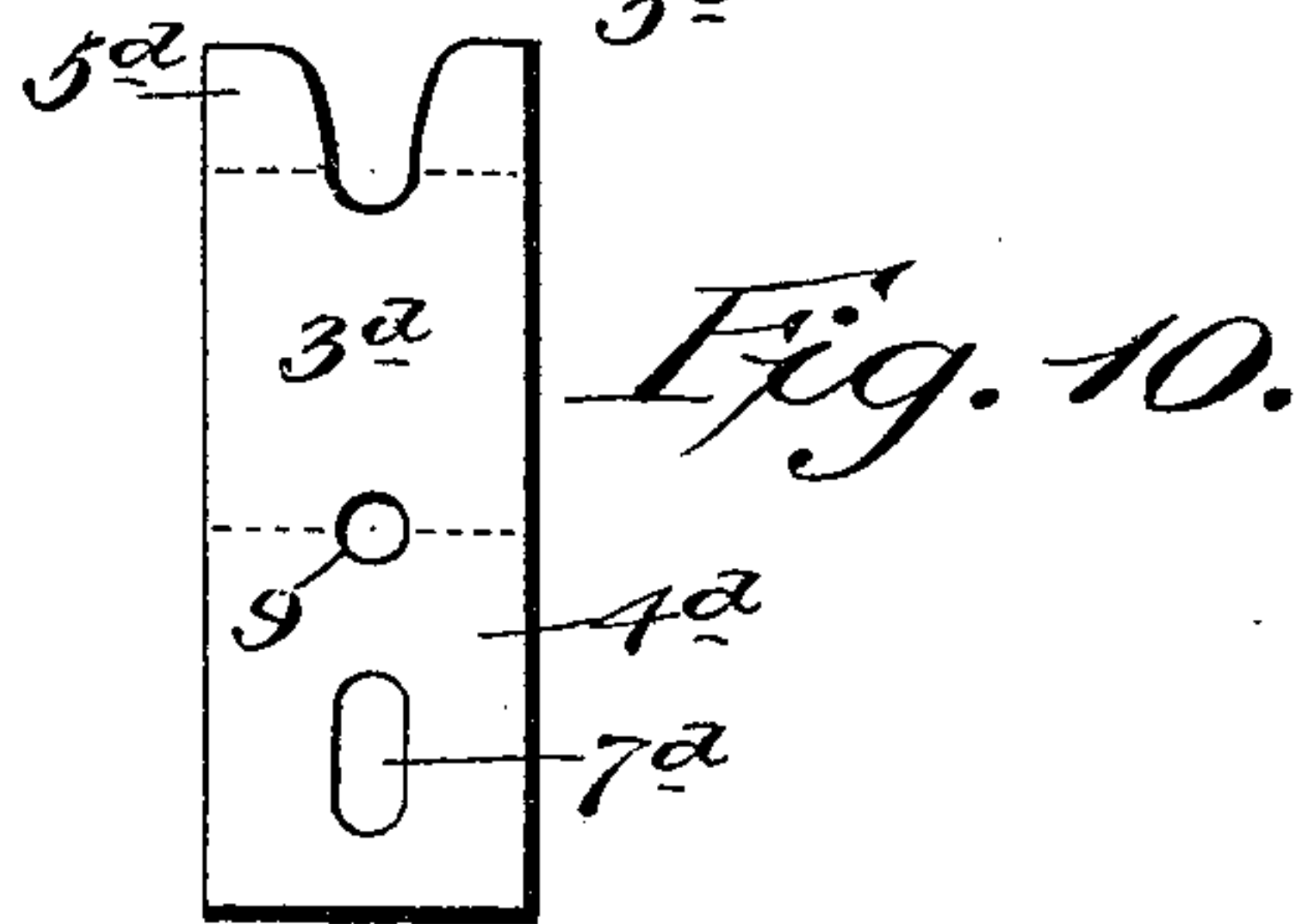
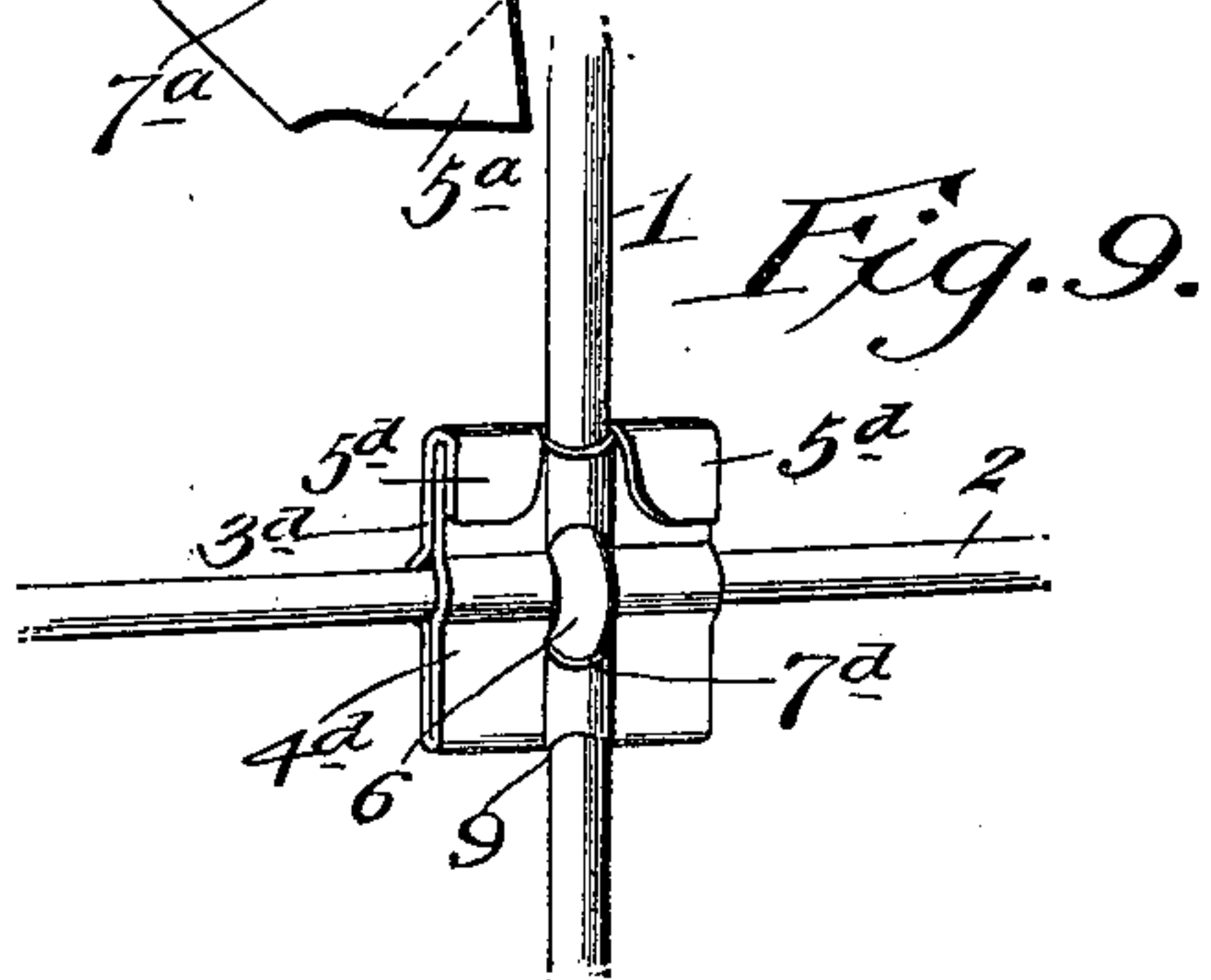
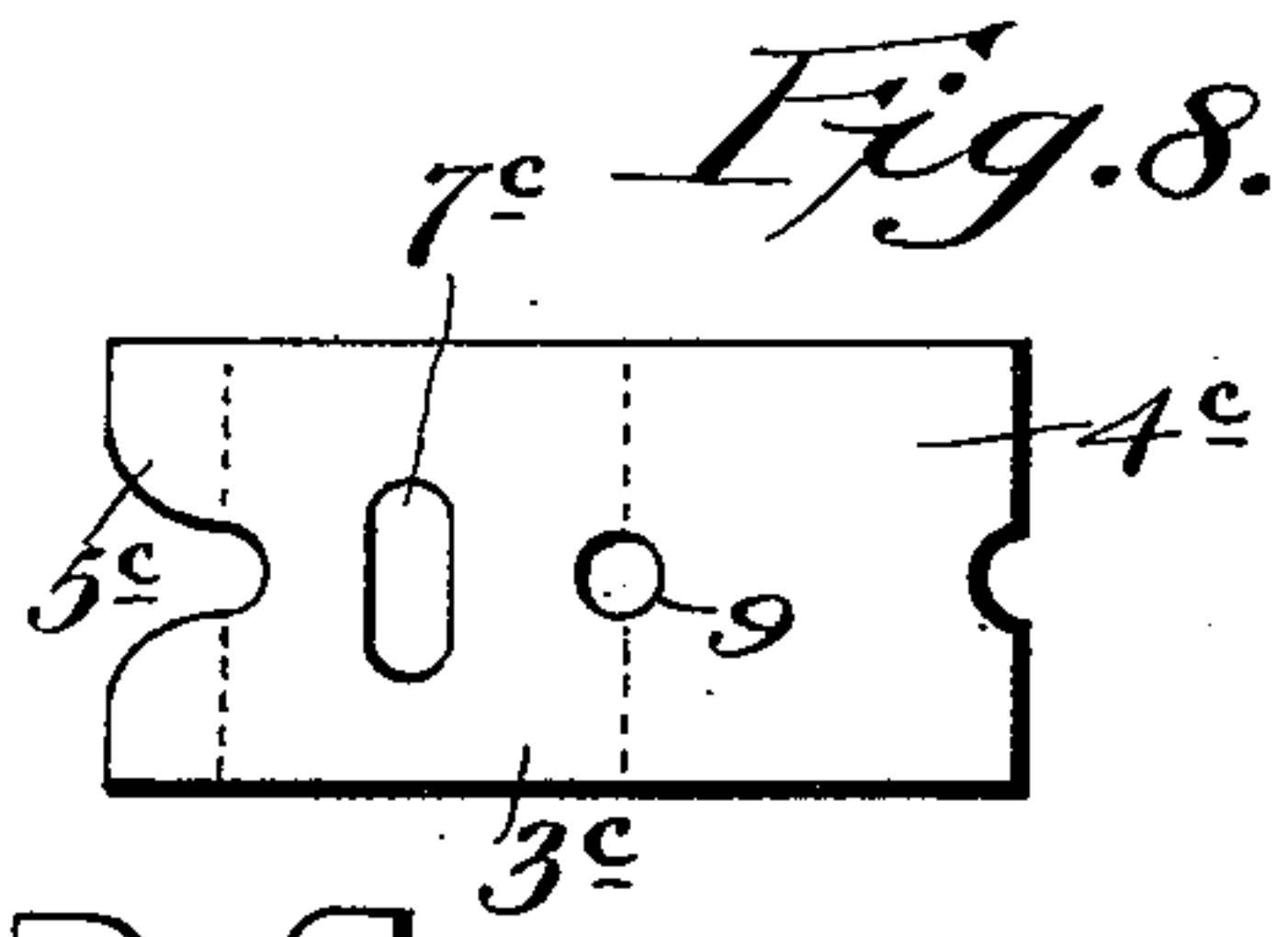
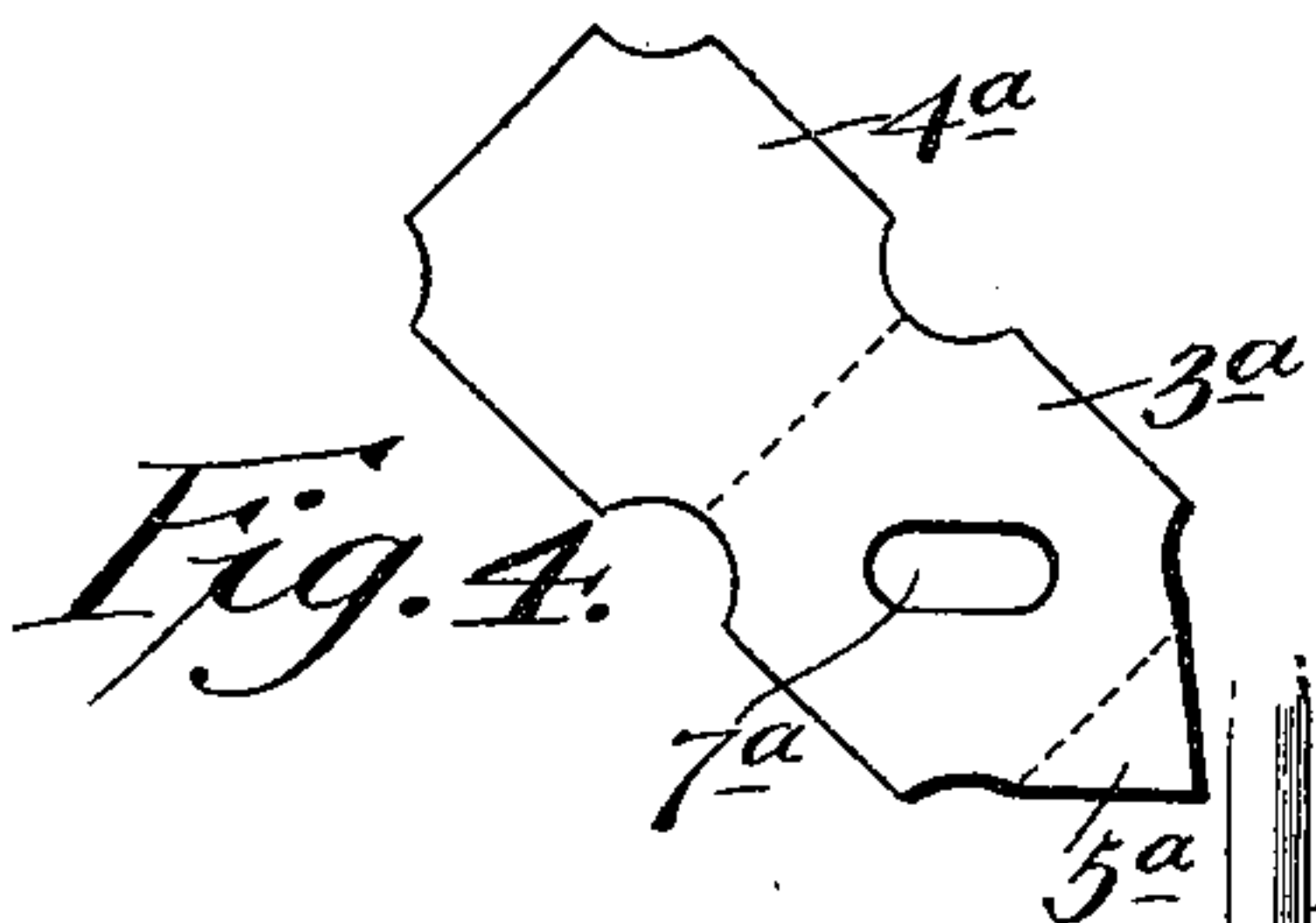
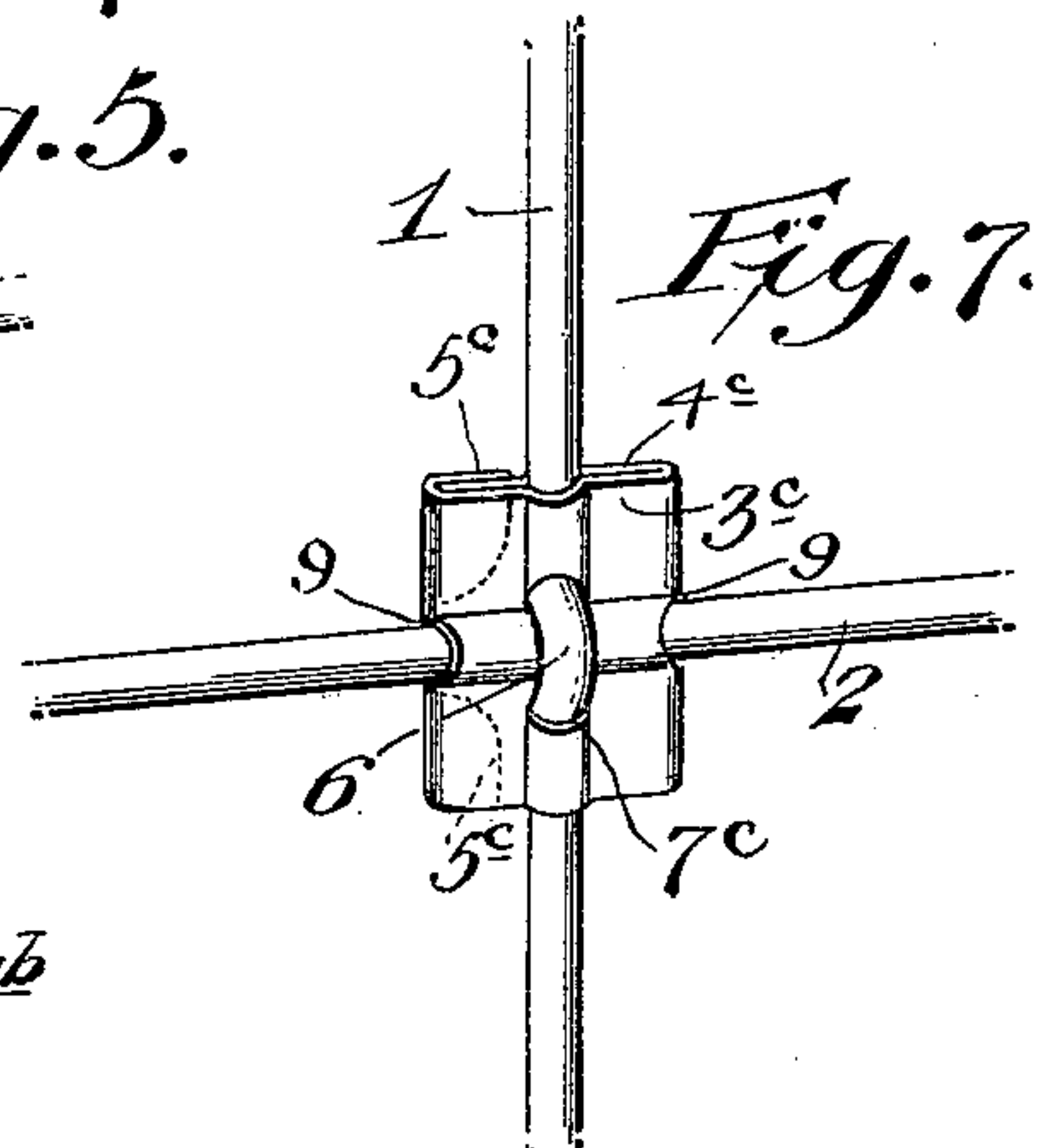
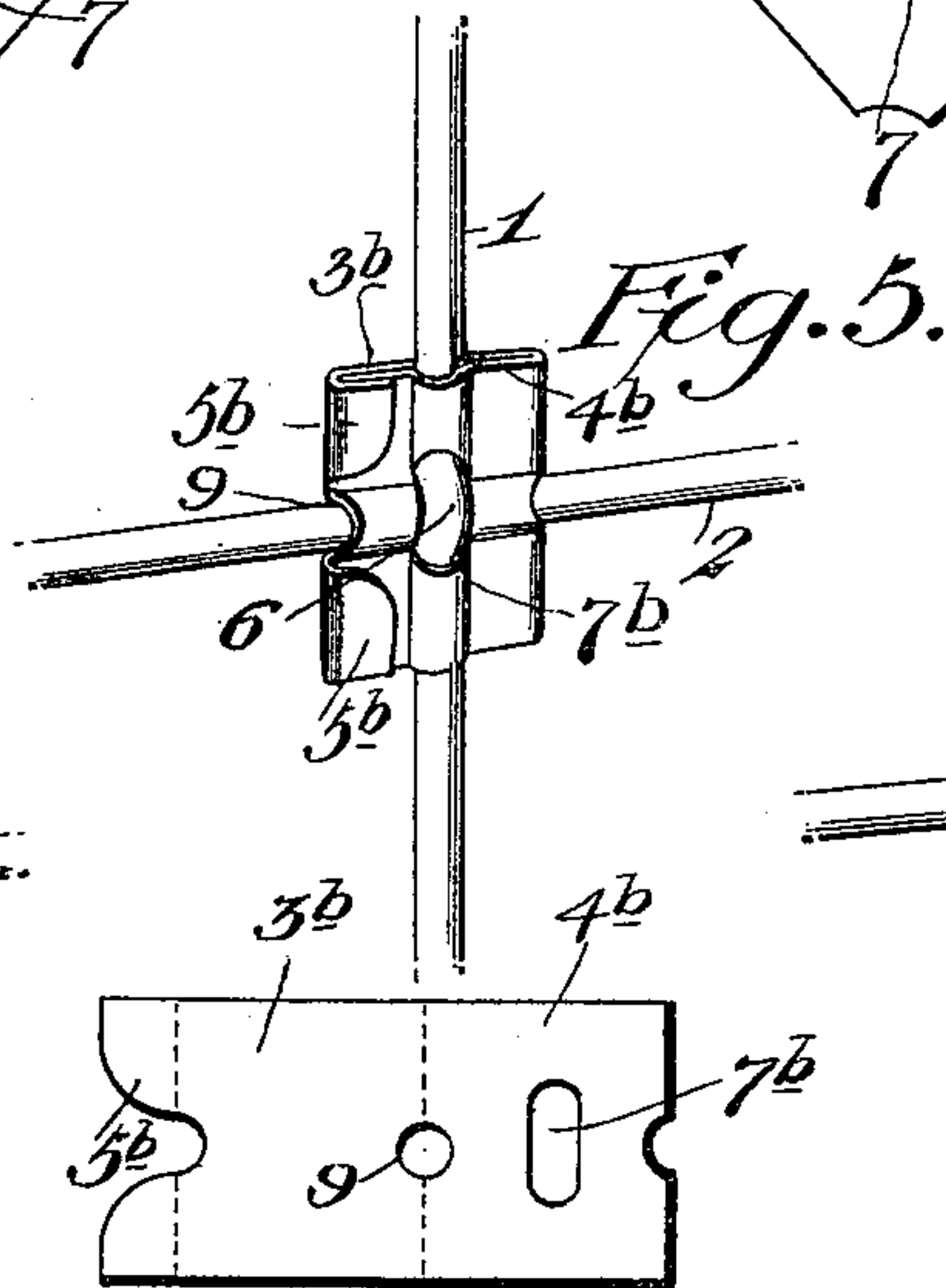
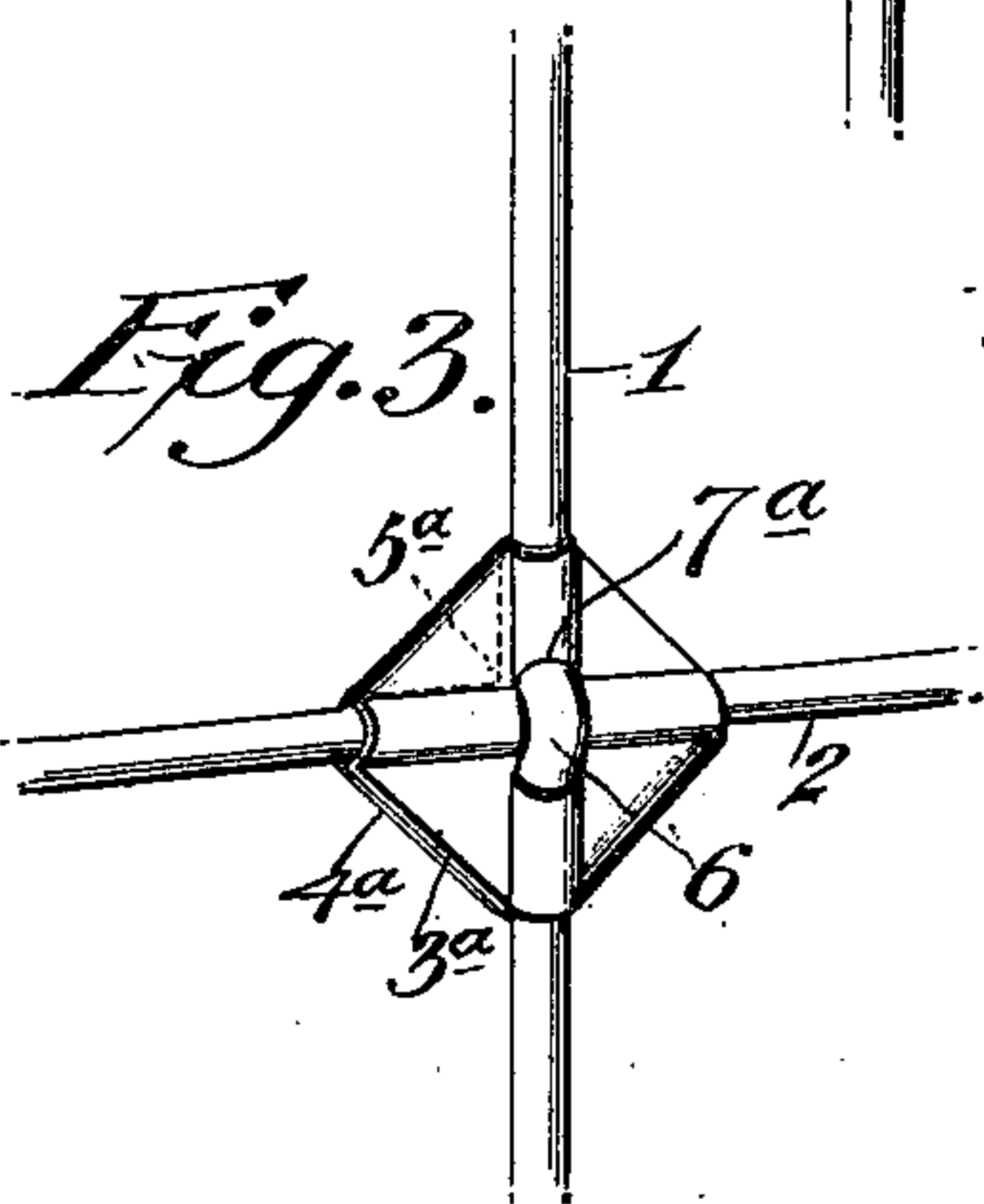
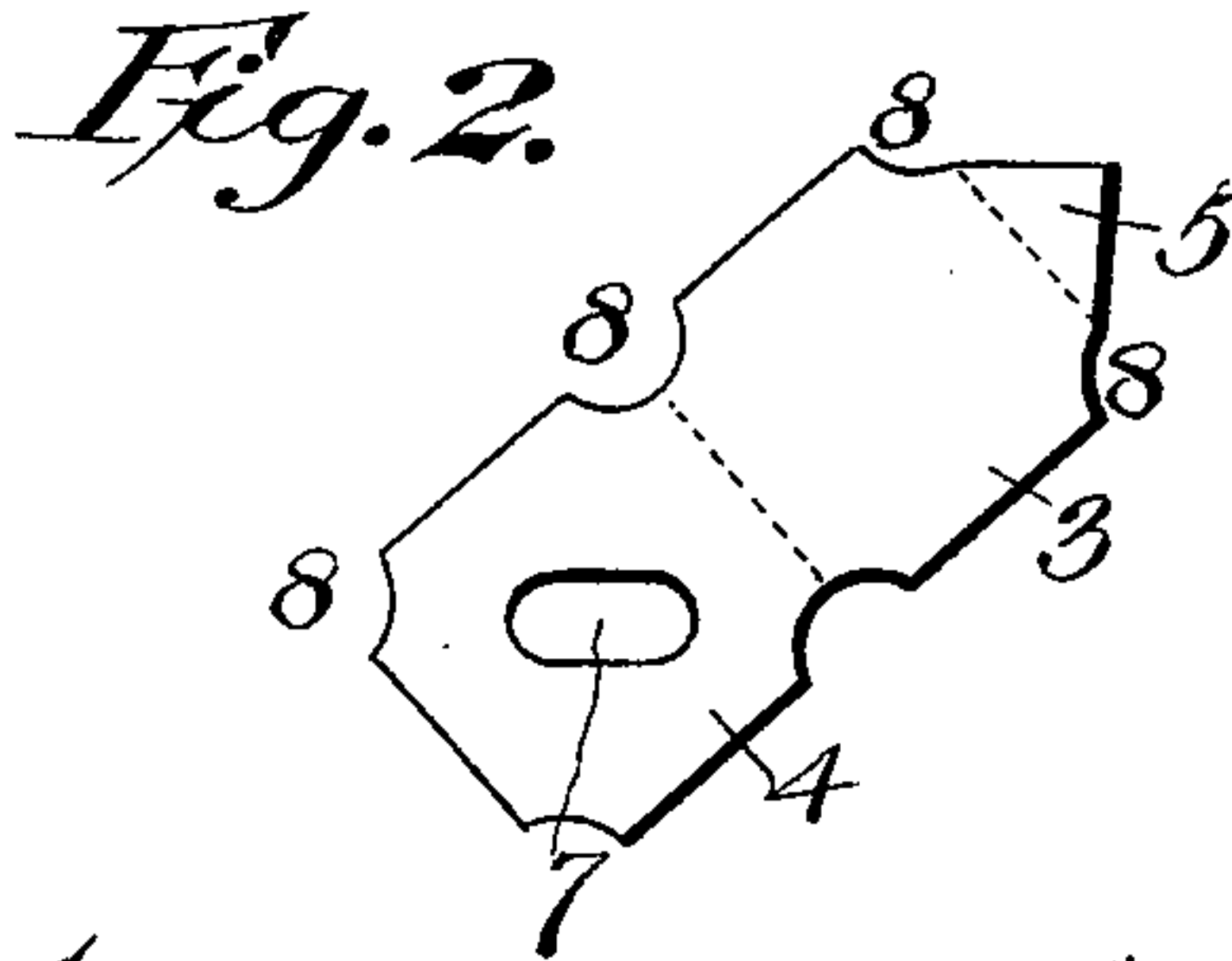
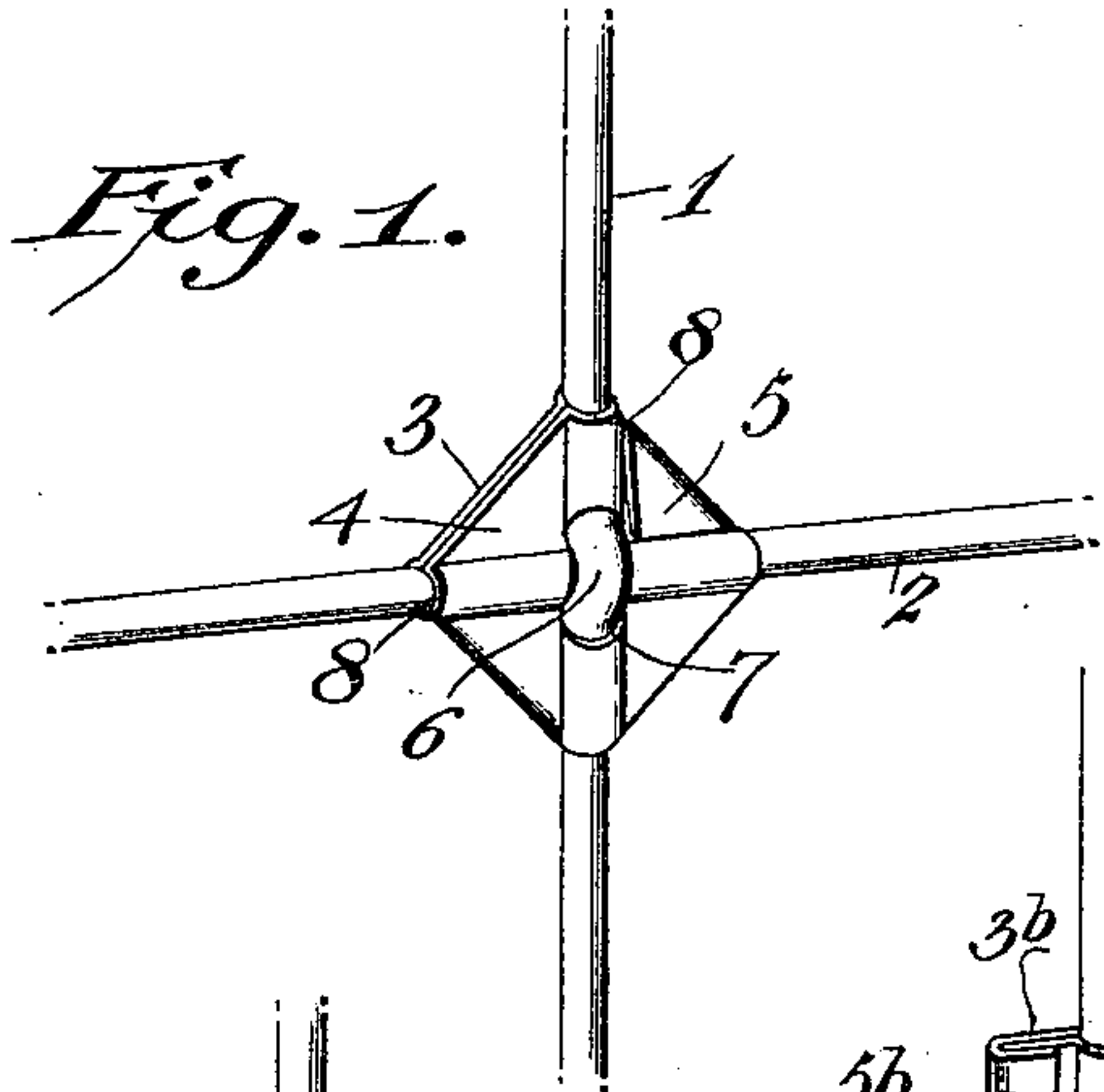
Patented Aug. 22, 1899.

A. ELLISON.  
FENCE LOCK.

(Application filed Sept. 23, 1898.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses

*A. Roy Appleman*  
*O. E. Hoyle*

By *his* Attorneys.

*Albert E. Ellison, Inventor.*

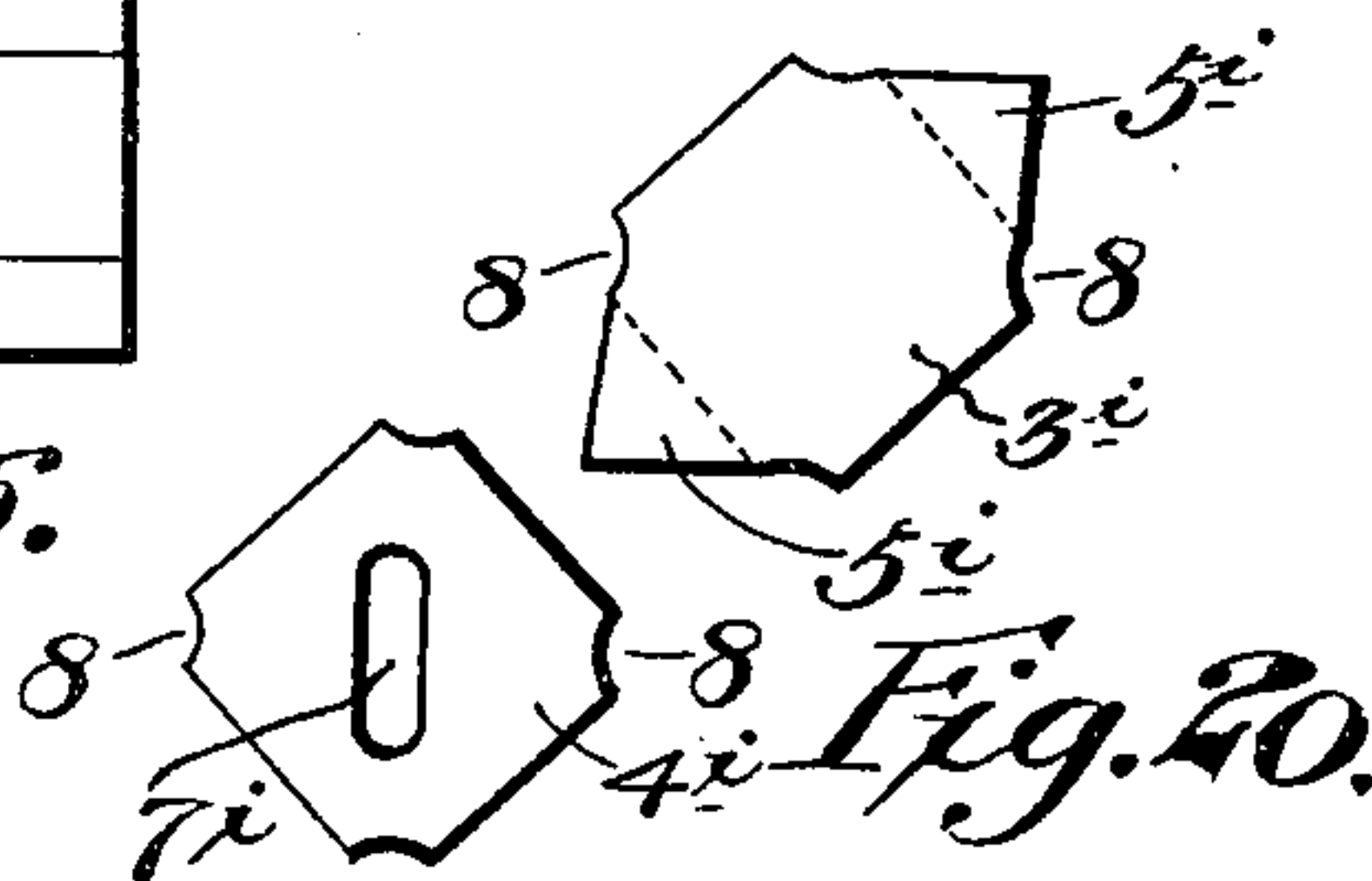
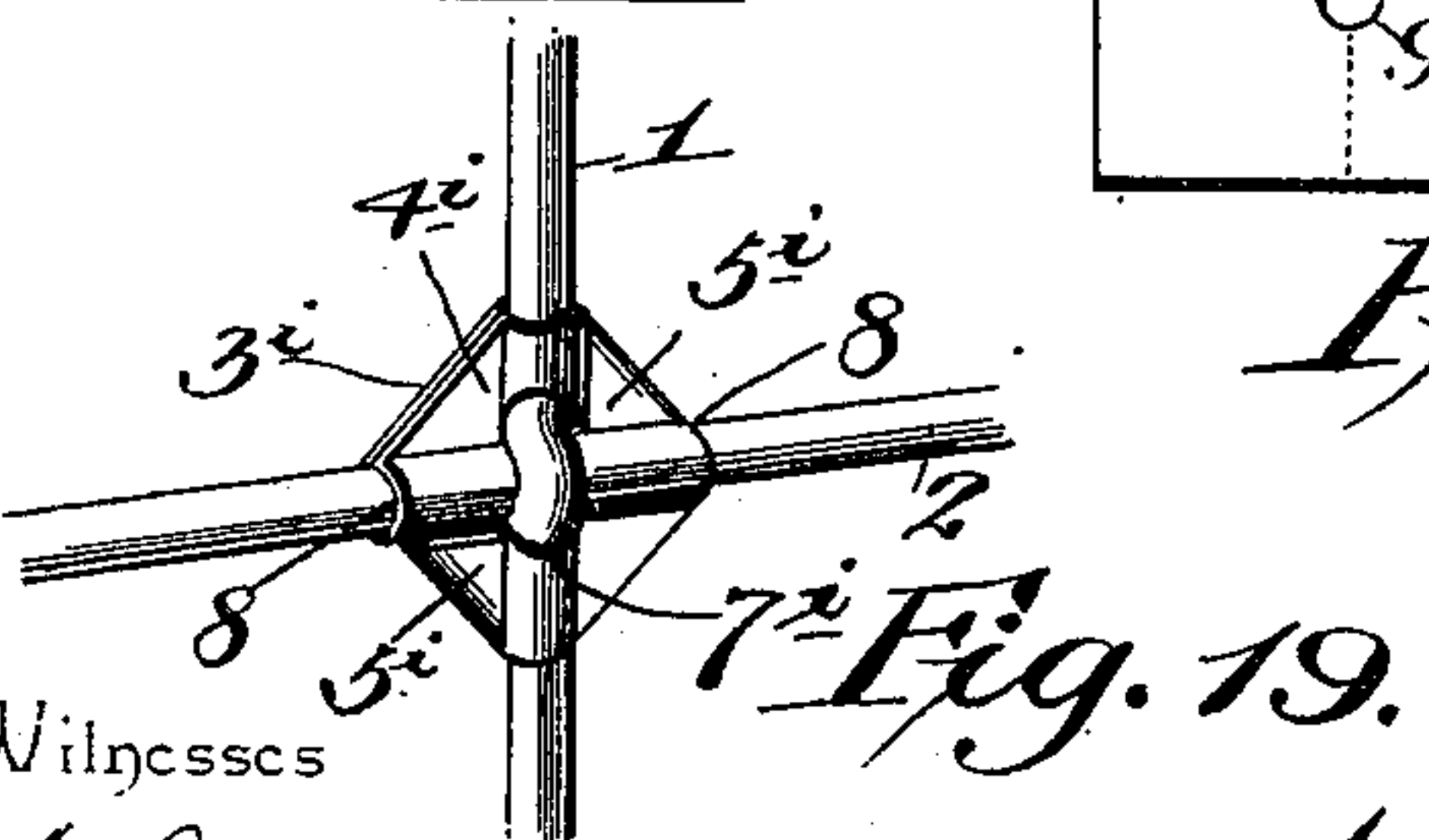
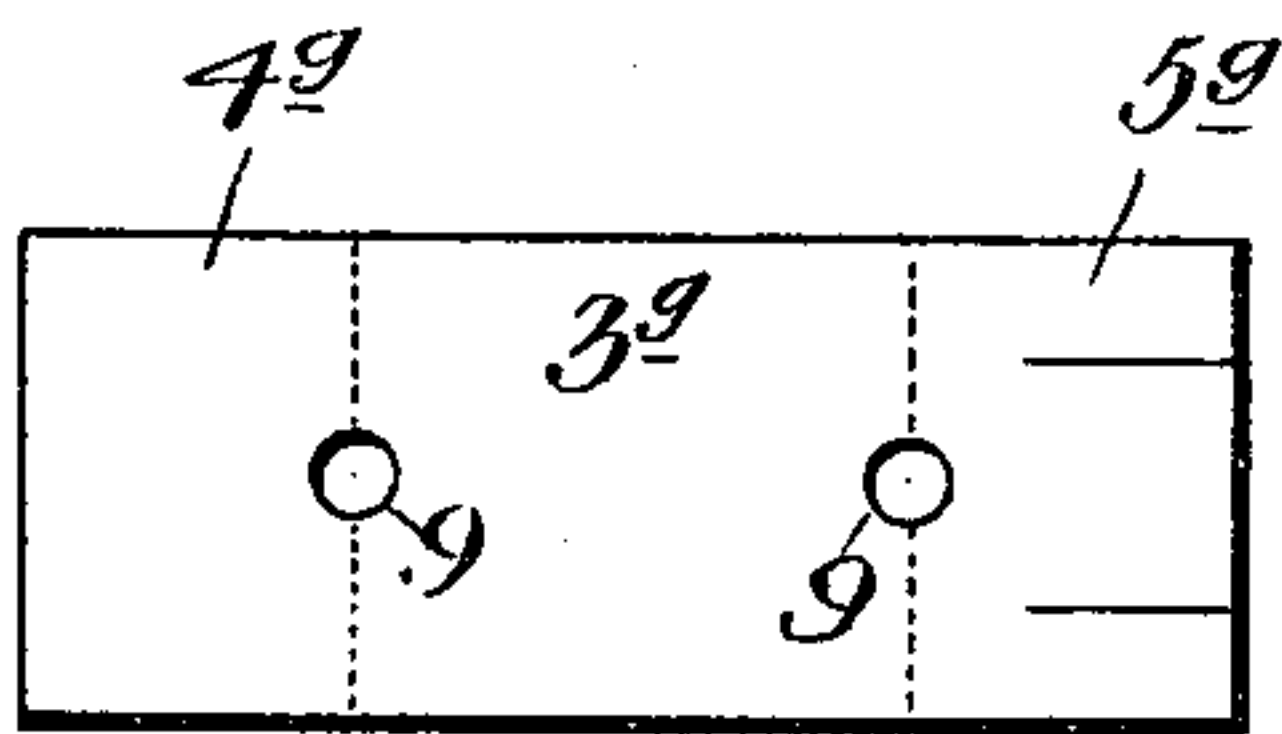
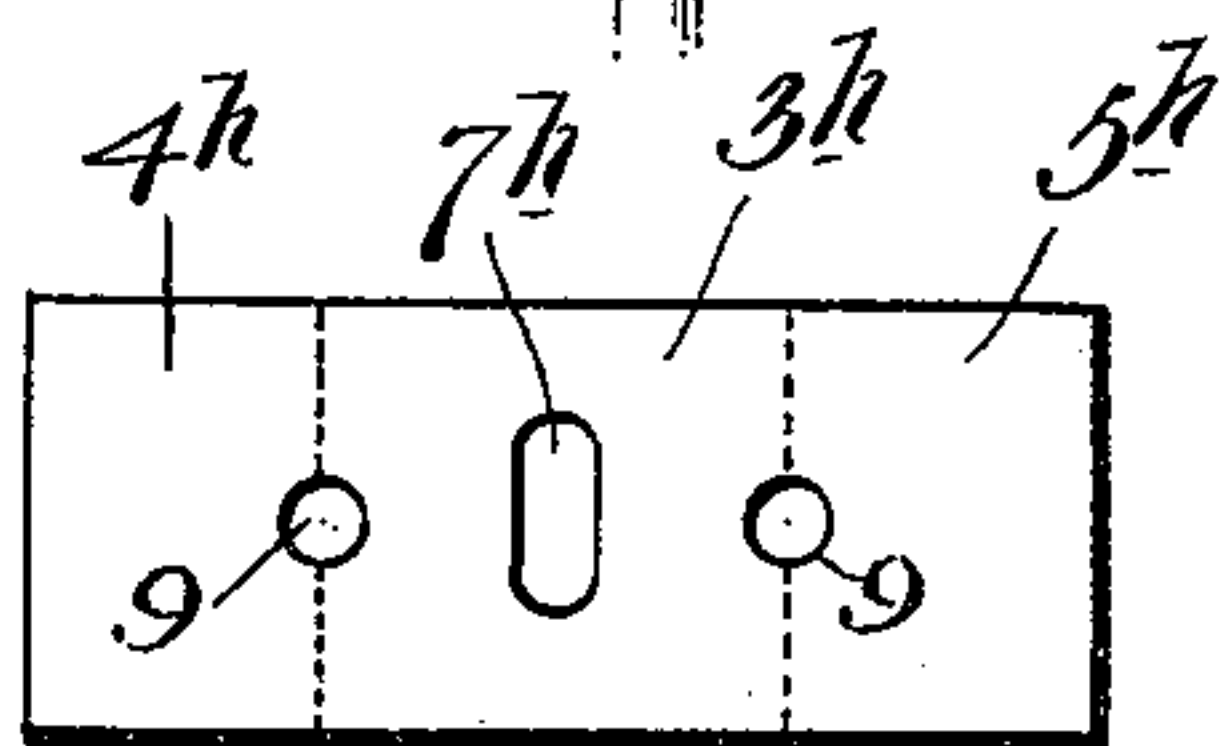
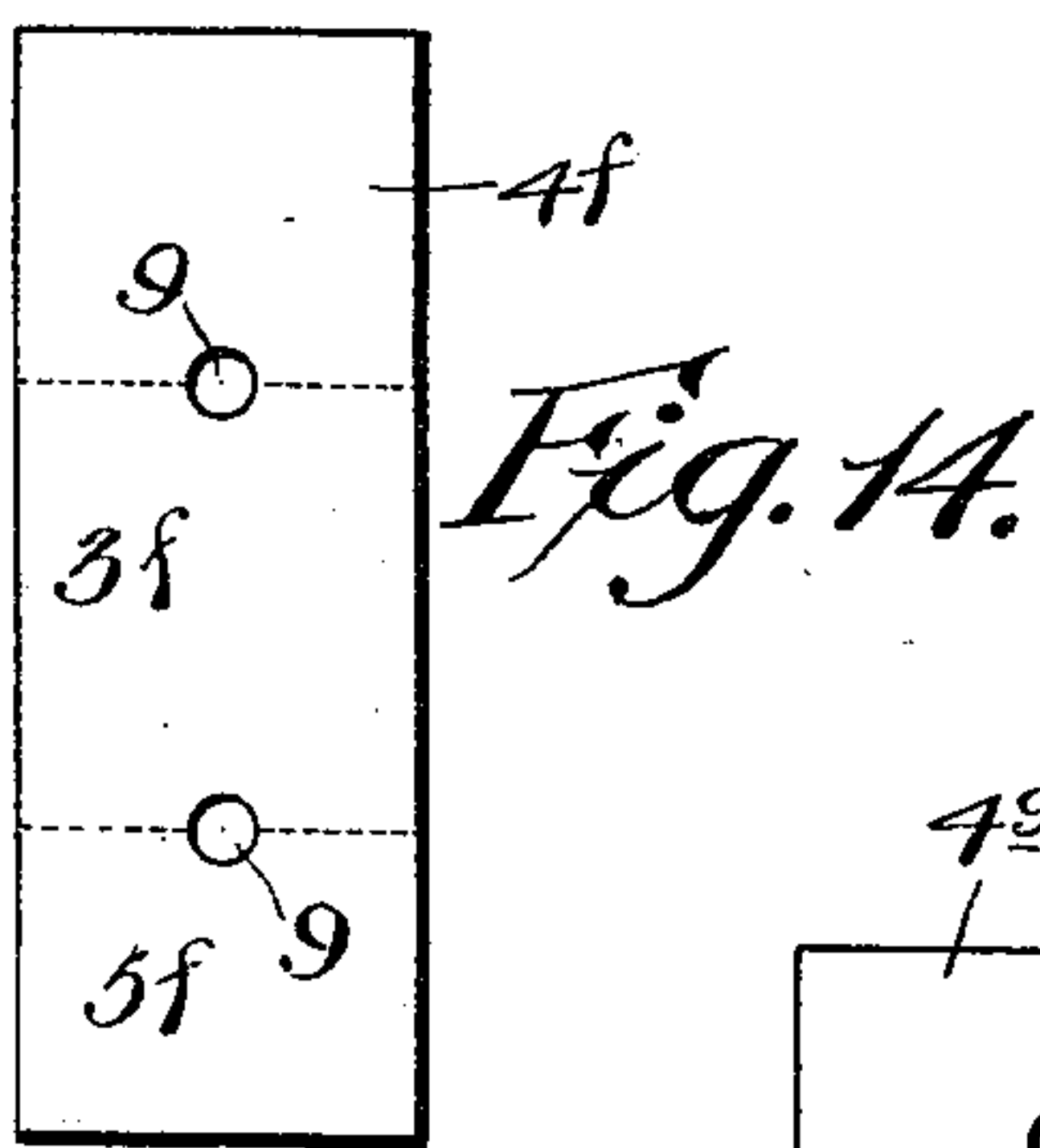
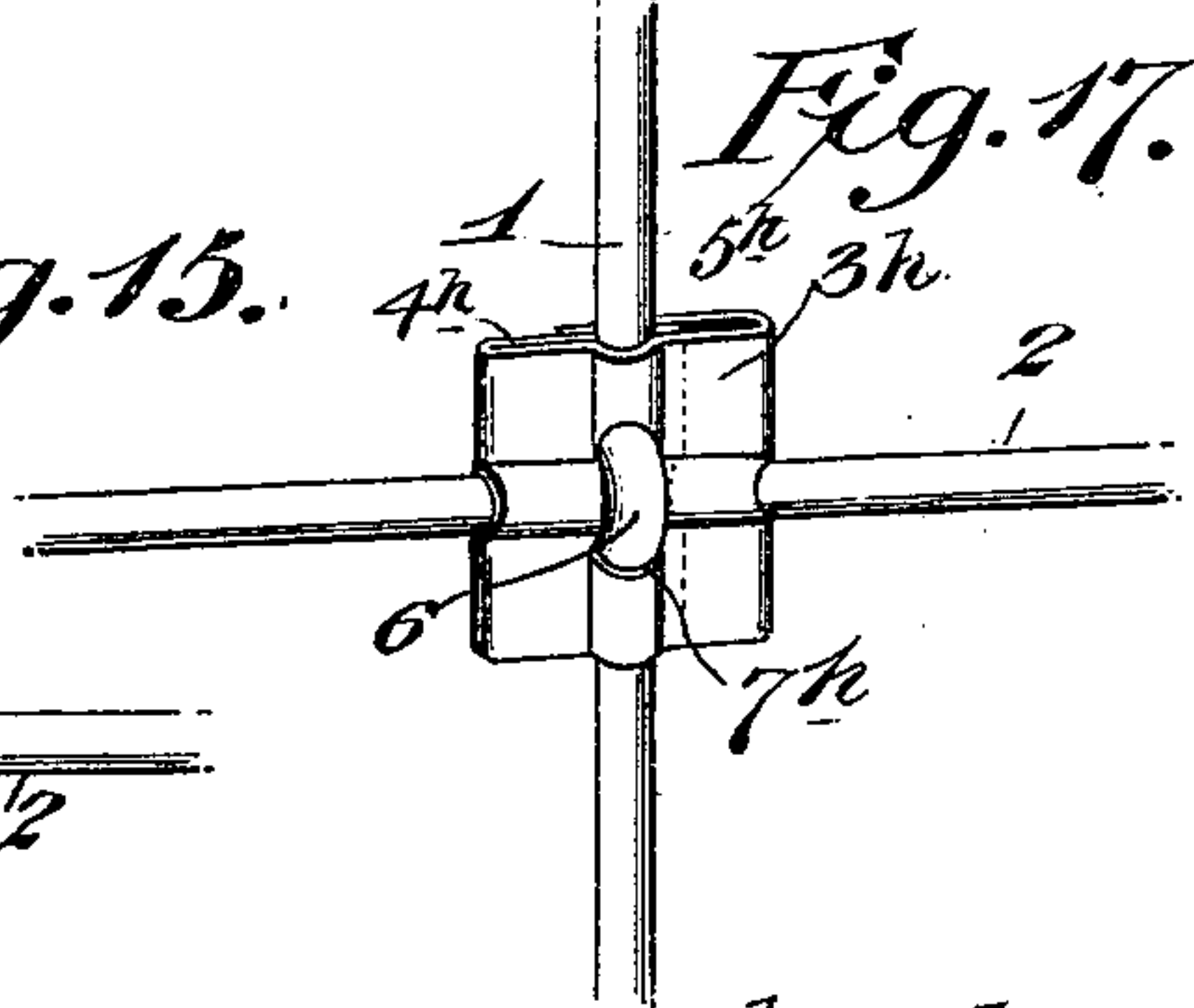
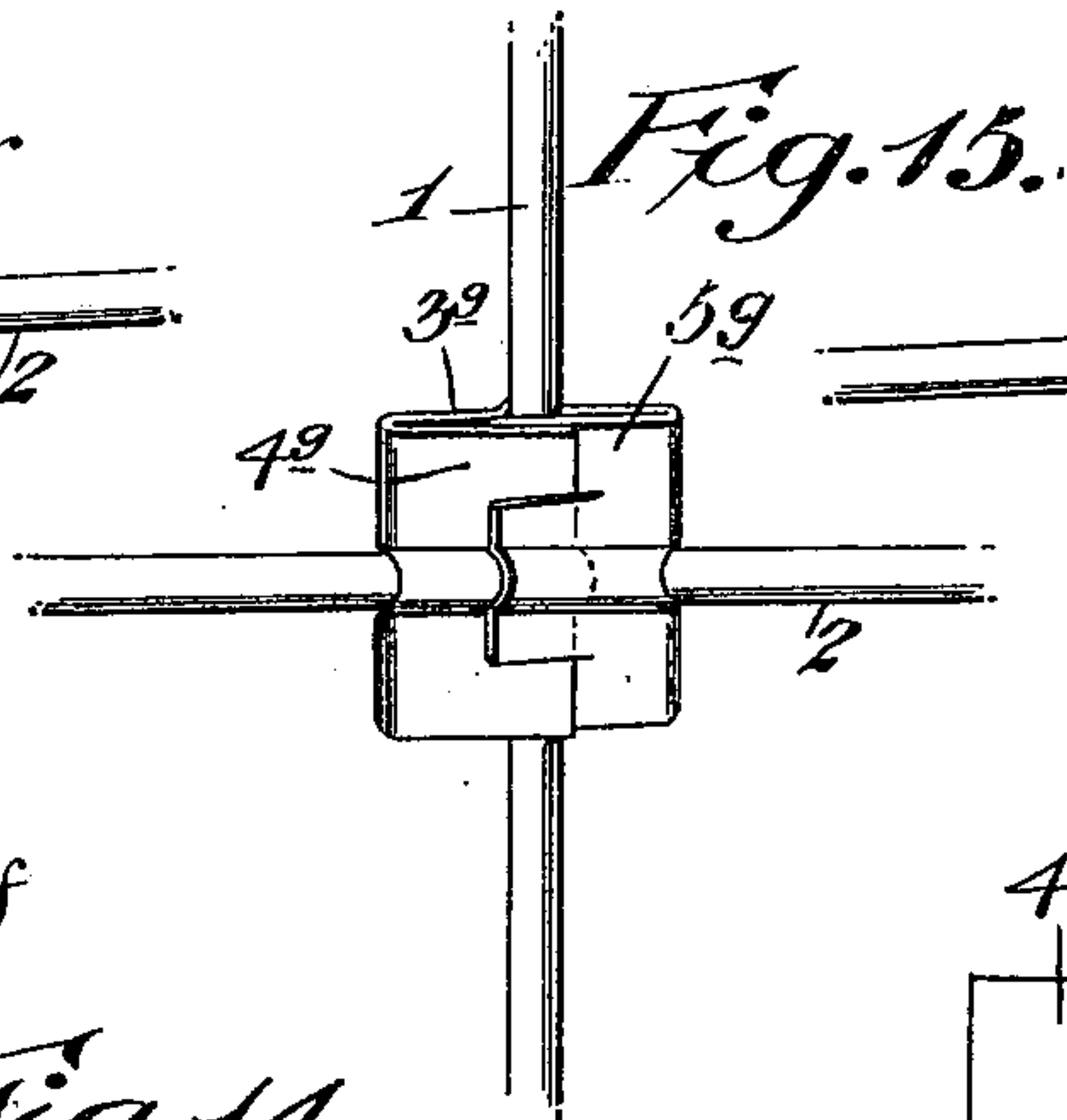
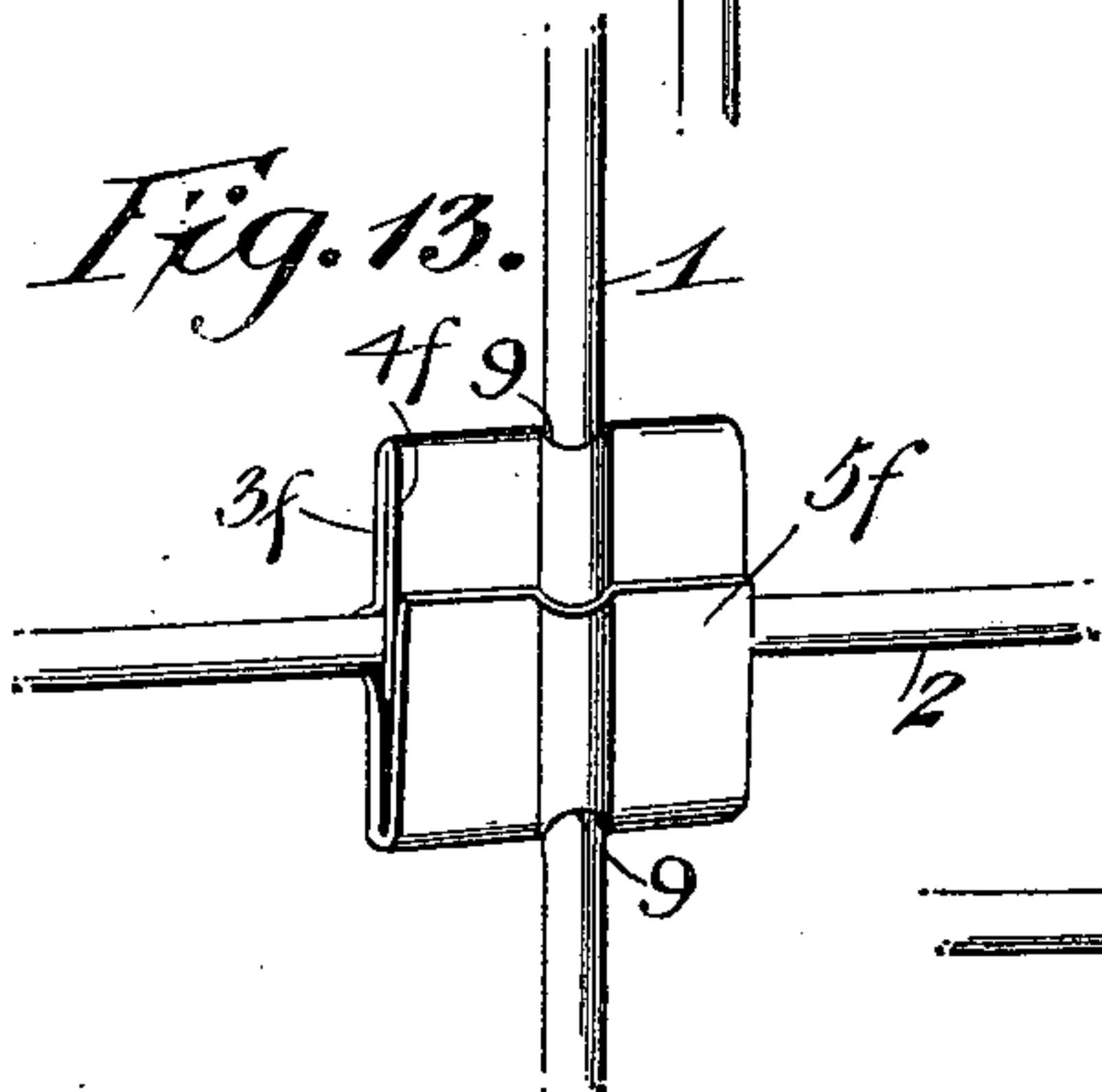
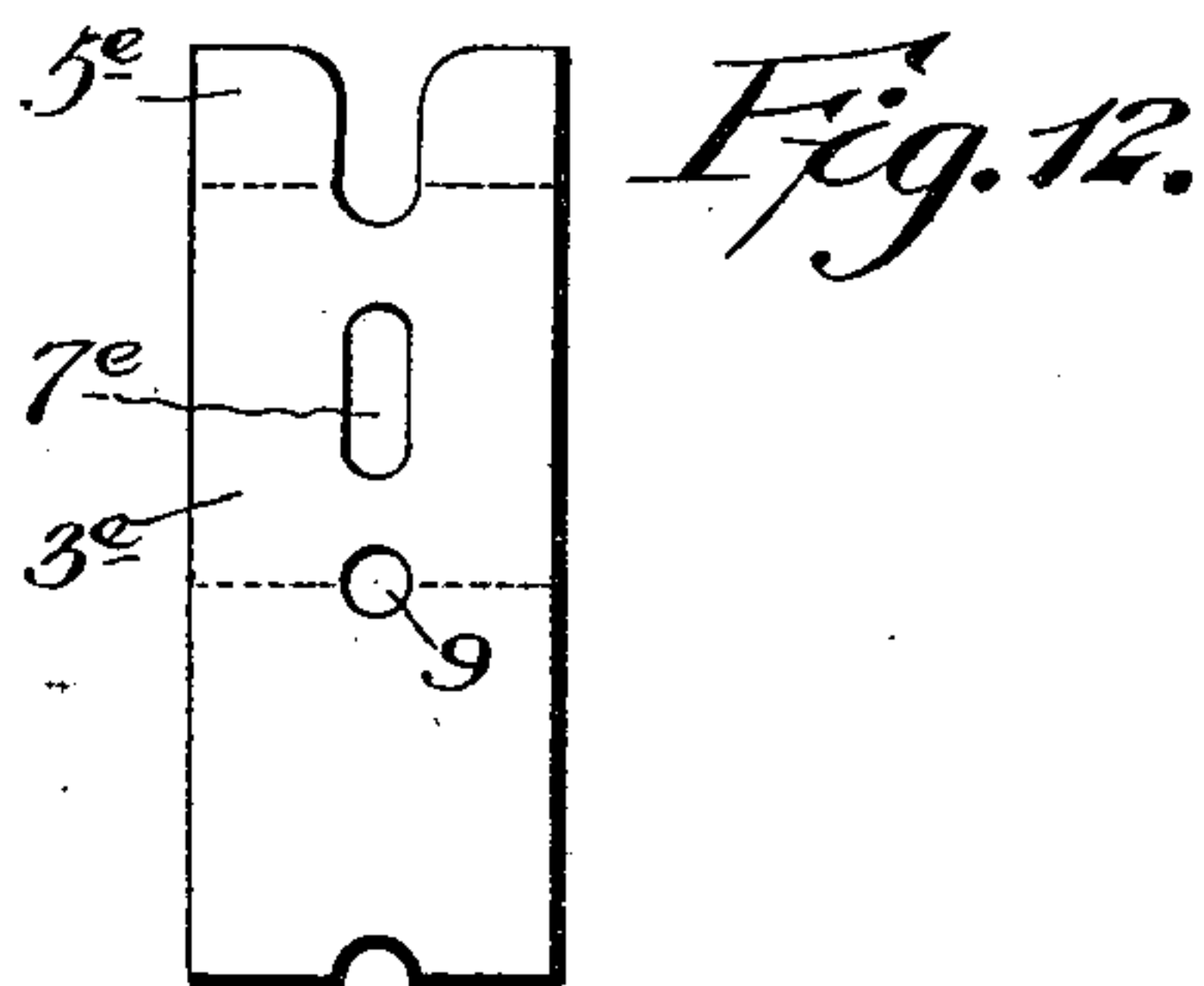
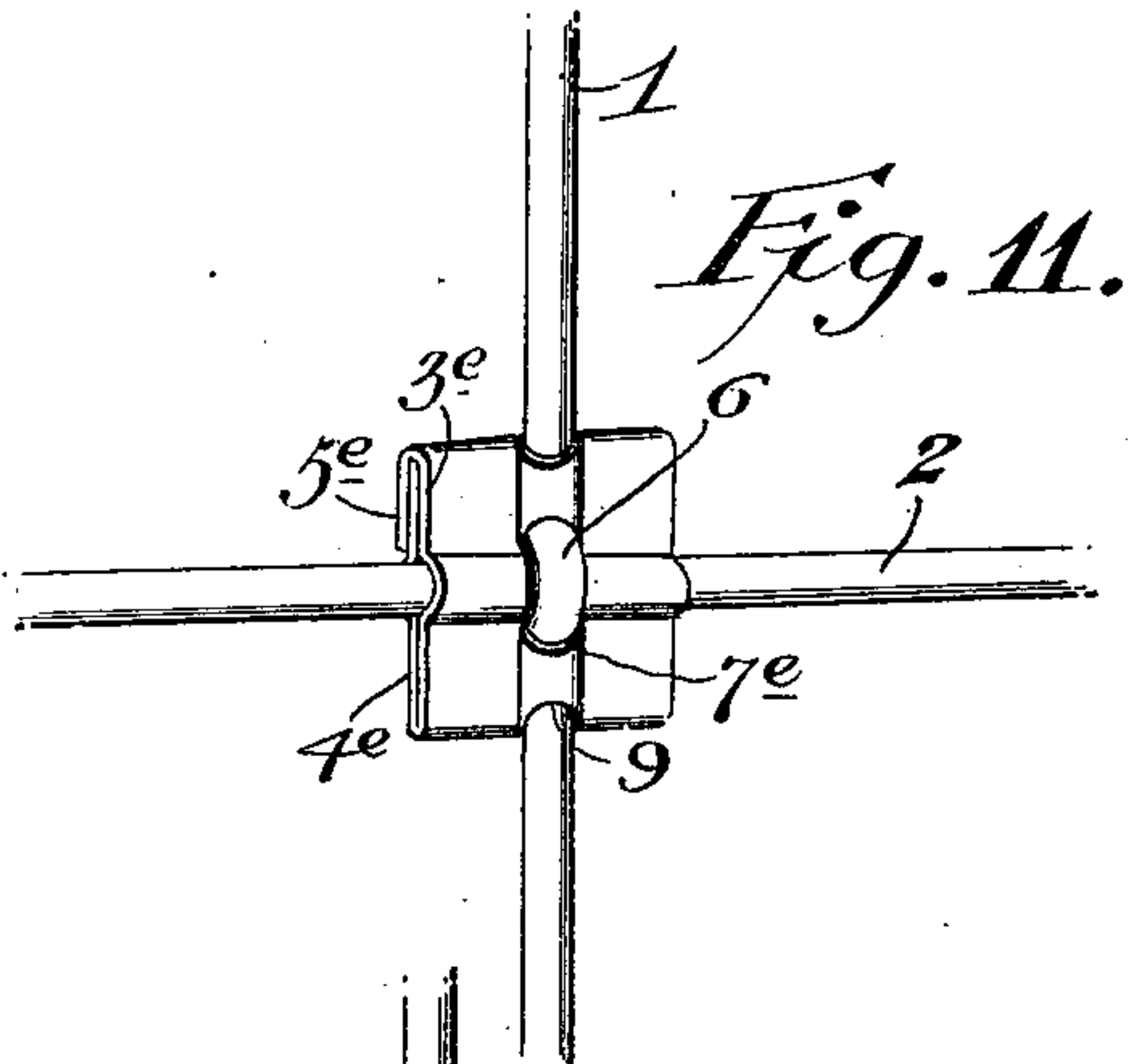
*Cash & Co.*

A. ELLISON.  
FENCE LOCK.

(Application filed Sept. 23, 1898.)

(No Model.)

2 Sheets—Sheet 2.



Witnesses

*A. Roy Appleman*  
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By *his* Attorneys.

*Calnow & Co.*



# UNITED STATES PATENT OFFICE.

ALBERT ELLISON, OF BENTON CENTRE, NEW YORK.

## FENCE-LOCK.

SPECIFICATION forming part of Letters Patent No. 631,284, dated August 22, 1899.

Application filed September 23, 1898. Serial No. 691,712. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT ELLISON, a citizen of the United States, residing at Benton Centre, in the county of Yates and State of New York, have invented a new and useful Fence-Lock, of which the following is a specification.

My invention relates to fences, and particularly to a lock designed for connecting the intersecting strands or members of a fence or other wire fabric; and the object in view is to provide a simple and efficient sheet-metal lock adapted to be applied with facility to the points of intersection of strands or members of a wire fabric to secure said strands or members against independent movement in either direction, said locks being adapted to be manufactured at a small cost.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a fence-lock constructed in accordance with my invention. Fig. 2 is a plan view of the blank from which the fence-lock shown in Fig. 1 is formed. Fig. 3 is a perspective view of a slightly-modified form of fence-lock embodying the essential features of my invention. Fig. 4 is a plan view of the blank from which the fence-lock shown in Fig. 3 is formed. Fig. 5 is a perspective view of a slightly-modified form of fence-lock embodying the essential features of my invention. Fig. 6 is a plan view of the blank from which the fence-lock shown in Fig. 5 is formed. Fig. 7 is a perspective view of a slightly-modified form of fence-lock embodying the essential features of my invention. Fig. 8 is a plan view of the blank from which the fence-lock shown in Fig. 7 is formed. Fig. 9 is a perspective view of a slightly-modified form of fence-lock embodying the essential features of my invention. Fig. 10 is a plan view of the blank from which the fence-lock shown in Fig. 9 is formed. Fig. 11 is a perspective view of a slightly-modified form of fence-lock embodying the essential features of my invention. Fig. 12 is a plan view of the blank from which the fence-lock shown in Fig. 11 is formed. Fig. 13 is a perspective view of a slightly-modified form of fence-lock embodying the essential

features of my invention. Fig. 14 is a plan view of the blank from which the fence-lock shown in Fig. 13 is formed. Fig. 15 is a perspective view of a slightly-modified form of fence-lock embodying the essential features of my invention. Fig. 16 is a plan view of the blank from which the fence-lock shown in Fig. 15 is formed. Fig. 17 is a perspective view of a slightly-modified form of fence-lock embodying the essential features of my invention. Fig. 18 is a plan view of the blank from which the fence-lock shown in Fig. 17 is formed. Fig. 19 is a perspective view of another modified form of fence-lock embodying the essential features of my invention. Fig. 20 is a plan view of the blank from which the fence-lock shown in Fig. 19 is formed.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

My improved lock is designed particularly for connecting the strands or members of a wire fence; but it will be understood that the same may be used with equal advantage in connecting the strands or members of other wire fabrics at the points of intersection of those strands or members; and the essential feature of the lock resides in the fact that it consists of two connected side folds adapted for arrangement respectively upon opposite sides of the plane of the intersecting strands or members of the fabric and a fastening or securing flap, tongue, or ear connected with and carried by one of said folds at its free edge and adapted to be folded upon itself to engage the free edge of the other fold, and thus hold said folds in the desired positions with relation to the strands or members of the fabric, said folds being either coextensive or of different areas, according to the conditions under which the lock is used.

In Figs. 1 and 2 the strands 1 and 2, which may consist, respectively, of the vertical and horizontal members or the stays and runners, respectively, of a fence, are secured at their points of intersection by a lock consisting of connected oppositely-disposed folds 3 and 4, of which the former carries a securing or fastening flap, tongue, or ear 5, which when the lock is applied to the members of the fabric is folded upon itself to lie in contact with the exterior surface of the fold 4 and in the angle



between the contiguous portions of the strands of the fabric. The lock illustrated in Figs. 1 and 2 is applied diagonally to the members of the fabric, whereby the crease-line between the folds is disposed diagonally, and the flap, tongue, or ear occupies a position in the opposite angle formed by said strands or members. If the strand or member 1 of the fabric is crimped, as shown at 6, to pass one-half around the member 2, as shown in Fig. 1, one of the folds must be provided with an aperture 7, disposed diagonally with relation to said fold for the reception of the crimp or offset; but this diagonally-disposed aperture may be arranged either in the fold 4, as shown in Figs. 1 and 2, or in the other fold—namely, that fold which carries the securing or fastening flap, tongue, or ear—as illustrated in Figs. 3 and 4. Furthermore, the angles of the folds may be cut away, as indicated at 8, to receive the strands or members of the fabric, and thus allow said folds to be crimped snugly around the strands or members. The means whereby this crimping is accomplished form no part of my present invention; but it is my object to so crimp the folds of the lock as to bring the same into contact in the angles between the strands or members, and thus form a series of radiating tubular sleeves, through which the strands or members extend. In other words, the lock when completed consists of a series of radiating tubular sleeves of a number double that of the intersecting strands or members, said sleeves being connected in series and braced by intermediate flat webs, which are of double thickness of the material from which the lock is formed. The resulting lock has a snug frictional bearing upon both of the intersecting strands or members.

The modified form of lock illustrated in Figs. 3 and 4 is constructed substantially as hereinbefore described in connection with Figs. 1 and 2, in that it consists of folds 3<sup>a</sup> and 4<sup>a</sup>, of which the former carries a securing-flap 5<sup>a</sup>; but the elongated aperture 7<sup>a</sup> is formed in the fold 3<sup>a</sup>, which carries said flap, this form of lock also being applied diagonally to the members 1<sup>a</sup> and 2<sup>a</sup> of the wire fabric and being crimped to form radiating sleeves and intermediate double-thickness bracing-webs, as hereinbefore described.

In Figs. 5 and 6 I have illustrated a lock, which is applied diametrically or perpendicularly to the intersecting members of the fabric, or, in other words, instead of the lock being arranged with the diagonals of its folds in the planes of the strands or members of the fabric the diameters of the folds are arranged in the planes of the strands, the construction being substantially the same as that hereinbefore described, in that it embodies connected folds 3<sup>b</sup> and 4<sup>b</sup>, of which the former carries a securing-flap 5<sup>b</sup>, which, however, is cut away or notched at its center to pass upon opposite sides of one of the fabric members. The elongated aperture 7<sup>b</sup> for the reception

of the crimp or offset of the stay or vertical member of the fabric is disposed diametrically of and in the fold 4<sup>b</sup>, and at the crease-line between the folds is formed an opening 9, through which one of the intersecting strands or members extends. It will be seen that in this form, as in those shown in Figs. 1 to 4, inclusive, the lock consists of two opposite coextensive folds arranged, respectively, upon opposite sides of the plane of the intersecting strands or members of the fabric and crimped together in the intervals between said strands or members to form bracing-webs of double thickness, which connect radiating sleeves, through which said strands or members extend.

In the modified construction illustrated in Figs. 7 and 8 the only difference over the construction shown in Figs. 5 and 6 resides in the fact that the elongated aperture 7<sup>c</sup> is formed in the fold 3<sup>c</sup>, which carries the securing-flap 5<sup>c</sup>, the fold 4<sup>c</sup> not being perforated, and hence corresponding, essentially, with the construction illustrated in Figs. 3 and 4.

In Figs. 5 to 8, inclusive, I have shown a lock wherein the folds are disposed diametrically with relation to the intersecting strands or members of the fabric, the flaps being arranged to fold horizontally or from the side; but it will be understood that these flaps may be arranged to fold from either the upper or the lower edge of the lock, as either downwardly or upwardly, when it is preferred to apply the same in that way. Therefore in Figs. 9 and 10 I have shown a modification wherein the elongated aperture 7<sup>d</sup> is formed longitudinally in the fold 4<sup>d</sup>, whereby the flap 5<sup>d</sup> is adapted to fold either upwardly or downwardly, and in Figs. 11 and 12 I have shown a similar construction, the aperture 7<sup>e</sup> being disposed longitudinally of the fold 3<sup>e</sup>, the construction of said locks in other respects being identical with those described in connection with Figs. 5 to 8, inclusive.

In all the forms of my improved lock which I have thus far described the folds which are arranged upon opposite sides of the plane of the intersecting fabric strands or members are coextensive, and one of them is apertured to receive a crimp or offset of one of the strands or members; but it will be understood that the essential features of my invention may be embodied in a lock wherein the folds, although disposed at opposite sides of and in contact with the fabric strands or members, are not coextensive, as illustrated in Figs. 13 and 14, wherein the fold 4<sup>f</sup> is of slightly-less width than the fold 3<sup>f</sup> and wherein the flap 5<sup>f</sup> is made of correspondingly greater length, so as to overlap the free edge of the fold 4<sup>f</sup>. It should be understood that the flap must overlap the edge of the fold which is arranged upon the opposite side of the plane of the strands from that by which said flap is carried in order to secure the parts in operative engagement with the members of the fabric. Also, in the construction illustrated



in Figs. 13 and 14 neither of the fabric members is crimped; but the lock is provided with radiating sleeves connected by intermediate doubled bracing-webs corresponding in general features with those hereinbefore described. In the form of lock illustrated in Figs. 13 and 14 the folds are applied diametrically to the members of the fabric, the flap being disposed to fold upwardly, and in Figs. 15 and 16 I have shown a similar construction of lock, wherein the flap folds horizontally or from the side; but in this construction, while the folds 3<sup>s</sup> and 4<sup>s</sup> are of different areas, as in Figs. 13 and 14, the flap 5<sup>s</sup> is slitted to receive the edge of the fold 4<sup>s</sup>, and thus add to the efficiency of the connection between the flap and said shortened fold.

In Figs. 17 and 18 I have shown a lock corresponding, essentially, in construction with that illustrated in Figs. 13 and 14, except that the flap 5<sup>h</sup> folds laterally and the fold 3<sup>h</sup> is apertured, as shown at 7<sup>h</sup>, to receive a crimp or offset of one of the fabric strands or members, said fold 3<sup>h</sup> being of greater area than the fold 4<sup>h</sup>, but being overlapped at its free edge by the flap 5<sup>h</sup>.

From the foregoing description it will be seen that in each of the forms of my lock the folds are arranged upon opposite sides of the plane of the intersecting fabric strands or members, said folds being permanently connected at one edge and being secured together at the opposite edge by means of a flap preferably formed integral with one of the folds and overlapping the free edge of the other fold, and that the lock may be applied to the strands or members with the folds disposed either diagonally or diametrically. Also, it will be seen that in each form of lock illustrated in the drawings the opposite folds or members of the lock are crimped together in the intervals between the strands or members of the fabric to form bracing-webs which connect tubular seats or sleeves through which the fabric members extend and that one of the folds may be apertured to receive a crimp or offset of one of the strands or members, if preferred, or may be left plain when the strands or members of the fabric are straight at their points of intersection.

Figs. 19 and 20 show another modified construction of fence-lock embodying the essential features of my invention, wherein the folds are separately constructed and may be shaped as shown in either of the foregoing figures, with the exception that the hole 3' is provided with diametrically opposite ears 5' to engage opposite edges of the fold 4'.

It will be understood, furthermore, that various other changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described my invention, what I claim is—

1. A lock for the intersecting strands or members of a wire fabric, the same having integral opposite folds arranged one upon the other at opposite sides of the intersecting strands or members of the fabric and provided with seats for said strands, and means for engaging said folds at their edges to hold them from separation, substantially as specified.

2. A lock for the intersecting strands or members of a wire fabric, the same consisting of a sheet doubled upon itself to form opposite side folds arranged one upon the other upon opposite sides of the plane of the intersecting strands or members of the fabric, and a flap carried by one of the folds for engagement with the free edge of the other fold, substantially as specified.

3. A lock for the intersecting strands or members of a wire fabric, the same consisting of a sheet doubled upon itself to form opposite side folds arranged one upon the other upon opposite sides of the plane of the intersecting strands or members of the fabric, and a flap carried by and integral with one of the folds for overlapping and engaging the free edge of the other fold, substantially as specified.

4. A lock for the intersecting strands or members of a wire fabric, the same consisting of a sheet doubled upon itself to form co-extensive folds arranged upon opposite sides of the plane of the intersecting strands or members of the fabric, and a flap at the free edge of one of the folds for engaging the free edge of the other fold, substantially as specified.

5. A lock for the intersecting strands or members of a wire fabric, the same consisting of a folded strip with the opposite folds arranged one upon the other and secured together at their free edges by a flap carried by one of the folds and engaging the free edge of the other fold, one of said folds being provided with an aperture of a length less than the width of the fold for receiving the crimp or offset of one of the fabric strands or members, substantially as specified.

6. A lock for the intersecting strands or members of a wire fabric, the same consisting of a folded strip with the opposite folds arranged one upon the other and secured together at their free edges by a flap carried by one of the folds and engaging the free edge of the other fold, one of said folds being provided with an elongated diagonally-disposed aperture of a length less than the width of the fold for receiving the crimp or offset of one of the fabric strands or members, substantially as specified.

7. A lock for the intersecting strands or members of a wire fabric, the same having co-extensive side folds arranged one upon the other and connected at their free edges by a flap carried by one of the folds and engaging the other fold, said folds being disposed di-



agonally with relation to the intersecting strands or members of the fabric, substantially as specified.

8. A lock for the intersecting strands or  
5 members of a wire fabric, the same consisting of a strip doubled upon itself to form coextensive folds and having a plurality of radiating sleeves through which the fabric strands or members extend, and flat bracing-webs connecting and arranged in the intervals between  
10 said sleeves, substantially as specified.

9. A lock for the intersecting strands or members of a wire fabric, the same consisting of a strip doubled upon itself to form coextensive folds and having a plurality of radiating sleeves through which the fabric strands

or members extend, said sleeves being connected by flat plural-thickness bracing-webs, substantially as specified.

10. The combination with the intersecting  
20 strands or members of a wire fabric, of a doubled lock having coextensive folds or members arranged upon opposite sides of and parallel with the plane of said strands or members, said folds being crimped inward to lie  
25 in contact at their opposing faces in the intervals between the strands or members, substantially as specified.

ALBERT ELLISON.

Witnesses:

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JANE KIPP.