

No. 792,460.

PATENTED JUNE 13, 1905.

P. RICHTER & E. HENKEL.

HINGE.

APPLICATION FILED JULY 8, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

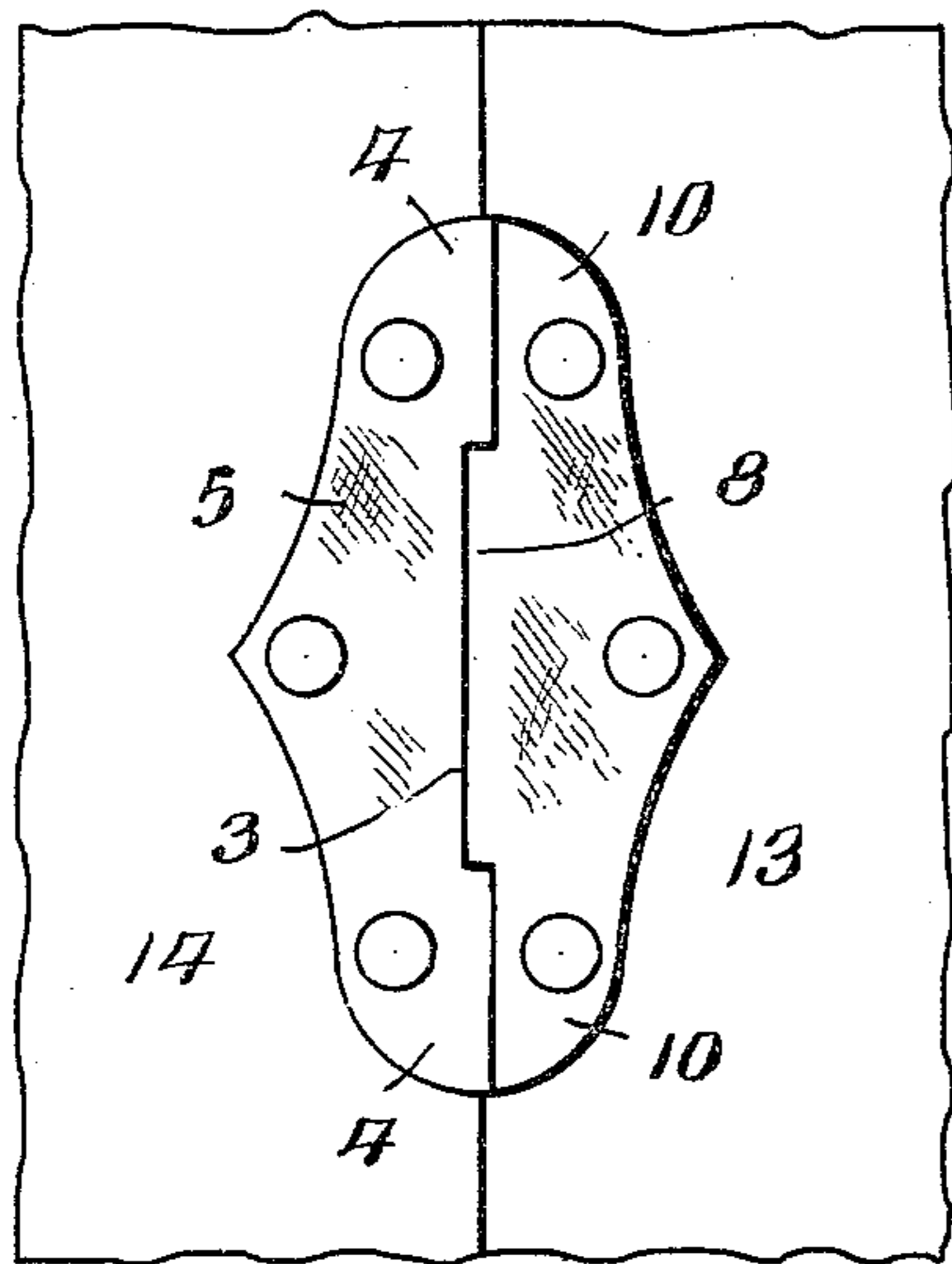


Fig. 2.

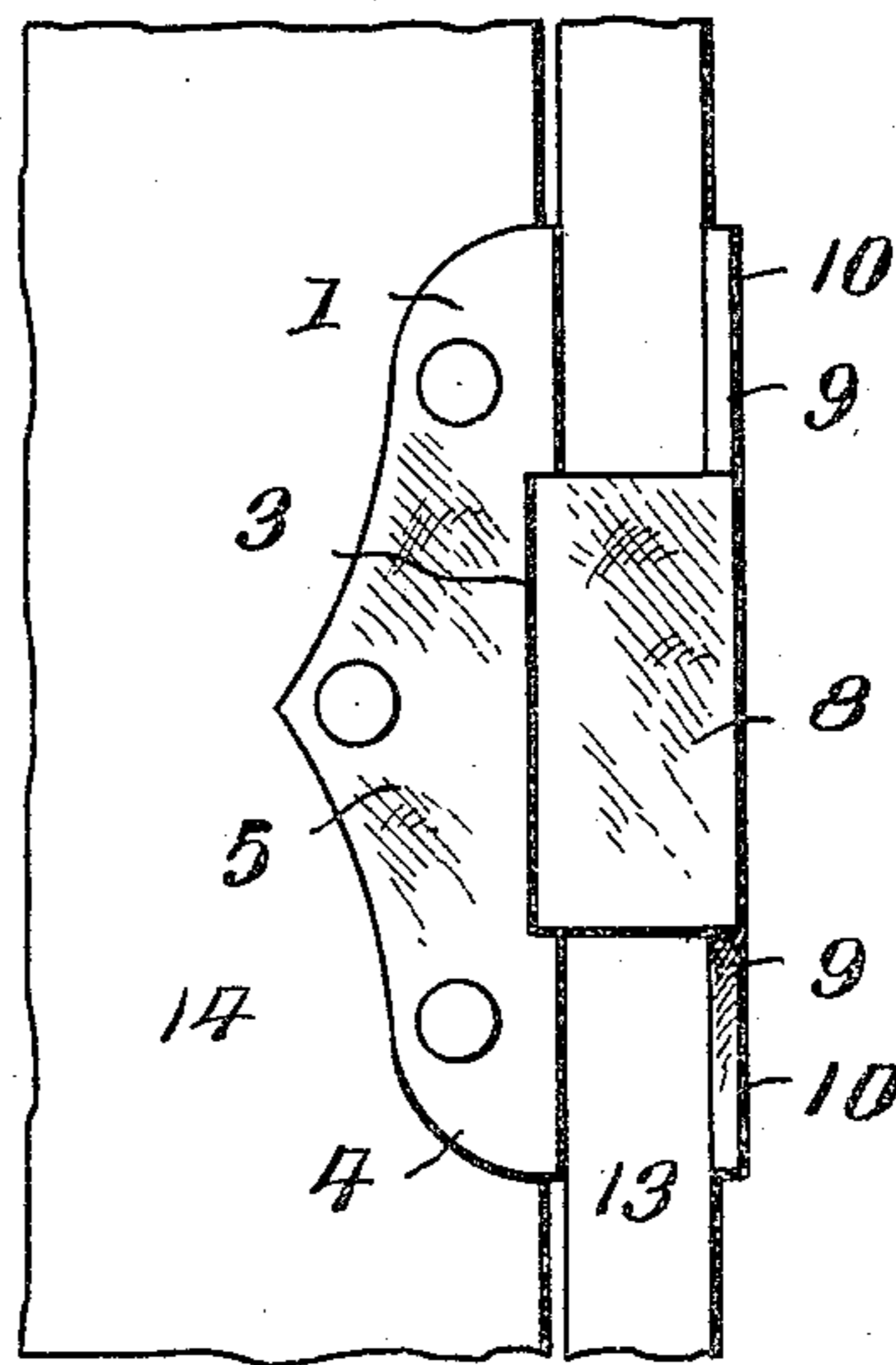


Fig. 4.

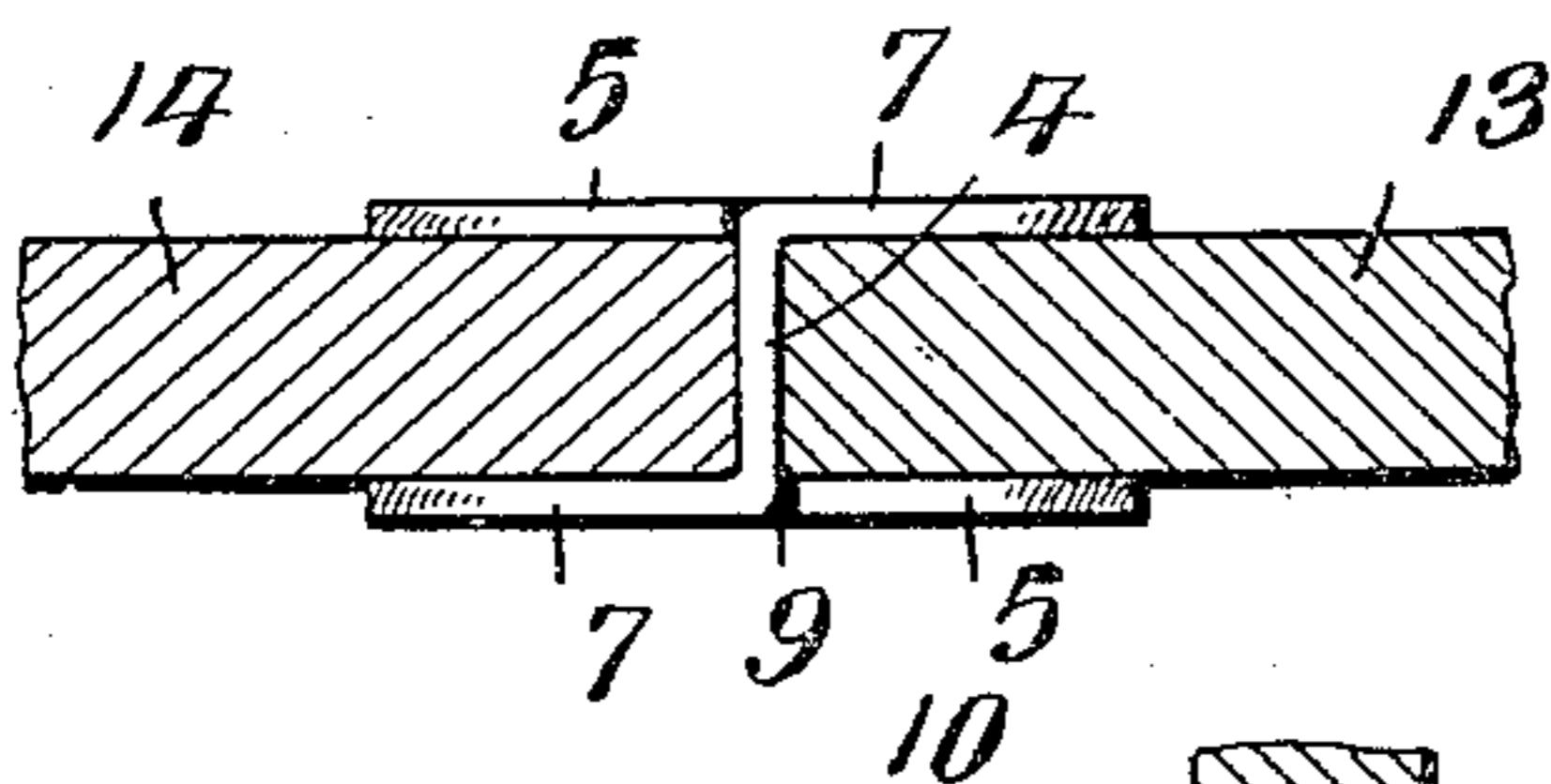


Fig. 3.

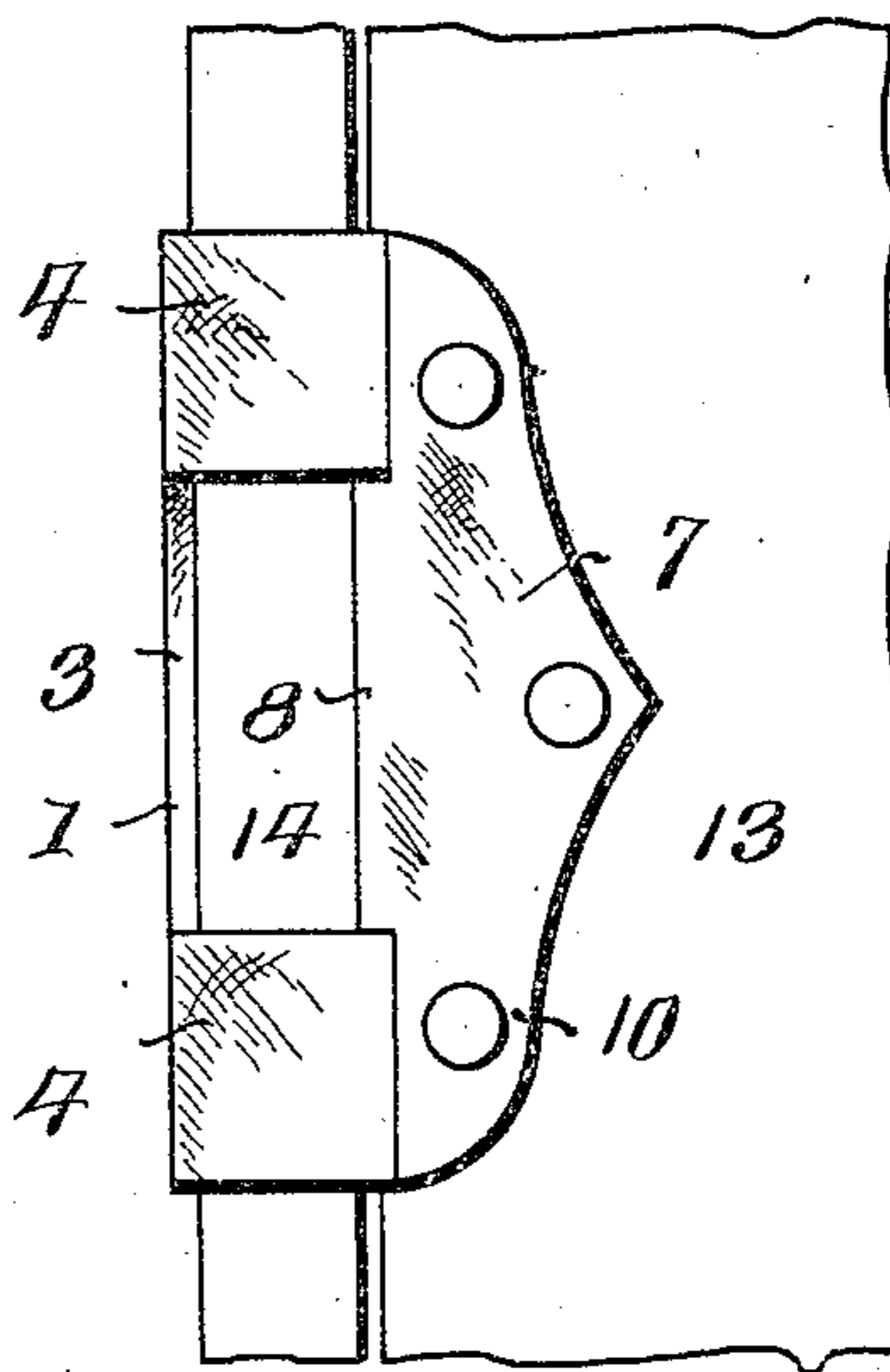
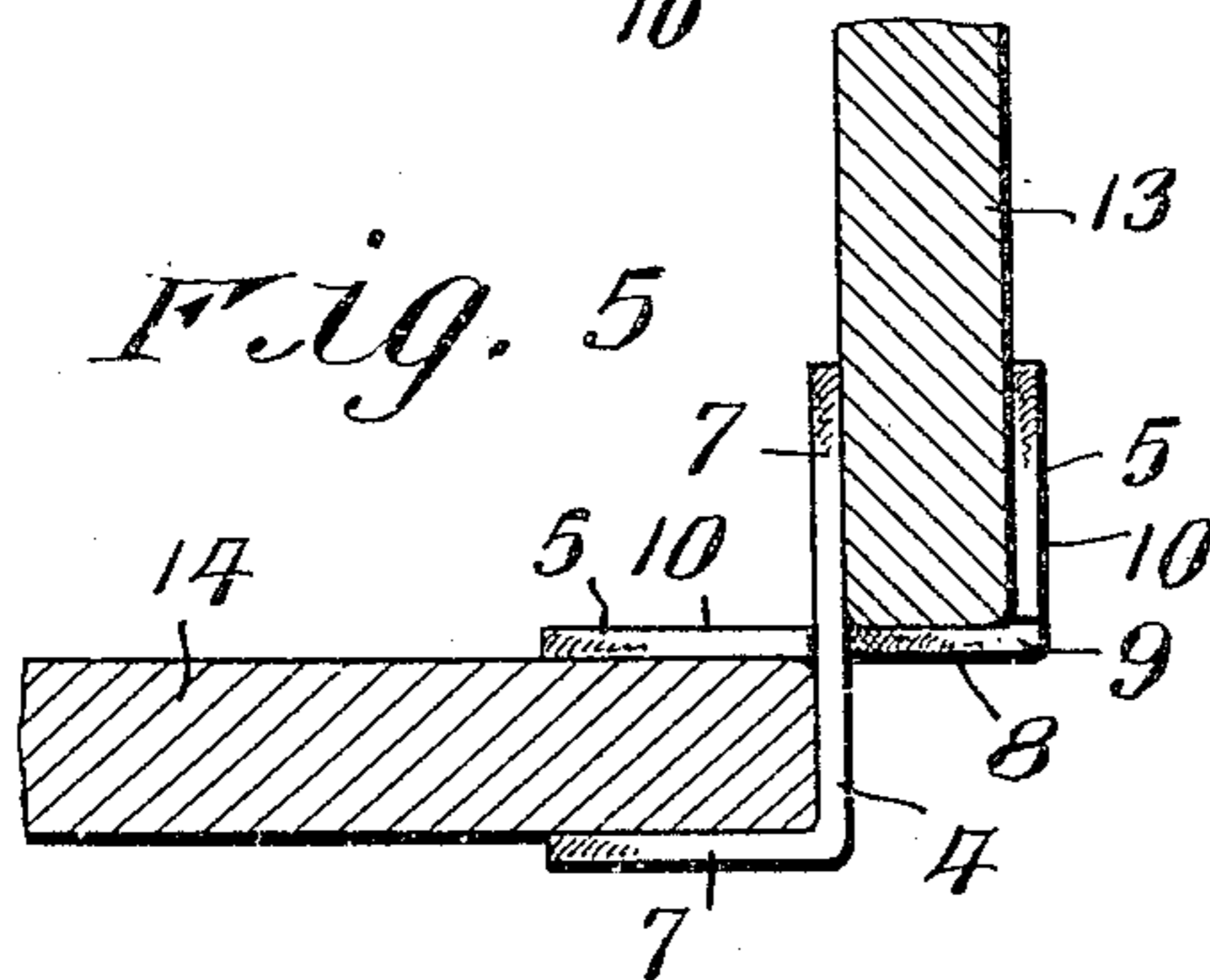


Fig. 5.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 6.

Fig. 7.

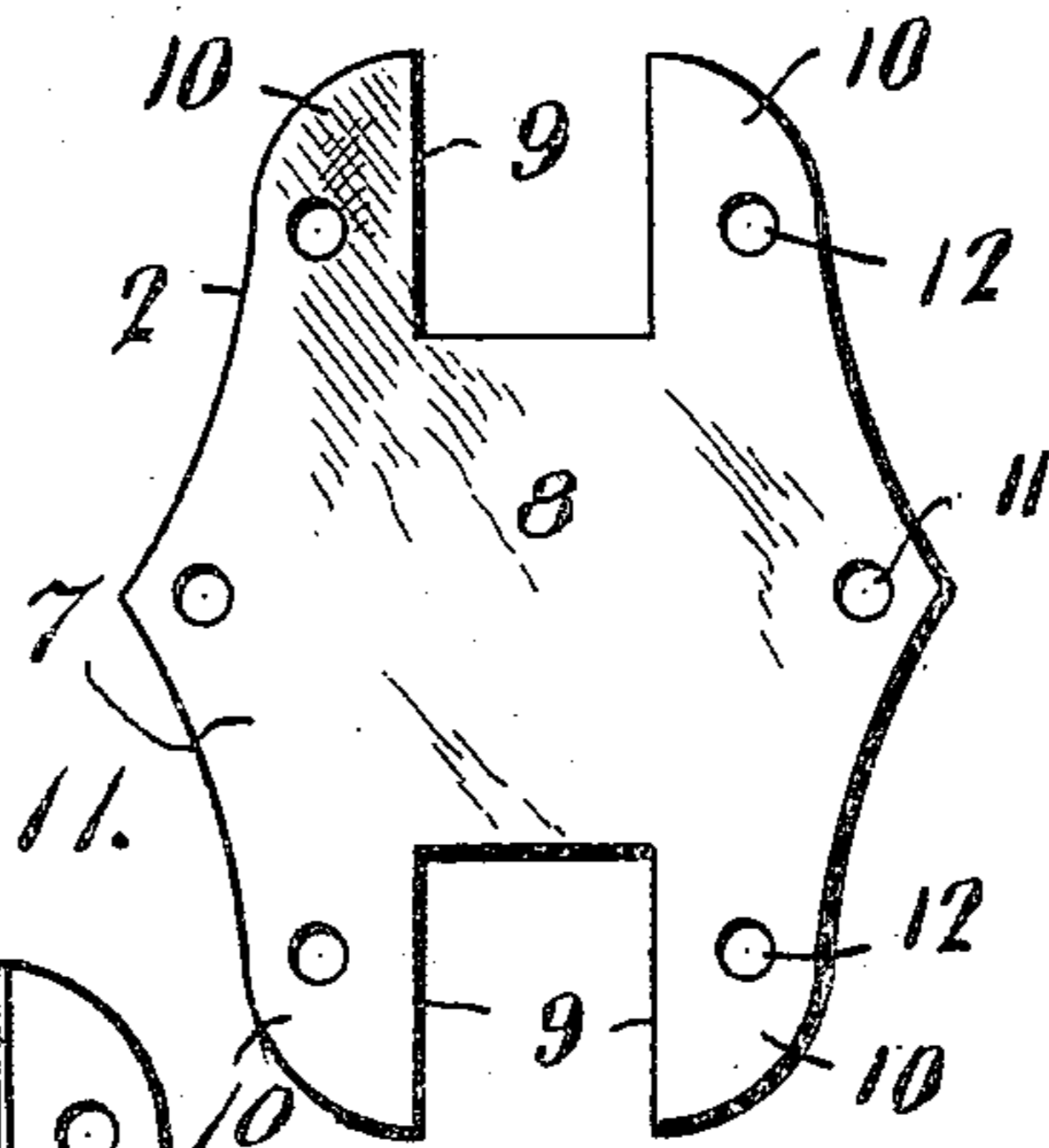
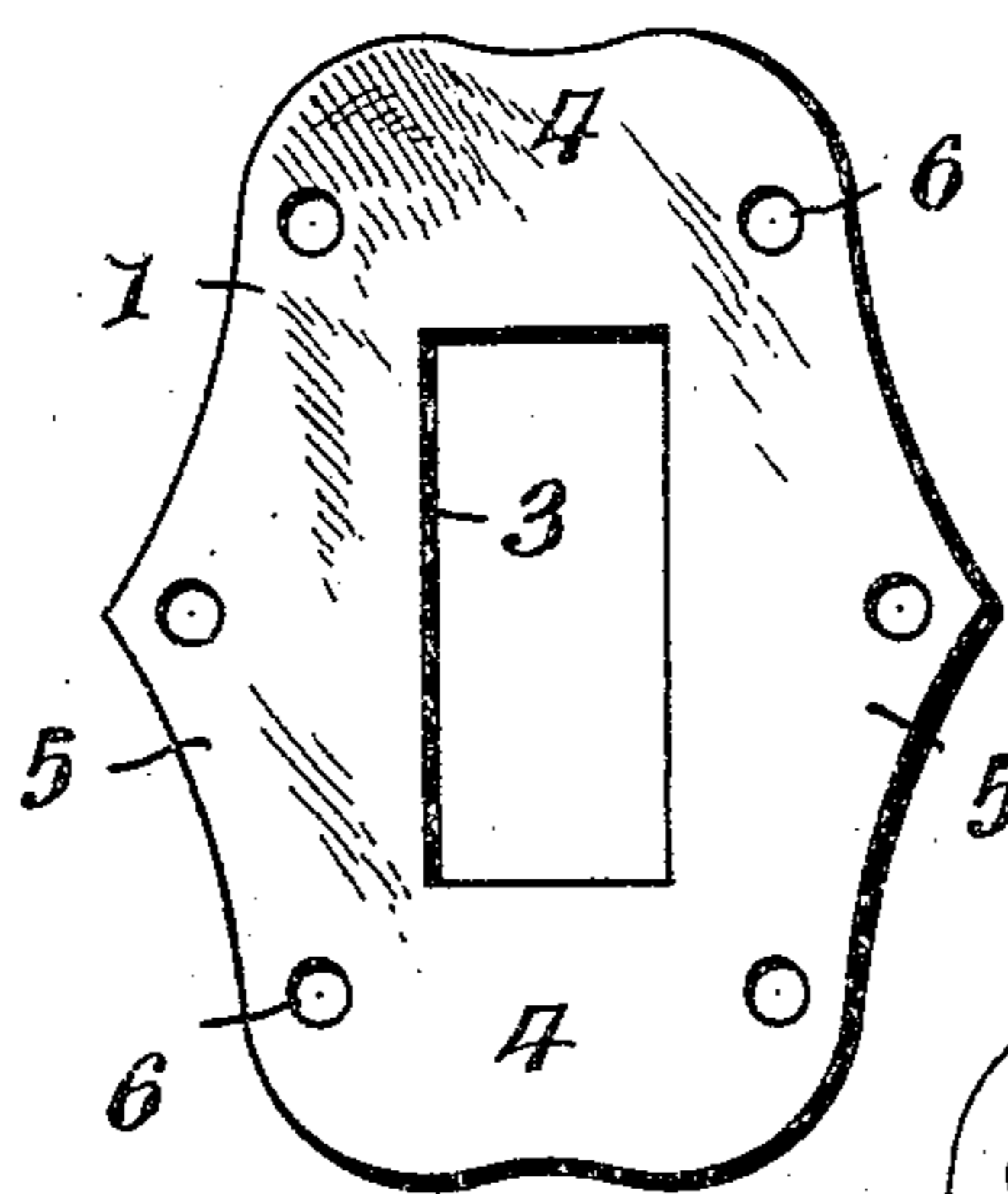


Fig. 11.

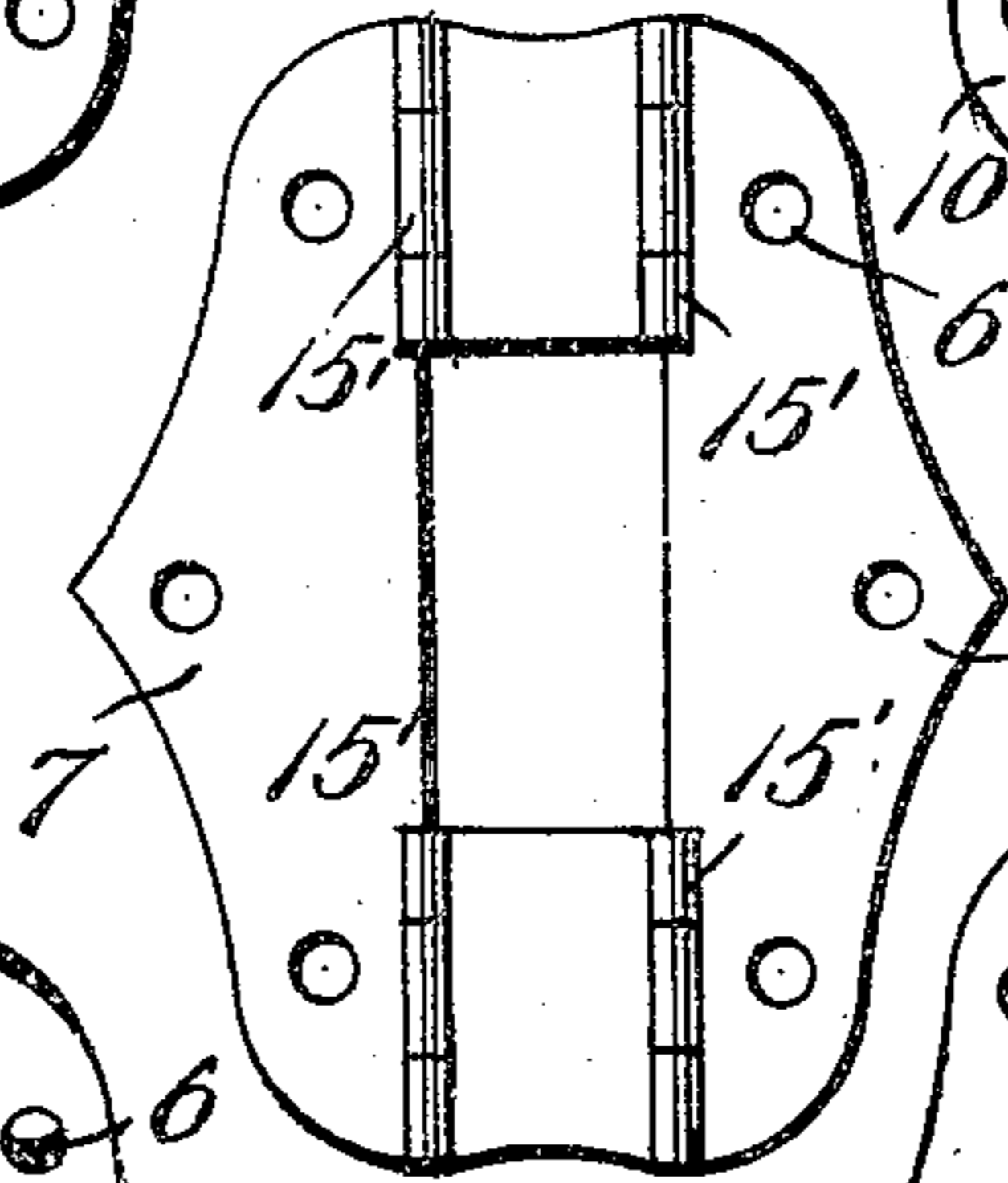


Fig. 8.

Fig. 10.

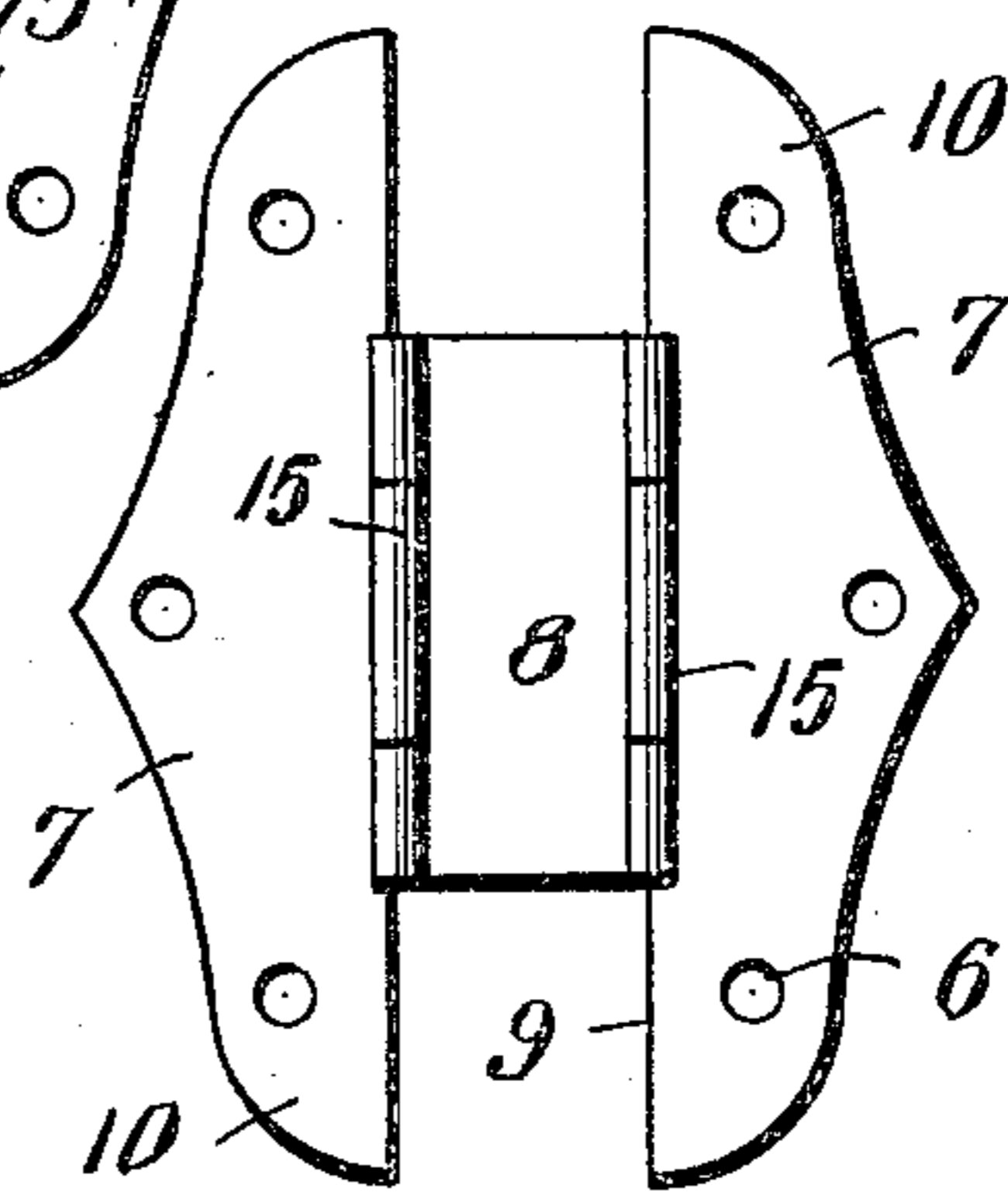
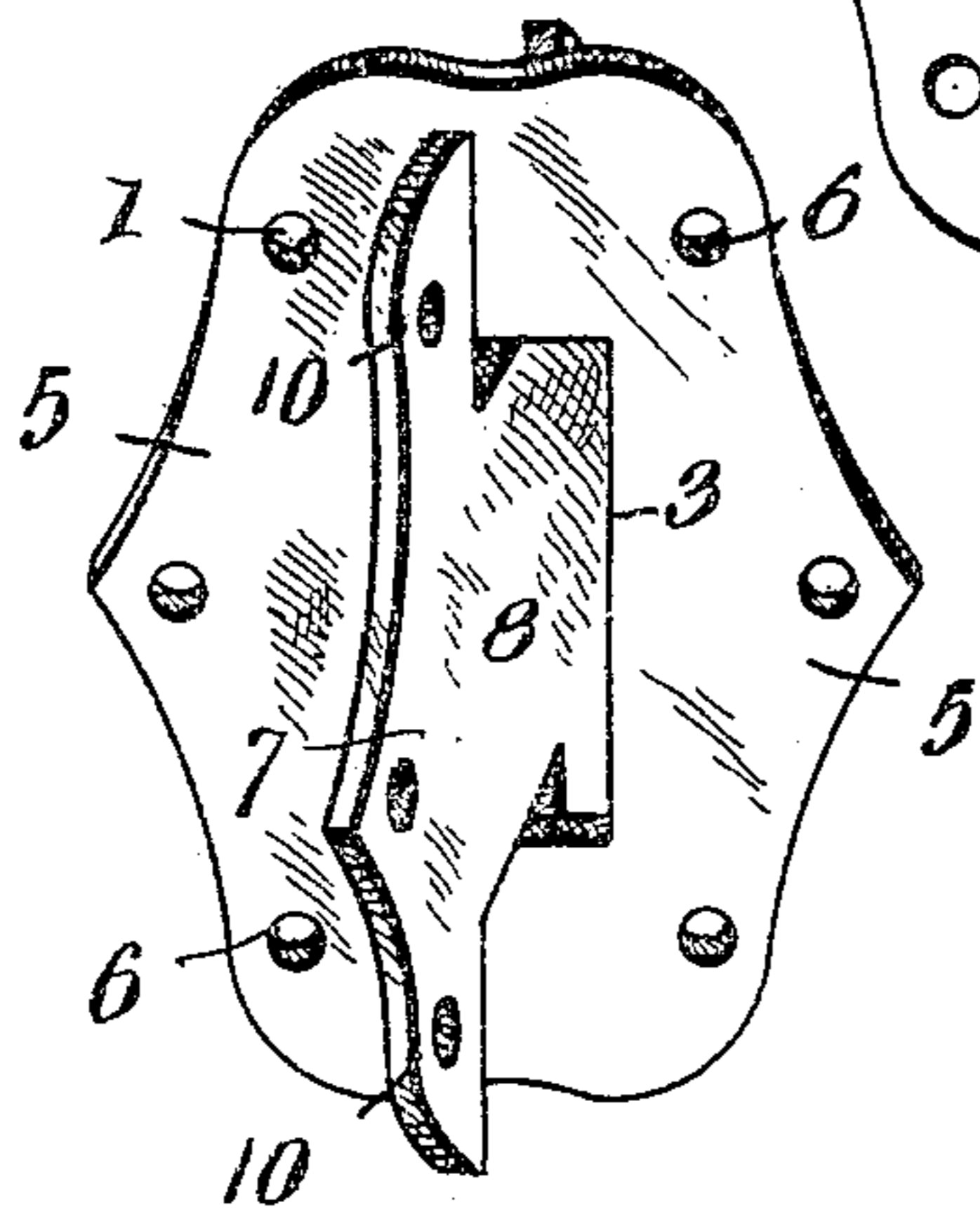
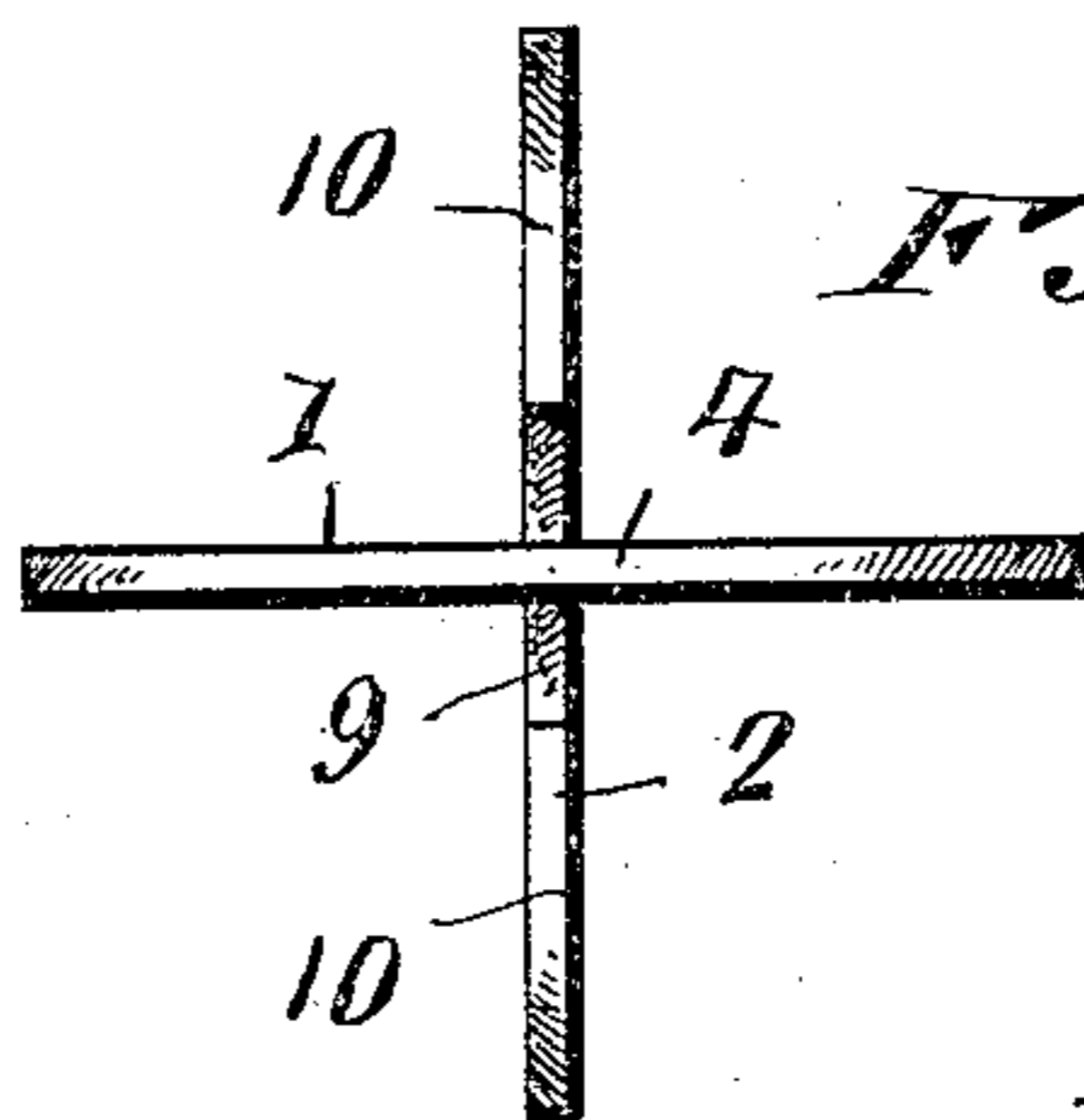


Fig. 9.



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UNITED STATES PATENT OFFICE.

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HINGE.

SPECIFICATION forming part of Letters Patent No. 792,460, dated June 13, 1905.

Application filed July 8, 1904. - Serial No. 215,736.

To all whom it may concern:

Be it known that we, PAUL RICHTER, of Tenafly, and EDWARD HENKEL, of Englewood, in the county of Bergen, State of New Jersey, citizens of the United States, have invented new and useful Improvements in Hinges, of which the following is a specification.

This invention relates to hinges, the object in view being to provide a simple, cheap, and novel form of hinge adapted for use on doors, windows, window and door screens, boxes, partitions, &c.

The hinge contemplated in this invention is similar to what is ordinarily known as a "double" hinge or one which allows the door, window, or partition to swing in either direction relatively to the part to which such article is hingedly connected. The hinge also comprises a minimum number of parts and is capable of being quickly and accurately applied in use.

With the above and other objects in view the invention consists in the novel construction, combination, and arrangement of parts, as hereinafter fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a view in elevation of a hinge constructed in accordance with the present invention and shown applied. Fig. 2 is a similar view showing the hinged part swung to one side. Fig. 3 is a view similar to Fig. 2, showing the hinged part swung in the opposite direction. Fig. 4 is a horizontal sectional view of the arrangement shown in Fig. 1. Fig. 5 is a sectional view of the construction shown in Fig. 2. Fig. 6 is a plan view of one of the members of the hinge. Fig. 7 is a plan view of the other member of the hinge. Fig. 8 is a perspective view showing the manner of associating the two members of the hinge. Fig. 9 is a top plan view of the same. Fig. 10 is a plan view of one of the hinge members when composed of metal and consisting of several pieces. Fig. 11 is a similar view of the other hinge member when made in like manner.

Like reference-numerals designate corresponding parts in all the figures of the drawings.

The hinge contemplated in this invention consists, essentially, of two members, 1 designating what we term the "slotted" member, and 2 the "winged" member. In external contour both members of the hinge may be identical or substantially alike, as indicated in Figs. 6 and 7; but in carrying out the invention the member 1 is provided with a centrally-arranged slot or aperture 3, the length of which is approximately equal to one-half the length of the member, the body portions 4 at opposite ends of the member serving to close the ends of the slot or aperture 3, while the sides of the slot or aperture are defined by what may be termed "flaps" 5, the latter being provided with holes 6 to receive screws or other fastening devices, by means of which the member is secured, for example, to a door or door-jamb. The other member 2 also comprises the side flaps 7, but differs from the member 1 in that the body 8 thereof is provided at opposite ends with slots 9, which extend from the body portion of the member outward in opposite directions and open out at the ends of the member, as clearly shown in Fig. 7, thereby leaving what may be termed "wings" 10 at opposite sides of the slots 9. The flaps 7 and the wings 10, which form continuations of said flaps, are provided with holes 11 to receive screws or other fastening devices.

The two members of the hinge are preferably formed out of flexible material, such as leather or heavy textile goods, and the body portion 8 of the member 2 is made slightly less in length than the slot or aperture 3 of the member 1, so that the two members may be combined in the manner shown in 8, in which it will be seen that the member 2 is inserted through the member 1.

By reference to Figs. 4 and 5 the method of applying the hinge will be apparent, 13 designating a door, for example, and 14 a jamb or strip, to which the door is connected by means of the hinge. It will be observed that one of the flaps 5 of the member 1 and one of the flaps 7 of the member 2 are secured to opposite sides of the door 13, while the remaining flap 5 of the member 1 and the remaining

flap 7 of the member 2 are secured to opposite sides of the jamb or strip 14. When the door is swung to one side, as shown in Fig. 5, the flap 7, secured to the door 13, swings into line with the body portion 8 of the member 2, and when the door is swung in the opposite direction the flap 5 of the member 1 swings into line with the body portions 4 of said member 1. It will thus be observed that the hinge members yield to admit of the door being swung open in either direction, and the same is of course true where the hinge is used on a window or door screen, partition, or other object in connection with which hinges are ordinarily employed.

The members of the hinge may be constructed of stiff material, such as metal, in the manner illustrated in Figs. 10 and 11. In Fig. 10 it will be observed that the body portion 8 of member 2 is connected by knuckle-joints 15 with the flaps 7 and wings 10, said construction enabling the body portion 8 to line up with either one of the flaps 7 or be disposed at any angle thereby as the door is swung in either direction. The other member 1, corresponding with that shown in Fig. 6, will of course be provided with knuckle-joints 15' (see Fig. 11) similar to those at 15 in Fig. 10, and said knuckle-joints will be located in line with the opposite sides of the slot or aperture 3 and be located the same distance apart as the knuckles 15. The knuckles 15 15' also enable the two members of the hinge to be associated in the manner illustrated in Fig. 8 by disconnecting one of the flaps 7 before performing the operation referred to.

For light doors, screens, and the like the flexible hinge is preferred; but where the hinge is to be used on heavy articles the construction illustrated in Figs. 10 and 11 will be found

preferable. Any desired general shape, contour, or ornamentation may be imparted to the members of the hinge, and other changes in the form, proportion, and minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention.

Having thus described the invention, what is claimed as new is—

1. A hinge member comprising a central body portion, side flaps or wings flexibly connected therewith, said flaps or wings being spaced and forming slots beyond the ends of the body portion, substantially as described.

2. A hinge member comprising a body portion having an inclosed central slot, and flaps or wings flexibly connected to opposite sides of the body portion and with the ends of said body portion bounding said slot, substantially as described.

3. A hinge comprising a slotted member, and a winged member, the body portion of which extends through the slotted member, substantially as described.

4. A hinge comprising two members, each composed of flexible material, one member embodying a central slot or aperture and the other member having a body portion insertable through the slotted or apertured member, and wings lying at opposite sides of the body of the slotted member, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

PAUL RICHTER.
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Witnesses:

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