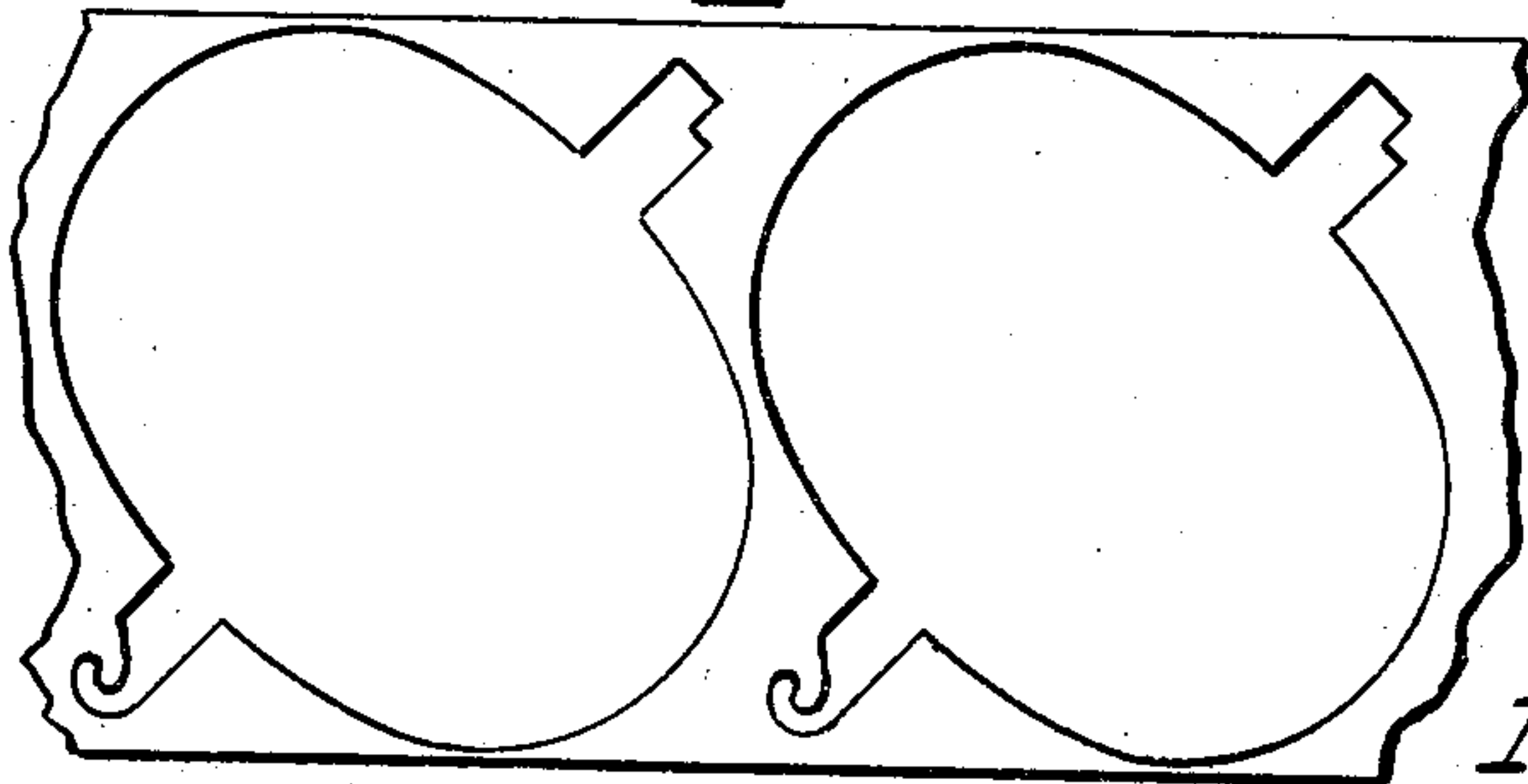
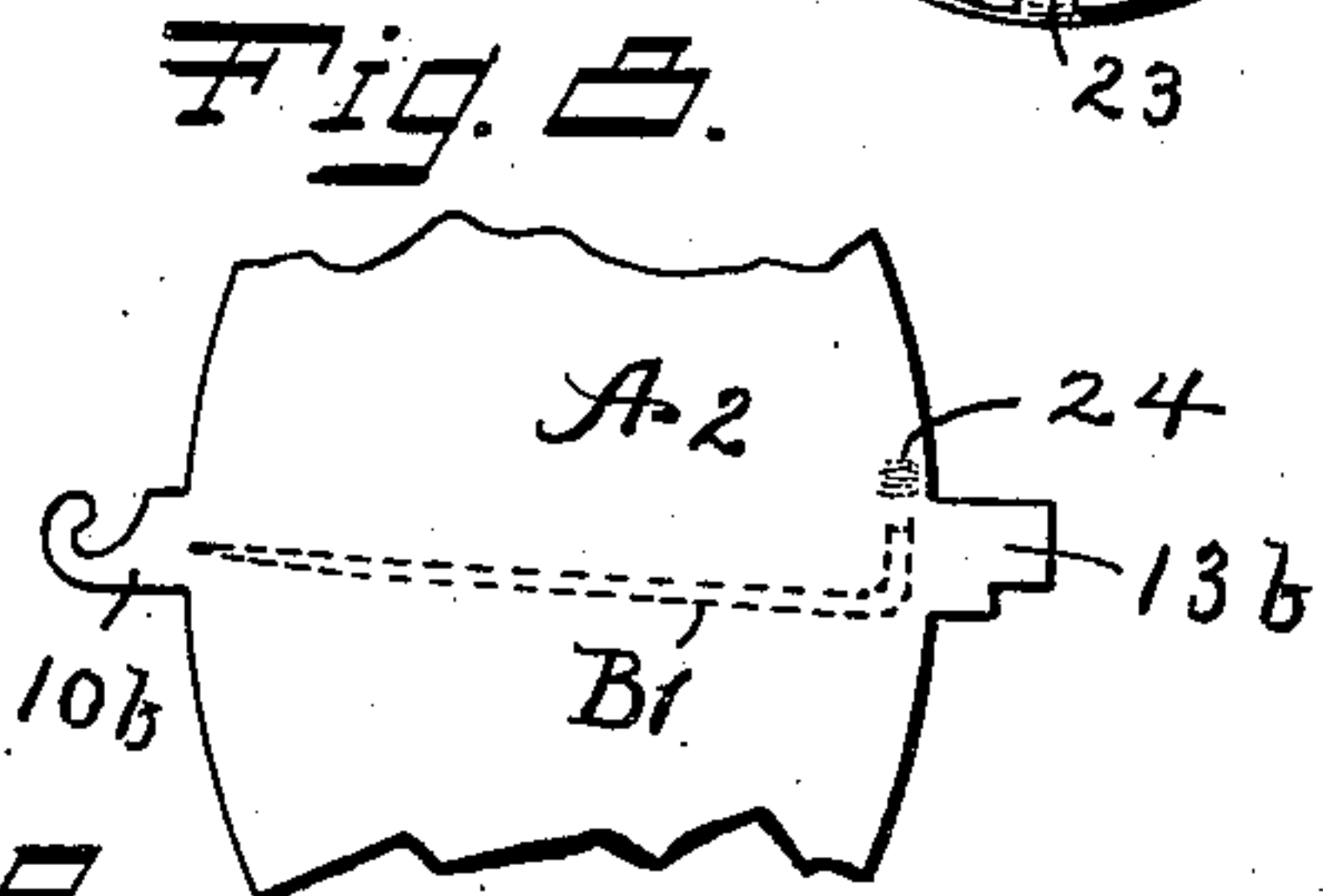
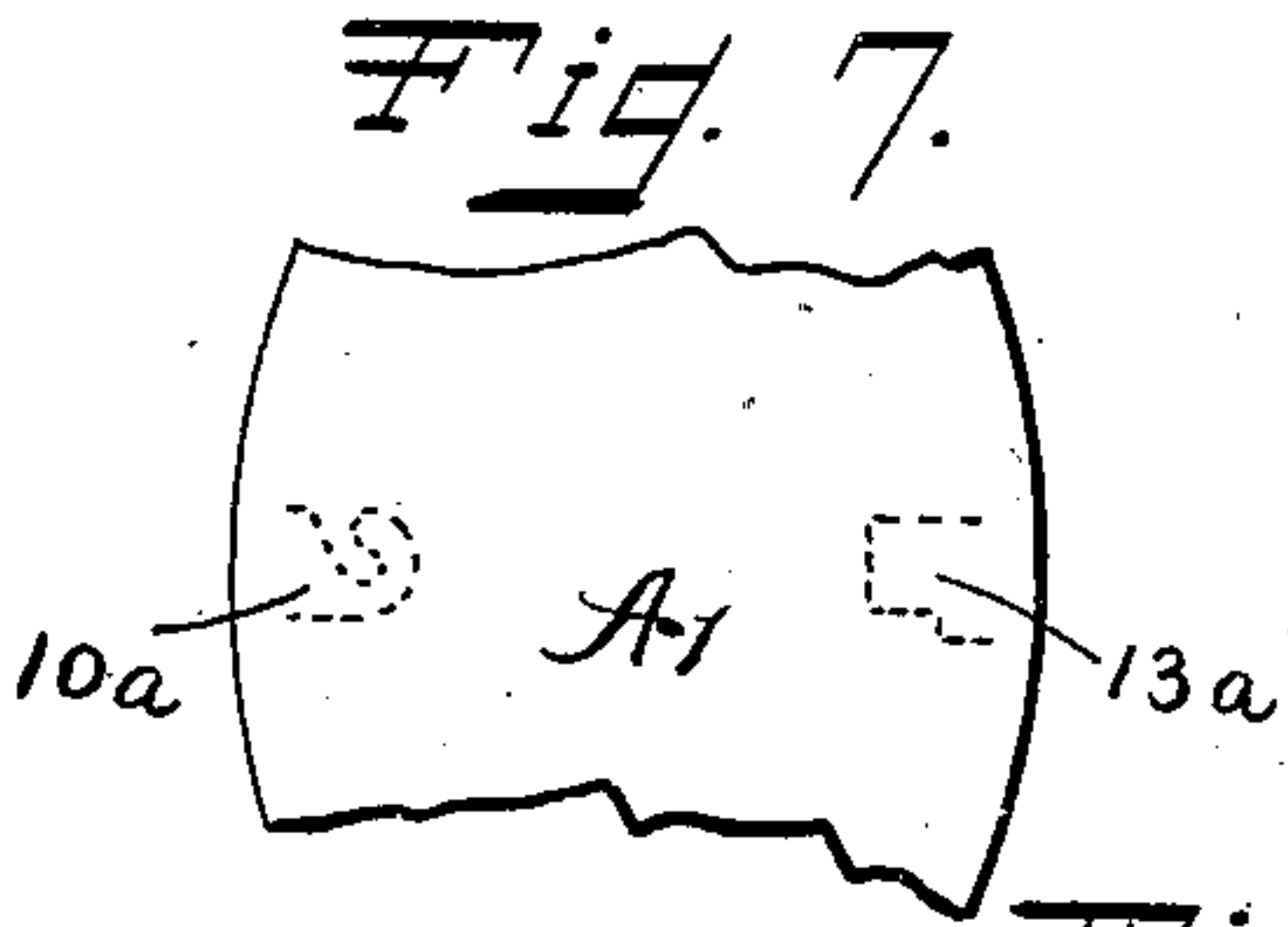
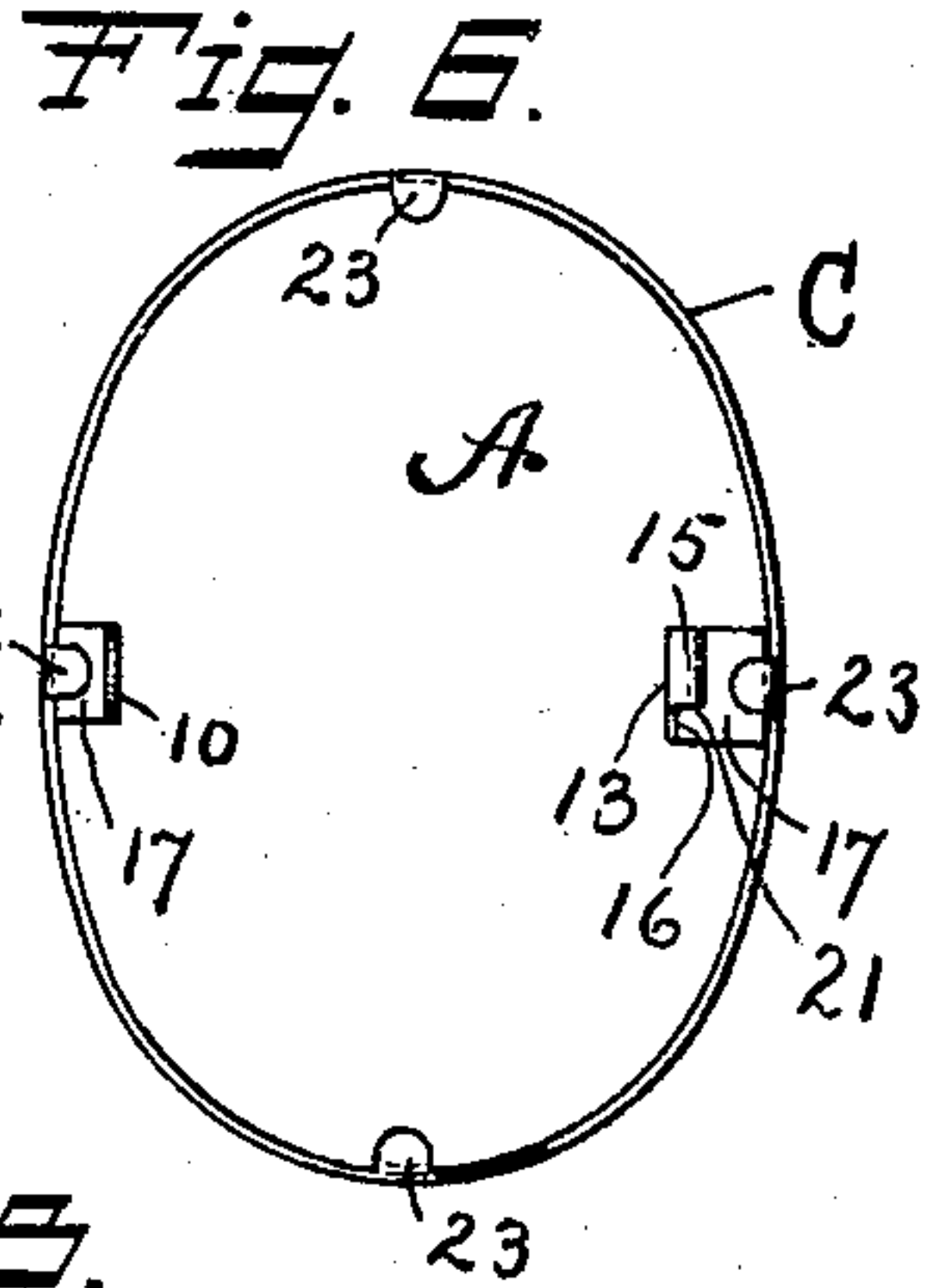
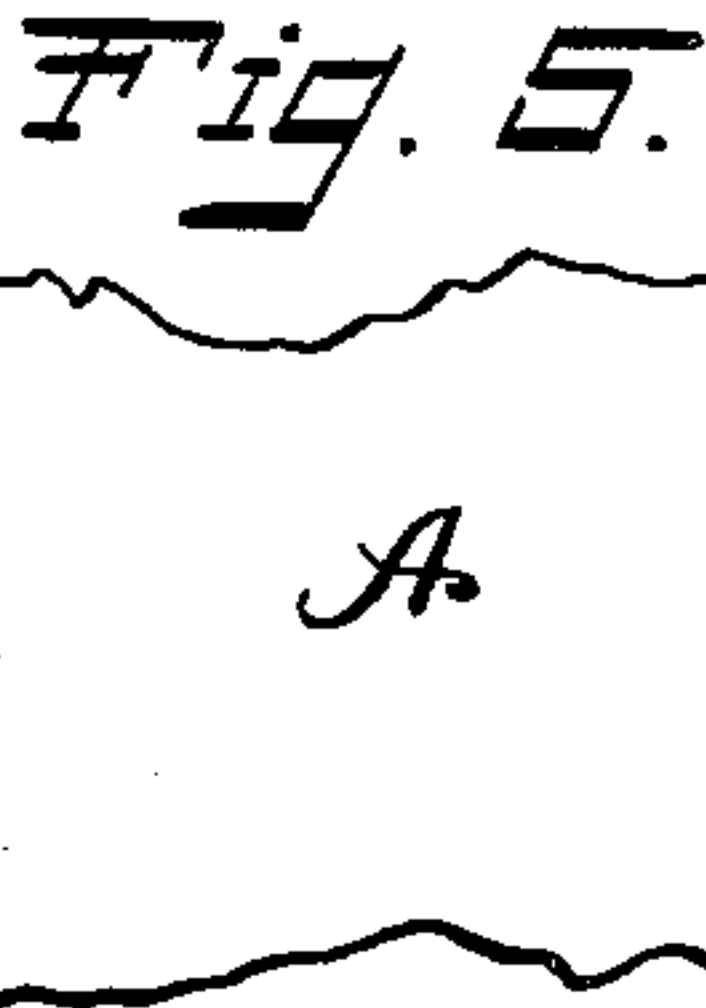
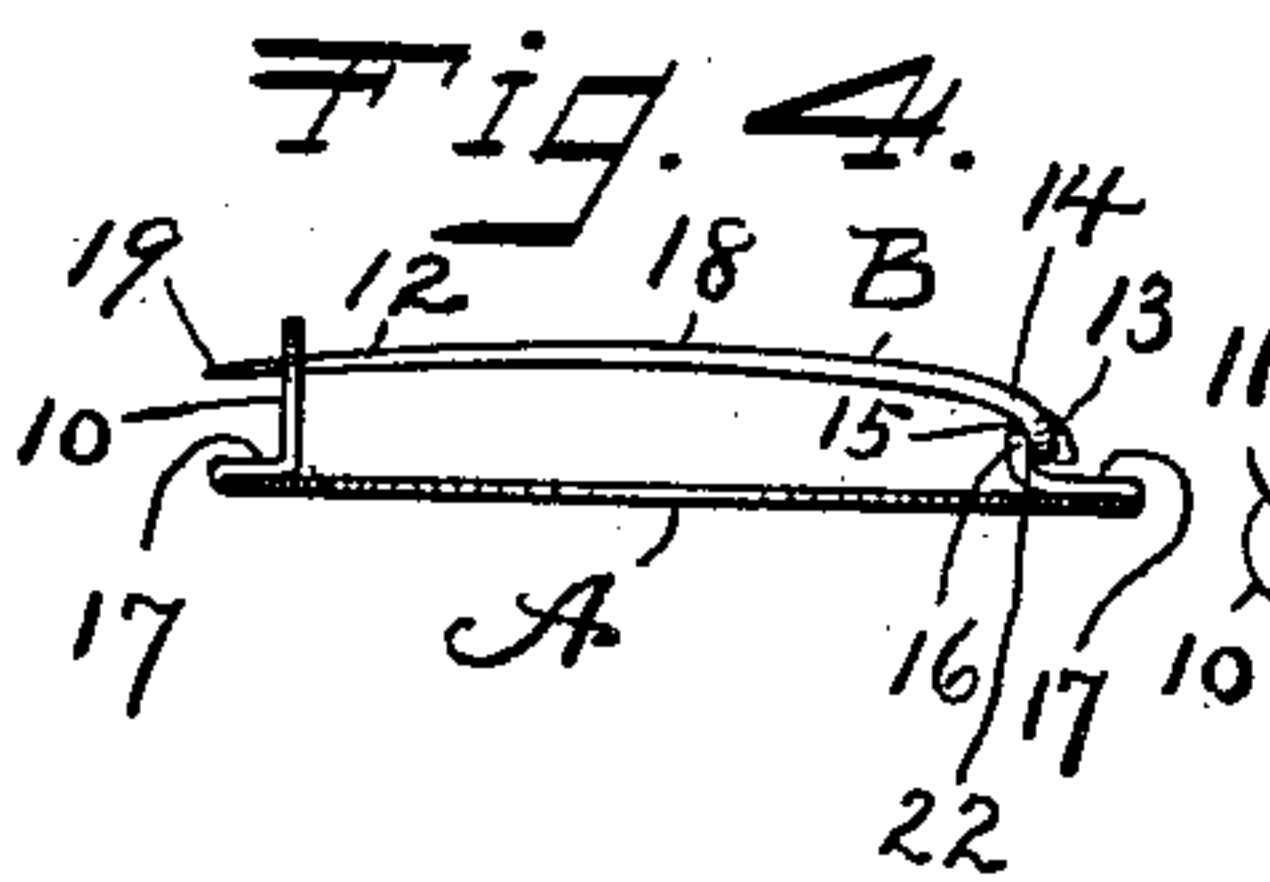
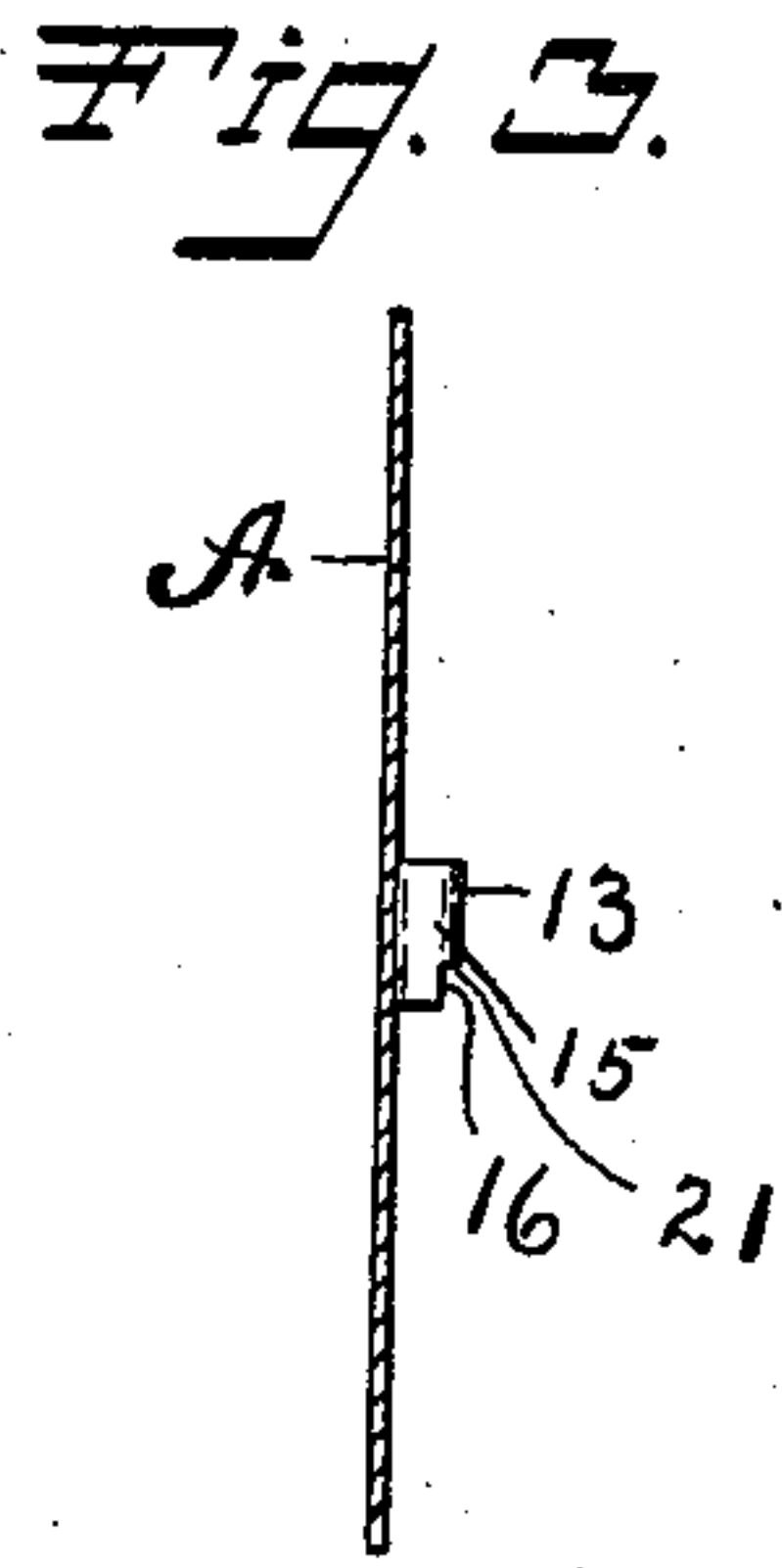
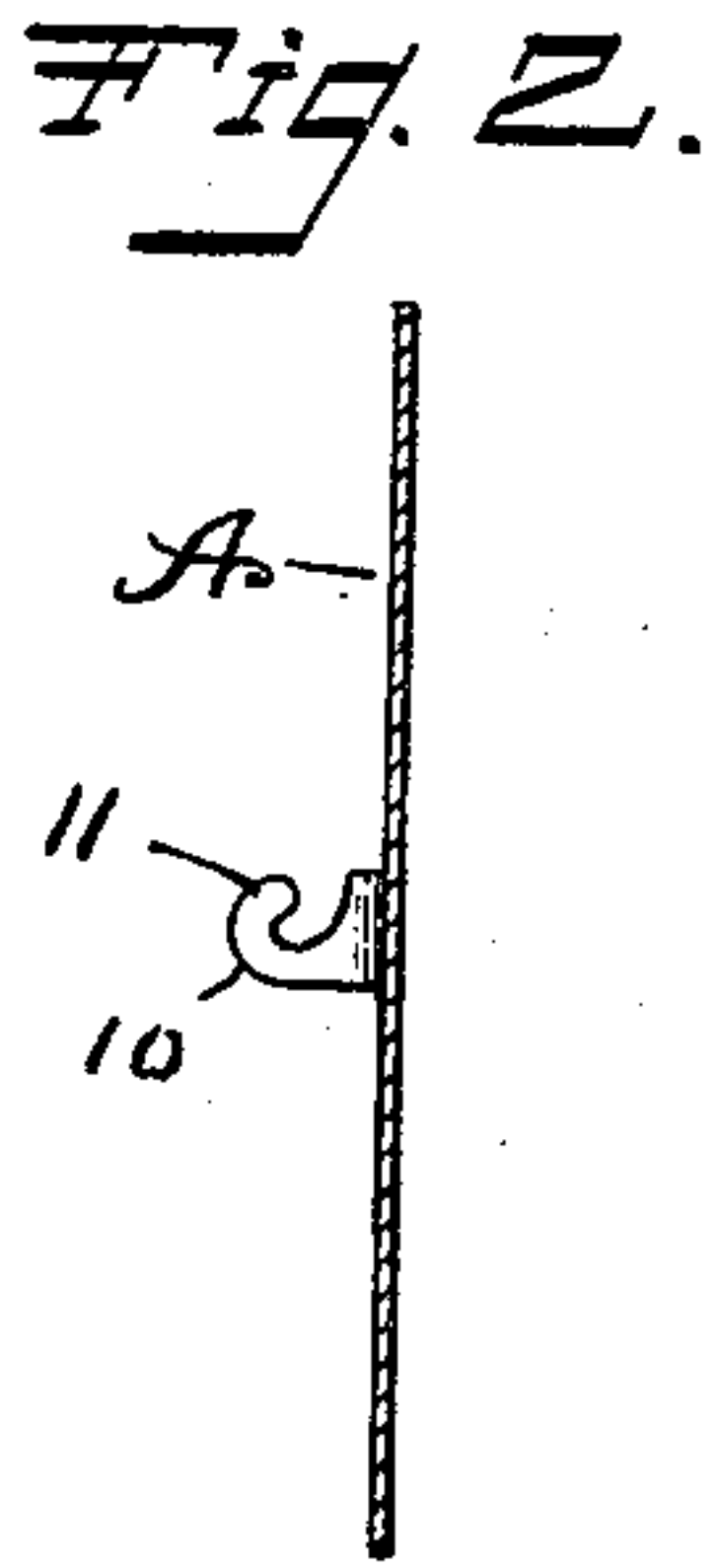
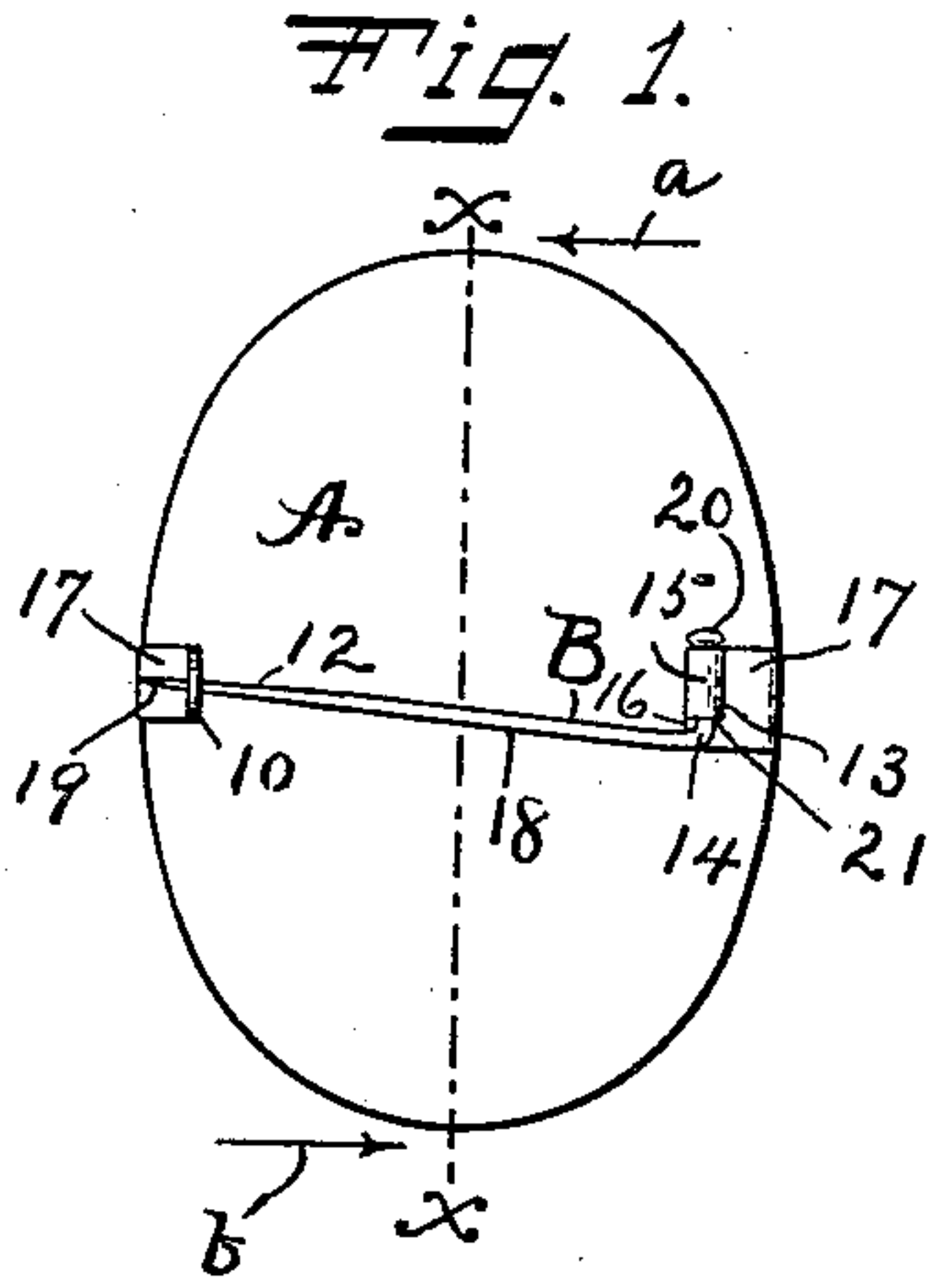


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BROOCH.

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969,666.

Patented Sept. 6, 1910.



WITNESSES.

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BROOCH.

969,666.

Specification of Letters Patent.

Patented Sept. 6, 1910.

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To all whom it may concern:

Be it known that I, CLARENCE E. SMITH, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Brooches, of which the following is a specification.

My invention relates to improvements in brooches and the objects of my improvements are simplicity and economy in construction and convenience and reliability in use.

In the accompanying drawing:—Figure 1 is a rear view of my brooch. Fig. 2 is a sectional view on the line $x x$ of Fig. 1 in the direction of arrow a , with the pin omitted. Fig. 3 is a similar view on the line $x x$ of Fig. 1 in the direction of arrow b . Fig. 4 is an end view of my brooch. Fig. 5 is a rear elevation of the blank for my back plate. Fig. 6 is a rear view of a brooch generally similar to that shown in Fig. 1, provided with a front ornamental plate, with the pin omitted. Fig. 7 is a rear view of a blank for a modification with the hinge and hook members punched from the body of the plate. Fig. 8 is a similar view of a blank for another modification with the hinge and hook members adapted to be located directly at the edges of the body of the back plate, and part of a pin for the same in dotted lines. Fig. 9 shows in plan view a method of punching the blanks shown in Fig. 5.

A is the body of my brooch and comprises a piece of sheet metal and as shown in the drawing is of oval formation, and as viewed from the rear has at the left an integral ear 10 provided with a catch or hook 11 adapted to receive and engage with the free engaging end 12 of a securing pin B, and at the right an integral ear 13 provided with means for supporting the secured end 14 of the said pin B, suitably for engagement with the said hook 11, comprising a hinge 15 and a shoulder 16, all as will be hereinafter described. The said ears 10 and 13 are in the preferred form made integral with the lateral edges of the said body A and are provided with an extra offset length or extension 17 at the end by which it is attached to the said body A which extension is laid over inwardly toward the center in abutment with the back face of the body A,

so as to offset or inwardly set from the edges of the body the unattached ends provided with the pin supporting and engaging means, which unattached ends are bent backwardly generally at right angles to the body A. The said hook 11 comprises a hook shaped formation in the sheet metal end of the said ear 10, as shown, opens upwardly, and may be of ordinary construction. The said pin B is arranged to be swung back and forth in a horizontal plane so as to bring the said free end 12 into and away from engaging position with the said hook 11, the final movement in engaging the same comprising a springing of the said free end 12, so that when engaged there will be up-tension in opposition to such engagement on the part of the said pin B. The pin B is an ordinary stock pin complete and may be made of either steel or brass, and comprises the usual long cylindrical body 18, the point 19, and head 20. The said hinge 15 comprises a vertical eye or sleeve fitting and adapted to receive and pivotally secure the said body 18 of the pin B, and when the said pin is inserted in position from the top downward the downward movement is limited by the said head 20 coming in abutment and in bearing contact with the top edge of the said hinge 15.

In the assembly of the said body A and pin B the first operation is to insert the pin in the manner described. Then a backward bend of the pin B on the lower edge 21 of the hinge 15 at essentially right angles locks the said pin B in position and in pivotal connection with the said hinge 15. Pivotal motion toward the left is however at this stage limited by the said shoulder 16. This as shown in the blank, Fig. 5, is adjacent the lower edge of the said hinge 15, and in its formation suggests a cutting away of a portion of the lower edge of the material of the hinge 15 for about the thickness of the said body 18 of the pin B, and is an extension of a portion of the material of the said ear 13 adjacent the body A downward below and integral with the said hinge 15 and adapted to limit the pivotal movement of the pin B to the left as described. In order to have an appreciable free space between the said pin B and the body A of my brooch for material or fabric to which my brooch is to be secured I prefer to have

the said pin 12 given a fixed bend toward the left at the point of contact 22 with the said shoulder 16, and to have the said shoulder appreciably farther back from the back surface of the body A than the axis of revolution of the pin B in the hinge 15, which bend should preferably be such as to leave the pin B in such shape that a further resilient bending or springing will be necessary to bring the outer end of the same into engagement with the hook 11 as described, or in other words there will be up tension in the pin when engaged with the hook.

I find that in providing the last bend described a bending of the pin B to the left so that the point 19 comes in contact with the body A leaves a sufficient spring and resiliency in the same to meet the conditions just described, so that a pin can be removed and replaced readily even by an amateur without special skill and without danger of straining the material beyond the elastic limit, and the method described although a hand operation is the regular factory method of assembling and owing to its simplicity the complete operation of assembly is accomplished as quickly as would ordinarily be the case in placing the parts to be assembled in a machine for assembly.

As described, the body A may be utilized as a combined front and back, and may be impressed with an ornament on front if desired, and in such case the entire device is made of simply the two pieces respectively the body A and the pin B.

In the modification shown in Fig. 7 the said ears 10^a and 13^a are punched out directly from the body A¹ of the blank as shown by the view of the blank in Fig. 7 and bent directly up into the desired positions. That the apparent saving in stock material in so punching out the blanks is not realized is shown by Fig. 9 in which the layout of the strip from which the blanks are punched is shown, the blanks being in angular relation to the strip and to one another so that the series of blanks are cut out with no loss whatsoever along the length of the strip due to the outward projection of the said integral ears 10 and 13. In order to cover up the holes in the body A, left by bending backward the ears 10^a and 13^a, the said body A¹ may be provided with a special front C of suitable formation to fit over the front of the said body A¹, and may be secured to the same by overturned

integral ears 23 and provided with an ornamental impression or figure or may be modified in any desired manner.

In the modification shown in Fig. 8 the ears 10^b and 13^b are integral with the outer edge and bent up directly at right angles to the body A², in which case the pin B¹ is longer than in the forms already described, the ears are particularly conspicuous, the point 19 of the pin extends beyond the edge, and an indentation 24 must be made to accommodate the head 20 of the pin B¹, which would be conspicuous on the front side of the body A² and if objectionable on this account would be practically rendered indistinguishable by adopting a particular ornamentation for this purpose or using a separate front C. A similar front C may be provided for the form of back A shown in Fig. 1.

While the brooch described is elementary in its simplicity, in the simple construction described there is no sacrifice in reliability, ordinary methods of manufacture are involved in the production of the back, the pin is a standard stock product, and the assembly is an essentially amateur operation. As to the ornamental front, this is a feature that may be provided to suit the fancy of the individual.

I claim as my invention:—

In a brooch comprising a body and a pin, an integral hook member on said body, an integral hinge member on said body, an integral bearing shoulder on said hinge member, the said pin comprising a generally cylindrical pin body, a point at one end and a head at the other end, the said hinge member comprising a finger rolled up to form a sleeve having ends, the said pin body received within said sleeve, the said head in abutment with one end of the sleeve and the said pin body bent to one side at about 90 degrees adjacent the other end of the sleeve, the said shoulder located adjacent said other end, the said pin having a second bend over said shoulder, the said second bend appreciable and permanent, the said pin adapted to be further resiliently bent in the direction of said second bend and when so bent adapted to engage with the said hook member.

CLARENCE E. SMITH.

Witnesses:

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KENNETH J. HOFFMAN.