

E. P. READE.
Improvement in Bed Bottoms.

No. 121,728.

Patented Dec. 12, 1871.

FIG. I.

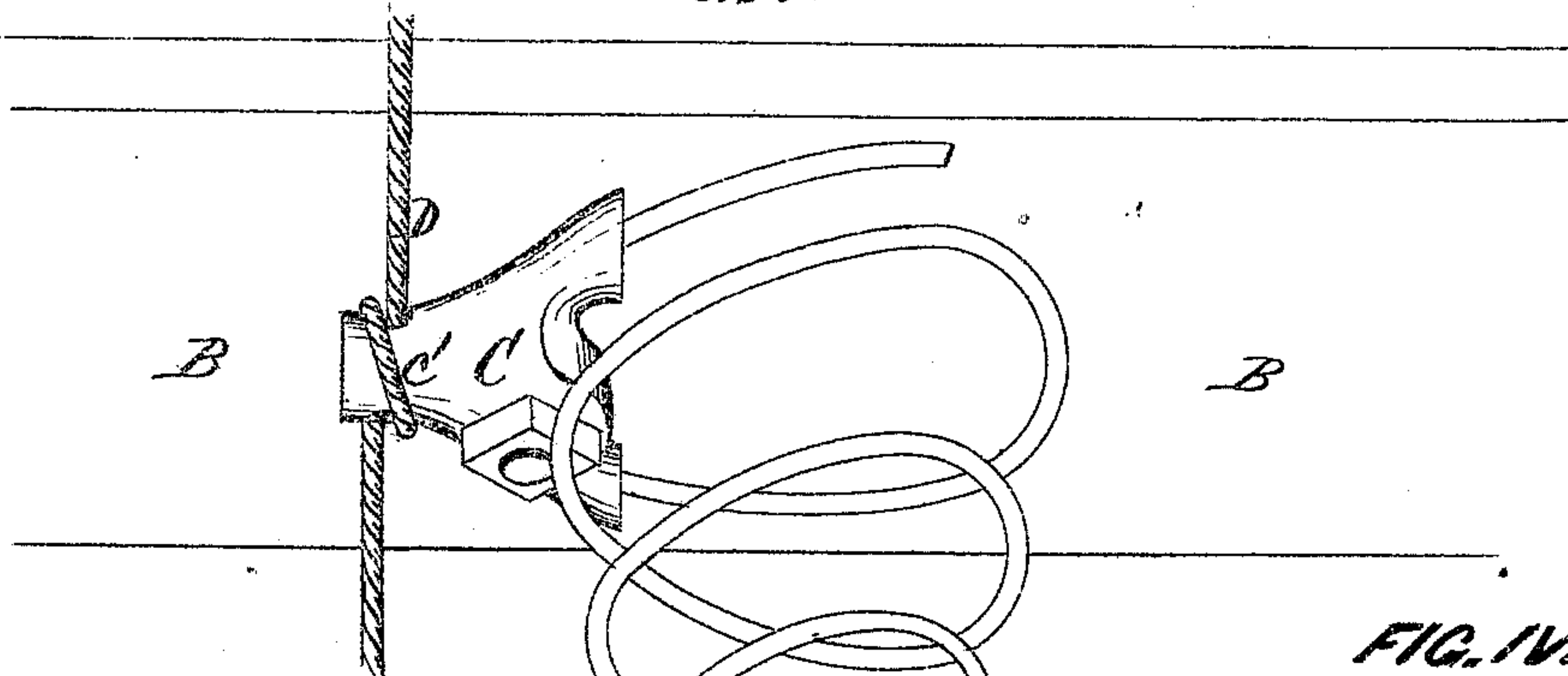


FIG. IV.

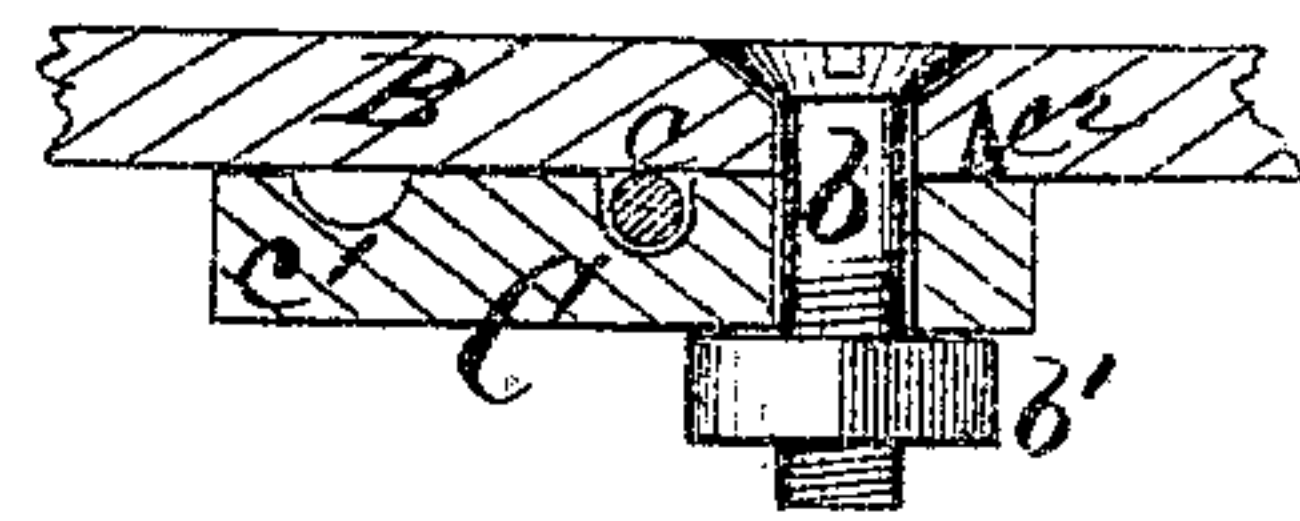


FIG. II.

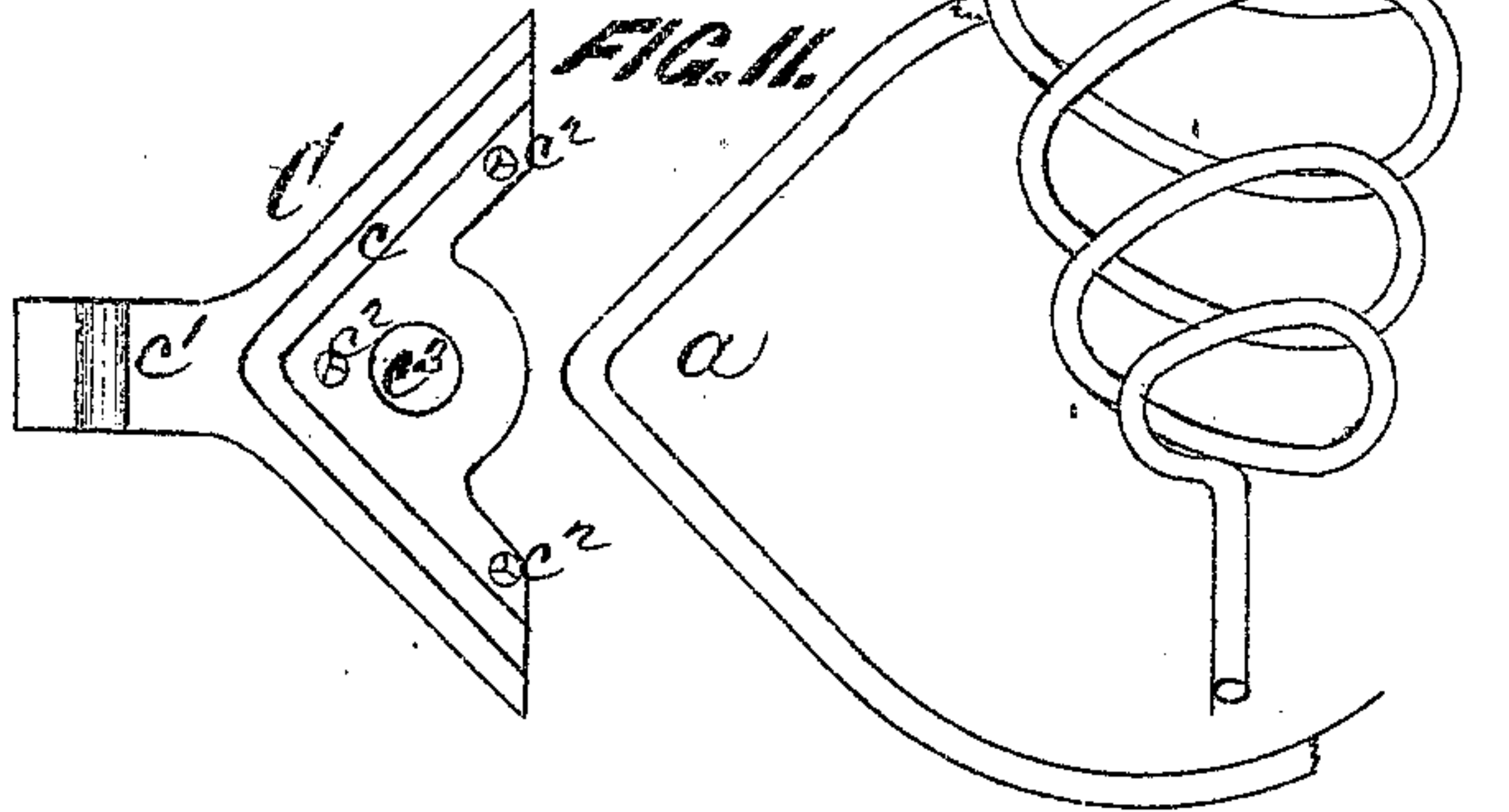


FIG. III.

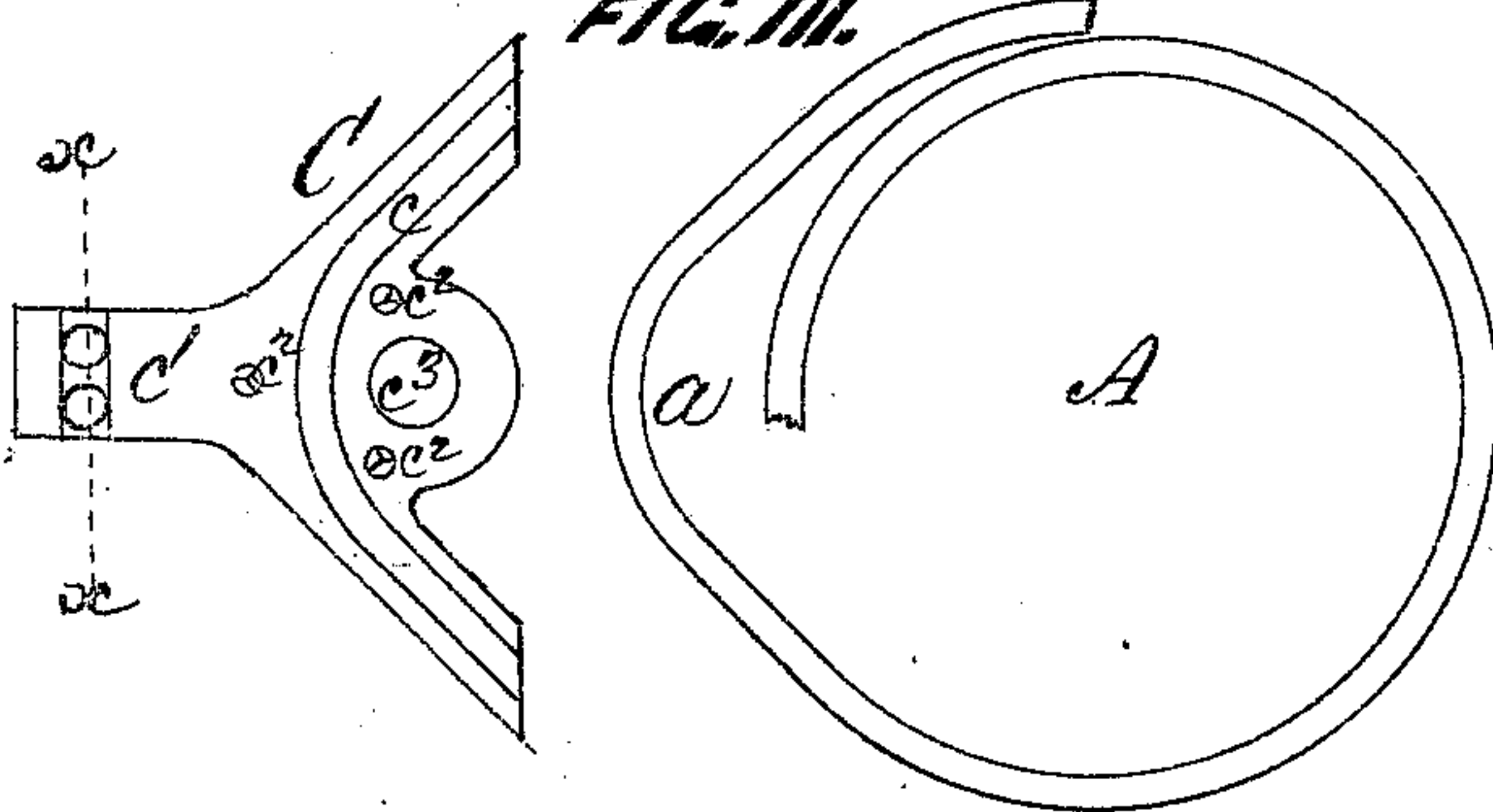


FIG. VI.

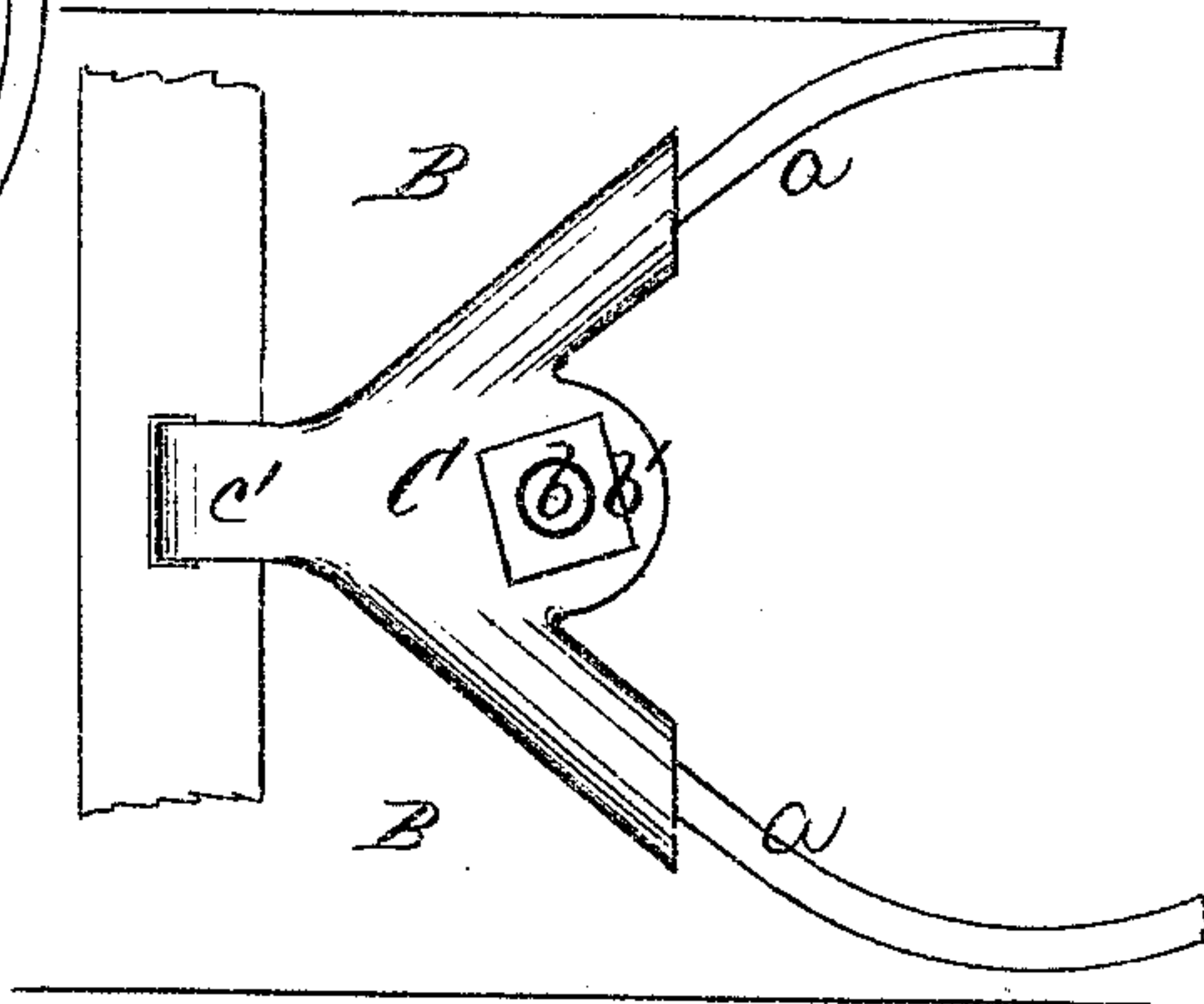


FIG. V.

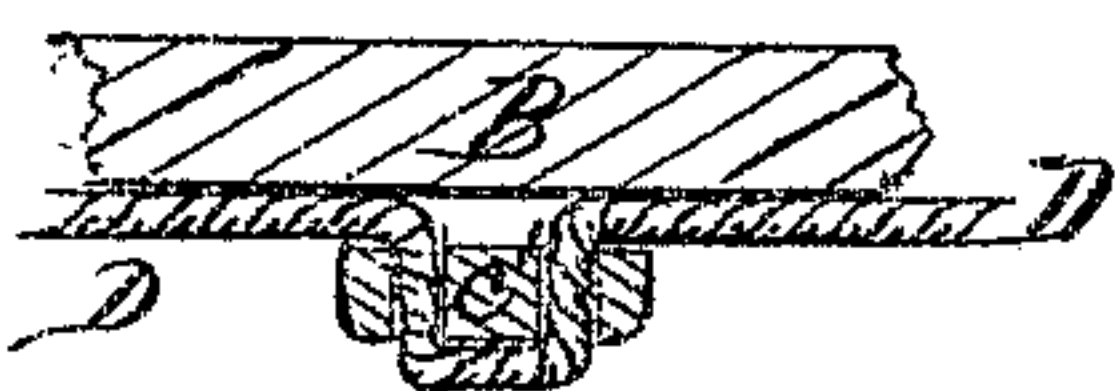
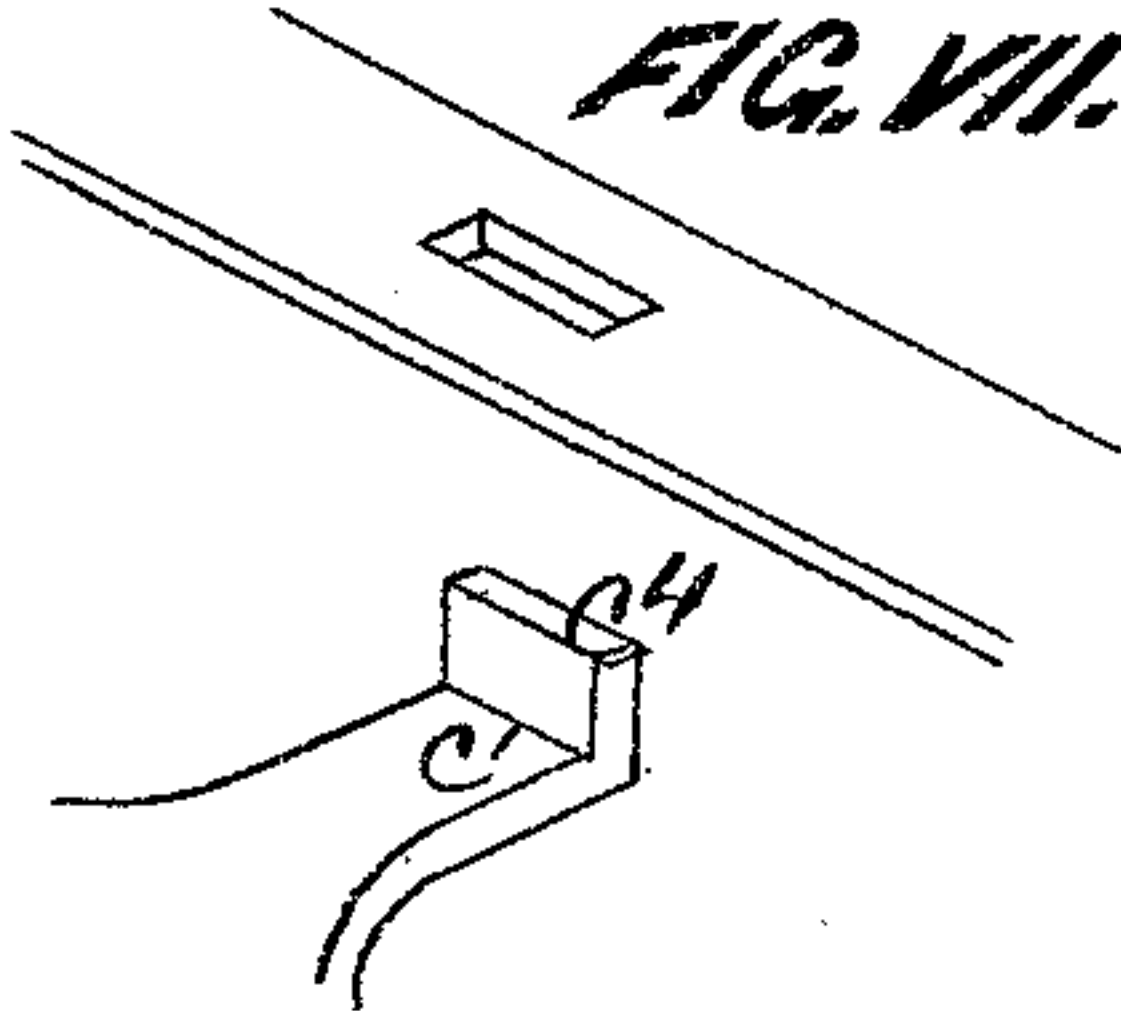


FIG. VII.



Witnesses.
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UNITED STATES PATENT OFFICE.

ELIAS P. READ, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN BED-BOTTOMS.

Specification forming part of Letters Patent No. 121,728, dated December 12, 1871.

To all whom it may concern:

Be it known that I, ELIAS P. READ, of the city of Chicago, in the county of Cook and State of Illinois, have invented a certain new and Improved Bed-Bottom, of which the following is a specification:

My invention has reference to that class of bed-bottoms in which spiral springs are employed to support the slats upon which the mattress or bed rests; and consists in an improved method of securing the springs to the aforesaid slats by means of a clamp and bolt, and also in the manner of connecting the slats one to another, all as herein-after shown.

In the drawing, Figure 1 is a perspective view of the under side of the slat with the spring secured in my improved manner. Fig. 2 is a plan of the under side of the clamp and projection on the lower coil of the spring; Fig. 3, a similar view of the clamp and spring, in which a curved projection is shown; Fig. 4, a vertical cross section of the clamp, showing the bolt and nut in elevation; Fig. 5, a cross section in plane of line $x x$, Fig. 3, showing a modified method of securing the cord; Fig. 6, a bottom plan of the clamp secured to the slat, and showing the mode of connection by a strap; Fig. 7, a perspective view of a portion of the strap, and the arm of the clamp with the lug for fastening the strap.

A represents a spiral spring of the form in most common use. This spring is attached to the longitudinal slat B by means of a bolt, b , and nut, b' , the said bolt passing through the slat and the clamp-piece C. This clamp-piece consists of a cast or stamped piece of metal provided with an angular groove, c , for the reception of a corresponding formation in the lower coil of the spring, and in an arm, c^1 , projecting outward from the clamp, and furnished with a groove, lug, or slat, as shown, respectively, in figures. The clamp is also supplied with points or pins c^2 for the purpose of penetrating into the slat B to prevent the spring A from turning; besides, a hole, c^3 , is made for the passage of the bolt b , this hole being placed, by preference, centrally in the body of the clamp and within the line of the groove c . The last and largest coil of the conoidal spring A is formed with an angular or curved enlargement, a , at the distance of about a quarter of a circle from the end of the wire of which the spring is made. The angle in the wire just

described projects outside of the line of the coil immediately above sufficiently far to admit of placing the bolt b within the angle a , and still outside and clear of the second coil. The slats B are connected transversely of their length by means of the cord D, which is first placed under the arm c^1 and afterward carried around and again passed under it, as shown in Fig. 1; or the cord may be secured as shown in Fig. 5, in which case it is directed up through one hole and down through the other, by both which plans the cord is bound securely by screwing down the clamp upon it. If it is preferred to use a strap it is made fast by inserting the downward projection or lug c^4 , which is at least equal in length to the thickness of the strap, into a corresponding hole in the strap, from which escape is prevented by screwing down the clamp as before, causing said projection to bear upon or enter the slat.

The method of attaching the different parts together is as follows: The desired position of the spring on the slat is first marked; the spring is then placed as indicated, and the clamp-piece C is fitted onto the angular or curved projection a . The bolt b is afterward inserted through a hole previously bored in the slat, and through the hole c^3 in the clamp C. The nut b' being applied, the clamp-piece is screwed down in close contact with the slat, and the points c^2 are at the same time forced into the wood of the slat, thus holding the spring firmly and preventing it from turning in either direction. Should the slats become bent and require to have the sides reversed, or if it should be desired to remove the springs for any other reason, it is easily accomplished by simply unscrewing the nut b' and withdrawing the bolt b . The spring may thus be applied with equal facility to the opposite side of the slat. To connect the slats together by means of the cord D a suitable length of cord is taken, and after placing the slats at the proper distance apart the cord is passed beneath the arm c^1 upon the clamp C on each of the slats in succession, and afterward each clamp screwed down upon the cord and spring, as before described.

Among the advantages secured by my improved fastenings attention may be called to the great facility with which they can be applied and removed, and their security and durability in use. The angular formation on the lower coil of the spring, which is placed at a distance of at least a

quarter of a circle from the end of the wire forming said coil, affords an opportunity of securing the spring to the slat with the greatest possible amount of firmness by the use of the most convenient and one of the lightest of clamps.

I am aware that springs have been attached to slats by means of a piece of metal passed over some part of the lower coil and tacked or screwed to the slat; also that bolts have been used passing through the slat and a loop formed at the end of the spring itself, holding the latter in place by means of a nut; also that slats have been connected transversely by continuous bands, &c. Such devices and their arrangement are not, however, the equivalents of those here presented.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The clamp-piece C, provided with an angular or curved groove, *c*, in combination with the bolt *b*, nut *b'*, arm *c'*, and spring A, substantially as shown and described.

2. The angular or curved projection *a* in the wire constituting the last coil of the spring A, in combination with the clamp-piece C constructed as described, and for the purpose set forth.

3. Providing a clamp-piece for securing a bed-spring with an arm *c'*, for the object described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

ELIAS P. READ.

Witnesses:

C. C. PECK,

GEO. W. MATT.

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