

(No Model.)

M. F. HENDERSON.
BICYCLE SADDLE.

No. 572,164.

Patented Dec. 1, 1896.

Fig. 1.

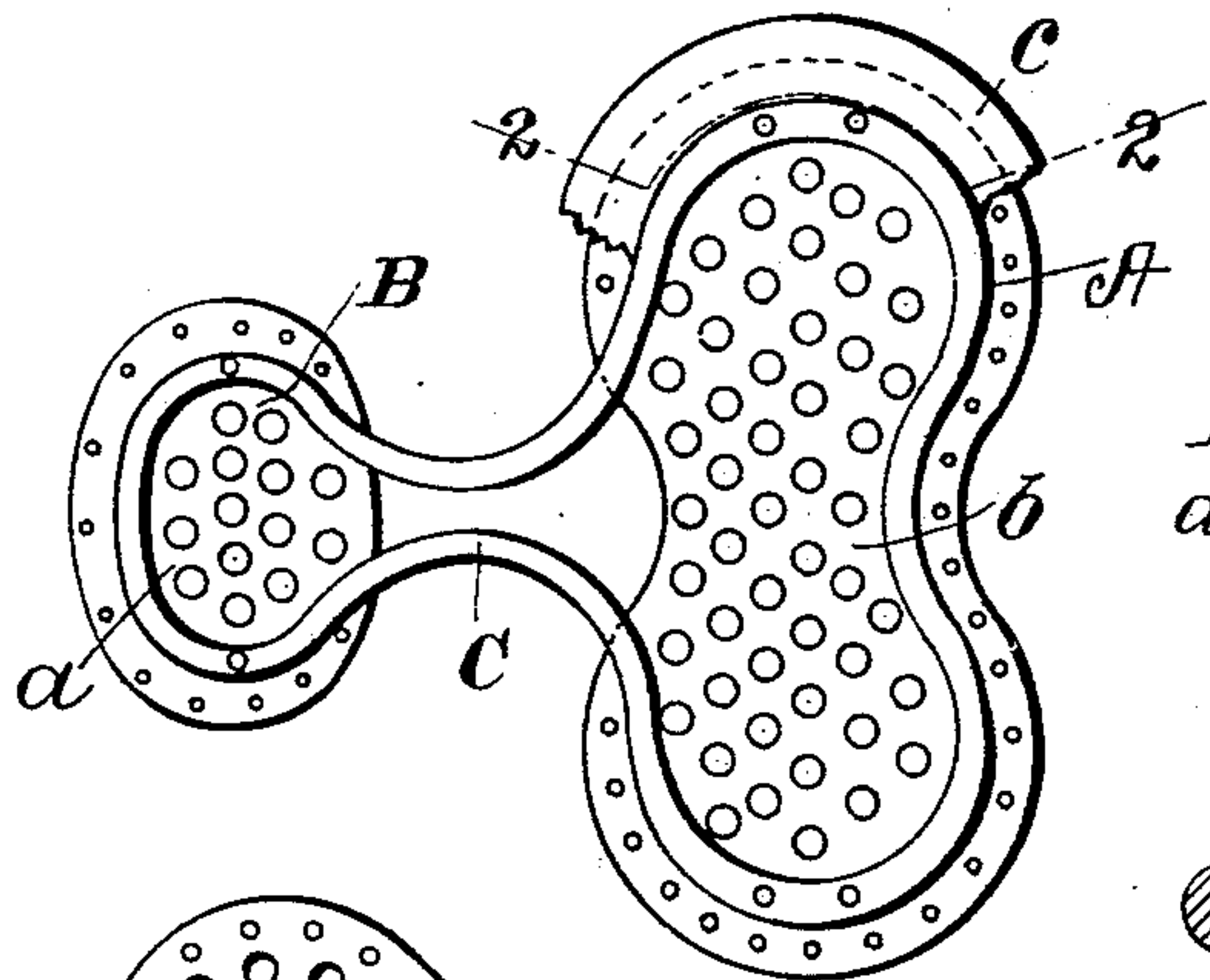


Fig. 4.

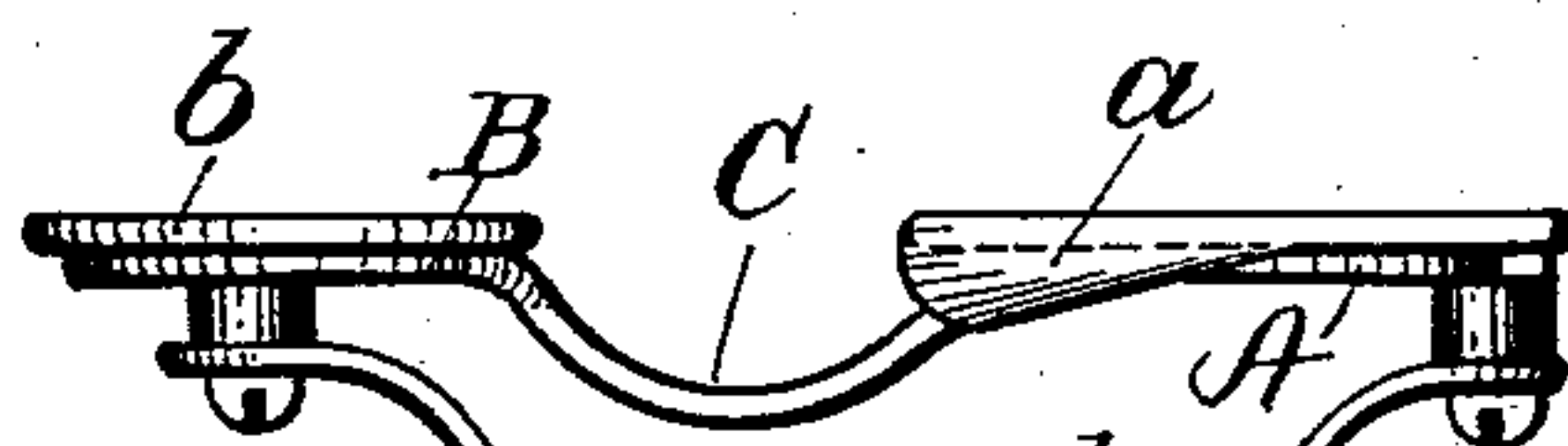


Fig. 2 a.



Fig. 2 c.



Fig. 5.

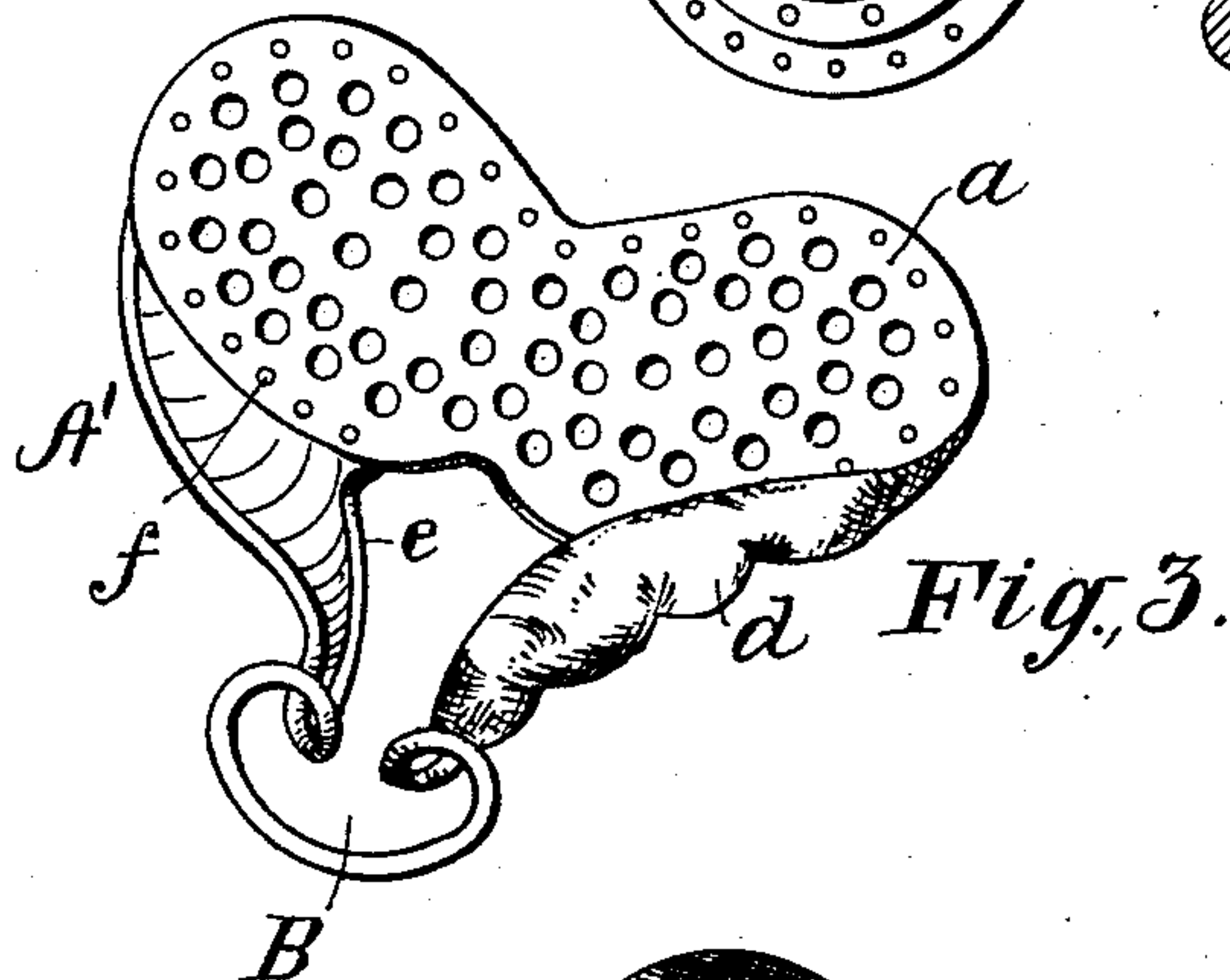
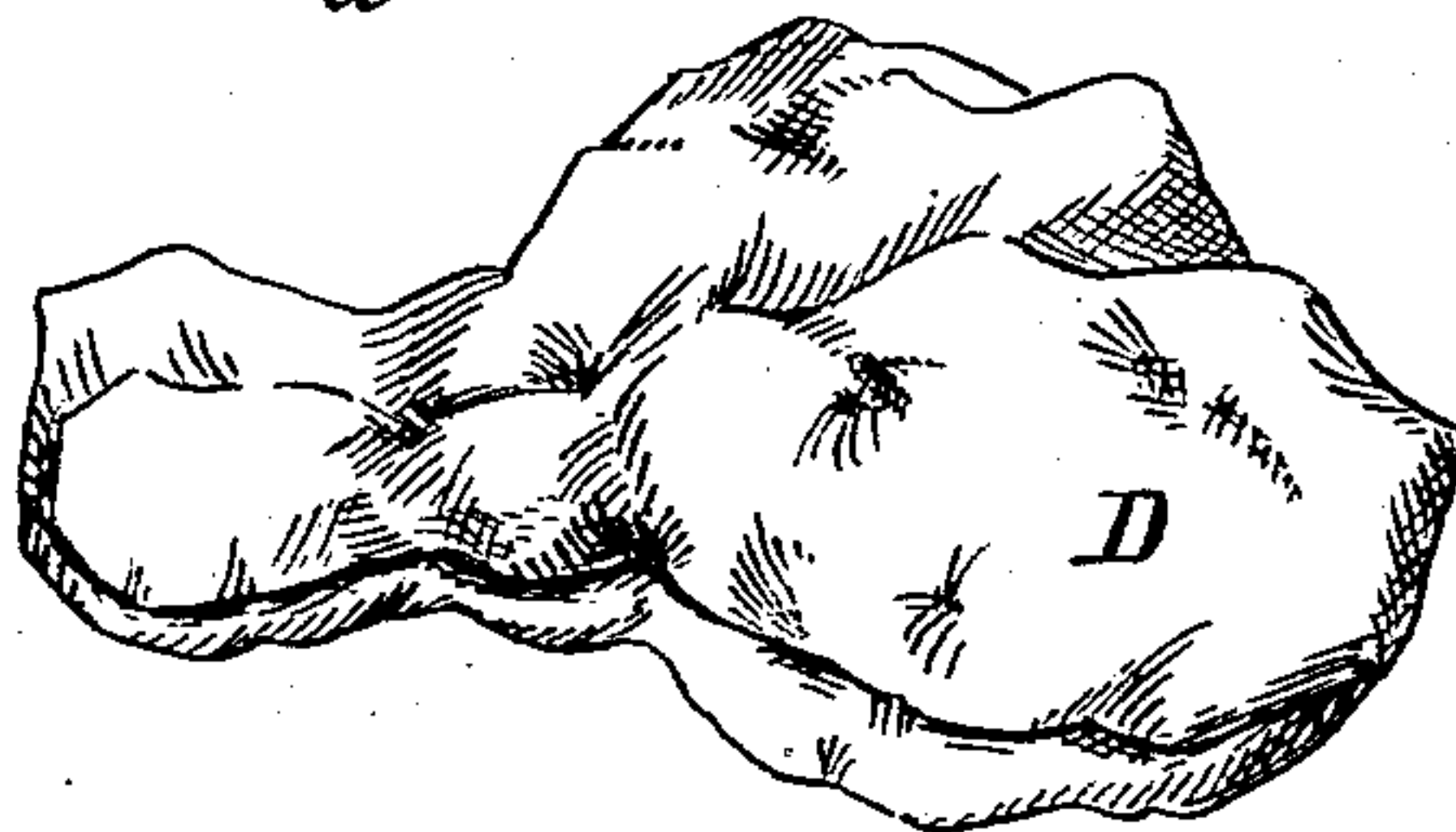


Fig. 6.

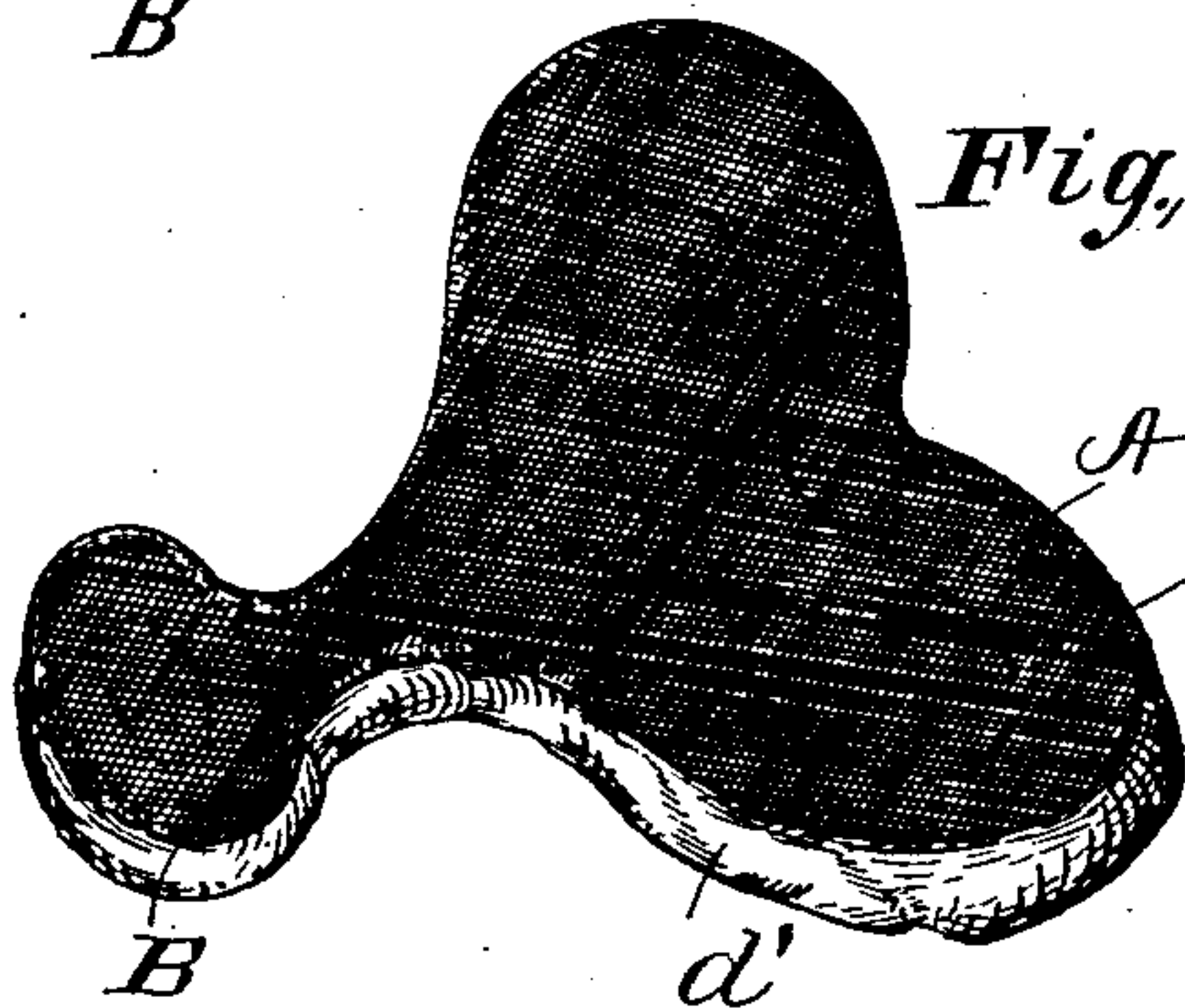
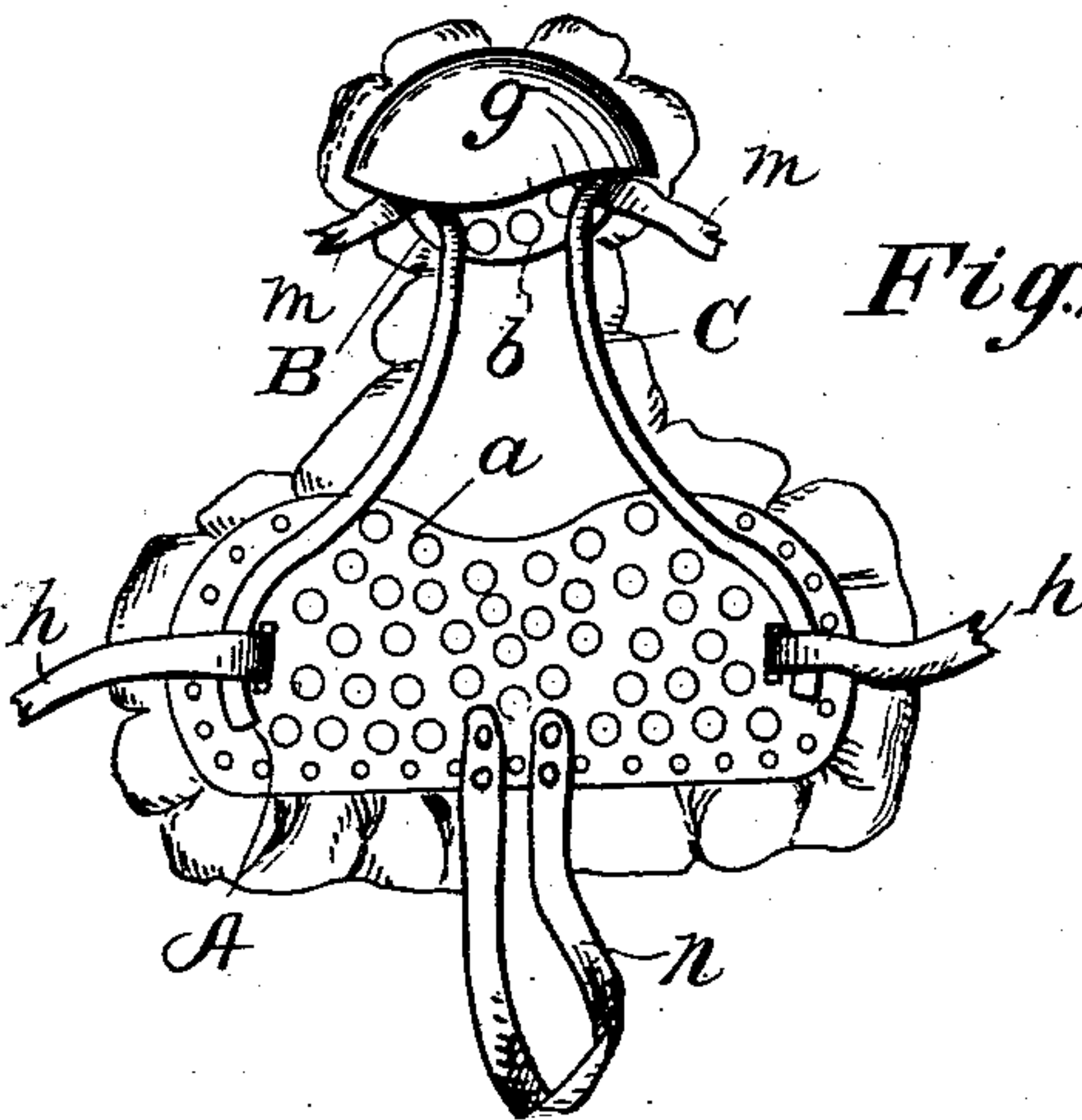


Fig. 7.



WITNESSES:

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BICYCLE-SADDLE.

SPECIFICATION forming part of Letters Patent No. 572,164, dated December 1, 1896.

Application filed June 8, 1896. Serial No. 594,741. (No model.)

To all whom it may concern:

Be it known that I, MARY F. HENDERSON, of Washington, District of Columbia, have invented a new and useful Improvement in Bicycle-Saddles, which is fully set forth in the following specification.

The object of the present invention is to furnish a frame or support to which an attachment or removable cushioned seat may be applied, or which may, if desired, be permanently cushioned, the construction being designed with a view to giving protection to the person of the rider and to remedy the causes of fatigue and physical injury.

My invention consists, first, in a framework or skeleton, made of wire or of wood or other material, in the form of two approximately elliptical loops connected by a contracted and depressed bridge. The larger of the two loops forms the frame for the seat and the smaller or front loop constitutes a guard. The seat and guard, with the bridge between, form curved cavities to accommodate and conform to the contour of the legs of the rider, providing a better security of seat. This bridge may be of the same material as the loops, or of less rigid material, the object being to provide a stiff support for the front and back cushions and one more or less rigid for the bridge. If the cushion covering the bridge part is of sufficient rigidity, the supporting-frame underneath might be dispensed with, though it is preferably employed. For a further support to the cushions the loops are covered with any suitable material, as canvas, rattan, wood, metal, &c., the loops constituting the frame being continuous or not, according to the material of which the cover is composed. The front and back cushions are preferably in one piece, joined by a bridge-cushion.

The invention includes means for preventing the body of the rider, when mounting or when riding, from coming into contact with the hard edges of the frame. These means consist, first, of a rubber bead or binding which may extend entirely around the edge of the frame, or be confined to the parts thereof with which the rider is most likely to come into contact; second, of recesses or pockets formed beneath the front edge of the seat, in which recesses or pockets elastic pads or cush-

ions are secured. These recesses may extend partly or entirely around the saddle-frame. The frame or contour of the recesses may be formed by additional wires, and the back thereof by lacings of wire or cord, or by cloth, or by solid material, or otherwise. These edge cushions or pads may be attached to the canvas or other covering of the saddle-frame, and this construction is particularly applicable where the frame is made of wood.

The invention will be more fully understood from the following detailed description, in which reference is made to the accompanying drawings, wherein—

Figure 1 is a bottom view of the framework of the improved saddle. Fig. 2 is a section on line 2 of Fig. 1. Fig. 2^a is a cross-section showing the rubber bead attached directly to the wire. Fig. 3 is a perspective view. Fig. 4 is a side elevation. Fig. 5 is a perspective view of the cushion. Fig. 6 is a perspective view of a modified construction, and Fig. 7 is a bottom view.

The essential features of the framework of the saddle are the loops A B, which are of approximately elliptical form, their major axes being transverse to the saddle. As shown in Figs. 1, 3, and 7, these loops are made of a wire of sufficient rigidity bent into the form shown in the drawings. The rear loop A, which forms the contour of the seat, is connected with the front loop B, which forms the contour of what will be called the "guard," by a bridge C, made by bending the wire inward and downward from each loop. Thus the two loops stand in approximately the same horizontal plane with a clear space between them, being connected, however, by a bridge whose sides from the lowest point curve both upwardly and outwardly toward the loops. The curvature of the sides of the bridge merging into the contours of the elliptical guard and seat corresponds and is adapted to the shape of the rider's legs, as will be clearly seen from the drawings.

For a further support to the cushions the loops A B are provided with covers *a b*. (Shown in Figs. 1, 2, 4, and 7.) Around the edges thereof the wire frame, or, if plate-coverings of ridged material are used, around such plates, or around the wire frame, is placed, for the purpose stated, a rubber bead *c*.

This may conveniently be made of rubber tubing having a thick wall and split longitudinally, so as to embrace the edge of the plate, as shown in Fig. 2, or the wire frame, as shown in Fig. 2^a.

It is very desirable that the curved cavities provided for the legs of the rider should be so made as to prevent injurious contact with unyielding surfaces. For this purpose recesses or pockets are provided beneath the front edge of the seat *a* to receive a cushion *d*, one of which is shown in Fig. 3. As there shown, the outline of the recess or pocket is formed by the upper edge of the seat *a*, the curved portion *A'* of the main wire, and supplemental wires *e*. The wires *A'e* drop downward and inward in curved lines, the recess or pocket being extended as far as may be deemed desirable. The backing of the recess is shown as formed by a lacing *f*, of cord or wire; but it may, as already stated, be made in many different ways.

As shown in Fig. 6, the loops A B, forming the contours of the seat and guard respectively, are made of wood, and the cover *a'*, to which the pad *d* is attached, of canvas or other material.

D represents the cushion for the saddle, having the same general outline as the framework. At the front end of the under side it has a flap *g*, Fig. 7, which fits under the loop B, and at the rear it has straps which pass through slots in plate *a*; but any other suitable attaching means may be used.

The saddle may be provided with a bar *k*, as in Fig. 4, suitably attached to hold the clamp *k'*, whereby it is fastened to the saddle-post K; or the frame and cushions, arranged substantially as shown in Fig. 7, may serve as an attachment to ordinary saddles, the straps *h m n*, or any other suitable devices, being provided for securing the attachment in place.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A frame for a bicycle-saddle comprising two approximately elliptical loops, one forming the contour of the seat and the other the contour of the guard, and a contracted and

depressed connection or bridge between the two loops, substantially as described.

2. A framework for a bicycle-saddle shaped to form a rear loop to support the seat, a front loop of approximately elliptical outline, and a connection or bridge, whose sides curve downward and inward from the rear loop, and upward and outward toward the front loop, thereby forming on each side a cavity corresponding to the contour of the leg, substantially as described.

3. A bicycle-saddle frame comprising a seat at the back and a guard in front, with an open space between them, in combination with a cushion covering the seat and guard, and forming between the two cavities conforming to the contour of the rider's legs, substantially as described.

4. A bicycle-saddle comprising a framework or skeleton composed of two approximately elliptical loops one in front and the other at the rear with a depressed and contracted connection, covers for the loops and a cushion corresponding in outline to the framework or skeleton and secured thereto, substantially as described.

5. A bicycle-seat provided on its edge with a bead or rib of rubber, substantially as described.

6. A bicycle-seat having a seat and guard with a depression or space between, adapted to the contour of the rider's legs, and provided with lateral or edge cushions to prevent contact of the legs with rigid surfaces or edges, substantially as described.

7. A bicycle-saddle comprising a framework shaped to form the contours of the seat and guard respectively, with an intermediate depression, and provided with recesses or pockets beneath the edge of the seat, and with pads or cushions in said recesses or pockets, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

MARY F. HENDERSON.

Witnesses:

REEVE LEWIS,
PHILIP MAURO.