

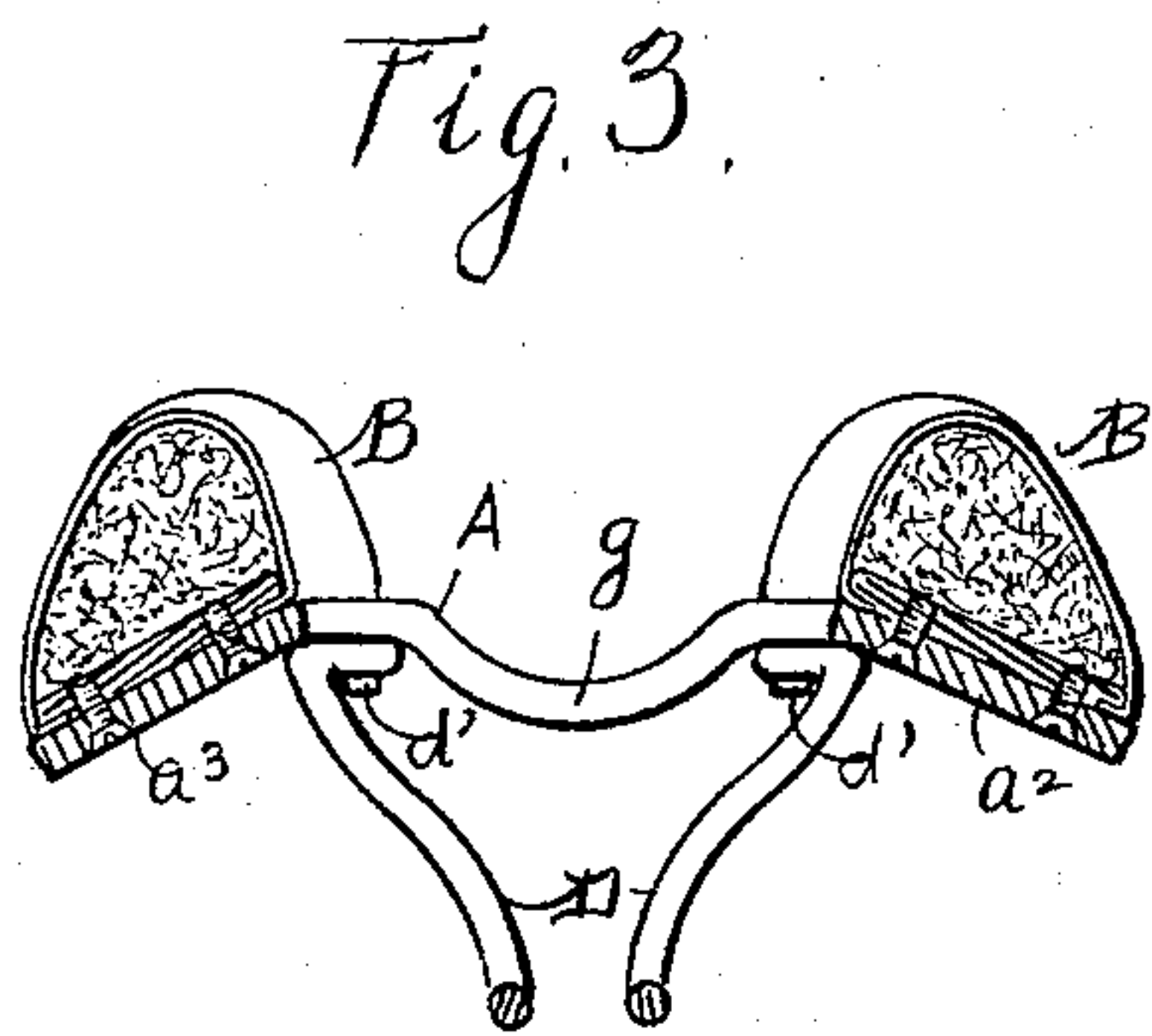
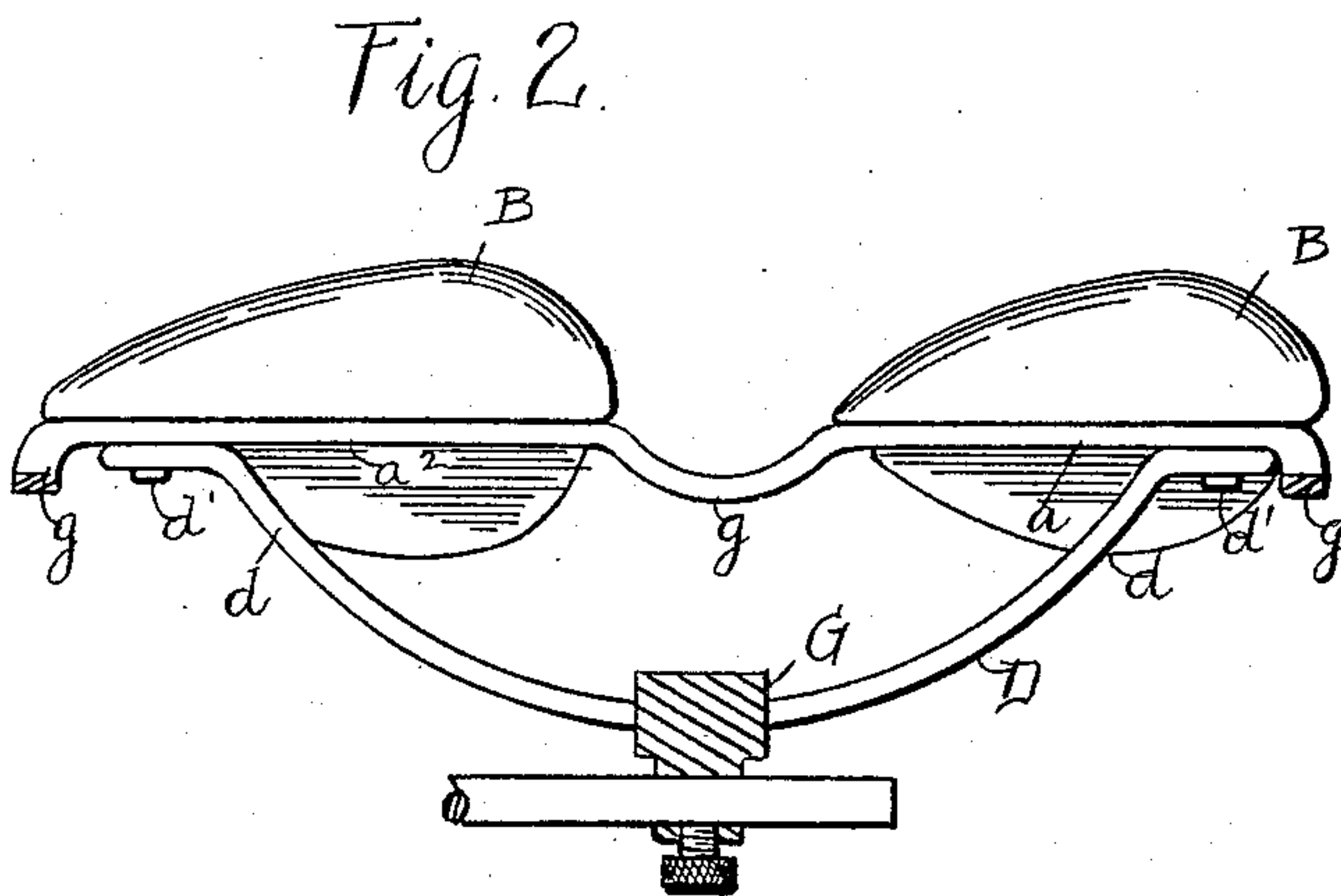
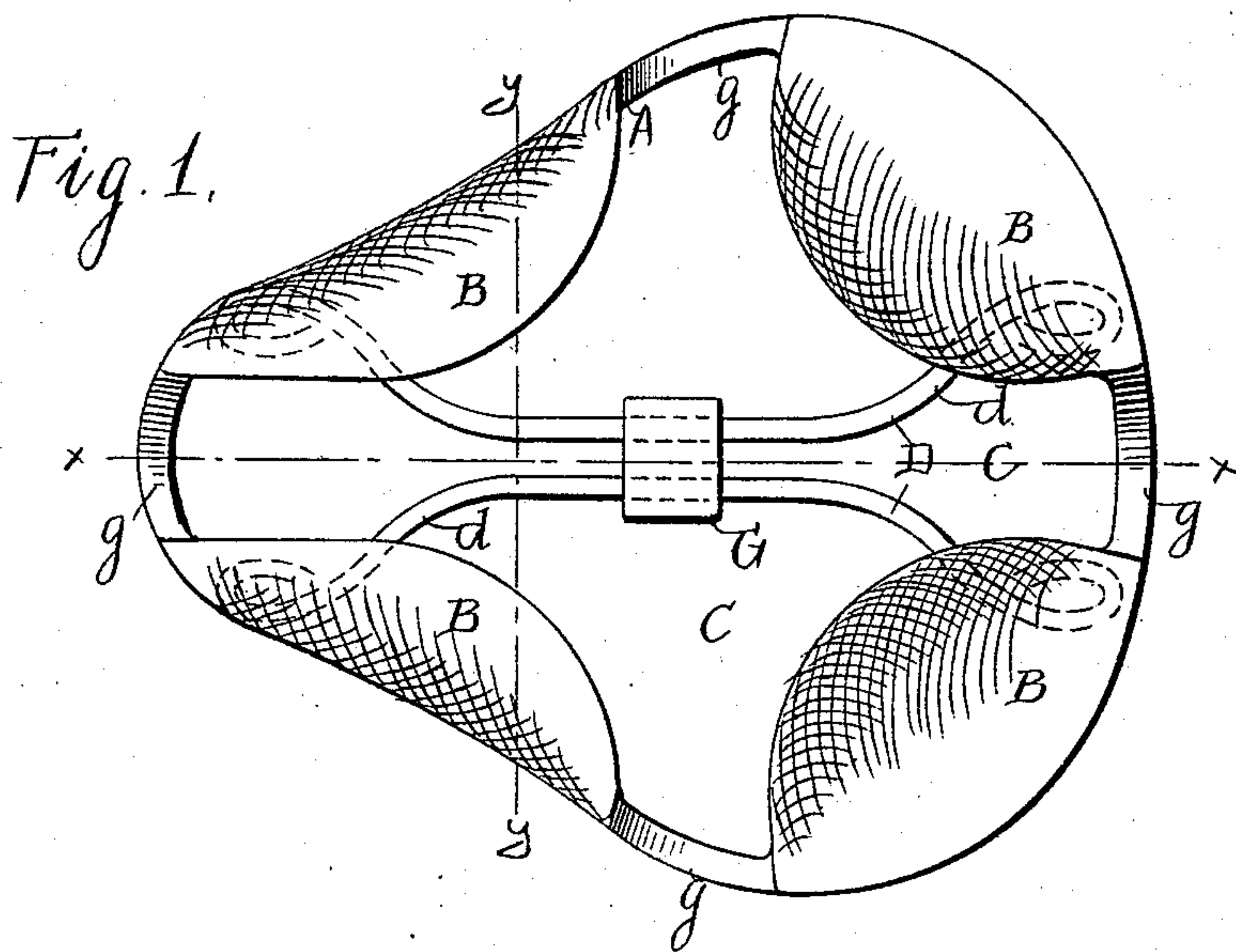
(No Model.)

2 Sheets—Sheet 1.

J. A. MALONEY.  
SADDLE FOR BICYCLES.

No. 572,432.

Patented Dec. 1, 1896.



Witnesses.

Phille Masi  
G. M. Anderson

Inventor.

J. A. Maloney  
by E. W. Anderson  
his Attorney.

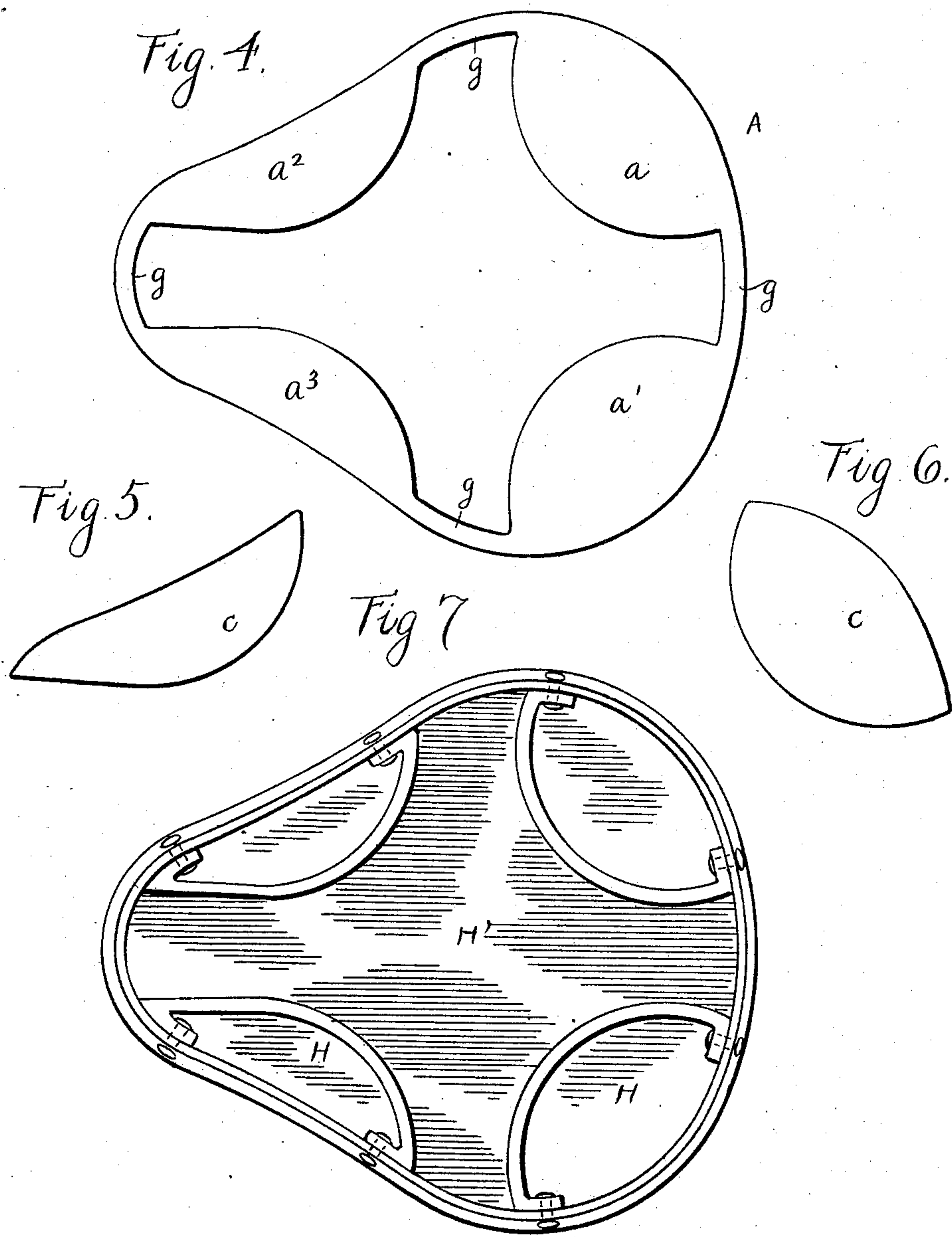
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# UNITED STATES PATENT OFFICE.

JAMES A. MALONEY, OF WASHINGTON, DISTRICT OF COLUMBIA.

## SADDLE FOR BICYCLES.

SPECIFICATION forming part of Letters Patent No. 572,432, dated December 1, 1896.

Application filed June 20, 1896. Serial No. 596,333. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES A. MALONEY, a citizen of the United States, and a resident of Washington, in the District of Columbia, have invented certain new and useful Improvements in Saddles for Bicycles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a plan view of saddle embodying the invention. Fig. 2 is a section on line  $x\ x$ , Fig. 1. Fig. 3 is a section on line  $y\ y$ , Fig. 1. Fig. 4 is a plan view of the saddle-frame. Figs. 5 and 6 are detail views of the pad or cushions, and Fig. 7 is a plan view of a modified form of frame.

This invention is designed to provide an anatomical saddle for bicycles and other vehicles, or a saddle which is constructed with especial reference to the anatomy of the rider, whereby the body of the latter is supported entirely upon those portions thereof composed of muscular tissues, all pressure upon the saddle of the osseous portions of the body being relieved.

With this object in view the invention consists in the novel construction and combination of parts, all as hereinafter described, and pointed out in the appended claims.

Referring to the accompanying drawings, the letter A designates the rigid supporting-frame of a saddle constructed in accordance with the invention. Said frame consists of a piece of metal of open saddle form. At the points  $a\ a'$  at the rear portion of this frame and upon the respective sides of its longitudinal center it is formed with broadened inwardly-inclined pad-supporting portions, which are preferably of the form best shown in Fig. 4. At corresponding points  $a^2\ a^3$  on the front portion of the frame, at each side of its forward or horn prolongation, are two other broadened portions similar to those at  $a\ a'$ , but which are inclined outwardly.

B designates the four quadrantly-arranged pads or cushions, one of which is secured upon each of the broadened portions of

the frame and which are of such shape that they leave between them a cruciform opening C whose end portions preferably extend to the outer edge of the saddle. These pads or cushions are shown as constructed with a base  $c$ , of wood or other suitable material, fitted to seat upon the enlarged portion of the frame and to which is secured a covering, usually of leather. They are filled with moss, hair, excelsior, or other suitable upholstering material, or they may be provided with inflatable air-chambers. The base  $c$  is secured to the frame by screws or other suitable means.

All the pads should be upholstered to a sufficient degree to raise them considerably above the frame and in such a manner that their upper portions shall be inclined at much the same angle as the supporting portions of the frame. The two back pads may, however, be of somewhat concave form, if desired. Between adjacent pads the reduced portions of the frame are depressed somewhat, as indicated by letters  $g$ , in order that the body may not come in contact therewith.

The longitudinal portion of the opening C is designed to be of such form as to relieve the prostate and genitalia of the rider and also the coccyx from contact with or pressure upon the saddle, while the transverse portion thereof is designed to relieve the ischia. The lateral or transverse arm of the opening, it will be seen, adapts the saddle without change or adjustment to all riders, both male and female, since, no matter what may be the pelvic width of any rider, said opening is sufficiently extended to relieve the ischia from pressure. In this manner the body rests upon the saddle only upon its muscular or fleshy portions.

The forward prolongation or horn of the saddle is, it will be seen, less extended than in the ordinary saddle. The entire front portion of the saddle is shaped in such a manner, it will be observed, as to give the greatest freedom of movement to the limbs, the downward or outward inclination of the front pads being especially adapted thereto.

The saddle above described is designed to be supported upon a suitable arrangement of springs in the usual manner. In the drawings I have shown for this support a pair of



downwardly-arched spring-rods D, whose end portions are bent, as indicated at *d*, to form supports for the saddle-frame, and are engaged with lugs *d'* thereof at the front and 5 back. The end portions of the two rods are spread somewhat, while their central portions are brought into parallel relation, where they are engaged by a suitable clamp G, designed to be secured to the saddle-post in the usual 10 manner. By adjusting said clamp on the rods or on the horizontal arm of the saddle-post the saddle may be adjusted with respect to its inclination from the horizontal and backward and forward with respect to the 15 steering-post and handle-bars.

Fig. 7 illustrates a modified form of the frame wherein, instead of the inclined pad-supporting portions *a a' a<sup>2</sup> a<sup>3</sup>*, angular pieces H are secured within the outer frame, each 20 of said pieces, with the adjacent portion of the outer frame, forming a support for one pad. They are shaped to leave a cruciform opening of the same character as that first described. H' indicates the wood bottom 25 fitted to the frame and to which the coverings of the pads are secured, and upon which the fillings therefor are supported.

Having thus described my invention, what I claim as new, and desire to secure by Letters 30 Patent, is—

1. A bicycle or other saddle having four quadrantly-arranged pads or cushions forming between them a cruciform opening, substantially as specified.
- 35 2. A bicycle or other saddle having an open rigid frame of saddle form, and four independent, quadrantly-arranged pads secured thereto and forming between them a cruciform opening which extend to the outer edge 40 of the saddle, substantially as specified.
3. A bicycle or other saddle having an open rigid frame and four independent quadrantly-arranged pads secured thereto, the two rear pads having an inward and downward 45 incline, and the two front pads a downward and outward incline substantially as specified.
4. A bicycle or other saddle having an open

rigid frame, a spring-support for said frame, and four quadrantly-arranged pads secured to said frame and having between them a cruciform opening, substantially as specified. 50

5. A bicycle or other saddle having an open rigid frame, provided with four enlarged pad-supporting portions, two at the front and two at the back, pads or cushions secured one to 55 each of said portions, and separated from each other by a cruciform opening, substantially as specified.

6. A bicycle or other saddle having an open frame, formed with four enlarged pad-supporting portions, and with reduced, depressed portions between the pad-supporting portions, substantially as specified. 60

7. A frame for bicycle and other saddles comprising a piece of metal shaped into open saddle form, and having at its rear portion two 65 enlarged downwardly and inwardly inclined pad-supporting portions, and at the front two similar portions which are inclined downward and outward, substantially as specified. 70

8. The herein-described saddle, having the open supporting-frame formed with the four enlarged quadrantly-arranged pad-supporting portions, and the reduced portions between the pad-supporting portions, the supporting-springs, and the four pads or cushions, one of which is secured to each of said enlarged portions, the two pads at the front being inclined downward and outward, and those at the rear having a downward and inward 80 inclination, substantially as specified.

9. The herein-described saddle having a rigid open frame, and pads or cushions supported on said frame, at four different points, and having between them a cruciform opening, the two pads at the front being inclined downward and outward, substantially as specified. 85

In testimony whereof I affix my signature in presence of two witnesses.

JAMES A. MALONEY.

Witnesses:

PHILIP C. MASI,

GEORGE H. PARMELEE.