

No. 701,390.

Patented June 3, 1902.

J. M. PROVOOST.

BICYCLE SADDLE.

(Application filed Dec. 13, 1900.)

(No Model.)

Fig. 1.

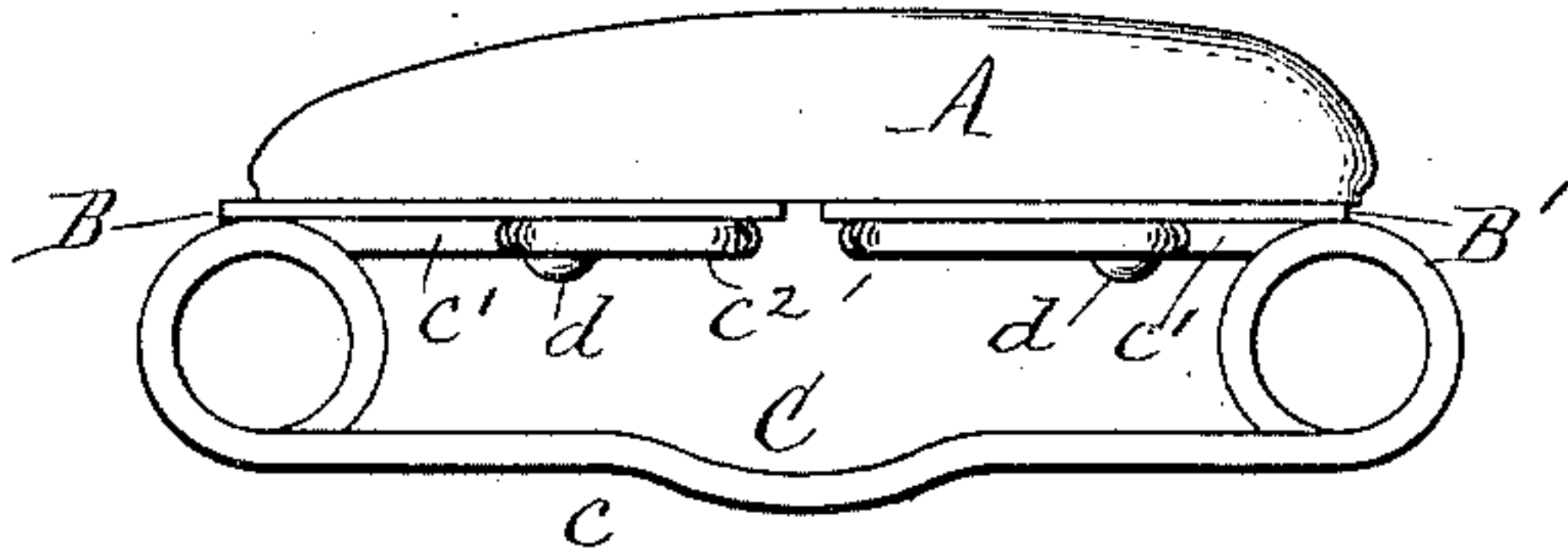


Fig. 2.

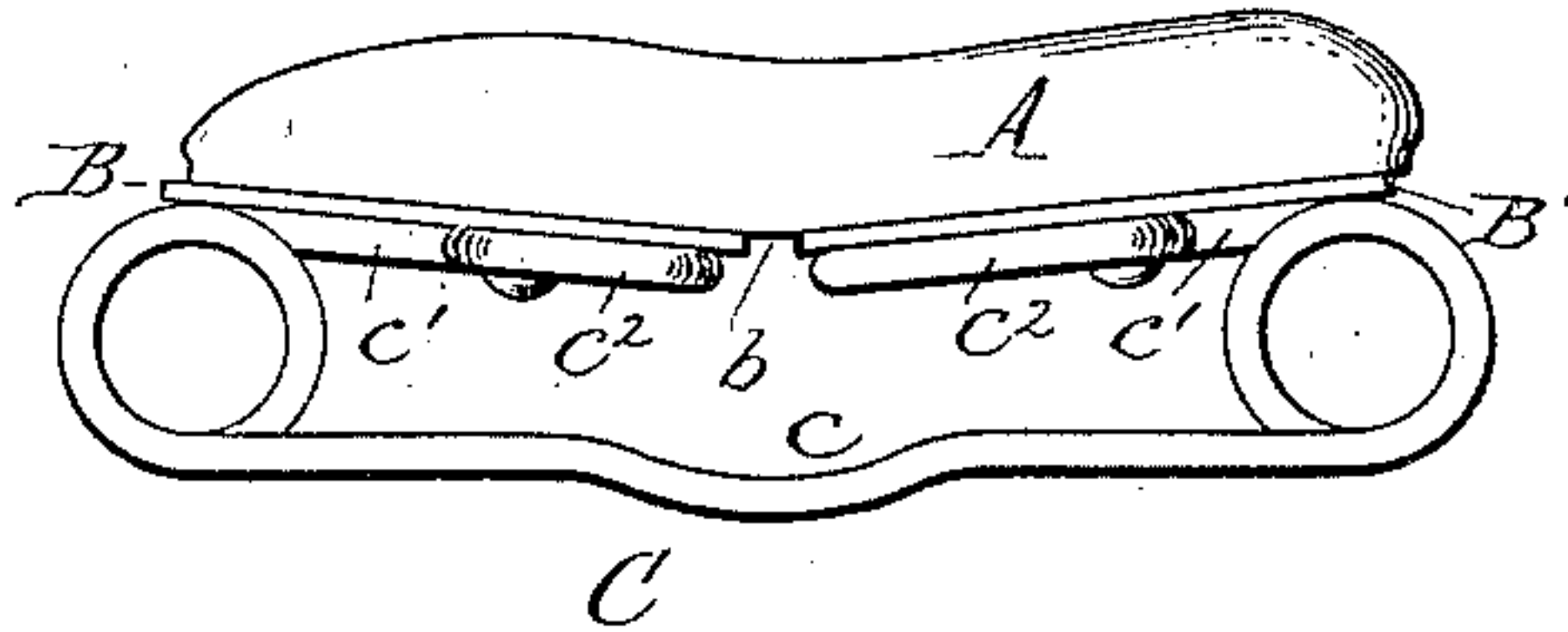


Fig. 3.

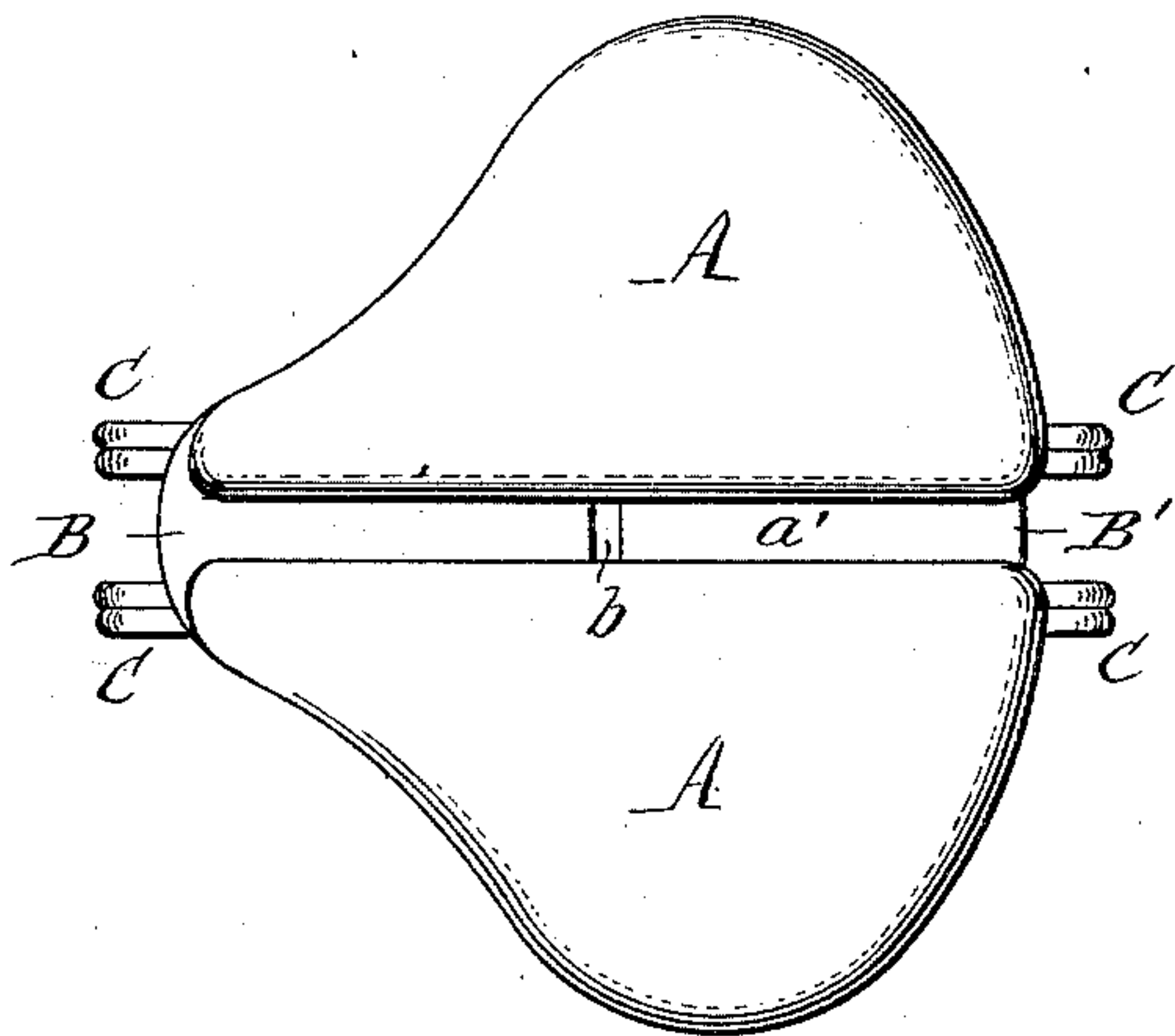


Fig. 4.

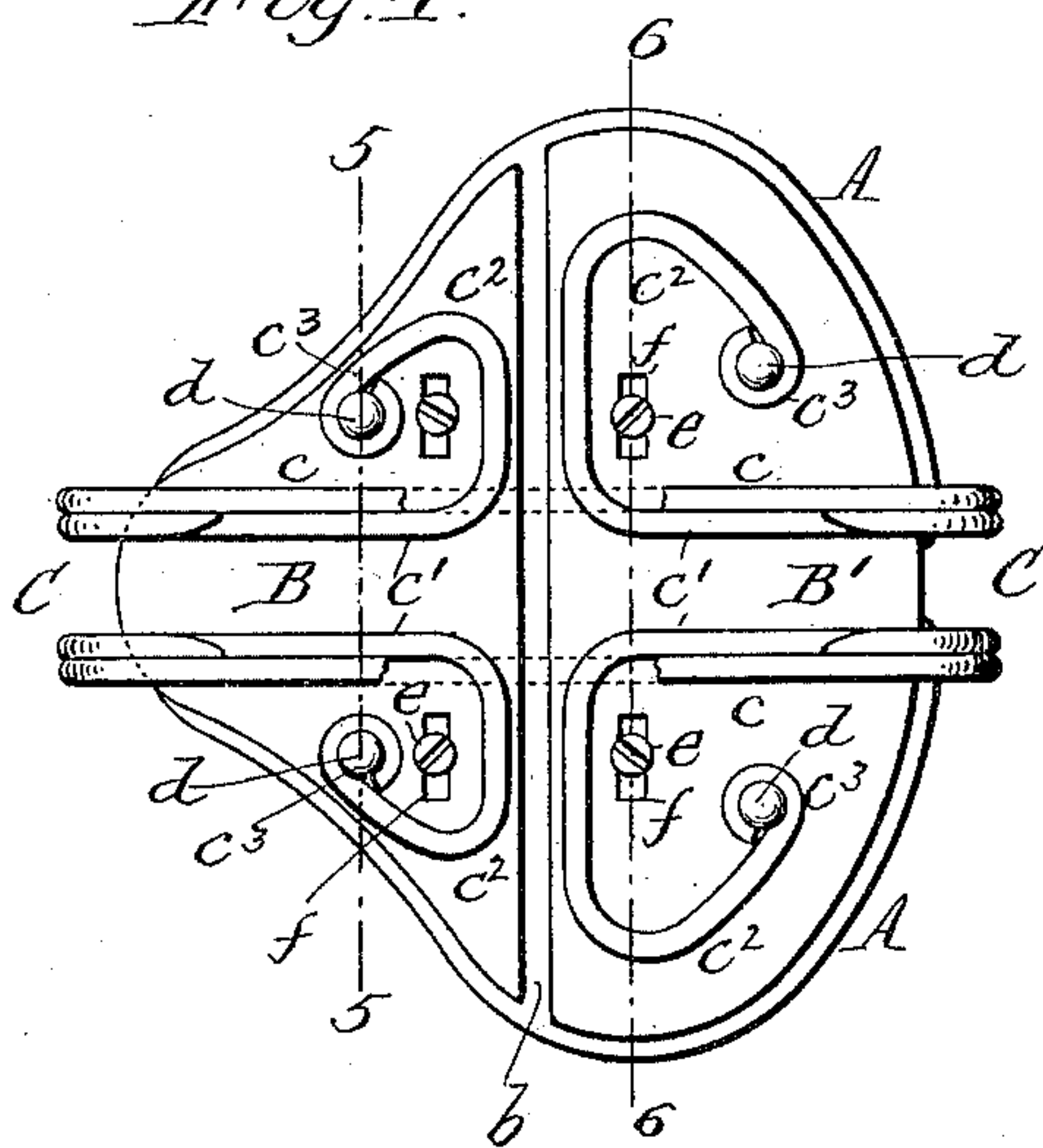


Fig. 5.

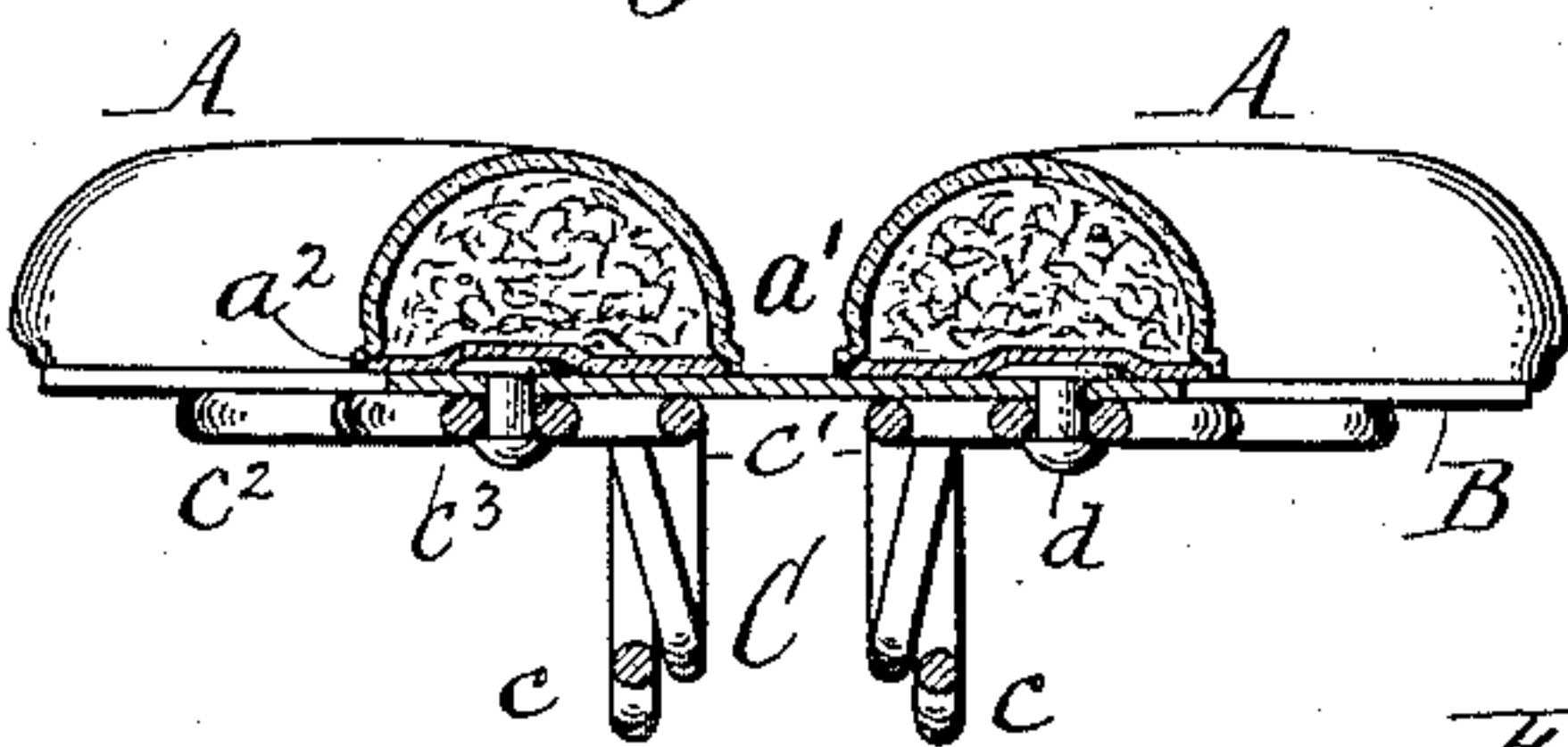


Fig. 6.

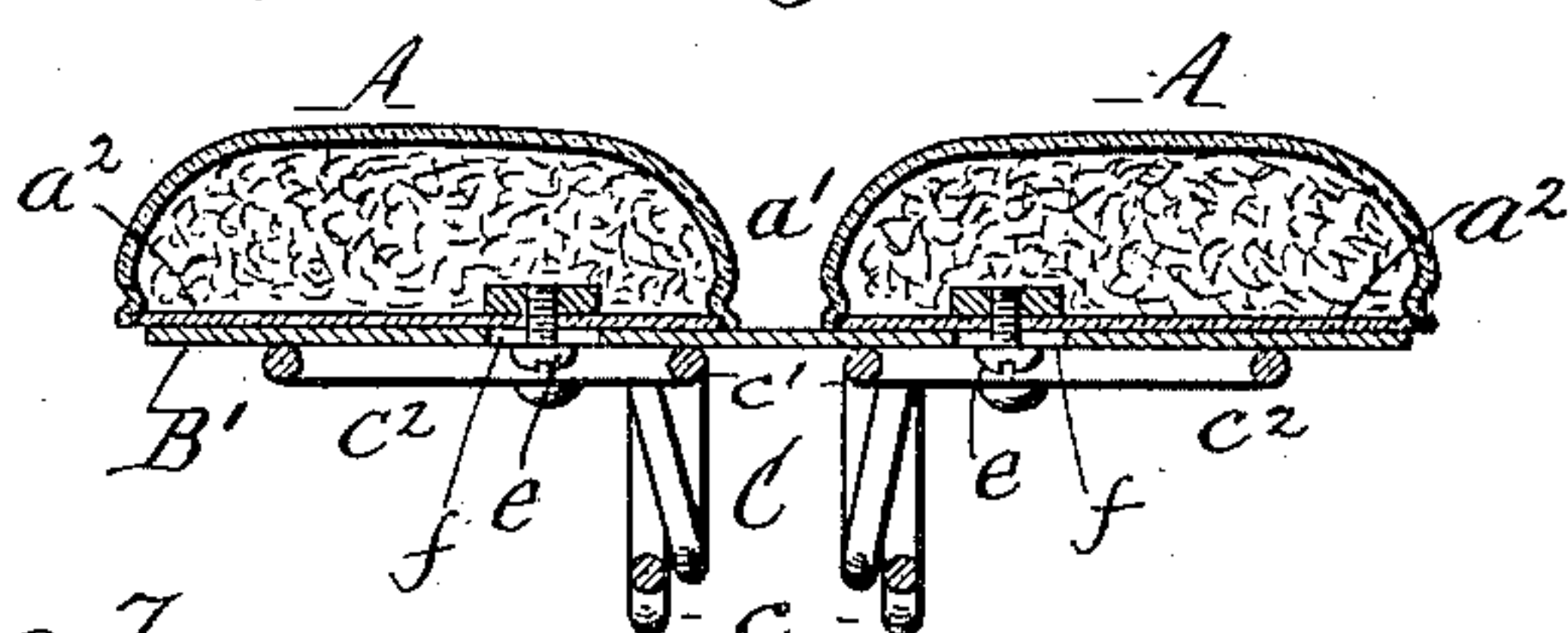
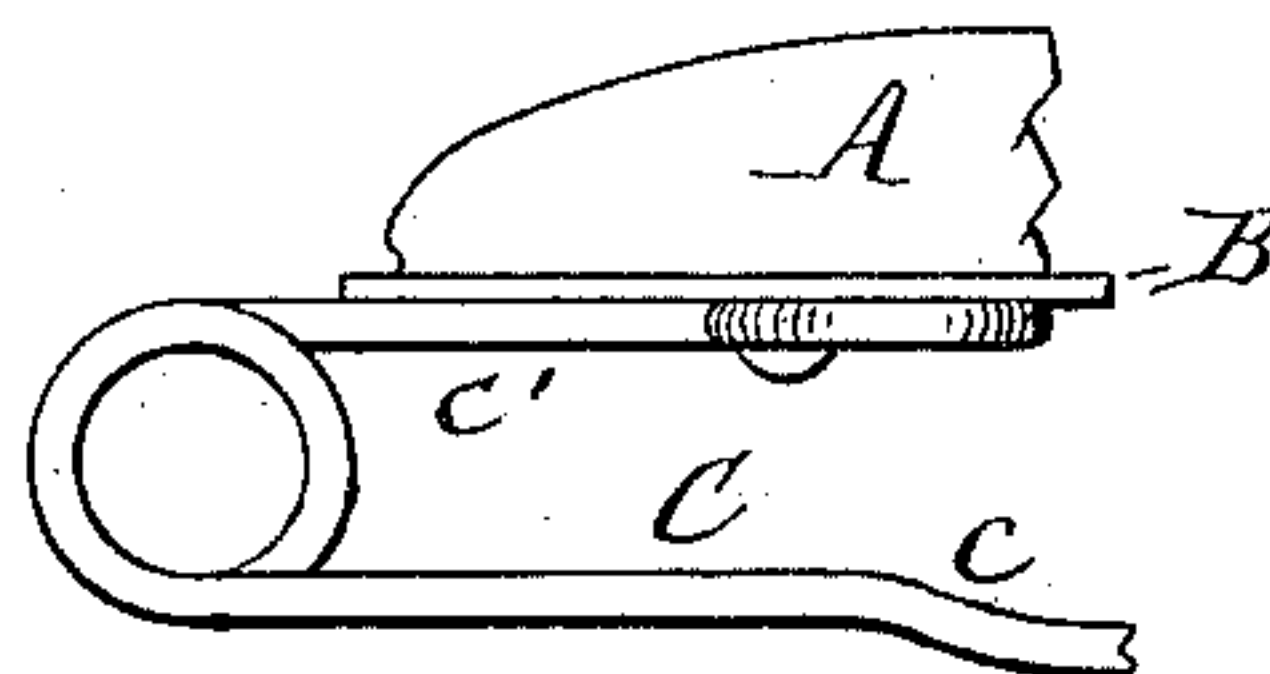


Fig. 7.



Witnesses:

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John M. Provoost. Inventor.

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# UNITED STATES PATENT OFFICE.

JOHN M. PROVOOST, OF BUFFALO, NEW YORK.

## BICYCLE-SADDLE.

SPECIFICATION forming part of Letters Patent No. 701,390, dated June 3, 1902.

Application filed December 13, 1900. Serial No. 39,594. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN M. PROVOOST, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Bicycle-Saddles, of which the following is a specification.

My invention relates to improvements in bicycle-saddles, and more particularly to that class of bicycle-saddles wherein the body portion is mounted on an elastic support.

The object of my invention is to provide a saddle that shall be flexible and at the same time firm and which shall have the capacity of cushioning the rider against the shocks and jars received by the wheel as it passes over uneven obstacles in the pavement—in short, to provide a comfortable and convenient bicycle-saddle which shall be of ready application to the bicycle and of easy adjustment to suit the convenience or comfort of the user.

In the accompanying drawings, Figure 1 is a side elevation of my improved saddle. Fig. 2 is a similar view thereof, showing the position of the metallic supporting-plates when the same are depressed from a shock. Fig. 3 is a top plan view of the saddle. Fig. 4 is a bottom plan view of the same. Figs. 5 and 6 are transverse vertical sections in lines 5 5 and 6 6, Fig. 4. Fig. 7 is a fragmentary side elevation showing a slight modification of the springs.

Like letters of reference refer to like parts in the several figures.

A represents the pads or cushions of the saddle, which are of the form commonly adopted in saddles of this type, the same having a comparatively wide rear portion and a contracted front portion and the inner edges of the pads being substantially straight or parallel. The pads are separated to a greater or less extent to leave the usual space or channel  $a'$  between the same, and each pad is provided with a flexible or pliable base  $a^2$ , preferably of leather. The pads are supported upon transverse plates B B', which in turn are supported upon springs C C. These supporting-plates are arranged one in front of the other and extend across the under side of the bases of both pads A, so as to bridge the space between the pads and sustain the pads

practically throughout their width, as shown in Fig. 4. The outer edges of the supporting-plates are formed to follow the outline of the pads, and the two supporting-plates are separated by a transverse gap or space  $b$ , so that the two plates together form a pad-support which is divided or split transversely of the saddle. The springs C are arranged lengthwise of the saddle and on opposite sides of the central space  $a'$  between the pads, so that one of the springs is arranged under the inner portion of each pad. Each of these springs is preferably bent up from a single length of spring-wire and consists of a main longitudinal lower member  $c$  and upper longitudinal branches or sections  $c'$ , which extend inwardly or toward each other from the front and rear portions of the main member  $c$  and are arranged directly over the same. The supporting-plates B B' rest upon said upper sections, and these sections extend inwardly nearly to the transverse space between the plates and are provided with branches  $c^2$ , which are bent outwardly and laterally and terminate in attaching-eyes  $c^3$ , which are secured to the under side of the supporting-plates B B' by rivets  $d$  or other fastenings, as shown in Figs. 4 and 5. By this construction the upper portion of each spring is practically divided crosswise of the saddle in line with the space between the supporting-plates B B', and the front supporting-plate is carried by the front members of the divided springs and the rear supporting-plate by the rear members thereof.

$e$  represents vertical bolts or screws which pass through transverse slots  $f$ , formed in the supporting-plates B B', and openings formed in the base of the pads, so that upon loosening these bolts the pads can be adjusted toward and from each other to suit the comfort of the rider, the bolts being again tightened after making the adjustment to hold the pads in the desired position. As the transverse plates B B' are independently supported upon the free inner portions of the upper spring branches  $c'$  they are free to yield and assume a position at an angle to each other, as shown in Fig. 2, when the rider's body descends from a jar or shock, thereby easing and absorbing the shock and relieving the rider.

The rear supporting-plate B' may be elastic or rigid, as preferred. The front plate is



preferably elastic and is best made of thin sheet-steel, so that if any considerable pressure is exerted upon the edges of the pads as the legs descend in pedaling the elastic front plate permits the same to bend or yield downwardly and enables the rider to maintain his central position on the saddle.

The front portions of the springs C may be extended beyond the pads and the supporting-plates a sufficient distance to form a horn or pommel, as shown in Fig. 7. By this construction the pommel is below the level of the supporting-surface of the saddle and the same is therefore too low to cause any injury to the rider, but at the same time extends between the legs of the rider, so as to afford the necessary bearing to guide him and prevent his slipping laterally on the saddle.

While I have herein shown my saddle in combination with certain pads or coverings therefor, I do not intend to limit my claims to a saddle with pads of this or any other form, for I may use the saddle with or without pads or I may simply employ an elastic or flexible cover over the metal plates. I may also secure the pads to but one of said plates rather than to both of the plates, as I have illustrated the same, in which case I would prefer to secure the pad or pads to the rear plate; but it or they may be secured to one or the other or both.

I claim as my invention--

1. A bicycle-saddle the seat or body portion of which consists of plates separated or divided transversely of the saddle and which together form the support for carrying the weight of the rider, in combination with means to support said plates independently and elastically from a common support, substantially as set forth.

2. A bicycle-saddle, the seat or body portion of which consists of two plates separated or divided transversely of the saddle which together form the support for carrying the weight of the rider, in combination with a suitable spring or springs divided at one point,

one of said plates being secured to said spring or springs at one end of said division and the other plate at the other end of said division, and means to secure said spring or springs to a saddle-post, substantially as set forth.

3. A bicycle-saddle, the seat or body portion of which consists of two plates separated or divided transversely of the saddle which together form the support for carrying the weight of the rider, in combination with a suitable spring or springs divided at one point, one of said plates being secured to the spring or springs at one end of said division and the other plate at the other end of said division, means to secure said spring or springs to the saddle-posts at or about opposite the point of said division, and two pads which together are adapted to fit over said plates, each spanning both plates and each being adjustably mounted thereon, substantially as set forth.

4. In a bicycle-saddle, the combination of a longitudinal supporting-spring having its upper portion divided transversely into front and rear members, transverse front and rear plates mounted on the front and rear members of said spring, respectively, and flexible pads mounted side by side on said plates and each resting upon both of said plates, substantially as set forth.

5. In a bicycle-saddle, the combination of a pair of transverse supporting-plates arranged one in front of the other, flexible pads mounted on said plates, and a pair of longitudinal supporting-springs for said plates, each having a main lower member and a divided upper member, the sections of which are provided at their inner ends with outwardly and laterally extending branches which are secured to the under side of said transverse plates, substantially as set forth.

Witness my hand this 30th day of November, 1900.

JOHN M. PROVOOST.

Witnesses:

JNO. J. BONNER,  
C. B. HORNBECK.