(No Model.)

H. A. RUSCH, Dec'd.

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BICYCLE SADDLE.

No. 606,031. Patented June 21, 1898.

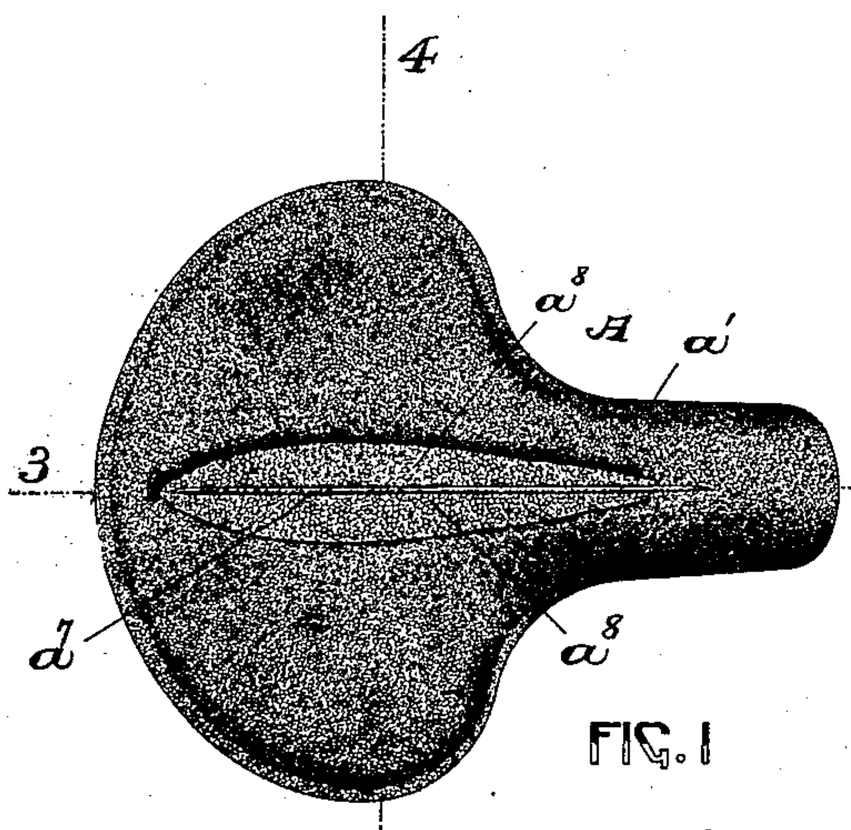

FIG. 1

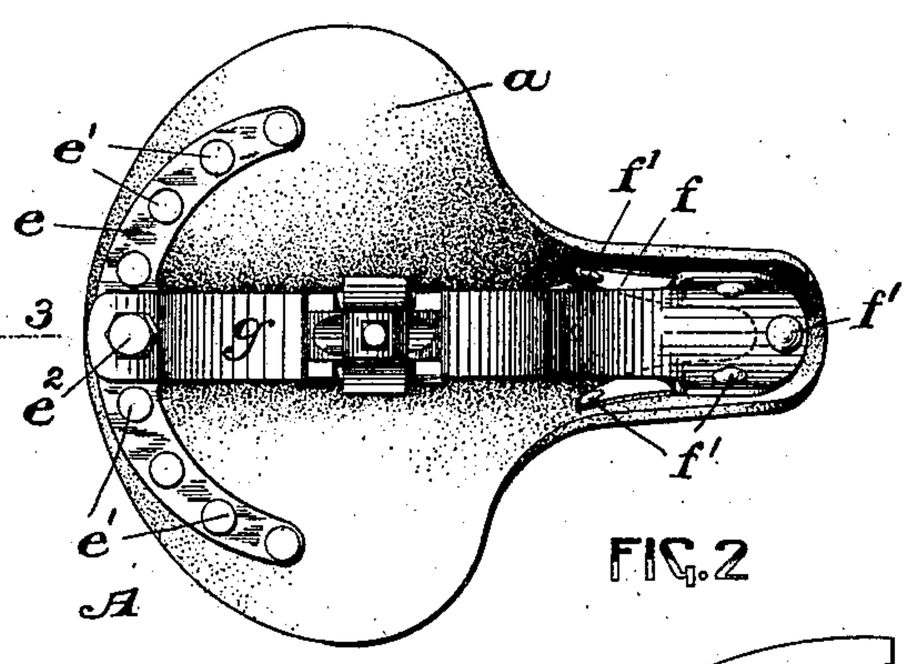

FIG. 2

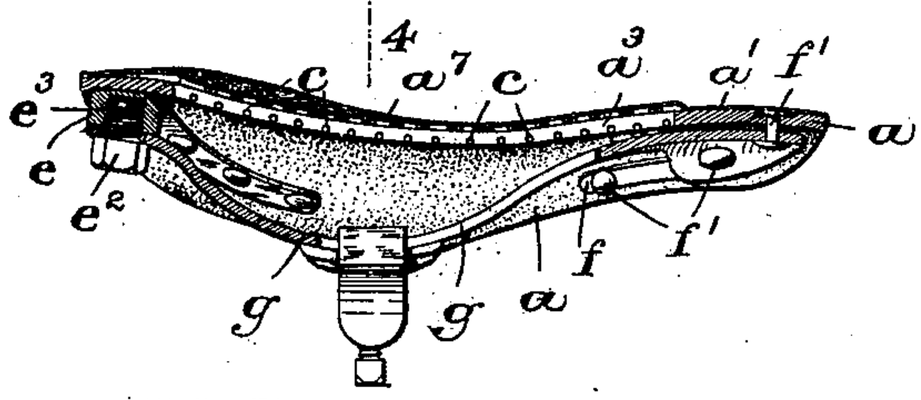

FIG. 3

FIG. 7

FIG. 8

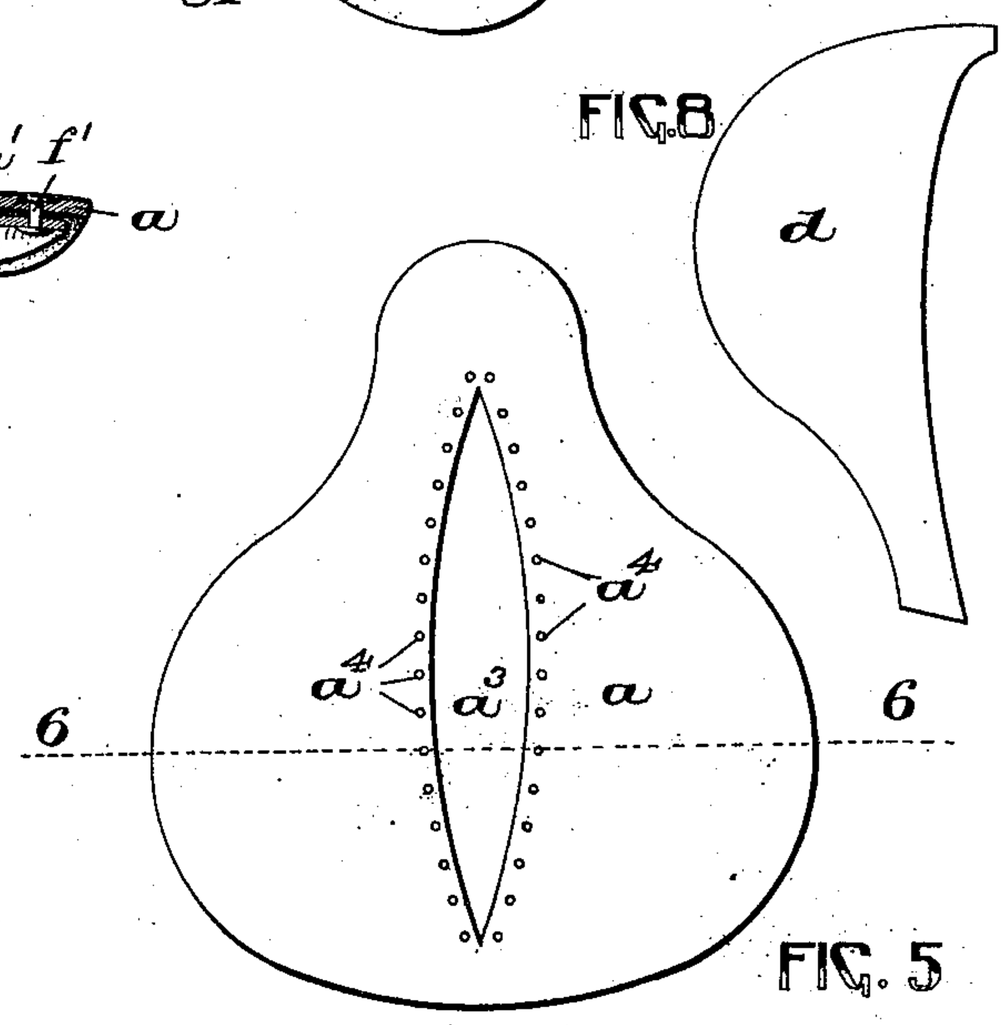

FIG. 5

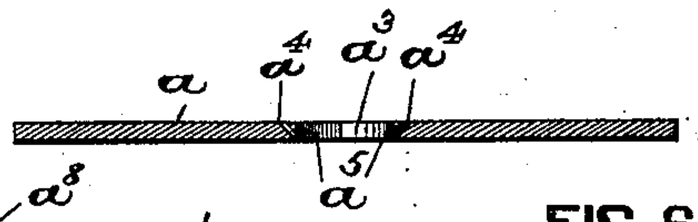

FIG. 6

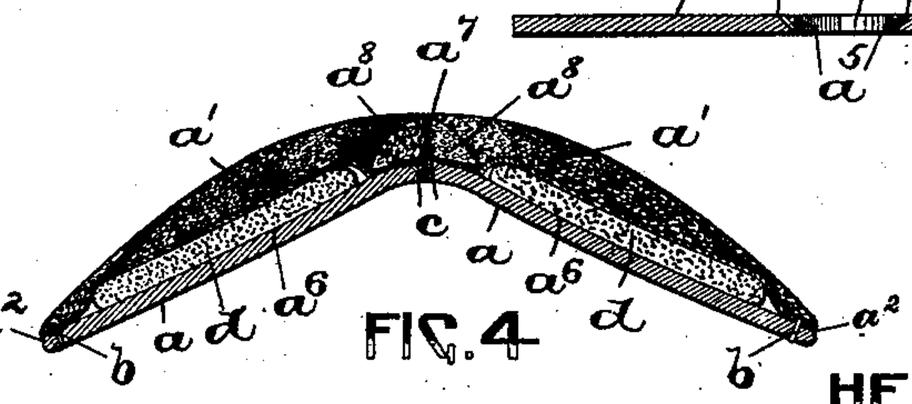

FIG. 4

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UNITED STATES PATENT OFFICE.

HENRY A. RUSCH, OF NEWARK, NEW JERSEY, ASSIGNOR OF ONE-HALF TO NICHOLAS SCHRODER, OF BROOKLYN, NEW YORK; SARAH E. RUSCH ADMINISTRATRIX OF SAID HENRY A. RUSCH, DECEASED.

BICYCLE-SADDLE.

SPECIFICATION forming part of Letters Patent No. 606,031, dated June 21, 1898.

Application filed September 22, 1896. Serial No. 606,636. (No model.)

To all whom it may concern:

Be it known that I, HENRY A. RUSCH, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Bicycle-Saddles; 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.

This invention has for its primary object to provide a novel construction of saddle for velocipedes in which the seat is made from stiff leather or other material of a similar nature, the construction of the saddle-seat being such that it is forced into the proper shape of a saddle without the application of hydraulic or other pressure when the edges of a central opening in the seat portion are drawn together and are secured by stitches, substantially as will be hereinafter set forth, and with the spring employed has an easy and natural motion, without the objectionable sagging of the seat in the center, thereby resulting in a seat which readily yields to the formation of the body of the rider and to the various movements of the limbs.

The invention therefore consists in the novel construction of saddle to be hereinafter fully described, and finally embodied in the clauses of the claim.

By the construction of the saddle-seat a spring can be employed, which may be secured in fixed positions at its ends to the front and back of the seat portion, which is thereby caused to act in a cushion-like manner, as will be fully understood from an inspection of the drawings and the accompanying specification.

The invention is clearly illustrated in the accompanying drawings, in which—

Figure 1 is a top view, and Fig. 2 a back view, of my novel construction of bicycle-saddle; and Fig. 3 is a longitudinal vertical section of the same, taken on line 3 3 in Fig. 1. Fig. 4 is a vertical cross-section taken on line 4 4 in said Fig. 1. Fig. 5 is a diagrammatic view of a blank of the material constituting the main body or seat portion of the saddle; and Fig. 6 is a cross-section of the same, taken on line 6 6 in Fig. 5. Fig. 7 is a perspective view of the main body portion of the saddle, and Fig. 8 is a view of one of the pads to be used in connection with the present construction of saddle.

Similar letters of reference are employed in all of the above-described views to indicate like parts.

In said drawings, A indicates the complete saddle; a, the main body or seat portion of the same, which is made from tough leather or any other suitable material, and a' is a leather or other like top cover adapted to be secured to the edge a^2 of the main body or seat portion of the saddle by the threads b, as clearly indicated in Fig. 4; but it may be otherwise secured thereto, as will be evident.

In constructing the saddle a blank of the contour illustrated in Fig. 5 is cut from the material of which the saddle-seat is to be made, usually a piece of sole or other tough leather, and the same is provided in its middle with a longitudinal opening a^3 of the segmental configuration substantially as shown. Around the edges of said opening a^3 are small perforations, as a^4, which, as will be seen from Fig. 6, are formed at an angle to the longitudinal axis of said blank and terminate in the sides a^5 of said opening a^3, substantially as shown. A waxed thread or cord c is then passed through said perforations a^4 and tightly laced, as indicated in Fig. 7, whereby the blank illustrated in said Fig. 5 is caused to be raised in the center and assume the shape of a saddle-seat, as indicated in Fig. 7, and owing to the stiffness of the material used said seat will retain said shape, and that, too, without the use of dies and great pressure to form the seat into its proper shape.

As will be seen from Fig. 4, I have arranged upon the two surfaces a^6 of the main body portion a of the saddle-seat a pair of pads d, of felt or any other suitable material, which are of the shape illustrated in Fig. 8.

The top piece or cover a', which corresponds in its outline to that of the main por-

tion a, is provided with a centrally-arranged opening corresponding to the contour of the opening a^3 in said piece a, the edges of said opening in the piece a' being stitched to a welt a^7, whereby said top piece assumes the shape illustrated in Fig. 1. On both sides of said welt a^7 the said top piece or cover a' has been depressed, as at a^8, to form a recessed portion or indentation in the middle of the complete saddle A in order to prevent discomfort and injury to the rider and at the same time providing a seat which when depressed in the middle retains its normally-raised position, caused by the action of the laced cord or thread c, which draws the two halves of the seat together in the manner hereinabove stated and as clearly illustrated in Figs. 4 and 7.

At the back of the body portion or seat a and on its under side is secured, by means of rivets e', a cantle e, and on the under side, near the front or pommel of said seat or body portion a, I have secured, by means of the rivets or pins f', a pommel-plate f, as clearly illustrated in Fig. 2. A spring g, of any suitable construction, is fixed at one of its ends, by means of the said rivets f', to said plate f, and at its other end the spring is fixed by means of a bolt e^2, which is screwed into a screw-threaded socket e^3 in the cantle e, or it may be secured thereto in any other well-known manner.

Of course it will be evident that I may employ any other suitable construction of spring.

From an inspection of Figs. 2 and 3 it will be seen that the cantle e is secured directly upon the under side of the leather seat portion a, the rivets e' passing through the holes in the cantle and said portion a and then being clenched on the opposite side of the portion a, where said clenched ends of the rivets are covered by the pads d and the top cover a', thus providing a saddle-seat in which there are no rivet-heads exposed to view either at the top or the rear end of the saddle, as in the construction of saddles as heretofore made. When the cantle is secured in this manner, with the rear end of the resilient saddle portion a and its cover a' extending entirely beyond and not along one side of the cantle, all pressure is in a downward direction, and the cord c, which is employed to close the opening a^3, will act exactly like a spring in drawing the side parts of the portion a together in the peculiar manner hereinabove stated, and the rivets cannot be pulled loose. Although the seat portion a will have sufficient elasticity to produce a very comfortable saddle-seat, which will conform itself to the different forms of different persons seated thereupon, there will be no sagging or stretching of the saddle-seat, and hence the use of take-up screws in connection with the spring g will be entirely avoided.

From the above description it will be seen that I have devised a very simple construction and a comfortable and easy-riding saddle, and on account of the construction of the seat portion a it cannot sag in the middle, resulting in a cushion-like seat which prevents any chafing or other injury to the limbs or other parts of the body.

All motion due to any weight upon the saddle results in a downward action without any forward or rearward movement, whereby all oscillatory motion is overcome and a practical saddle for bicycles and the like has been constructed.

Having thus described my invention, what I claim is—

1. The improved saddle for a bicycle or the like, consisting, of a main body portion or plate a formed from a blank of resilient and flexible material, having the outline of a saddle-seat, supported at the rear by a cantle secured directly to the under surface of said plate and at the front by a pommel-plate, said plate a having a longitudinally-arranged opening of a segmental contour, a thread or cord stitched through the opposite edges of said opening, whereby said blank or plate a is drawn into shape and formed with a longitudinally-arranged and centrally-raised portion having a spring-like action when depressed, and also with downwardly-flaring sides adjacent thereto, and a spring secured at its ends directly to said cantle and the pommel-plate, substantially as and for the purposes set forth.

2. The improved saddle for a bicycle or the like, consisting, of a main body portion or plate a formed from a blank of resilient and flexible material, having the outline of a saddle-seat, supported at the rear by a cantle secured directly to the under surface of said plate and at the front by a pommel-plate, said plate a having a longitudinally-arranged opening of a segmental contour, a thread or cord stitched through the opposite edges of said opening, whereby said blank or plate a is drawn into shape and formed with a longitudinally-arranged and centrally-raised portion having a spring-like action when depressed; and also with downwardly-flaring sides adjacent thereto, a spring secured at its ends directly to said cantle and the pommel-plate, and a top cover a' secured upon the top of said resilient plate a to cover said central row of stitching, substantially as and for the purposes set forth.

3. The improved saddle for a bicycle or the like, consisting, of a main body portion or plate a formed from a blank of resilient and flexible material, having the outline of a saddle-seat, supported at the rear by a cantle secured directly to the under surface of said plate and at the front by a pommel-plate, said plate a having a longitudinally-arranged opening of a segmental contour, a thread or cord stitched through the opposite edges of said opening, whereby said blank or plate a is drawn into shape and formed with a longitudinally-arranged and centrally-raised portion having a spring-like action when de-

pressed, and also with downwardly-flaring sides adjacent thereto, a spring secured at its ends directly to said cantle and the pommel-plate, and a top cover a' secured upon the top of said resilient plate a, to cover said central row of stitching, said cover a' having a depression a^8 to form a recessed portion or indentation, substantially as and for the purposes set forth.

4. The improved saddle for a bicycle or the like, consisting, of a main body portion or plate a formed from a blank of resilient and flexible material, having the outline of a saddle-seat, supported at the rear by a cantle secured directly to the under surface of said plate and at the front by a pommel-plate, said plate a having a longitudinally-arranged opening a^3 of a segmental contour, and having small holes a^4 contiguous to the opposite edges thereof, said holes being obliquely placed and having their inner ends terminating in the sides a^5 of said opening, a thread or cord passed through said holes and drawn tight to close said opening a^3, whereby said blank or plate a is drawn into shape and formed with a longitudinally and centrally raised portion having a spring-like action when depressed, and also with downwardly-flaring sides adjacent thereto, and a spring secured at its ends directly to the cantle and said pommel-plate, substantially as and for the purposes set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 18th day of September, 1896.

HENRY A. RUSCH.

Witnesses:
FREDK. C. FRAENTZEL,
WM. H. CAMFIELD, Jr.