

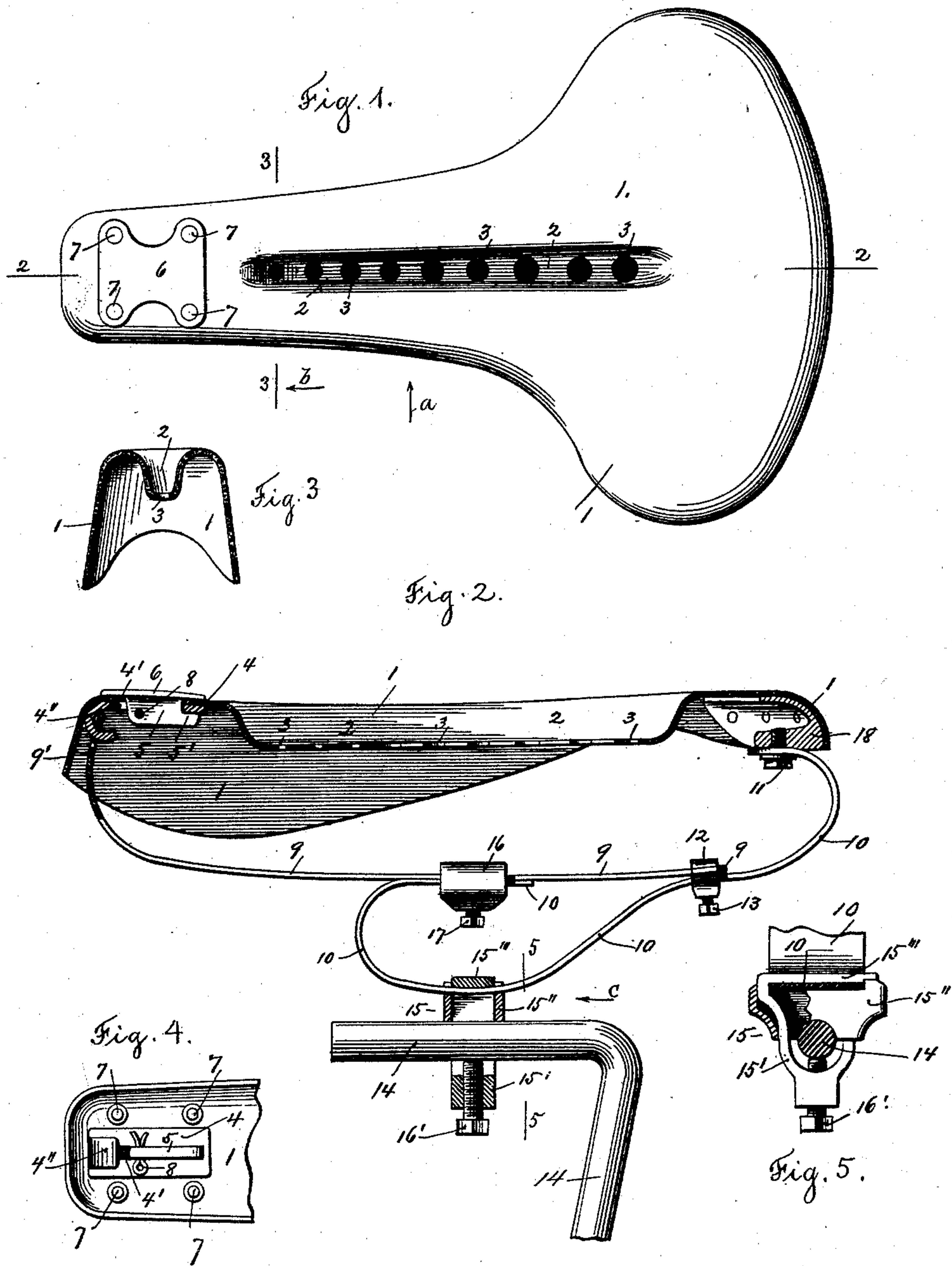
(No Model.)

2 Sheets—Sheet 1.

J. A. HUNT.  
VELOCIPEDE SADDLE.

No. 483,559.

Patented Oct. 4, 1892.



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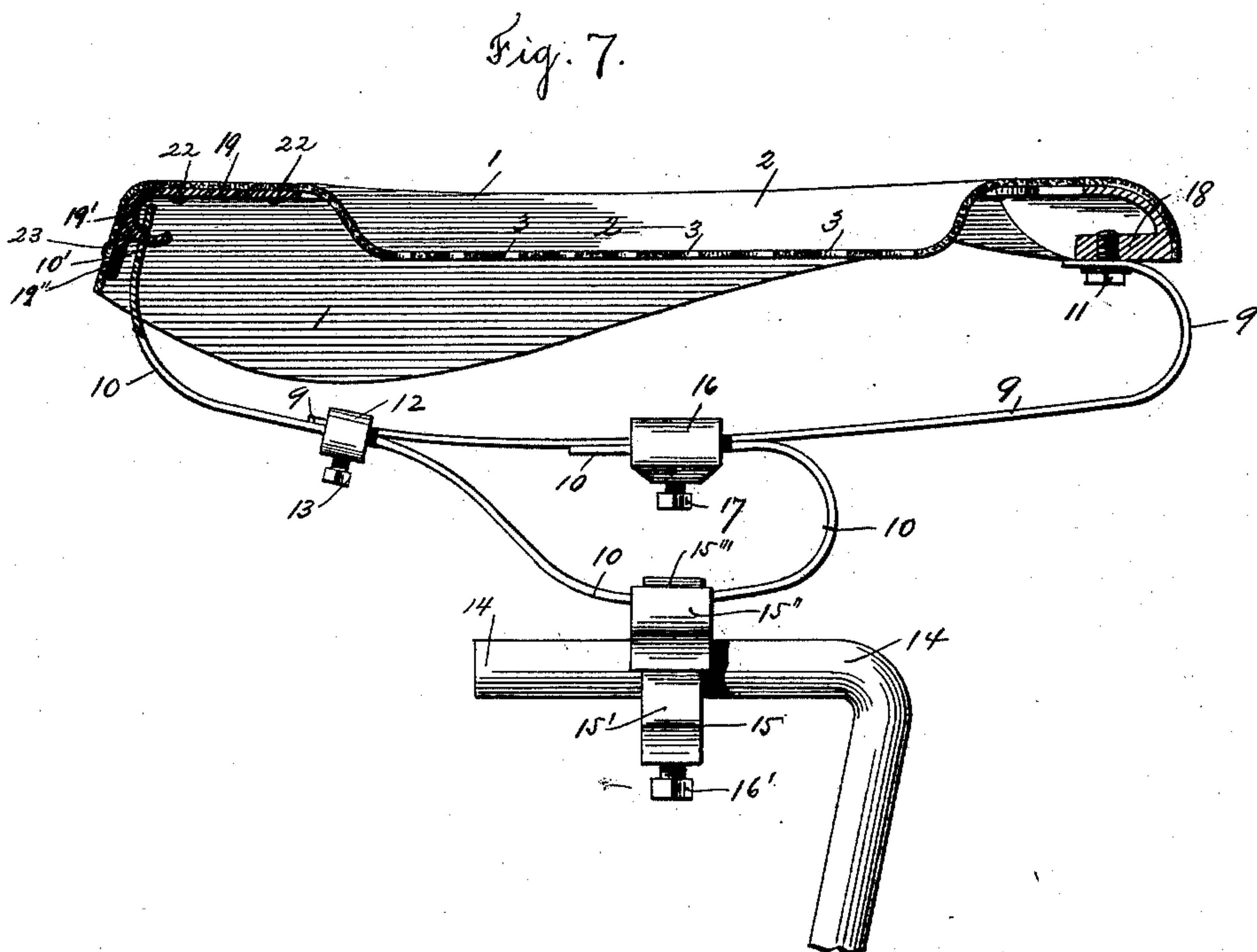
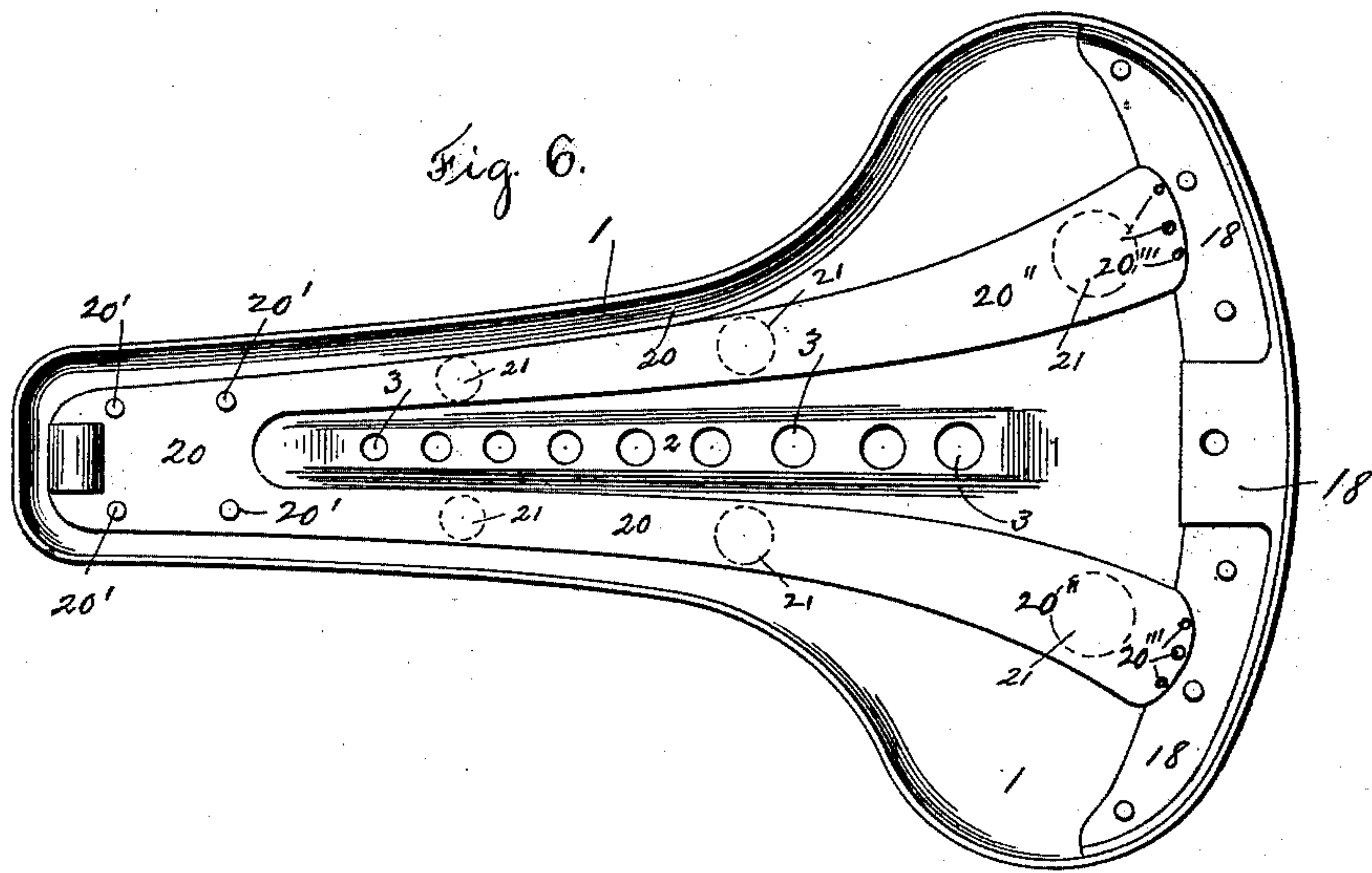
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2 Sheets—Sheet 2.

J. A. HUNT.  
VELOCIPEDE SADDLE.

No. 483,559.

Patented Oct. 4, 1892.



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# UNITED STATES PATENT OFFICE.

JONATHAN A. HUNT, OF WESTBOROUGH, MASSACHUSETTS.

## VELOCIPED-SADDLE.

SPECIFICATION forming part of Letters Patent No. 483,559, dated October 4, 1892.

Application filed March 16, 1892. Serial No. 425,158. (No model.)

*To all whom it may concern:*

Be it known that I, JONATHAN A. HUNT, a citizen of the United States, residing at Westborough, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Velocipede-Saddles; and I do hereby declare that the following is a full, clear, and exact description thereof, which, in connection with the drawings making a part of this specification, will enable others skilled in the art to which my invention belongs to make and use the same.

My invention relates to saddles for velocipedes or bicycles; and its object is to improve upon the construction of the saddles as now ordinarily made.

My invention consists in the improved construction of the saddle proper and of the supporting-spring and connecting devices, as will be hereinafter fully described, and the nature thereof indicated by the claims.

Referring to the drawings, Figure 1 is a plan view of a saddle of my improved construction. Fig. 2 is a central vertical section on line 2 2, Fig. 1, looking in the direction of arrow *a*, same figure, showing the saddle-support and the spring. Fig. 3 is a cross-section on line 3 3, Fig. 1, looking in the direction of arrow *b*, same figure. Fig. 4 is a detail of the under side of the front portion of the saddle, showing an improved construction of the hook attachment for the spring. Fig. 5 is a cross-section on line 5 5, Fig. 2, looking in the direction of arrow *c*, same figure, showing the clamping device partially broken away. Fig. 6 is a view of the under side of the saddle shown in Figs. 1 and 2, showing a modified construction thereof; and Fig. 7 corresponds to Fig. 2 and shows a modified construction of the spring shown in Fig. 2.

In the accompanying drawings, 1 is the saddle, preferably made of one thickness of leather and of the ordinary pear shape. The central portion of the saddle, instead of being cut out to form a longitudinal slot therein in the ordinary way, is depressed by means of a suitable die or otherwise below the top surface of the saddle, as shown at 2 in the drawings, and forms a convex surface on the under side of the saddle and leaves one central longitudinal depression 2 in the upper surface of the saddle, having substantially-straight sides and curved edges, as shown in Fig. 3. The bottom convex surface of said depression has holes 3 therein for the purpose of ventilation. In-

stead of separate holes, as shown, a continuous slot or opening may be made in the bottom side of said depression, if desired.

By depressing the central longitudinal portion of the saddle below the upper surface thereof instead of cutting out the central longitudinal portion thereof to form a slot therein, as is customary, I form one longitudinal opening in the upper surface of the saddle, having smooth and rounded edges, as shown in Figs. 1 and 2 of the drawings, thus preventing any unpleasant chafing or rubbing, which is liable to occur in the ordinary construction of a saddle with the raw edge of the leather exposed, and at the same time by not removing the material and by depressing the same I stiffen the saddle and render it less yielding and less liable to give and stretch. The depression is of such a depth and the bottom of it is of such a width that when the upper portions of the side walls are forced together, as is sometimes done when the seat is being used, and especially at the front end of the opening, where the side walls are subject to inward pressure from the person of the rider, the lower portion of the depression will not be closed, but will always remain open, and thus afford a free circulation of air throughout the entire length of the depression.

I preferably combine with the front end of the saddle to form a means of attachment for the end of the spring a metal plate 4, which extends upon the under side of the saddle at the front end thereof and has a longitudinal slot 4' therein and a bent or hooked end 4''. (See Figs. 2 and 4.) The plate 4 is secured to the under side of the saddle by means of a projection or tongue 5 upon the under side of the plate 6. Said plate 6 is secured upon the upper side of the saddle 1, at the front end thereof, by rivets 7. The tongue or projection 5, on the lower side of the plate and made integral therewith extends through a slot in the saddle proper and through the slot 4' in the hook-plate 4 and is retained therein by a pin 8 or otherwise, as clearly shown in Figs. 2 and 4. The rear projecting end 5' of the tongue 5 is adapted to lap over and bear against the rear part of the hook-plate 4. It will thus be seen that the hook-plate 4 is readily detached for any purpose from the plate 6 by simply withdrawing the pin 8 and moving back the plate 4 to al-



low the tongue 5 to pass through the slot 4' in said plate, and said hook-plate 4 is quickly attached to the supporting-plate 6 by inserting the tongue 5 through the slot 4' in said plate 4 and drawing the hook-plate forward and inserting the pin 8.

The hook attachment shown in Figs. 2 and 4 for the front end of the spring-support is more particularly adapted for pneumatic saddles, in which the hook attachment is secured to the lower section of the saddle. The plate 6 is secured upon the upper side of the lower section of the saddle before the upper and lower sections of the saddle are combined together, and then when the upper and lower sections of the saddle are combined together the plate 6 will be concealed from view and the tongue 5 will extend down from the lower side of the lower section of the saddle and be adapted to be attached to the hook which is secured to the front end of the spring-support. It will be observed by referring to Fig. 2 that the spring action of the spring 9, engaging the hook 4'' at its upper end, will hold the plate 4 in its forward position, with its end bearing against the tongue 5 on the plate 6.

The spring-support for the saddle 1 consists of two flat metal springs 9 and 10. The spring 9 is curved upwardly at its front end and provided with an opening 9' therein, which receives the hook 4'' on the plate 4. From the curved portion at the front end of the spring 9 the spring extends backward in substantially a straight line. (See Fig. 2.) The spring 10 is secured at its upper end by a bolt 11 or otherwise to the frame 18 at the rear end of the saddle and from that point is bent or curved with substantially the same degree of curvature as the front end of the spring 9 until it reaches the rear end of the spring 9. The rear end of the spring 9 is preferably attached to the spring 10 at this point by a clamp 12, of any ordinary construction, which is adjusted by means of a set-screw 13. From the clamp 12 the spring 10 is curved downwardly and forwardly toward the front end of the saddle to a point nearly under the middle point of the saddle, and at this point the spring 10 is clamped to the saddle-support 14 by a clamp 15, the construction of which will be more particularly described hereinafter. From the point where the spring 10 is clamped to the saddle-support 14 it extends upwardly and rearwardly below the spring 9, and the free end of said spring 10 is clamped to the spring 9 by a clamp 16, of any ordinary construction, provided with a set-screw 17 to allow the clamp to be adjusted. By means of the clamp 16 the springs 9 and 10, forming the spring-support for the saddle proper, are secured together. The supplemental clamp 12 is for the purpose of increasing the tension of the springs 9 and 10 to stretch the saddle proper longitudinally. Said clamp 12 may be dispensed with, if desired.

The clamp 15 for securing the spring-sup-

port of the saddle to the saddle-support is preferably constructed as shown in the drawings, Figs. 2, 5, and 7, and consists of the yoke-piece 15' and the jacket 15'', supported and adapted to slide on the outer side thereof. The spring 10 passes between the under surface of the top bar 15''' of the yoke 15 and the top surface of the jacket 15'', which is preferably notched, as shown in Fig. 5, and the lower surface of said jacket is rounded to receive the saddle-support 14. A set-screw 16' extends through a threaded hole in the lower end of the yoke 15' and bears at its inner end on the lower side of the saddle-support 14. By turning in the set-screw 16' the yoke 15' is drawn down into the jacket 15'', compressing and binding rigidly the spring 10 between the bar 15''' of the yoke 15' and the upper notched surface of the jacket 15'', all as will be clearly understood by referring to Figs. 2 and 5.

In Fig. 7 I have shown a modified construction of the spring-support of the saddle. The position of the springs 9 and 10 shown in Fig. 2 is reversed, the spring 9 being attached at its upper end to the rear portion of the saddle and the spring 10 being attached at its upper end to the front portion of the saddle. The shape of the springs and the manner of combining the same together is substantially the same.

I have shown in Fig. 7 the hook attachment for the front end of the spring-support made in one piece and consisting of a plate 19, secured by rivets 22 to the under side of the saddle-seat at its front end. The plate 19 has a hook 19' thereon to enter the slot 10' in the spring 10. Said plate 19 has also a downward projection or lip 19'' at its front end, which extends below the hook 19' and is secured by a rivet 23 to the front flap or portion of the saddle-seat. By means of the lip 19'' on the hook-plate 19 the leather or covering of the saddle-seat is held firmly at the front end of the saddle.

I find in practice that my improved spring-support for the saddle, consisting of the springs 9 and 10, gives substantially the same results whether the springs are arranged as shown in Fig. 2 or as shown in Fig. 7.

I have shown in Fig. 6 a modified construction of the hook-plate secured upon the under side of the saddle, with the hook at the front end to be connected with the spring-support. In said Fig. 6 I have shown a plate 20 secured by rivets 20' at its front hooked end to the front end of the saddle and extending from the front end of the saddle to the rear end thereof and divided along its central portion to allow the central depressed portion 2 of the saddle to extend between the divided arms of said plate. The rear ends 20'' of said plate 20 are attached by rivets 20''' or otherwise to the frame 18 at the rear of the saddle. If desired, the ends 20'' of the plate 20 may be adjustably attached by clamps or otherwise to the frame 18, so as to tighten or take up any



slack in the plate 20. The object of having the metal plate 20 extend from the front to the rear of the saddle proper upon the under side thereof is to stiffen the saddle and to furnish a support for the central portion of the saddle and prevent the leather from sagging down in the middle thereof from constant use. The construction of the plate 20 is especially adapted for pneumatic saddles.

I may interpose between the plate 20 and the under side of the saddle rubber cushions, as shown by dotted lines 21, Fig. 6, to furnish a yielding support for the saddle-seat.

It will be understood that the details of construction of the several parts of my improved saddle for velocipedes and bicycles may be varied somewhat from what is shown and described, if desired.

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

1. A saddle-seat for velocipedes and bicycles, having a central longitudinal depression formed therein, the upper portion of the walls of which depression are rounding and the bottom of which depression is perforated and is of such a width and at such a distance below the upper surface of the seat as that when the upper portions of the walls are forced together the lower portion of the depression will remain open and unobstructed, substantially as set forth.

2. In a bicycle-saddle, an improved attachment for the front end of the spring-support, consisting of a plate, as 6, adapted to be secured to the saddle, and a tongue or flat projection 5 upon the under side of said plate, adapted to extend through a longitudinal slot in a second plate, as 4, provided with a hook 4'' at its front end, and said plate 4 and a pin 8 or equivalent device for holding the plate 4 on said tongue 5, which has a rear projecting end 5' to extend over the rear end of said plate 4, substantially as set forth.

3. In a bicycle-saddle, the combination, with a metal plate, as 6, secured to the front end of the saddle-seat and having a downwardly-extending tongue 5, with a rearwardly-projecting end 5', of a plate, as 4, having a hook on the front end thereof and a longitudinal slot in the body thereof adapted to receive the tongue 5, and a pin 8 or other device for securing the plate 4 on said tongue, with the rear end 5' of said tongue extending over the rear end of said plate, substantially as set forth.

4. In a spring-support for bicycle-saddles, the combination, with a flat spring attached at one end to the saddle and curved upwardly at said end and from said curved end extending in substantially a straight line, of a second flat spring secured to the other end of the saddle and curved downwardly toward the saddle-support and from the point of attachment to the saddle-support curved upwardly and rearwardly and extending in a

plane below the first-mentioned spring and clamped thereto, substantially as shown and described.

5. In a spring-support for bicycle-saddles, the combination, with a spring 9, curved upwardly at one end and extending in substantially a straight line from the point of curvature to its rear end, of a spring 10, curved upwardly at one end, where it is attached to the saddle, and from said end curved downwardly to the point where it is to be clamped to the saddle-support and from said point extending upwardly and rearwardly in the direction of its other end and in a plane below the spring 9 and clamped thereto, substantially as shown and described.

6. In a spring-support for bicycle-saddles, the combination, with a flat spring curved upwardly at one end and adapted to be attached to the saddle at said end and extending in substantially a straight line from its point of curvature, of a second flat spring adapted to be attached at one end to the saddle and curved downwardly to a point where it is to be attached to the saddle-support and from that point curved upwardly and rearwardly, bearing against the lower side of the first-mentioned spring and clamped thereto, and also clamped to the free end of the first-mentioned spring for the purpose stated, substantially as shown and described.

7. The combination, with the spring-support of a bicycle-saddle, of a clamp for attaching the same to the saddle-support, consisting of a yoke and a jacket mounted and adapted to slide thereon and to bind the spring-support between the upper surface of said jacket and the upper end of said yoke and a set-screw for clamping the parts together upon the saddle-support, substantially as set forth.

8. A clamp for attaching the spring-support of bicycle-saddles to the saddle-support, consisting of the yoke-piece 15', through which passes the saddle-support, the jacket 15'', mounted on said yoke, between the upper surface of which and the upper end of the yoke the spring passes, and a set-screw for drawing the yoke 15' into the jacket 15'' to clamp the spring, substantially as shown and described.

9. The combination, with a saddle for bicycles, of a hook-plate secured to the under side thereof at the front end of the saddle and extending rearwardly the length of the saddle and attached to the rear frame of the saddle to serve as a brace and support and rubber cushions or springs interposed between said plate and the under side of the saddle-seat for the purpose stated, substantially as set forth.

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