No. 609,234. Patented Aug. 16, 1898.

J. A. HUNT.

BICYCLE SADDLE POST AND CLAMP.

(Application filed Oct. 4, 1897.)

(No Model.) 2 Sheets—Sheet 1.

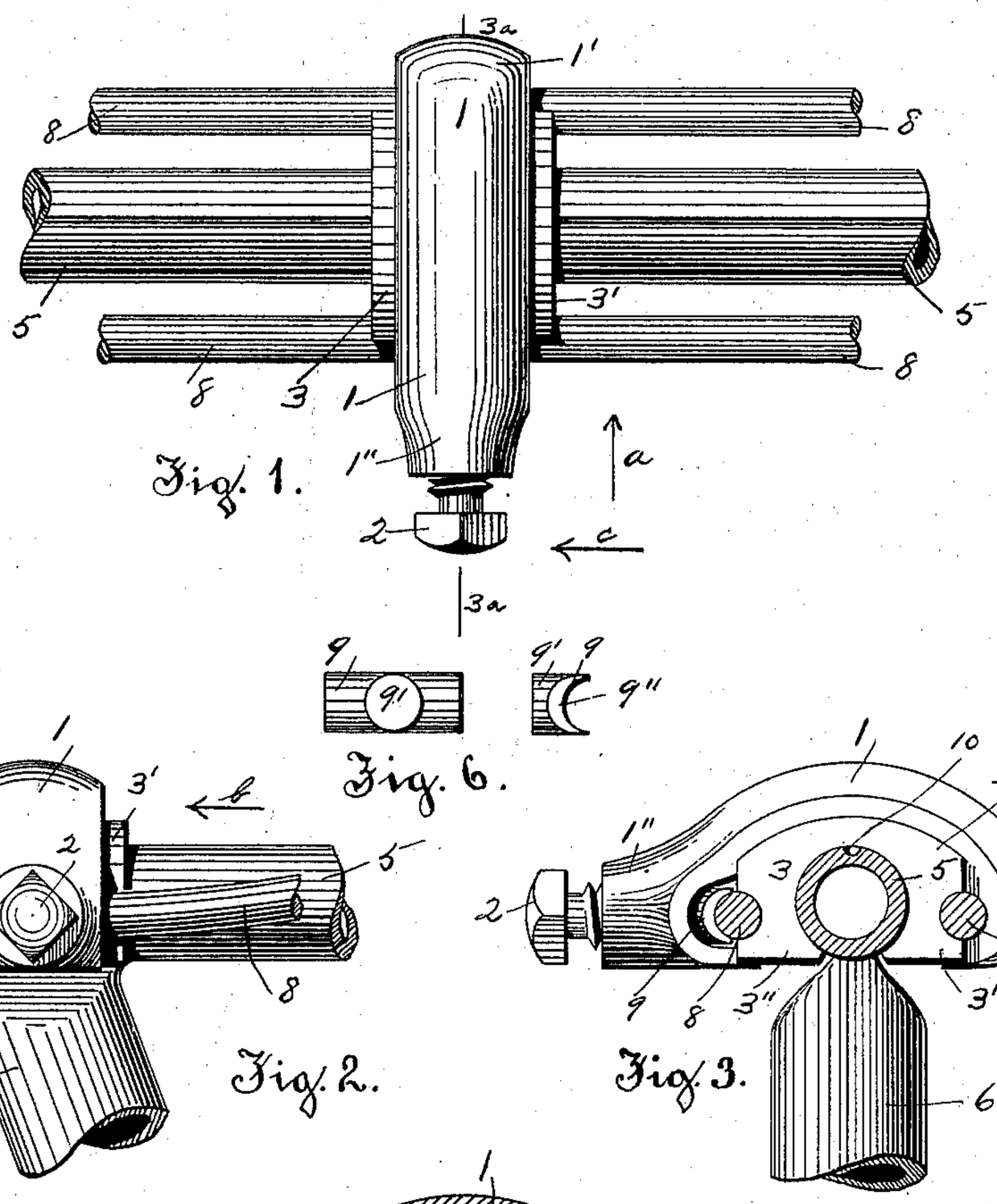

Fig. 1.

Fig. 6.

Fig. 2.

Fig. 3.

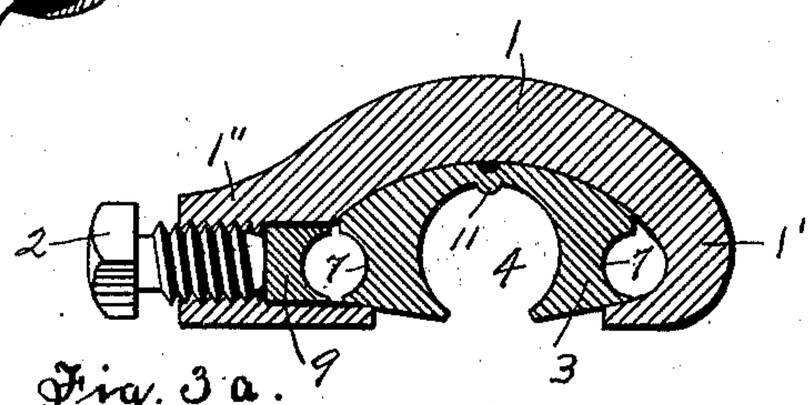

Fig. 3a.

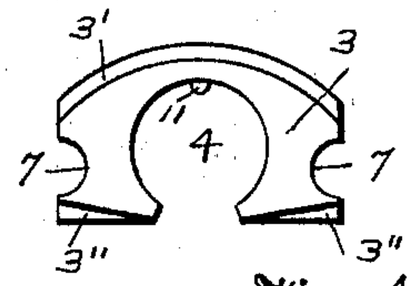

Fig. 4.

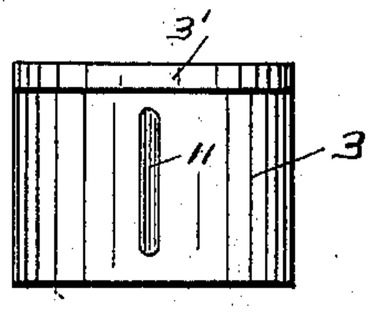

Fig. 4a.

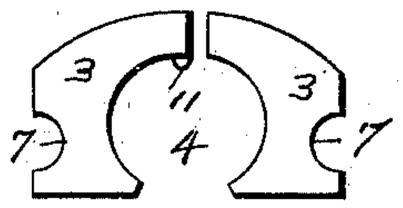

Fig. 5.

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BICYCLE SADDLE POST AND CLAMP.

(Application filed Oct. 4, 1897.)

(No Model.) 2 Sheets—Sheet 2.

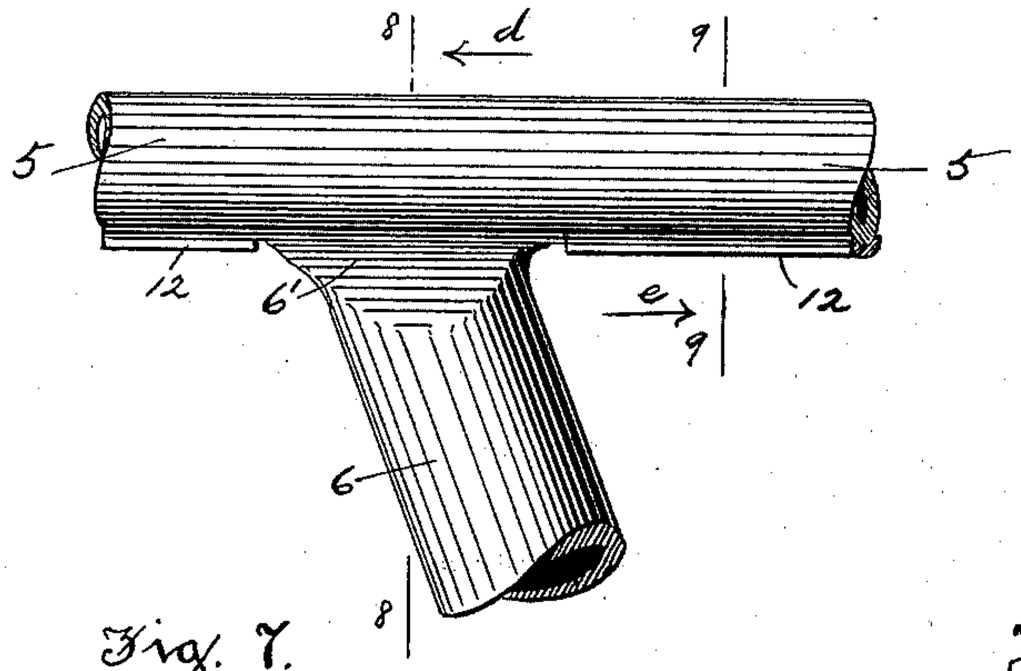


Fig. 7.

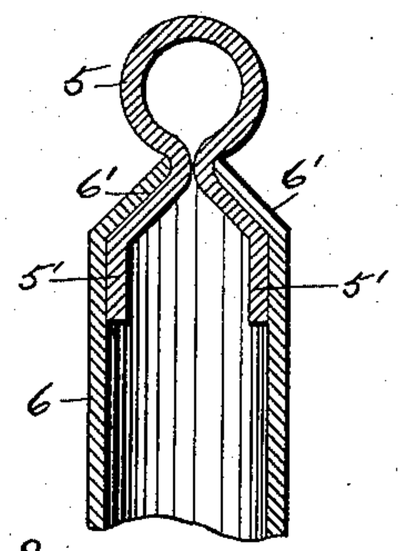
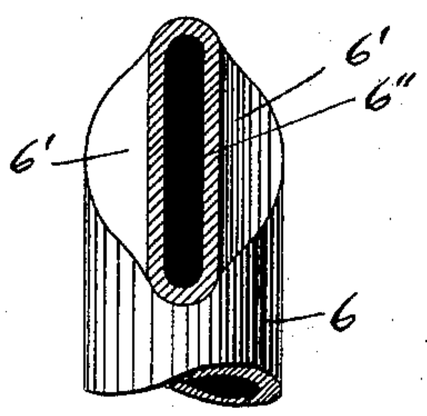


Fig. 8.



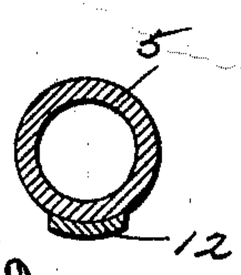


Fig. 9.

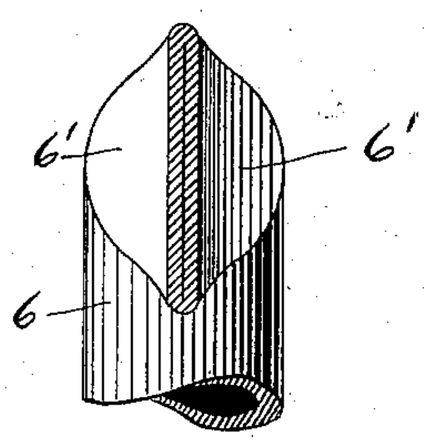


Fig. 10.

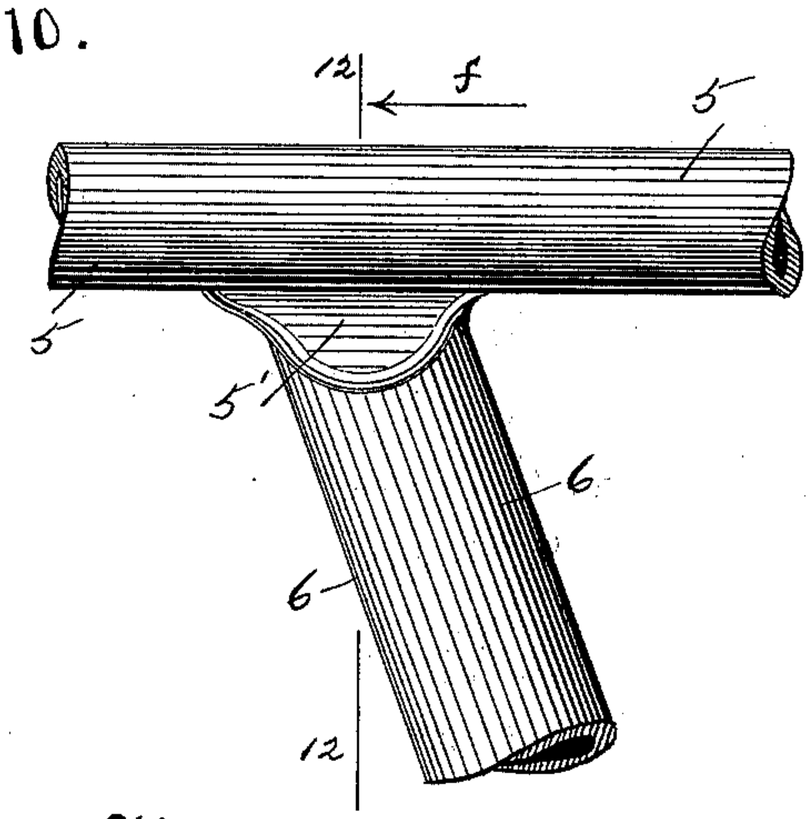


Fig. 11.

Fig. 13.

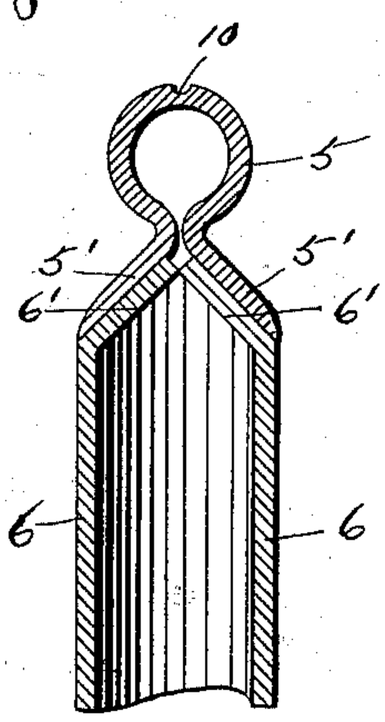


Fig. 12.

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UNITED STATES PATENT OFFICE.

JONATHAN A. HUNT, OF WESTBOROUGH, MASSACHUSETTS.

BICYCLE-SADDLE POST AND CLAMP.

SPECIFICATION forming part of Letters Patent No. 609,234, dated August 16, 1898.

Application filed October 4, 1897. Serial No. 653,988. (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 Bicycle-Saddle Posts and Clamps, of which the following is a specification.

My invention relates to a bicycle-saddle post or support and a clamp for attaching the saddle-spring thereto; and the object of my invention is to provide an improved saddle post or support and clamp, and more particularly to so construct the saddle-post and cross-piece and clamp that the point of attachment of the clamp to the cross-piece of the saddle-support may be directly over the saddle-post or at any point thereon intermediate the ends of the cross-piece, and, further, to so construct the saddle-post and cross-piece at their point of connection that the cross-piece will be of circular shape for nearly its full circumference.

My invention consists in certain novel features of construction of my saddle post or support and cross-piece and clamp, as will be hereinafter fully described.

Referring to the drawings, Figure 1 is a plan view of a clamp of my improved construction, showing the same combined with the cross-piece and the two rods of the saddle-spring. Fig. 2 is an end view looking in the direction of arrow *a*, Fig. 1. Fig. 3 is a side view looking in the direction of arrow *b*, Fig. 2. Fig. 3ª is a section through the clamp on line 3ª 3ª, Fig. 1, looking in the direction of arrow *c*, same figure. Fig. 4 shows a side view of the clamp piece or jaw detached. Fig. 4ª shows a top view of the clamp-piece shown in Fig. 4. Fig. 5 shows a modified construction of the clamp-piece shown in Figs. 4 and 4ª. Fig. 6 is a rear side and end view of the follower against which the clamping-bolt bears. Fig. 7 is a side view of a saddle-post and cross-piece of my improved construction. Fig. 8 is a section on line 8 8, Fig. 7, looking in the direction of arrow *d*, same figure. Fig. 9 is a section on line 9 9, Fig. 7, looking in the direction of arrow *e*, same figure. Fig. 10 is a top view of the saddle-post shown in Figs. 7 and 8 with the cross-piece removed. Fig. 11 is a side view of a modified construction of the post and cross-piece shown in Fig. 7. Fig. 12 is a section on line 12 12, Fig. 11, looking in the direction of arrow *f*, same figure; and Fig. 13 is a top view of the saddle-post shown in Figs. 11 and 12.

I will first describe my clamp adapted to be used more particularly with the style of saddle-post and cross-piece shown in the drawings; but said clamp may be used with any other style of post and cross-piece, if desired.

In the accompanying drawings, 1 is the shell or casing of the clamp, made in one piece and preferably of the shape shown in the drawings, having the flat or horizontal base cut out at its middle portion, as shown in Fig. 3ª, and the oval or elliptical shaped top. One end 1′ is rounded, as shown, while the other end 1″ is made in the shape of a boss, which has a screw-threaded hole therein to receive the clamping-bolt 2.

Within the central opening through the shell or casing 1 extends the clamp block or jaw 3, which is preferably made in one piece, as shown in Fig. 4, with a flange or lip 3′ on one upper edge and also a flange or lip 3″ on the lower edge of the two side portions, as shown in Fig. 4. The object of the lips 3′ and 3″ is to prevent the clamp-piece from sliding through the shell 1.

The clamp-block 3 has a central opening 4 therethrough to receive the cross-piece 5 on the saddle-post 6, and also circular recesses 7 in each end to receive a rod 8 of the saddle-spring. To secure the cross-piece 5 on the saddle-post 6 within the central opening 4 in the clamp-block 3, the side portions of the block 3 have a yielding or spring action toward each other, the upper connecting portion being made thin to allow the lower portions of the clamp-block to spring or move slightly toward each other. A follower 9 may be used, having a hub portion 9′, which extends into the threaded hole in the boss 1″ of the shell 1 and against which the end of the clamp-bolt 2 bears, and the circular portion 9″, which bears on the outer portion of the spring-rod 8. In order to prevent the clamp from turning on the circular cross-piece 5, I may form a longitudinal groove or recess 10 in the top of the cross-piece 5, as shown in

Fig. 3, and also form a corresponding shaped tongue or projection 11 on the inner part of the clamp-piece 3 by depressing the central portion thereof between its edges, as shown in Fig. 4ª. The tongue 11, extending into the groove 10, prevents any rotating movement of the clamp.

Instead of having the tongue 11 and groove 10, as above described, I may form or secure upon the lower portion of the cross-piece at each side of the post a flat piece or bar 12, (see Figs. 7 and 9,) against which the lower inner corners of the clamp-block 3 will bear to prevent the clamp from rotating. In Fig. 5 is shown a modified construction of the clamp-block 3, the same being made in two parts instead of one.

I will now describe the construction of my saddle-post and cross-piece, with which, as above stated, the clamp is especially intended to be used. My clamp-post 6 (see Figs. 7, 8, and 10) is of ordinary tubular or circular shape except at its upper end, which is of non-circular shape and made tapering and of reduced width by bending or compressing the sides 6′ at the upper end of the post, so that at the point of connection of the post 6 with the cross-piece 5 the transverse width or diameter of the post is such that it will extend only upon the lower surface or bottom of the cross-piece, leaving the cross-piece at the point where it is connected to the post of circular shape for nearly its full circumference. The tapering or reduced upper end of the post may be secured to the cross-piece in a number of different ways. I have shown in the drawings two ways of securing the cross-piece to the top of the post; but it will be understood that many other ways may be employed.

In Figs. 7, 8, and 10 I have shown the upper tapering or reduced end of the post 6 with a central opening 6″ therein, through which extend two ears or projections 5′ on the central lower portion of the cross-piece 5. After the ears 5′ have been inserted through the opening 6″ in the upper end of the post 6 they are bent outwardly or away from each other, as shown in Fig. 8, by inserting a tool or other device through the lower end of the post and are then brazed or secured to the sides of the post.

It will be understood that the cross-piece 5 and post 6 are preferably made of sheet metal, and in stamping or cutting out the sheet metal preparatory to forming the cross-piece 5 ears or projections are left on the opposite edges of the sheet metal at the point where the cross-piece is to be connected with the post.

Instead of having an opening through the upper end of the post 6, as shown in Fig. 10, the sides of the post at the upper end may be brought together, as shown in Fig. 13, and the lips or ears 5′ on the cross-piece 5 be fitted over the straight flat sides 6′ at the upper end of the post and brazed thereto, as shown in Figs. 11 and 12.

One of the important features of my invention is to have the upper end of the saddle-post, at the point where it is connected to the cross-piece, of tapering shape and reduced width, so that it will only be in contact with the bottom of the cross-piece, and the cross-piece at its point of connection with the upper end of the post will be of circular shape for nearly its full circumference. By this construction it will be seen that the clamp may be moved along on the cross-piece from one end to the other and secured thereto at any point intermediate the ends and directly over the upper end of the saddle-post to bring the saddle directly over the same, if desired.

The details of construction of my clamp and saddle-post and cross-piece may be varied, if desired.

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

1. A clamp for a bicycle-saddle spring, comprising a casing or shell having a central opening therethrough, which extends through the lower portion of the shell, a threaded boss on one end thereof for a clamping-bolt, and said bolt, a clamp-block recessed to receive the cross-piece of the saddle-support, and the spring-rods, and extending through the central opening in the shell, substantially as shown and described.

2. A clamp for a bicycle-saddle spring, comprising a casing or shell, having a central opening therethrough, which extends through the lower portion of the shell, a threaded boss on one end thereof for a clamping-bolt, and said bolt, a follower against which said bolt bears, a clamp-block recessed to receive the cross-piece of the saddle-support, and the spring-rods, and extending through the central opening in the shell, substantially as shown and described.

3. In a clamp for bicycle-saddle springs, &c., the combination with the casing or shell, having a threaded boss on one end thereof for the clamping-bolt, and said bolt, and having a central opening therethrough, which extends through the bottom or lower portion of the shell, to leave two parts to extend upon opposite sides of the cross-piece of the saddle-support, of a clamp-block which extends through the central opening in the shell, and is centrally cut out or recessed to extend over the cross-piece, and is also recessed on its opposite edges or ends to receive the spring-rods, substantially as shown and described.

4. The combination with the cross-piece of a bicycle-saddle support, of a clamp, comprising a shell or casing having a clamp-block, through which the cross-piece extends, said shell and block being open or cut out through its lower surface to allow of the clamp being moved along the cross-piece, and by the saddle-post, where it is connected to the cross-piece, substantially as shown and described.

5. The combination with the cross-piece of

a bicycle-saddle support, of a clamp, comprising a shell or casing having a clamp-block through which the cross-piece extends, said shell, and block being open or cut out through its lower surface to allow of the clamp being moved along the cross-piece, and by the saddle-post, where it is connected to the cross-piece, and means for preventing the clamp from rotating on the cross-piece, substantially as shown and described.

6. The combination with a saddle-post, having its upper end tapering or of reduced diameter where it is connected to the cross-piece, and said cross-piece, of circular shape for nearly its full circumference where it is secured to the saddle-post, of a clamp for attaching the saddle-spring to the cross-piece, comprising a shell or casing having a central opening therethrough which extends through the bottom thereof, to allow the clamp to pass by the top of the saddle-post, and a clamp-block within the shell to receive the cross-piece and saddle-spring rods, and means for clamping the cross-piece and spring-rods, substantially as shown and described.

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Witnesses:
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