

(No Model.)

W. W. SHOE.
BICYCLE SADDLE.

No. 558,218.

Patented Apr. 14, 1896.

Fig. 1.

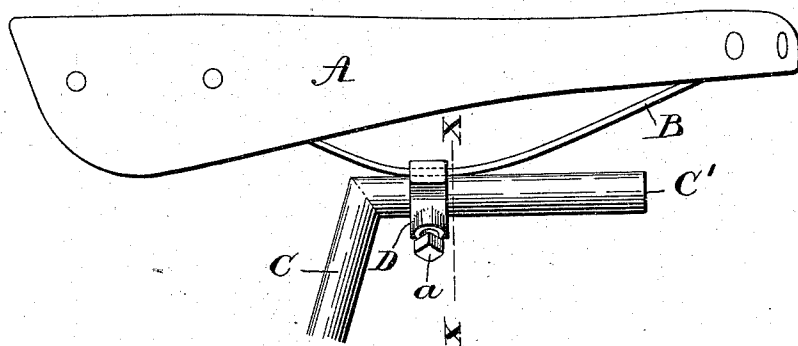


Fig. 2.

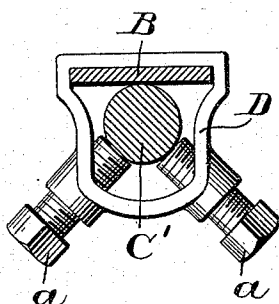
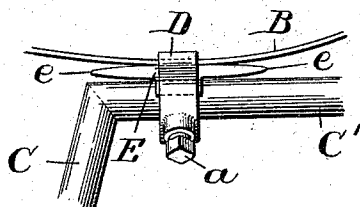


Fig. 3.



Witnesses.

E. A. S. S.

J. A. Straub.

Inventor.

William W. Shoe
by Thomas D. Mowley

Attorney.

UNITED STATES PATENT OFFICE.

WILLIAM W. SHOE, OF WALLINGFORD, PENNSYLVANIA.

BICYCLE-SADDLE.

SPECIFICATION forming part of Letters Patent No. 558,218, dated April 14, 1896.

Application filed December 4, 1895. Serial No. 570,973. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. SHOE, a citizen of the United States, residing at Wallingford, in the county of Delaware and State of Pennsylvania, have invented certain new and useful Improvements in Bicycle-Saddles; and I do 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 the letters of reference marked thereon, which form a part of this specification.

My invention relates to bicycle-saddles that are made with a flat spring; and the object of my improvement is to provide a support against which the under surface of the saddle-spring impinges when the spring is depressed or bent down by the weight of the rider, and by this means avoid the breakage so common in springs of this class.

I accomplish the desired result by attaching the spring directly upon the saddle-post or by extending the wedge-shaped block that is usually placed between the spring and the saddle-post on a line practically parallel with the horizontal part of the saddle-post. As ordinarily constructed, all bicycle-saddles using a flat spring have a wedge-shaped block about an inch long interposed between the under side of the spring and the top surface of the horizontal part of the saddle-post. The top of this wedge or block is, by means of the set-screw in the saddle-clamp, forced up against the under side of the spring, the whole upper surface of said wedge being in binding-contact therewith. Consequently when the spring is depressed by the weight of the rider it bends sharply over the front and rear corners of the wedge, and in case of a sudden jolt, occasioned by the wheels of the cycle striking a rut or any obstruction, the spring will very often break at these places. With my improvement the liability to breakage from this cause does not exist, as the spring when depressed does not bend over any corner, but is sup-

ported all along the part that is bent down when the cycle is in use without in any manner diminishing the elasticity of the spring. 50

In the accompanying drawings, Figure 1 shows a bicycle-saddle attached directly to the saddle-post. Fig. 2 is a cross-section on line X X of Fig. 1. Fig. 3 shows a modified form of my improvement and has an interposed block or wedge between the spring and the horizontal part of the saddle-post. 55

A represents the leather seat of the saddle; B, the flat steel spring, which is of the ordinary construction. 60

C is the part of the saddle-post that fits into the frame; C', the horizontal part of the saddle-post; D, the clamp holding the spring to the saddle-post.

a a are two set-screws securing the clamp tightly around the spring and the horizontal part of the saddle-post. 65

In Fig. 3 the interposed block or wedge E is provided with the front and rear extension e e. The upper surfaces of these extensions are on a line practically parallel with the horizontal part of the saddle-post and do not touch the under surface of the spring, except when the spring is bent down by the weight of the rider on the saddle. 75

In the form shown in Fig. 1 when the spring is depressed the under surface thereof will come in contact with the saddle-post and be supported thereby along the whole of the bent-down portion. 80

When the saddle is properly secured to the post and the spring supported in the manner shown, unless there is a defect in the material it is almost impossible to break the spring by any weight that may be placed on the saddle or from any sudden jolt. When the spring is set directly upon the saddle-post without the intervening wedge or block E, it is very desirable to use the two set-screws a a, placed in the angular position shown in Fig. 2, instead of one, as commonly used. By this means the saddle is held more firmly in position and can be set lower on the frame of the bicycle than if the set-screw were placed di- 85 90

rectly in the middle of the clamp D, as in that case the set-screw would strike the top of the frame when the saddle-post was lowered.

If the block E is provided with grooves, it can be used on wire saddle-springs. Wire springs may also be used without the block E if the clamp D is made to conform thereto.

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

A clamp for bicycle-springs having therein

two set-screws, set at such an angle that the points of contact upon the saddle-post will be equidistant from the saddle-spring and out of line with the frame of the bicycle, substantially as shown and for the purpose described. 15

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

WILLIAM W. SHOE.

Witnesses:

THOS. D. MOWLDS,

SAML. H. KIRKPATRICK.