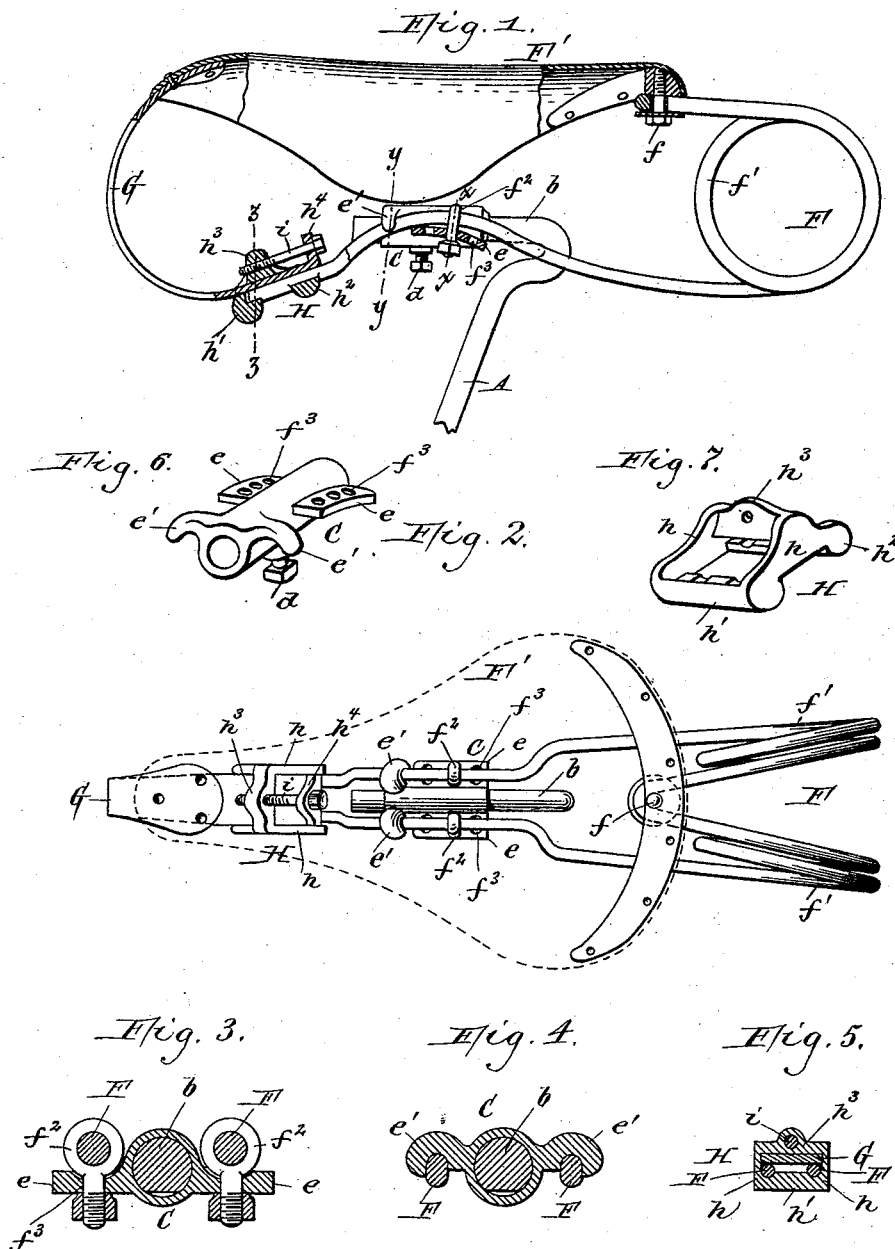


(No Model.)

E. G. LATTA.
SADDLE FOR VELOCIPEDES.

No. 455,882.

Patented July 14, 1891.



Witnesses:

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UNITED STATES PATENT OFFICE.

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SADDLE FOR VELOCIPEDES.

SPECIFICATION forming part of Letters Patent No. 455,882, dated July 14, 1891.

Application filed November 10, 1890. Serial No. 370,934. (No model.)

To all whom it may concern:

Be it known that I, EMMIT G. LATTA, a citizen of the United States, residing at Friendship, in the county of Allegany and State of New York, have invented a new and useful Improvement in Velocipede-Saddles, of which the following is a specification.

This invention relates to velocipede-saddles, and has for its object to provide a saddle which may be tilted or inclined to suit the comfort of the rider and also to render the supporting-springs of the saddle adjustable in such manner that their tension may be varied in accordance with the weight of the rider.

In the accompanying drawings, Figure 1 is a longitudinal sectional elevation of the saddle. Fig. 2 is a top plan view thereof with the flexible seat omitted. Figs. 3 and 4 are cross-sections in lines *x x* and *y y*, Fig. 1, respectively. Fig. 5 is a cross-section of the coupling connecting the ends of the saddle-springs, the section being taken in line *z z*, Fig. 1. Fig. 6 is a perspective view of the adjustable slide which supports the saddle. Fig. 7 is a similar view of the coupling connecting the front and rear saddle-springs.

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

A represents the saddle-pillar having the usual forwardly-extending arm *b*, to which the saddle is adjustably attached.

C represents a slide arranged upon the horizontal arm of the saddle-pillar and which is adjustably secured thereto by a set-screw *d*, arranged in a threaded opening in the under side of the slide and bearing against the arm, as represented in Fig. 1. The slide C is provided with laterally-projecting curved flanges or wings *e* and in front of said flanges with outwardly-projecting hooks or lugs *e'*.

F represents the rear supporting-spring of the saddle, which sustains the rear portion of the flexible seat *F'*. As represented in Figs. 1 and 2, this spring consists of two members or branches formed of a single length of wire doubled or bent at its center and secured at its doubled portion to the saddle by a bolt *f* or other fastening. From this bolt the branches of the spring extend rearwardly and downwardly and thence forwardly and upwardly to the slide C, the branches being

preferably formed with a coil *f'*, as represented in the drawings. The lower front portion of the spring-branches rest upon the curved flanges *e* of the slide, and are secured to the latter by the hooks or lugs *e'*, which overlap the branches, and by eyebolts *f²*, which encircle the branches with their eyes and pass through one of several openings *f³*, formed in the flanges, the bolts being secured to the flanges by nuts applied to the bolts and bearing against the under side of the flanges, as represented in Figs. 1 and 3.

G represents the front spring, which supports the pommel or front end of the flexible seat, and which consists of a flat piece of steel secured at its upper end to the seat by rivets or otherwise. From the seat the spring extends forwardly, downwardly, and rearwardly to a point opposite the front ends of the rear spring F.

H represents a coupling, whereby the adjacent ends of the front and rear springs are adjustably secured together. As represented in Figs. 1, 2, and 7, this coupling consists of side bars or plates *h h*, connecting end bars *h' h²*, and an intermediate raised cross-bar *h³*. The front ends of the rear spring rest upon the end bars of the coupling and abut with their ends against the front end bar *h'*, both end bars being preferably provided with recesses or depressions, in which the end portions of the rear springs are seated, as represented in Figs. 1, 5, and 7. The lower end portion of the front spring is arranged in the coupling between the raised cross-bar *h³* and the ends of the front spring, and its end is bent upward to form a lip *h⁴*.

i represents an adjusting-screw arranged in a threaded opening in the raised cross-bar *h³* of the coupling and passing through a smooth opening in the lip *h⁴*. As the front end bar of the coupling bears against the ends of the rear spring and the head of the adjusting-screw *i* against the lip of the front spring, the latter is prevented from sliding backwardly in the coupling. The tension of the seat *F'* prevents the coupling from sliding forwardly on the rear spring and the front spring from sliding forwardly on the adjusting-screw.

Upon turning the adjusting-screw forward its head bears against the lip at the lower end of the front spring and forces the latter for-

wardly, thereby increasing its tension, while upon turning the screw in the opposite direction the lower end of the spring is allowed to move backwardly, whereby its tension is correspondingly diminished.

Upon loosening the nuts of the eyebolts ^f₂ the rear spring may be shifted backward or forward on the slide C, and as the end portions of the spring are bent or curved upward this movement causes the saddle to be tilted backwardly and forwardly. By placing the eyebolts in the opening nearest the lugs *e'* the rear spring is lengthened, while by placing it in one or the other sets of holes it is shortened and its stiffness increased. This construction permits the tension of the spring to be readily adjusted for a light or a heavy rider. Should the seat be too tight or stiff after adjusting the rear spring, the proper tension is readily given to the seat by reducing the tension of the front spring by means of the adjusting-screw *i*.

All of these various adjustments are conveniently effected independently of the parts whereby the saddle is raised and lowered, adjusted backward or forward, and rendered detachable from its support.

By curving the front spring, as shown, the same serves as a guard, which prevents the dress of the rider from catching under the pommel of the saddle.

The upper part of the front spring is preferably made lighter than the lower part, this being accomplished either by increasing the width or thickness of the lower part of the spring or by making the lower part both wider and thicker than the upper part, excepting the extreme upper end of the latter, which is made thin and wide to conform to the curvature of the pommel.

I claim as my invention—

1. The combination, with a saddle-support and a slide adjustably secured thereto, of a lengthwise-movable saddle-spring, and fastening-bolts securing the spring to the slide and capable of longitudinal adjustment on the slide for shortening or lengthening the spring, substantially as set forth.

2. The combination, with a longitudinal saddle-support and a slide adjustably secured thereto, of a longitudinal saddle-spring interlocked with one end of the slide, and an adjustable fastening, whereby the spring is attached to the slide at any point between the ends of the slide, substantially as set forth.

3. The combination, with the saddle and a support, of a slide attached to said support and having laterally-projecting flanges and hooks or lugs at one end, a supporting-spring resting upon said flanges and engaging under said hooks or lugs, and eyebolts whereby the spring is attached to said flanges, substantially as set forth.

4. The combination, with the saddle and saddle-support, of a slide or clip adjustably secured to the saddle-support, a spring supporting the rear end of the saddle, curving forwardly under the same, and adjustably secured to the slide or clip, and a backwardly-curved spring supporting the front of the saddle and adjustably secured to the rear spring in front of said slide, substantially as set forth.

5. The combination, with the saddle post or support, the seat, and independent front and rear supporting-springs, of a coupling whereby the adjacent ends of the front and rear springs are adjustably connected, and an independent slide or connection made adjustable on the saddle-post and to which the central part of the rear spring is attached, substantially as set forth.

6. The combination, with the flexible seat, of a rear spring, a front spring provided at its lower end with a lip, and an adjustable coupling connecting the adjacent ends of the springs and provided with an adjusting-screw passing through the lip of the front spring, substantially as set forth.

Witness my hand this 6th day of November, 1890.

EMMIT G. LATTA.

Witnesses:

C. J. RICE,

M. W. POTTER.