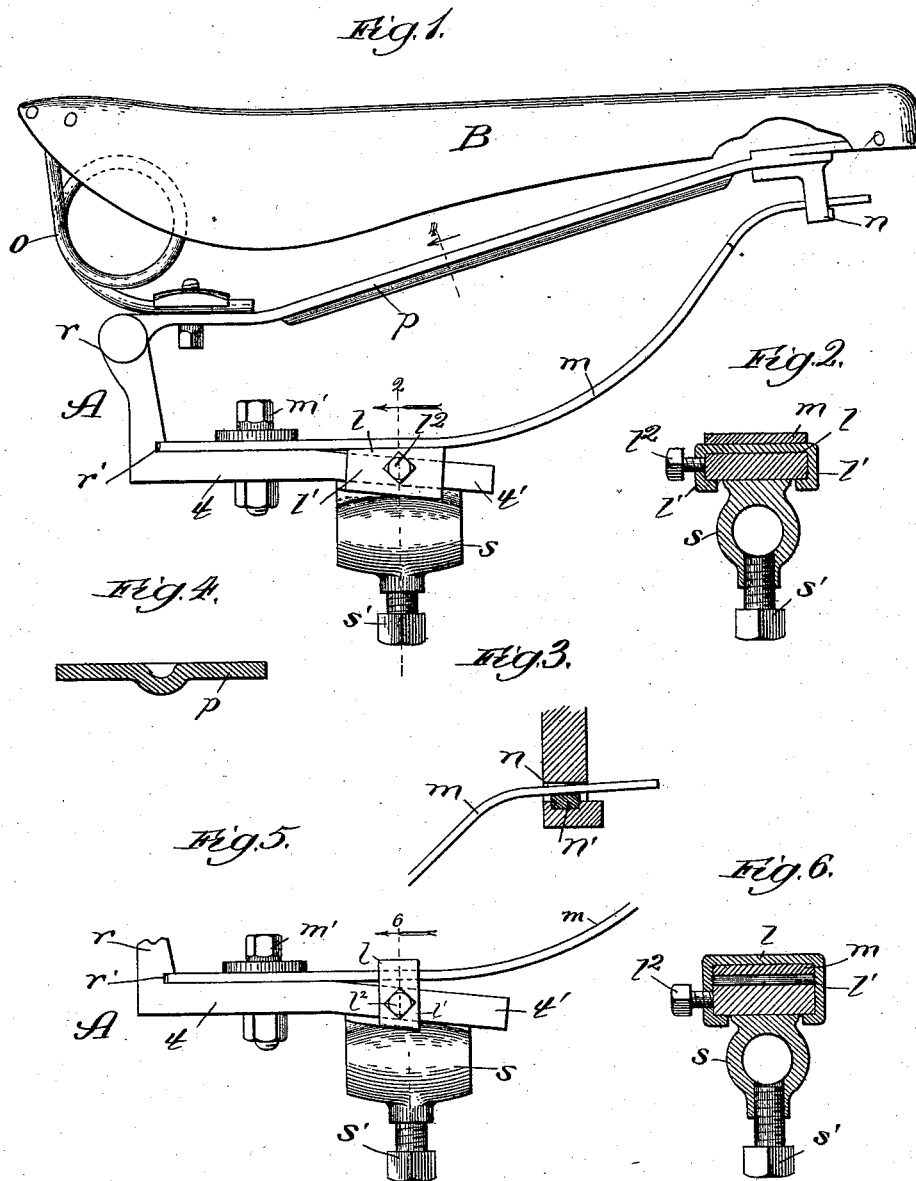


(No Model.)

C. E. McGLINCHEY.
VELOCIPED SADDLE.

No. 455,474.

Patented July 7, 1891.



Witnesses:
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UNITED STATES PATENT OFFICE.

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VELOCIPEDE-SADDLE.

SPECIFICATION forming part of Letters Patent No. 455,474, dated July 7, 1891.

Application filed March 10, 1891. Serial No. 384,492. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. MCGLINCHY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Velocipede-Saddles, of which the following is a specification.

My invention relates to improvements in saddles for velocipedes generally, though it is more especially adapted for use upon bicycles whether of the "ordinary" or "Safety" types.

In the drawings, Figure 1 shows my improved saddle in side elevation; Fig. 2, a section taken on line 2 of Fig. 1 and viewed as indicated by the arrow; Fig. 3, a broken section illustrating a detail of the construction; Fig. 4, an enlarged section taken on line 4 of Fig. 3 and viewed in the direction of the arrow; Fig. 5, a broken view in elevation illustrating a modified construction, and Fig. 6 a section taken on line 6 of Fig. 5 and viewed in the direction of the arrow.

My object is to provide a saddle of the class named with supporting-springs so constructed and disposed as to afford a particularly desirable and comfortable seat for the rider.

A is a saddle-plate or saddle-frame bearing, comprising a plate *t*, carrying a socket-piece *s* on its under side and an upward-extending bearing-arm *r* at its forward end. The plate *t*, sleeve *s*, and arm *r* may be in one piece, as shown, or in separate pieces suitably secured together.

Pivotally secured at one end to the upper end of the arm *r* is a seat carrying or stretcher bar *p*, which at its opposite end extends to the rear portion of the saddle, where it carries the usual bow-frame, to which the seat *B* is secured along the edge of its rear end portion. At the forward end of the bar *p*, and preferably secured adjustably thereto, is a stretcher-spring *o*, to which the seat is attached at its forward end, and which thus operates yieldingly to support that end of the seat and maintain the latter taut with desired resistance. On the under side of the rear end portion of the bar *p* is a guide-socket *n*, and a bearing-spring *m*, fastened at one end portion upon the saddle-plate *A*, extends at its opposite end into the socket *n*. I prefer to employ the flat spring shown for the purpose of

the spring *m*, and it may enter at its end a socket *r'* in the saddle-plate and be secured in place by a bolt *m'* or by any other suitable means. The flat spring *m* passes loosely at its free end through the socket *n*, and set into the latter is an anti-rattler filling *n'*, which operates to press the spring *m* gently against the upper side of the socket without materially interfering with the play of the spring through the socket. The upper face of the saddle-plate *t* toward its free end portion inclines in a direction away from the normal plane of the adjacent length of the spring *m* to produce the deflecting surface *t'*, which causes the initially-yielding length of the spring to begin at the angle formed at the point of deflection of the end portion of the saddle-plate.

A rider sitting upon the saddle *B* will cause the latter to be pressed downward between its ends to a limited extent against the resistance of the spring *o*. The rear portion of the saddle, with the weight of the rider upon it, will press the spring *m* downward. The spring *m* should be of a strength which will render it too stiff to yield more than slightly under the steady weight of an ordinary rider, whereby that portion of the spring which extends over the deflected portion *t'* of the saddle-plate will be normally out of contact with the latter. Under the impulses of pressure exerted by the rider upon the seat in the jolting of the velocipede the entire spring *m* will yield until it strikes the deflected surface *t'*, when the shortening of the yielding length of the spring and the consequent increased resistance thus ensuing will prevent more than a very slight further yielding of the spring. In the rise and descent of the saddle therefor it oscillates on the pivot at *r*, producing a motion which is particularly comfortable and desirable in its effect upon the rider.

In order that the same spring *m* may be caused to act with equal effectiveness under different pressures, I provide adjustable spring-regulating mechanism, whereby the spring may be adjusted to accommodate riders of different weights. The preferred mechanism (shown in Figs. 1 and 2) is a sliding stirrup *l*, comprising a wedge-shaped plate, having flanged edge portions *l'*, which extend

around the lateral edges of the saddle-plate. The stirrup may be slid longitudinally upon the deflected portion l' of the saddle-plate toward and from the angle formed at the point of deflection of the part l' . Thus for a heavy rider the wedge may be crowded into the angle until its upper surface is in contact with the spring m , thus shortening the yielding length of the spring and increasing the resistance of the latter, and, according to the distance that the wedge is adjusted from the angle, the yielding quality of the spring will be increased. The stirrup may be secured in any adjusted position by means of the set-screw l^2 .

In the modification shown in Figs. 5 and 6 the stirrup l , instead of affording a wedge, may be of equal thickness throughout, and instead of extending between the spring m and saddle-plate it passes across the outer surface of the spring and holds the latter to the saddle-plate. The spring m is shortened and its resistance thus increased as the stirrup is slid away from the point of junction of the saddle-plate and spring, and the spring is lengthened and its yielding quality increased as the stirrup is slid toward the said point of junction.

The stretcher-bar p may be strengthened by a longitudinal corrugation, as shown in Fig. 4, and, constructed as described, my improved saddle, besides affording the advantages above set forth, is especially strong and durable and noiseless in its action.

The saddle is adjusted in position upon the velocipede by passing its socket s over the horizontal bearing-arm of the seat-supporting frame and securing it in adjusted position by means of the set-screw s' in the usual manner.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a velocipede-saddle, the combination, with the saddle-plate and seat, of a seat-car-

rying bar pivotally secured at its forward end to the saddle-plate, a spring upon the saddle-plate affording a yielding support for the rear end portion of the seat-supporting bar, and adjusting means for regulating the resistance of the spring, substantially as described.

2. In a velocipede-saddle, the combination, with the saddle-plate and seat, of a bar p , pivotally secured at its forward end to the saddle-plate, carrying at its rear end the attaching-frame for the rear end of the seat and at its forward end a stretcher-spring, to which the seat is attached at its forward end and provided on the under side toward its rear end with a socket n , and a spring m , secured at one end upon the saddle-plate and extending at its opposite end into the socket n , substantially as described.

3. In a velocipede-saddle, the combination, with the saddle-plate and seat, of a seat-supporting bar pivotally secured at its forward end to the saddle-plate, a spring m , secured at one end to the saddle-plate and affording at its opposite end a yielding support for the rear end portion of the seat-supporting bar, and a sliding stirrup l upon the saddle-plate to engage the spring and regulate the resistance thereof, substantially as described.

4. In a velocipede-saddle, the combination, with the saddle-plate and seat, of a seat-supporting bar pivotally secured at its forward end to the saddle-plate and affording at its opposite end a yielding support for the rear end portion of the seat-supporting bar, an adjustable wedge interposed between the spring m and saddle-plate for regulating the resistance of the spring, and means, as the set-screw l^2 , for securing the wedge in adjusted position, substantially as described.

CHARLES E. MCGLINCHEY.

In presence of—

J. W. DYRENFORTH,

M. J. FROST.