(No Model.)

C. B. McDONALD.

BICYCLE SEAT.

No. 590,439. Patented Sept. 21, 1897.

Fig. 1.

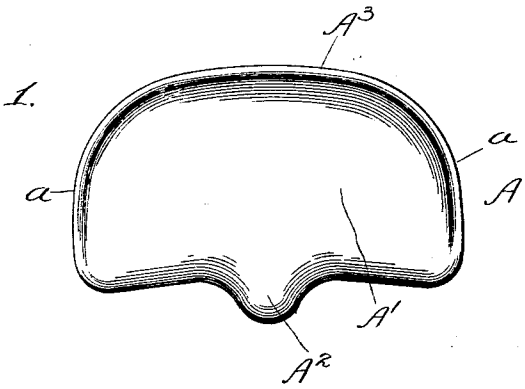


Fig. 2.

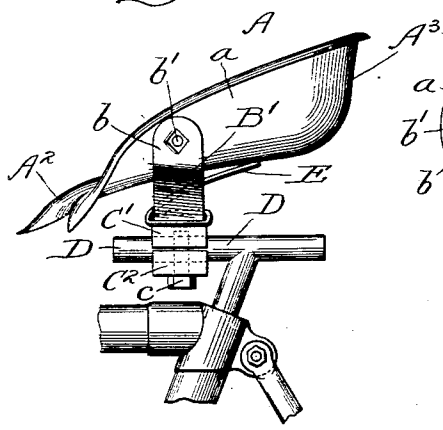


Fig. 3.

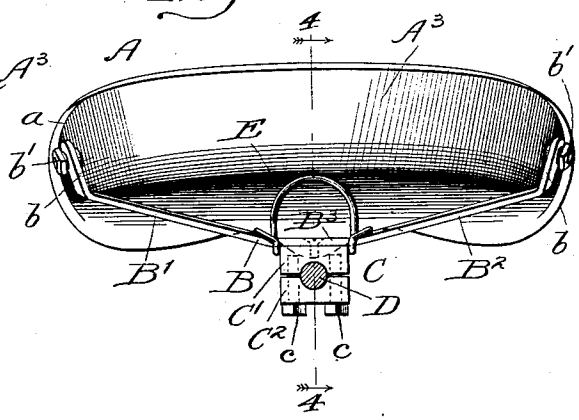


Fig. 4.

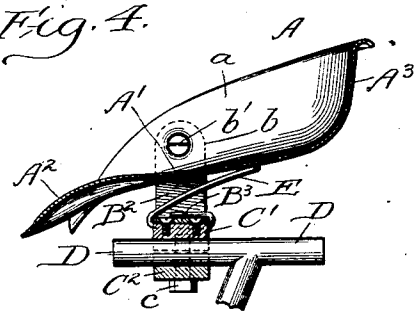
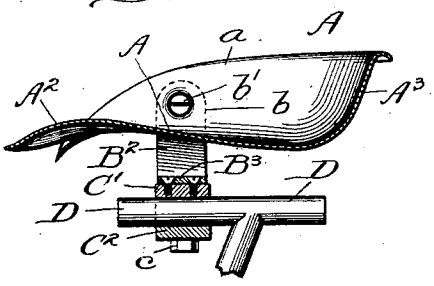


Fig. 5.



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BICYCLE-SEAT.

SPECIFICATION forming part of Letters Patent No. 590,439, dated September 21, 1897.

Application filed August 24, 1896. Serial No. 603,751. (No model.)

To all whom it may concern:

Be it known that I, CHARLES B. McDONALD, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Bicycle-Seats, which is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of my seat. Fig. 2 is a side elevation thereof, showing the seat attached to the seat-post of a bicycle. Fig. 3 is a rear elevation thereof. Fig. 4 is a section on the line 4 4 of Fig. 3, showing the seat as it is tilted forward. Fig. 5 is a similar view showing the seat as it is tilted back and without the tilting-spring shown in Figs. 2, 3, and 4.

My invention relates to bicycle-seats, and has for its object to provide a device free from the defects of discomfort and physical injuriousness which are recognized as characterizing bicycle-seats of the usual forms of construction.

Referring to the drawings by letter, A represents the seat proper, comprising a more or less flat body portion A′, approximately semicircular in outline, provided in front with a slight projection or pommel A^2 and at its rear with the upwardly-curved flange A^3, which is extended on either side of the seat, as at *a a*, tapering downward toward the body of the seat A′ as it approaches the front edge thereof. This seat is preferably of metal cast in a single piece or struck up from a suitable blank or sheet. By this particular conformation of the seat proper a comfortable support for the body is obtained. The seat rim or flange prevents lateral displacement of the body and holds the same firmly in and on the seat, rendering any more considerable pommel than that shown, or any pommel at all, unnecessary and obviating entirely the chafing and physical injury which attend the use of saddles of the ordinary form. The rider does not sit astride of something. He sits in something.

The support for this seat is preferably formed of a spring-bracket B, which extends transversely across and beneath the seat and comprises the opposite outwardly and upwardly extending arms B′ and B^2, connected together by the centrally-disposed part of the bracket B^3. The extreme outer ends of the arms B′ and B^2 are bent upward, as at *b*. The seat proper, A, is pivotally mounted in these short upward extensions *b* of the bracket on each side by a bolt or pivot *b′*, passing through the bracket extension *b* and the side of the seat-rim *a*. This pivotal connection is preferably made loose, so as to allow for a certain amount of lateral play. The bracket B is made of a bar of spring-steel struck up into the form just described. It is rigidly attached at its center to the seat-post of the bicycle in any suitable way, as will be presently described. It is obvious by its construction and attachment that the seat is not only resiliently supported, the loose connection of the pivots *b′* permitting the arms of the bracket to spring outwardly as the seat is pressed down, but, further, a certain amount of lateral tilting is permitted, the seat being adapted to yield downwardly upon one side while the other side remains stationary. Thus the seat is elastically mounted both vertically and transversely.

The connection between the spring-bracket B and the usual horizontal arm D of the seat-post may be of any preferred form, as above stated. I have shown in the drawings a clamp C, comprising an upper clamping-piece C′, rigidly attached to the central part B^3 of the bracket. A corresponding lower clamping-piece c^2 is adapted to be clamped against the upper by the bolts *c* and bind between them the arm D of the seat-post.

The pivotal mounting of the seat hereinabove described permits of the same being tilted forward into the position shown in Fig. 4 when the rider desires to propel more or less vigorously the machine. When the rider wishes to proceed more easily or to rest, he will tilt the seat backward into the position shown in Fig. 5. In this last-named position the flange or rim A^3 of the seat contributes materially to affording an easy and restful support for the body. In either of the two positions the bracket-arms B′ B^2 form stops limiting the forward and the backward tilting of the seat.

It is obvious that the limit of such tilting may be increased or decreased by slight modifications in construction.

In some instances I have found it desirable to employ a spring adapted to hold the seat normally in the forward-tilted position. Such a spring may be of any preferred form of construction, one such being illustrated in Figs. 2, 3, and 4 of the drawings as the wire spring E. Such spring is not, however, essential to the operativeness of my seat.

It is apparent from this construction and has proved in practice that a seat of the form shown is convenient, comfortable, and secure. It is strong, since the flange A^3 affords great resistance to buckling or bending. It is durable, and if formed of steel or aluminium may be made of a weight not considerably greater than that of the ordinary bicycle-seat.

It is obvious that many changes may be made in the details of the construction hereinabove shown and described without departing from the spirit of my invention. I do not therefore limit my invention to these details, but

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

1. In a bicycle, the seat A, approximately semicircular in outline and comprising the bottom portion A′, having the forwardly-projecting pommel A^2, and the upwardly-extending flange A^3 arranged around the rear and sides of the seat and tapering downward toward the body of the seat as it approaches the front, said flanges terminating some distance in rear of the pommel portion, a spring-bracket mounted transversely of the bicycle and consisting of outwardly-extending arms having their outer ends bent upward near the side edges of the seat, and a pivotal connection between the bent ends of the bracket-arms and side flanges of the seat, the said bent portions of the bracket-arms lying close to the under side of the seat and acting as stops to limit the forward and backward tilting of the latter, substantially as described.

2. In a bicycle, the seat A, approximately semicircular in outline and comprising the bottom portion A′ having the forwardly-projecting pommel A^2, and the upwardly-extending flange A^3 arranged around the rear and sides of the seat and tapering downward toward the body of the seat as it approaches the front, said flanges terminating some distance in rear of the pommel portion, a spring-bracket mounted transversely of the bicycle and consisting of outwardly-extending arms having their outer ends bent upward near the side edges of the seat, a pivotal connection between the bent ends of the bracket-arms and side flanges of the seat, the said bent portions of the bracket-arms lying close to the under side of the seat and acting as stops to limit the forward and backward tilting of the latter, and a looped spring-wire having its ends twisted around the bracket and its looped portion extending backward and upward, and acting upon the under side of the seat-body in rear of its point of pivotal connection with the bracket to normally hold the seat in its forward-tilted position, substantially as described.

3. In a bicycle, a seat, a spring-bracket mounted transversely of the bicycle and consisting of outwardly-extending arms having their outer ends bent upward near the side edges of the seat, and a pivotal connection between the bent ends of the bracket-arms and the sides of the seat, the bent portions of said bracket-arms lying close to the under side of the seat and acting as stops to limit the forward and backward tilting of the seat.

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