

(No Model.)

C. E. DYER.
SADDLE.

No. 560,698.

Patented May 26, 1896.

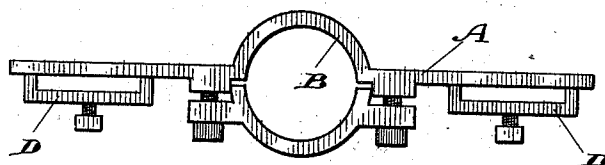


Fig. 4

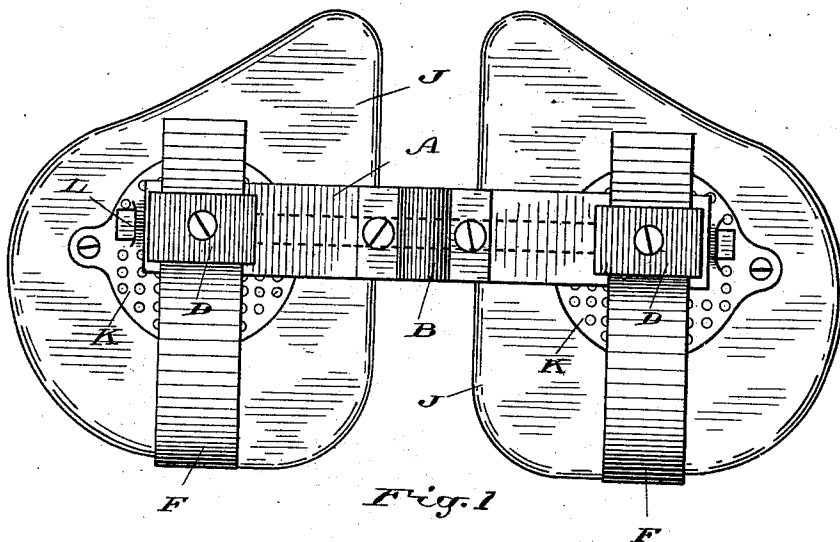


Fig. 1

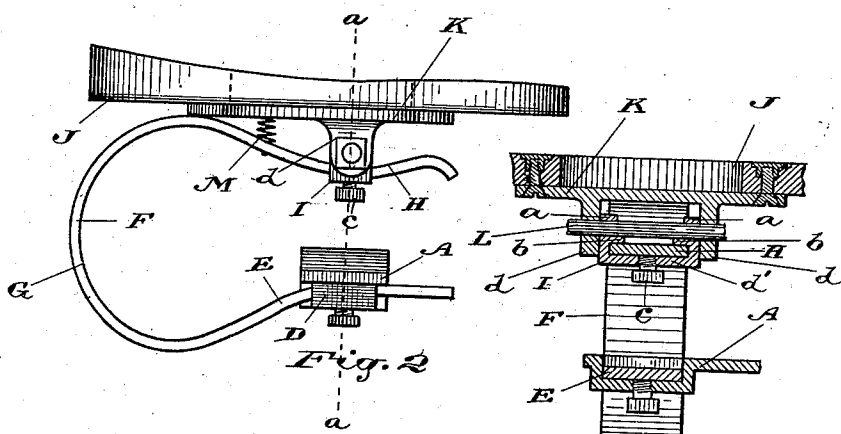


Fig. 2

Fig. 3

Witnesses

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UNITED STATES PATENT OFFICE

CHARLES E. DYER, OF TORONTO, CANADA, ASSIGNOR TO CORA I. PARKER,
OF SAME PLACE.

SADDLE.

SPECIFICATION forming part of Letters Patent No. 560,698, dated May 26, 1896.

Application filed September 23, 1895. Serial No. 563,405. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. DYER, of the city of Toronto, in the county of York and Province of Ontario, Canada, have invented certain new and useful Improvements in Saddles; and I hereby declare that the following is a full, clear, and exact description of the same.

This invention relates to certain new and useful improvements in saddles adapted more particularly for use in connection with that class of velocipedes known as "bicycles;" and the object of the invention is to construct the saddle of two or more seat-sections, each adapted to fit the fleshy part of the thigh and to move in conjunction with the leg of the rider in order that the creation of friction between the saddle and the leg of the rider will be entirely avoided during the operation of the driving parts of the machine and that the rider may have great purchase and leverage on the pedals even while seated in a "scorching" position; and the invention consists, essentially, of a supporting-bracket removably, adjustably, and rigidly clamped to the saddle-pillar projecting an equal distance beyond each side thereof, the supporting-bracket provided with a clamp on each side of the saddle-pillar, the said clamp being preferably formed integrally with the supporting-bracket; two U-shaped springs, the lower limb of each of which is adapted to be rigidly held by its said respective clamp in such a position that the curvature of the spring will be to the rear of and the upper limb projecting forwardly above the supporting-bracket; and two seat-sections, each of which is shaped to fit the fleshy portion of the leg of the rider, pivotally connected to and supported by the upper limb of its respective spring in such a position that when the seat-section is in its normal or horizontal position the back of it rests on the curved part of the spring and when the seat-section is tilted the forward end rests on the end of the upper limb, which limits the tilting movement of the seat-section, and a coiled spring connected to each seat-section and to its respective supporting-spring to hold the seat-sections in their normal position when the rider is dismounted, the whole device being hereinafter more fully

set forth, and more particularly pointed out in the claims.

In the drawings, Figure 1 is a plan view of the under side of the saddle, showing the several parts. Fig. 2 is an end elevation of the same. Fig. 3 is a cross-section on the lines *a a*, Fig. 2. Fig. 4 is a front or rear elevation of the supporting-bracket.

Like letters of reference refer to like parts throughout the specification and drawings.

The saddle-supporting bracket A consists, preferably, of a flat piece of drop-forging of any suitable length and width and sufficient strength to safely support the weight of the heaviest rider. Formed in the middle of the bracket A is a clamp B, by means of which the bracket is adjustably, rigidly, and removably secured to the saddle-pillar. Formed in the bracket A are two clamps D D, located one on each side of the saddle-pillar and at the same distance therefrom. The following parts being duplicated, it will here be necessary only to detail the description of one set. The lower limb E of the flat U-shaped spring F is securely held in such a manner by the clamp D that the curved part G of the spring projects to the rear, and the upper limb H projects above and in front of the bracket A. The upper limb H is fitted with a clamp I, which consists of a U-shaped piece of metal, the opposite sides *a* of which project above the top of the limb H. A lug *b* projects inwardly from each of the opposite sides *a* to form a seat for the top of the limb, while a set-screw *c* passes through the bottom side *d'* of the U-shaped clamp and binds the upper limb H against the lugs *b*, securely holding the clamp to the said limb. Secured to the under side of the seat-section J is a plate K, which is provided with two downwardly-projecting lugs *d* of a sufficient distance apart to overlap and fit snugly against the outer face of the sides *a*. Passing through the lugs *d* and the sides *a* above the limb H of the U-shaped spring is a pin L, by means of which the seat-section is pivotally connected to the clamp I. The seat-section J is perforated to provide a ventilation for the thigh of the rider, and this seat-section is adapted to rock on the pin L during the operation of the legs of the rider. It will be noticed that between

each of the seat-sections J J is a space over which fits the crotch of the legs. By providing this intervening space between the seat-sections no protuberance is presented to injure the tender or delicate parts of the rider's anatomy. Each of the U-shaped springs is sufficiently yielding and resilient to relieve the rider from any jar or vibration when passing over rough, rocky, or uneven roadways and of sufficient strength to enable the rider to have a firm seat on the saddle.

The use of the saddle is as follows: When the rider is mounted, each seat-section J J fits snugly the fleshy portion of the thigh of its respective leg, and as the leg descends to apply power to the pedal the seat-section tilts or rocks on its pivot-pin until its motion is arrested by coming in contact with the upper limb of the U-shaped spring. As the leg is raised on the return portion of the stroke of the pedal the seat-section is tilted back into its normal position to provide for the seat-sections J J being held normally in a horizontal position. When the rider is dismounted, I connect to each seat-section and to the upper limb of its respective U-shaped spring a coiled spring M, which causes the sharp return of each seat-section.

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

1. In a saddle the combination of two seat-sections, a metallic plate secured to the under side of each of the seat-sections, each of the plates provided with two downwardly-projecting lugs, a substantially U-shaped spring supporting each seat-section, a clamp fitted on the upper arm of the spring, substantially U-shaped in cross-section, the opposite sides of the clamp fitting between the lugs depend-

ing from the seat-plate, a pin passing through the said lugs and said opposite sides, a lug projecting from the inner face of each of the opposite sides, in close proximity to the inner face of the bottom of the clamp, a set-screw projecting through the bottom of the clamp, adapted to bind the upper arm of the spring between the said bottom and the said lugs, and means for connecting the springs to the saddle-post, substantially as specified.

2. In a saddle the combination of two seat-sections, a metallic plate secured to the under side of each of the seat-sections, each of the plates provided with two downwardly-projecting lugs, a substantially U-shaped spring supporting each seat-section, a clamp fitted on the upper arm of the spring, substantially U-shaped in cross-section, the opposite sides of the clamp fitting between the lugs depending from the seat-plate, a pin passing through the said lugs and said opposite sides, a lug projecting from the inner face of each of the opposite sides, in close proximity to the inner face of the bottom of the clamp, a set-screw projecting through the bottom of the clamp, adapted to bind the upper arm of the spring between the said bottom and the said lugs, and means for connecting the springs to the saddle-post, a saddle-supporting bracket consisting of a flat plate, a clamp in the middle of the plate, by means of which the bracket is secured to the top of the saddle-post, a clamp at each end of the plate, to each of which is secured the lower arm of its respective U-shaped spring, substantially as specified.

Toronto, September 18, A. D. 1895.

CHARLES E. DYER.

In presence of—

M. A. WESTWOOD,
C. H. RICHES.