

(No Model.)

J. F. TWIST.
BICYCLE SADDLE.

No. 605,151.

Patented June 7, 1898.

Fig. 1.

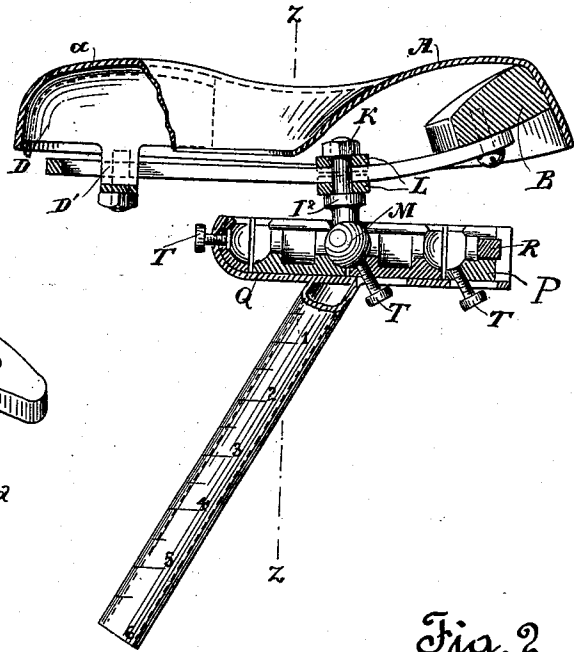


Fig. 3.

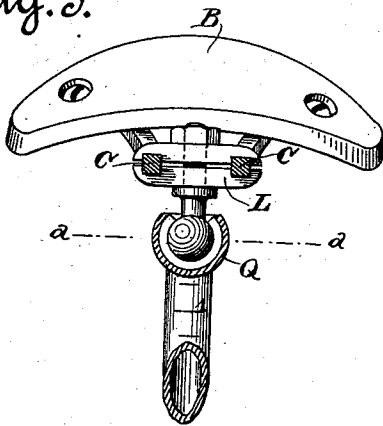


Fig. 2.

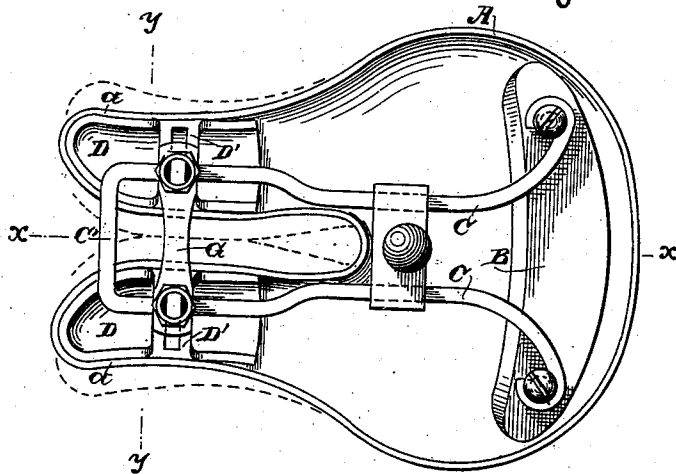


Fig. 4.

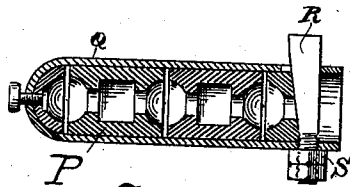
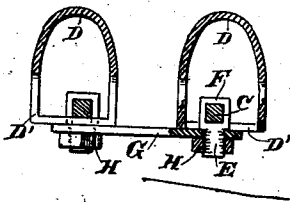


Fig. 5.

Witnesses.

H. Hartwerdt
L. D. Radzky
L. H. Gummig

Inventor.

Joseph F. Twist

UNITED STATES PATENT OFFICE.

JOSEPH FRANKLIN TWIST, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR
OF ONE-HALF TO LEWIS D. RADGESKY, OF SAME PLACE.

BICYCLE-SADDLE.

SPECIFICATION forming part of Letters Patent No. 605,151, dated June 7, 1898.

Application filed January 15, 1897. Serial No. 619,320. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH FRANKLIN TWIST, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Bicycle-Saddles; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to improvements in saddles for bicycles.

It consists in details of construction which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a vertical section taken through xx of Fig. 2. Fig. 2 is a bottom view of the saddle. Fig. 3 is a vertical transverse section taken through zz of Fig. 1 and showing the saddle-leather removed. Fig. 4 is a transverse section through yy of Fig. 2. Fig. 5 is a horizontal section taken through aa of Figs. 1 and 3.

The object of my invention is to provide a saddle having the front divided longitudinally, so as to form an open channel from the front approximately to the center of the saddle, the rear portion of which saddle is closed, and to provide for adjustment of the saddle-front, so that the parts may be moved to or from each other to increase or diminish the space between them, as may be desired.

A is the saddle-leather, the rear portion of which is made convex, rounded at the rear in the usual manner, and from a point near the center it is divided and the front portion extends forward in two separate branches a . The rear portion of the saddle-leather is attached to a cantle B, which may be made of wood or metal, and to this cantle is attached the ends of the spring C. The spring has the rear ends separated and secured to the cantle B, near the outer ends of the latter. Curving inwardly toward each other from the points of attachment the spring extends forward in two parallel lines to a point in front of the center of the saddle, where the side bars of the spring again diverge slightly and thence extend parallel to near the front end of the saddle, thence bends across the front, so as

to unite the two sides, as shown at C', thus making the spring a continuous one and keeping the front ends in proper relation with each other. To the front parallel side bars of this spring are connected the concavo-convex cups D, which may be made of metal, either cast, stamped, or otherwise formed to coincide with the desired shape of the front ends or pommels a of the saddle, and these portions extend up into and are secured to the said pommels, the shape of which will be thus preserved.

The connection between the parts D and the spring is made as follows: From each of the parts D a yoke D' extends downwardly and transversely across the bottom. These yokes are slotted transversely, as shown, and through the slots pass bolts E, having upon the upper ends rectangular yokes F, which inclose the side bars of the spring C.

G is a bar extending across the lower sides of the yokes D' and having holes made through its ends through which the bolts E pass. Nuts H are adapted to screw upon the bolts E and thus clamp the bar G and yokes D' firmly together. As the yokes D' are slotted transversely it will be seen that when the nuts H are loosened upon the bolts the two points a of the saddle may be either separated or drawn toward each other at will, the bolts E traveling in the transverse slots of the yokes D' to allow of such movement. When the adjustment has been satisfactorily made, the nuts H are tightened, thus locking the bar G, the yokes D', and the sockets F of the bolts to the side bars of the spring C, and the points of the saddle will thus be separated or drawn together to any desired degree to suit the wishes of the rider. This mechanism also serves to regulate the tension of the saddle-leather by loosening the nuts, moving the clamps forward or back, and then tightening the nuts.

The bars L which clamp the spring may be moved forward or backward on the spring when the nut has been loosened, and as the spring sides C have a downward curvature, as shown, it will be seen that the angle of the

saddle may be thus changed relative to the horizontal position to suit the wishes of the rider.

In Fig. 1 I have shown the shank I², which passes through the clamps L of the saddle-spring, as having upon its lower end a ball M, and this ball fits into any one of sockets O, which are made by concaving the ends of the blocks P, these blocks being contained and slidable in an exterior casing Q, which is fixed or formed upon the upper end of the saddle-post. Through this casing Q a slot is made adapted to receive a wedge-shaped locking-piece R. This wedge-shaped piece has the narrower end continued in the form of a screw-bolt adapted to receive nuts S, so that when the nuts are turned upon the screw-threaded portion the wedge is drawn transversely across the casing Q, and this forces the concaved blocks P toward each other. The ball M may be inserted between either pair of the blocks and then clamped in place by means of the wedge, as shown, and the saddle can be set at any angle forward and back or transversely by means of this ball-joint. It may also be adjusted to stand forward of or behind the saddle-post to suit the wishes of the rider. The screws T pass through the casing Q and press upon the ball in either of the sockets in which it may be placed, and the surface of the ball being indented or roughened these screws aid to lock and hold it in place and prevent its slipping or twisting.

The saddle-post U has a scale marked upon it to aid the rider to adjust the saddle at the desired height with relation to the machine.

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

1. A bicycle-saddle consisting of a segmental cantle, a leather covering, the rear portion of which coincides in shape with the cantle and is fixed thereto, said covering converging from the outer edges of the cantle to the front end, and divided forwardly from the front of the cantle to form independently-adjustable pommels, hollow concave supports for said pommels, having yokes connecting their side edges and slotted transversely, a spring consisting of a continuous piece united at the front end and having arms extending rearwardly from said end and passing through said yokes and united, at their rear, to the cantle, a transverse bar extending from one yoke to the other and bolts passing through the bar and slotted yokes and provided with nuts whereby the pommels may be moved to and from each other and locked, substantially as herein described.

2. A saddle consisting of a continuous rear portion, separated pommels having concavo-convex rigid shaping-pieces fitted into and substantially conforming to the cross-sectional shape of the front ends of the pommels, transversely-slotted yokes joining the free

edges of the shaping-pieces at the bottom thereof, a bar extending from one of said yokes to the other having screw-threaded bolts passing through its ends and through the slots in the yokes, a spring consisting of two parallel bars united transversely beneath the front end of the saddle-pommels, extending rearwardly and having its rear ends fixed to the saddle-cantle, yokes through which the bars of the spring pass, formed upon the holding-bolts of the pommel-adjusting device, and adapted to clamp upon the saddle-spring when the nuts are tightened whereby the tension of the saddle may be simultaneously regulated.

3. In a bicycle-saddle, a concavo-convex leather surface with divided front and mechanism for adjusting and fixing the two parts with relation to each other, a spring having essentially parallel bars united at the front extending rearwardly and connected with the cantle of the saddle, means for securing the saddle to the saddle-post consisting of a shank with clamping-bars to grip the spring sides and a holding-nut therefor, a channeled casing formed with or fixed upon the top of the saddle-post, independent blocks slidable therein having concaved ends, a ball formed upon the lower end of the saddle-supporting shank adapted to be fitted between either of the pairs of blocks, and a device whereby the blocks are forced together so as to clamp the ball in position between them.

4. A clamping and adjusting device for bicycle-saddles consisting of a channeled casing fixed to the upper end of the vertically-adjustable saddle-post in an approximately horizontal position, longitudinally-movable blocks fitting in said casing having the ends made concave, a screw-bolt with means for clamping the saddle upon the upper end, a ball formed upon the lower end adapted to be fitted between either pair of the sliding blocks whereby an adjustment may be made forward or back, and an inclined plane and locking-nuts whereby the blocks are caused to clamp the ball and hold it in any position of adjustment.

5. A clamping and adjusting device for bicycle-saddles consisting of a channeled casing fixed to the upper end of the vertically-adjustable saddle-post in an approximately horizontal position, longitudinally-movable blocks fitting in said casing having the ends made concave, a screw-bolt with means for clamping the saddle upon the upper end, a ball formed upon the lower end adapted to be fitted between either pair of the sliding blocks whereby an adjustment may be made forward or back and an inclined plane and locking-nuts whereby the blocks are caused to clamp the ball and hold it in any position of adjustment, and set-screws passing into the casing to engage and lock the ball after it is clamped in place.

6. In a bicycle, a saddle, a vertically-adjust-

able saddle-post, a channeled casing at the upper end of the post, longitudinally-movable blocks within the casing and having their ends made concave, a spherical part carried by the saddle and adapted to fit the concave ends of the blocks and means for securing the blocks in position.

In witness whereof I have hereunto set my hand.

JOSEPH FRANKLIN TWIST.

Witnesses:

S. H. NOURSE,
JESSIE C. BRODIE.