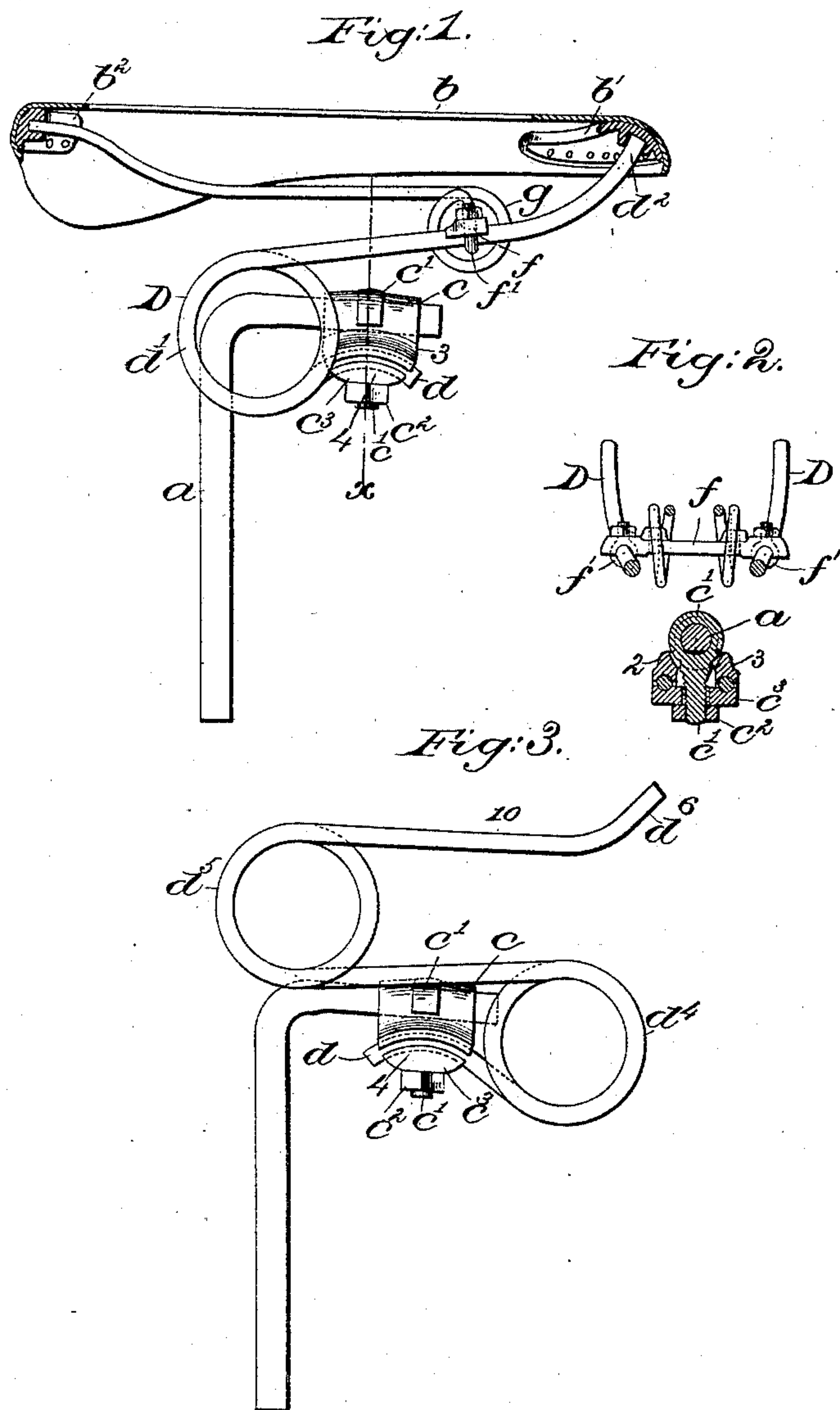


(No Model.)

J. A. LITTLE.  
SADDLE FOR BICYCLES.

No. 452,797.

Patented May 26, 1891.



Witnesses.

Fred S. Greenleaf.  
Edward F. Allen.

Inventor.

Joseph A. Little.  
by Crosby & Mayon  
attys.

# UNITED STATES PATENT OFFICE.

JOSEPH A. LITTLE, OF LAWRENCE, MASSACHUSETTS.

## SADDLE FOR BICYCLES.

SPECIFICATION forming part of Letters Patent No. 452,797, dated May 26, 1891.

Application filed February 18, 1891. Serial No. 381,791. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH A. LITTLE, of Lawrence, county of Essex, State of Massachusetts, have invented an Improvement in Saddles for Bicycles, &c., of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object to support a saddle for bicycles and the like in such manner that it will afford an easier and more comfortable seat than heretofore and yet be sufficiently stiff.

One part of my invention consists in supporting the seat upon two pairs of springs, one pair sustained by the usual L-pin sustaining not only the cantle of the saddle, but also a pair of springs, which sustain the pommel of the saddle.

Another feature of my invention consists in bending the lower ends of the springs to present concaved fingers, which are seated upon convexed faces of a block made adjustable on the horizontal top arm of the L-pin, whereby, by merely rocking the spring on the said seat, the saddle may be tipped more or less forward or backward, as desired, so as to throw the weight of the rider to the back or front, more or less.

Figure 1 in side elevation shows an L-pin and spring embodying my invention, the seat being in section; Fig. 2, a section in the line  $x$  and looking to the right, and Fig. 3 a modification to be referred to.

The L-rod  $a$ , the saddle  $b$ , the pommel  $b^2$ , and cantle-block  $b'$  are and may be all as usual. The L-rod has upon it an open centered block  $c$ , provided with lips 2 3, one at each side, and also an eyebolt  $c'$ , which is extended through the block  $c$  and through a plate  $c^3$ , the latter having at each side of the bolt a convexed seat 4. The bolt has a nut  $c^2$  applied to it, rotation of which on the shank to turn the nut farther on the bolt causes the concavo-convex ends  $d$  of the spring D to be firmly clamped between the ears of the block  $c$  and the seats 4 of the plate  $c^3$ , the block  $c$  being also firmly clamped to the L-rod. The spring may be tipped forward or backward, as desired, on the said convexed seats, when the nut is loosened. The spring D (shown in Fig. 1) has coils at  $d'$ , and the free upper ends of the parallel arms of

the said spring enter and support the cantle  $b'$  of the saddle. The arms of the spring D have a cross-bar  $f$ , connected thereto by suitable eyebolts  $f'$ , which cross-bar has connected to it the inner ends of the pommel-springs  $g$ , preferably of smaller wire and less strength than the springs D.

A seat supported by two different sets of springs, as described, one carried by the other, will sustain the rider better and result in less jar to the person than when the same spring supports both ends of the saddle, and one spring may be adjusted on the other, as desired, to accommodate the weight of the rider, and by tipping the spring D on the seats 4 the pommel of the saddle may be more or less elevated, as desired, by the rider. The spring D (shown in Fig. 3) has two sets of coils  $d^4$   $d^5$ , and the end  $d^6$  will enter holes in the cantle of the saddle, as described of the spring D in Fig. 1, and the upper arm 10 of the spring D, Fig. 3, will in practice receive upon it the cross-bar  $f$ ; but the springs attached will be made shorter than shown in Fig. 1.

I claim—

1. The spring D, connected to the L-rod and provided with a cross-bar connected thereto by eyebolts  $f'$ , and a clamp for tipping the spring D, combined with parallel springs supported by the said cross-bar between its ends and supporting the pommel of the saddle, substantially as described.

2. The L-rod and its open centered block having ears, the eyebolt extended through said block, a nut, and the plate through which the bolt is extended, having convexed seats at each side of said bolt, combined with a spring concaved to fit the said seats and held thereon by the said ears, rotation of the nut on the bolt clamping the plate and spring together, whereby longitudinal adjustment of the concaved ends of spring on the convexed seats enables the saddle carried by the spring to be tipped forward or backward, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSEPH A. LITTLE.

Witnesses:

GEO. W. GREGORY,  
A. S. WIEGAND.