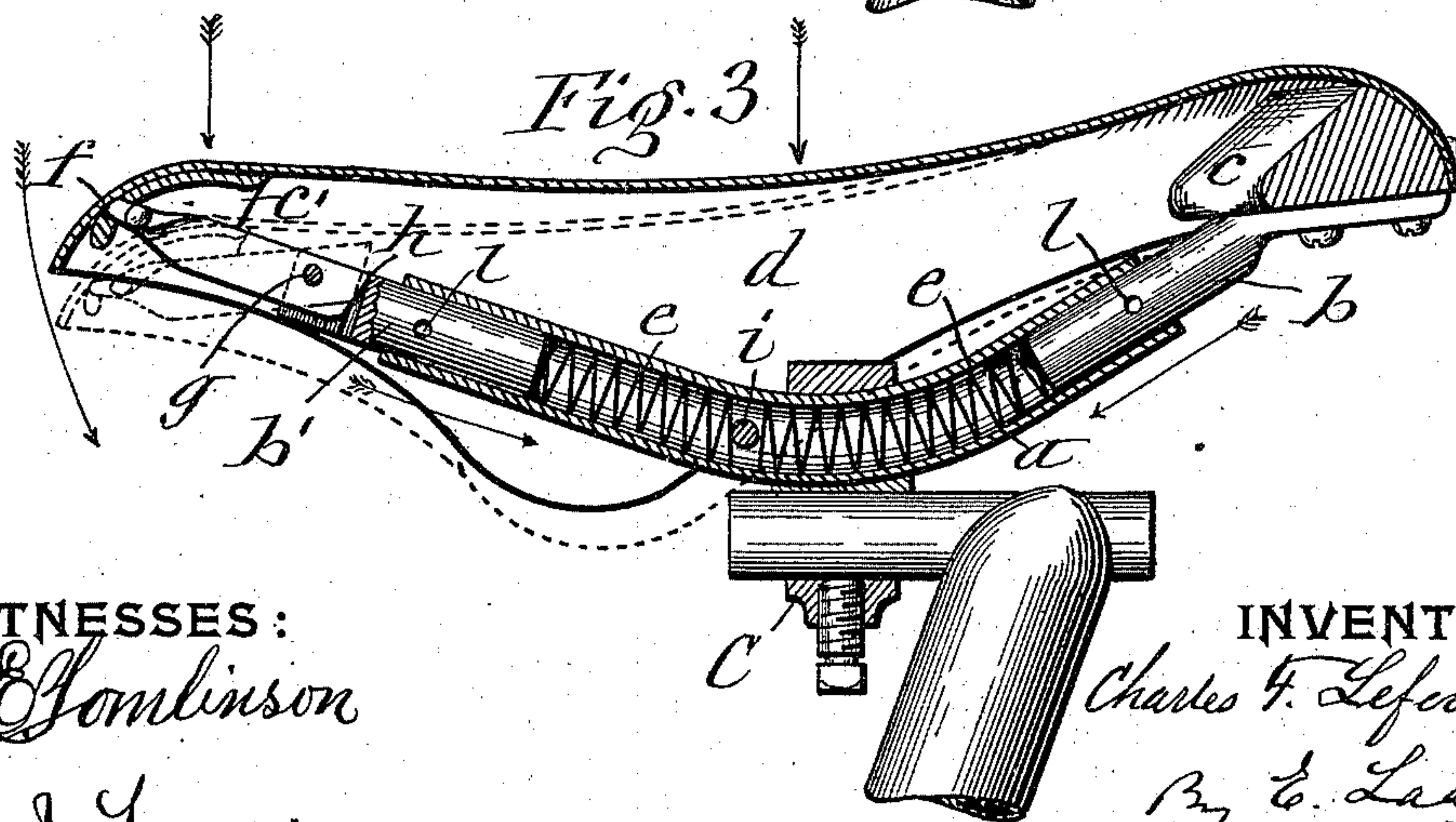
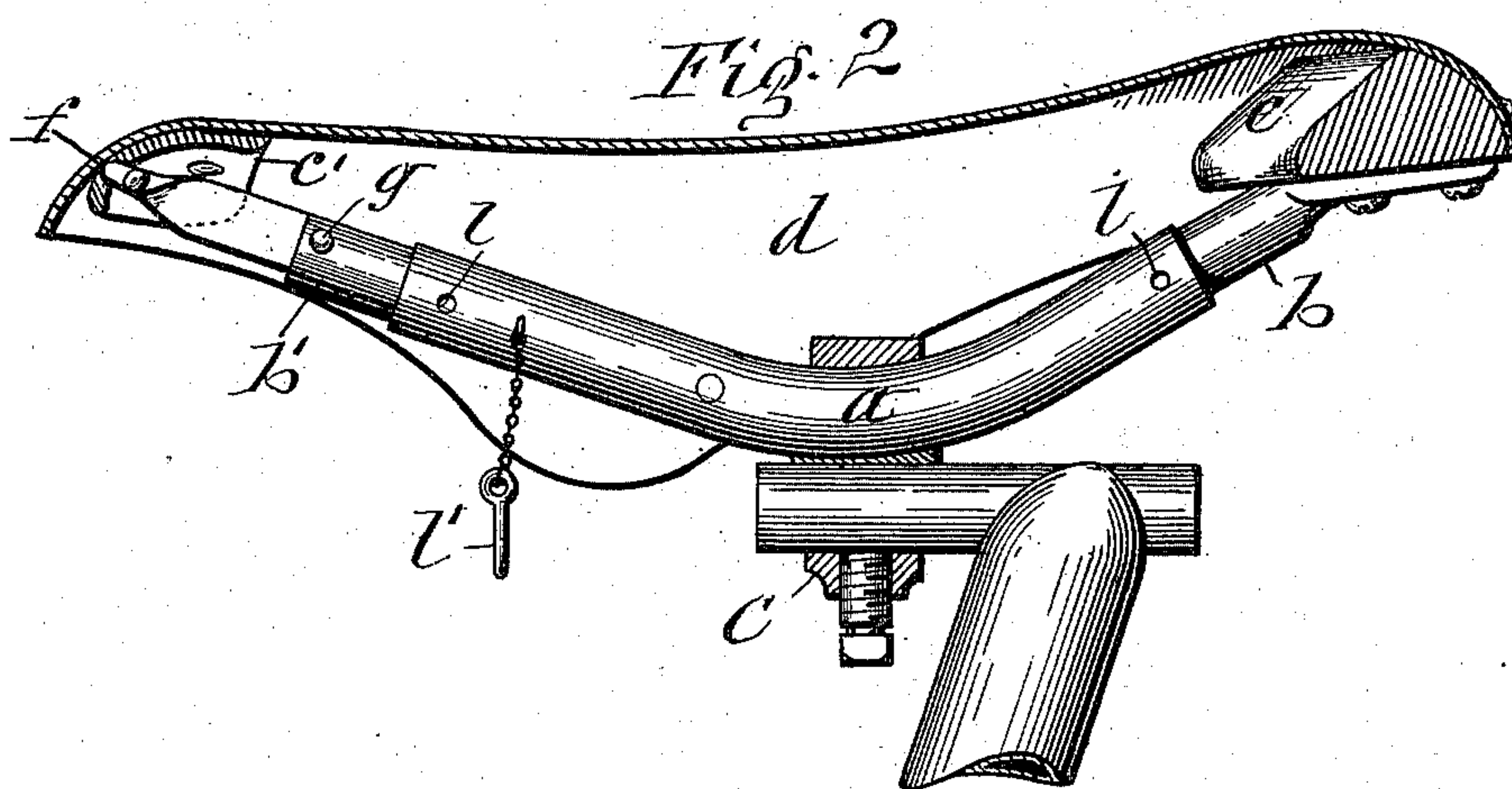
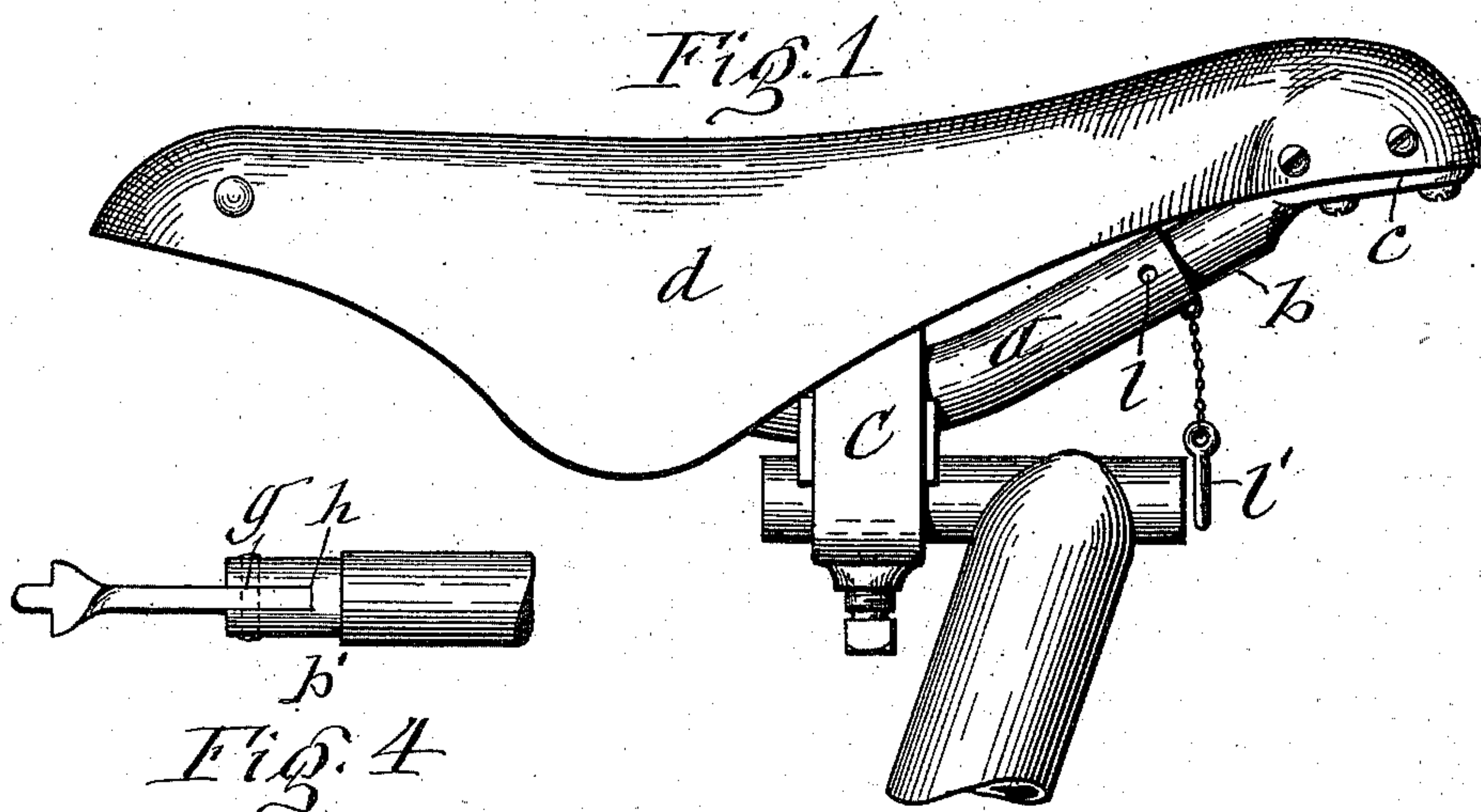


(No Model.)

C. F. LEFEVER.  
BICYCLE SADDLE.

No. 571,379.

Patented Nov. 17, 1896.



WITNESSES:

*C. J. Tomlinson*

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*By C. Laess*  
his ATTORNEY



# UNITED STATES PATENT OFFICE,

CHARLES F. LEFEVER, OF SYRACUSE, NEW YORK.

## BICYCLE-SADDLE.

SPECIFICATION forming part of Letters Patent No. 571,379, dated November 17, 1896.

Application filed October 28, 1895. Serial No. 567,104. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES F. LEFEVER, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Bicycle-Saddles, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

The object of this invention is to provide a bicycle-saddle which shall possess the desired elasticity without liability of throwing the rider forcibly forward from the saddle in case the bicycle meets with obstructions while propelled under a high speed, and which shall also have its pommel or front end yielding to undue downward pressure and thus guard against injury to the rider; and to that end the invention consists in the novel construction of the saddletree and its connection with the seat, as hereinafter fully described, and set forth in the claims.

In the annexed drawings, Figure 1 is a side view of a bicycle-saddle embodying my invention. Figs. 2 and 3 are vertical longitudinal sections showing the saddle, respectively, in its normal and strained condition; and Fig. 4 is a detached plan view of the articulated front end portion of the saddletree.

Similar letters of reference indicate corresponding parts.

*a* represents the main support of the saddle, which is fastened to the bicycle-frame by means of a clip *C* or other suitable means. Said support constitutes the longitudinal central portion or member of the saddletree and consists of a suitable metallic tube, which is inverted-arch shaped. In opposite ends of said tube slide longitudinally the end members *b* and *b'* of the saddletree, which members extend from the end plates *c* and *c'*, to which the seat *d*, of leather or other suitable material, is fastened.

The rear end member *b* is rigidly secured to the rear plate *c*, and its free end portion is shaped to correspond to the interior of the tubular central member *a*, in which it slides longitudinally. The other end member *b'* is formed at one end to correspond to the interior of the adjacent portion of the tubular central member *a*, in which it slides longitudinally. The opposite end of said end member is inserted in a socket *f* in the front plate

*c'*, so as to allow it to rock vertically in said socket. Said member *b'* is formed with a joint *g*, which allows the front end portion of said member to be deflected downward. A shoulder *h* at the joint limits the upward movement of said front end portion. The tension of the seat *d* draws the front end of the member *b'* upward and sustains the same in its normal position.

Inside of the tubular central member *a* of the saddletree are two spiral springs *e e*, between the inner ends of which is interposed an abutment *i*, which is rigidly secured to the said member. The outer ends of said springs abut against the inner ends of the end members *b* and *b'*, as illustrated in Fig. 3 of the drawings.

In order to allow the saddle to be deprived of its elasticity when desired, I provide suitable adjustable locking devices, such as pins *l*, adapted to be inserted in perforations *l* in the rigid central member *a* and inclosed portions of the end members *b b'*.

One of the great advantages of my improved bicycle-saddle consists in the flexibility of the saddletree and of the leather seat, which is supported only at its ends on the saddletree and stretched from end to end. The flexibility of the tree is due to the cylindrical shape of the tubular central member *a* and corresponding cylindrical end portions of the end members *b b'*, which slide in said tubular member and are allowed to turn a limited degree therein, said movement being limited by the slight longitudinal curvatures of said members.

The aforesaid flexibility of the saddle and saddletree allows the seat *d* to sway or rock laterally and thus yield to the movement of the body of the rider, and consequently render the seat more comfortable.

What I claim as my invention is—

1. A bicycle-saddletree formed of two end plates, arms extending from said plates part way toward the center of the tree, a rigid longitudinal supporting-tube constituting the central member of the tree and embracing the free end portions of the arms, and springs sustained in said tube and abutting against the ends of the arms as set forth.

2. A saddletree consisting of end plates, arms extending from said plates part way to—



ward the center of the tree, a rigid longitudinal supporting-tube constituting the central portion of the tree, and springs in said tube abutting against the ends of the arms as set forth.

3. A bicycle-saddletree composed of a rigid tubular central supporting member, end members sliding in said tubular member, springs sustained in the tubular member and abutting against the inclosed end members and an abutment interposed between the inner ends of the springs as set forth.

4. A bicycle-saddletree composed of a rigid tubular central supporting member, seat-supporting plates under the ends of the seat, a longitudinal inverted-arch-shaped tube under the central portion of the seat and constituting the main support of the saddle, correspondingly-curved arms extending from the aforesaid plates and sliding in the segmental tube, springs in said tube abutting against the ends of the arms, and an abutment interposed between the inner ends of the springs as set forth.

5. A bicycle-saddle consisting of a longitudinal inverted-arch-shaped supporting-tube under the central portion of the saddle, seat-supporting plates under the ends of the seat, an arm rigidly attached to the rear plate and sliding with its free end in the aforesaid tube, an arm extending from the front plate into the aforesaid tube and provided with a down-

wardly-deflecting joint, a flexible seat secured to the plates and holding the jointed arm in its normal position, springs in the tube abutting against the ends of the arms, and an abutment interposed between the inner ends of the arms substantially as set forth and shown.

6. A saddletree composed of a rigid longitudinal central supporting member, end members sustained longitudinally movable on said central member, a spring for each end member supported on the central member to oppose the movement thereof, and adjustable locking devices on the central member for preventing longitudinal movement of said end members as set forth.

7. The combination of the saddletree composed of a rigid tubular central member of inverted-arch shape, end members having arms sliding in said central member, springs within the central member abutting against the end members, and a leather seat supported on said end members and stretched between said supports.

In testimony whereof I have hereunto signed my name this 26th day of October, 1895.

CHARLES F. LEFEVER. [L. S.]

Witnesses:

J. J. LAASS,

M. A. LEYDEN.