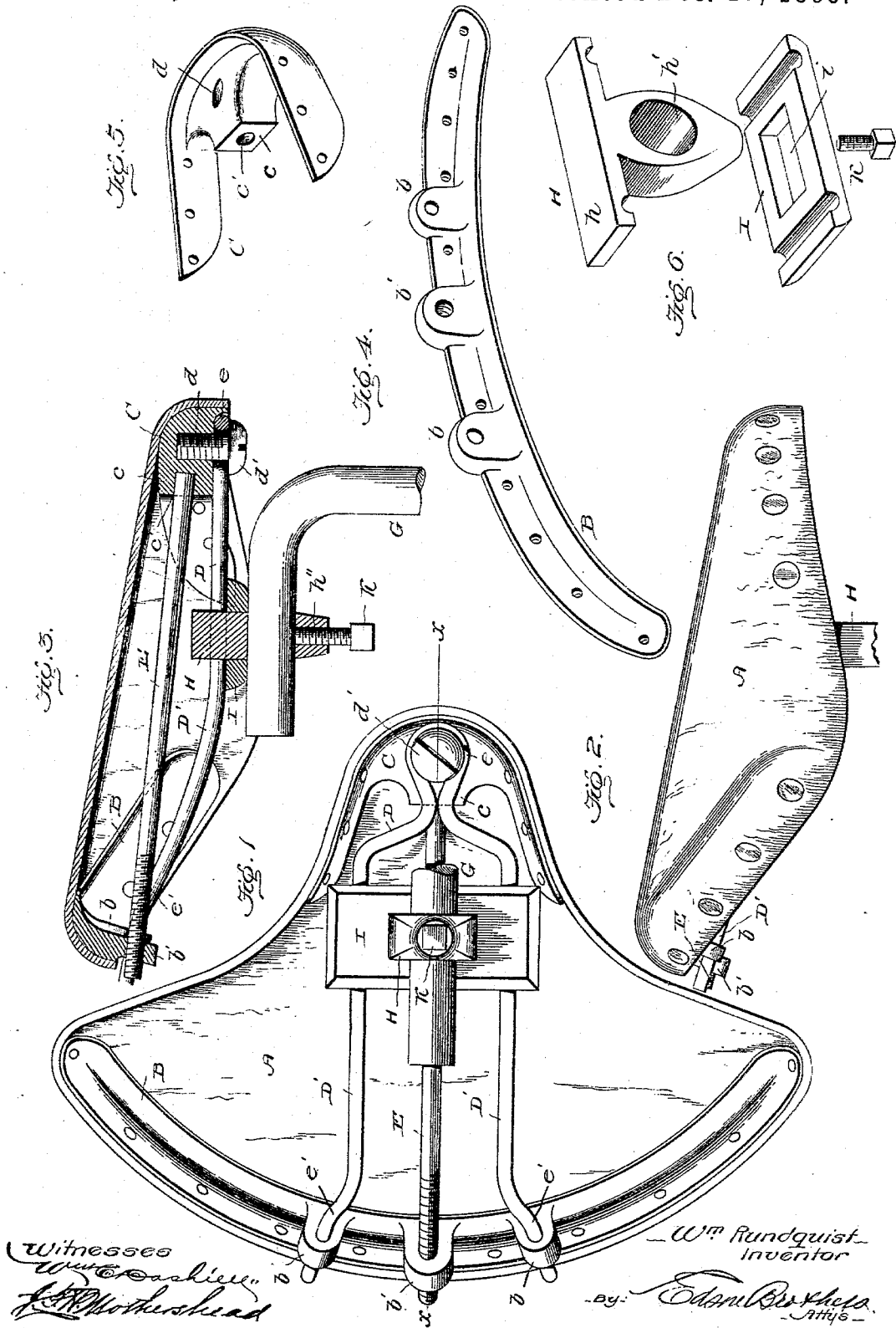


(No Model.)

W. RUNDQUIST BICYCLE SADDLE.

No. 551,478.

Patented Dec. 17, 1895.



UNITED STATES PATENT OFFICE.

WILLIAM RUNDQUIST, OF ELGIN, ILLINOIS, ASSIGNOR OF ONE-HALF TO
WILLIAM F. HUNTER, OF SAME PLACE.

BICYCLE-SADDLE.

SPECIFICATION forming part of Letters Patent No. 551,478, dated December 17, 1895.

Application filed August 17, 1895. Serial No. 559,673. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM RUNDQUIST, a citizen of the United States, residing at Elgin, in the county of Kane and State of Illinois, have invented certain new and useful Improvements in Bicycle-Saddles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in saddles for bicycles and other like machines, and the object in view is to provide a simple and inexpensive construction in which the slack in the leather or top may be easily and quickly taken up and the leather put under proper tension by the simple adjustment of a tension-bar.

A further object of the invention is to provide a simple form of clamp by which the saddle-spring and the clamp itself may be securely held on the saddle post or pillar by a single screw.

With these ends in view my invention consists in the construction and arrangement of parts which will be hereinafter fully described and claimed.

To enable others to understand my invention I have illustrated it in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a bottom or inverted plan view of my improved saddle. Fig. 2 is a side elevation. Fig. 3 is a longitudinal sectional view on the line *xx* of Fig. 1. Fig. 4 is a detail perspective view of the cantle-bar. Fig. 5 is a similar view of the horn or pommel plate. Fig. 6 is a similar view of the clamp.

Like letters of reference denote corresponding parts in all the figures of the drawings, referring to which—

A designates the top or leather. B is the cantle-bar, C the pommel or horn plate, and D the spring which is fastened at its front end to the pommel-plate C and has its rear ends loosely fitted—that is, unconfined by set-screws—in lugs on the cantle-bar.

The leather A is shaped and proportioned

as shown in Fig. 1. This style of saddle I find is advantageous in the following particulars: It is light, yet sufficiently strong. It is smaller than the ordinary saddle as regards length, while its rear end is nearly as broad as the ordinary saddle, and the leather affords sufficient support for the rider, while it, to a large extent, prevents rubbing and chafing the legs of the rider.

The cantle-bar B is cast in a single piece of the proper longitudinal curvature and of angular form in cross-section to enable it to be fitted inside of the leather to give the proper shape to the hind thereof, said cantle-bar being rigidly fastened to the leather by rivets or other suitable means. Said cantle-bar is further provided with three lugs or ears *b b b'*, which are integral with the bar and which depend a suitable distance below the same. The lug *b'* is situated between the two lugs *b b* and in about the central median line of the saddle. Said lug *b'* is provided with a tapped or threaded opening, while the other side lugs *b b* have plain smooth openings.

The pommel-plate C is curved, as shown, to fit the horn of the saddle, to which it is fastened by rivets or otherwise; and said plate C is enlarged on its rear central edge to form the boss *c*, in which is provided the smooth socket-opening *c'*, said plate C being further provided with a vertical threaded opening to receive the screw *d*, which fastens the front end of the spring D to the pommel-plate. This spring D is preferably made from a rod or wire, of appropriate size and circular in cross-section, although the spring may be made of flat metal or a spring-plate. In the embodiment of the spring herein shown, it is made by bending the rod or wire upon itself to form the two branches *D' D'*, the front end of said rod being fashioned to form the loop or eye *e*, while the rear ends of the branches *D'* are bent upwardly and diverge as at *e'*, the branches *D'* being parallel to each other between the loop *e* and the bent rear ends *e'*. (See Fig. 1.)

The front end of the spring D is fitted

against the lower side of and rigidly fastened by the screw *d* to the pommel-plate C, while the rear bent ends *e'* of the spring branches D' are loosely or slidably fitted in the plain smooth openings in the lugs *b b* on the cantle-bar B, so that the cantle-bar may readily slide on the branches D' of the spring when the tension rod or bar E is adjusted. This tension bar or rod is arranged in the central longitudinal part of the saddle and in plane between the branches D' of the spring. The front smooth end of this tension-bar is stepped or loosely fitted in the cavity or socket-opening *e'* formed in the rear side of the boss *c* on the pommel-plate C; but the rear end of said tension-bar is screw-threaded for a portion of its length and notched or squared for the accommodation of a screwdriver, wrench, or other implement for conveniently rotating the bar E. It will be noted that this tension-bar has its threaded portion fitted to engage with the threads in the opening of the central lug *b'* on the cantle-bar, and this tension-bar is wholly independent of and disconnected from the spring which sustains the leather or top A. In order to put the leather or top A under proper tension, and to take up any slack or looseness in the leather, it is only necessary to apply an instrument to the rear end of the tension-bar and turn the latter in the proper direction, the result of which is that the front end of the tension-rod turns loosely in its step-bearing in the pommel-plate, while its rear threaded end operates in the screw-threaded lug *b'* to force the cantle-bar away from the pommel-plate, the cantle-bar lugs *b b* sliding on the rear ends of the spring branches D', thereby straining the leather or top A and giving it the desired tension.

I am aware that it is not new to have the rear ends of the saddle-springs fitted in sockets on the cantle-bar, and to provide set-screws for holding the springs and cantle-bar rigidly and adjustably together; and I am also aware that it is old to use a threaded tension-bar connected to a cantle-bar and provided with holding-nuts which may be operated to stretch the leather. My improvement, however, materially simplifies and cheapens the construction, entirely dispenses with set-screws or nuts, which are liable to work loose and get lost, and provides a simple and easy method for putting the top or leather under tension by the application of a wrench, screw-driver or tool to the tension-bar.

G designates an ordinary pillar or saddle-post. The saddle is fastened to said post G by the clamp H, the plate I, and a single set-screw K. The clamp H is provided with the lateral grooved ears forming the enlarged head *h*, the horizontal opening *h'* for the reception of the arm on the pillar or post G, and with a vertical threaded opening *h''*, in

which is screwed the binding-screw J that bears against the under side of the arm on the pillar G. The plate I has an oblong slot *i* formed therein to enable said plate to be fitted around the clamp H, and in the upper side of this plate are formed the grooves which receive the branches D' of the spring. The clamp H is fitted between the branches D' of the spring and its grooved head *h* bears down or rests upon said spring branches. The plate I is fitted around the body and against the lower side of the spring branches D' so that the latter are confined between the head of the clamp and the plate I. The arm on the saddle-pillar passes through the opening *h'* in the clamp H, and the plate I rests upon the arm of the saddle-pillar, said plate I being disposed between the saddle-pillar and the spring. By tightening up the screw J, it binds against the lower side of the pillar or post G and draws down the head *h* of the clamp so that the plate I and head *h* operate to hold the spring D firmly and the plate I and screw J secure the clamp on the saddle-pillar.

The operation and advantages of my improved saddle will be readily understood from the foregoing description taken in connection with the drawings.

One of the salient features of my improved saddle resides in the fact that the spring is free to perform its office of furnishing a yielding support for the saddle leather or top, in which respect it is essentially different from any other well-known types of saddles in which the spring is rigidly secured or clamped to the saddle-top and thereby made to serve the purposes of a stretcher to keep the saddle taut. While the stretcher-bar and spring form the frame of the saddle, they are entirely independent of each other, the stretcher serving its primary purpose of keeping the leather or top in a taut condition, while the rear end of the spring is unconfined and free to play in the cantle-bar so as to secure the desired elasticity and form a resilient support for the leather or top, which support is unhampered in its actions by the independent stretcher-bar.

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

1. The combination with a saddle leather, of a pommel plate having a smooth step bearing, the cantle bar provided with an interiorly threaded bearing in line with the step bearing, a spring having its rear unconfined and slidably fitted in the cantle bar, and a central longitudinal tension-bar fitted in the step bearing to turn freely in the pommel plate and having a rear threaded end which engages with the threads in the bearing of the cantle bar, substantially as described.

2. In a bicycle saddle, the combination

with a saddle leather, a pommel plate, and a
candle bar, of a stretcher bar connecting the
pommel plate and candle bar and operating
to adjust the same away from one another to
5 stretch the saddle leather, and a supporting
spring fastened to the pommel plate and hav-
ing its unconfined rear end slidably fitted in
the candle bar to play freely therein under
the weight of the rider; said stretcher bar

and spring being entirely independent of each 10
other to perform their proper offices, as set
forth.

In testimony whereof I affix my signature
in presence of two witnesses.

WILLIAM RUNDQUIST.

Witnesses:

H. L. GIVEN,
G. H. McDONALD.