(No Model.)

A. L. GARFORD.

BICYCLE SADDLE.

No. 481,538. Patented Aug. 23, 1892.

Fig. 1.

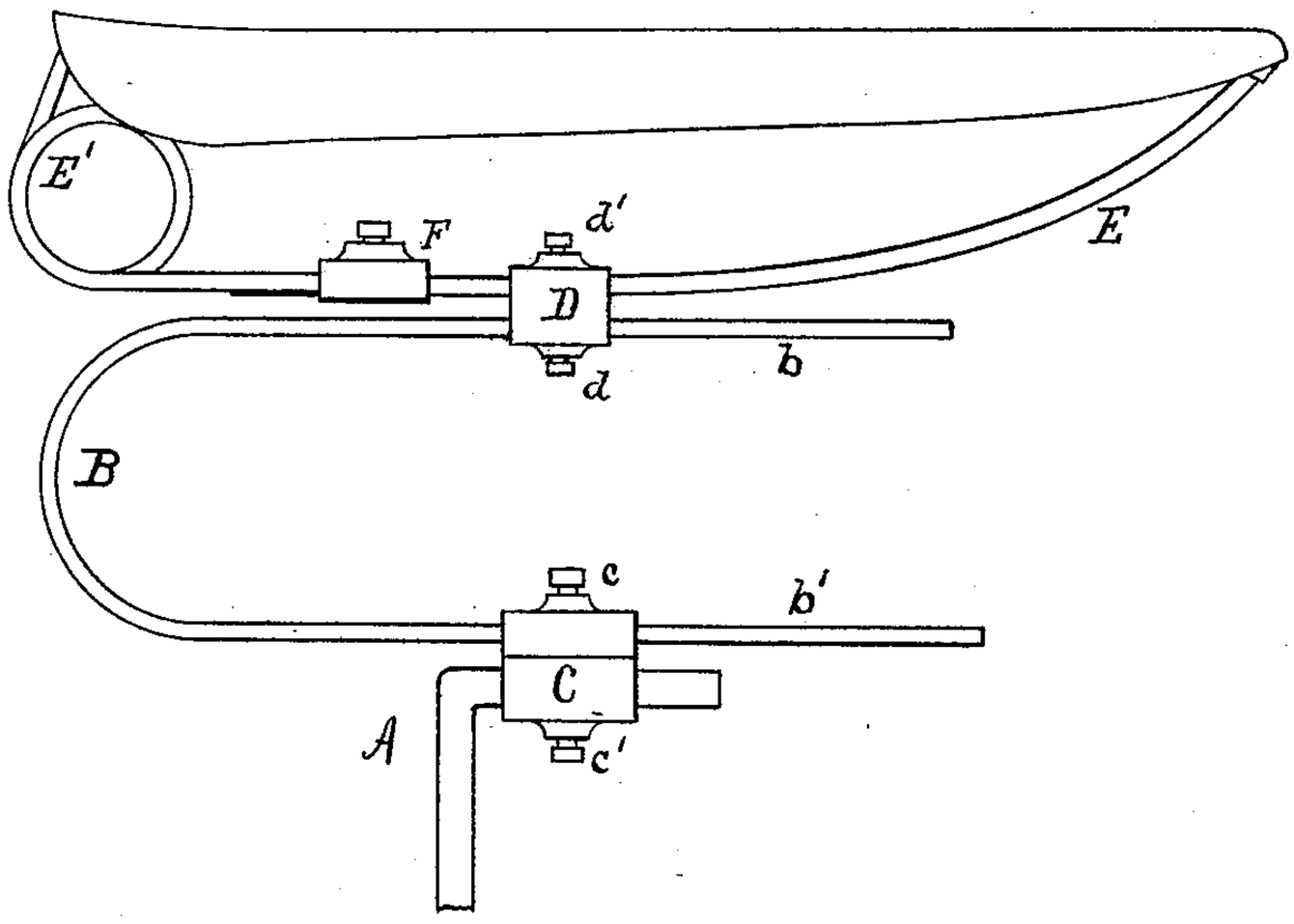
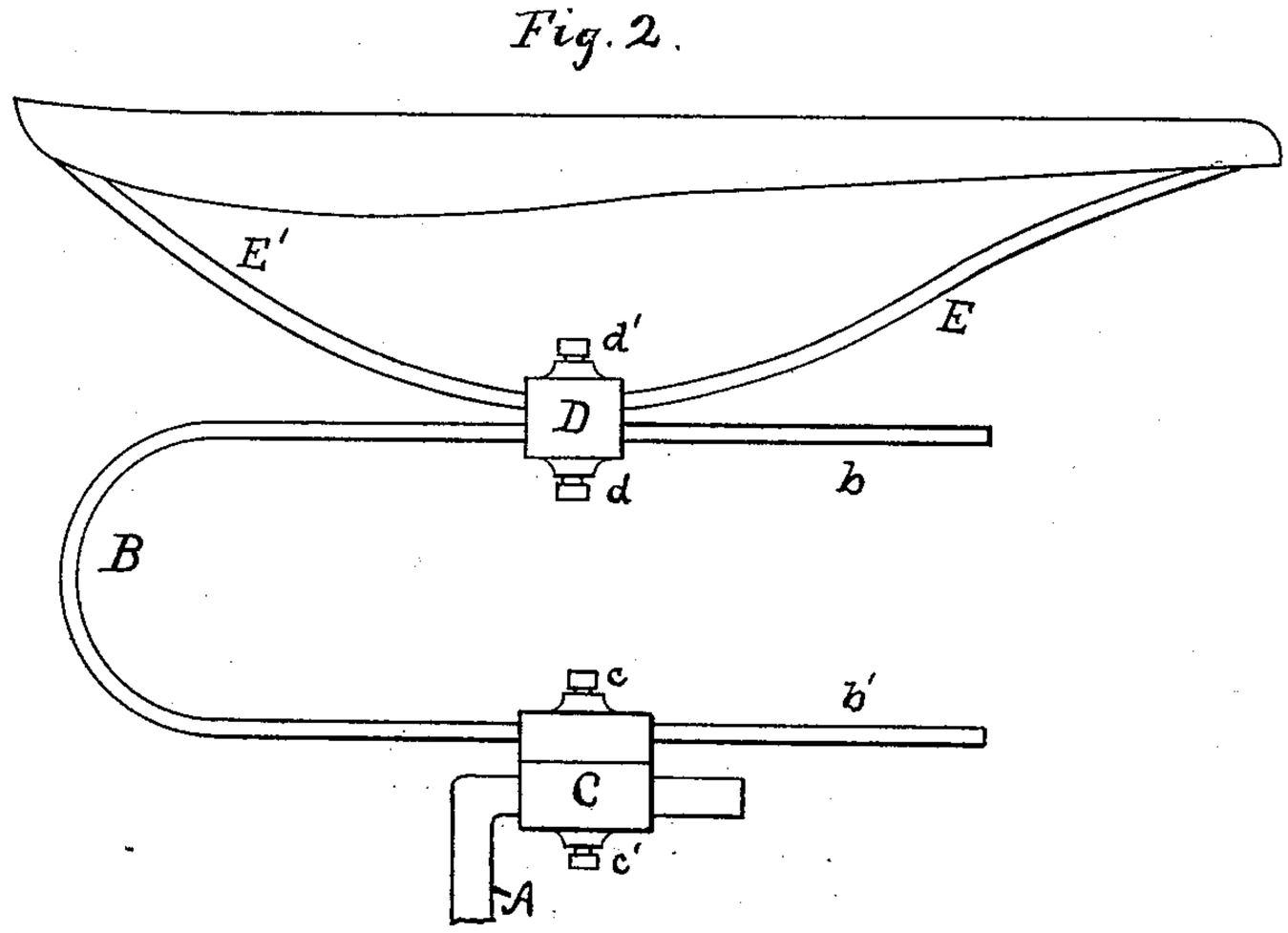


Fig. 2.



WITNESSES

Albert H. Bates.

Katherine Wolfe.

INVENTOR

Arthur L. Garford

By his attorney

E. L. Thurston

UNITED STATES PATENT OFFICE.

ARTHUR L. GARFORD, OF ELYRIA, OHIO.

BICYCLE-SADDLE.

SPECIFICATION forming part of Letters Patent No. 481,538, dated August 23, 1892.

Application filed January 2, 1891. Serial No. 376,461. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR L. GARFORD, a citizen of the United States, residing at Elyria, in the county of Lorain and State of Ohio, have invented certain new and useful Improvements in Bicycle-Saddles, of which the following is a specification, reference being had to the accompanying drawings, which are made a part of the same.

My invention herein described is a modification of and in some respects an improvement upon the velocipede-saddle which forms the subject-matter of Letters Patent No. 431,573, granted to me July 8, 1890.

The objects of my present invention are to provide a velocipede-saddle having most of the desirable features of construction present in the saddle shown in the prior patent mentioned, whereby it operates in the same manner and with the same beneficial results, but which may be more accurately adjusted to suit riders of different weights and different styles of riding and be more universally adapted to all kinds of machines. I have attained these results by the combination of mechanism hereinafter described, and illustrated in the drawings, in which—

Figure 1 is a side view of one form of the device, and Fig. 2 is a side view of another form thereof.

Referring to the parts by letters, A represents the usual form of an L-saddle support of a tricycle or Safety bicycle.

B represents a bent spring, which is substantially U-shaped and is preferably made of flat spring metal. The lower leg *b'* passes through the clip C, to which it may be secured at any point by means of the set-screw *c*. Below the slot through which the spring passes the clip C is provided with a hole through which the saddle-support passes, and a set-screw *c'* or other suitable device is provided for securing said clip to the saddle-support. This spring B is fastened to the saddle-support with the bent part of the spring toward the forward end of the velocipede.

The seat is adjustably attached to the upper leg *b* of the spring B by means of a clip D, having a slot through which the leg *b* passes, said clip being adapted to slide freely upon said leg. A set-screw *d* is provided for securing said clip at any point upon said leg.

E represents the rear support, and E' the front support, of the saddle-seat, and the seat is stretched between the upper free ends of said supports in any suitable manner. The seat-supports E and E' may be and preferably are made both of spring metal, since thereby the saddle is made easier to ride; but either or both of them may be, if so desired, made of material having little or no spring to it, in which case all the spring of the saddle would come through the flection of the spring B. The seat-supports E E' may be made in separate pieces, as shown in Fig. 1, or they may be made of a single piece of metal, as shown in Fig. 2.

In the form shown in Fig. 1 the back seat-support passes through a slot in the clip D, and it may be adjusted back and forth in said slot as occasion requires. A set-screw *d'* is provided for fastening the spring at the desired point to the clip. The front seat-support E' shown in this figure is substantially the same front seat-support which is shown in my prior patent—that is to say, it is a spring secured at its ends to a clip F, and it extends forward a suitable distance and is then bent upward and slightly rearward, whereby its upper end, which forms the point of attachment with the front end of the seat, will move slightly rearward and downward under the weight of the rider. The clip F is adjustably secured to the rear seat-support E, and it is moved along said support for the purpose of tightening—that is, taking up slack in the seat.

In order to secure the downward and rearward movement of the rider of this saddle, it is essential that the seat be secured to the upper leg *b* of the spring B with its front part near the bent part of said spring and its rear part near the free ends thereof.

In adjusting the various parts it is clear that if the spring B be moved forward through the lower clip C more spring action will be obtained from the spring, principally from the lower leg thereof, but that the entire seat will be carried forward. By moving the seat rearward along the upper leg of the spring B I may get an equal amount of spring action, principally from the upper leg of the spring B; but the seat will then occupy a different position relative to the treadles. The rider

may thus arrange his position relative to the treadles as he wishes and still be able to get any desired amount of spring action from the spring B.

For the purpose of providing means for changing the "tilt"—that is, the inclination of the seat—the seat-support which passes through the clip D may be curved, as shown in Fig. 1. The front part of the rear support E is substantially straight; but just back of the middle of said support E it begins to curve upward, at first slightly and then more sharply. When this support E is moved forward in the clip D, it tilts the front end of the saddle up more or less. In the form shown in Fig. 2, wherein the seat-supports E E′ are in one piece, it is curved in substantially the same manner and for the same purpose.

It is desirable to have some means for taking up slack in the seat. In the form of the device shown in Fig. 1 the seat may be tightened by moving the clip F forward.

No means for adjustment are shown in Fig. 2; but any of the well-known adjustable means for securing the seat to the seat-supports may be employed with this form of device.

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

1. The combination of a substantially-U-shaped spring B and a clip for adjustably securing the lower leg thereof to the saddle-support, a front seat-support, a rear seat-support, said supports being adjustably secured to the upper leg of said spring B, with the front seat-support adjacent to the bent part of said spring, substantially as and for the purpose specified.

2. The combination of a substantially-U-shaped spring B, a clip for adjustably securing the lower leg thereof to the saddle-support, a front seat-support, a rear seat-support, a clip adapted to be adjustably secured to the upper leg of said spring B, and means for adjustably securing the seat-supports to said clip, with the front seat-support adjacent to the bent part of the spring B, substantially as and for the purpose specified.

3. The combination of a bent spring B and a clip C for adjustably securing it to the saddle-support, a clip D, adjustably secured to the upper leg of said spring, a front seat-support and a rear seat-support, one of which is curved, and means for adjustably securing said curved support to the clip D, with the front seat-support adjacent to the bent part of the spring B, substantially as and for the purpose specified.

4. In a saddle for bicycles and like vehicles, the combination, with the seat-supporting spring E E′ and clips D C, of the spring B, adjustable back and forth in said clips, substantially as shown, and for the purpose set forth.

ARTHUR L. GARFORD.

Witnesses:
R. W. HILL,
S. S. ROCKWOOD.