(No Model.)

A. L. GARFORD.

BICYCLE SADDLE.

No. 540,430. Patented June 4, 1895.

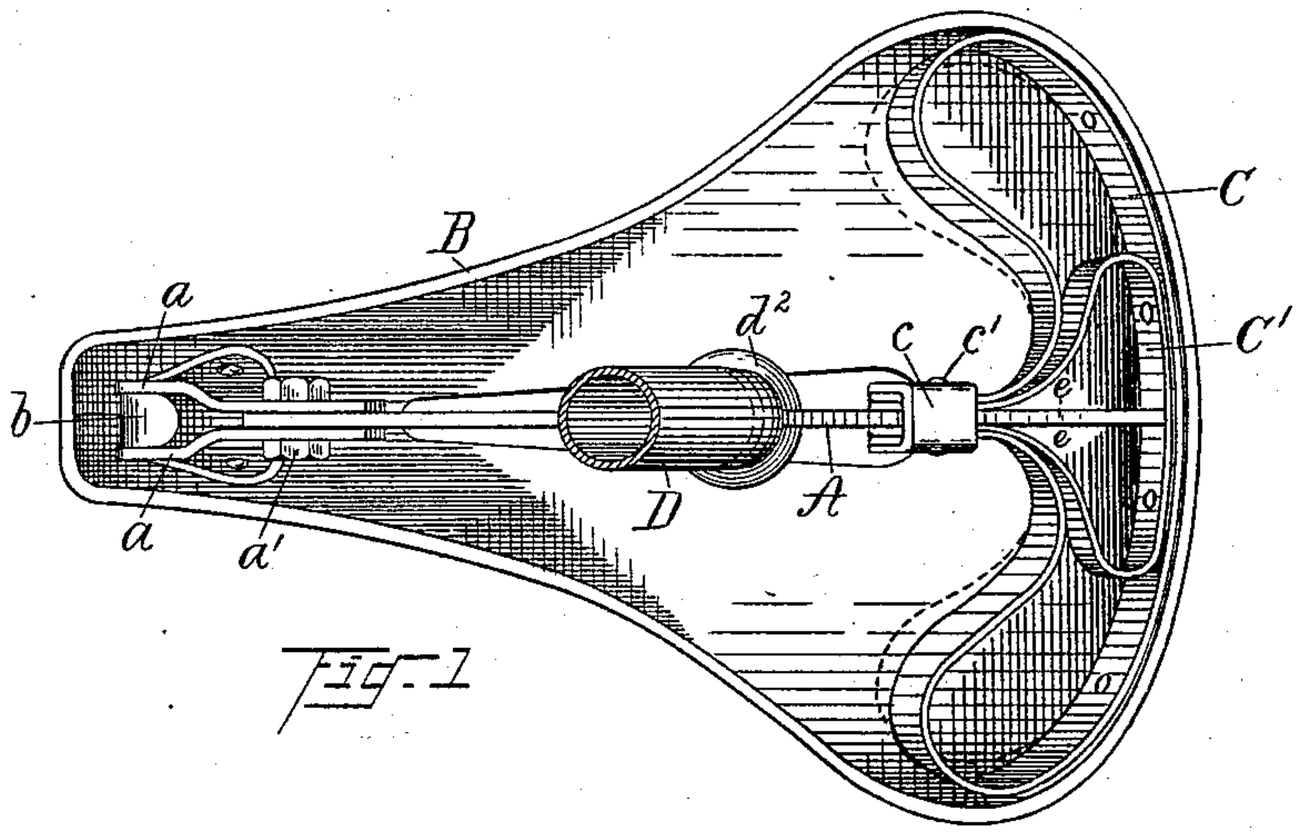

Fig. 1

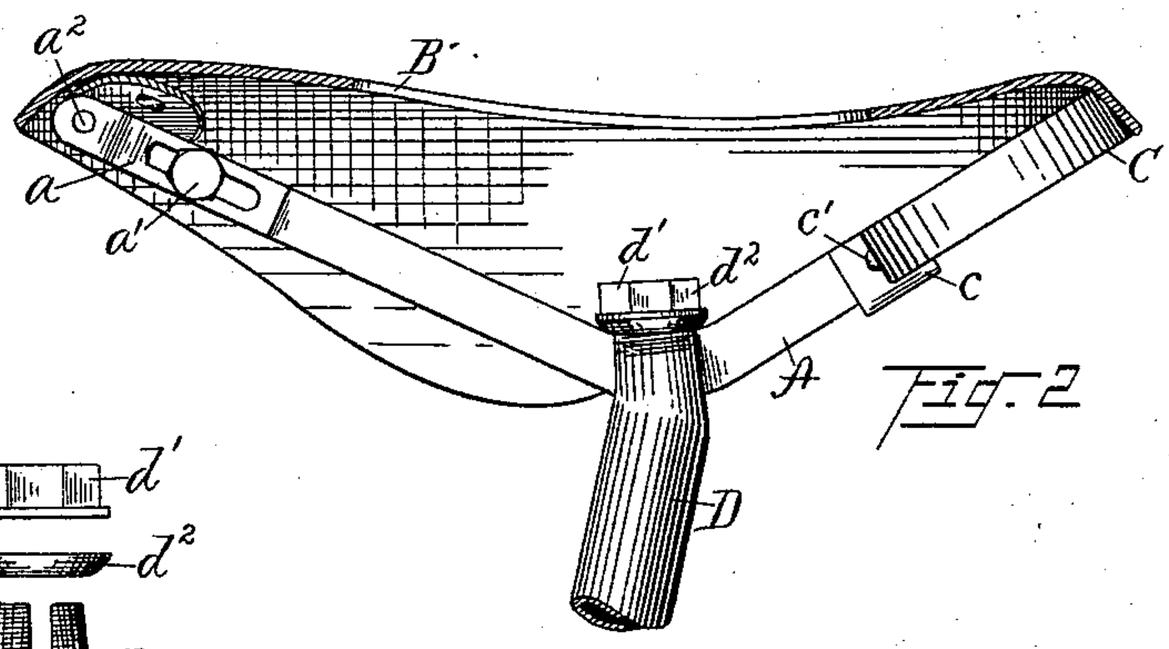

Fig. 2

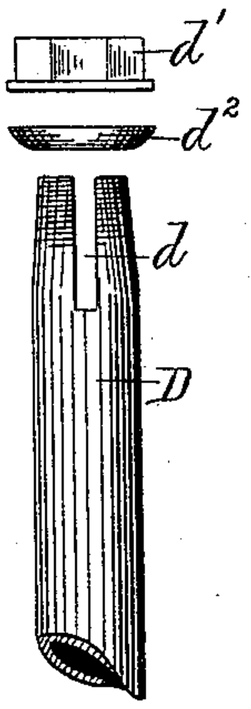

Fig. 3

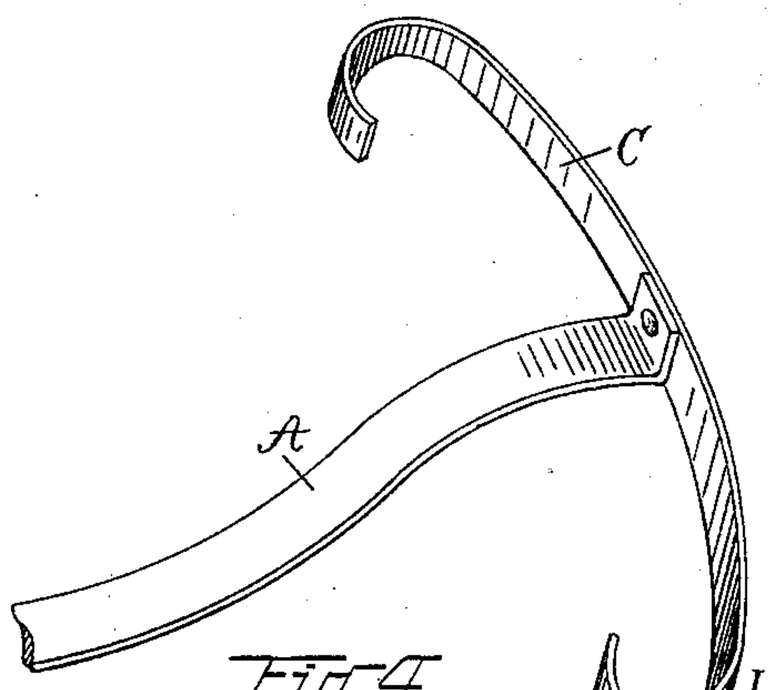

Fig. 4

WITNESSES.

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UNITED STATES PATENT OFFICE.

ARTHUR L. GARFORD, OF ELYRIA, OHIO.

BICYCLE-SADDLE.

SPECIFICATION forming part of Letters Patent No. 540,430, dated June 4, 1895.

Application filed July 30, 1894. Serial No. 518,993. (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; 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 particularly to the construction of the rear part of the frame by means of which the seat is supported.

The object is to provide a strong saddle in which the seat may yield laterally under the pressure of the rider's legs, and in which the rear part of the seat will have little or no up and down motion.

The invention consists in the construction and combination of parts hereinafter described and claimed.

In the drawings, Figure 1 is a bottom view of my improved saddle. Fig. 2 is a side elevation thereof with the seat in central vertical section. Fig. 3 is a rear view of the seat-post and nut, and Fig. 4 is a perspective view of the rear part of a modified form of saddle-frame.

Referring to the parts by letters, A represents the seat support, which in the form shown is a rigid bow shaped bar.

The flexible seat B is preferably made of leather. It is secured at its front end to the front end of the seat support by any suitable means. I prefer to employ for this purpose, two slotted plates *a a*, which are adjustably secured to the front end of the seat support by a bolt *a'*; a rivet or rod a^2 which extends between and is secured to the front ends of both of the plates *a a*; and a hook *b* which is secured to the seat, and embraces the said rivet.

C represents a spring cantle. It is made of flat spring metal bent in its middle part to fit the curve of the rear end of the seat to which it is attached by rivets or other suitable means. Both ends of said spring are bent inward and slightly rearward, and then forward to the seat support, to which said ends are secured. Any suitable means may be employed to secure the ends of the spring cantle to the seat support; but I prefer to employ a strap *c*, as shown in the drawings, which embraces said ends of the spring cantle and the seat support which lies between them, and a rivet which passes through the said strap ends of the spring and the seat support. A second spring C' smaller than the spring C, but similarly bent and having its ends secured to the seat support by the same strap and rivet, lies within the spring C, and the middle parts of said springs being in contact, are rigidly connected by rivets or other suitable means. This spring C' stiffens the cantle, so that it is practically vertically unyielding, but it does not materially affect the lateral flexibility of the arms or sides of the cantle. The spring also stiffens the cantle so that the weight of the rider cannot so easily draw the rear end of the seat forward.

The seat support A may extend rearward and abut the inner side of the spring C', and thus prevent any drawing forward of the cantle when a rider is on the seat; or, if it is thought desirable to permit some forward movement of the cantle and rear end of the seat, the seat support may be cut off at or near the point indicated by the dotted line *e—e* of Fig. 1. This latter construction is preferred for a road saddle, because it is more elastic.

The described cantle yields laterally and permits the sides of the seat to be moved toward the center by the pressure of the rider's legs; and this, it is believed, makes the saddle more comfortable to ride than the kind of saddles now most commonly used, in which the sides of the leather seat are susceptible of very little movement toward the center.

Having described my invention, I claim—

1. In a bicycle saddle, the combination of a flexible seat and a rigid bow-shaped seat support, with a flat spring cantle curved in its middle part to fit the rear end of the seat, and having its ends bent inward and rearward and then forward to the rear part of the said seat support, and means connecting said ends with said seat support, substantially as and for the purpose specified.

2. In a bicycle saddle, the combination of

the flexible seat and rigid seat support, of a spring cantle made up of, first, the spring C which is curved in its middle part to fit the rear part of the saddle and has its ends bent inward to and connected with the seat support, and, second, the reinforcing spring C′ secured at its middle part to the spring C and having its end connected with the seat support, substantially as and for the purpose specified.

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

ARTHUR L. GARFORD.

Witnesses:

E. L. THURSTON,

HELEN M. WOOD.