

(No Model.)

E. B. BEACH.
SADDLE FOR BICYCLES, &c.

Patented Aug. 27, 1895.

No. 545,421.

Fig. 1.

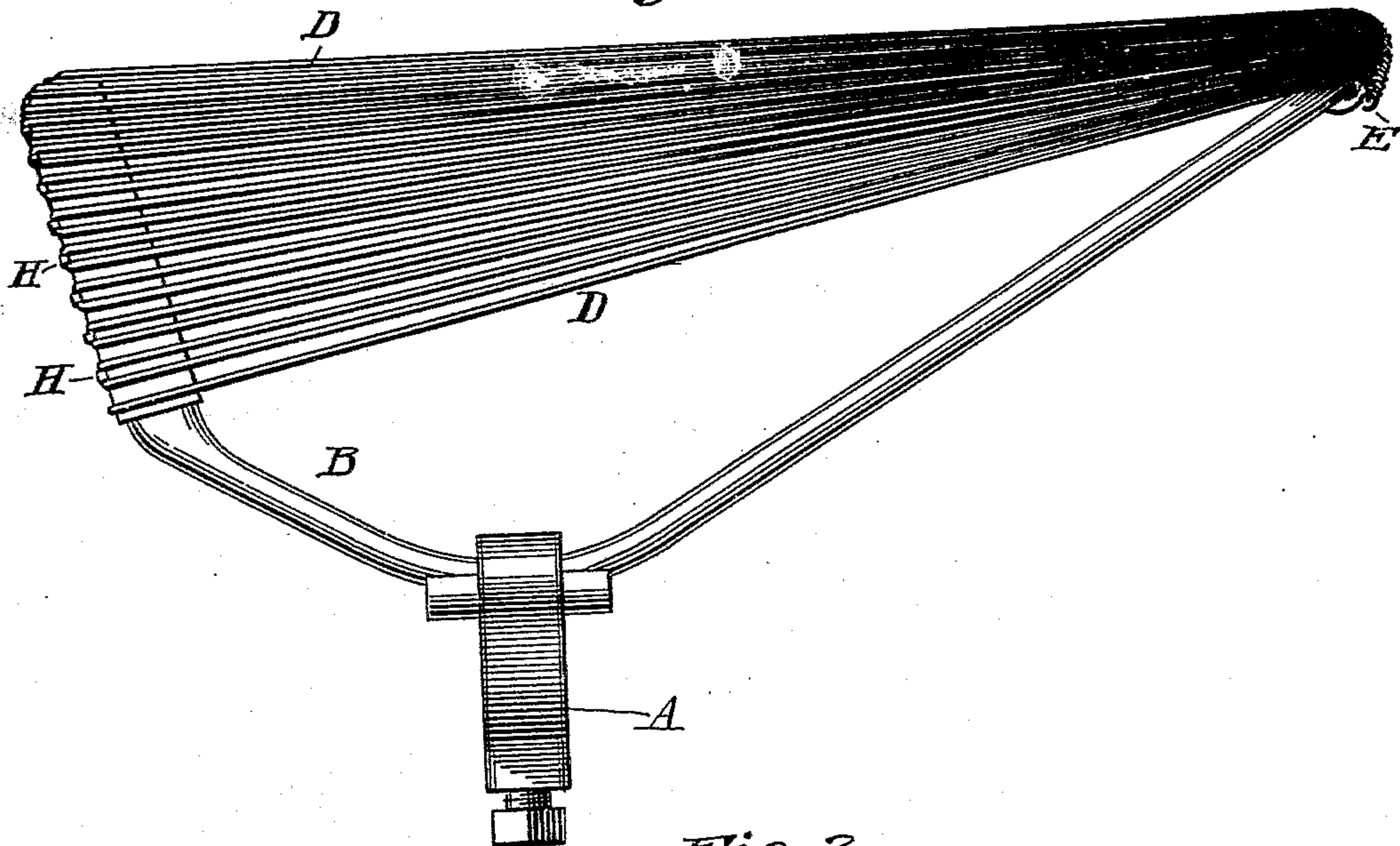


Fig. 2.

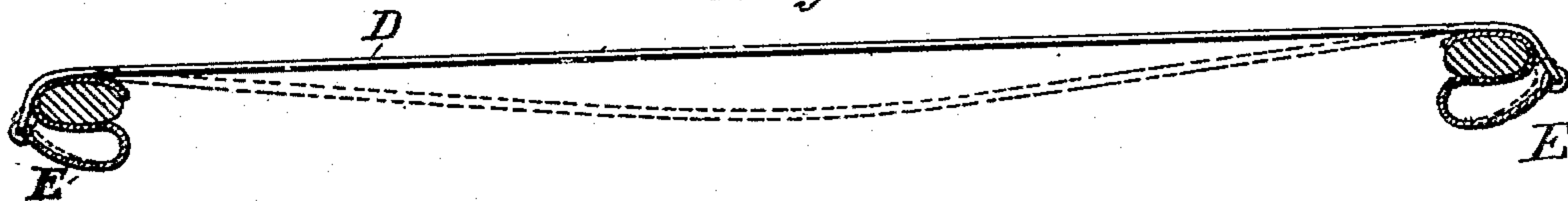


Fig. 3.

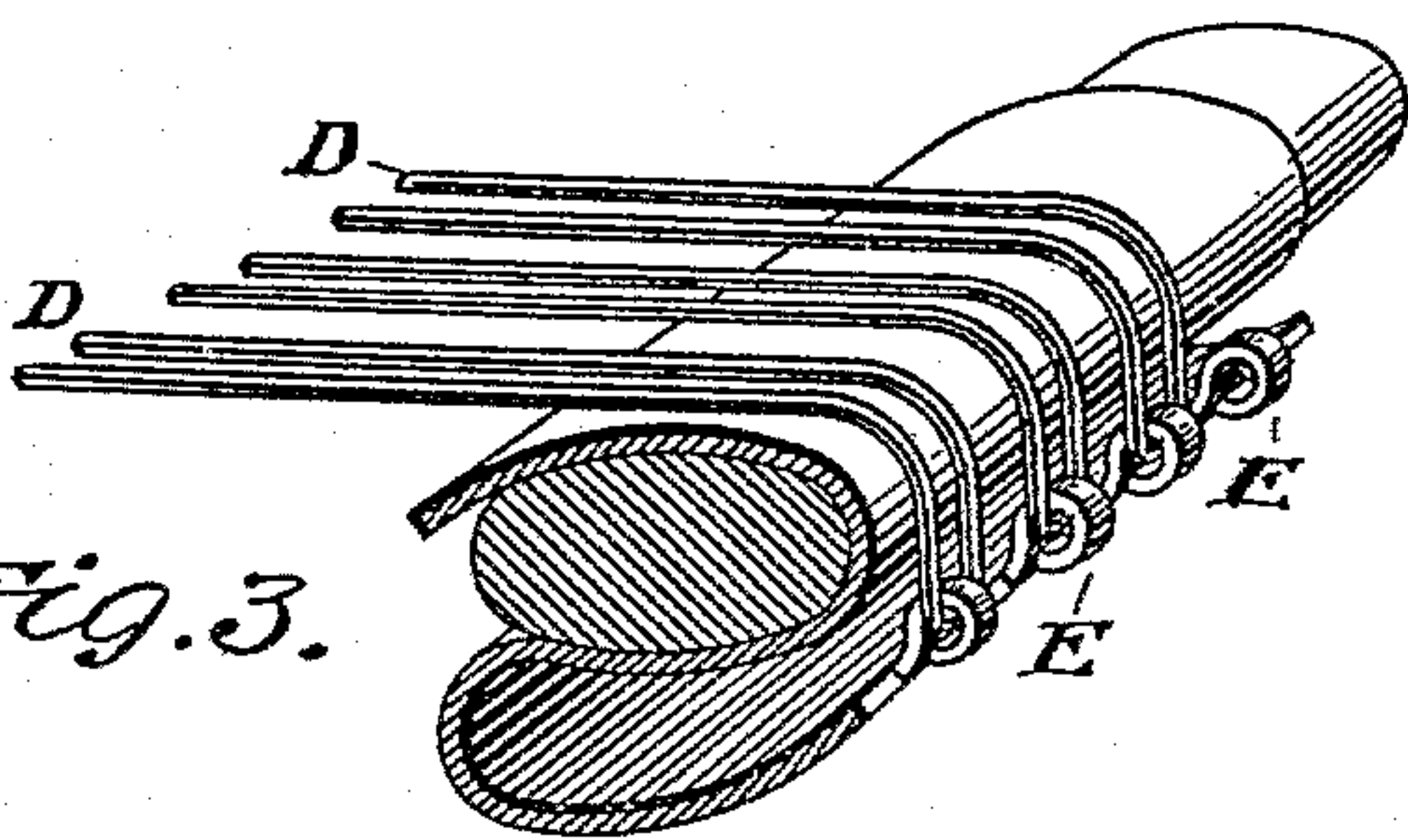
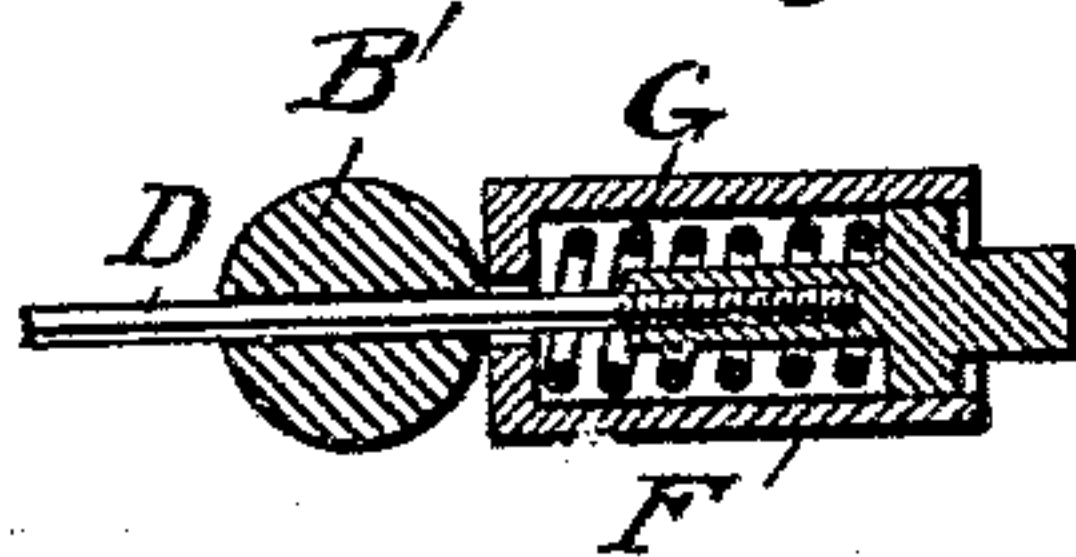


Fig. 4.



WITNESSES:

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SADDLE FOR BICYCLES, &c.

SPECIFICATION forming part of Letters Patent No. 545,421, dated August 27, 1895.

Application filed May 4, 1895. Serial No. 548,079. (No model.)

To all whom it may concern:

Be it known that I, EDGAR B. BEACH, a citizen of the United States, residing at Stony Creek, in the county of New Haven, State of Connecticut, have invented a new and useful Saddle for Bicycles and Similar Vehicles, of which the following is a specification.

My invention relates to an improvement in saddles, and consists in the mechanical arrangement and construction of the various parts constituting the same, all hereinafter fully described.

The objects of my invention are, first, to construct a saddle that will readily adapt itself to the figure of any person, thereby effecting a vast improvement over saddles made from leather or other similar materials, which soon become stretched and hardened so as to be incapable of fitting varying figures; second, to provide a construction that will permit the weight to be equally distributed, so that the wear will not come upon any particular part of the garment usually supported by the same, and which will at the same time reduce the tendency present in the ordinary saddle to chafe the rider.

My invention is illustrated by the accompanying drawings, in which—

Figure 1 is a side elevation of a saddle of my improved construction. Fig. 2 is a diagrammatic side elevation of one of the strands of which the seat is composed, showing the yielding supports for the same. Fig. 3 is an enlarged perspective detail view of a portion of the saddle, and Fig. 4 is a vertical sectional elevation of a modified detail.

Similar letters refer to similar parts.

A is a clamp of the ordinary pattern by which the saddle is secured to the seat-post projecting from the frame of the bicycle.

B is a saddle-frame of substantially the ordinary construction and adapted to be held by the said clamp A.

D D D are strands composing the seat of the saddle. These strands are made from substantially non-yielding substance and are longitudinally disposed upon the frame B. In order that the same may sag to a sufficient degree so as to adapt themselves to the figure of the rider, I provide suitable yielding devices at one or both ends of the saddle,

and by preference to the rear of and under the frame B.

In Figs. 1, 2, and 3 I have illustrated one form of yielding device, which consists of sheet-metal springs E, having hooked ends around which the strands D D are looped. These springs E E are formed so as to be capable of affording sufficient displacement to permit the proper sag to each strand, and it is obvious that a very slight displacement of the spring will permit the said strands supported thereby to yield or sag a distance several times as great as the displacement of the said spring. Furthermore, when the limit of the sag in the strand is reached the strand cannot be broken without exercising a great degree of strength, inasmuch as the said spring abuts against and is reinforced by the frame B, the dotted lines in Fig. 2 illustrating the position of said strands and yielding devices when the said limit is reached. It is obvious that the construction of the yielding devices may vary. In Fig. 4 one modification of the yielding device is shown, in which F is a suitable case supported at the rear of frame B' by the strand D, which passes through said frame, the said strand D passing into the case, where it is by preference adjustably secured to a spring G, which permits the same to yield to a sufficient degree to give the desired sag. By preference the strands D D are smooth, thereby reducing to a minimum the tendency to wear the garment of the rider. In Fig. 1 the springs E are shown at only the rear end of the saddle, the strands D D being held at the head or pommel by suitable hooks H H or their equivalent. The arrangement of the parts in the diagrammatic view in Fig. 2 shows a spring E at each end of the saddle. The great number of strands D D of which the seat is composed permit the weight of the rider to be divided thereupon so generally that each strand is required to sustain but a comparatively small weight. The springs or yielding devices in this saddle do not constitute part of the seat, but are more properly part of the frame upon which the seat is supported.

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

1. A saddle having its seat composed entirely of substantially non-elastic strands, each strand being supported at one or both ends of said saddle by suitable yielding devices, substantially as described.

2. A saddle consisting of a frame B, yielding devices attached thereto, and substantially non-elastic strands extending from the forward to the rear end of said frame and held by the said yielding devices, substantially as and for the purpose specified.

3. A saddle consisting of a frame B, yielding devices attached thereto at each end thereof, said yielding devices having hooked ends over which substantially non-elastic strands extending from the forward to the rear end of said saddle are hooked, substantially as and for the purpose specified.

EDGAR B. BEACH.

Witnesses:

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