

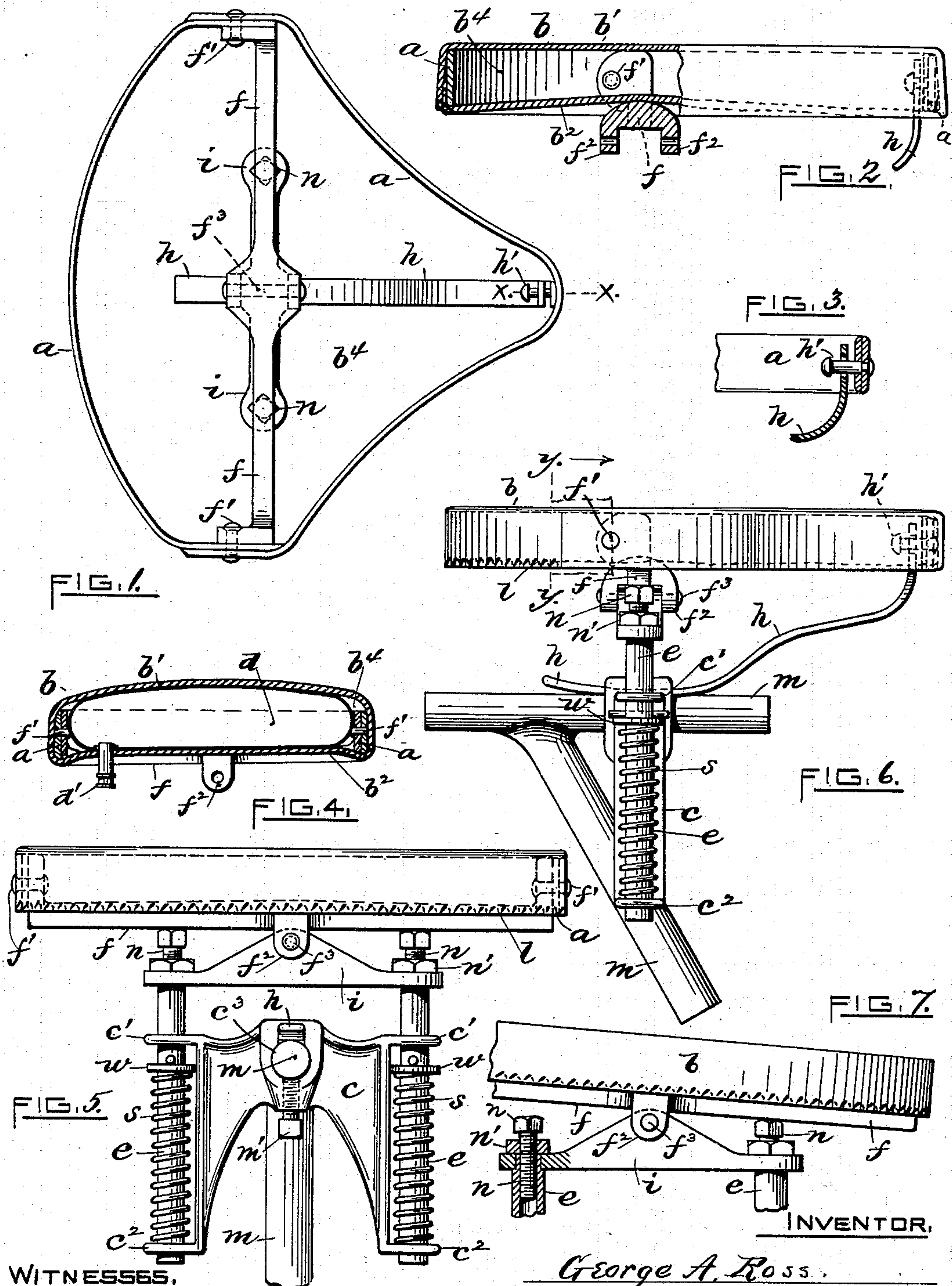
No. 612,215.

Patented Oct. 11, 1898.

G. A. ROSS.
BICYCLE SADDLE.

(Application filed Jan. 16, 1897.)

(No Model.)



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UNITED STATES PATENT OFFICE.

GEORGE A. ROSS, OF PROVIDENCE, RHODE ISLAND.

BICYCLE-SADDLE.

SPECIFICATION forming part of Letters Patent No. 612,215, dated October 11, 1898.

Application filed January 16, 1897. Serial No. 619,431. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. ROSS, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to bicycle-saddles; and it consists in the novel construction and combination of parts hereinafter set forth and claimed.

The objects I have in view are to provide bicycles with a saddle possessing a greater degree of adjustability and resiliency, the seat portion at the same time being capable of automatically adapting itself to the rider, whereby the latter can ride with greater ease and comfort. Moreover, the pad or other material filling the interior of the seat part can be readily changed as desired without detaching the seat from the saddle.

In the accompanying drawings, Figure 1 is a plan view of the seat-frame and the saddle connections, the seat-cover being removed. Fig. 2 is a side elevation of the same in partial section, the cover being in place. Fig. 3 is a partial section taken on line xx of Fig. 1 through the front end of the seat. Fig. 4 is a transverse section, in reduced scale, taken substantially on line yy of Fig. 6, showing the seat provided with a pneumatic pad. Fig. 5 is a rear end elevation of the saddle complete. Fig. 6 is a side elevation and Fig. 7 is a partial elevation similar to Fig. 5, showing the seat capable of being tilted from side to side.

In my invention, a , again referring to the drawings, indicates the frame of the seat portion of the saddle. I prefer to make the frame of a strip of thin flat steel having a practically uniform width or depth vertically, the same being bent, say, to a substantially pear-shape form and having the ends rigidly secured together. The upper and lower edges of the frame may be well rounded to prevent chaf-

ing the covering material about to be described. The said frame is inclosed in a removable covering b , of leather or other suitable fibrous flexible material. The upper and lower sides b' b^2 of the cover or envelop b are united along the curved rear lower edge of the frame a by a removable lacing l . (See Figs. 5, 6, and 7.) As thus constructed it is seen that a chamber b^4 is formed between the top and bottom sides of the cover. In this chamber may be placed a pneumatic pad d , Fig. 4, or other suitable cushion material—as, for example, curled hair, excelsior, &c. I prefer to employ a removable pad d , made of rubber, the same being readily inflated or deflated through the depending nozzle d' . (Shown in said Fig. 4.) I may add that the pad should fit the interior of the frame a all around, thereby filling the said chamber b^4 . When inflated, the top of the seat may extend beyond the upper edge of the frame, as shown, thereby presenting a comparatively large and self-conforming area for the rider to sit upon.

At or near the center of the seat, at the lower side, is located a transversely-arranged supporting-bar f , the ends of the bar being pivoted at f' to the inside of the frame a , as clearly shown. The center of the bar is enlarged and provided with a pair of downwardly-extending ears f^2 . These latter are drilled longitudinally of the saddle to receive a pivot-pin f^3 .

To the forward end of the seat-frame the upper end of a bent flat spring member h is jointed, as at h' . The lower or free end of the spring extends rearwardly past the center of the saddle and is adapted to be adjustably secured in the casting c , to be described.

The casting just referred to is vertically arranged and as drawn is substantially rectangular in form and adapted to stand crosswise of the saddle. It is provided at each side with upper and lower horizontal ears c' c^2 , through which pass the two vertically-slidable guide-rods ee . These latter are each surrounded by a spiral spring s , located between the ears. The lower ends bear upon the corresponding ears, the upper ends being in contact with resistance washers or collars w , adapted to move in unison with the rods. The upper part of the casting has a hole c^3 therethrough adapted to receive the saddle-

bar *m* and also the free end of the said spring *h*, a set-screw *m'* being employed to firmly clamp said parts together in any desired position. (See Fig. 5.)

5 The upper ends of the guide-rods *e* are secured to the outer ends of a cross-head *i*, located above and parallel to the casting *c*. The member *i* is mounted on the said pivot-pin *f*³ of the bar *f*. By this arrangement the
10 casting *c*, &c., are connected with the seat portion of the saddle, thereby at the same time allowing the seat to tilt sidewise to a limited extent, as indicated in Fig. 7.

The saddle is provided with adjustable
15 stop-pins or screws *n*, passing through the cross-head *i* and tapped into the upper ends of the rods *e*, check-nuts *n'* serving to keep the stops in position after adjustment. In case the rider desires to prevent the seat from
20 tilting he simply screws the pins *n* upwardly until the heads thereof bear snugly against the under side of the supporting-bar *f* of the seat, thereby firmly clamping the several parts together.

25 I claim as my invention and desire to secure by United States Letters Patent—

1. The seat-frame, a supporting cross-bar upon which the frame is pivoted, and a spring loosely connected at its front end to the front
30 end of the seat, combined with the cross-head *i* upon which said cross-bar is pivoted at right angles to the tilting movement of the seat, the casting to which the cross-head is connected, and the saddle-post to which the cast-

ing is clamped, there being an opening formed 35 in the upper portion of the casting which serves as a guide for the movement of the rear free end of the spring in adjusting the seat, substantially as described.

2. In a bicycle-seat, the frame *a*, the cross- 40 bar *f*, placed therein, and upon which the frame *a* is pivoted so that the seat can rock thereon in a line with the forward movement of the bicycle; the bent flat spring *h* connected at its upper front end to the front end 45 of the frame *a* and which spring forms a yielding support for the front end of the seat, combined with a cross-head upon which the bar *f* provided with ears is pivoted at right angles to the pivots which are passed through 50 the ends of the cross-bar, suitable spring-actuated rods *e* provided with adjusting set-screws *n* in their upper ends, and which set-screws are placed in a line with the cross-bar *f*; and the casting *c* which is adapted to be 55 clamped to the saddle-post, and which is provided with guiding-ears for the spring-actuated rods *e*, and which has an opening through its upper central portion so as to act as a guide to the movement of the free end of the 60 spring *h* in adjusting the seat, substantially as specified.

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

GEORGE A. ROSS.

Witnesses:

GEO. H. REMINGTON,
FRED W. CADY.