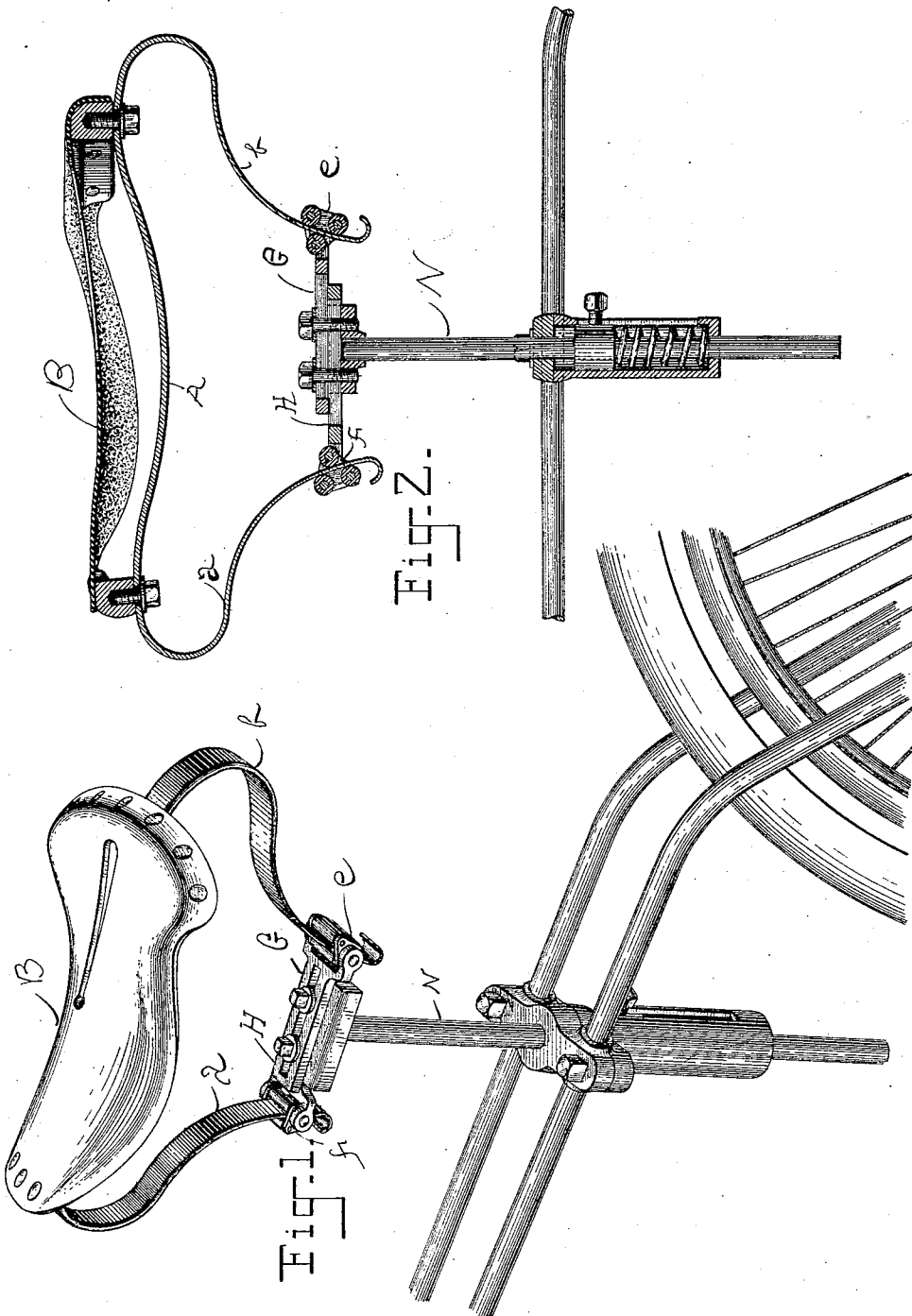


(No Model.)

S. L. SAUNDERS.
SPRING FOR SUPPORTING VEHICLE SEATS.

No. 470,707.

Patented Mar. 15, 1892.



Witnesses.
John F. Nelson.
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UNITED STATES PATENT OFFICE.

SAMUEL L. SAUNDERS, OF LYNN, MASSACHUSETTS.

SPRING FOR SUPPORTING VEHICLE-SEATS.

SPECIFICATION forming part of Letters Patent No. 470,707, dated March 15, 1892.

Application filed October 29, 1891. Serial No. 410,297. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL L. SAUNDERS, of Lynn, in the county of Essex and Commonwealth of Massachusetts, have invented a certain Improvement in Springs for Supporting Vehicle-Seats and Similar Devices, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention has for its object to provide means for supporting vehicle-seats and similar bodies, whereby the joggle and jar incident to said vehicles while moving may be prevented in greater or less degree from reaching the seat or its rider mounted thereupon.

In the present instance the invention is represented in connection with and supporting the seat of a bicycle.

Figure 1 of the drawings is a perspective view, and Fig. 2 is a longitudinal vertical section thereof.

The working parts of the bicycle may be constructed in any usual and customary manner, and the same are not represented in the drawings, except so much of the frame-work thereof as is necessary to illustrate my invention applied thereto.

The metallic plate A is made to support, as represented, the seat B, and is bent to form the inwardly-converging spring-arms *a b*. Said arms are supported one in a fulcrum-block *e* and the others in a fulcrum-block *f*. Said fulcrum-blocks are preferably composed of three rolls mounted in a frame to turn in the end of their supporting-bars G H, which bars are secured to the frame-post N and are adjustable to vary the distance of the fulcrum-blocks apart. The spring-arms are passed between the rolls of the fulcrum-blocks with the rolls bearing against the sides of the spring-arms, as shown. When thus supported, a

movement of the seat toward the supporting-frame operates inwardly against the spring-arms, thereby causing the arms to move downwardly in the fulcrum-blocks and approach each other until the increased spring-resistance of the arms takes up the added momentum of the rider or body mounted upon the seat. The fulcrum-blocks are supported adjustably to vary their distance apart in order that the blocks may be adjusted to develop a normal tension of the springs *a b*, united to counterpoise the normal weight of the rider or body temporarily upon the rider's seat, and thus insure the parts from moving so far as to wedge or cramp.

I have described and represented the fulcrum-blocks as composed of three rolls, and I prefer to so construct them, as it reduces the liability of the parts to cramp; but I am aware that blocks having single rolls adapted to bear against the outside of the springs are useful and embody the spirit of my invention.

I claim—

1. In combination, the fulcrum-blocks *a b*, a suitable supporting-frame, and the springs *e f*, supported movably in the fulcrum-blocks and sustaining the seat or body *h*, substantially as described.

2. In combination, a supporting-frame, the fulcrum-blocks *a b*, supported on said frame and adjustable to vary their distance apart, and the springs *e f*, supported movably in the fulcrum-blocks and sustaining the seat or body *h*, substantially as described.

Signed at Lynn, Massachusetts, this 13th day of October, A. D. 1891.

SAMUEL L. SAUNDERS.

Witnesses:

JOHN F. NELSON,
C. B. TUTTLE.