

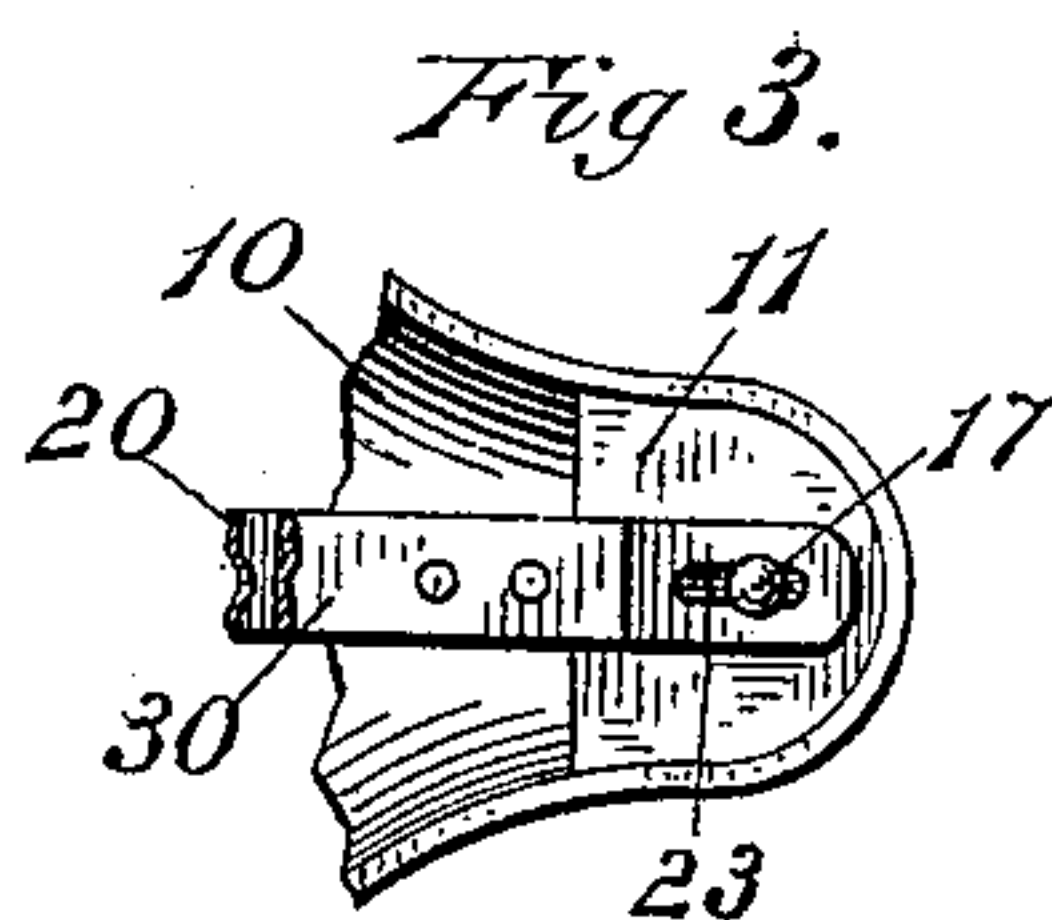
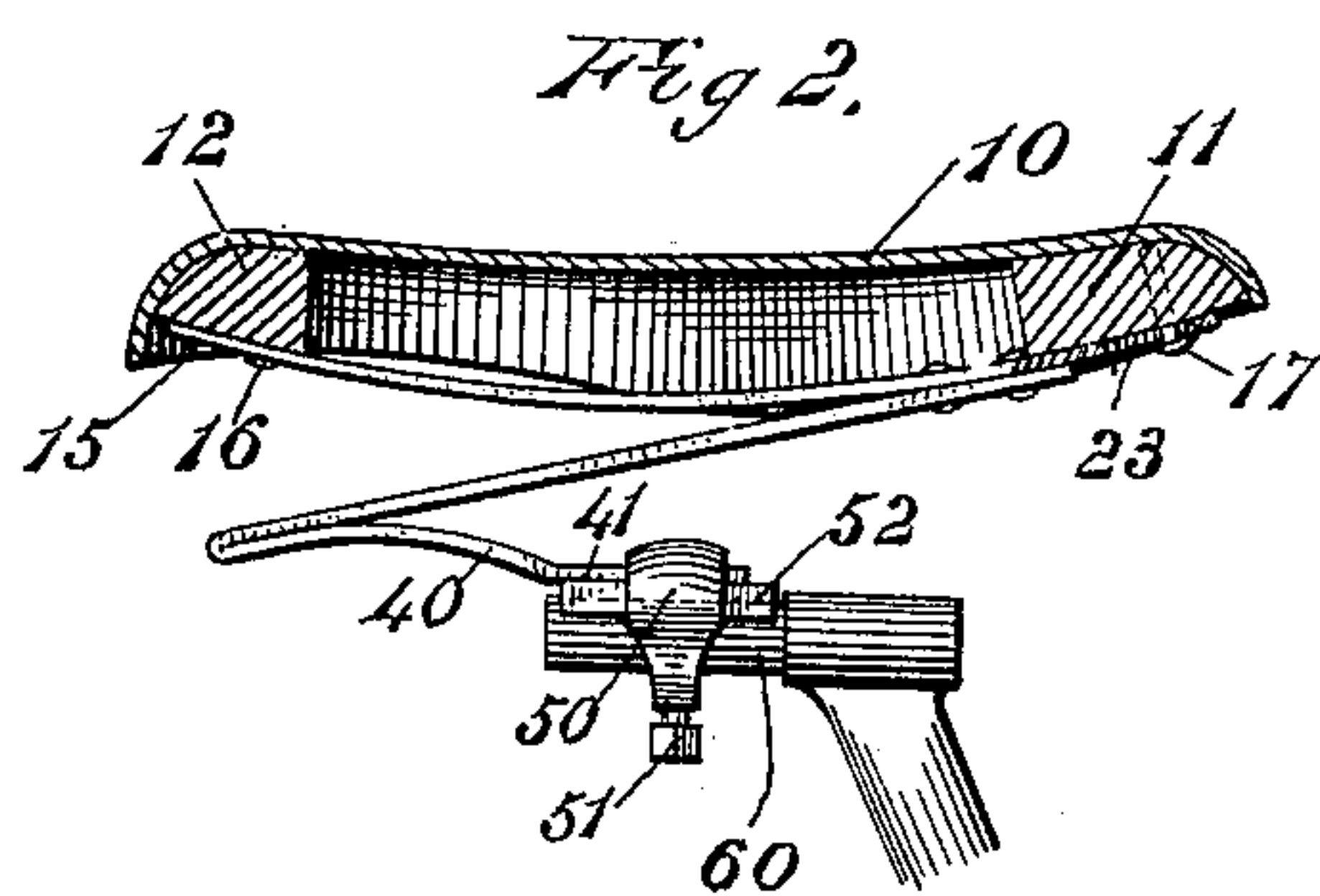
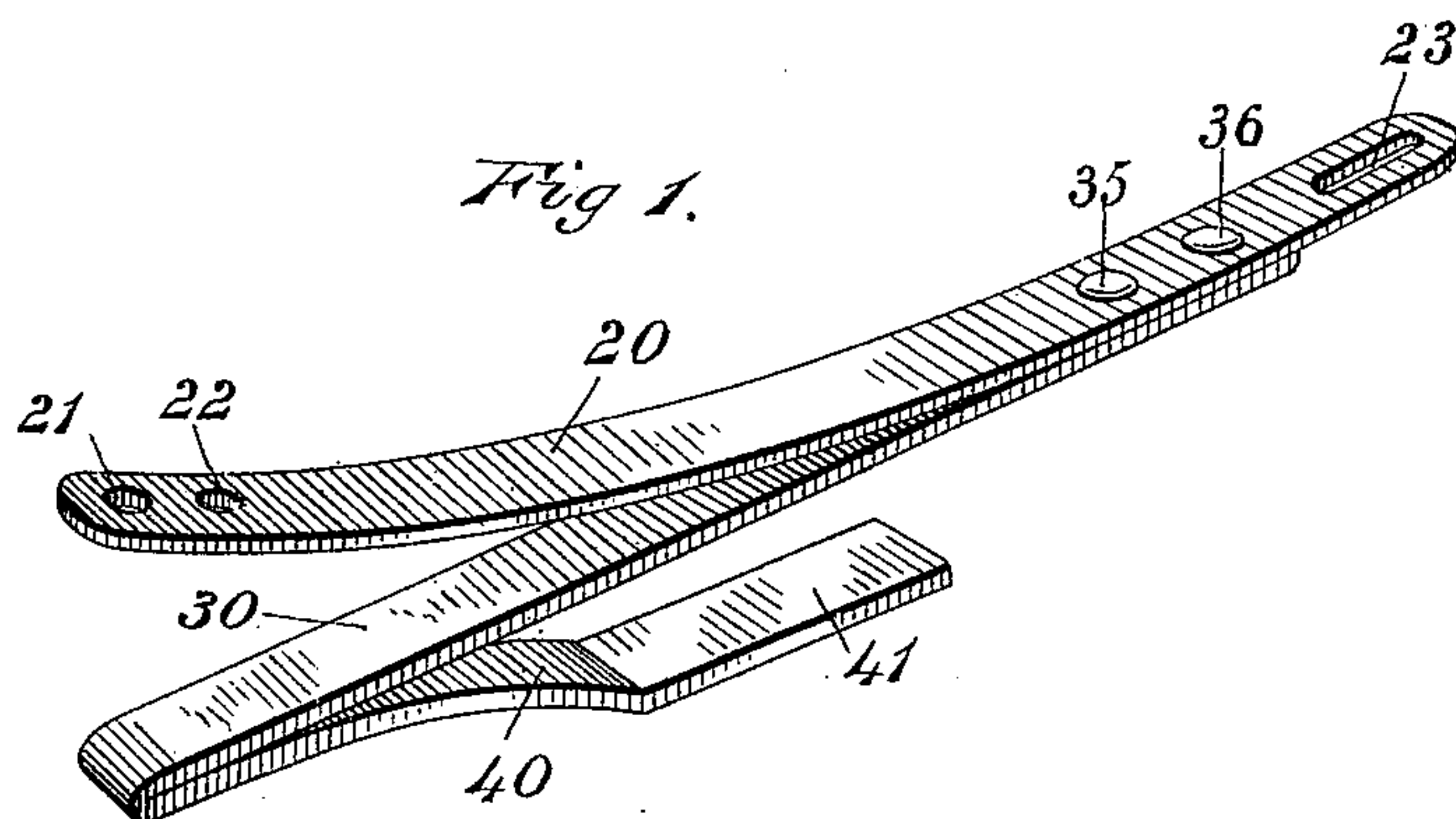
No. 620,012.

Patented Feb. 21, 1899.

S. A. BAILEY.
BICYCLE SADDLE SPRING.

(Application filed May 25, 1897.)

(No Model.)



WITNESSES

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BICYCLE-SADDLE SPRING.

SPECIFICATION forming part of Letters Patent No. 620,012, dated February 21, 1899.

Application filed May 25, 1897. Serial No. 638,127. (No model.)

To all whom it may concern:

Be it known that I, SELDEN A. BAILEY, a citizen of the United States of America, residing at New York, in the county of New York, in the State of New York, have invented certain new and useful Improvements in Bicycle-Saddle Springs, of which the following is a specification.

This invention relates to a bicycle-saddle spring which automatically adjusts itself to the weight of the rider and carries a heavy-weight rider with the same ease and elasticity that it does a light-weight rider and one which permits both ends of the saddle to move up and down with the same freedom and adjusts itself to the position of the rider whether he sits in erect position or bends forward.

Figure 1 of the accompanying drawings represents a perspective view of my improved saddle-spring detached from the saddle. Fig. 2 represents a side elevation of my improved spring attached to a bicycle ready for use and a longitudinal vertical section of a saddle supported thereby. Fig. 3 represents the under side of the front end of a bicycle-saddle, showing one means for attaching this improved spring to a saddle.

The same reference-numbers indicate the same parts in all the figures.

This spring for a bicycle-saddle comprises a downwardly-bowed bow-shaped upper member 20, an upwardly-bowed bow-shaped lower member 40, and an inclined intermediate member 30, connected at its opposite ends, respectively, with said bow-shaped members, the convexed faces of the upper and lower bow-shaped members being in contact with the inclined member. The downwardly-bowed bow-shaped member 20 is fastened at its opposite ends to the opposite ends of a bicycle-saddle 10. The inclined member 30 is connected at one end with the bow-shaped member 20 on one side of the center thereof by bolts 35 and 36 or other suitable means and diverges therefrom gradually from the point of attachment. The member 20 is illustrated in the drawings as provided with bolt-holes 21 and 22 at one end and with a slot 23 at the other end, and the saddle-leather 10 is provided at its front end with a block 11

and at its rear end with a block 12. One end of the spring member 20 is secured to the block 12 by means of bolts 15 and 16 passing through said block and through said holes 21 and 22, and the other end is fastened to the block 11 by a bolt 17 passing through said block and through the slot 23. The slot 23 permits adjustment of the member 20, whereby its curvature may be increased or diminished. The short upwardly-curved bow-shaped member 40 is connected at one end integrally or otherwise with the lower end of the inclined member 30, and these members lap together from their point of union toward the center of the member 40, and their area of contact increases as the saddle is depressed. The opposite end of the member 40 is secured to the saddle-post 60 in any suitable manner. When constructed as herein shown, the member 40 is provided with an attaching-plate 41, adapted to rest on said post, and a clip 50, having a tightening-screw 51, clamps said member, and consequently the spring and saddle, to said post. A block 52, which serves as a packing, is preferably interposed between the saddle-post and the straight attaching-plate 41 of the member 40.

When a rider mounts in the saddle, the curved face of the member 20 increases its area of contact with the inclined member 30 from their point of attachment toward their centers, and the upper curved face of the lower member 40 increases its area of contact in like manner with the opposite end of the inclined member 30 from their point of attachment toward their centers, and under the weight of the rider this increased contact of the members tends to stiffen and reinforce the spring, giving a soft and easy motion to the saddle. By this peculiar construction of the overlapping members from their points of attachment toward their centers the spring is rendered automatically adjustable, and the same spring can be used for either a heavy or a light weight rider, giving the same ease and elasticity without danger of breaking or bottoming.

The use of this spring is also favorable to the pneumatic tire in that it renders it less liable to puncture than when a rigid saddle,

or a saddle having a stiff spring, or a spring which will bottom when the wheel comes in contact with an obstruction, is used.

I claim as my invention—

- 5 1. A bicycle-saddle spring composed of a downwardly - curved bow - shaped member adapted for attachment at its opposite ends to the opposite ends of a saddle, an inclined member attached at one end to one end of
10 said bow-shaped member, and an upwardly-curved lower member attached at one end to the other end of the inclined member and adapted for attachment at its opposite end to the saddle-post of a bicycle, the curved faces
15 of the upper and lower members coming in contact with the inclined member, the contact of said members increasing with the increase in weight on the saddle, and thereby stiffening and reinforcing the spring.
- 20 2. In a bicycle-saddle spring, the combina-

tion of an inclined middle member, upper and lower members convexed in opposite directions toward said middle member, and attached to the opposite ends thereof, said convexed members lapping upon said middle 25 member from their points of attachment toward the center, the contact of said middle member with both said upper and lower members increasing with an increase in weight on the saddle, and operating to stiffen and rein- 30 force the spring, the upper curved member being adapted for attachment at its opposite ends to the opposite ends of the saddle, and means for attaching the lower member to the saddle-post.

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Witnesses:

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