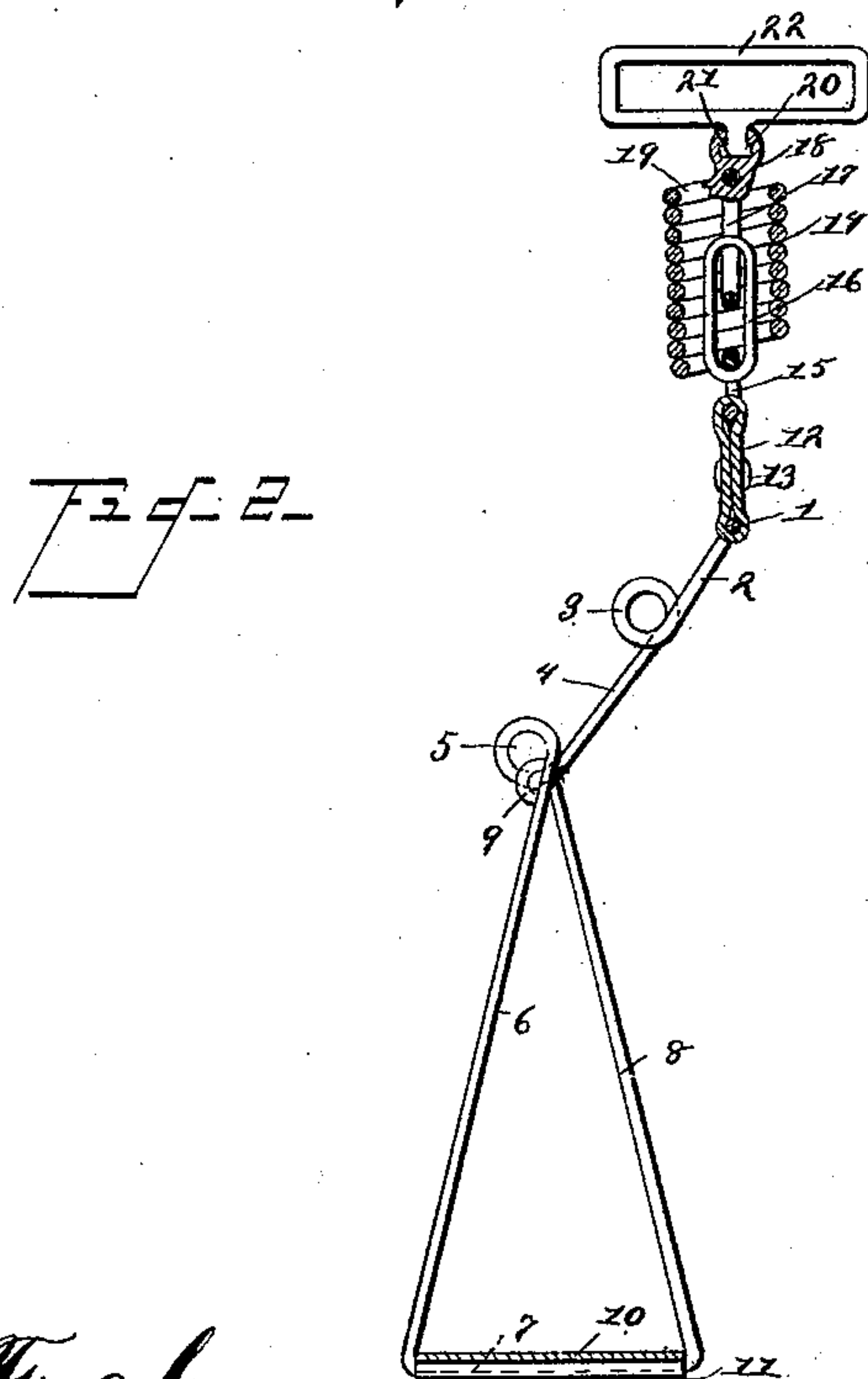
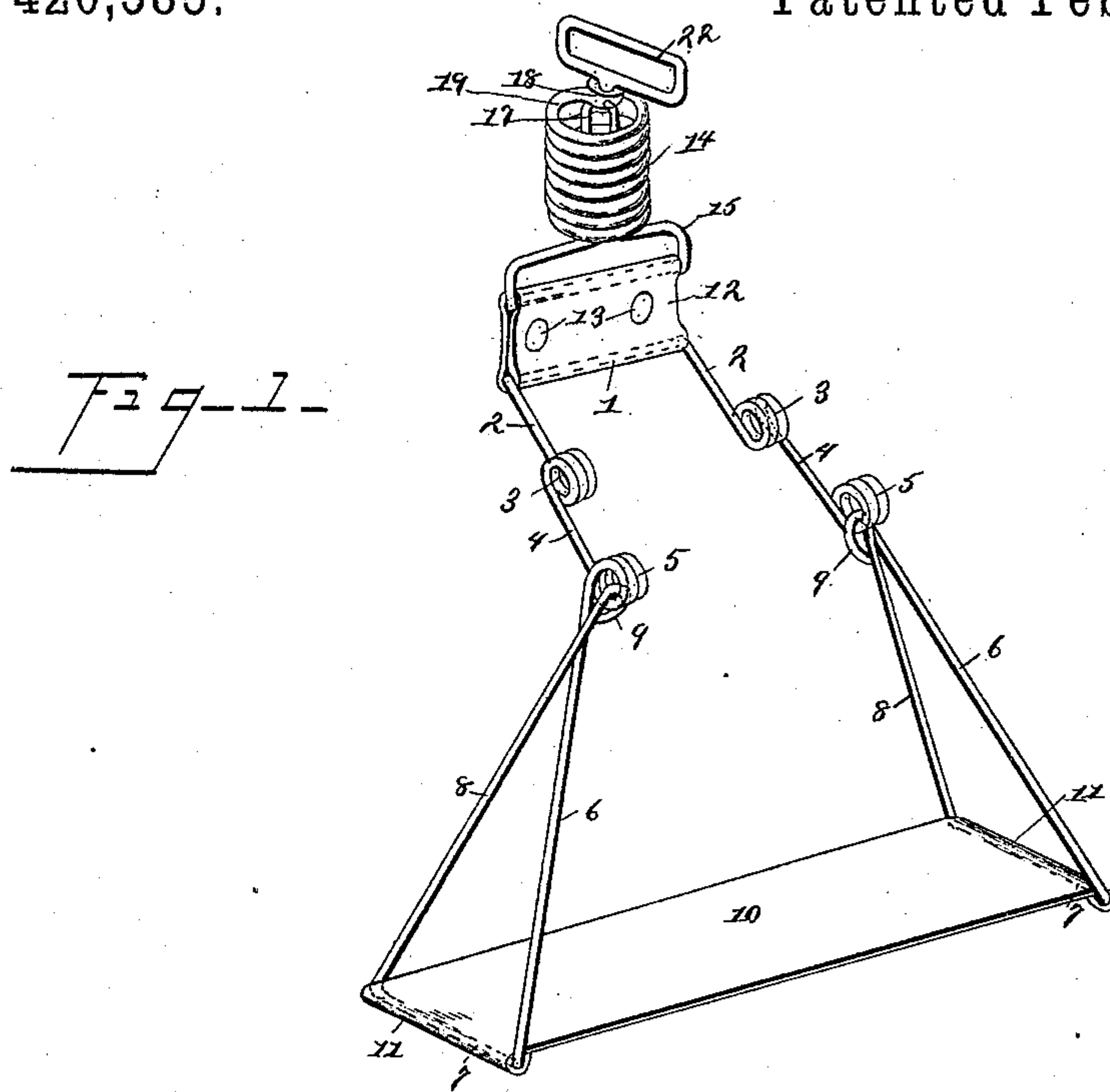


(No Model.)

G. VALENTINE.
STIRRUP.

No. 420,585.

Patented Feb. 4, 1890.



Witnesses

Geo. C. Frech.
L. H. Siggers

Inventor

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By his Attorneys,

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UNITED STATES PATENT OFFICE.

GEORGE VALENTINE, OF MONTICELLO, ILLINOIS, ASSIGNOR OF ONE-HALF
TO FRANK L. FARRA, OF SAME PLACE.

STIRRUP.

SPECIFICATION forming part of Letters Patent No. 420,585, dated February 4, 1890.

Application filed October 10, 1889. Serial No. 326,560. (No model.)

To all whom it may concern:

Be it known that I, GEORGE VALENTINE, a citizen of the United States, residing at Monticello, in the county of Piatt and State of Illinois, have invented a new and useful Stirrup, of which the following is a specification.

This invention has relation to stirrups; and among the objects in view are to provide a yielding spring-stirrup lightly and cheaply constructed and adapted to assume natural positions and to give comfort and ease to the rider.

With these general objects in view the invention consists in certain features of construction hereinafter specified, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective. Fig. 2 is a vertical sectional view of a stirrup constructed in accordance with my invention.

Like numerals of reference indicate like parts in all the figures of the drawings.

In practicing my invention I construct the stirrup-bail of a single piece of wire of suitable resiliency and strength and as follows: I first bend the wire at equal distances at each side of its center to form a transverse supporting-bar 1 and opposite terminals 2. A short distance below the bar 1 the terminals are coiled several times, forming opposite spring-coils 3. They are then projected downwardly, forming straight continuations 4, in line with the terminals 2, and are bent below the coils 3 to form a second pair of coils 5, and after forming the same the terminals are extended downwardly, as at 6, and vertically, and therefore at an obtuse angle to the terminals 2 and 4. They are then bent forwardly at a right angle to themselves, as at 7, and thence upwardly, as at 8, and inserted through the lower pairs of coils 5, where they are bent for connection, as at 9, at which point they terminate. A foot-plate 10, of suitable metal, has its terminals bent to form eyes 11 to embrace the horizontal parallel bars 7.

12 represents a leather link, the ends of which are connected by a pair of rivets 13. the lower end of the link receiving the bar 1 14 represents a coiled spring, the lower end

of which is bent to form a loop or eye 15 for connection with the upper end of the leather link, the terminal of the wire being connected to itself after forming a loop. A link 16 receives the upper portion of the loop 15 and also a swiveled link 17, the upper end of which is provided with a swivel 18, in which terminates the upper end of the coil 19, and in which is formed a recess 20, loosely mounted in which is a swivel-head 21, formed on the lower end of a loop 22, which receives the lower end of the stirrup-strap.

From the above description it will be apparent that the stirrup will yield in all directions and that the weight of the rider will be supported yieldingly, and he can therefore travel for comparatively great length of time without fatigue by reason of the constant jolting of the animal.

In mounting and dismounting or in other movements of the rider wherein his entire weight is thrown upon one stirrup the coiled spring 14 will be distended as far as the limiting-link 16 will permit, after which the strain will be transferred from the spring to the stirrup-strap. (Not shown.)

In ordinary riding the spring-coils 3 and 5 will provide for the necessary yielding, and the suspension-bars 6 and 8 will be brought intermittently into and out of line with the inclined bars 2 and 4, and when the limit of their resiliency has been reached the coiled spring 14 furnishes further necessary yielding.

Having described my invention, what I claim is—

1. In a stirrup, the combination, with the connecting-loop, of a stirrup-plate and a wire bail having a central bend connected with the loop and having its opposite terminals ending in transverse bars for the reception of the ends of the plate and above said bars provided with coils, substantially as specified.

2. In a stirrup, the combination, with the connecting-loop, of a spring-wire bail having a central bend connected with the loop and having opposite depending terminals provided with coils and having their lower halves disposed at an angle to their upper halves,

and a stirrup-plate connected to and supported by the ends of the terminals, substantially as specified.

3. In a stirrup, the combination, with the
5 connecting-loop, of a spring-wire bail having a central bend connected with the loop and having opposite depending terminals, each ending in a loop provided with a transverse bar, the upper portions of the terminals being
10 coiled and the lower halves disposed at an angle to the upper halves, and a stirrup-plate supported by the loops and having its ends bent over the bars, substantially as specified.

4. In a stirrup, the combination, with the
15 bail formed of spring-wire and having opposite depending terminals, each of which is provided with a coil, of a leather link connected to the upper end of the bail, and a coiled spring terminating at its lower end in a loop,
20 connected to the opposite end of the link and at its upper end in a stirrup-strap-receiving loop, and a limiting-link connecting the strap-receiving loop with the leather link, substantially as specified.

25 5. The combination, in a stirrup, of the strap-receiving loop 22, having a head 21, swiveled to a link 17, a coiled spring encircling the link and having its upper end connected with the swivel of the link and its

lower end bent to form a loop, a stirrup connected to the loop, and a limiting-link connecting said loop and the swivel-link, substantially as specified.

6. The combination, with the link 22, having a head 21, swiveled in the head 18, of a
35 link 17, a coiled spring encircling the link and having its upper end connected to the head 18 and its lower end bent to form a transverse loop 15, and a link, as 16, connecting the swiveled link with the loop of the
40 leather link 12, connected with the loop 15, and the wire bail consisting of the central transverse bar 1, mounted in the lower end of the leather link, the opposite-inclined bars
45 2 and 4 oppositely coiled, as at 3 and 5, and extended to form the bars 6, transverse bars 7, and the upwardly-projecting bars 8, having eyes 9, interlocking with the coils 6, and the foot-plate 10, bent, as at 11, at its ends and
50 connected to the bars 7, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

GEORGE VALENTINE.

Witnesses:

ROBERT HUDGEN,
OWEN H. HUDGEN.