No. 706,468. Patented Aug. 5, 1902.

L. P. WELLMAN.

STIRRUP STRAP.

(Application filed July 11, 1901.)

(No Model.)

FIG 1

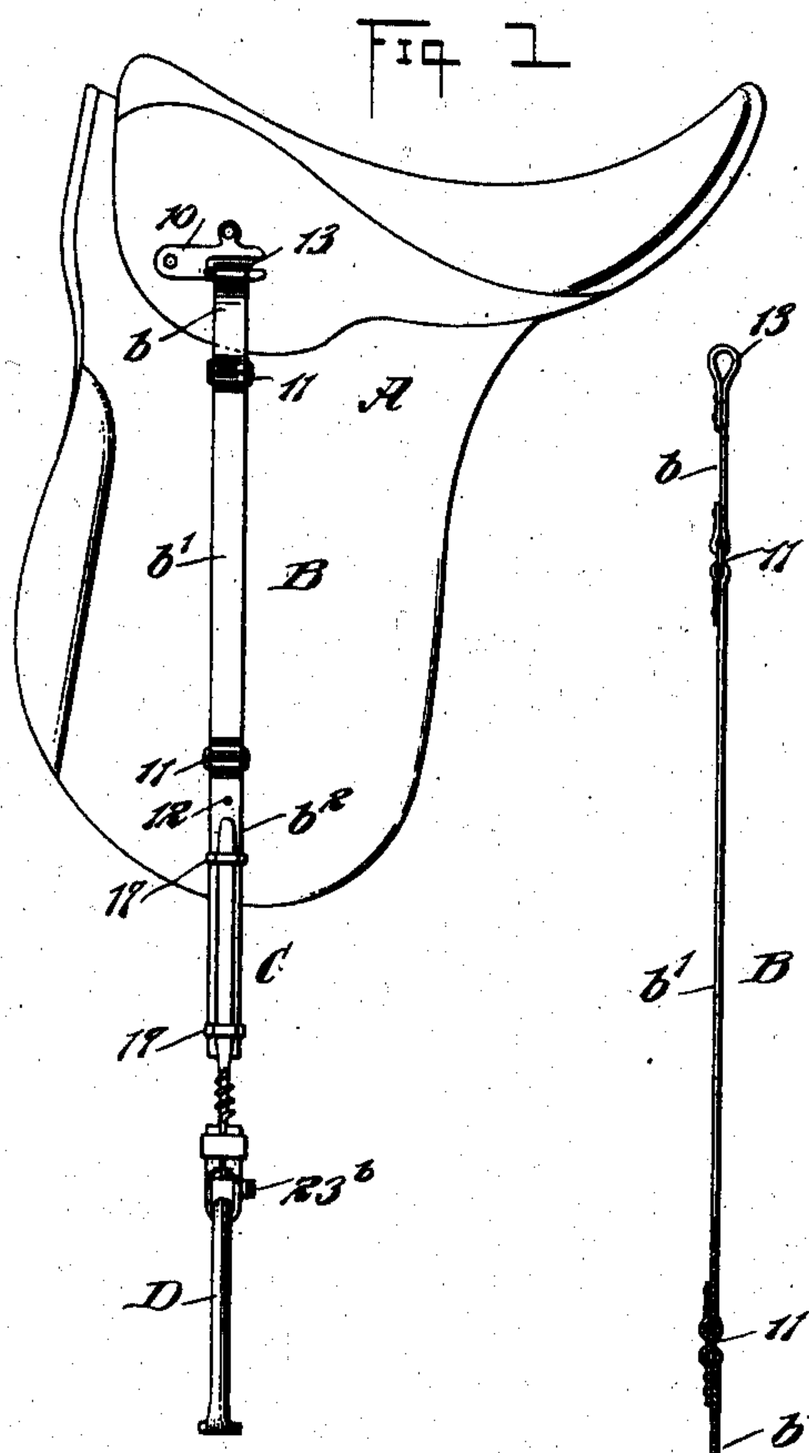


FIG 2

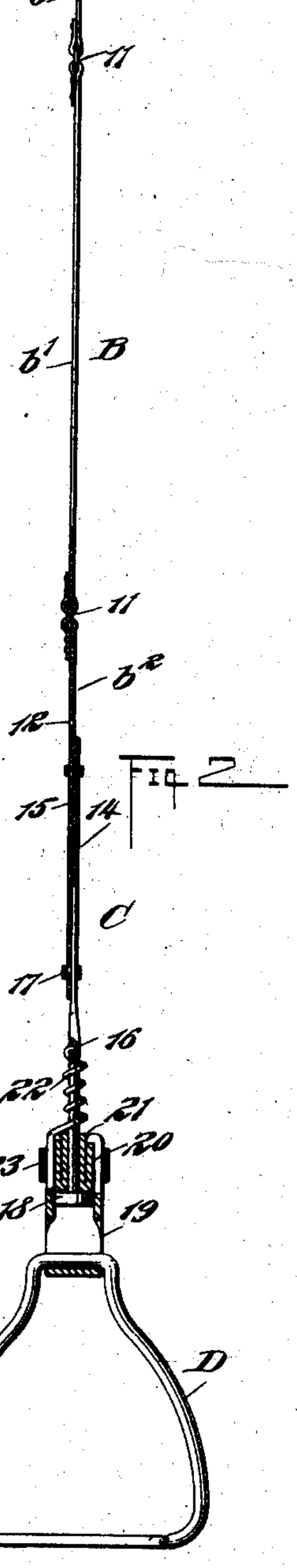


FIG 3

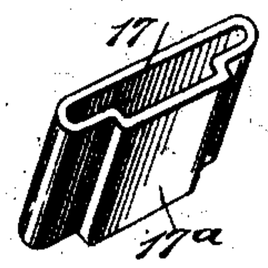


FIG 4

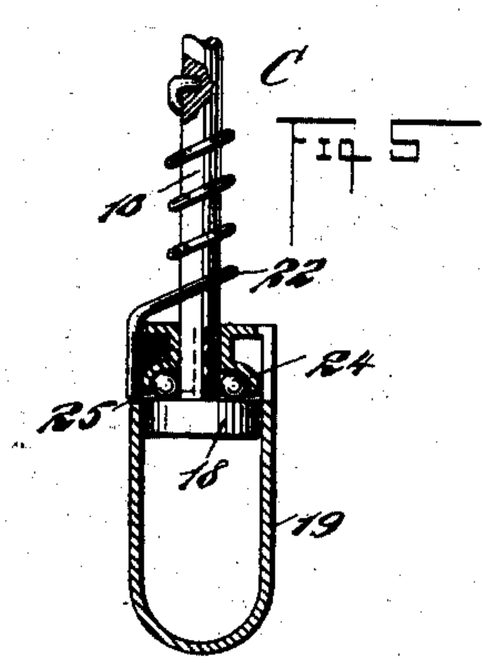
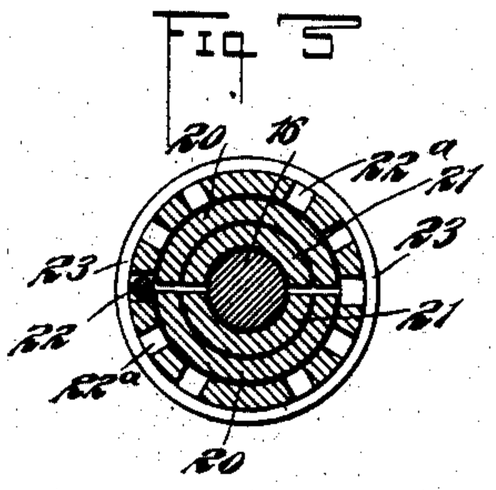


FIG 5



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LOUIS P. WELLMAN, OF WEST NEW YORK, NEW JERSEY.

STIRRUP-STRAP.

SPECIFICATION forming part of Letters Patent No. 706,468, dated August 5, 1902.

Application filed July 11, 1901. Serial No. 67,861. (No model.)

To all whom it may concern:

Be it known that I, LOUIS P. WELLMAN, a citizen of the United States, and a resident of West New York, in the county of Hudson and State of New Jersey, have invented a new and Improved Stirrup-Strap, of which the following is a full, clear, and exact description.

The stirrup-straps usually employed are made of leather, and in use the strap is doubled and hung on the saddle, with the buckle end forming a thick unsightly bunch, and by reason of the straps being doubled the rider has a double thickness of strap under each knee, which often causes knee soreness, &c. Again, the leather strap lying flat on the saddle-flaps the straps hang parallel to the saddle-flaps and to the rider's feet, thus rendering it difficult for the rider to regain the stirrup should he lose the same, as the stirrup swings while the horse is in motion, and in the endeavor to regain the stirrup the horse is more or less excited by the movement of the rider's foot.

The purpose of the invention is to overcome such faults by providing single straps, preferably made of metal in hinged sections, and, further, to provide the lower portion of each of said straps with a support for a stirrup, which support will hold the stirrup at an angle to the rider's foot and at an angle to the side of the animal.

A further purpose of the invention is to so construct the hangers for the stirrups that the stirrups may be placed at any desired angle relative to the sides of the animal and also to provide means for quickly and conveniently lengthening and shortening the stirrup-straps.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of a saddle and the improved stirrup applied thereto. Fig. 2 is an edge view of the improved stirrup-strap and a side elevation of a stirrup carried thereby, a portion of the stirrup and the support for the stirrup being in section. Fig. 3 is an enlarged horizontal section taken through the upper portion of the stirrup-support. Fig. 4 is a perspective view of one of the slides used in connection with the adjustable elements of a strap, and Fig. 5 is a vertical section through a stirrup-support constructed in a slightly-different manner from that shown in Figs. 1 and 2 and a partial side elevation of the adjustable member or element of a stirrup-strap applied to the stirrup-support.

A represents a saddle which is provided above the flap at each side with a keeper 10, the said keeper being bifurcated at one end—the end which is in direction of the rear of the saddle, as is shown in Fig. 1. Each stirrup-strap B is made, preferably, from a metal tape of suitable dimensions, and each stirrup-strap B is constructed in sections. In the drawings a stirrup-strap is shown in three sections—an upper section b, an intermediate section b', and a lower section b^2. These sections of a stirrup-strap are connected by links 11, as is shown in Figs. 1 and 2, and the lower section b^2 of each stirrup-strap is provided with a series of longitudinally-arranged apertures 12.

At the upper end of the upper section b of each stirrup-strap a loop 13 is formed, and the lower members of the keepers 10 pass through the said loops 13. In this manner the stirrup-straps are attached to the saddle. The stirrup-straps lie flat upon the saddle and likewise on the flaps and extend below the flaps of the saddle any suitable distance.

In connection with each stirrup-strap B an adjusting-section C is employed. These adjusting-sections are likewise constructed of metal, and their upper portions 14 are flat. The flat upper portions of said adjusting-sections C are provided with projections 15, adapted to enter any one of the apertures 12 in the lower members of the stirrup-straps B. The lower portions 16 of the adjusting-sections C of the adjusting-straps, or those portions which extend below the lower ends of the body portions of the stirrup-straps, are preferably circular in cross-section, although these parts may be otherwise formed. The upper or flat portions of the adjusting-sections C are held in engagement with the body portions of the stirrup-straps by means of

slides 17, which slides are provided with offset portions 17ª at their outer faces, which accommodate neatly the width of the upper portions 14 of the said adjusting-sections of the strap. One of these slides is shown in detail in Fig. 4.

At the lower end of each adjusting-section C of a stirrup-strap a disk 18 is formed, as is shown in Figs. 2 and 5, and at the disk portion of each adjusting-section C of a stirrup-strap a stirrup-support 19 is located. Each stirrup-support 19 is made of metal and is of U shape. The front and rear portion of each stirrup-support 19 is carried inward and downward, forming a member 20 and then upward, forming a second member 21, the members 20, being intermediate of the outer side faces of the stirrup-support and the inner members 21. The inner members 21 of the stirrup-supports engage with the lower portions 16 of the adjusting-sections, and the return members 20 and 21 of the stirrup-supports are semicircular in cross-section, as is shown in Fig. 3. At the upper portion of each stirrup-support 19 vertical slots 22ª are produced in the upper or main portions of the said supports, and these slots 22ª are adapted to receive the lower ends of springs 22, which springs are coiled around the lower portions 16 of the adjusting-sections C, and the upper ends of the said springs are secured to such lower portions of the adjusting-sections, as is particularly shown in Figs. 2 and 5. The lower portions of the return members 20 and 21 of each stirrup-support 19 bear upon the disks 18, carried by the adjusting-sections C, as is especially shown in Fig. 2, and a clamping band or ring 23 is passed around the slotted portions of the stirrup-supporting sections 19, serving to hold the lower ends of the springs 22 in place. By moving the springs 22 from one slot 22ª to the other the angle of the stirrup-irons D, carried by the supports 19, may be increased or decreased, as occasion may demand. The stirrup-irons D are passed through the lower portions of the supports 19, as is shown in Figs. 1 and 2. Normally the stirrup-supports 19 are in such position that when the body portions B of the stirrup-straps rest against the saddle the stirrup-irons will be at right angles to the body of the horse and the rider's feet. Each stirrup-support 19 is provided at one side with a hook-shaped projection 23ᵇ, so that when a stirrup-strap is required to be folded upon itself the hook projections or extensions 23ᵇ may engage with the section *b* of the stirrup-strap.

In Fig. 5 I have illustrated a slight departure in the construction of the support 19 for the stirrup-iron D, inasmuch as the upper portions of the front and rear parts of the support 19 instead of being bent inward to form the two members 20 and 21 are carried from the front and the rear horizontally inward, thence downward and outward in a cup form to form a bearing or race 24 for balls 25, which travel on the disk 18 at the lower end of the adjusting-section C of the stirrup-strap. The clamping band or ring 23 is also used in connection with the form of support illustrated in Fig. 5.

The upper portion of the stirrup-loop 19 is divided or split transversely, so as to have the upper ends separated by an intervening space or slot, as indicated by dotted lines in Fig. 5, this division of the loop corresponding somewhat to the division of the divided or bent portion of the long loop in the construction shown by Fig. 3. The upper cross-bar of the stirrup D may easily be slipped through the division in the split upper end of the stirrup-loop before the latter is connected with the stirrup-strap. After connecting the loop and the stirrup together the said loop may easily be connected with the stem on the lower extremity of the extension member C of the stirrup-strap, said stem being slipped through the divided part of the loop, so that its head or disk 18 may lie within the loop and have opposing relation to the ball-race, which is formed in the upper doubled part of said loop. The stirrup-loop 19 serves to connect the stirrup D with the lower portion of the stirrup-strap, and this loop 19 serves as a swivel connection between the strap and the stirrup, because it permits the latter to turn on a vertical axis and in a manner to assume different angular positions with relation to the faces of the stirrup-strap. The loop and the stirrup which is connected therewith are held in their desired positions relatively to the strap by the employment of the spiral spring, which loosely encircles the stem of the stirrup-strap, so as to be attached to the latter, the opposite end of said spring being connected in a shiftable manner with the loop. This spring serves to hold the loop and the stirrup in their predetermined angular relations to the strap, and the spring also affords a yielding connection between the stirrup and the strap, whereby the pressure of the rider's foot on the stirrup is able to change the angular relation of the stirrup to the strap. The stirrup may, furthermore, be adjusted to the different predetermined positions by changing the lower end of the spring from one notch or slot to the other in the swiveled loop 19, and the connection between the spring and the swiveled loop is rendered permanent and effective by the employment of the sleeve 23.

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

1. The combination with a stirrup and a stirrup-strap, of a swivel uniting the stirrup-strap and said stirrup and permitting the latter to turn on a vertical axis and to assume different angular positions relative to the stirrup-strap, and a spring connection between the stirrup-strap and a member of the swivel, said spring connection holding the stirrup normally in a predetermined position

relative to the stirrup-strap and allowing the position of the stirrup to be changed by pressure of the rider's foot.

2. The combination with a stirrup and a stirrup-strap, of a swivel uniting the stirrup and the strap and permitting the latter to turn on a vertical axis, and a spring connection attached to said strap and shiftably connected to a member of said swivel, as set forth.

3. The combination with a stirrup and a stirrup-strap, of a loop fitted to said strap to turn thereon as on a vertical axis, and a torsion-spring connection between said strap and the loop, as set forth.

4. The combination with a stirrup-strap, and a member having a head, of a stirrup-support provided with a series of openings and with members which engage said head of the first-named member, and a spring connected with said first-named member and shiftably engaging with openings in the stirrup-support, said spring connection holding the stirrup normally in a predetermined position relative to the stirrup-strap and allowing the position of said stirrup to be changed by pressure of the rider's foot.

5. The combination of a stirrup-strap having a stem terminating in a head, a loop fitted loosely on the stem in engagement with the head thereof and adapted to turn freely thereon, a stirrup fitted to the loop, and means connecting the loop and the strap and holding the stirrup normally in a predetermined position relative to said strap, said stirrup and its holding means being yieldable to pressure applied to the stirrup.

6. The combination of a stirrup-strap, a loop swiveled on the strap and provided with a series of notches or slots, a spring attached to the strap and shiftably connected to the loop by engaging with either of the notches or slots therein, and a stirrup fitted in the loop.

7. The combination with a stirrup-strap, of a swiveled loop provided with notches or slots, a spring attached to said strap and shiftably connected to the loop by engaging with either of the slots or notches therein, a stirrup fitted in the loop and held by the energy of the spring in a predetermined position, and means for confining said end of the spring in engagement with the loop.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LOUIS P. WELLMAN.

Witnesses:
J. FRED. ACKER,
JNO. M. RITTER.