O. L. BADGER.

ADJUSTABLE FLEXIBLE SUPPORT.

APPLICATION FILED SEPT. 15, 1915.

1,194,699.

Patented Aug. 15, 1916.

FIG. 1.

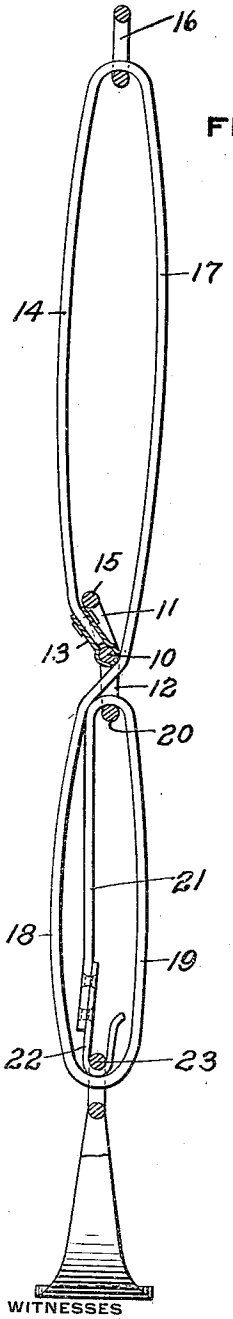


FIG. 3.

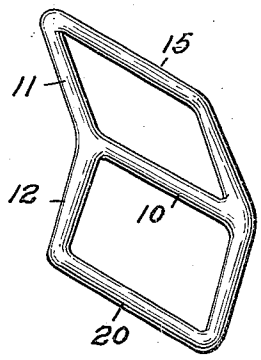
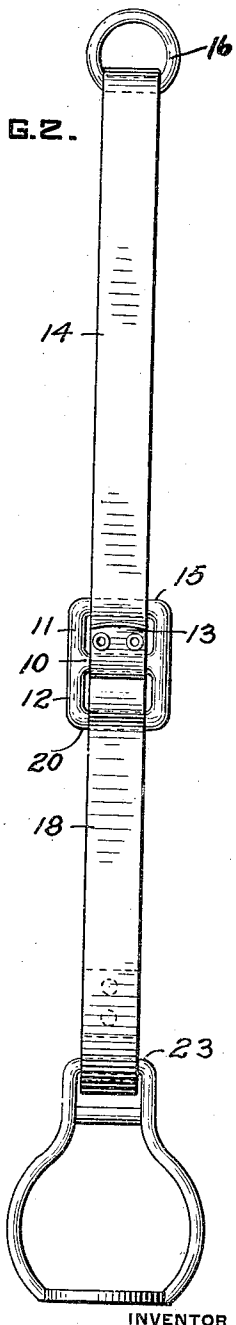


FIG. 2.



WITNESSES

Edward A. Cope

Catherine L. Clark.

INVENTOR

Oliver Lewis Badger,

By J. N. Cooke,

Attorney.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

OLIVER LEWIS BADGER, OF PLAINFIELD, NEW JERSEY, ASSIGNOR TO KERR ADJUSTABLE STRAP COMPANY, INC., OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

ADJUSTABLE FLEXIBLE SUPPORT.

1,194,699. Specification of Letters Patent. Patented Aug. 15, 1916.

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To all whom it may concern:

Be it known that I, OLIVER LEWIS BADGER, citizen of the United States, and a resident of Plainfield, in the county of Union and State of New Jersey, have invented a new and useful Improvement in Adjustable Flexible Supports; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention pertains to adjustable flexible supports of the general character disclosed in my co-pending application Serial No. 44,219 filed Aug. 7, 1915—that is to say, supports consisting of a flexible member threaded on the pulley principle to permit of lengthwise adjustment.

It is the principal object of my invention to provide a support of the above general character in which the possibility of accidental change of adjustment will be reduced to a minimum.

By way of example, one form of flexible support constructed in accordance with my invention is described in the following specification and shown in the accompanying drawing, in which;

Figure 1 is a side view of the support as used, for instance, in connection with a stirrup strap, the link being shown in section; Fig. 2 is a front view of the same; and Fig. 3 is a perspective view of the three-way link.

Referring now to the drawing, the form of support shown therein comprises a three-way link having a central bar 10 having extending therefrom an upper eye 11 and a lower eye 12, the eyes 11 and 12 being inclined so as to form an angle with each other. Through this link a strap is threaded so as to form the adjustable support. To the center bar 10 of the link is attached a metallic loop 13, to which one end of the strap is secured. The strap extends upward, in a lap 14, past the outside of the cross-bar 15 of the eye 11. At the desired length, the lap 14 passes through an attaching ring 16 and is then returned upon itself in a lap 17, which lap passes through the eye 12 and is extended downward in a lap 18. At the desired length, the lap 18 is returned upon itself to form a loop, and is extended upwardly in a lap 19. The lap 19 is passed over the cross-bar 20 of the eye 12, and is extended downwardly in a lap 21 which terminates in a flat metallic hook 22. The hook 22 lies closely within the loop formed by the laps 18 and 19, and supports the ring 23 of a stirrup or other member, according to the purpose for which the support is to be used.

It will be seen that the support described above may be adjusted to lengthen the same by pulling upon the lap 17. It can likewise be adjusted to shorten the same by pulling upon the lap 14. When tension is applied between the rings 16 and 23, the effect is to cause binding at the points where the laps of the strap change direction, and at the points where one lap of the strap passes over another. This binding effect is increased by the action of the three-way link. It will be seen that, when tension is applied, the lap 14 will tend to swing the cross-bar 15 (Fig. 1) to the right, and consequently to swing the cross-bar 20 to the left. In this way, a larger surface of the strap will engage against the loop 13 than would otherwise be the case, and a larger surface of the lap 18 will engage upon the lap 21. Likewise, an additional point of contact is introduced, between the lap 14 and the cross-bar 15. The effect of these additional points of contact is to increase considerably the resistance of the support against accidental movement from its adjusted position.

While the support described above has been referred to in its use as a stirrup strap, it can be used in many other connections, as for instance, for gun straps, automobile hood straps, stocking suspenders, and the like. The support has the advantage that its length can be adjusted simply by pulling upon one lap or the other according to whether it is desired to lengthen or shorten the support; and, when once arranged, the adjustment cannot become accidentally changed.

While I have described in the foregoing specification one form which my improved support may take, I do not desire to be limited to such form, since changes may be made therein, as in the manner of threading the laps of the strap, without exceeding the scope of my invention as defined in the appended claims.

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

1. In a flexible support, the combination with a strap extended from its end to a

point, thence returned upon itself to form a loop and extending to another point beyond said end, thence returned upon itself to form a second loop and extended to a point adjacent said end, and thence returned upon itself to a point within said second named loop, of a link having said end secured thereto and having portions of said strap passing therethrough, said link comprising two eyes disposed at an angle with each other.

2. In a flexible support, a link, a strap secured at one end to said link and extended from said link to a point, thence returned upon itself to form a loop and extending to another point beyond said link, thence returned upon itself to form a second loop and extended to said link, and thence passed through said link and returned upon itself to a point within said second named loop, and means for deflecting a portion of said strap from its normal position, thereby to increase the resistance of the portions of said strap against movement with respect to one another.

3. In a flexible support, a link, a strap secured at one end to said link and extended from said link to a point, thence returned upon itself to form a loop and extending to another point beyond said link, thence returned upon itself to form a second loop and extended to said link, and thence passed through said link and returned upon itself to a point within said second named loop, said link being formed with means for deflecting a portion of said strap from its normal position, thereby to increase the resistance of the portions of said strap against movement with respect to one another.

4. In a flexible support, a link comprising a bar having an eye extending from each side thereof, said eyes being disposed at an angle to each other, and a strap secured at one end to said bar, said strap being extended to a point, thence back upon itself and through one of said eyes, so as to leave the other eye within the loop thus formed, and extended to a point, thence back upon itself so as to form a second loop, and thence through the same eye and back upon itself to a point within said second named loop.

In testimony whereof, I the said OLIVER LEWIS BADGER, have hereunto set my hand.

OLIVER LEWIS BADGER.

Witnesses:
P. M. RUSHMORE,
JOHN O. FLEMING.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."