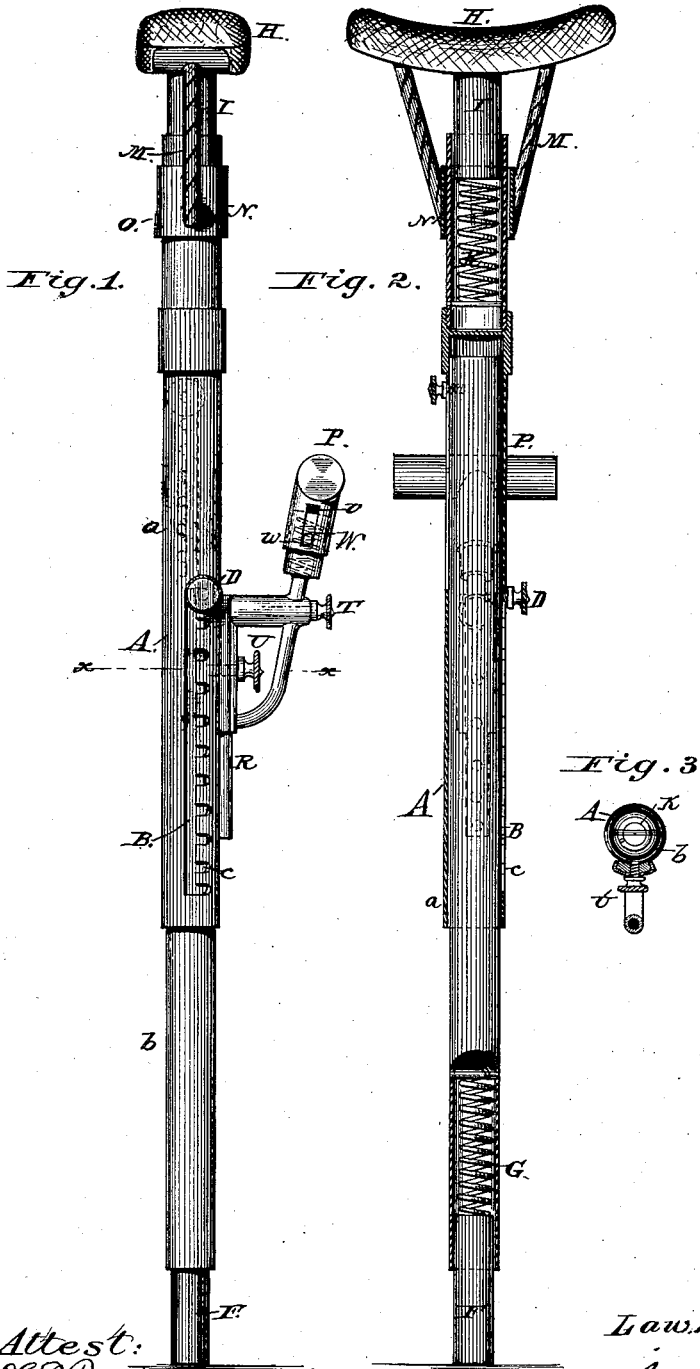


L. F. WELDON.  
CRUTCHES.

No. 190,392.

Patented May 1, 1877.



Attest:  
H. L. Penne,  
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By James L. Norris  
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# UNITED STATES PATENT OFFICE.

LAWRENCE F. WELDON, OF NEW YORK, N. Y.

## IMPROVEMENT IN CRUTCHES.

Specification forming part of Letters Patent No. 190,392, dated May 1, 1877; application filed April 16, 1877.

### *To all whom it may concern:*

Be it known that I, LAWRENCE F. WELDON, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Crutches, of which the following is a specification:

This invention relates to certain improvements in the construction of crutches and other similar supports for the infirm and disabled, its object being to render such supports more comfortable and convenient to use, and provide for adjusting the same to suit persons of different statures.

My invention consists, first, in an arm-rest having a stem, inclined braces, and a collar attached to the lower end of the latter, combined with the staff, having in its upper end a spring, upon which the end of the stem bears, the collar riding around the upper end of the staff, as will hereinafter more fully appear; second, in the combination, with the upper end of a crutch, of the arm-rest provided with a slotted collar, adapted to slide upon the said end, and a lug or projection on said end, fitting into said slot, for the purpose of preventing the arm from turning, as more fully hereinafter set forth; third, in the combination, in a crutch, of the two telescoping sections and their fastening devices, a yielding arm-rest and foot-piece, and a yielding hand-hold, all constructed to operate substantially as hereinafter more fully set forth.

In the drawings, Figure 1 is a side elevation of my improved crutch. Fig. 2 is a similar view, partly in section. Fig. 3 is a transverse sectional view on the line *xx* of Fig. 1.

In the drawings, the letter A represents the staff of the crutch, which is constructed of two sections or tubes, *a b*, preferably of metal, the lower one telescoping within the upper one. The upper section is slotted at opposite sides, as shown at B, each slot being provided with a series of open recesses, *c*, on one side, into which the clamping-screws D, secured to the lower section, can be secured, the said screws being capable of a longitudinal motion in the slots, and to be thrown into any of the recesses by slightly rotating the lower section in proper direction. The lower extremity of the lower section is provided with a yielding section, F, which is capable of a slight longi-

tudinal movement within said section, its inner end resting upon a spiral spring, G, which is compressed when the weight of the body is thrown upon the crutch. The letter H represents the arm-rest, which is provided with a projection or stem, I, which sits in the upper end of the upper section, resting upon a spiral spring, K, located within said section, which allows the arm-rest to yield simultaneously with the foot-piece in the lower section when the weight of the body is brought to bear upon the crutch. From said arm-rest depend two inclined braces, M, secured at their lower ends to a slotted collar, N, the collar riding slightly in a longitudinal direction upon the upper end of the upper section, being prevented from turning thereon by means of a lug, O, secured to said upper section, and projecting through the slot in the collar. The letter P represents the hand-hold, which, in the present instance, is made detachable, and secured adjustably to the upper section of the crutch by means of dovetailed feather R, extending longitudinally along one side of the upper section, the hand-hold being provided with a dovetailed recess on its under side to engage the dovetailed feather, and capable of a vertical movement thereon, the hand-hold being provided with set-screws T and U, adapted to be fastened in apertures in the dovetailed feather, so as to confine said hand-hold in any desired position. The hand-hold is preferably made in two sections, one of which forms the handle, and the other the support secured to the crutch-staff, the handle-section telescoping over the other, and the two being provided with a spiral spring, W, by which a yielding movement is given to the handle as well as other portions of the crutch. The motion of said handle secured in the supporting-section is limited by a lug, *v*, on the said supporting-section, which projects through a slot, *v*, in the handle-section.

What I claim, and desire to secure by Letters Patent, is—

1. The arm-rest H, having the stem I, inclined braces M, and collar N, in combination with the staff A, provided in its upper end with a spring, K, as and for the purpose described.

2. The combination, with the staff A, hav-

ing on its side the dovetailed feather R, of the laterally-projecting hand-hold, having a dovetailed recess adapted to the feather R, and a set-screw for fastening it in any adjusted position, substantially as described.

3. The combination, with the upper end of the crutch, of an arm-rest provided with a slotted collar adapted to slide upon said upper end, and the slot sitting over a lug on the latter, for the purpose of preventing the arm-rest from turning, substantially as set forth.

4. The combination, in a crutch, of the two

telescoping sections, their fastenings, a yielding arm-rest and foot-piece, and a yielding hand-hold, all constructed and arranged to operate together substantially as and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal in the presence of the subscribing witnesses.

LAWRENCE F. WELDON. [L. S.]

Witnesses:

J. O. STOWELL,

P. J. MEEHAN.