R. E. LAMMING.

ADJUSTABLE CRUTCH.

APPLICATION FILED MAY 26, 1920.

1,358,643. **Patented Nov. 9, 1920.**

Fig. 1.

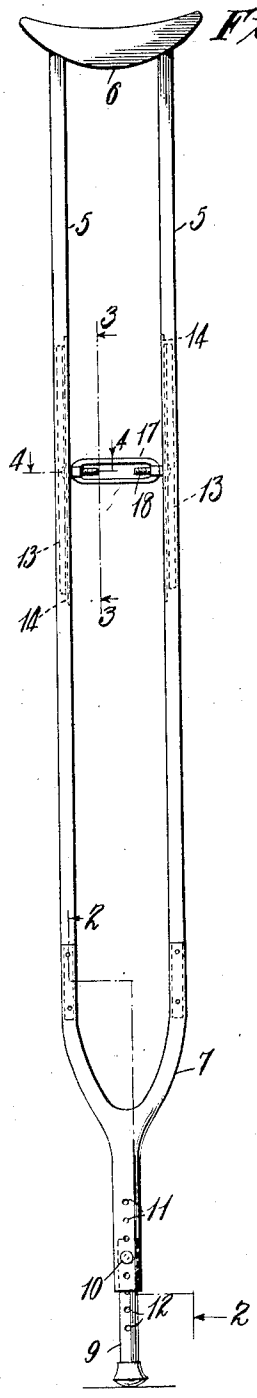


Fig. 2.

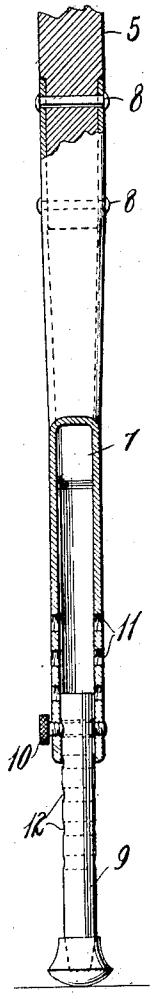


Fig. 3.

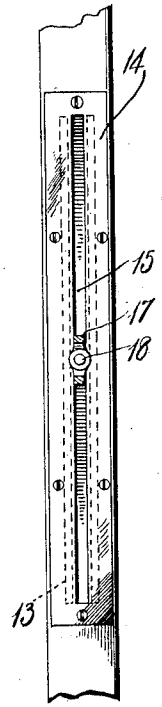
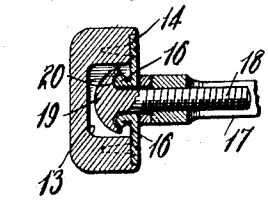


Fig. 4.



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UNITED STATES PATENT OFFICE.

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ADJUSTABLE CRUTCH.

1,358,643. Specification of Letters Patent. Patented Nov. 9, 1920.

Application filed May 26, 1920. Serial No. 384,335.

To all whom it may concern:

Be it known that I, RAYMOND E. LAMMING, a citizen of the United States, and a resident of Springfield, in the county of Sangamon and State of Illinois, have invented new and useful Improvements in Adjustable Crutches, of which the following is a specification.

My invention relates to crutches and its principal object is to provide a crutch which is vertically adjustable so that it may be adapted to persons of different heights.

Further, the invention contemplates the provision of an extensible crutch which includes a handle or grip to be adjusted to any point on the crutch and securely locked in this position.

Further, my invention embodies a crutch provided with an extensible or adjustable foot and a handle for the crutch adapted to be adjusted to a corresponding degree of adjustment as the foot so that the handle will be at the proper height to be conveniently gripped.

It is also embodied within my invention to provide an extensible crutch having a longitudinally adjustable handle which is mounted on the crutch in a novel manner which is such as to positively lock the same in position with respect to the crutch.

My intention is also to provide a crutch of this character which is comparatively simple and is at the same time inexpensive to manufacture.

With the preceeding and other objects in mind as may become apparent from the following disclosure the invention resides in the novel combination of elements, constructions and arrangements of parts, and specific details to be enlarged upon hereinafter and recited in the subjoined claims, the invention being illustrated in the attached drawing, wherein—

Figure 1 is an elevation of a crutch constructed in accordance with my invention;

Fig. 2 is a fragmentary sectional view taken on line 2—2 of Fig. 1;

Fig. 3 is a fragmentary sectional view taken on line 3—3 of Fig. 1; and

Fig. 4 is a transverse sectional view taken on line 4—4 of Fig. 1.

Referring in detail to the drawing, wherein like characters of reference designate like parts throughout the several views, the numeral 5 designates a pair of parallel bars connected at their upper ends by the usual arm rest 6 and have their outer ends engaged in the parallel legs of a tubular Y-shaped member 7 and secured thereto by fastenings 8. Longitudinally adjustable in the lower leg of the Y-shaped member is a ground engaging foot 9, the latter being retained in adjusted position through the medium of a set-screw 10 passing through any pair of diametrically opposed openings 11 arranged in alinement in this leg of the Y-shaped member and transversely through any one of a series of transverse openings 12 in the adjustable foot 9.

A longitudinal groove 13 is formed in the opposed face of each of the bars 5 and secured to these opposed faces of the bars 5 are longitudinal plates 14 that overlie the grooves 13. These plates 14 are formed with longitudinal slots 15 and arranged upon the inner face of each of these plates and at the edges of the slots are parallel substantially semi-spherical beads 16.

The crutch handle is designated at 17 and has its opposed ends threadedly engaged with right and left-hand bolts 18 engaged in the slots 15 and terminating in heads 19 at their inner ends accommodated in the grooves 13. The inner faces of the heads 19 are provided with parallel seats 20 at diametrically opposite points which conform to the contour of the bead 16 and whereupon rotation of the handle 17 in one direction the heads 19 will be drawn tightly against these beads and lock the handle rigidly to the bars 5.

In adjusting my improved crutch the foot 9 is extended to the desired position and the set-screw 10 passed transversely through any pair of openings 11 and through one of the transverse openings 12. The handle 17 is rotated to move the head laterally away from the beads and the handle moved longitudinally of the bars 5 to a position coincident with the degree of adjustment with the foot 9 whereupon it is rotated in the reverse direction to cause the heads to bindingly engage the beads 16.

It is to be understood that the form of my invention herein shown and described is to be taken as a preferred example of the same, and that various changes in the shape, size and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention,

what I claim as new and desire to secure and protect by Letters Patent of the United States is:

1. In a crutch, a pair of parallel bars each being provided with a longitudinal groove in their opposed faces, plates extending longitudinally of the opposed face each provided with a longitudinal slot, parallel beads formed upon the inner faces of the plates, a threaded element extending through each slot and terminating in a head provided with seats slidably receiving the beads, and a turn buckle constituting a crutch handle engaging the threaded elements for drawing the heads into binding engagement with the beads to retain the crutch handle at any position on the bars.

2. A crutch including parallel bars provided with grooves upon their opposed faces, a plate secured to the opposite face of each bar and each being provided with a longitudinal slot, parallel beads substantially semi-spherical in cross section formed upon the inside of each plate and disposed at the edges of the slots, a threaded element extending through each slot and each provided with a head having parallel seats in its inner face and conforming to the contour of the beads and slidably receiving the same, and a turn buckle serving as a crutch handle engaging the threaded elements whereby to draw the heads into binding engagement with the beads to retain the handle in any position longitudinally of the bars.

RAYMOND E. LAMMING.