F. H. JONES.

ADJUSTABLE CRUTCH.

APPLICATION FILED JAN. 22, 1913.

1,073,991.

Patented Sept. 23, 1913.

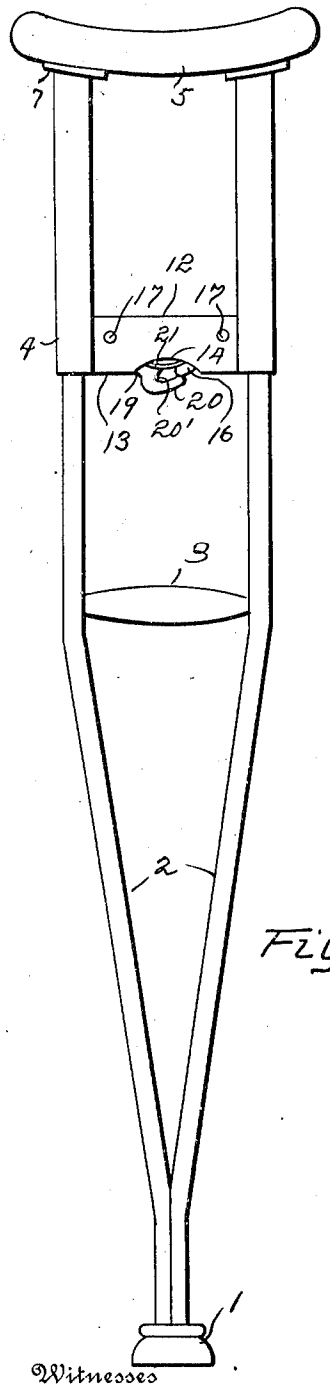
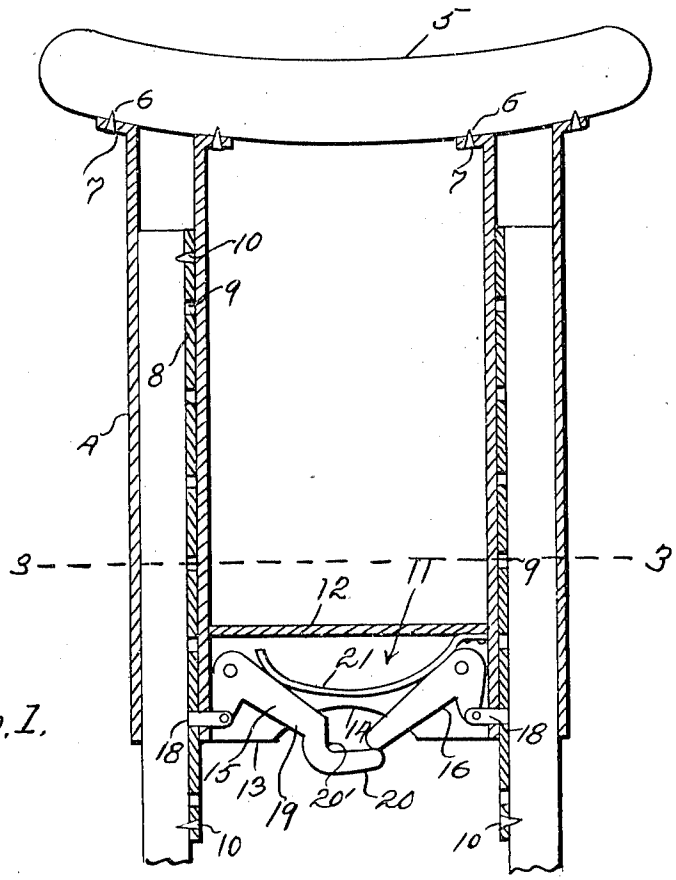


Fig. 1.

Fig. 2.



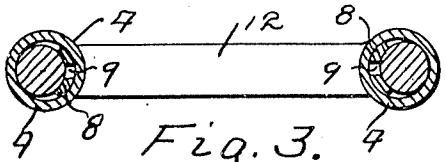


Fig. 3.

Witnesses

Francis MacNeilamy

Rodney M. Smith.

Inventor

Frank H. Jones

By V. Randolph Jr.

Attorney

UNITED STATES PATENT OFFICE.

FRANK H. JONES, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF TO FRANK LLEWELLYN JONES, OF BALTIMORE, MARYLAND.

ADJUSTABLE CRUTCH.

1,073,991. Specification of Letters Patent. Patented Sept. 23, 1913.

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To all whom it may concern:

Be it known that I, FRANK H. JONES, a citizen of the United States, residing at Baltimore, State of Maryland, have invented certain new and useful Improvements in Adjustable Crutches, of which the following is a specification.

This invention relates to certain new and useful improvements in crutches and has for its object the provision of a crutch which may be easily adjusted to accommodate itself to persons of different size.

The invention also aims to generally improve crutches of this type to render them more useful and commercially desirable.

With these and other objects in view, which will become more apparent as the description proceeds, the invention consists in certain novel features of combination, construction, and arrangement of parts, which will be hereinafter fully described and claimed.

For a complete understanding of my invention, reference is to be had to the following description, and accompanying drawings, in which,

Figure 1 is a side elevation of my improved crutch, Fig. 2 is a vertical sectional view of the upper end of the same, partly in elevation, and, Fig. 3 is a sectional view taken on the plane of line 3—3 in Fig. 2.

Referring more specifically to the drawings by numerals, 1 designates the tip of the crutch to which is secured, in the usual manner, the side bars 2, which extend upwardly and outwardly, for a portion of their length and have their upper ends parallel to each other. The hand-hold 3 is secured between the side bars 2, adjacent the lower ends of the parallel upper portions thereof. The upper ends of the side bars 2 are slidably mounted within tubular uprights 4 secured at their upper ends near the extremities of the arm rest 5 by means of suitable fasteners 6, passing through the integrally formed flanges 7. Concavo-convex metal strips 8 formed with a plurality of alined openings 9, are secured to the inner sides of the side bars 2, adjacent the upper ends thereof, by means of suitable fasteners 10. These concavo-convex strips are provided so that it will not be necessary to form openings in the side bars 2 and thereby weaken the same.

The improved locking means forming a part of my invention, is positioned within a housing 11 formed preferably of metal and having the upper wall 12 and side walls 13 recessed intermediate of their lower edges, as at 14. The housing 11 is secured between the tubular uprights 4 adjacent the lower ends thereof and has its lower side entirely open. Angular levers 15 and 16 are pivotally secured intermediate their ends within the housing 11 by means of pivot rods 17. Bolts 18 are pivotally secured at their inner ends to the short arms of the levers and extend outwardly through openings formed in the uprights 4 into certain of the openings 9 in the metal bars 8. The lever 15 has a long arm 19 which extends downwardly and inwardly beyond the arm of the housing 11 and which is somewhat reduced in size and curved at its outer end, as at 20, to provide a recess for the reception of the free end of the lever 16. A curved flat metal spring 21 is secured at one of its ends to the top 12 of the casing and bears downwardly upon the levers 16 and 15, whereby the bolts 18 are held normally in their extended positions, at which time the side bars 2 are locked relative to the uprights 4.

When it is desired to adjust the length of the crutch, the hand of the user applies an upward pressure to the curved end 20 of the lever 15, thus raising said lever and the lever 16 so as to retract the bolts 18, which permits of a sliding movement of the side bars 2 within the uprights 4. When the proper adjustment has been attained, the end 20 is released, permitting the spring 21 to partially rotate the levers in order to force the bolts 18 outwardly into engagement with certain of the openings 9. The recesses 14 in the side walls 13 of the casing permit free access to the free ends of the levers and it will also be noted that the shoulder 20′, by contacting with the free end of the lever 16, limits the inward movement of each of the levers and prevents the pivoted bolts 18 being entirely withdrawn from the openings formed in the uprights 4. The outward movement of the bolts is limited by the side bars 2 and therefore it is impossible for the lever 16 to become disengaged from the curved end 20.

Having thus described my invention, what I claim is:—

1. An adjustable crutch having side bars with upper and lower sections which tele-

scope, sliding bolts movable with the upper sections and adapted to lockingly engage the lower sections, and pivoted levers connected to said bolts, said levers coöperating with each other whereby a movement of one will operate upon the other to cause the bolts to be simultaneously retracted from engagement with the lower sections.

2. An adjustable crutch comprising an arm rest, tubular uprights secured to said arm rest, side bars sliding within the uprights and provided with a plurality of alined openings, a casing secured between the uprights, said casing being open on its under side, a pair of angular levers secured within the casing, one of said levers being recessed to receive the free end of the other lever, bolts secured to said levers and sliding through openings formed in the uprights, and means for holding said bolts normally in their extended positions.

3. An adjustable crutch comprising an arm rest, tubular uprights secured to said arm rest, side bars sliding in said uprights, a concavo-convex metallic strip secured to the inner side of each side bar and formed with a plurality of alined openings, a casing having a top and side walls, the side walls being recessed intermediate their lower edges, said casing being positioned between the uprights, a pair of angular levers pivoted within said casing and having downwardly and inwardly extending arms, one of said arms being offset at its free end to provide a recess for the reception of the free end of the other arm, a flat metal spring secured to the top of the casing and bearing downwardly against said levers, and bolts secured to the levers and sliding through openings formed in said uprights, said bolts limiting the downward swing of the levers, the offset end portion of one of said levers limiting the inward movement of both of the levers whereby the bolts are prevented from being entirely withdrawn from the openings in the uprights.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK H. JONES.

Witnesses:

WALLACE G. MILLAR,

OTTO BENNER.