Feb. 12, 1952 C. E. BODNAR 2,585,730

PENDULUM LIMB SUPPORT CRUTCH

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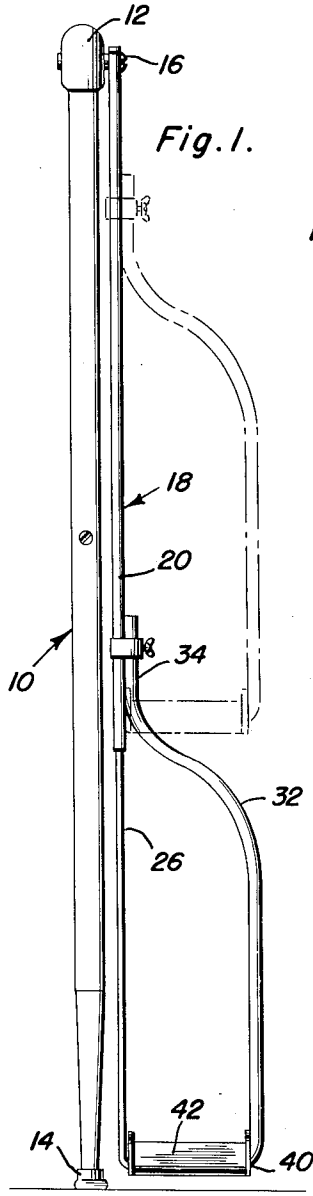


Fig. 1.

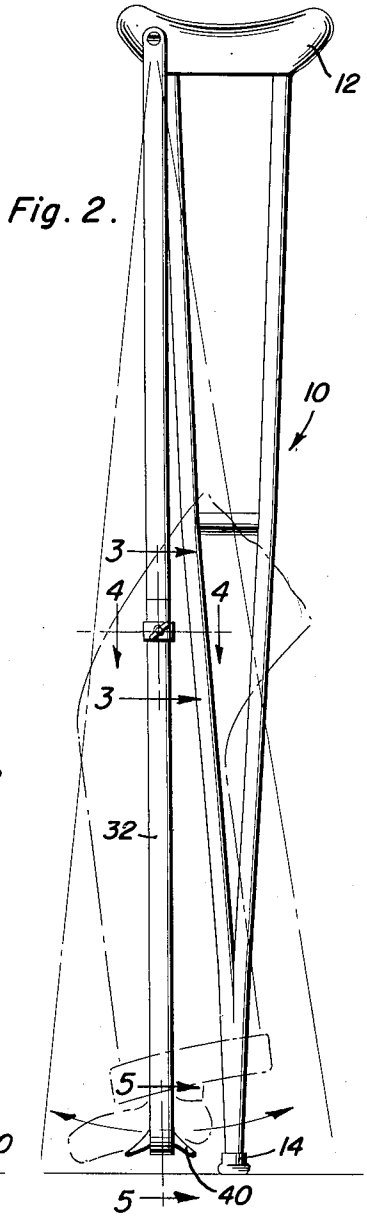


Fig. 2.

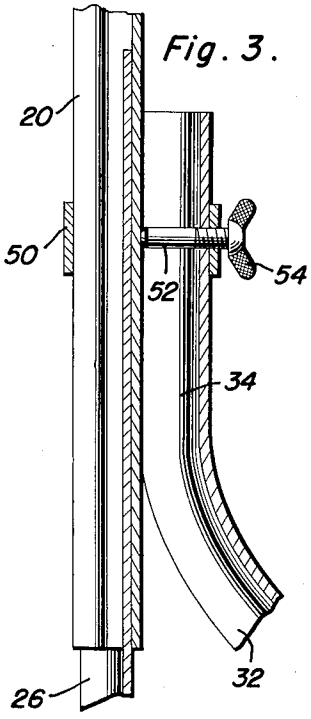


Fig. 3.

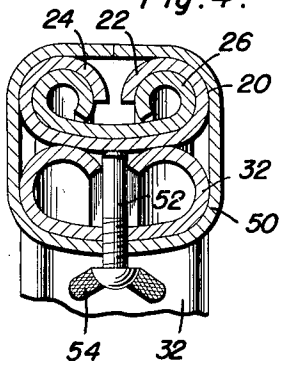


Fig. 4.

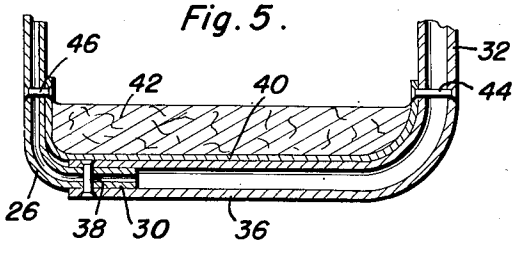


Fig. 5.

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PENDULUM LIMB SUPPORT CRUTCH

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5 Claims. (Cl. 135—50)

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This invention relates to novel and useful improvements in attachments for crutches.

An object of this invention is to support the leg of an individual on a swinging standard which is attached to a crutch for pivotal movement and to regulate the effective length or size of the support in accordance with the desires and needs of the person employing the device.

Ancillary objects and features of novelty will become apparent in following the description of the illustrated form of the invention.

On the drawings:

Figure 1 is an elevational view of a crutch having the attachment operatively connected therewith;

Figure 2 is a side view of the device shown in Figure 1 showing schematically one suggested use thereof;

Figure 3 is an enlarged sectional view taken substantially on the line 3—3 of Figure 2 and in the direction of the arrows;

Figure 4 is a transverse view taken substantially on the line 4—4 of Figure 2 and in the direction of the arrows;

Figure 5 is a sectional view taken substantially on the line 5—5 of Figure 2 and in the direction of the arrows.

A crutch generally indicated at 10 has an upper shoulder rest 12 together with a ground engaging cap 14 at the lower end. The crutch is purely conventional in nature and has been chosen as the element to which the article of invention is attached.

A pivot pin, as the bolt 16 is passed through the upper end of the crutch in order to secure the standard generally indicated as 18 thereto for pivotal or pendulous movement.

The standard 18 is extensible and consists of a metal strip or rod 20 having arcuate longitudinal edge portions 22 and 24. A second rod 26 is disposed therein and is of shape similar to the first rod 20. The two rods are telescopically adjustable with respect to each other.

A limb support is operatively connected with the standard. Reference to Figure 5 shows a part of the detail of construction of the limb support. The lower end of the rod 26 has an extension 30 disposed at right angles to the main longitudinal axis thereof. The rod 32 has a smoothly curved upper end 34 and an extension 36 projecting from the lower end. The cross-sectional shape of the rod 32 is similar to the cross-sectional configuration of the rod 26 and 20. However, the rod 32 is slightly larger than the rod 26 so that it fits over the extension 30 and

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is held in place by means of a rivet 38 or the like.

A plate 40 having down turned longitudinal edges is disposed on the extension 36 and the resilient or flexible pad 42 is carried thereby. The plate 40 is held in place by any suitable means, as the rivets 44 and 46 which are fixed to the rod 32 and the rod 26 respectively.

Means releasably holding the rod 26 together with the rod 32 in extended position with respect to the rod 20 is provided. This means consists of a collar 50 which is disposed around the rod 32 and the rod 20 (Figure 4). A screw 52 is threaded in openings provided in the rod 32 and in the collar 50 and frictionally contacts the surface of the rod 20. A wing type head 54 is provided on the screw 52 for manual operation thereof.

In operation the screw 52 is loosened and the standard is extended or retracted thereby moving the limb support upwardly or downwardly. The screw 52 is then tightened after the proper elevation of the support is obtained. At that time, the user of the device places his limb in the limb support so that a part thereof contacts the resilient pad 42. Movement of the crutch 10 is then permitted but this movement is independent of the swinging or pendulous movement of the standard 18. Balance and proper posture is easily achieved when the limb is permitted to move with the standard 18, as it swings about the pivot 16 as an axis.

Having described the invention, what is claimed as new is:

1. In combination a crutch having an upper end and a lower end, and an attachment for the crutch, said attachment comprising a standard pivoted to the upper end of the crutch, and a limb support operatively connected with said standard, said standard consisting of a first rod, a second rod extensibly connected with said first rod, and means releasably locking said rods in selected positions with respect to each other.

2. In combination, a crutch and an attachment, said crutch having an upper end and a lower end, said attachment including a standard pivoted at its upper end for swinging movement to the upper end of said crutch, said standard including a pair of extensibly connected sections with means for fastening said sections in selected extended positions, and a limb support operatively connected with one of said sections for swinging movement therewith and for adjustment with respect to the other of said sections.

3. An attachment for a crutch, said attach-

ment comprising a standard having means at one end for pivotal attachment to the crutch, said standard including an upper section and a lower section, said sections being extensibly connected together, means for fastening said sections together in selected extended positions, a limb support fixed to one of said sections and operatively connected with the last-mentioned means for attachment to the other of said sections and for adjustment with one of said sections with respect to the other of said sections.

4. The combination of claim 3 and said limb support including a rod with a lateral extension at one end connected to the lower section and having a pad thereon, and the upper end of said rod being connected with said means for fastening said sections together in selected positions.

5. The combination of claim 3 and one of said sections being hollow with the other of said sections slidably disposed therein.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
751,942	Renno	Feb. 9, 1904
1,418,283	Cameron	June 6, 1922

FOREIGN PATENTS

Number	Country	Date
61,103	Germany	Mar. 19, 1892