(No Model.)

F. D. RANDALL.

CRUTCH.

No. 265,144. Patented Sept. 26, 1882.

Fig. 1.

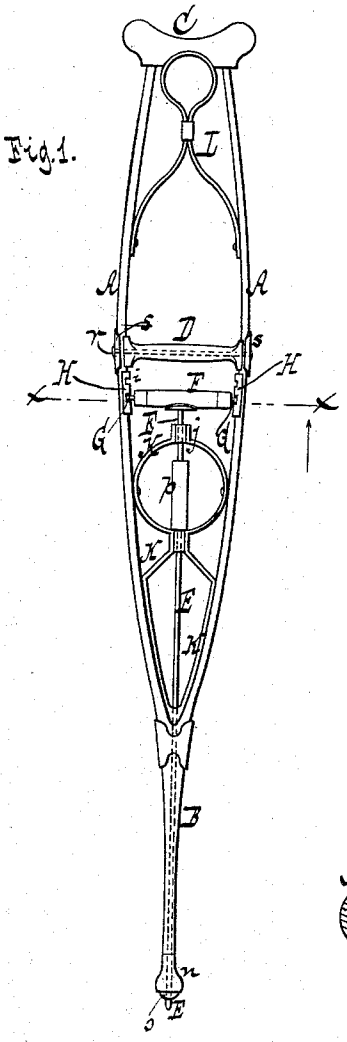


Fig. 2.

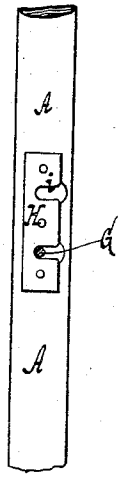
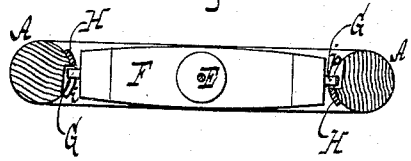


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

FRANK D. RANDALL, OF WAUPACA, WISCONSIN.

CRUTCH.

SPECIFICATION forming part of Letters Patent No. 265,144, dated September 26, 1882.

Application filed June 8, 1882. (No model.)

To all whom it may concern:

Be it known that I, FRANK D. RANDALL, a citizen of the United States, residing at Waupaca, in the county of Waupaca, in the State of Wisconsin, have invented new and useful Improvements in Crutches, of which the following is a specification.

This invention relates to that class of crutches having a longitudinal spur-rod for ice-creeping purposes adapted to be adjusted to protrude from the base or leg of the crutch and to be retracted at pleasure; and it consists, among other things, in the means hereinafter described whereby the rod is held in its outer or in its retracted position.

This invention is illustrated in the accompanying drawings, in which Figure 1 represents a side view, partly in section. Fig. 2 is a longitudinal section. Fig. 3 is a cross-section on the line *x x*, Fig. 1.

Similar letters indicate corresponding parts.

The letter A designates the bows of the crutch, meeting at the lower ends so as to form a leg, B, and having the usual shoulder-piece, C, at the top, also the usual intermediate hand-hold, D.

The letter E denotes the spur-rod, which extends through the leg B, and to the upper end of which is fixed a cross-piece, F, having studs G at its opposite ends.

To the inner sides or surfaces of the bows A, respectively, is secured a plate, H, one edge of which is provided with notches *i*, two in number, adapted to receive the studs G of the cross-piece. The notch-plates H are situated directly opposite to each other and are so arranged relatively to the length of the spur-rod E that when the cross-piece F is adjusted, by means of its end studs, in the lower notch of the plates, the rod protrudes from the leg of the crutch, whereas when the cross-piece is inserted in the upper notch of the plates the rod is retracted, bringing its lower or spur end within the crutch-leg. The plates H are so arranged that their notches open in opposite directions, and the rod E is capable of rotation, besides sliding, so that the cross-piece can be introduced into or disengaged from the notches of the plates by simply turning it in one or the other direction. A stop, *p*, serves to regulate the longitudinal motion of the spur-rod. The upper portion of the spur-rod E is guided by means of eyes *j*, forming part of a filling-frame, K, combined with the crutch-bows. This filling-frame is located on the lower part of the crutch, and a secondary or supplementary filling-frame, L, is arranged between the crutch-bows on the upper part of the article. The function of these frames K L is both to ornament and strengthen the crutch, the upper frame, L, serving also to secure the shoulder-piece C.

At the lower end of the crutch-leg is a ferrule, *n*, of cup shape, containing a pad, *o*, of india-rubber, which forms the bearing of the crutch when the spur-rod is retracted.

The hand-hold D is fastened by means of a bolt, *r*, passing through it and engaging with side plates, *s*, on the crutch-bows.

The stop *p* coacts with the eyes *j* of the filling-frame, and by means thereof the end studs of the cross-pieces F are brought opposite to the notches *i* of the notch-plates when the spur-rod is moved in or outward.

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

1. The combination, substantially as hereinbefore set forth, of the notch-plates arranged opposite to each other with their notches opening in opposite directions, with the spur-rod arranged to rotate, and provided with a cross-piece having end studs adapted to engage the plate-notches, for the purpose specified.

2. The combination, substantially as hereinbefore set forth, with the spur-rod, of the filling-frame provided with eyes forming guides for such rod, as specified.

3. The combination, substantially as hereinbefore described, with the spur-rod, of the filling-frame, provided with eyes forming guides for such rod, and the stop.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

F. D. RANDALL. [L. S.]

Witnesses:

D. P. BROWNE,

J. H. WOODWORTH.