

(No Model.)

J. W. HOWGATE.
CRUTCH.

No. 415,511.

Patented Nov. 19, 1889.

Fig. 1

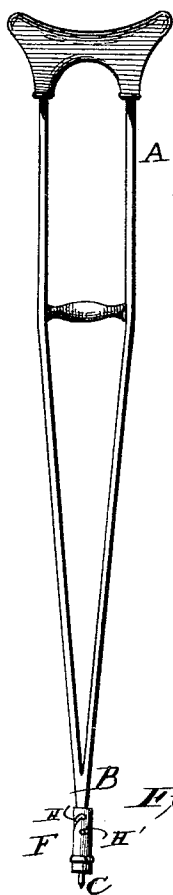


Fig. 2.

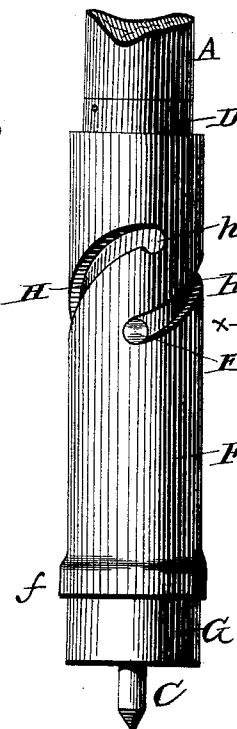


Fig. 3.

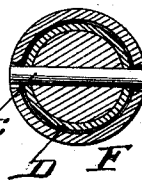
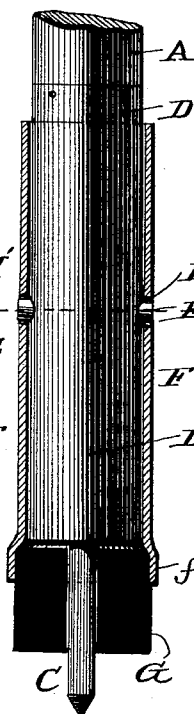
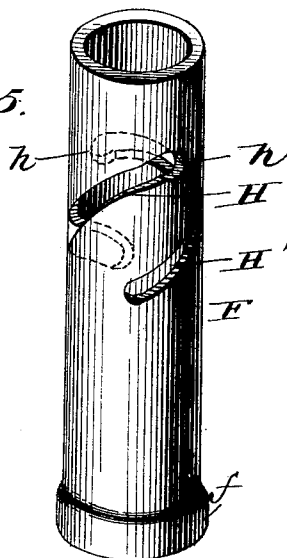


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

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CRUTCH.

SPECIFICATION forming part of Letters Patent No. 415,511, dated November 19, 1889.

Application filed August 17, 1889. Serial No. 321,073. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH W. HOWGATE, a citizen of the United States, and a resident of Wilmington, in the county of New Castle and State of Delaware, have invented certain new and useful Improvements in Crutches; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side elevation of my improved crutch. Fig. 2 is a similar view, on an enlarged scale, of the lower part or foot of the same. Fig. 3 is a longitudinal sectional view of said lower part or foot. Fig. 4 is a transverse sectional view on line $x x$ in Fig. 3; and Fig. 5 is a perspective view of the sliding and adjustable sleeve detached from the foot of which it forms a part.

Like letters of reference denote corresponding parts in all the figures.

This invention relates to crutches of that type which are provided with a spur projecting from the lower end of the foot, which said spur may be covered, when not in use, by a sliding sleeve, the lower end of which is shod with rubber or similar material forming the shoe of the crutch; and my improvement consists in the peculiar construction of the sliding and adjustable foot-sleeve and its combination with the spurred end of the crutch, substantially as will be hereinafter more fully described and claimed.

Reference being had to the accompanying drawings, the letter A designates the body of the crutch, which may be of any approved construction, and B the lower part or stick of the same. The bottom part of the latter, which forms the foot of the crutch, is provided with a central downwardly-projecting spur C, and also with a metallic sleeve or bushing D. A stout pin E is inserted transversely through this sleeve D, and the foot-piece B with its ends projecting at right angles on opposite sides, as shown in the drawings.

Encircling the fixed foot-sleeve D is another sliding sleeve F, the lower end of which is enlarged and formed with an inner annular recess f , into which is inserted and suitably fastened the elastic shoe G, of rubber or other suitable material.

The sliding sleeve F has near its upper end two spiral-formed parallel slots H and H', each of which makes a complete turn around the sleeve, and is provided at its upper end or starting-point with a notch or recess h . Through these slots H and H' project the opposite ends of the transverse pin E, one end on each side, and it follows that when sleeve F is turned or rotated upon the fixed foot-sleeve D it will be raised or lowered upon the same according to the direction in which it is turned. When the sleeve is turned down so that the rubber shoe G at its lower end shall cover and protect the fixed spur C, the projecting ends of the pin E will drop down into and interlock with the recesses h at the upper ends of the spiral slots, and thereby hold the sliding sleeve rigidly in its adjusted position covering the spur. When, on the other hand, it is desired to use the crutch with the spur exposed, (as when walking over ice or other slippery surfaces,) all that is necessary is to push the sleeve up a little, so as to disengage pin E from its interlocking notches h , and then revolve the sleeve, so as to slide it up upon the foot end of the crutch, and thereby expose the spur through the central aperture in the rubber shoe.

I am aware that crutches of this type have before been made with a sliding sleeve adapted to cover a spur at the lower end of the crutch and provided with a so-called "bayonet-catch" for locking the sleeve in place. This construction, however, I do not claim; but,

What I claim as my improvement, and desire to secure by Letters Patent of the United States, is—

The combination, in a crutch, of the foot B, having spur C and fixed sleeve D, the transverse pin E, the sliding foot-sleeve F, having an annular recess f and provided with the

parallel spiral slots H H', having notches or
recesses h, and the elastic shoe G, fitted into
the annular recess in the lower end of the
sliding sleeve and having a central aperture
5 registering with the fixed spur, substantially
as and for the purpose herein shown and set
forth.

In testimony that I claim the foregoing as
my own I have hereunto affixed my signature
in presence of two witnesses.

JOSEPH W. HOWGATE.

Witnesses:

JOS. H. KIRK,

GEORGE ABELE.