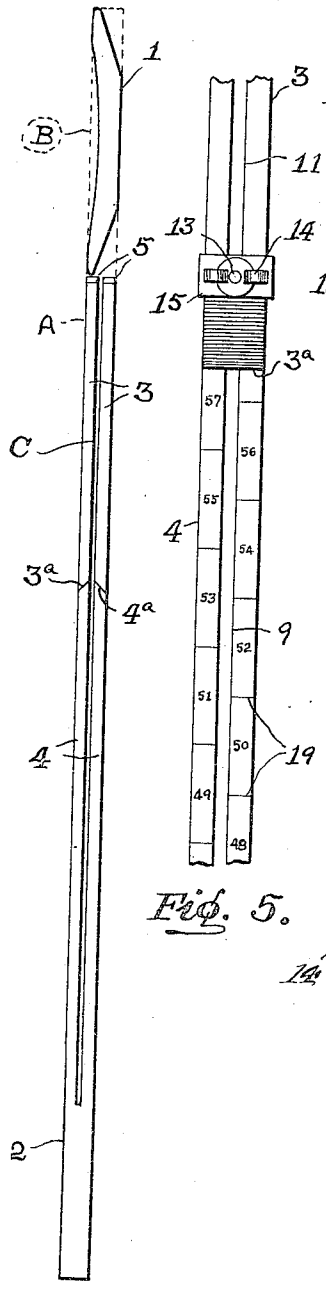
W. E. WOLF.

EXTENSIBLE CRUTCH CONSTRUCTION.

APPLICATION FILED OCT. 11, 1917.

1,262,153. Patented Apr. 9, 1918.

Fig. 2.



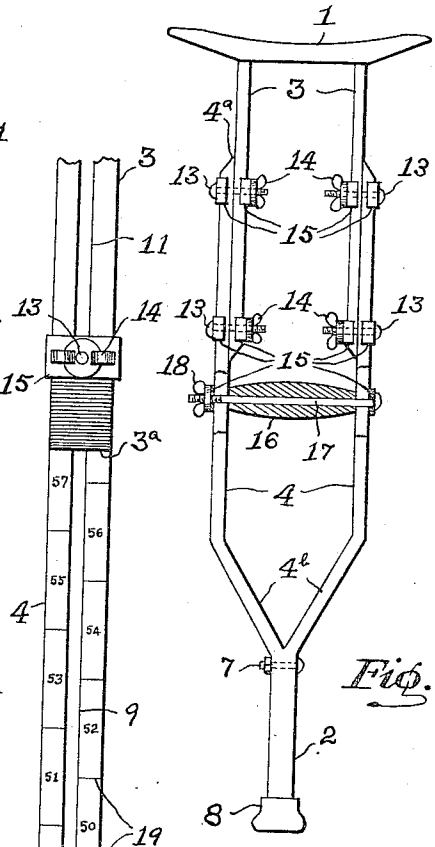


Fig. 1.

Fig. 5.

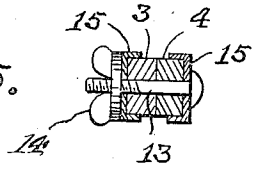


Fig. 4.

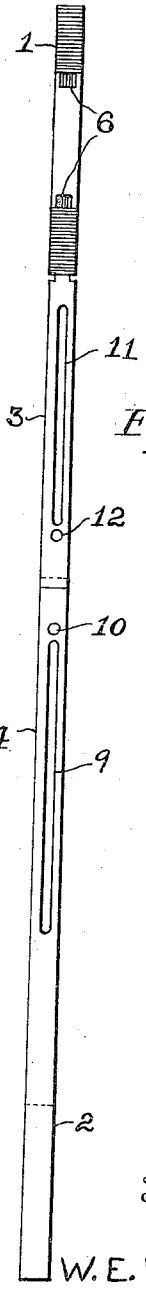


Fig. 3.

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EXTENSIBLE-CRUTCH CONSTRUCTION.

1,262,153. Specification of Letters Patent. Patented Apr. 9, 1918.

Application filed October 11, 1917. Serial No. 195,897.

To all whom it may concern:

Be it known that I, WILLIAM EARNEST WOLF, a citizen of the United States, residing at New Philadelphia, in the county of Tuscarawas, State of Ohio, have invented a new and useful Extensible-Crutch Construction; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to certain new and useful improvements in extensible crutches, and has for its object to provide a device of this character which embodies novel features of construction whereby the effective length of the crutch can be increased or decreased to fit a tall or a short person and the position of the handle adjusted to accommodate a long arm or a short arm.

Further objects of the invention are to provide a device of this character which can be inexpensively formed from a single length of material, which can be adjusted to the required height without the necessity of standing the patient upon his feet, which enables the length of the crutch to be adjusted independently of the position of the handhold, and which provides a strong and rigid crutch after it has been properly adjusted to fit the particular person who is to use the crutch.

With these and other objects in view, the invention consists in certain novel combinations and arrangements of the parts as will more fully appear as the description proceeds, the novel features thereof being pointed out in the appended claim.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawing, in which:—

Figure 1 is a side elevation of an extensible crutch constructed in accordance with the invention, portions being broken away and shown in section to illustrate more clearly the details of construction.

Fig. 2 is a front elevation of the strip of material from which the crutch is formed, showing the manner of cutting and shaping the same.

Fig. 3 is a side elevation of the same.

Fig. 4 is an enlarged horizontal sectional view through one side of a crutch, showing one of the clamping members.

Fig. 5 is an enlarged detail view of the inner face of one of the sides of the crutch, showing the arrangements of the graduations which admit of the crutch being properly adjusted in length without the necessity of standing the patient upon his feet.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawings, which illustrate one embodiment of the invention, the reference character A designates a length of material from which the crutch is formed, one end of the length or strip, indicated by dotted lines at B, being cut off and shaped to form a saddle 1. The remaining portion of the length or strip A is slit longitudinally at C from one end thereof to a point sufficiently spaced from the opposite end to form the foot 2 of the crutch. The spaced sides provided by the slit C are cut angularly to provide arms 3 having beveled lower ends 3^a, and sides 4 having beveled upper ends 4^a. The upper ends of the arms 3 are shaped to provide tongues 5 which are secured within suitable recesses 6 in the saddle 1. The sides 4 are deflected at their upper ends, as indicated at 4^b, thereby holding the upper portions of the sides in a spaced and parallel relation. A bolt 7 extends through the foot 2 at the top thereof to prevent splitting of the material, and the usual cap 8 may be applied to the lower end of the foot.

The sides 4 are formed with longitudinally extending slots 9 and bolt receiving openings 10 at the upper ends of the slots. In a similar manner the arms 3 are provided with longitudinally extending slots 11 and bolt receiving openings 12 at the lower ends of the slots. When the crutch is assembled the arms 3 which project downwardly from the saddle 1 slidably engage and telescope against the inner faces of the upright sides 4. Clamping bolts 13 extend through the bolt receiving openings 10 and 12, respectively, of the sides 4 and arms 3, and also through the longitudinal slots of the opposite members, the inner ends of the bolts being provided with thumb nuts 14 which are arranged on the inside of the crutch frame and can be easily manipulated to tighten or loosen the clamping bolts. Channel shaped clamping plates 15 are fitted upon the ends of the clamping bolts 13, the

flanges of the clamping plates embracing the sides of the crutch members and assisting in holding the same accurately in proper position. Owing to the fact that the clamping bolts are held in position within the respective bolt receiving openings 10 and 12, it will be obvious that the bolts will always remain in a proper position at right angles to the members by which they are carried, thereby enabling the parts to slide freely when the bolts are loosened to adjust the crutch, without the binding action which would be caused by a tilting or swinging movement of the clamping bolts upon an attempt to slide the arms 3 either up or down upon the sides 4. A construction is thus provided which admits of the parts being rigidly clamped in an adjusted position, although they will slide freely upon each other without any binding action when the clamping nuts are loosened.

The handle 16 is carried by a bolt 17 which extends transversely across the frame of the crutch and is received within the slots 9 of the sides 4. Channel shaped clamping plates 15 are fitted upon the ends of this bolt, and a thumb nut 18 is threaded upon the bolt. The handle is thus mounted in such a manner that it can be adjusted up and down independently of the saddle adjustment, and rigidly clamped in an adjusted position.

As indicated by Fig. 5, the inner faces of the sides 4 are graduated and provided with inch measurements 19, these graduations cooperating with the beveled lower ends 3ª of the arms 3 to indicate the height or length of the crutch, and enabling the crutch to be accurately adjusted for any patient without the necessity of standing the patient upon his feet.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent, is:—

The herein described extensible crutch including a foot, spaced and parallel upright sides carried by the foot and formed with longitudinal slots extending substantially the full length thereof, and with bolt receiving openings above the upper ends of the slots, a saddle, spaced and parallel arms extending downwardly from the saddle and fitting slidably against the upright sides of the foot, said arms being provided with longitudinal slots extending substantially the full length thereof and with bolt receiving openings below the lower ends of the slots, clamping bolts fitted within the bolt receiving openings of the sides and arms and adjustably received within the slots of the opposite members, channel shaped clamping plates applied to the ends of the bolts and embracing the arms and sides, a handle carrying bolt connecting the sides and adjustably received within the slots thereof, and a handle fitted upon the handle carrying bolt.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM EARNEST WOLF.

Witnesses:

ORVALL J. WRIGHT,

W. V. WRIGHT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."