No. 665,439. Patented Jan. 8, 1901.

O. E. HOUGH.

CRUTCH.

(Application filed Oct. 8, 1900.)

(No Model.)

Fig. 1.

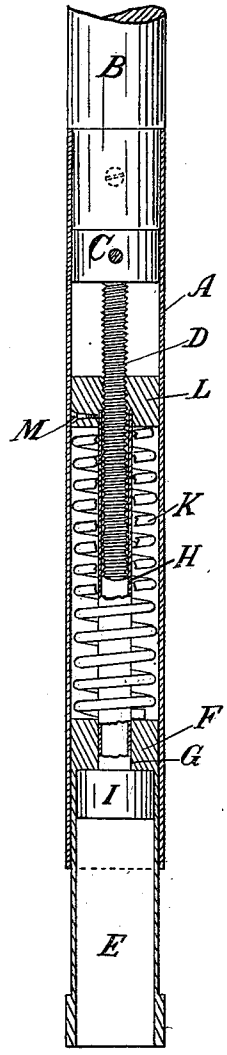


Fig. 2.

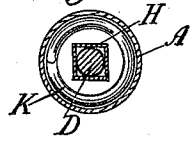
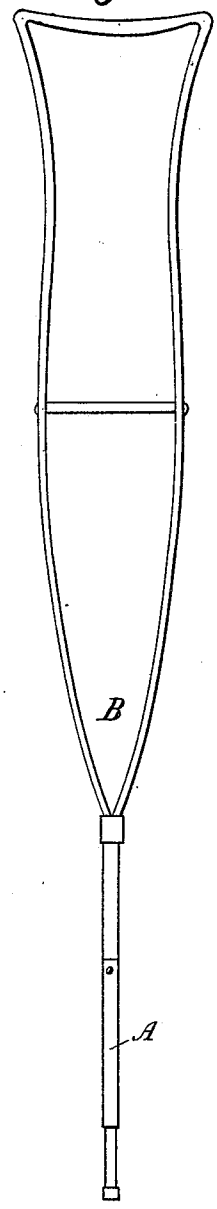


Fig. 3.



WITNESSES:

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CRUTCH.

SPECIFICATION forming part of Letters Patent No. 665,439, dated January 8, 1901.

Application filed October 8, 1900. Serial No. 32,394. (No model.)

To all whom it may concern:

Be it known that I, ORSON E. HOUGH, a citizen of the United States, residing at San Antonio, in the county of Bexar and State of Texas, have invented a new and useful Improvement in Crutches, of which the following is a specification.

My invention relates to improvements in crutches where the lower part is fixed into a tube or cylinder in which a coil-spring above a piston acts as a cushion and a screw device alters in the cylinder the vertical position of the space for the coil-spring and the piston; and the objects of my invention are, first, to overcome the jerks by the movements with the crutches, and, second, to alter in short time the length of the crutches to a certain extent by more or less screwing the piston into or out of the cylinder. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section of the entire device. Fig. 2 is a top view on line X X, and Fig. 3 is a vertical view of a crutch with the mechanism attached.

Similar letters refer to similar parts throughout the several views.

A is a cylinder or tube, of steel or other suitable material, in which upper part is firmly fixed the lower part of the crutch B, and below the crutch in the tube A is fastened the head C of a steel screw D.

The piston E has in its head F a square hole G, in which slides up and down a square tube H, of steel or other suitable material. This square tube H has at its lower end a cylindrical foot I to fit into the piston E, and when the square tube H is inserted through the piston-head F a coil-spring K is slid over the square tube H and kept in position by a nut L, which is fastened by a set-screw M to the upper end of the square tube H. The nut L has a thread to fit the screw D.

When turning the piston E to the right or left, the piston will be screwed in or out of the cylinder, and thereby alters the length of the crutch, and when the weight is put on the crutch the piston-head F, with the coil-spring K, will act as a cushion.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination in a crutch of a cylinder A, attached to the lower part, a screw D fastened with its head C to the upper part of the cylinder A, a piston E having in its head a square hole G, a square tube H sliding through the head of the piston, the square tube having a cylindrical foot I which bears against the piston-head, a coil-spring K over the square tube, a nut L fastened to top of the square tube to keep the coil in position, as set forth and described.

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

ORSON E. HOUGH.

Witnesses:
J. H. MARQUART,
GEO. J. GAUBATZ.