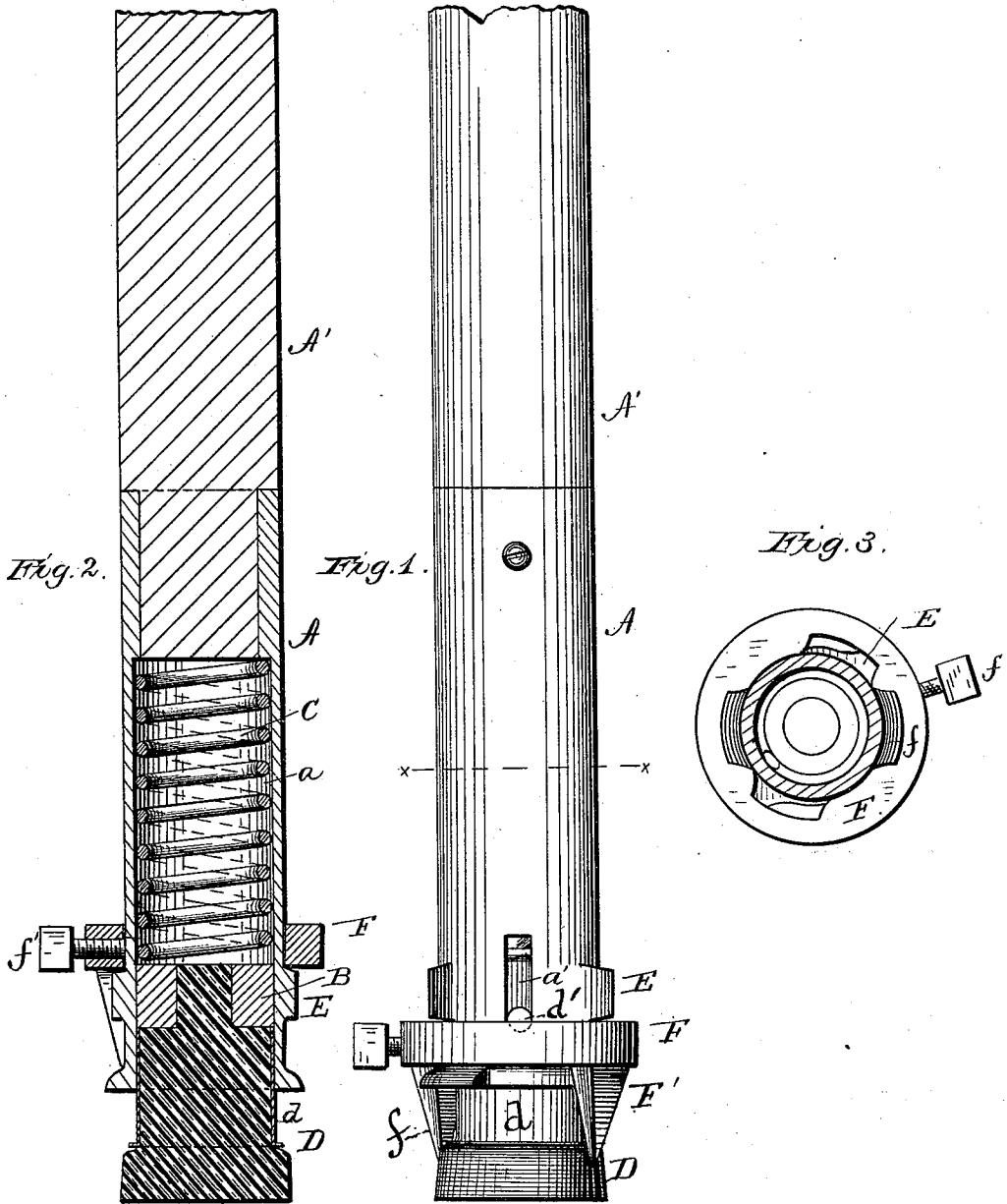


(Model.)

H. A. HECKLER.
GRUTCH.

No. 250,531.

Patented Dec. 6, 1881.



Witnesses,
Frank L. Curand
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UNITED STATES PATENT OFFICE.

HENRY A. HECKLER, OF QUINCY, ILLINOIS.

CRUTCH.

SPECIFICATION forming part of Letters Patent No. 250,531, dated December 6, 1881.

Application filed July 8, 1881. (Model.)

To all whom it may concern:

Be it known that I, HENRY A. HECKLER, a citizen of the United States of America, residing at Quincy, in the county of Adams and State of Illinois, have invented certain new and useful Improvements in Crutch Attachments on Lower End of Crutches, Cork Legs, or Canes; 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, reference being had to the accompanying drawings, and to the letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to an adjustable cushioned safety-ferrule for crutches, canes, and other supports; and the novelty consists in the construction and arrangement of parts, as will be more fully hereinafter set forth, and specifically pointed out in the claim.

The object of the invention is to provide a support-ferrule in which the concussion or jar due to its deposit upon the ground or pavement will be cushioned upon the wearer, one which will be noiseless in use, and one which may be adjusted to expose ice-picks to the pavement at will, thereby affording safety against slipping of the support in icy weather. These objects are important, as the use of a support or a crutch accompanies a decrepid or maimed condition, such as would not be able to avoid a fall under ordinary circumstances, and such as would be the more injured by the fall.

In carrying out these objects I employ the mechanisms illustrated in the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a longitudinal central section; Fig. 2, a side elevation, and Fig. 3 a detail.

Referring to the drawings, in which similar letters of reference indicate like parts in all the figures, A represents the cylindrical ferrule, having a longitudinal slot, a' , and projecting lugs E. Within the cylinder A is housed a spiral spring, C, which serves with a constant force to hold a cylinder-frame, d , carrying a

rubber or other flexible bearing, D, and a pin, d' , operates in the slot a' to limit the action of the spring in that direction. By this construction not only does the rubber bearing D prevent a noise in striking the pavement, but the spring C acts as a further cushion thereto.

F represents a metal ring or disk, provided with downwardly-extending ice-picks F' and inner recesses, f , which correspond with the projecting lugs E upon the ferrule A. A set-screw, f' , allows the ring F to be secured above the lugs E when not in service, and from that position it is adapted to be readily thrown into action by loosening the set-screw f' , turning the ring until the lugs and recesses f register, passing it down below the lugs and securing it in that position, when the prongs or pricks F' extend downwardly along the sides of the rubber bearing and operate to prevent slipping when the support is in use.

I am aware that picks or prongs have been before used for a similar purpose, and that it is not broadly new to employ springs in this connection, and these devices of themselves are not sought to be covered in this application.

Modifications in details of construction may be made without departing from the principle or sacrificing the advantages of my invention, the essential features of which are the rubber bearing, the cushioning-spring, and the adjustable ice-picks, in the relations and combinations described, for the several purposes set forth.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

The combination of the ferrule A, having lugs E and slot a' , the bearing-cylinder d , having pin d' , and the rubber bearing D, with the pronged recessed ring F $f f'$ and housed spring C, as and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY A. HECKLER.

Witnesses:

HARRY A. STEWARD,
F. C. HORNE.