Aug. 4, 1931. W. H. LANNING 1,817,829

CRUTCH ATTACHMENT

Filed March 7, 1930

Fig. 1.

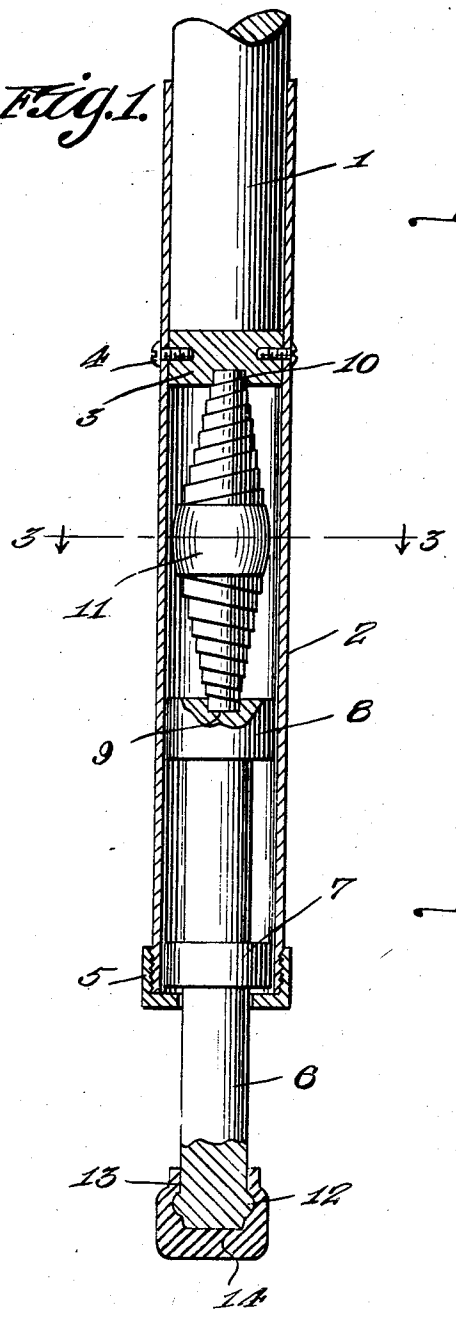


Fig. 2.

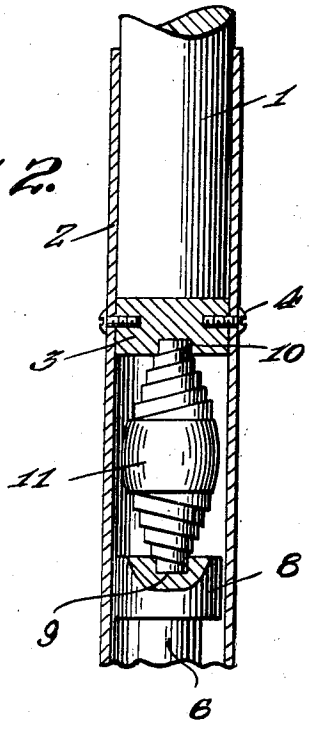
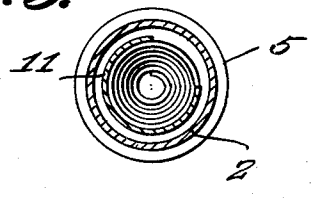


Fig. 3.



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WITNESS:

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UNITED STATES PATENT OFFICE

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CRUTCH ATTACHMENT

Application filed March 7, 1930. Serial No. 434,058.

The object of this, my present invention, is the provision of a shock absorbing tip for walking sticks or crutches and the like.

A further object is the provision of a cushioning means for devices of this character which may be readily arranged upon the outer end of the walking stick or crutch and which includes a relatively stationary plunger having an outer compressible tread and which plunger is normally held stationary through the medium of the compression of a helico volute spring.

For a full and comprehensive understanding of the invention reference is to be had to the accompanying drawings which form part of this application.

In the drawings:

Figure 1 is a side elevation of the improvement with parts in section.

Figure 2 is a detail sectional view through the improvement showing the helico volute spring compressed.

Figure 3 is a transverse sectional view on the line 3—3 of Figure 1.

In the drawings, the numeral 1 designates the outer end of a walking stick, crutch or the like. The end 1 is received in a tubular sleeve 2. The element 1 contacts with a disc 3 which is secured by means 4 in the sleeve.

The outer end of the sleeve is open and is closed by a cap nut 5.

The numeral 6 designates the stem of a plunger. This stem is guided through an opening in the end of the cap nut 5 and is provided with a shoulder 7 to contact with the cap nut and to limit the outward movement of the plunger through the sleeve 2. The inner end of the plunger 6 is formed with a head 7 and this head is centrally provided with a depression 9. The inner face of the disc 3 is provided with a round depression 10 disposed opposite the round depression 9 and these depressions receive therein the reduced ends of a wrapped compression helico volute spring 11. The outer end of the plunger 6 is formed with an annular bead 12 and this end of the plunger is received in a socket 13 in a rubber or like compressible tip 14.

The spring 11 will normally move the plunger outwardly through the sleeve 2, the outward movement being limited by the contact of the shoulder or enlargement 7 on the plunger with the cap nut 5. The tip 14 being compressible serves as a shock absorber when undue pressure is exerted upon the stick or crutch but which undue pressure will cause the plunger to move in the sleeve but such movement is gradual as such movement of the plunger is resisted by the spring 11.

The construction and advantages of the improvement will, it is thought, be apparent to those skilled in the art to which such invention relates without further detailed description.

Having described the invention, I claim:

In a device for the purpose set forth, a sleeve designed to receive the end of a stick or crutch therein, a disc fixed in the sleeve against which the end of the crutch or stick contacts, a cap nut screwed on the outer end of the sleeve, a plunger having a portion received in the sleeve and movable through the cap nut, a shoulder on the plunger to contact with the cap nut to limit the outward movement of said plunger, a head on the inner end of the plunger, said head and said disc having alining depressions and a compression helicovolute spring having its ends received in said depressions.

WILLIAM H. LANNING.