Jan. 21, 1947. J. W. MOSS 2,414,758

CRUTCH TIP AND CUSHIONING MEANS THEREFOR

Filed July 14, 1945

Fig. 1

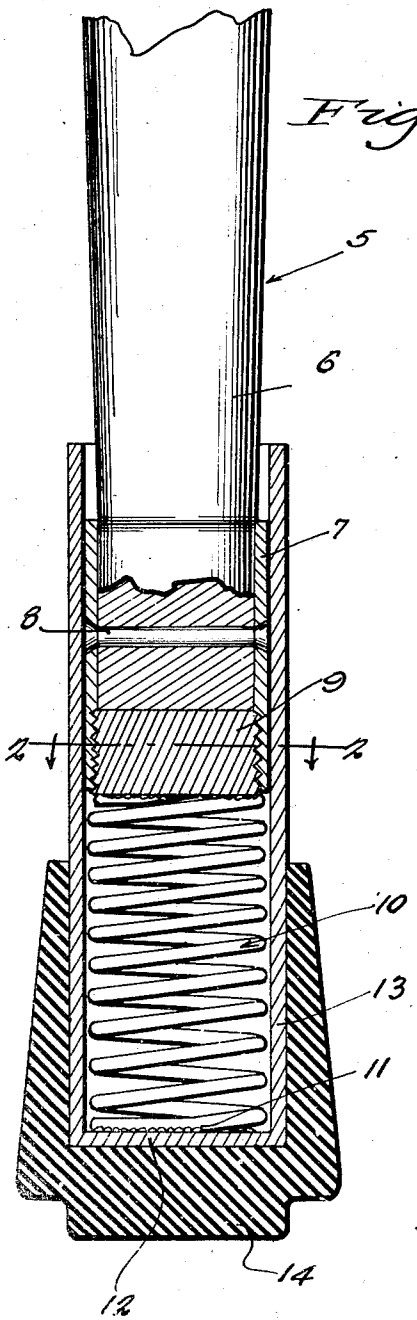
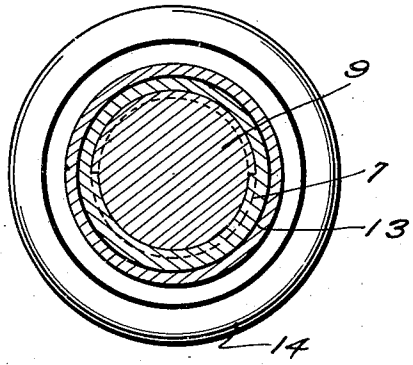


Fig. 2



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CRUTCH TIP AND CUSHIONING MEANS THEREFOR

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2 Claims. (Cl. 135—53)

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The present invention relates to rubber and equivalent tips such as are applicable to and used in connection with walking sticks, crutches and the like, and the principal purpose of the invention is to mount the tip on the surface engaging end of the crutch leg in a manner to provide cushioning and shock absorbing facilities.

Needless to say, I am aware that the art to which the invention relates is, generally speaking, well developed and that various ways and means have been heretofore patented to afford the user desired compensating and cushioning results. It follows, therefore, that in carrying out the principles of the present contribution and added endeavor, I have perfected what I believe to be a simple and practical assemblage which, it is submitted, is more aptly suited for the purposes stated and adequately measures up to recognized requirements in this field of endeavor.

Briefly, in carrying out my aims, I secure a ferrule forming sleeve on the lower end of the leg of the crutch, this being allowed to protrude beyond said leg and being internally screw-threaded to provide a coupling socket. The sleeve also serves as a bushing and, therefore, is slidably mounted in an elongated spring-containing cup or receptacle, the spring being anchored in the latter and said receptacle further serving as a mount for the renewable rubber tip usually provided in structures in this category.

In carrying out my aims, I have evolved and produced an assemblage which is characterized by features of simplicity easy to spot and identify, these each complementing the other in thus providing what is wanted.

Other objects, features and advantages will become more readily apparent from the following description and the accompanying illustrative drawing.

In the drawing, wherein like numerals are employed to designate like parts throughout the views:

Figure 1 is an enlarged view showing the lower or leg portion of a conventional crutch, showing a regular rubber or equivalent tip, and the improved cushioning means between the tip and said leg.

Figure 2 is a horizontal section taken approximately on the plane of the line 2—2 of Figure 1, looking in the direction of the arrows.

Referring now to the drawing it will be seen that the numeral 5 designates a crutch whose lower leg portion is denoted at 6. In accordance with my ideas I provide a metal or equivalent sleeve 7 and this fits telescopically over the leg 6 and is riveted or otherwise secured in place as

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at 8. The sleeve serves as a sort of a ferrule and the lower end projects beyond the corresponding end of the leg where it is internally screw-threaded and functions as a coupling socket, that is to say, it constitutes a socket for a screw-threaded plug or nut 9 welded or otherwise rigidly secured to the uppermost convolution of the coiled spring 10. The lowermost convolution of the spring, as at 11, is welded or otherwise secured to the lower closed end 12 of the elongated cup-like cylinder or socket 13. The sleeve 7 then becomes a bushing and is slidable in the cylinder and the cylinder serves to house the spring and thus constructed the parts provide the desired shock-absorbing and cushioning adapter on the lower end of the leg. I refer to this as an adapter because it adapts itself for reception of the rubber pad or usual cup-like tip 14.

When weight is brought to bear on the crutch the sleeve 7, functioning as a wear bushing, slides up and down in the surrounding cylindrical portion of the receptacle 13. The spring being attached to the sleeve and also to the receptacle it is evident that the desired interposing cushioning possibilities and properties are provided. Hence, we have a simple and expedient device for cushioning shocks and promoting unusual comfort for the user.

Changes in shape, size, materials and rearrangement of details and parts may be resorted to in actual practice, so long as they do not depart from the spirit of the invention or the scope of the appended claims, as is well understood.

I claim:

1. In a crutch of the class described, a crutch leg, a sleeve on the lower end of said leg forming a bushing, an elongated receptacle, said bushing fitting telescopically into said receptacle and said receptacle being closed at its bottom, a coiled spring mounted in the receptacle and secured rigidly to said bottom, and means securing the upper end of the coiled spring to said sleeve.

2. In a structure of the class described, a crutch leg, a sleeve secured to the lower end thereof, the lower end of the sleeve projecting beyond the lower end of the leg and being internally screw-threaded and constituting a coupling socket, an elongated receptacle, said sleeve and leg fitting telescopically into said receptacle, the receptacle being closed at its bottom, a coiled spring in said receptacle secured rigidly to said bottom, and a screw-threaded plug secured rigidly to the upper convolution of said spring, said plug being threaded into the coupling socket.

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