

M. BRUYERE.
CRUTCH AND CUSHION TIP THEREFOR.
APPLICATION FILED FEB. 17, 1920.

1,347,320.

Patented July 20, 1920.

Fig. 1.

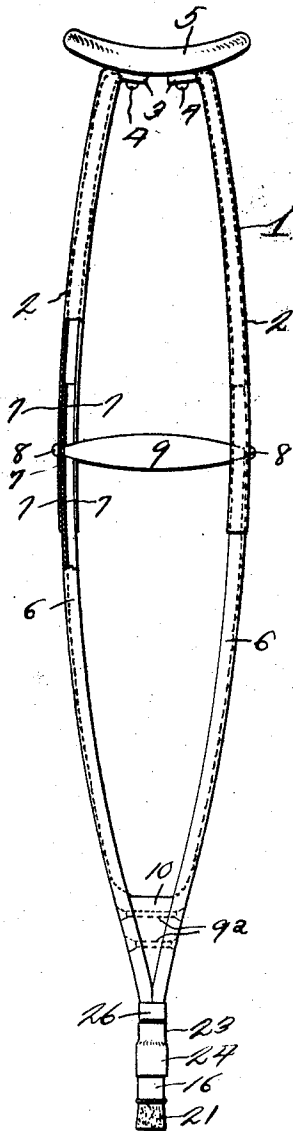


Fig. 2.

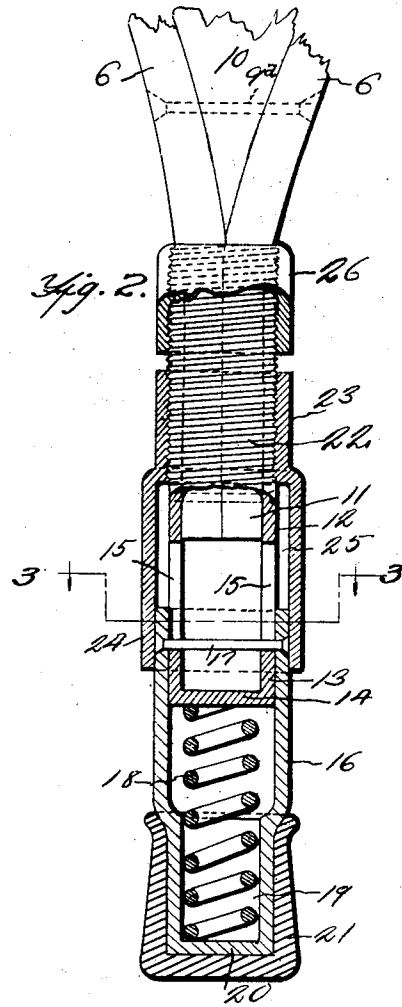
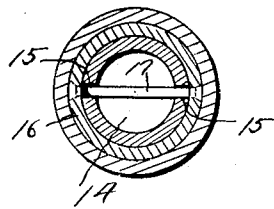


Fig. 3.



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CRUTCH AND CUSHION-TIP THEREFOR.

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To all whom it may concern:

Be it known that I, MOSE BRUYERE, a citizen of the United States, residing at Green Bay, in the county of Brown, State of Wisconsin, have invented a new and useful Crutch and Cushion-Tip Therefor; 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 invention relates to crutches and has for its object to provide an improved cushion tip for the lower end of the crutch, whereby the shock incident to the lower end of the crutch coming in contact with the ground, while the crutch is being used, will be taken up.

A further object is to provide a cushion tip for crutches comprising a cylindrical member carried by the lower end of the crutch, said cylindrical member adjacent its lower end being provided with diametrically disposed slots in which a pin carried by a cylindrical member telescopically engaging the first cylindrical member is guided, there being a coiled spring disposed between the lower end of the clutch carrying cylindrical member and the bottom of the telescopically engaging member for normally holding said telescopically engaging member extended. Also to provide the crutch carrying cylindrical member with a threaded sleeve, the lower end of which sleeve telescopically engages over the spring actuated cylindrical member.

With the above and other objects in view the invention resides in the combination and arrangement in parts as hereinafter set forth, shown in the drawings, described and claimed, it being understood that changes in the precise embodiment of the invention may be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings:—

Figure 1 is a side elevation of a crutch showing the cushion tip applied thereto.

Fig. 2 is a sectional view through the cushion tip and telescopic sleeves.

Fig. 3 is a horizontal sectional view taken on line 3—3 of Fig. 2.

Referring to the drawings the numeral 1 designates a crutch which comprises bars 2 which are formed from metallic channels and have their flanges disposed inwardly. The upper ends of the bars 2 are provided

with inwardly extending lugs 3 which are secured by means of screws 4 to an arm pit engaging member 5. Disposed within the channels 2 and between their flanges are bars 6 which are also formed from metallic channels. Bars 6 and bars 2 are provided with apertures 7 which are adapted to be brought into registration with each other according to whether the crutch is being extended or shortened. Passing through the registering apertures 7 are screws 8, which screws enter the ends of a hand grip 9, there holding the channels 2 and 6 in any position to which they may have been moved. The lower ends of the channels 6 are secured together by means of rivets 9^a which pass through said ends and also through a V-shaped block 10 disposed between the lower ends of the channels. The lower ends of the channels 6 are solid and at a point below the V-shaped block 10 they are semi-circular in cross section so that when they are brought together they form a cylindrical extension 11.

A cylindrical member 12 is forced on the extension 11 and has its lower end 13 extending below the extension 11. The cylindrical member 12 has its lower end closed as at 14 and is provided with diametrically disposed slots 15. Slidably mounted on the lower end of the cylindrical member 12 is a sleeve 16, which sleeve is provided with a transversely disposed pin 17 which passes through the diametrically disposed slots 15 and is adapted to be guided in said slots as the sleeve 16 moves upwardly and downwardly. Slots 15 also limit the movement of the sleeve 16 in both directions. A coiled spring 18 has its upper end in engagement with the closed end 14 of the cylindrical member 12 and its lower end disposed in a reduced portion 19 of the slidable sleeve 16 and has its lower end in engagement with the closed lower end 20 of the slidable sleeve 16. A rubber shoe 21 is disposed on a reduced portion of the slidable sleeve 16 so as to prevent wear on said slidable portion 16. Cylindrical member 12 is provided with exterior threads 22 and threaded on said cylindrical member is a sleeve 23. The lower end of the sleeve 23 is provided with an enlarged portion 24 which telescopically engages over the slidable sleeve 16. The enlarged portion 24 assists in bracing the slidable sleeve during its upward and downward movement and also forms means for preventing dirt and other foreign matter

from entering the annular space 25 and diametrically disposed slots 15. Threaded on the upper end of the cylindrical member 12 is a sleeve 26 which adds finish to the device and at the same time protects the thread 22.

It will be seen that as the weight of the person is placed on the crutch that the slidable sleeve 16 will be forced upwardly against the action of the spring 18 and that during the upward movement of the slidable sleeve, pin 17 will be guided in the slots 15 thereby preventing the possibility of rotation of the slidable sleeve 16 and consequent danger of slipping of the crutch tip.

During the upper movement of the slidable sleeve 16 said sleeve is braced by the enlarged portion 24 which engages the outer periphery of the slidable sleeve. On the reverse movement of the slidable sleeve 16 the spring 18 will force said sleeve downwardly and the pin 17 will, when it engages the lower ends of the slots 15, limit the outward movement of the slidable sleeve 16.

From the above it will be seen that a cushion tip for crutches is provided wherein the action is positive, dirt prevented from entering the tip so as to interfere with the workings of the parts and one wherein a slidable sleeve is prevented from rotating and consequent danger of accident.

The invention having been set forth what is claimed as new and useful is:—

1. The combination with a crutch having a cylindrical sleeve disposed on its lower end, of a slidable sleeve slidably mounted on the crutch carrying sleeve, slidable connec-

tions between the crutch carrying sleeve and the slidable sleeve for preventing rotation of said slidable sleeve and limiting the same in its upward and downward movement, the lower end of the crutch carrying sleeve being closed, the lower end of the slidable sleeve being closed, a spring disposed between said closed ends for normally holding the slidable sleeve extended; and a sleeve carried by the crutch carrying sleeve and provided with an enlarged portion telescopically engaging over the upper end of the slidable sleeve.

2. The combination with a crutch having a cylindrical sleeve disposed on its lower end, of a slidable sleeve slidably mounted on the crutch carrying sleeve, a pin carried by the upper end of the slidable sleeve, said pin being disposed in diametrically disposed slots of the crutch carrying sleeve, the lower ends of the sleeves being closed, resilient means disposed between the closed ends for normally holding the slidable sleeve extended, a sleeve threaded on the crutch carrying sleeve and provided with an enlarged portion telescopically engaging the upper end of the slidable sleeve, and a resilient shoe disposed on the lower end of the slidable sleeve.

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

MR. MOSE BRUYERE.

Witnesses:

A. McCOMB,
R. M. MONGIN.