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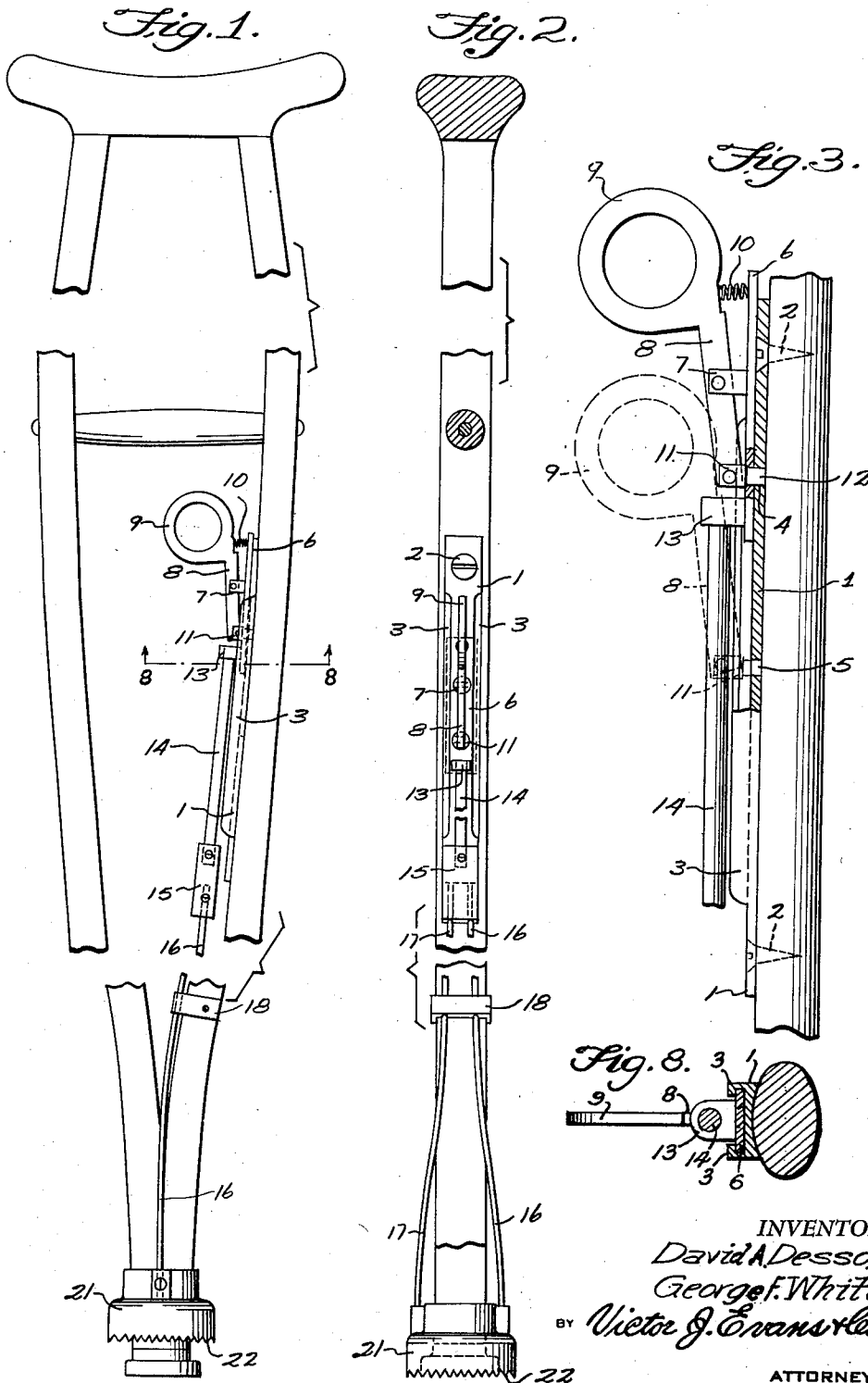
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2,501,890

CREEPER ATTACHMENT FOR CRUTCHES OR CANES

Filed March 17, 1947

2 Sheets-Sheet 1



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Fig. 4.

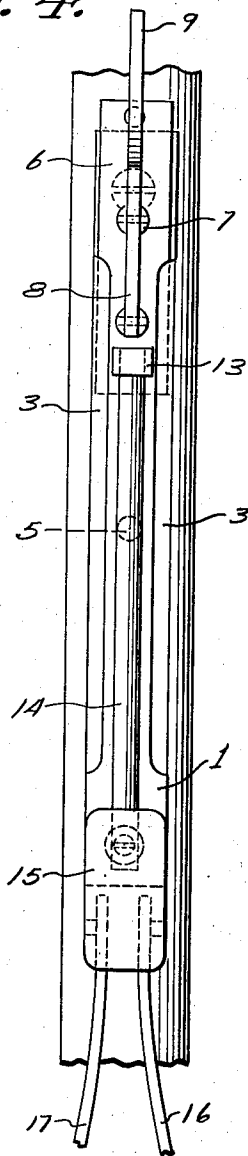


Fig. 5.

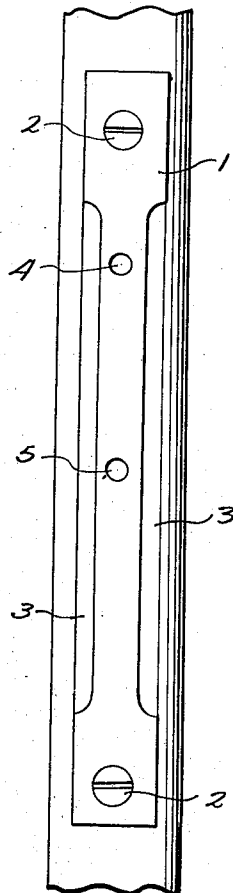


Fig. 6.

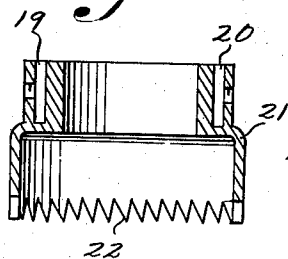
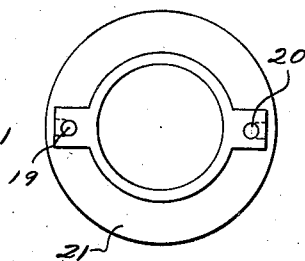


Fig. 7.



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CREEPER ATTACHMENT FOR CRUTCHES
OR CANESDavid A. Desso, Sr., and George F. White,
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3 Claims. (Cl. 135—53)

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This invention relates to improvements in crutches, canes and the like, and more particularly to the provision of means to prevent such devices from slipping on wet or icy surfaces.

The usual crutch is provided with a rubber ball at its lower end which provides stability on dry surfaces where there is a certain amount of frictional resistance available. However, when the surfaces are wet, icy, or otherwise slippery, the rubber ball is a handicap rather than an aid, and the person using a crutch or cane for support is at a decided disadvantage.

It is, therefore, an object of this invention to provide a device which can be readily and conveniently attached to a crutch or cane by a few screws and a wrench.

A further object is to provide a device which can be easily attached to a crutch, cane, or the like, said device having a surface gripping member which can be actuated by a finger of the user.

These and other objects are attained by the novel construction and arrangement of parts hereinafter described and illustrated by the accompanying drawings, forming a part hereof, and in which:

Fig. 1 is a side view of a device embodying the invention applied to a crutch.

Fig. 2 is an end view of the device.

Fig. 3 is an enlarged view showing means for manipulating the device.

Fig. 4 is a view showing details of the device.

Fig. 5 is a view showing a guide used in the device.

Fig. 6 is a sectional view of the gripping member.

Fig. 7 is a plan view of the gripping device shown in Fig. 6.

Figure 8 is a sectional view taken on the line 3—3 of Figure 1.

Referring to the drawings, the attachment for crutches, canes, and the like, is shown to comprise a plate 1 which can be attached to a crutch or cane by screws 2, and having channeled guide flanges 3 (see Fig. 5). The plate has two holes or apertures 4 and 5 for a purpose hereinafter explained.

Slidably positioned in the channels 3 is a plate 6, having a yoke 7 to which is pivotally connected a lever 8 having a finger piece 9. At the lower end of the lever 8 is a U-shaped member 11 having a pin 12 adapted to enter either of the holes 4 or 5. A coil spring 10 connected to the plate 6 and lever 8 and constantly urges the lever out from the plate 6, so that the pin 12 will normally engage one of the holes.

Attached to the plate 6 is a block 13 having connected thereto by riveting or other means a rod 14, the lower end thereof having connected thereto a block 15. Stiff rods 16 and 17 are se-

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cured to the block 15 by set screws or the like. The rods 16 and 17 are guided by members 18 which are attached to the crutch or cane.

The lower ends of the rods 16 and 17 are positioned in recesses 19 and 20 which are formed in a gripping member 21, and the rods are held therein by set screws or the like. The gripping member 21 can be made of rubber or metal, and has a plurality of surface gripping teeth or corrugations 22, Figure 6.

In operation, when the user of a crutch or cane encounters a slippery surface, it is only necessary to press down on the finger piece 9 to place the pin 12 in the lower hole 5, which brings the gripping member in contact with the slippery surface. When the surface is dry, the finger piece 9 is raised so that the pin 12 enters the hole 4 and is thus maintained whereby the usual rubber ball at the end of the crutch or cane is applicable.

The finger piece 9 is so located that it can be easily manipulated without losing a grip on the crutch, and the device obviously can be adjusted for crutches or canes of any length. The device is sturdy and dependable and can be carried on a crutch at all times, and used in any emergency if caught in a storm or icy weather.

The above description is to be considered as illustrative and not limitative of the invention, of which modifications can be made without departing from the spirit and scope of the invention as set forth in the appended claims.

The invention having been described, what is claimed is:

1. In a gripping device for a crutch, a first plate provided with a pair of spaced apertures secured to said crutch, a pair of spaced, parallel guide flanges projecting from said first plate and secured thereto, a second plate arranged in superposed relation with respect to said first plate and mounted for sliding movement between said guide flanges, a lever pivotally connected to said second plate, a pin operatively connected to the lower end of said lever for registering engagement with one of the apertures in said first plate, manually-operable means on the upper end of said lever for causing pivotal movement of the latter and for sliding said second plate along said first plate, resilient means operatively connected to said lever and to said second plate for normally biasing said pin into one of said apertures, a gripping member slidably mounted around the bottom of said crutch, said gripping member being provided with a plurality of teeth mounted for movement into and out of frictional engagement with a horizontal surface, and means operatively connected to said second plate and to said gripping member for causing movement of the latter in response to movement of said second plate.

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2. In a gripping device for a crutch, a first plate provided with a pair of spaced apertures secured to said crutch, a pair of spaced, parallel guide flanges projecting from said first plate and secured thereto, a second plate arranged in superposed relation with respect to said first plate and mounted for sliding movement between said guide flanges, a lever pivotally connected to said second plate, a pin operatively connected to the lower end of said lever for registering engagement with one of the apertures in said first plate, manually-operable means on the upper end of said lever for causing pivotal movement of the latter and for sliding said second plate along said first plate, resilient means operatively connected to said lever and to said second plate for normally biasing said pin into one of said apertures, a gripping member slidably mounted around the bottom of said crutch, said gripping member being provided with a plurality of teeth mounted for movement into and out of frictional engagement with a horizontal surface, and means operatively connected to said second plate and to said gripping member for causing movement of the latter in response to movement of said second plate, said last-named means comprising a block secured to said second plate, and a pair of spaced stiff rods interconnecting said block to said gripping member.

3. In a gripping device for a crutch, a first plate provided with a pair of spaced apertures secured to said crutch, a pair of spaced, parallel guide flanges projecting from said first plate and secured thereto, a second plate arranged in superposed relation with respect to said first plate and mounted for sliding movement between said

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guide flanges, a lever pivotally connected to said second plate, a pin operatively connected to the lower end of said lever for registering engagement with one of the apertures in said first plate, manually-operable means embodying a finger piece on the upper end of said lever for causing pivotal movement of the latter and for sliding said second plate along said first plate, resilient means embodying a coil spring operatively connected to said lever and to said second plate for normally biasing said pin into one of said apertures, a gripping member slidably mounted around the bottom of said crutch, said gripping member being provided with a plurality of teeth mounted for movement into and out of frictional engagement with a horizontal surface, and means operatively connected to said second plate and to said gripping member for causing movement of the latter in response to movement of said second plate, said last-named means comprising a block secured to said second plate, and a pair of spaced stiff rods interconnecting said block to said gripping member.

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