United States Patent

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[54] **AMBULATORY DEVICE**
1 Claim, 4 Drawing Figs.

[52] **U.S. Cl.** ..... **135/45 A**
[51] **Int. Cl.** **A61h 3/00**
[50] **Field of Search** ..... 135/45, 45 A, 47, 49; 297/5, 6; 182/120, 121, 122, 152; 248/235, 247, 248; 108/43, 44; 211/134, 135, 148, 149, 153

[56] **References Cited**

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ABSTRACT: A removable bracket comprising a padded knee or leg support mounted in the open frame structure of an invalid-walker and particularly adapted for use by an amputee, minus the lower or upper extremity of one leg, as a means for making walking easier, safer and faster.

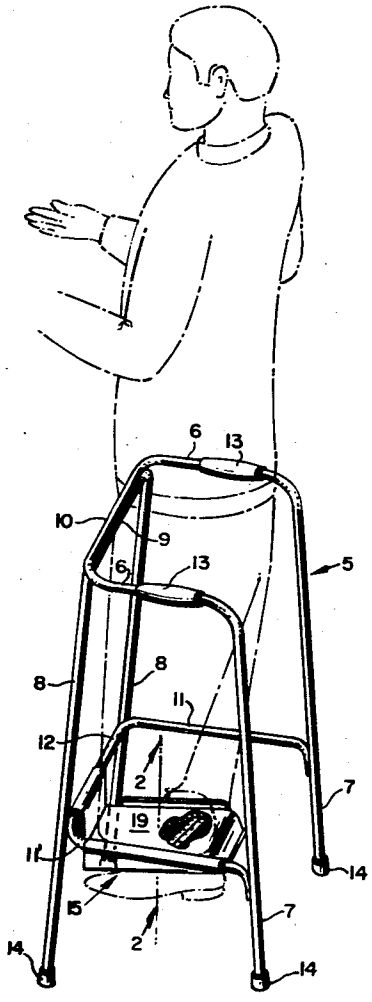


FIG.1

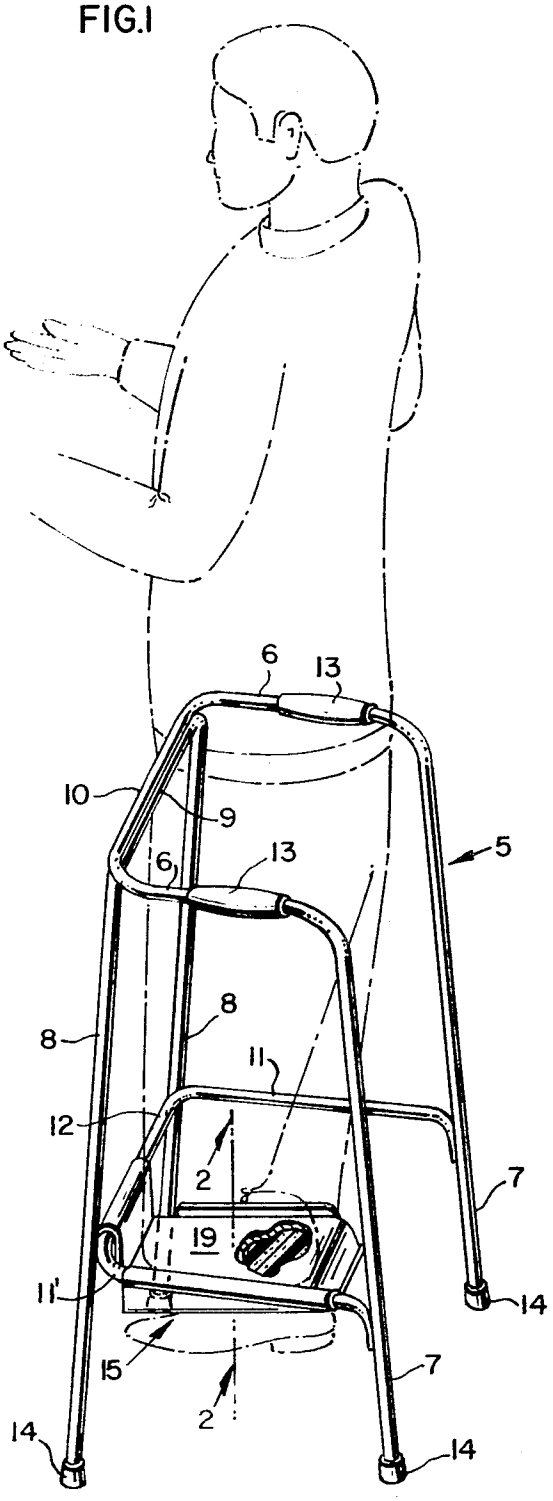


FIG.2

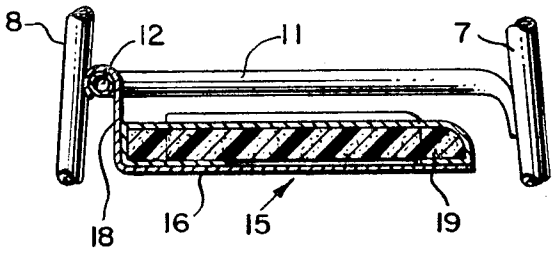
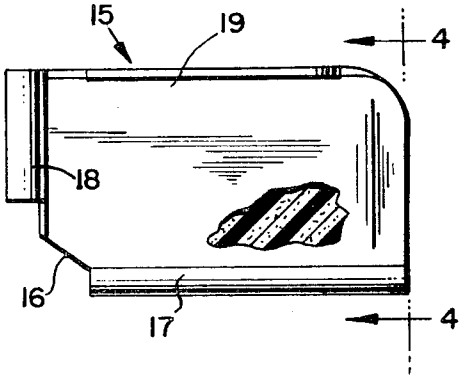


FIG.3



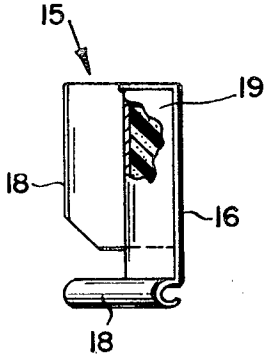


FIG.4

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AMBULATORY DEVICE

The present invention relates to ambulatory devices in general such as orthopedic canes, crutches, invalid-walkers and like instrumentalities all of which are products of medical science and human engineering, and each being designed for adaptation to a specific purpose.

More particularly the instant invention relates to invalid-walkers and has for its main objective the provision of a means whereby an amputee, minus a portion of one leg, may rest the knee of leg and unamputated upper portion of such leg. Thus, when the user of the invalid-walker is walking, one leg, so to speak, will always be in contact with the ground, a condition which will give the amputee more ease, greater comfort and a more normal posture, the function of the missing leg member being taken over by introduction of the instant invention into the frame structure of the invalid-walker.

Another basic object of the invention is therefore, the provision of a padded knee or leg rest into the frame structure of an invalid-walker.

The invalid-walker proper is a four-sided open frame structure open at the front and includes a pair of substantially parallel horizontally disposed handrails about waist high and by which an amputee supports himself on one leg, the other leg, from which a portion has been amputated being immobilized.

And, it is another basic object of the invention by use of the knee or leg rest to stand without gripping the handrails and thus release the arms for normal usage such as shaving, washing the body, adjusting clothing, etc.

Still another object of the invention is the provision of a unitary bracket structure of the character described which is removably attached to structural elements of an upstanding invalid-walker without the use of any fastening devices other than those built into the unit.

The accompanying drawings showing an approved form of the invention and forming a part of the specification are as follows: it being understood that the drawings are for the purpose of illustration only and that such changes may be made as do not depart from the spirit and scope of the invention as set forth in the specification and defined in the appended claims.

In the drawings:

FIG. 1 is a perspective view of an invalid-walker with an amputee using the walker being indicated in phantom outline;

FIG. 2 is a transverse sectional view taken along the line 2–2 of FIG. 1;

FIG. 3 is a top plan view of the knee-supporting member seen in FIG. 2;

FIG. 4 is a sectional detail on line 4–4 of FIG. 3.

In FIGS. 2, 3, and 4, only such portions of the walker frame are shown as are directly associated with the knee or leg supporting means of the invention.

In the drawings like numerals of reference indicate similar parts throughout the different views.

The invalid-walker is an upstanding structure substantially

rectangular in cross section, formed of light weight tubing and, as hereinabove stated constituting open framing. It is generally indicated by numeral **5**, FIG. 1, and besides the handrails previously mentioned and seen at **6,6**, includes a pair of front legs **7,7** bordering the open front of the walker **5** and a pair of rear legs **8,8** which, with a crossbar **9** frame the rear face of the walker. A rear crosspiece **10** connects the upper ends of hand rails **6,6** and is integral with the crosspiece **9**.

At **11,11'** are the side arms or bars and **12** a rear crossbar or base portion of a U-shaped reinforcing member which provides reinforcing connections between legs **7,7** and **8,8** such member being horizontally disposed and at a height above floor or ground level as determined by the length of the severed leg extremity. And, it will be observed from the drawing, FIG. 1, that all corners of the framing structure **5** are rounded. Ortho-Grip handles **13** are provided on the handrails **6,6**, and Safe-Tred tips **14** on the invalid-walker legs, these accessories being well known in the art.

The means, in this instance for supporting and resting the knee or leg and upper portion of the amputated leg is a horizontally disposed bracket mounted in the invalid-walker **5** and indicated generally by numeral **15**. This bracket **15** includes an elongated shelf **16** of sheet material having an upturned flange along its inner side edge which adjacent its free edge is formed with an outwardly turned return bend into a loop **17** adapted to hook over either the walker bar **11** or **11'** accordingly as to whether the bracket is for the right or left side of the invalid-walker. A like but narrower flange loop **18** is formed at the inner end edge of the shelf **16** to removably, hook over the frame member **12** of the walker **5**.

Bonded or otherwise secured to the top surface of shelf **16** is an orthopedic pad **19** fragmentary portions of which are shown in section to symbolize the material of the pad.

What I now claim is:

1. In combination, an invalid-walker formed of a four-legged tubular frame including a pair of front legs, a pair of rear legs, and a substantially horizontal U-shaped reinforcing member spaced a distance above the ground level on which the walker is adapted to be used, said U-shaped member consisting of two side arms and a base portion, said base portion extending between said rear legs, each of said side arms extending between one of said rear legs of said frame and the adjacent front leg thereof, a knee or leg support consisting of an elongated shelf of greater length than width having a first upturned flange along one side edge thereof and a second upturned flange along one end edge thereof, said shelf having said width thereof equal to approximately one-half of the length of said base portion of said U-shaped member, each of said flanges having a return bend on each of said flanges on the end thereof thereby providing a hook on each frame of the flanges, said shelf being mounted within said frame with the hook on said first flange engaging one of said side arms of said member and with the hook on said second flange engaging said base portion of said member, said shelf having a width substantially less than the width of said frame.