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[21]	Appl. No.	886,522
[22]	Filed	Dec. 19, 1969
[45]	Patented	Jan. 11, 1972
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[54] SUPPORT DEVICE

3 Claims, 4 Drawing Figs.

[52] U.S. Cl..... 297/439,
135/45 A. 3/17 R

[51] Int. Cl. A47c 9/12,

[50] **Field of Search**..... 3/17-19, 5,
6; 297/423, 439; 135/45 A, 47, 49, 64

[56]

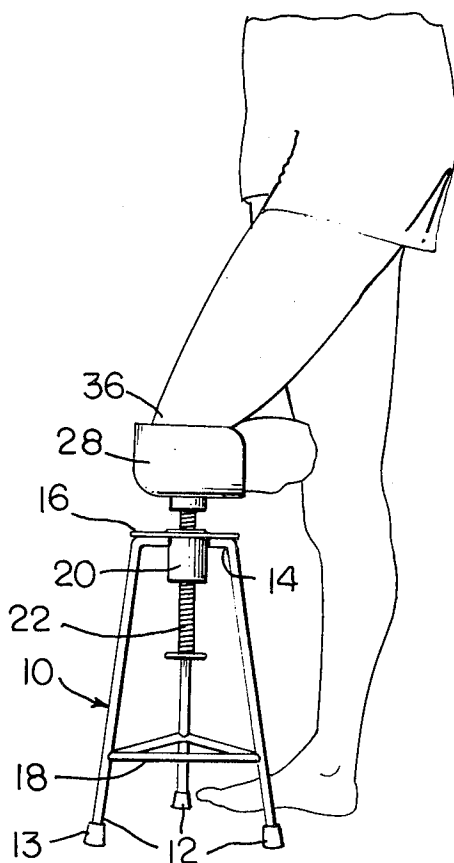
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ABSTRACT: The specification discloses a support device especially for use by leg amputees having a portion of a leg removed. The supporting device comprises a base with an element therein for vertical adjustability and having an upwardly opening support at the top adapted for receiving a pad and into which support member the knee or lower end of the amputated leg is receivable.



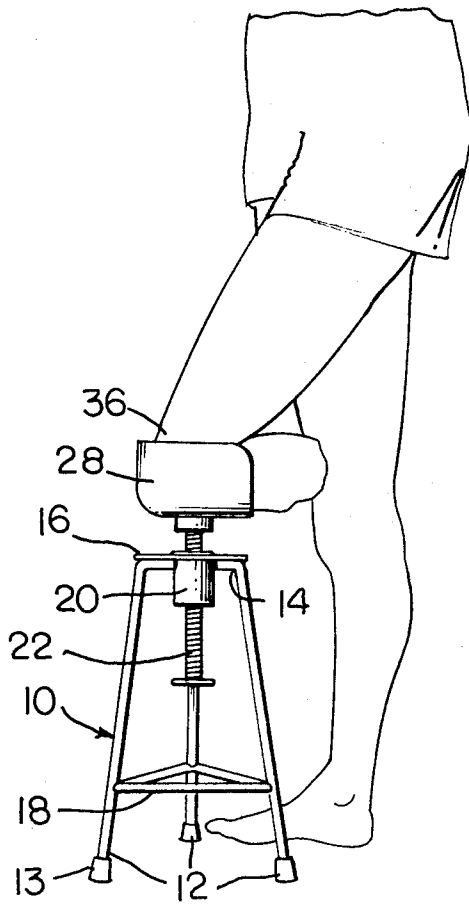


FIG. 1

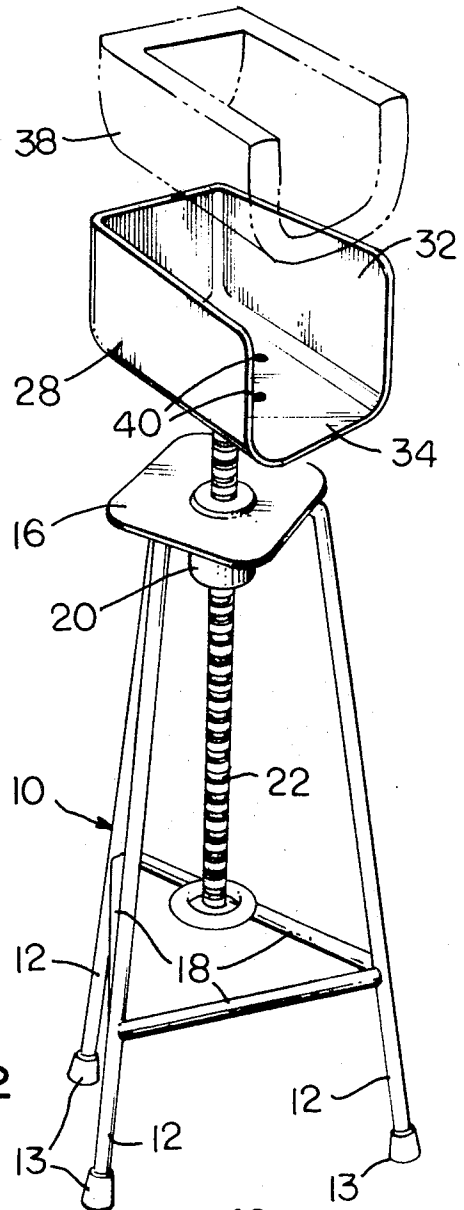


FIG. 2

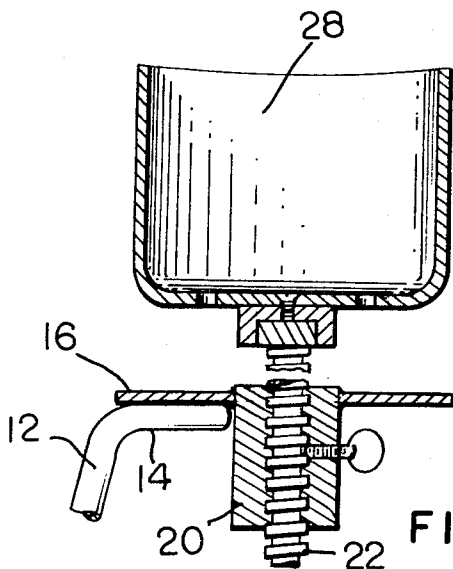


FIG. 3

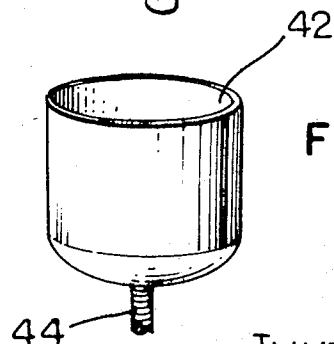


FIG. 4

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SUPPORT DEVICE

The present invention relates to a support device, especially for use by leg amputees.

Leg amputees, particularly when a portion only of the leg has been removed can be fitted with a prosthetic appliance which will enable the amputee to move about in a substantially natural manner. However, when the appliance is removed as for bathing, or dressing, the individual encounters some difficulty in maintaining balance. This difficulty can become particularly difficult during showering when the floor may be soapy and when such loss of balance might be quite dangerous.

With the foregoing in mind, an object of the present invention is the provision of a supporting device which is especially useful for leg amputees for assisting the individual in maintaining balance when not wearing a prosthetic appliance.

Another object of this invention is the provision of a supporting device of the nature referred to which is readily adjustable in height.

A still further object of the invention is the provision of a supporting device for use by amputees which can be adjusted to accommodate for amputations below the knee and above the knee.

A still further object is the provision of a support device of the nature referred to which is not uncomfortable to use and which will permit considerable freedom of movement.

BRIEF SUMMARY OF THE INVENTION

The present invention, in brief, comprises a base portion, preferably a tripod, in which is a vertically adjustable support element and on the upper end of which is rotatably mounted an upwardly opening support member adapted to receive the knee or the lower end of the amputated leg so as to provide support for the individual when standing and not wearing an artificial leg.

The foregoing objects, as well as other objects and advantages of the present invention, will become more apparent upon reference to the following detailed specification taken in connection with the accompanying drawings in which:

FIG. 1 is a perspective view showing a device according to the present invention adjusted for engaging the knee;

FIG. 2 is a perspective view of the device drawn at enlarged scale;

FIG. 3 is a fragmentary vertical section through the upper end of the device, showing details of construction thereof; and

FIG. 4 is a perspective view showing a modification.

DETAILED DESCRIPTION OF THE INVENTION

Referring to the drawings somewhat more in detail, in FIGS. 1 and 2 the base portion of the device is generally indicated at 10 and may advantageously comprise three legs 12, preferably having rubberlike end caps 13 forming feet for the base. The three feet provide for stable support of the base on a floor surface. The legs of the base may be tubular members extending upwardly from feet 13 and converging in the upwardly direction and bent inwardly as at 14 at their upper ends and fixed to a plate 16 as by welding. Brace members 18 extending between the legs of the base near the bottom provide for strength and stability.

Secured to plate 16 in about the center is a nut 20 and threaded through nut 20 is an elongated screw 22. Screw 22 may be provided with handwheel 24 at the bottom for adjusting

the screw in the nut and a clamp screw 26 threaded in nut 20 may be provided for locking the screw in adjusted positions in the nut.

At the upper end of screw 20 is a support member 28 pivotally mounted on screw 22 as by bearing means 30 so as to be freely rotatable on the screw. The particular support member 28 shown in FIGS. 1, 2 and 3, is open toward the top as at 32 and is also open toward one end as at 34. As will be seen in FIG. 1, support member 28 is, thus, adapted for receiving the knee 36 of an individual. Padding 38 shaped to fit in support member 28 may be provided for greater comfort. Such padding might be foam rubber, for example.

The bottom wall of support member 28 is provided with apertures 40 so that water can drain from the device when it is employed in a shower. The nut 20 and screw 22 represents only one manner in which support member 28 can be carried on the base for vertical adjustability and is considered merely to be exemplary. The provision of a nut and screw, as illustrated, however, is of advantage because of the positive support that it provides for the support member at the top of the screw.

The device so far described can be employed by an amputee having the leg amputated below the knee, or can, in fact, be employed by anyone, not an amputee, who is not permitted to place weight upon the lower part of the leg.

The device, as described, can also be employed by one having the leg amputated above the knee, but for this purpose it may be preferable to employ a support member such as is shown at 42 in FIG. 4, and which is in the form of an upwardly opening cup rotatably mounted on the upper end of a support element, such as screw 44. Cup 42 of FIG. 4 can also be adapted for receiving padding so that the use thereof would not involve discomfort to the user.

The device can be made of suitable materials, preferably metal and including stainless steel, in order to keep corrosion at a minimum.

It will be understood that modifications can be made within the scope of the appended claims.

What is claimed is:

1. An adjustable support device especially adapted for use by an individual having a portion of a leg amputated and comprising, in combination:
 - a. a base member having spaced legs for stable support of said base member with respect to a flat surface,
 - b. a threaded member carried by said base member, said threaded member having a threaded element adjustable in said threaded member and projecting upwardly above the top of said base member,
 - c. a partially enclosed padded support member having an opening toward the top for receiving a portion of an amputated leg of an individual,
 - d. bearing means for rotatably supporting said padded support member on the upper end of said threaded element, and
 - e. means for clamping the threaded element in its vertically adjusted position.
2. An adjustable support device according to claim 1 wherein the partially enclosed support member includes drain apertures in the lower portion thereof and is open at one end.
3. An adjustable support device according to claim 1 wherein the partially enclosed support member is cup shaped and is adapted to receive the lower end of an individual leg which has had a portion amputated.

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