

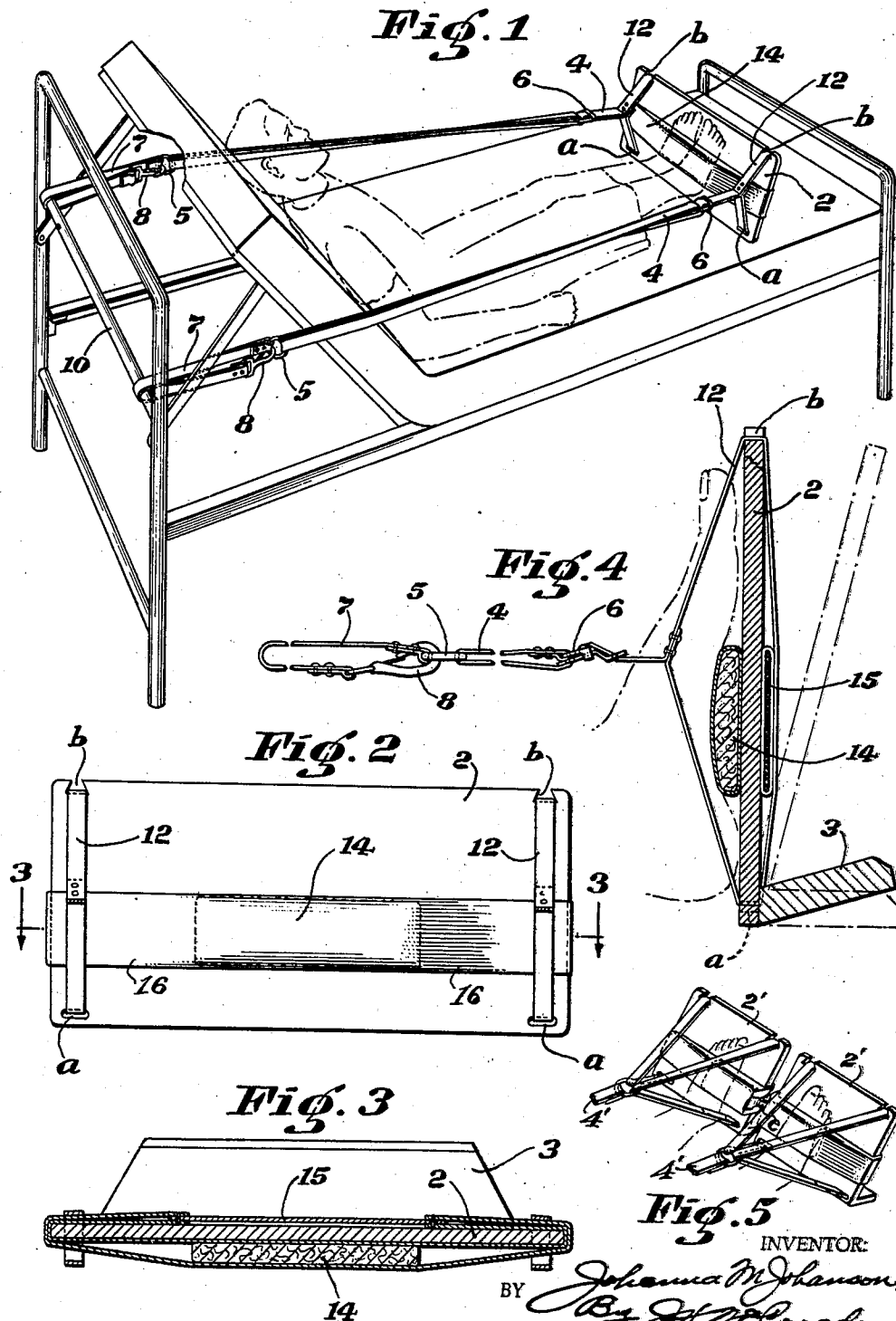
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J. M. JOHANSON

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INVALID'S FOOT REST AND EXERCISER

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INVALID'S FOOTREST AND EXERCISER

Johanna M. Johanson, Concord, Mass.

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5 Claims. (Cl. 272—58)

In connection with the treatment of various ailments of the feet and ankles, as, for example, in restoring normal muscular and nerve conditions after a fracture, or in some types of arthritis, proper support of the foot while the patient is in bed often is important, and this is particularly true during the foot exercises frequently prescribed for such patients.

The present invention aims to devise a simple and inexpensive, but highly effective, apparatus for these purposes.

The nature of the invention will be readily understood from the following description when read in connection with the accompanying drawing, and the novel features will be particularly pointed out in the appended claims.

In the drawing,

Figure 1 is a perspective view illustrating an apparatus constructed in accordance with this invention and indicating a typical method of using it;

Fig. 2 is a front elevation of the foot supporting device;

Fig. 3 is a sectional view approximately on the line 3—3, Fig. 2;

Fig. 4 is a vertical, sectional view of the parts shown in Figs. 2 and 3; and

Fig. 5 is a perspective view illustrating an apparatus similar to that shown in Fig. 1 but with the foot rest made in two sections.

The construction illustrated in the drawing comprises an elongated plate-like support 2 which may conveniently consist of a board of suitable dimensions, preferably provided with a short foot section 3 extending at an angle therefrom so as to remain in a more or less upright position when not otherwise supported. Such a position is indicated in dotted lines in Fig. 4. Adjustably attached to the opposite ends of the rest or support 2 are two straps 4—4 each preferably extending through a ring 5, the two sections being connected by a buckle 6 like that used on suspenders, garters, and various other articles, to adjust the over-all length of the portions of the straps utilized at any time. Fastened at one end to the ring 5 is another strap 7 having a snap hook 8 in its opposite end and which, to all intents and purposes, may be regarded as an extension of the strap 4. This section 7, however, provides a convenient means for attaching the main section 4 of each strap releasably to some suitable member on the headpiece of a bed. As shown, the part 7 is looped around the bar 10, and then is brought back and the hook 8 is snapped into the ring 5.

At the ends of the straps adjacent to the foot-

piece of the bed, each is provided with a loop 12, and the two loops extend around the two end portions of the support 2. For this purpose the board 2 may be slotted, as indicated at *a*, and notched as shown at *b*, so that the loops can readily be adjusted around the support.

In using the apparatus the patient usually is resting in bed in an inclined position, somewhat as indicated in dotted lines in Fig. 1, and the straps are so adjusted as to hold the board 2 firmly against the bottoms of his feet. While his feet are so supported he can rock the board about a horizontal axis, thus simulating the movements which the feet, ankles and lower leg muscles make during the act of walking. Both feet will be rocked in substantially the same manner simultaneously in so exercising the muscles instead of rocking them alternately, as in walking, but this is not an important difference, since the object of thus flexing the ankles is to exercise the muscles. By suitably adjusting the straps, the pressure so brought to bear against the bottoms of the feet can be adjusted to suit the requirements of the patient. In addition, the center line or plane of the pull so applied to the board, and therefore to the feet, can be adjusted up and down merely by sliding the straps 12 through the slots, so that the distribution of pressure between the ball and heel portions of the feet can also be varied to suit the wishes of the patient, or in accordance with the instructions of the physician.

Thus the invention provides a very simple and inexpensive piece of equipment adapted to support the bottoms of the feet during rest or while the patient exercises his feet and ankles. It can readily be attached to the bed or removed therefrom, and is adjustable to suit a wide variety of conditions.

When an arch support is required, a pad 14 may be secured releasably in the proper position on part of the face of the support for contact with the arch portions of the feet, thus leaving other portions 16—16, Fig. 2, free for either foot to rest against while the pad remains in place. This pad may be made of any suitable resilient material, either of a fibrous nature or a pneumatic construction, and it may be attached to the support by extending the end portions of the pad, or the cover therefor, and connecting them with a piece of elastic webbing 15, Figs. 3 and 4, so that the entire arch supporting element will be made in the form of a band having a sufficient degree of elasticity to retain itself in any position of adjustment on the support 2. It can be removed or replaced whenever desired.

Also, if desired, the support 2 may be divided into two sections 2'-2', as shown in Fig. 5, and these sections may be independently connected with the respective straps 4'-4'. With such an arrangement the sections may be rocked independently by the feet and the ability to rock them alternately simulates more closely the muscular movements of the feet required in walking. Also, the two sections may be connected in any suitable manner, as by the elastic member e, Fig. 5, to support them against side strain tending to separate them too far. This member e may be a part of the cover for the arch supporting pads or it may simply be connected to them. It should be long enough to avoid interfering with the independent rocking motion of the two foot rests 2'-2'.

While I have herein shown and described preferred embodiments of my invention, it will be evident that the invention may be embodied in other forms within the spirit and scope of the invention.

Having thus described my invention, what I desire to claim as new is:

1. An invalid's foot-rest of the character described, comprising a horizontal elongated plate-like support having an edge portion adapted to rest on a bed in position for the contact of a face portion thereof with the bottoms of the patient's feet, and straps releasably connecting the opposite end portions of said support with the head portion of the bed to hold the support against the bottoms of the patient's feet, said straps having loops extending vertically around opposite end portions of said support and adjustable there-around to vary the distribution of pressure as desired between the heel and ball portions of the feet.

2. An invalid's foot-rest according to preceding claim 1, including an arch rest extending horizontally lengthwise of said support between

its upper and lower edges, and means for removably holding said arch rest in its operative position on said support.

3. An invalid's foot-rest according to preceding claim 1, including an arch rest positioned on said support and occupying a portion only of the foot supporting surface of said support, leaving free portions beside the pad of suitable dimensions for contact with the feet.

4. An invalid's foot rest of the character described, comprising a horizontally elongated support adapted to rest in a rocking position on a bed and having a face portion for contact with the bottoms of the patient's feet, and straps releasably connecting the opposite end portions of said support with the head portion of the bed to hold the support against the bottoms of the patient's feet, said straps being adjustably connected with said support to vary the distribution of pressure as desired between the ball and heel portions of the feet.

5. An invalid's foot rest of the character described, comprising a horizontally elongated support adapted to rest in a rocking position on a bed and having a face portion for contact with the bottoms of the patient's feet, and straps releasably connecting the opposite end portions of said support with the head portion of the bed to hold the support against the bottoms of the patient's feet so that the support may be tipped by the patient about a horizontal axis to simulate the rocking motion of the feet in walking, said support comprising two sections positioned side by side, one for each foot, said sections being connected, respectively, to said straps so that each section may be rocked independently of the other, and connecting means holding said sections together but permitting said independent rocking movement of them.

JOHANNA M. JOHANSON.