April 14, 1953 A. P. ELLE 2,634,790

WALKING RACK

Filed Jan. 24, 1950

Fig. 1.

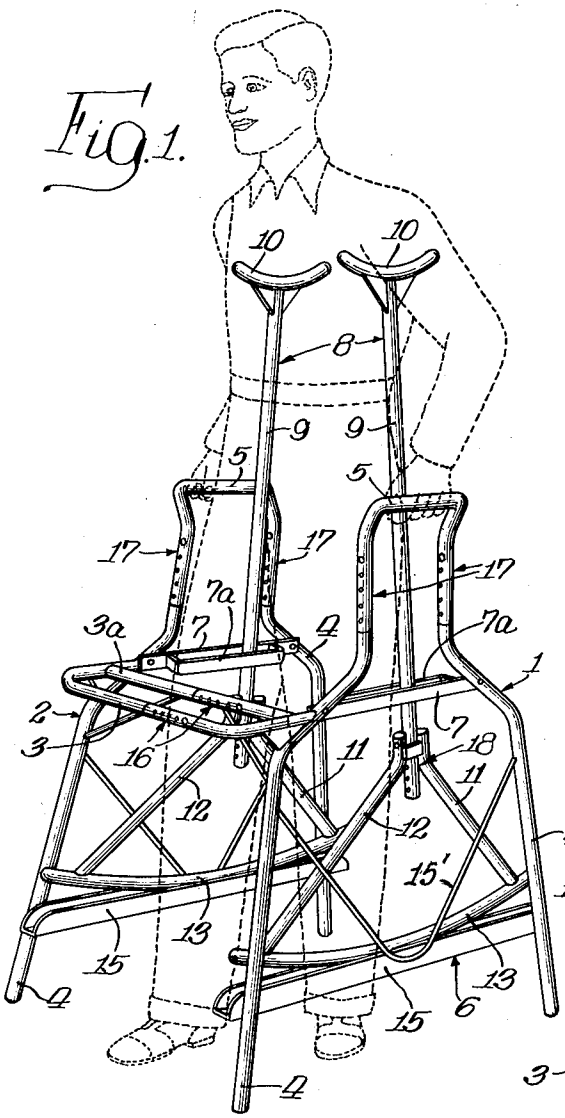



Fig. 2.

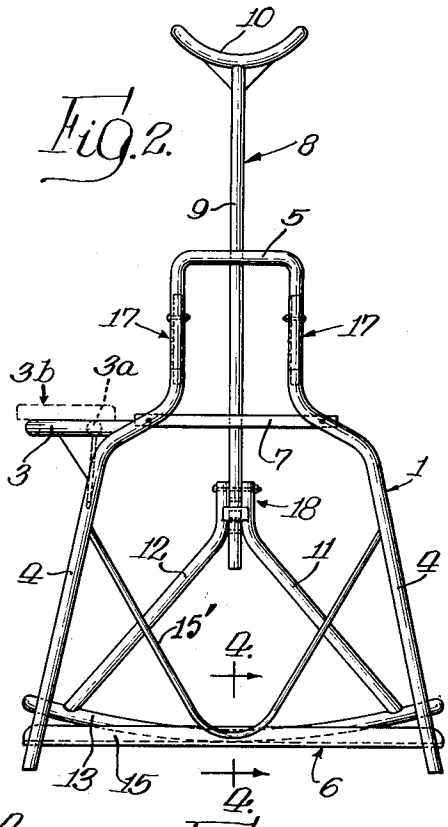



Fig. 3.

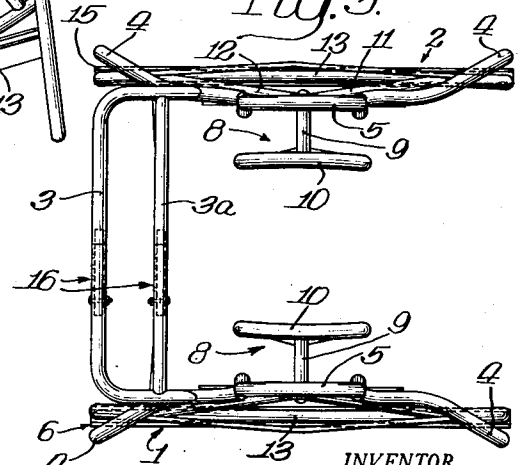
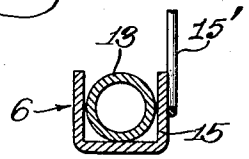



Fig. 4.




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## WALKING RACK

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4 Claims. (Cl. 155—22)

1

My invention relates to a walking rack for use by convalescents in surgical and poliomyelitis cases and for practice and exercise in learning the use of artifical limbs.

The purpose of my invention is to provide an apparatus conducive to natural bodily movement and locomotion and adapted to counteract tendency of the patient to fall.

My invention is illustrated in the accompanying drawings in which:

Fig. 1 is a perspective view of my rack, showing the position of the patient in dotted lines;

Fig. 2 is a side elevation;

Fig. 3 is a view in plan; and

Fig. 4 is a detail sectional view taken on the plane of the line 4—4 of Fig. 2, looking in the direction indicated by the arrows.

The walking rack of my invention is preferably of skeleton construction, and preferably of assembled light, but sturdy, metal tubing.

It comprises essentially a main framework adapted to rest squarely on the floor, and a pair of rocking crutches mounted thereon.

The framework comprises the complementary side frames 1 and 2, joined, at the front by the forwardly bowed front cross member 3 and strengthening strut 3a. Each side frame comprises two uprights 4, 4, a top cross member 5, which forms a hand grip, a lower cross strut 6, and an intermediate cross strut 7.

The crutches are shown at 8, 8, each being associated with its respective side frame. Each crutch comprises an upright 9, provided at the top with the arm-pit rest 10, and, at the bottom, with the spreading arms 11 and 12 joined by the rocker 13. The crutch is supported by the rocker 13 resting and riding on the cross strut 6. The cross strut 6, as best shown in Fig. 4, comprises the U-bar 15 forming a track for rocker 13. The upward extensions of the U-bar provide means for retaining the rockers on the tracks. The crutches are further retained between the intermediate cross struts 7, 7 and their respective auxiliary members 7a, 7a, and are guided thereby. A V-shaped bracing member 15' is attached to the uprights 4 and the U-bar 15, as shown, for strengthening purposes. The distance between the side frames 1 and 2 is adjustable by making the members 3 and 3a of telescoping tubing, with aperture and pin locking means, as indicated at 16, 16, and the height of the cross members 5, 5 and the effective length of the crutches 8, 8 are also adjustable by similar arrangements, indicated at 17, 17 and 18, 18, respectively.

The patient enters the rack from the rear,

2

mounts the crutches as indicated, and grasps the top cross pieces 5, 5 as indicated, the height of the arm-pit rests and the height of the top cross piece being such that the patient is in comfortable position with his weight resting on the floor. The patient goes forward step by step, advancing the rack, step by step, between steps as he carries his own weight. In this action, the crutches rock on their tracks, permitting natural bodily movement of the patient without tendency toward tipping the rack and falling. When the patient is fatigued, he can turn in the rack and sit on the cross members 3 and 3a, and a seat 3b may be provided thereon, if desired.

It will be observed that, in my apparatus, the center of the arc describing the crutch rocker 13 lies above the arm-pit rest where weight of the patient is applied; this is of importance in insuring the operation just described; and it will also be observed that the line from the arm-pit rest center to the point of contact of the rocker on the track is always vertical.

I claim:

1. A walking rack comprising two skeleton side frames joined by a front cross member and adapted to rest upon the floor, each of said side frames comprising a pair of uprights, a top cross strut, intermediate cross struts, and a lower cross strut forming a track; and a crutch for each side frame, said crutch comprising uprights joined at the top by an arm-pit rest and at the bottom by a rocker resting and riding on said track.

2. A walking rack comprising two skeleton side frames joined by a front cross member and adapted to rest upon the floor, each of said side frames comprising a pair of uprights, a top cross strut, intermediate cross struts, a lower cross strut forming a track, a crutch for each side frame, said crutch comprising uprights joined at the top by an arm-pit rest and at the bottom by a rocker resting and riding on said track, and means for retaining said rocker on said track, said crutch being also retained between said intermediate struts.

3. A walking rack comprising two skeleton side frames joined by a front cross member and adapted to rest upon the floor, each of said side frames comprising a pair of uprights, a top cross strut, intermediate cross struts, and a lower cross strut forming a track, and a crutch for each side frame, said crutch comprising uprights joined at the top by an arm-pit rest and at the bottom by a rocker resting and riding on said track, said top cross struts being approximately waist-high for use as hand-grips.

4. A walking rack comprising two skeleton side frames joined by an adjustable front cross member and adapted to rest upon the floor, each of said side frames comprising a pair of uprights, a top cross strut, intermediate cross struts, and a lower cross strut forming a track, and a crutch for each side frame, said crutch comprising uprights joined at the top by an arm-pit rest and at the bottom by a rocker resting and riding on said track, said top cross struts being approximately waist-high for use as hand-grips, the height of said top cross struts being adjustable.

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