

Jan. 8, 1957

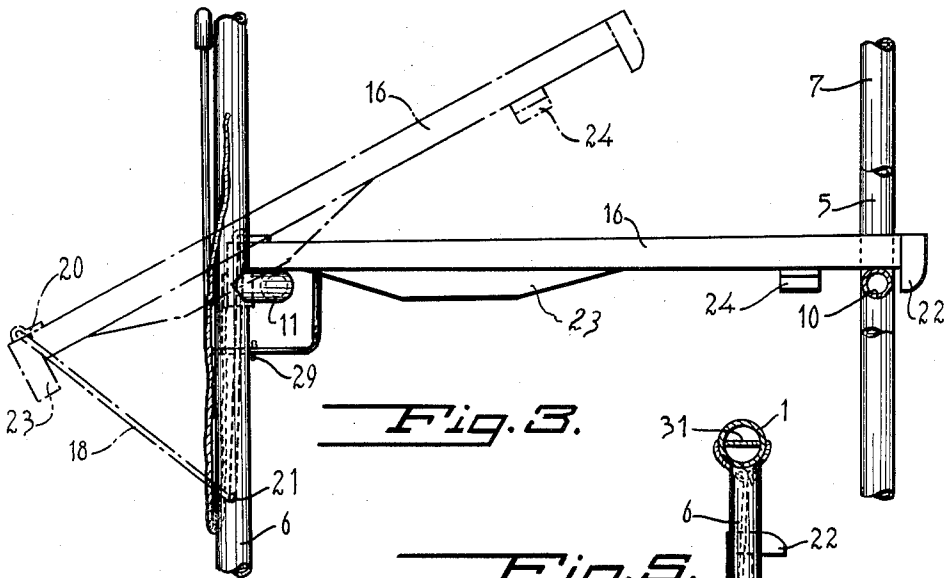
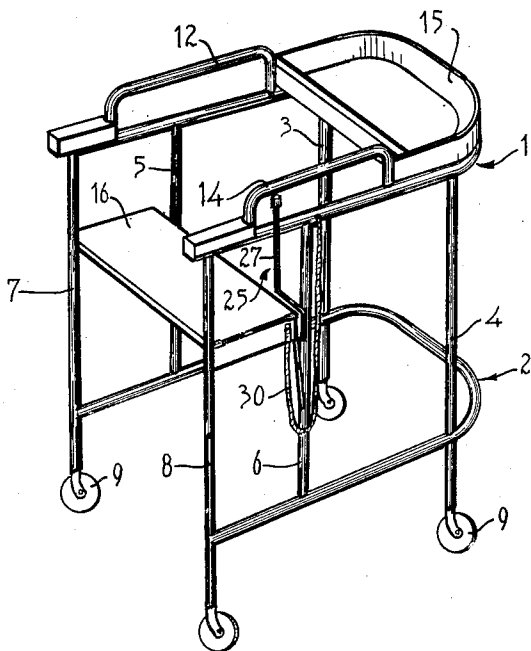
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2,776,701

WALKING AID AND CHAIR COMBINATION

Filed Aug. 3, 1954

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2,776,701

WALKING AID AND CHAIR COMBINATION

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Application August 3, 1954, Serial No. 447,536

8 Claims. (Cl. 155—22)

This invention relates to an improvement in a walking aid and chair combination, of the type used by the physically handicapped, invalids, convalescents and others who require assistance in walking.

It is the principal object of the invention to provide a combination walker and chair which may be manipulated by the user without assistance and which will facilitate the performance of various occupational tasks and household duties, and in general give increased independence and mobility to the physically handicapped.

Other and further objects and advantages residing in the details of construction and arrangement of the posts will be made apparent in the disclosures of the accompanying drawings and in the following specification and claims.

In the drawings,

Fig. 1 is a plan view of a combination walker and chair embodying the invention;

Fig. 2 is an elevational view of the structure shown in Fig. 1;

Fig. 3 is a sectional view, on a larger scale substantially on line 3—3 of Fig. 2;

Fig. 4 is a detail view of the seat lifter;

Fig. 5 is a detail view showing the seat in inoperative position; and

Fig. 6 is a schematic, perspective view, with details omitted, of the structure of Fig. 1.

Referring to the drawings, the device comprises an upper U-shaped frame member 1 and a lower U-shaped frame member 2 connected by post members 3, 4, 5, 6, 7 and 8, the foremost posts 3 and 4 and the rear posts 7 and 8 being extended below the lower frame 2 and provided with swiveled casters 9, or other non-directional free moving tractional devices.

The intermediate posts 5 and 6 are connected respectively to rear posts 7 and 8 by seat supporting bars 10 and 11, bar 11 being offset inwardly of posts 6 and 8 for reasons later made apparent. The side arms of upper frame member 1 are provided with upwardly extending U-shaped hand bars 12 and 14. The several frames, posts and bars above referred to are preferably formed of metal tube stock, the connections between the frames, posts and bars being made by welding.

Conveniently the forward or closed end of frame 1 is provided with a tray 15 on which articles may be placed for work or transportation.

A seat member 16 in the form of a panel of wood, metal or other suitable material is supported at its ends on bars 10 and 11. The end of the seat resting on bar 11 is hinged to the adjacent posts 6 and 8 by a U-shaped hinge member 18, the cross bar of member 18 being pivotally connected to the upper face of the seat by strap pieces 20. The ends of member 18 are bent outwardly as indicated at 21 in Fig. 2 and engaged in openings in posts 6 and 8 to pivotally connect member 18 to said posts, thus permitting the seat to be raised from bar 10 and swung outwardly and downwardly

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over bar 11, as shown in broken lines in Fig. 3, to a position between and substantially parallel with posts 6 and 8 as shown in Fig. 5.

The ends of seat 16 carry downwardly extending flanges 22 which engage outwardly of the adjacent bars 10 and 11 when the seat is in operative position to prevent excessive transverse movement of the seat. The underside of the seat is provided with spaced cam members 23 which assist in swinging the seat to and from operative position and in particular assure that the flange 22 at the free end of the seat properly engages over bar 10 when the seat is returned from the position of Fig. 5 to the full line operative position of Fig. 3. The free end of the seat is provided on its underside with a cleat 24, one end of which extends forwardly of the seat sufficiently to engage post 6 when the seat is in the inoperative position of Fig. 5 to limit outward movement of the seat.

The seat 16 may be swung from the position of Fig. 3 to that of Fig. 5 by a lever, generally indicated at 25, in the form of a bent rod which extends through an opening 26 in post 6 by which it is pivoted to the post, one end being bent upwardly to form a handle portion 27 and the other end bent to extend substantially at right angles to the handle portion and forming a seat lifting arm 28 which, when handle portion 26 is swung clockwise as viewed in Figs. 2 and 4, engages the underside of the seat and raises it as shown in broken lines in Fig. 3 until the seat slides by gravity over bar 11 to the position of Fig. 5. Suitable means such as a cotter pin 29 prevents sliding of the lever through pivot openings 26.

The seat may be swung from the position of Fig. 5 to the position of Fig. 3 by a cord or flexible cable 30 which is secured at one end, in any suitable manner, to frame 1 adjacent post 6. As shown, the cord is passed through an opening through frame 1 as indicated at 31 and knotted. The other end of cable 30 is fixed as by a clamp 32 to the adjacent corner portion of seat 16. The length of cable 30 is such when the seat is suspended vertically on hinge member 18 the cord is fully though slackly extended. The user, standing within the walker forwardly of the seat position may grasp the cable 30 and by one upward pull the seat may be slid over the bar 11 through the broken line position of Fig. 3 to the operative full line position of that figure. Alternatively the extending end of cleat 24 may be grasped as a handle to move, or assist in the movement of, the seat to inoperative position.

With the seat in inoperative position the user may enter the frame from the rear and with his hands on bars 12 and 14 to support part of his weight may walk with the aid thus afforded in any desired direction, and may transport desired articles or materials from place to place on tray 15. When the user desires to work or rest in any location, he may draw seat 16, by cable 30, into operative position behind him and seat himself thereon, and if desired may propel the frame while so seated. When the user desires to leave the frame he again stands up and by moving lever 25 forwardly swing the seat to inoperative position, as above described and back, or turn around, and walk, from the frame.

The frame and its parts may be made of any desired dimensions, but preferably in the interest of lightness and maneuverability it will be made no longer or wider than is necessary to afford space between the side bars and between the seat and tray to permit the user to turn comfortably when in a standing position and to reach and use the articles on the tray when in a seated position. It will be understood that the various vertical frame members may be made vertically adjustable in height in any usual manner.

As shown, the upper frame 1 is positioned to support the tray 15 at a convenient height for use when the operator is in seated position and hand bars 12 are sufficiently elevated to afford substantially straight arm support when the user is standing. Obviously this relationship could be reversed, the frame 1 being positioned to afford substantially straight arm walking support and the tray 15 positioned below grasping portion of the upper frame, but the special arrangement shown is preferable as it affords freer use of the arms in both a standing and seated position.

As is apparent from the above description, the invention provides a walking aid and chair combination which is extremely flexible in its range and manner of use and which renders the user independent of outside aid to a maximum degree.

What is claimed is:

1. A walking aid and chair combination which comprises a U-shaped frame which may be entered from its open end, non-directional traction members supporting said frame, a seat member, means to slidably support said seat member in a position crosswise of the open end of the frame with one end of the seat member slidably engaging one side of the frame, an elongated hinge connecting said one end of the seat member to said side of the frame below its sliding engagement therewith, and means accessible to an operator within the frame for moving the seat member upwardly and endwise from said crosswise position and downwardly to a vertical position adjacent and parallel to the side of the frame to which said hinge is connected.

2. A walking aid and chair combination which comprises a U-shaped frame which may be entered from its open end, non-directional traction members supporting said frame, an article support carried by the closed end of the frame, a seat member, supporting means at opposite sides of said frame upon which the ends of said seat member rest to position the seat crosswise of the open end of the frame, links connecting one end of the seat member to the adjacent side of the frame for outward and downward movement relative thereto, and means for raising the opposite end of the seat to permit the seat to move outwardly and downwardly about said connecting means, under the influence of gravity, to a vertical position adjacent said adjacent side of the frame.

3. A walking aid and chair combination which comprises a U-shaped frame which may be entered from its open end, non-directional traction members supporting said frame, a seat member, supports at opposite sides of the frame upon which the ends of said seat member rest to position the seat crosswise of the open end of the frame, an elongated hinge member pivotally connected at one end to one end of the seat member and at the other end to the adjacent side of the frame below the adjacent support, a lever pivoted to the last-mentioned side of the frame and having an arm engaging the underside of the seat to raise the latter about its pivoted connection to said hinge and permit the seat and hinge to move outwardly and downwardly about the connection of the hinge to the frame, under the influence of gravity to a vertical position adjacent said adjacent side of the frame, and a flexible member connected at

one end to the seat member and forming means to return said seat member to its said crosswise position on said supports.

4. A walking aid and chair combination as recited in claim 3 in which the underside of the seat member is provided with cam means to increase the elevation of the seat member as the free end of the seat leaves or approaches its support.

5. A walking aid and chair combination which comprises a U-shaped frame which may be entered from its open end, said frame including spaced upper and lower U-shaped members, a pair of forward posts connecting the closed ends of the U-shaped members and a pair of rear posts connecting the open ends of the U-shaped members, said posts extending below the lower U-shaped member and provided with non-directional traction means, a pair of intermediate posts connecting the U-shaped members intermediate the forward and rear posts, seat supporting bars respectively connecting said intermediate posts and the adjacent rear posts, a seat member freely supported at its ends on said bars transversely of the open end of the frame, elongated hinge means connecting one end of the seat, outwardly of the adjacent bar, to the adjacent rear and intermediate posts at points sufficiently below said bar to permit the seat member to be swung outwardly over said bar to a vertical position substantially between said adjacent rear and intermediate posts, and means accessible to an operator within the frame for moving the seat from one to the other of said positions.

6. A walking aid and chair combination as recited in claim 5 the means for moving the seat from its first-mentioned position to its second-mentioned position comprising a lever pivoted to the intermediate post adjacent the hinged end of the seat and having an arm engaging the underside of the seat to raise its free end sufficiently to cause the seat to slide outwardly and downwardly to said second position under the influence of gravity.

7. A walking aid and chair combination as recited in claim 5 the means for moving the seat from its second-mentioned position to its first-mentioned position being a flexible member connected at one end to the hinged end of the seat, the other end of said flexible member being secured to the upper U-shaped frame member.

8. A walking aid and chair combination as recited in claim 5, in which the free end of the seat is provided with a forwardly extending member engageable with the adjacent intermediate post when the seat is in its second-mentioned position to prevent movement of the free end of the seat outwardly of the frame, said extension forming a means for moving the seat from one said position to the other.

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