Aug. 8, 1939. E. C. SKINNER ET AL 2,168,424

INVALID WALKER

Filed Jan. 7, 1936 2 Sheets-Sheet 1

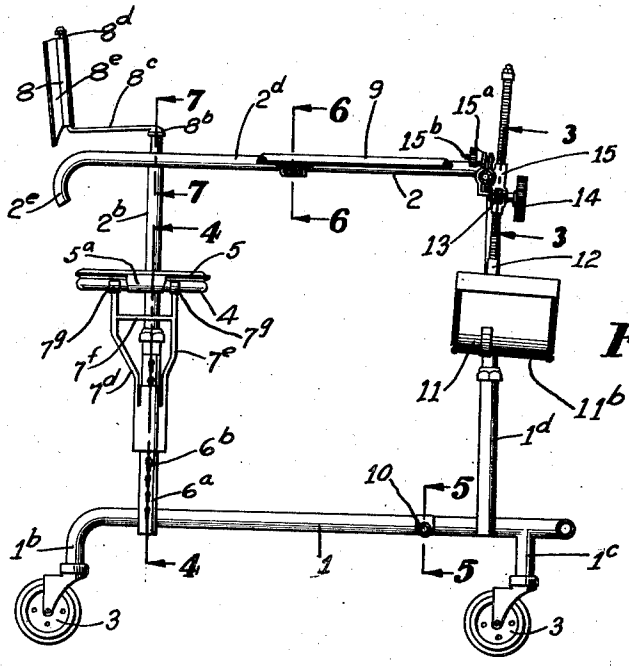


FIG. 1

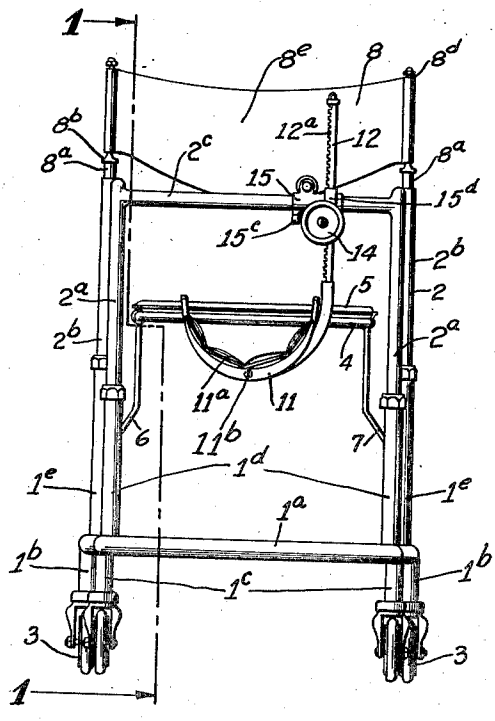


FIG. 2

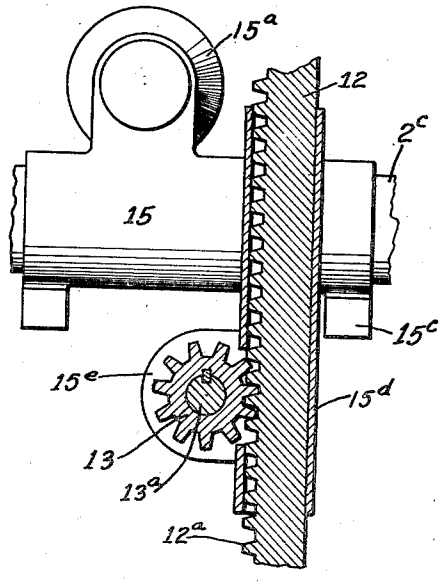


FIG. 3

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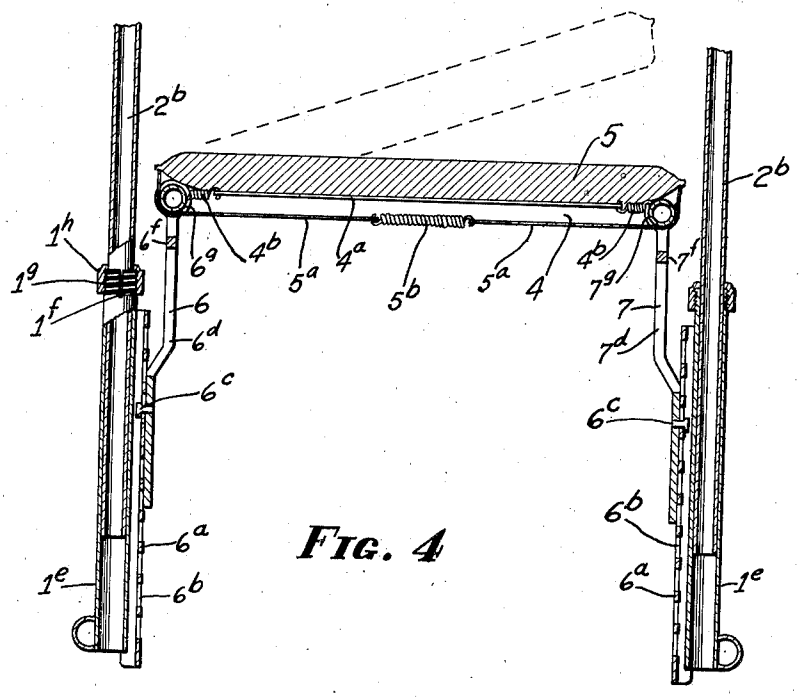


FIG. 4

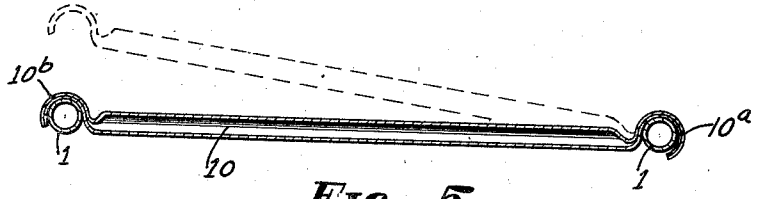


FIG. 5

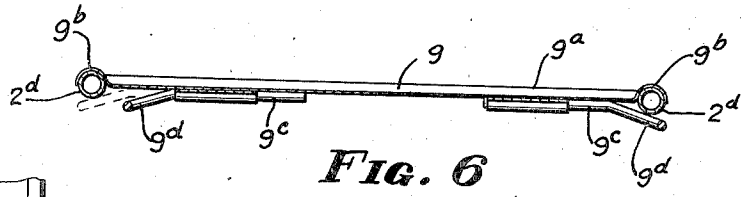


FIG. 6

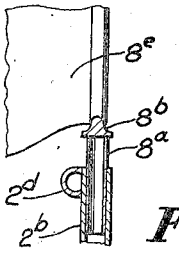


FIG. 7

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INVALID WALKER

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Application January 7, 1936, Serial No. 58,006

3 Claims. (Cl. 155—22)

Our invention relates to invalid walkers, more particularly adapted for use by invalids to get about from place to place, and the objects of our invention are:

First, to provide an invalid walker which is operable from either a standing or sitting position.

Second, to provide an invalid walker which is so constructed and arranged so that it may be positioned relatively to a chair or other device so that the invalid may transfer himself from a chair or other device to the walker, or from the walker to a chair.

Third, to provide a walker of this class with a seat and back which may be readily and quickly shifted to a position to permit the invalid to enter the walker from one side without obstruction and then replaced to provide a comfortable seat with back.

Fourth, to provide an invalid walker of this class in which the seat is readily adjustable upwardly and downwardly to accommodate various length persons.

Fifth, to provide an invalid chair of this class with an adjustable foot rest to provide for persons with different length legs.

Sixth, to provide an invalid walker of this class with adjustable leg support for supporting the leg of an invalid in various raised positions while seated on said walker.

Seventh, to provide an invalid walker of this class with novel readily removable tray in cooperative relation therewith.

Eighth, to provide an invalid walker of this class with suitable cushion means for the invalid throughout.

Ninth, to provide an invalid walker of this class which is simple and economical of construction, durable, efficient, easy to operate, easy to adjust, and which will not readily deteriorate or get out of order.

With these and other objects in view as will appear hereinafter, our invention consists of certain novel features of construction, combination, and arrangement of parts and portions as will be hereinafter described in detail and particularly set forth in the appended claims, reference being had to the accompanying drawings and to the characters of reference thereon which form a part of this application in which:

Figure 1 is a sectional view of our invalid walker along the line 1—1 of Fig. 2; Fig. 2 is a front elevational view of said invalid walker; Fig. 3 is an enlarged fragmentary sectional view along the line 3—3 of Fig. 1 showing some of the parts and portions in elevation to facilitate the illustration; Fig. 4 is an enlarged sectional view along the line 4—4 of Fig. 1 showing some of the parts and portions in elevation to facilitate the illustration and showing a shifted position of the seat by dotted lines; Fig. 5 is an enlarged sectional view through 5—5 of Fig. 1 showing a shifted position of the adjustable leg member by dotted lines; Fig. 6 is a sectional view on an enlarged scale along the lines 6—6 of Fig. 1 showing some of parts and portions in elevation to facilitate the illustration; and Fig. 7 is an enlarged fragmentary sectional view along the line 7—7 of Fig. 1 showing some of the parts and portions in elevation to facilitate the illustration.

Similar characters of reference refer to similar parts and portions throughout the several views of the drawings:

The base frame 1, adjustable frame 2, castors 3, seat 4, seat cushion 5, seat supports 6 and 7, seat back 8, tray 9, adjustable foot rest 10, leg rest 11, leg rest supporting bar 12, pinion 13, hand wheel 14, and leg rest supporting bracket 15 constitute the principal parts and portions of our invalid walker.

The base frame 1 is constructed preferably of hollow tubing, the main member 1*a* consisting of a U shaped tubing closed at the front of the walker and open at the rear. The rear end of the frame member 1*a* is slightly wider than the front end as shown best in Fig. 2 of the drawings, and the rear portion of the member 1 is extended downwardly at 1*b*, and on the lower extended ends are mounted two of the castors 3, which are preferably ball bearing castors. Near the front of the frame member 1*a* are downwardly extending members 1*c* on the lower end of which are mounted two more castors 3. Extending upwardly from the front portion of the frame member 1*a* are frame members 1*d*, and extending upwardly from the rear portion of the frame member 1*a* are upwardly extending frame members 1*e*. Telescopically and adjustably mounted in the members 1*d* are downwardly extending members 2*a* of the adjustable frame 2, and telescopically and adjustably mounted in the upper ends of the frame members 1*e* are the frame members 2*b* of the adjustable frame 2. The frame members 1*d* and 1*e* are each provided with slots 1*f* in their upper ends and they are each threaded at 1*g* to receive a tapered threaded nut 1*h*, thus providing means for clamping the upper ends of the members 1*d* and 1*e* onto the lower end of the members 2*a* and 2*b*

and holding said members in rigid relation to each other and permitting upward and downward shifting of the adjustable frame 2. The adjustable frame 2 is provided with a cross bar 2c at the front end of the walker, while the rear end is open, and the rear ends of the two side frame members 2d are provided with downwardly curved ends 2e, which form handles to facilitate the manipulation of the walker to positions desired for entering the walker. In the upper ends of the members 2b, which are secured to the outer sides of the members 2d near the rear end of the walker, are removably positioned seat back supporting members 8a, which are provided with enlarged portions 8b. Connecting with these portions 8b are substantially horizontal portions 8c, which are extended upwardly at their ends 8d, and having one of these supports at each side, and there is provided a flexible back member 8e, the ends of which are looped around the portions 8d, thus providing for readily raising either of the members 8a and shifting the back to permit a clear space in the end so that the invalid may enter the rear of the frame, it being noted that either or both sides may be removed as desired.

Secured on the inner surfaces of the members 1e are seat supporting members 6a. Positioned in the inner sides of the members 6a are a plurality of openings 6b each of which is provided with downwardly converging sides which are adapted to receive at their upper ends head members 6c extending from both supporting brackets 6 and 7. The supporting brackets 6 and 7 are both provided with bifurcated branches 6d and 6e and 7d and 7e with cross supports 6f, and 7f, respectively. On the upper end of the members 6d and 6e are provided loops 6g in which is pivotally mounted the one end of the seat 4, while the upper end of the members 7e and 7d are provided with semi-circular forks 7g adapted to receive and support the opposite end of the seat 4, thus providing means for hinging the seat 4 on the support 6 so that it may be raised and lowered at the opposite end from the forks 7g as shown by dotted lines in Fig. 4 of the drawings. This seat is preferably made of tubes and rectangular in form on which the seat cushion 5 rests, which is a padded cushion as shown best in Fig. 4 of the drawings, said cushion being supported inside of the rectangular tube frame of the seat 4 by means of a plurality of plates 4a supported at their opposite ends by springs 4b which are secured to the ends of the seat 4 as shown best in Fig. 4 of the drawings. The cushion 5 is secured in position by means of extended straps 5a which extend down over the ends of the seat 4 and are secured together at their extended ends by means of a spring 5b, thus there is provided means for raising the seat at one side together with the cushion, thus providing an open space at the rear end of the walker for the ready entrance and exits of the invalid through the rear end of the walker. Mounted on the frame member 2c is a leg rest supporting bracket 15, which is clamped on said member by means of a knurled nut 15a on a bolt 15b, thus providing means for shifting this bracket member to various positions around the member 2c and longitudinally thereon and clamping the same in various adjusted positions. This bracket member is preferably slit so that it may be readily placed in position on the member 2c and provided with interlocking lugs 15c. This bracket member 15 also includes a casing 15d extended at right angles to the member 2c in which is longitudinally shiftable a leg rest supporting bar 12, which is provided at one side with a gear rack 12a with which meshes a pinion 13, which pinion is supported in extended lugs 15e on the member 15d by means of a shaft 13a which is provided with a hand wheel 14 for revolving the pinion 13 and shifting the member 12 upwardly and downwardly in the member 15d for adjusting the leg support upwardly and downwardly. Secured on the lower end of the member 12 is a curved leg rest 11 which is a curved plate provided with flanged edges in which is mounted a cushion 11a for the leg to rest in. This support 11 is shiftable forwardly and backwardly on the member 12 to various adjusted positions by means of a rod 11b which fits snugly in the member 12 and provides a frictional support therefor. Readily removably mounted on the frame members 2d is a tray 9 which is preferably metallic and provided with rolled sides 9a, and the ends are provided with semi-circular portions 9b which are adapted to fit over the upper sides of the members 2d and be shifted forwardly and backwardly thereon. On the lower side of this tray member are provided longitudinally shiftable U shaped clip members 9c which are provided with downwardly extending ends 9d which are adapted to engage the lower side of the members 2d for clamping the tray in position as shown at the right side of Fig. 6 of the drawings and shown drawn for releasing at the left side of Fig. 6, thus providing means for readily attaching and releasing said tray to the members 2d. Secured across the U shaped frame 1 back of the members 1d is an adjustable foot rest 10, which is provided with more than a semi-circular loop 10a in one end considerably larger than the tube on which it is mounted to permit the shifting of the member 10 forwardly and backwardly with the gradually spreading portions of said frame member 1, while the other end is provided with a substantially semi-circular portion 10b which is also larger than the tube upon which it rests to provide clearance for shifting. Thus the end 10b may be raised as shown by dotted lines in Fig. 5 of the drawings, and the member 10 shifted forwardly and backwardly a reasonable distance.

The operation of our invalid walker is as follows: The invalid is seated on the chair or other object. He grasps the handle members 2e and draws the walker toward him, raises one of the members 8a out of its socket and turns it around to one side leaving the walker open, then raises the seat at one side so it is substantially at a vertical position. He can then draw the walker some distance over the object he is seated on, place his hands on the members 2d and raise himself to a position in front of the seat 4 then lower the seat to horizontal position as shown by solid lines in Fig. 4, then replace the seat back by placing the member 8a removed back into the socket. He is thus seated so that both feet may rest on the floor, the seat being adjusted for the particular invalid beforehand. If one leg is crippled it may be placed in the cushion 11a and the cushion adjusted upwardly and downwardly by means of the hand wheel 14 and may be shifted sideways by means of the nut 15a and also tilted to varying positions by said nut 15a. Then with one foot on the floor, the invalid may move about readily with the one foot elevated to various adjusted positions as desired. If desired, he may rest the feet on the foot rest 10, which may be shifted forwardly and backwardly as herein described. The castor wheels permit the shifting of

the walker readily in varying directions as desired. If he desires to lunch or dine, the tray may be secured in front of him as hereinbefore described and readily removed when desired.

Though we have shown and described a particular construction, combination, and arrangement of parts and portions we do not wish to be limited to this particular construction, combination and arrangement but desire to include in the scope of our invention the construction, combination and arrangement substantially as set forth in the appended claims.

Having thus described our invention, what we claim as new and desire to secure my Letters Patent is:

1. In an invalid walker, a substantially rectangular base frame closed at one end and open at the other, castor wheels upon which said base frame is mounted at its four corners, a substantially rectangular adjustable frame closed at one end and open at the other telescopically and adjustably mounted on said base frame, a seat pivotally mounted at one side of the open end of said base frame and a support on said base frame for the free side of said seat, a seat back rest readily removably mounted at either side of the open end of said adjustable frame backwardly of said seat, a tray shiftably and readily removably mounted on said adjustable frame forwardly of said seat, a leg rest adjustably and transversely shiftably mounted on the closed end of said adjustable frame, and a gear and rack means for raising and lowering said leg rest.

2. In an invalid walker, a substantially rectangular base frame closed at one end and open at the other, castor wheels upon which said base frame is mounted at its four corners, a substantially rectangular adjustable frame closed at one end and open at the other telescopically and adjustably mounted on said base frame, a seat pivotally mounted at one side of the open end of said base frame and a support on said base frame for the free side of said seat, a seat back rest readily removably mounted at either side of the open end of said adjustable frame backwardly of said seat, a tray shiftably and readily removably mounted on said adjustable frame forwardly of said seat, a leg rest adjustably and transversely shiftably mounted on the closed end of said adjustable frame, a gear and rack means for raising and lowering said leg rest, and a foot rest shiftably mounted near the closed end of said base frame.

3. In an invalid walker, a U shaped base frame closed at its front end and open at its rear end, castor wheels upon which said frame is mounted, another frame closed at its front end and open at its rear end telescopically and adjustably mounted upwardly and downwardly thereon, a leg rest adjustably mounted on the front closed end of said adjustable frame and a gear and rack means for raising and lowering said leg rest.

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