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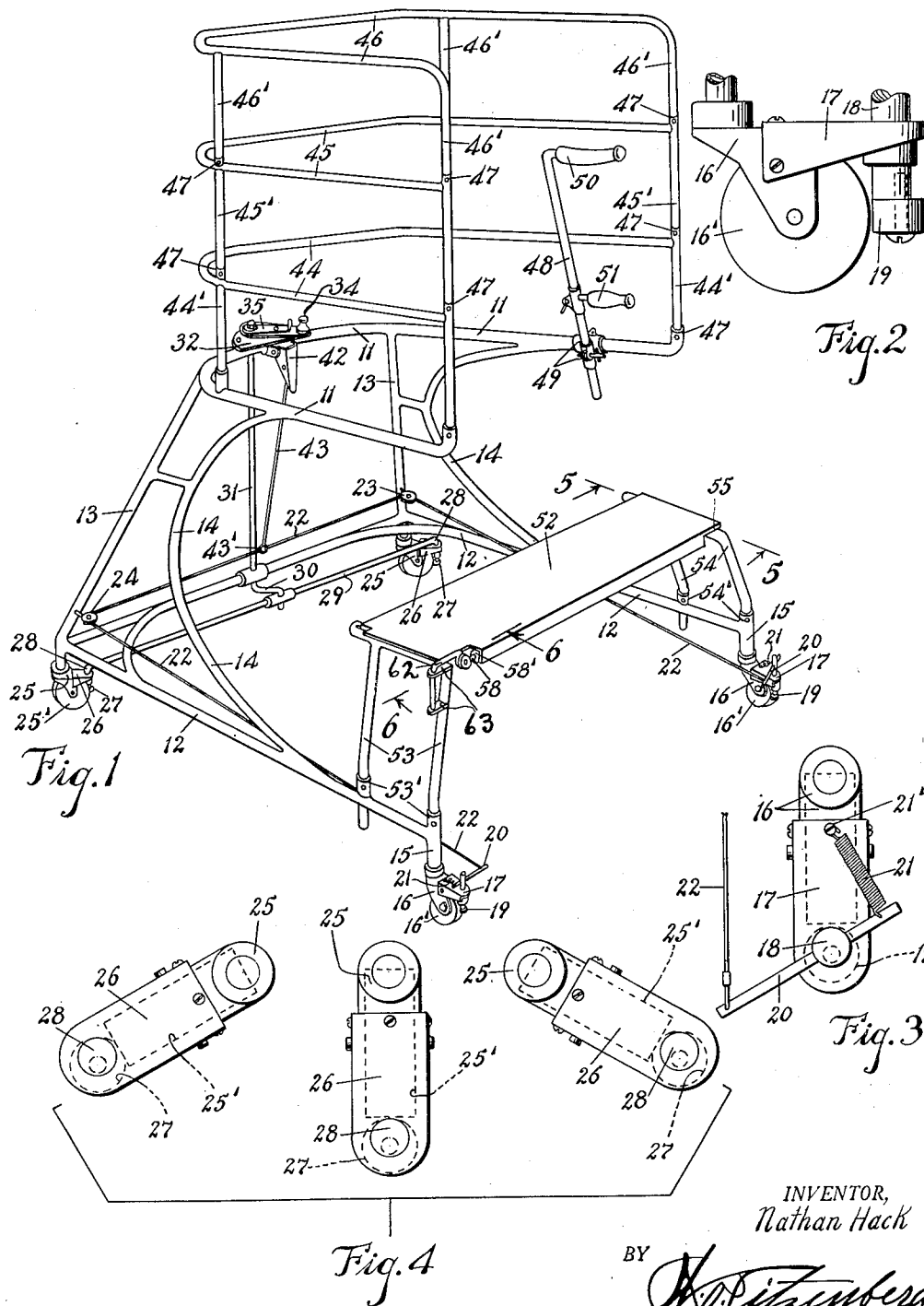
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2,539,577

PERAMBULATOR FOR INVALIDS

Filed Oct. 2, 1948

2 Sheets-Sheet 1



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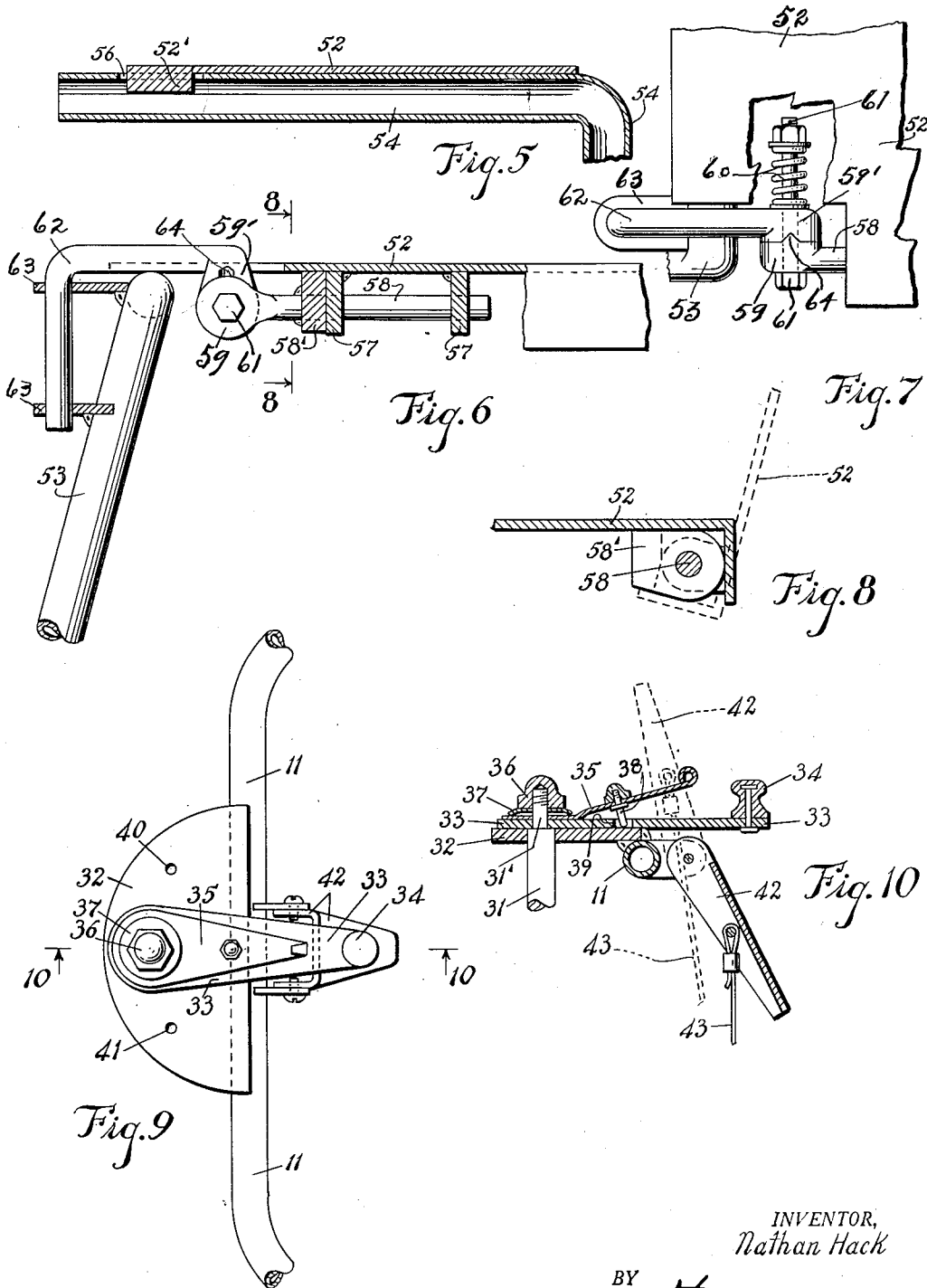
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PERAMBULATOR FOR INVALIDS

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PERAMBULATOR FOR INVALIDS

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6 Claims. (Cl. 155—24)

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This invention relates to improvements in perambulators for invalids, and more particularly to a perambulator having a frame structure within which the invalid can stand and lean upon, with a seat, when desired, upon which to sit at will, said perambulator having castors upon which it can be moved around over the floor, with means for locking said castors against turning whenever desired.

Among the salient objects of the invention are: to provide a sectional frame structure in which different sections can be detached or removed to reduce the height of the frame; to provide a type of frame structure which can be moved up to a bed with a part running under the bed, while the upper portions of said frame extended over the bed and in convenient position for the patient to lift himself from the bed into position to make full use of the perambulator in moving from place to place; to provide in a perambulator of the character referred to castors on which it can be moved, with locking means within easy reach of the patient whereby said castors can be locked at will against turning, thus making it stationary in any adjusted position.

Other features of improvement will be apparent from the following description of one practical embodiment of the invention, taken with the accompanying sheet of drawings, in which:

Figure 1 is a perspective view of a perambulator embodying my invention;

Figure 2 is a side elevation of a supporting castor, showing an eccentric brake or locking member;

Figure 3 is a plan view of one of the rear castors, showing a brake or lock operating connection;

Figure 4 shows three plan views, in three different positions, of one of the front castors with its locking means;

Figure 5 is a sectional view of a detail, taken on the line 5—5, of Fig. 1;

Figure 6 is an enlarged view, partly in section, taken on the line 6—6 of Fig. 1;

Figure 7 is a fragmentary view of mechanism shown in Fig. 6;

Figure 8 is a sectional detail of parts in Fig. 6, taken on line 8—8;

Figure 9 is a plan view looking at the mechanism for turning the castors and also for operating the locking means for said castors;

Figure 10 is a sectional view through line 10—10 on Fig. 9.

Referring now in detail to the drawings, my invention as here illustrated for explanatory pur-

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poses, includes a frame body structure having an upper horizontal U-frame member 11 and a lower longer U-form member 12, connected by the vertical frame members 13, 13, at the corners with the curved brace members 14, 14, said longer U-frame member 12 being extended and provided with vertical tubular bearing members 15, 15, having rotatably mounted therein castors, as 16, 16, said castors each having mounted thereon, as seen in large view in Fig. 2, a supporting arm or member 17, in the outer free end of which is a vertical shaft 18, having secured to its lower end an eccentric castor brake or lock member 19, to be turned into and out of engagement with the castor wheel 16'. Inserted through the shaft 18, of the brake element or member 19, is a bar 20, one end of which has attached thereto a coiled spring 21, having its other end attached to the member 17, as at 21'. This coiled spring 21 normally holds the eccentric member 19 in its inoperative position, as indicated in light broken lines in Fig. 3. The other end of said bar or member 20 has an operating cable 22 attached thereto, which cable 22 extends around a pulley 23, on a vertical member 13, thence across to another pulley 24, on the other vertical member 13, and thence to a corresponding bar or member 20 on the other castor, whereby said shafts 18, 18 and their eccentric elements 19, 19 can be operated together on the castor wheels 16', 16', as is clear from Figs. 1, 2 and 3. At the lower ends of the vertical members 13, 13, at the forward end of the perambulator, are two other castors, as 25, 25, on which are members 26, 26, similar to the members 17, 17 on the rearward castors. These castors also have eccentric brake or lock elements 27, 27, on angle ends 28 of a connecting rod 29, which angle ends extend through the free ends of said members 26, 26, as shown and similar to the short shafts 18, 18 of the rear castors 16, 16.

In Fig. 4 are shown in plan views, three different positions of said castor mechanism. In these three positions the castor wheel is shown in light broken lines, as 25'. In the middle position, the eccentric brake or locking element 27 is shown out of operating position relative to the wheel 25', while in the other two positions, representing the extreme opposite positions, said eccentric elements 27 are in operating engagement with the castor wheels 25' at the opposite corners of the structure.

The connecting rod 29 is moved lengthwise in opposite directions by means of a crank 30, at the lower end of a rod 31, the upper end of which

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is rotatably held in a plate 32, welded to the upper U-frame 11, as seen in Figs. 9 and 10. Said rod 31 is reduced at its upper end, as at 31' and has a member 33 thereon, resting on a plate 32, and provided with a handle 34, at its outer end for turning it. A spring 35 is also mounted on the reduced end 31' of said rod 31, and held in place by means of a nut 36, with a spring washer 37 thereunder, as seen in Figs. 9 and 10. Said spring member 35 carries a stud or pin 38, operating through a hole 39 in the member 33, and is adapted to enter holes 40 and 41 in the fixed plate 32, when said member 33 is turned to the opposite sides thereof, which will result in moving the connecting rod 29 and turning the castors to the extreme side positions shown in Fig. 4.

Also pivotally connected with said upper U-frame member 11, is a depending lever 42, to which a cable 43 is attached, with its other end connected at 43' with the cable 22, for pulling said cable 22, for the purpose of operating the eccentric brake or locking elements 19, 19, against the rear castor wheels, as will be understood from Figs. 1 and 3.

Above the upper U-frame 11, are three detachable U-frames 44, 45, and 46, each having legs as 44', 45' and 46' detachably fitting with the one below, as at 47 in all places. Thus this patient supporting structure of U-frames can be built up as high as may be required for a particular person who is to use it.

There is also provided a crutch member 48, adjustably and detachably secured to the U-frame 11, by means of a clamp 49, as will be understood from the showing in Fig. 1. This crutch can be positioned for the most comfortable use of the patient. Said crutch member has an arm rest 50 and a hand grip 51, which is adjustable up and down and circumferentially, for the convenience of the person using it.

I have also shown a seat 52, which is pivotally and hingedly held at its left end. Two arch supports, as 53 and 54, are detachably secured at their lower ends to the rear ends of the lower U-frame 12, as at 53' and 54', Fig. 1, whereby the entire seat and its supports can be detached and removed whenever desired, thus giving free space for walking.

Referring to Fig. 5, said seat at its right hand end, as seen in Fig. 1, overlays and rests upon the arch support 54, as at 55. The forward edge of said seat is provided with a thicker portion, as 52', which fits into an opening 56 in said arch support 54, as seen in Fig. 5.

At its opposite end said seat 52 is provided with a pair of lugs, on its under side, as 57, 57, secured thereto and through which a pivot pin 58 is inserted, said pin serving as a hinge pin for said seat when it is raised at its forward edge, as seen in Fig. 8, in light broken lines. A block member 58' is shown welded to said pin 58, under said seat, Fig. 6. The end of said pin 58 is provided with a head 59, to interfit with a corresponding head 59', with a spring 60, on a connecting bolt 61, to yieldingly hold said heads together, with sufficient firmness to support the free end of the seat 52 when it is swung backward on the pivot support formed by the angle part 62, in two spaced hinge lugs, as 63, 63. Between the meeting faces of said heads 59 and 59' is an angular interfitting and interlocking feature, designated 64, and seen in Fig. 7 and Fig. 6. This increases the supporting strength of the seat 52 when the free end thereof is swung backward and around to the left, and at the same time makes it possible

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to raise the free end of said seat by increased force to overcome the tension of the spring 60 and the interfitting element at 64.

I am aware that changes in details of construction and arrangement can be made without departing from the spirit of my invention, and I do not, therefore, limit the invention to the showing made for purposes of explanation, except as I may be limited by the hereto appended claims forming a part of this application.

I claim:

1. In a perambulator of the character referred to, upper and lower horizontal U-shaped frame members supported one above the other at their connected ends, whereby their straight ends are open and are free to be moved under and over a bed, into convenient position for a patient, castors on said perambulator, means for locking the castor wheels against turning to prevent said perambulator from moving, a seat on the ends of the lower U-shaped frame member, under the free end of the upper U-shaped frame member, said seat being movable on a hinge to open up entrance into the open ends of said U-shaped frame members by the patient, said upper U-shaped frame members constituting supporting means for the arms of the patient at opposite sides, whereby the patient can stand in said U-shaped frame members, or sit upon the seat with his feet and legs in the U-shaped frame members.

2. A perambulator including a plurality of horizontal U-shaped frame members detachably connected one above the other, and separable to reduce the height of the U-shaped structure, a lower horizontal U-shaped frame member, with castors supporting it, and connected at its arched end with the upper frame members for supporting them with their open ends free to move over the top of a bed as said lower U-shaped frame member is moved under said bed, an adjustable seat at the forward ends of the lower U-shaped frame member and under the free ends of the upper U-shaped frame members, locking means for each castor wheel and means for manipulating said locking means within reach of the patient, whereby he can lock said perambulator against movement at will.

3. In a perambulator, a frame structure having castor wheels at its corners, locking members adjustably held near each castor wheel, means for moving said locking members into locking engagement with said castor wheels to prevent them from turning on their axis, and means for turning said castor wheels on their supporting pivots to change the direction of their movement, said frame structure being of horizontal U-shaped frame members to receive the patient between their ends, whereby the patient can lean on the opposite sides of said U-shaped frame members.

4. A perambulator for invalids including a lower frame of horizontal U-shape, having castors at its ends and at its arched portion, with means for turning said castors as to direction, locking means for each castor to be moved into locking engagement with the castor wheel to prevent it from turning on its axis, said operating means being operable by the patient, upper U-shaped frame members, detachably supported one above the other, whereby frame members can be detached at will to decrease the height of said perambulator for the convenience of the patient, and a seat adjustably supported at the open ends of said U-shaped frame members, whereby to be

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moved to admit the patient into said frame structure.

5. In a perambulator of the character shown, a vertical frame structure composed of a plurality of horizontal U-shaped frames, secured together, one above the other, with their open ends in one direction, said U-shaped frames being spaced to run under a bed and over a bed as moved up to the bed, whereby a patient can conveniently move into the open ends of said U-shaped frames, with his arms over the top frame, castor wheels under the lower frame for moving said perambulator over the floor, means for locking said castor wheels against turning on their axes and also means for locking said castor wheels in adjusted positions as to directional positions, said locking means being manually operable by the patient in said perambulator, and means whereby an upper U-shaped frame member can be detached to lower the vertical height of said frame members for more convenience for the patient.

6. In a perambulator, a plurality of horizontal U-shaped frames, connected together one above the other to receive a patient in said U-shaped frames with his arms over the top frame, castor

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wheels on the lower U-shaped frame member for moving said perambulator over the floor, a seat at the open ends of said U-shaped frames, whereby the patient can sit upon said seat, under the open ends of said U-shaped frames, and means, operable by the patient for locking said castor wheels against turning, whereby to prevent said perambulator from moving.

NATHAN HACK.

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