Oct. 14, 1958 W. R. HUBBARD 2,855,979

COMBINED INVALID WHEEL CHAIR AND WALKER

Filed March 22, 1957 2 Sheets-Sheet 1

FIG. 1

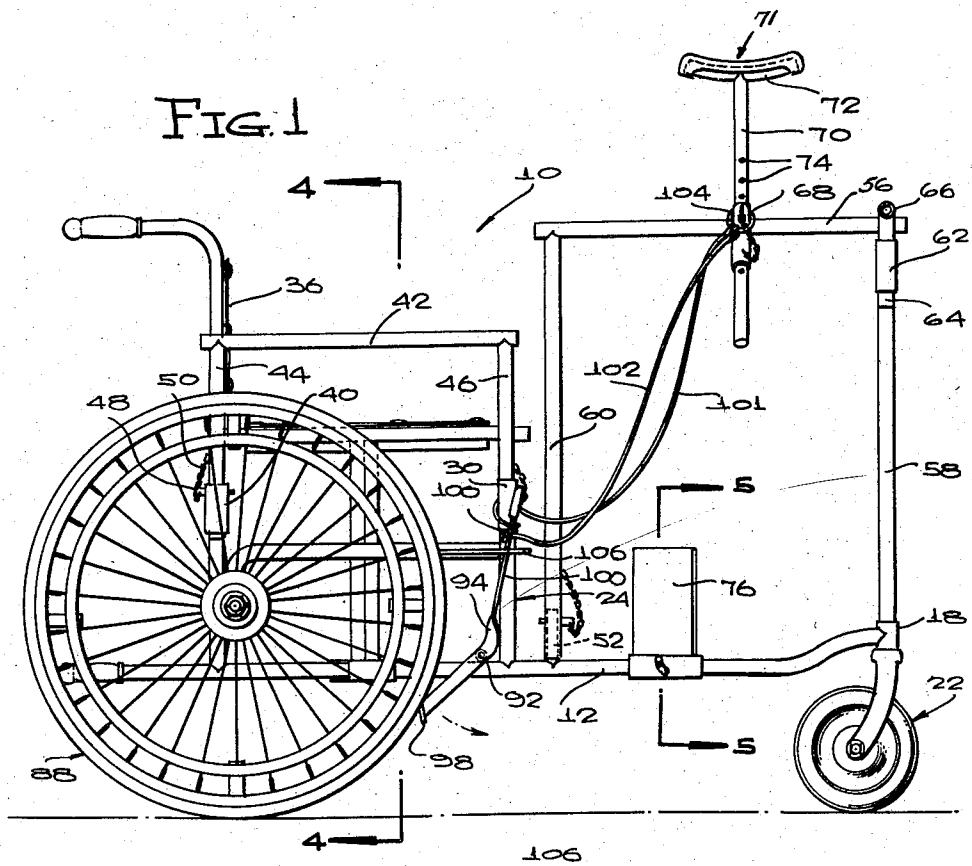
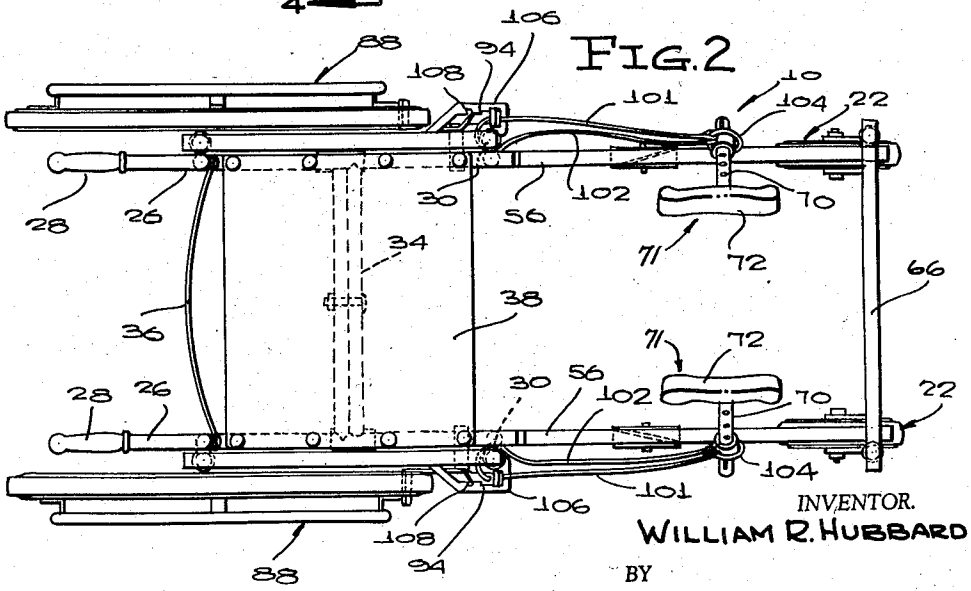


FIG. 2



INVENTOR.
WILLIAM R. HUBBARD
BY
McMorrow, Berman & Davidson
ATTORNEYS

Oct. 14, 1958 W. R. HUBBARD 2,855,979

COMBINED INVALID WHEEL CHAIR AND WALKER

Filed March 22, 1957 2 Sheets-Sheet 2

FIG. 3

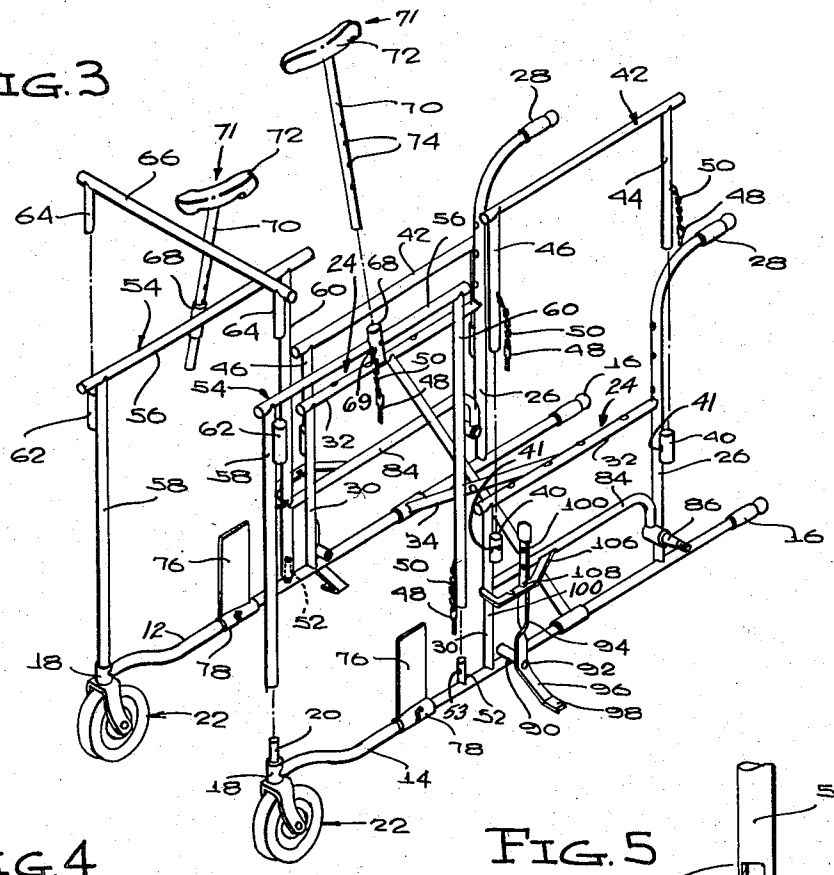


FIG. 4

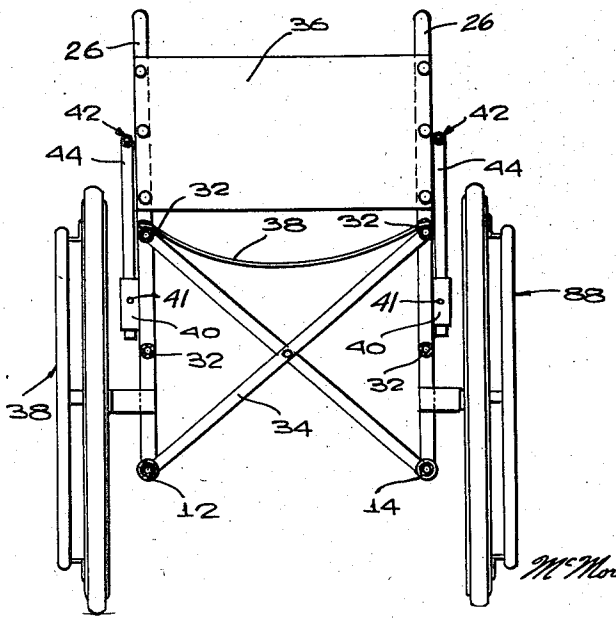
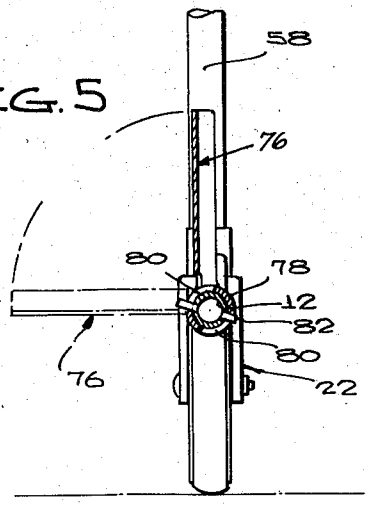


FIG. 5



INVENTOR.
WILLIAM R. HUBBARD
BY
McMorrow, Berman & Davidson
ATTORNEYS

United States Patent Office 2,855,979 Patented Oct. 14, 1958

2,855,979

COMBINED INVALID WHEEL CHAIR AND WALKER

William R. Hubbard, Gretna, Va.

Application March 22, 1957, Serial No. 647,824

1 Claim. (Cl. 155—22)

This invention relates to an improved combined invalid wheel chair and walker.

The primary object of the invention is to provide a more practical and efficient device of this kind which enables an invalid to easily and comfortably move himself back and forth from a seated position on the seat component of the device to hand-rail components of the device, which are equipped with crutch components facilitating walking of the invalid, the hand-rail components being removable when not needed, and the seat component having arm rests which are also removable when not needed, the removal of the hand-rail components and of the arm rests serving to reduce the bulk and the weight of the device for storage and transportation.

Another object of the invention is to provide a combined invalid wheel chair and walker of the character indicated, which can be made in well-finished, rugged, and serviceable forms at relatively low cost, is easily assembled and disassembled, and is highly satisfactory for the purposes intended.

These together with other objects and advantages which will become apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout the several views, and in which:

Figure 1 is a side elevation of a device of the invention;

Figure 2 is a top plan view of Figure 1;

Figure 3 is an exploded perspective view of the device;

Figure 4 is a vertical transverse section taken substantially on the plane of line 4—4 of Figure 1; and

Figure 5 is an enlarged fragmentary vertical transverse section taken substantially on the plane of line 5—5 of Figure 1, showing in phanton lines an operative position of a foot rest.

Referring in detail to the drawings, the illustrated combined invalid wheel chair and walker, indicated generally at **10**, is preferably constructed of round tubing of any suitable material. The device **10** comprises a frame involving a pair of similar parallel spaced longitudinal lower side members **12** and **14** having secured on their rear ends resilient bumpers **16**. Fixed on the forward ends of the lower side members **12** and **14** are vertical sleeves **18** which have journalled therethrough vertical spindles **20** of caster wheel assemblies, indicated generally at **22**, which enable steering of the device **10**.

The lower longitudinal side members have fixed thereon similar upstanding frames **24** which comprise vertical rear standards **26** which terminate at their upper ends in rearwardly extending handle portions **28**. The frames **24** further comprise forward standards **30** which have fixed on their upper ends rearwardly extending horizontal bars **32** which are secured at their rear ends to intermediate portions of the rear standards **26**. An

X-brace member **34** has lower ends thereof secured to intermediate portions of the longitudinal side members **12** and **14**, and upper ends secured to intermediate portions of the horizontal bars **32**.

A flexible back-rest panel **36** is secured at its ends to the rear standards **26** above the bars **32**. Extending between and secured at its ends to the horizontal bars **32** is a flexible seat panel **38**, see Figure 4.

Fixed in laterally extending relationship on the outer surfaces of the rear and forward standards **26** and **30** are vertical sleeves **40**, which have aligned holes **41** in their sidewalls. Inverted U-shaped vertically adjustable arm rest assemblies **42** have depending legs **44** and **46** which are slidably engaged in the sleeves **40**, and have aligned holes in their sidewalls which are alignable with the holes **41** in the sleeves **40**, and retaining pins **48** are adapted to be engaged therethrough, and are secured to the legs **44** and **46** by flexible chains **50**.

Fixed to and rising from the side members **12** and **14** in forwardly spaced relationship to the forward standards **30** of the frames **24** are braces **52**, see Figure 3.

Indicated generally at **54** are inverted U-shaped hand-rail assemblies which comprise horizontal rails **56** located on a level above the seat panel **38**, and forward and rear depending legs **58** and **60** which are telescopically engaged over the spindles **20** of the caster assemblies **22** and the bosses **52**, respectively. The bosses **52** have bores **53** therethrough which are alignable with holes in the rear legs **60** which are traversed by removable retaining pins **48**, retained on the legs **60** by means of chains **50** so as to hold the hand-rail assemblies **54** in place. The forward legs **58** have secured on their laterally outward sides near their upper ends vertical sleeves **62** telescopically receiving therein legs **64** depending from opposite ends of a transverse brace bar **66**, whereby lateral displacement of the hand-rail assemblies **54** is precluded when the device **10** is in use.

Fixed on the outer sides of the rails **56** of the hand-rail assemblies **54** are vertical sleeves **68** which converge upwardly toward each other. The sleeves **68** have transverse holes **69** and have secured thereto flexible chains **50**, carrying retaining pins **48**. Telescopically engaged in the sleeves **68** are the legs **70** of crutch assemblies **71**, which have horizontal members **72** positionable beneath the armpits of an invalid using the device **10** for walking or standing. The legs **70** have extending transversely therethrough longitudinally spaced holes **74** engageable by the pins **48** for holding the crutch assemblies in vertically adjusted positions on the hand-rail assemblies **54**.

Journalled on the longitudinal side members **12** and **14** between the bosses **52** and the caster wheel assemblies **22**, are foot rest plates **76** which may be swung laterally inwardly from the full-line positions of Figure 5 to the operative phantom line positions, shown in Figure 5, so that an invalid seated in the device **10** can rest his feet on the plates **76**. The plates **76** have on one end sleeves **78** journalled on the side members **12** and **14**, and have therein diametrically opposed arcuate slots **80** through which transverse retaining pins **82** extend, which limit the plates **76** to rotations of 90 degrees.

Secured to and extending between intermediate portions of the forward and rear standards **26** and **30** of the frames **24** are horizontal brace bars **84**, which have on their rear ends laterally outwardly extending stub shafts **86**, on which are journalled conventional ground-engaging hand wheels, indicated generally at **88**.

Fixed on and extending laterally outwardly from the side members **12** and **14** near the forward standards **30** of the frames **24**, are horizontal shafts **90** on whose outer ends are pivoted, as indicated at **92**, intermediate portions of vertical brake levers **94**. The brake levers

94 have lower rearwardly and downwardly angulated portions 96 terminating in laterally outwardly extending brake shoes 98 which are engageable with the hand wheels 88. The levers 94 further comprise upper portions 100 to which are secured flexible cables 101 and 102. The upper ends of the cables 101 and 102 are secured to a ring 104 which may be conviently engaged over the upper ends of the sleeves 68 into which the legs of the crutch assemblies are engaged. The cables 101 and 102 are trained around opposite sides of the forward standards 30, so that when upper portions of the cables are pulled by an invalid using the device 10 the levers 94 are swung in directions to apply or remove the brake shoes 98 from the hand wheels 88. The upper ends of the cables 101 and 102 are conveniently located adjacent the hands of an invalid using the device 10 so that they can be operated while the invalid is in a seated or in a standing position and using the hand-rail assemblies 42.

Secured at their opposite ends to the front standards 30 and intermediate portions of the brace bars 84 are horizontal brackets 106 which are at the laterally outward sides of the upper portions of the brake levers 94, and have therealong notches 108 in which intermediate portions 100 of the levers 94 are engageable to hold the levers 94 in braking positions or in released positions.

The foregoing is considered as illustrative only of the principles of the invention. Since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly all suitable modifications and equivalents may be resorted to, as fall within the scope of the appended claim.

What is claimed as new is as follows:

In a combined invalid wheel chair and walker, a frame assembly comprising a pair of laterally spaced horizontal longitudinal side members having forward and rear ends, frames fixed on and rising from intermediate portions of said side members comprising forward and rear standards,

said rear standards having upper portions rising above the forward standards, horizontal bars extending between and fixed to said forward standards at their upper ends and intermediate portions of the rear standards, brace means spacing and connecting the side members and said frames, a flexible seat panel extending between and secured at its ends to the horizontal bars, a flexible backrest panel extending between and secured at its ends to the rear standards above said horizontal longitudinal bars, caster wheel assemblies connected on and depending from the forward ends of said longitudinal side members, and ground-engaging hand-wheels mounted on portions on said frames, spindles on and rising from said longitudinal side members at the forward ends thereof, bosses on and rising from the longitudinal side members in the regions of the forward standards of said frames, and inverted U-shaped hand-rail assemblies having forward legs removably and supportably engaged with said spindles and rear legs removably and supportably engaged with said bosses.

References Cited in the file of this patent

UNITED STATES PATENTS

D. 164,662	Adams	Oct. 2, 1951
333,414	Holden	Dec. 29, 1885
2,129,260	Bowser	Sept. 6, 1938
2,201,261	Frey	May 21, 1940
2,269,918	Sill	Jan. 13, 1942
2,426,451	Hammack	Aug. 26, 1947
2,433,969	Wood	Jan. 6, 1948
2,592,405	Everest et al.	Apr. 8, 1952
2,619,152	Lane	Nov. 25, 1952
2,649,309	Deissner	Aug. 18, 1953
2,782,870	Sill	Feb. 26, 1957

FOREIGN PATENTS

598,000	France	Sept. 14, 1925
1,092,533	France	Nov. 10, 1954