Oct. 30, 1962 D. FRIEBERG 3,061,365

FOLDABLE INVALID CHAIR

Filed Sept. 1, 1960

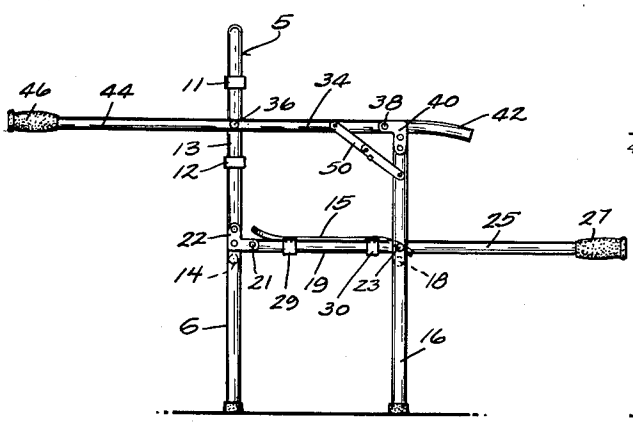


Fig. 1

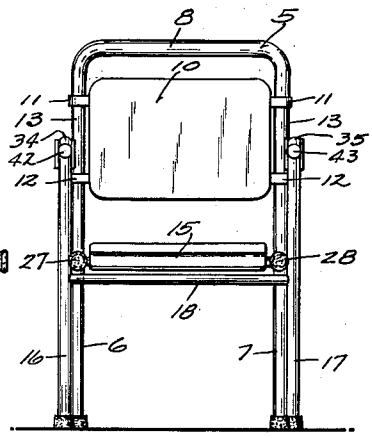


Fig. 2

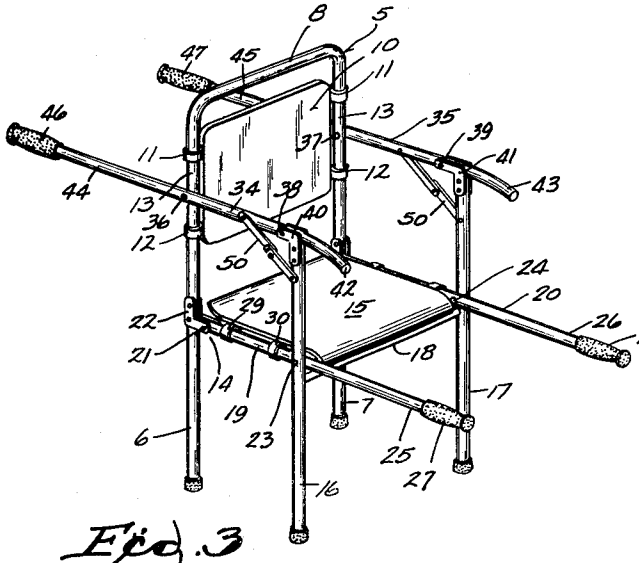


Fig. 3

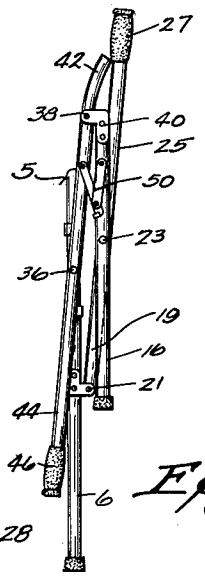


Fig. 4

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FOLDABLE INVALID CHAIR

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2 Claims. (Cl. 297—39)

This invention relates to a foldable invalid chair. It differs from other foldable chairs in that it is provided with carrying handles to permit an invalid to be carried

This application is a continuation-in-part of my earlier filed copending application Serial No. 860,969, filed Dec. 21, 1959, now abandoned.

In accordance with the present invention, one pair of handles project rearwardly as extensions of the arms of the folding chair and another pair of handles project forwardly as extensions of the seat supports. The arrangement is such as to automatically tilt the chair rearwardly when it is lifted by men using the respective handles which project forwardly and rearwardly. This protects the patient in the chair against the possibility of his being dislodged by movements of the chair incident to the transportation thereof. In addition, this arrangement minimizes the overall width of the chair, thereby permitting the chair and patient to be manipulated with ease through narrow corridors and doors. The arrangement is also one which facilitates compact folding when the chair is to be stored.

In the drawings:

FIG. 1 is a view in side elevation of a chair embodying the invention as it appears when open and in position for use;

FIG. 2 is a view of the chair in front elevation;

FIG. 3 is a view of the chair in perspective;

FIG. 4 is a view of the chair in side elevation as it appears when folded for storage.

While many of the details of construction of the chair per se are not relevant to the present invention, this particular exemplification of my invention comprises a single U-shaped frame member **5** which provides rear legs **6** and **7** and a top cross bar **8**. The back **10** has clips **11**, **12** encircling the portions **13**, of the frame members **5**. A cross bar **14** may provide the usual connection between the legs at or near the level of the seat **15**.

The front legs **16** and **17** are connected with each other by a cross bar **18** and have parallel link connection with the rear frame member **5** to be movable between the position of use best shown in FIGS. 1 and 3 and the collapsed position shown in FIG. 4. There are horizontal bars **19**, **20** pivotally connected to the rear frame member **5** by pintles **21** for connecting the bars **19** and **20** with the hinge brackets **22** riveted to the rear legs **6** and **7** of the rear frame member **5**. Pintle rivets **23**, **24** connect the horizontal bars **19** and **20** with the forward legs **16** and **17**. The bars **19** and **20** are extended forwardly to provide handles **25**, **26** which have grip portions **27**, **28** for the use of a person lifting the front of the chair.

The seat **15** may have supporting straps **29**, **30** carrying it from the bars **19** and **20**.

At a higher level, but generally parallel to the bars **19** and **20**, are bars **34**, **35** which provide arm rests for the user of the chair. These bars are pivoted by pintle rivets **36**, **37**, to the upward extensions **13** of the rear legs **6** and **7**, these constituting part of the rear frame member **5**. At their forward ends, the arm rest bars **34** and **35** are pivoted by means of pintle rivets **38**, **39** to hinge brackets **40**, **41** which are riveted at the upper ends of the front leg portion **16**, **17**. Desirably the arm rests are extended forward at **42**, **43**, and, preferably, are tilted slightly downwardly, to provide convenient hand rests for the patient seating in the chair.

The arm rests **34**, **35** are also extended rearwardly of the rear frame **5** to provide handles **44**, **45**, provided with hand grips **46**, **47**, for the person lifting the rear of the chair.

Since the rearwardly projecting handles are at a higher level than the forwardly projecting handles, the chair tends to be tilted slightly rearwardly when lifted.

The arrangement also is of value in compact folding, as is clearly shown in FIG. 4. When the chair is folded, the side members which support the seat and are extended to provide forward handles **25** and **26** fold upwardly on the pintles **21** at the rear of the chair at seat level. Consequently the terminal portions **27**, **28** of handles **25** and **26** do not project very substantially beyond the rest of the folded chair structure. Similarly the arm rests **34**, **35** which are extended to provide the rear handles **34**, **35** are pivoted at **38**, **39**, near the tops of the front legs. Thus, when folded, their terminal portions provided with grips **46**, **47** do not even extend as low as the bottom of the rear frame **5**. Thus the handles added for transporting this chair and patient add very little to the overall dimensions to the folded chair, the total addition in height being approximately the length of the hand grips **27**, **28** as shown in FIG. 4.

Desirably, but optionally, convenient brace links **50** may be used to hold the chair in its open position of use. These well known brace links are of a type commonly used on card tables and the like. They fold as shown in FIG. 4 to permit the device to be collapsible for storage.

I claim:

1. A folding chair for invalids including
a back frame comprising
laterally spaced upright members having lower portions constituting back legs and
means cross connecting said members,
a back having
means mounting it on the back frame,
a seat,
lower horizontal members
laterally spaced and extending forwardly from said back legs, and
supporting the seat and projecting forwardly materially beyond the seat and provided with handles at their forward ends,
first brackets
on respective back legs and
having means pivotally connecting the rear ends of the horizontal members to respective legs immediately forwardly thereof,
forward legs
disposed outside of and proximate to respective lower horizontal members and
extending materially above said lower horizontal members and
having means below the seat for connecting said forward legs to each other,
means for pivotally connecting an intermediate portion of each forward leg to the proximate lower horizontal member
upper horizontal members constituting arms and
having forward portions extending across the tops of respective forward legs and engaged therewith when the chair is erected and
having intermediate portions disposed outside of and proximate to respective upright members of the back frame, and
having rear portions projecting materially rearwardly of the back frame and constituting handles
means for pivotally connecting intermediate portions

of said upper horizontal members to proximate upright members of the back frame, and

bracket means

connected with upper end portions of the respective forward legs, and

having portions extending rearwardly of said legs and

provided with means for pivotally connecting respective upper horizontal members to said rearwardly extending bracket portions,

each upper horizontal member overlying and abutting the upper end of a respective forward leg in the erected chair to limit one relative direction of pivotal movement between the upper horizontal member and the respective forward leg, and

brace means

releasably bracing the upper horizontal members against another relative direction of pivotal movement respecting the forward legs

said forward and rearward legs and upper and lower horizontal members being collapsible toward parallelism upon release of said brace means.

2. A folding chair according to claim 1 wherein said brace means includes

a pair of links at each side of the chair

each pair of links including links in stop-hinge pivotal connection with each other and in pivotal connection respectively with an upper horizontal member and an adjacent forward leg,

each upper horizontal member having a handle forwardly of the forward leg which it overlies.

References Cited in the file of this patent

UNITED STATES PATENTS

D. 186,506	Rosenberg	Nov. 3, 1959
185,444	Hermann	Dec. 19, 1876
545,695	Jamme	Sept. 3, 1895
567,524	Wagner	Sept. 8, 1896
865,006	Bensinger	Sept. 3, 1907
1,208,127	Frank	Dec. 12, 1916
2,812,801	Heyman	Nov. 12, 1957

FOREIGN PATENTS

993,210	France	July 18, 1951