Sept. 13, 1966 A. M. DILLMAN 3,271,796

STRETCHER CHAIR

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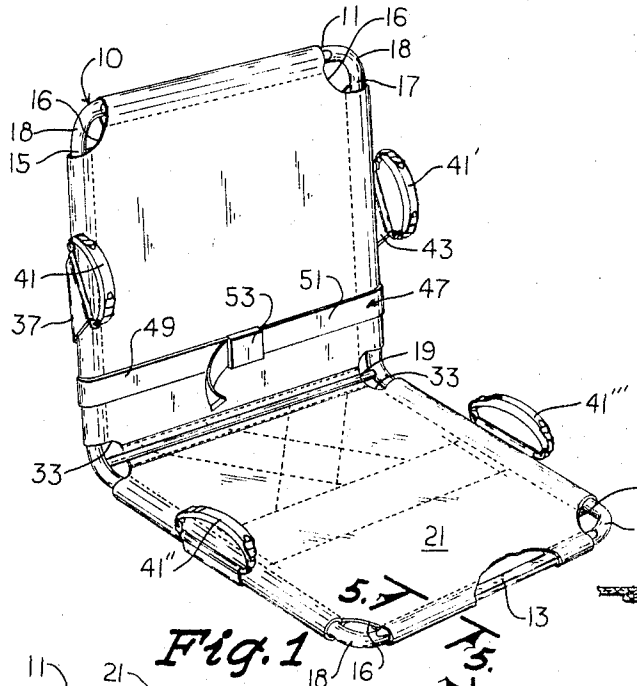

Fig. 1

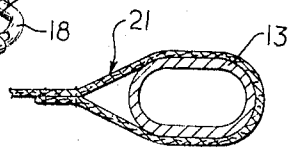

Fig. 5

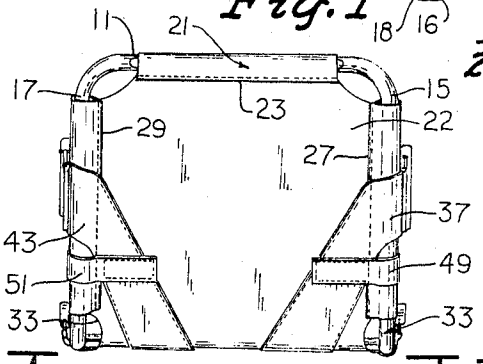

Fig. 2

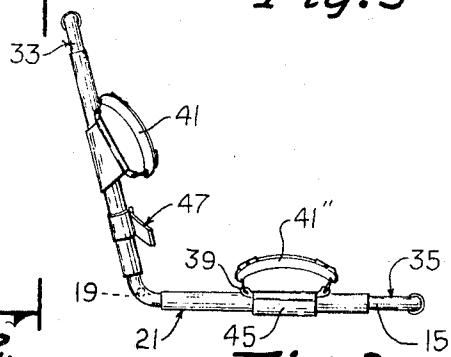

Fig. 3

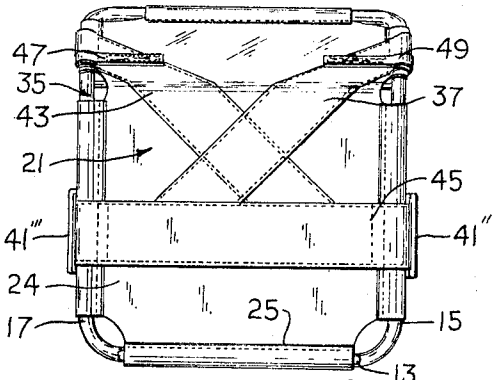

Fig. 4

INVENTOR
AVIS M. DILLMAN
BY
Duck & Zarley
ATTORNEYS

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STRETCHER CHAIR

Avis M. Dillman, 911 W. 3rd, Indianola, Iowa

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This invention relates to a stretcher and more particularly to a stretcher chair.

It is very difficult to move invalid persons from one place to another. Wheel chairs are frequently used but the invalid must be grasped and placed therein. The invalids are frequently injured during this procedure and always become tired due to the handling of them. If the invalid is to be transported for any distance they will usually be placed in a wheel chair and wheeled to an automobile, removed from the wheel chair and placed in the automobile, driven to their destination where they are removed from the automobile and once again placed in the wheel chair, wheeled to the final location and then removed from the wheel chair and placed in a chair. Each time the invalid was moved during this procedure it was necessary to grasp his person to facilitate the moving. This procedure is tiresome and unsatisfactory at best. As stated before, the invalid becomes extremely tired and is likely to be injured during the process.

Another difficulty which is encountered in the moving process is that it is frequently difficult to move the invalid in narrow hallways and around corners.

Therefore it is a principal object of this invention to provide a stretcher chair which permits an invalid person to be easily moved.

It is a further object of this invention to provide a stretcher chair which has a safety belt secured thereto.

It is a further object of this invention to provide a stretcher chair which may be carried from the opposite side thereof or from the ends.

It is a further object of this invention to provide a stretcher chair which will conveniently fit into a wheel chair.

It is a further object of this invention to provide a stretcher chair which will conveniently fit into an automobile without removing the invalid therefrom.

A further object of this invention is to provide a stretcher chair which permits an invalid to be left thereon in a sitting position when the invalid is being moved.

A further object of this invention is to provide a stretcher chair which is lightweight.

A further object of this invention is to provide a stretcher chair which is safe to use.

It is a further object of this invention to provide a stretcher chair which permits an invalid to be left thereon for unlimited periods of time without discomfort.

A still further object of this invention is to provide a stretcher chair which is durable in use, refined in appearance and economical of manufacture.

These and other objects will be apparent to those skilled in the art.

This invention consists in the construction, arrangements, and combination of the various parts of the device, whereby the objects contemplated are attained as hereinafter more fully set forth, specifically pointed out in the claims, and illustrated in the accompanying drawings, in which:

FIG. 1 is a perspective view of the device;

FIG. 2 is a back view of the device as seen on line 2—2 of FIG. 3;

FIG. 3 is a side view of the device;

FIG. 4 is a bottom view of the seat portion of the device as seen on line 4—4 of FIG. 2; and

FIG. 5 is a sectional view of the device as seen on line 5—5 of FIG. 1 at an enlarged view and illustrating the somewhat flattened end portions of the device.

The numeral 10 generally designates a tubular frame having end portions 11 and 13 and opposite side portions 15 and 17. The end portions 11 and 13 are flattened so that they have a longitudinal axis that is parallel to the back and seat portions later to be described.

The juncture of the respective side portions with the end portions of frame 10 are curved to provide a handhold 18 at each of the corners of frame 10. A cross brace 19 extends between side portions 15 and 17 intermediate their length and is secured thereto by welding or the like.

A substantially rectangular flexible cover 21 having end portions 23 and 25 and opposite side portions 27 and 29 is secured to frame 10 by extending end portions 23 and 25, and side portions 27 and 29 over and around end portions 11 and 13 and side portions 15 and 17 of frame 10 respectively and stitching therethrough as illustrated in FIGS. 2, 4 and 5. The corners of cover 21 are provided with cutaway areas 16 to provide access to hand holds 18 on the four corners of frame 10. Cover 21 also has cutaway areas 33 at each of its opposite sides to facilitate the passing of cover 21 beneath cross brace 19 as illustrated in the drawings. Cross brace 19 not only lends strength to the device but also serves to keep the cover tight on frame 10.

Frame 10 is bent along its opposite sides at the point where cross brace 19 extends therebetween to form a back frame member 33 and a seat frame member 35. It is desired that the angle between back frame member 33 and seat frame member 35 be approximately at 105 degrees but this angle may be varied from 95 to 115 degrees.

A strap member 37 is secured to the back surface of cover 21 by stitching and extends diagonally downwardly from side 15 along the back surface of back portion 22 and seat portion 24 as illustrated in FIGS. 2 and 4. The upper end of strap 37 extends outwardly from side 15 and is looped around an arm member 39 of handle means 41 and is stitched back upon itself.

A strap 43 is secured to the back surface of cover 21 by stitching and extends diagonally downwardly from side 17 along the back surfaces of back portion 22 and seat portion 24 and has its forward end terminating rearwardly of end portion 13 of frame 10. It can be seen from FIG. 4 that the straps 37 and 43 cross adjacent their forward ends. A handle means 41′ is secured to the upper free end of strap 43 in identical fashion as handle means 41 was secured to strap 37.

A strap 45 is secured to the bottom surface of seat portion 24 rearwardly of end portion 13 and parallel thereto by stitching. The outer free ends of strap 45 have handles 41″ and 41‴ secured thereto in the manner described above.

A safety belt 47 having belt members 49 and 51 is secured to the device by means of one end of each of belt members 49 and 51 being stitched or riveted to the back surface of back portion 22 at a point upwardly from cross brace 19 as illustrated in FIG. 2. Belt member 49 has a conventional safety belt buckle 53 on its other end and is adapted to receive the free end of belt member 51 as illustrated in FIG. 1.

The normal method of operation is as follows. An individual is placed on the device in a normal sitting position. Seat belt 47 may or may not be secured as desired. If used, seat belt 47 will maintain the person thereon. Two persons will normally carry the person on the device but as many as four persons could do so if desired. One person could grasp handle means 41 in his left hand and grasp handle means 41″ in his right hand. The other per-

son could grasp handle means 41' in his right hand and grasp handle means 41''' in his left hand.

An alternate method of carrying the device would be for a person to grasp hand holds 18 on end 13 and another person grasp hand holds 18 on end 11. This alternate means of carrying would allow the person to be carried in narrow passageways and around sharp corners.

The invalid can be left on the device indefinitely as it will fit into a wheel chair, pew or automobile without removing the invalid therefrom. This permits the invalid to be moved from residence to auto to destination without being excessively handled during the process.

Additional padding could be provided on the device for further comfort if so desired. The flattened end portions 11 and 13 add to the comfort of the invalid as a more flat surface will be in engagement with the person's back and leg.

It should be noted that the various handles and straps described are placed in such a manner as to provide maximum safety and ease of carrying. The straps are so placed on the device so that the carried person will be substantially balanced thereon.

It is preferred that frame 10 be constructed of tubular aluminum or stainless steel. Cover 21 could be constructed of any suitable material such as cloth, plastic, rubber, etc.

Thus, from the foregoing it can be seen that the device will accomplish all of its stated objectives.

Some changes may be made in the construction and arrangement of my stretcher chair without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claims, any modified forms of structure or use of mechanical equivalents which may be reasonably included within their scope.

I claim:

1. In a chair for carrying a person in a sitting position,

a frame having elongated spaced apart side members and spaced apart end members extending therebetween,

a cross brace secured to and extending between said side members along their length parallel to said end members,

said frame having each of its side members bent adjacent the juncture of said side members with said cross brace to form a substantially U-shaped horizontal frame member and a substantially U-shaped inclined frame member extending upwardly therefrom,

a substantially rectangular cover on said frame having a seat portion with top and bottom surfaces mounted on said horizontal frame members and having a back portion with front and back surfaces mounted on said inclined frame member,

a first strap secured to the bottom surface of said seat portion adjacent one side thereof extending diagonally thereacross and thence diagonally upwardly of said back portion; said first strap having its upper end extending outwardly of one of said side members at a point between said cross brace and one of said end members,

a second strap secured to the bottom surface of said seat portion adjacent the other side thereof extending diagonally thereacross and thence diagonally upwardly across the back surface of said back portion; said second strap having its upper end extending outwardly of the other side member at a point between said cross brace and said one of said end members,

a third strap secured to and extending across the bottom surface of said seat portion between said cross brace and the other end member and parallel thereto; said third strap having each of its ends extending outwardly of said side members,

and a handle means secured to the upper ends of each of said first and second straps and to each of the ends of said third strap.

2. The device of claim 1 wherein a safety belt means is secured to said back portion adapted to maintain said person on said chair in a sitting position.

3. The device of claim 1 wherein said cover has each of its corners cut away to permit a portion of said frame to protrude therefrom; said protruding portions of said frame serving as a hand hold.

4. The device of claim 1 wherein each of said end members are tubular and are flattened to form a cross-sectional longitudinal axis which is substantially parallel to the side members adjacent thereto.

5. The device of claim 1 wherein said handle means are disposed at a right angle to each of their respective straps with respect to the longitudinal axis thereof.

6. The device of claim 1 wherein said cover extends beneath and behind said cross brace with respect to said seat and back portions respectively.

7. The device of claim 1 wherein the angle between said horizontal frame member and said inclined frame member is an obtuse angle greater than 95° but less than 115°.

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FRANK B. SHERRY, *Primary Examiner.*

R. D. KRAUS, *Assistant Examiner.*