

Oct. 12, 1937.

E. I. ALLEN
MULTIPLE CAMP CHAIR
Filed Aug. 17, 1935

2,095,625

2 Sheets-Sheet 1

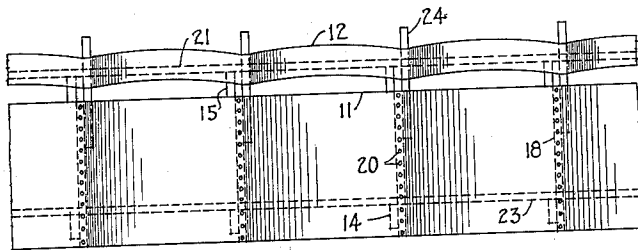


FIG. 3

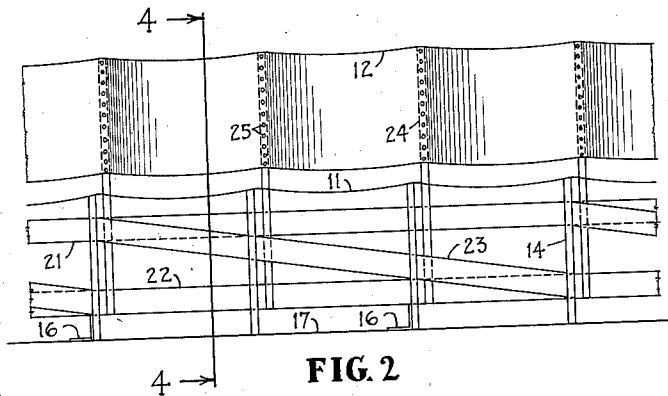


FIG. 2

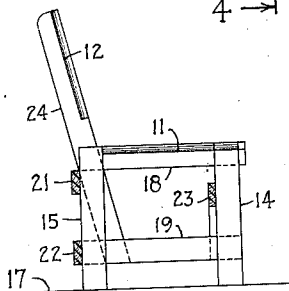


FIG. 4

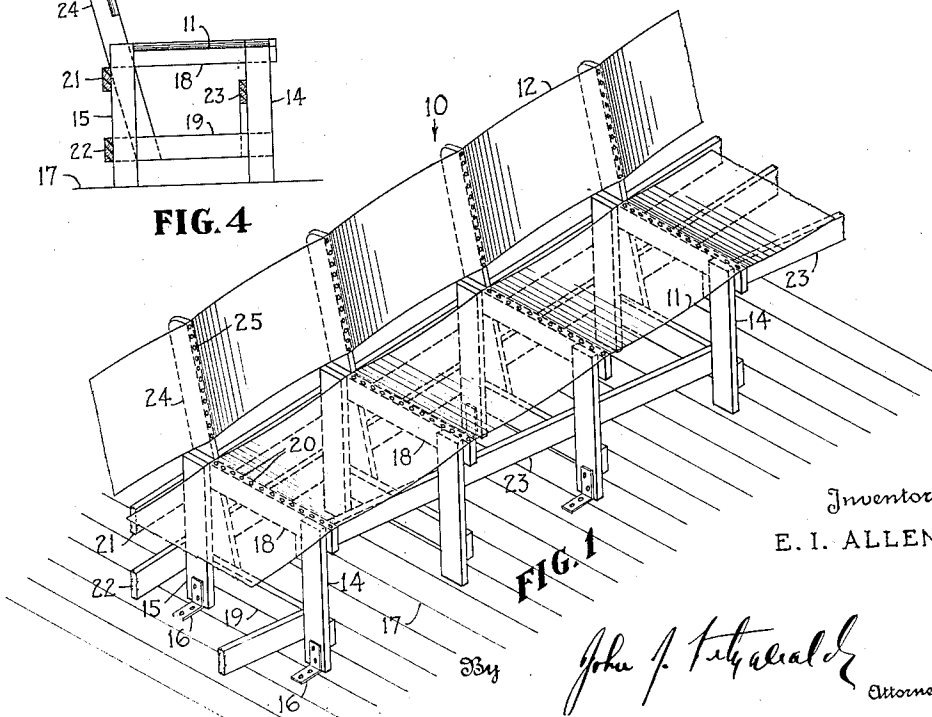


FIG. 1

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2 Sheets-Sheet 2

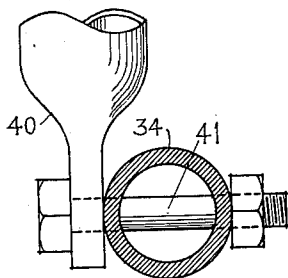


FIG. 9

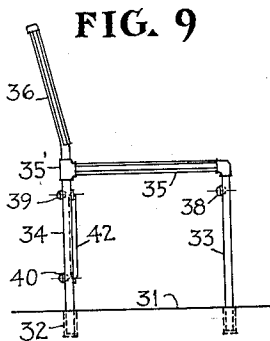


FIG. 8

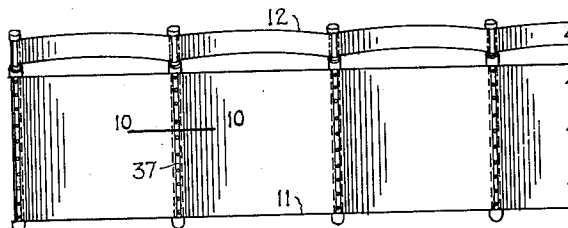


FIG. 7

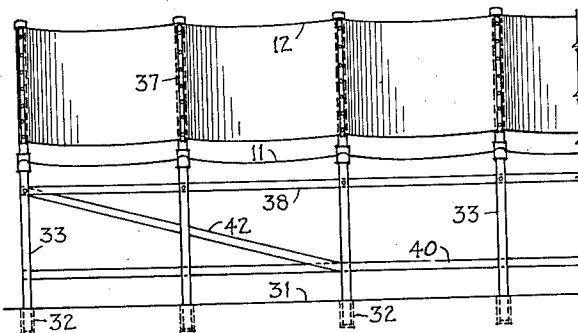


FIG. 6

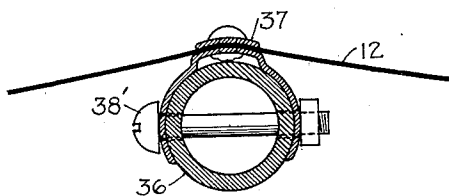


FIG. 10

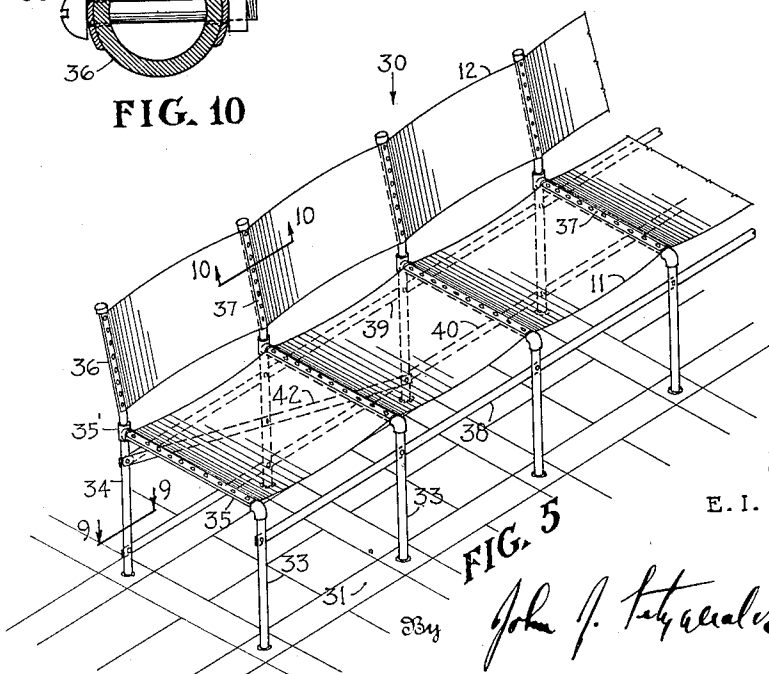


FIG. 5

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UNITED STATES PATENT OFFICE

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MULTIPLE CAMP CHAIR

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Application August 17, 1935, Serial No. 36,745

3 Claims. (Cl. 155—191)

This invention relates to an assembly seat and has for an object to provide an improved assembly seat which is intended for use in an auditorium, armory, or other available floor space and which may be quickly and inexpensively set up or removed from operation position.

At the present time it is usually customary to provide collapsible camp chairs or other similar seating assemblies when it is desired temporarily or more or less permanently to use a large floor or open space such as the inside of an armory, auditorium, deck of a ship, or the like, for assembly purposes. Such arrangements are usually unsatisfactory in that the separate seats are apt to be easily disarranged and, further, apt to prove noisy in use, thereby interfering with the intended assembly use thereof. Furthermore, such temporary seats as are provided are usually hard backed and provided with hard seats, making the same obviously uncomfortable and non-form fitting.

With this invention, however, it becomes possible to provide an assembly seating arrangement which may be easily and inexpensively used for converting a floor to an assembly hall and which, furthermore, provides a flexible or soft form fitting seat and seat back which are comfortable and at the same time silent in use. The seating arrangement of this invention is such that it may be quickly and easily made up from raw lumber by any carpenter in one form and in another form may be fashioned of pipe or other shaped metal sections so that it may be quickly and easily assembled or disassembled as desired. It is available for repeated use and requires less storage space than folding chairs. Variety in leg height is easily arranged and gives the effect of banking or ramping on a flat surface. The assemblies being made up in groups of as many seats as desired, they become rows or benches and consequently more uniform and stable.

With the foregoing and other objectives in view as will herein become apparent, this invention includes the combinations and arrangements of parts hereinbefore disclosed, claimed, and illustrated in the accompanying drawings, wherein;

Fig. 1 is an isometric view of one form of the assembly seats of this invention.

Fig. 2 is a front plan view of Fig. 1.

Fig. 3 is a top plan view of Fig. 1.

Fig. 4 is an end view on line 4—4 of Fig. 2.

Fig. 5 is an isometric view of another form of the assembly seats of this invention.

Fig. 6 is a front plan view of Fig. 5.

Fig. 7 is a top plan view of Fig. 5.

Fig. 8 is an end plan view of Fig. 5.

Fig. 9 is a section on line 9—9 of Fig. 5.

Fig. 10 is a section on line 10—10 of Fig. 7.

There is shown at 10 an assembled row of seats of this invention which, as will be observed, may be constructed by a carpenter out of ordinary plank lumber. The seats 10 include a strip of canvas forming the successive seats 11 and another strip of canvas forming the successive seat backs 12 which are mounted on a framework. This framework includes a pair of vertical front and rear legs 14 and 15 which may be secured by brackets at 16 to the floor surface 17, or which may be fastened directly to the floor without brackets. A seat rail 18 is secured to the tops of each pair of legs 14 and 15, the simplest way of doing this being to fasten them flat against the sides of the legs as shown. The seat rails 18 carry the canvas seat strip 11 which is tacked and glued to the upper edge thereof as at 20 although any other means of securing strip 11 to the seat rail 18 may be provided. If additional surface for securing the canvas seat strip 11 is desired, it may be provided by doubling the seat rails 18, placing one on each side of each pair of legs 14 and 15. Each pair of legs 14 and 15 is further secured together by a rung or brace 19 secured to them near their lower ends, although this rung or brace may be omitted, if desired, in view of the fact that the lower ends of the legs 14 and 15 may be secured to the floor as described above.

It will be observed that there is a slight amount of slack in seat strip 11 between the cross beams 18 whereby the seat strip 11 will be form fitting and provide a suitable seat between the upper cross beams 18. In construction the canvas is stretched tightly, and this slack takes place as the material stretches in use. To assist in holding the vertical legs 14 and 15 in upright positions, the rear leg 15 is provided with a pair of upper and lower brace members 21 and 22 fastened across the back thereof and extending between successive rear vertical legs 15 for the entire length of the assembled seats. The lower brace may be omitted, if not desired as a foot rest for the next row of seats in back of it. The front legs 14 may be reinforced by sway braces 23 which, it will be observed, are secured across the rear of the front vertical legs 14 and may extend across four vertical legs and serve as a brace for three complete seats, the next angular brace 23 being secured to the upper part of that leg 14 which has secured thereto the lower part of the first mentioned angular brace 23.

As thus described, a canvas bench of indefinite length may be provided which is adequately braced and provides an individual seating space between each pair of upright legs, which seating space, formed by the canvas strip 11, is form fitting and comfortable. There is also provided similar comfortable seat backs by securing a support 24 to the rung or brace 13 or to the floor and to the rear of the seat rail 10. The support 24 extends above brace 18 to act as a securing means for the seat back canvas strip 12 which is secured thereto by tacks or other suitable securing means 25.

In the form of the invention just described it will be observed that the entire device may be quickly and simply assembled by any carpenter of average skill and that when the necessity therefor disappears, either temporarily or permanently, the seats may be quickly and easily disassembled and removed from the floor 17. It will be further observed that the bracket 16, although secured to the legs 14 and 15, need not have any attaching means to the floor 17 and may rest thereon and remain in operative position while in use without the necessity of being secured to the floor 17, inasmuch as the seats are adequately braced and secured together, for these brackets may be omitted without sacrificing rigidity.

In another form of this invention, shown in Figs. 5-10, inclusive, the assembly seat 30 utilizes the same canvas seat strips 11 and canvas seat back strips 12, but instead of having a framework of wood, the framework is formed of pipe or other metal sections as shown. In this case the floor 31 may be provided with sockets 32 to receive the lower ends of the metal sections, or flanges on the lower ends may be secured to the floor. The sockets 32 when not in use for receiving the metal ends are to be filled with closure plugs so as to restore the floor surface when the assembly seats are not in position thereon. The framework includes a front leg metal section 33 and a rear leg metal section 34, the front leg metal section 33 being attached to an intermediate portion of the rear leg by means of a horizontal cross member 35 and a T-joint 35'. The rear leg 34 extends parallel to the front leg 33 for a height equal to the height of the front leg 33 and then is bent backwards at a slight angle as at 36, so as to act as a support for receiving the canvas seat back strips 12. The canvas strips 12 and similarly the canvas strips 11 are secured to their supporting members by any suitable means. A clamp member 37 is here shown as being secured as at 38 to the section 36 of the vertical leg 34 and is adapted to clamp the canvas strip 12 therein, a similar or other suitable arrangement being provided with the canvas seat strip 11. In this form, the front

legs 33 are provided with horizontal brace members 38 while the rear legs 34 are provided with a pair of upper and lower horizontal brace members 39 and 40, suitably secured thereto as by bolts 41. The lower horizontal brace may be omitted without detriment, if lower ends of legs 34 are fastened to the floor. An additional angular brace member 42 may be provided extending between any or every pair of adjacent seats as a sway brace or stiffener.

The invention described herein may be manufactured and used by or for the Government of the United States of America for governmental purposes, without the payment of any royalty thereon.

I claim:

1. A chair comprising a pair of seat rails at the sides of the chair, front and rear legs secured to and extending down from said seat rails, back members secured to said seat rails and said back legs at their juncture and extending above and below said seat rails at an angle to said back legs, a flexible seat secured to and extending between said seat rails, a flexible back secured to and extending between said back members above said seat rails, laterally extending braces securing said front legs together and securing said rear legs together, and horizontally extending rigid means spaced from and below the seat rails and secured to the back and front legs and to the lower parts of the back members, said rigid means forming rigid triangular structures with said back legs and said back members and thereby rigidly bracing said chair against backward or forward deformation.

2. A chair frame comprising a narrow board extending up to form a back member and having its sides lying in vertical planes, a second narrow board secured flat against one of the sides of the first board at an intermediate point thereof and extending forward substantially horizontally to form a seat rail, a third narrow board extending down from the juncture of the first and second boards and in back of and at an angle to said back member, said third board being secured flat against a side of one of the first two boards and forming a back leg, a fourth narrow board extending down from the seat rail near its forward end to form a front leg, and rigid means spaced from and below the seat rail and having the back and front legs and the lower part of the back member secured thereto, said rigid means forming a rigid triangular structure with said back leg and said back member and thereby making the entire frame rigid.

3. A chair frame as described in claim 2 in which said rigid means is a rung secured to said legs.

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