Dec. 26, 1933. L. DELLERT 1,941,340

NESTABLE CHAIR

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Fig. 2.

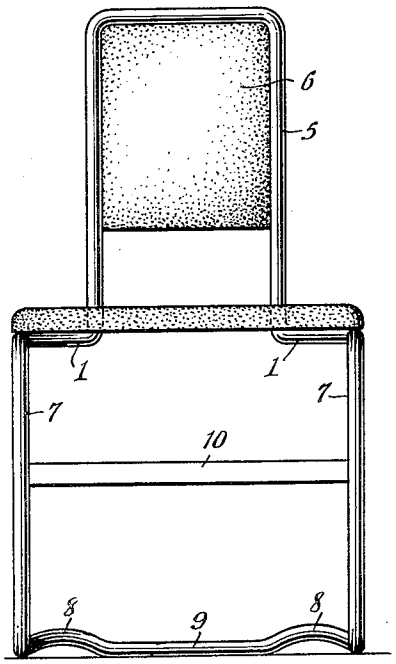


Fig. 1.

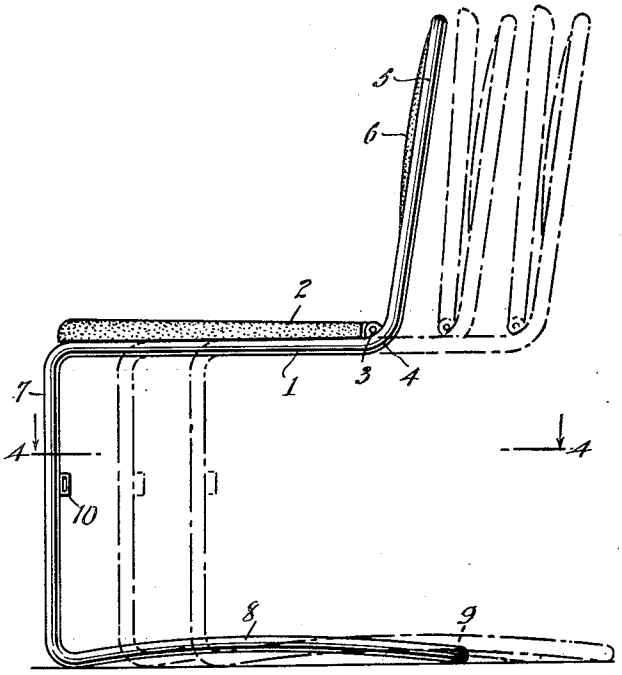


Fig. 3.

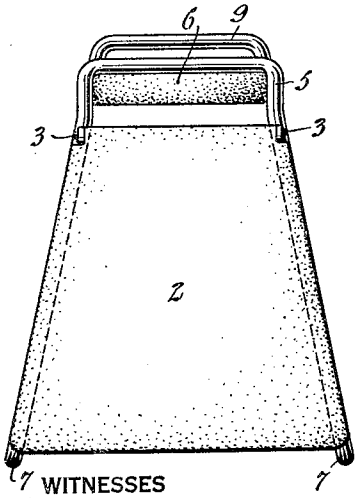
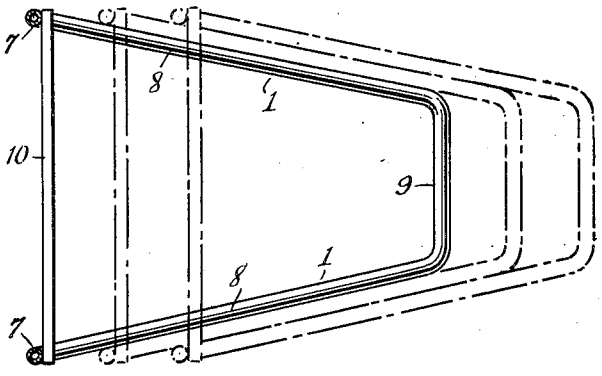


Fig. 4.



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NESTABLE CHAIR

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Fig. 6.

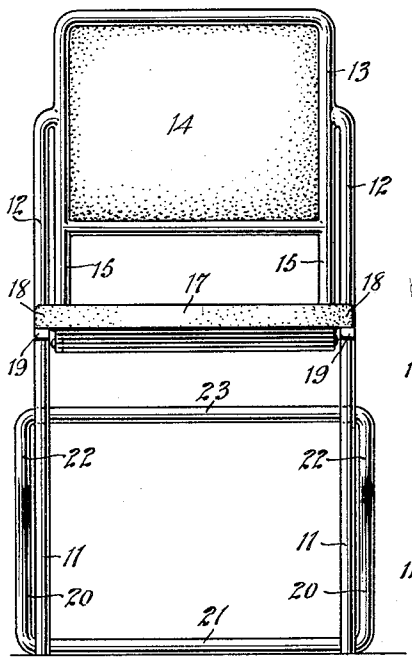


Fig. 5.

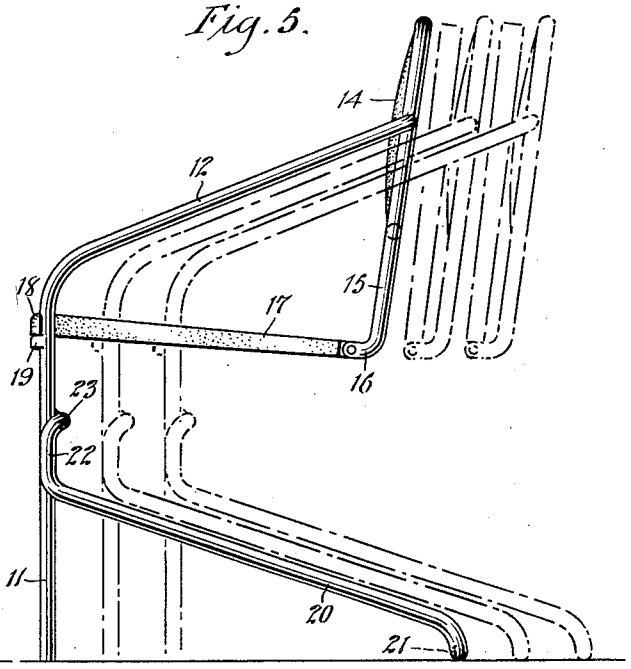


Fig. 7.

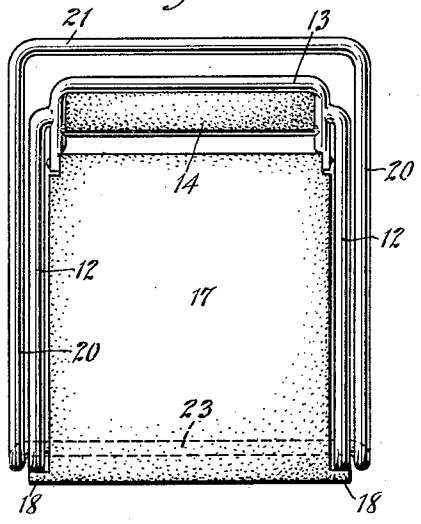
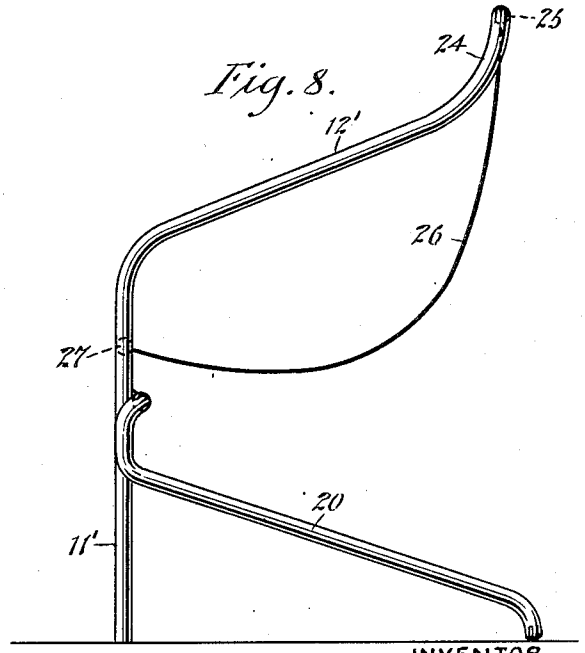


Fig. 8.



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NESTABLE CHAIR

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Fig. 9.

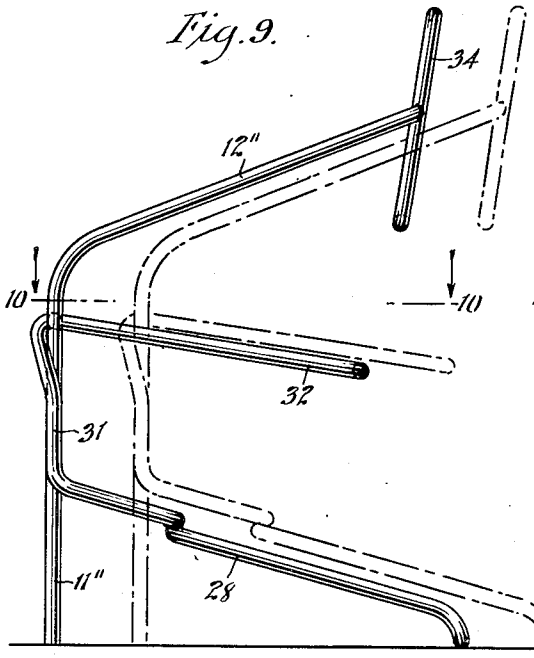


Fig. 12.

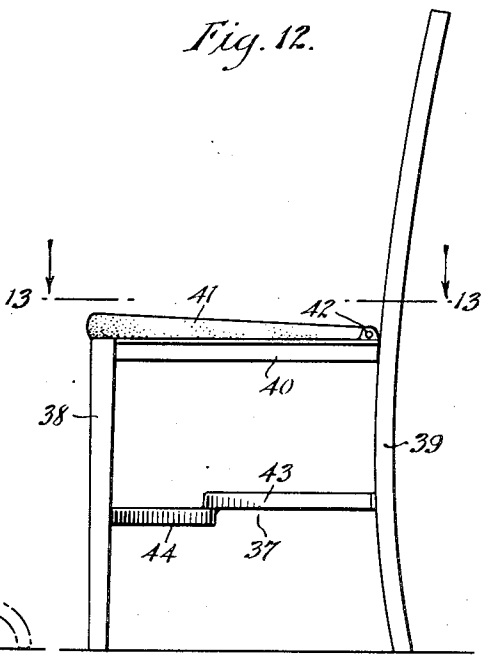


Fig. 10.

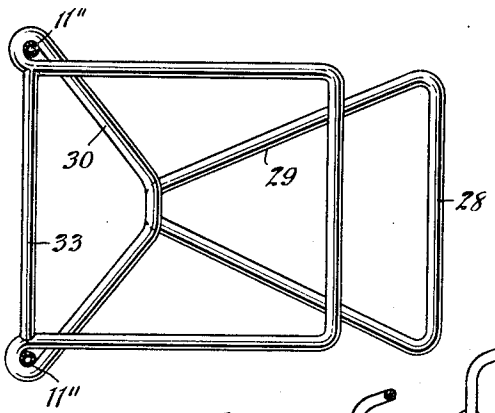


Fig. 13.

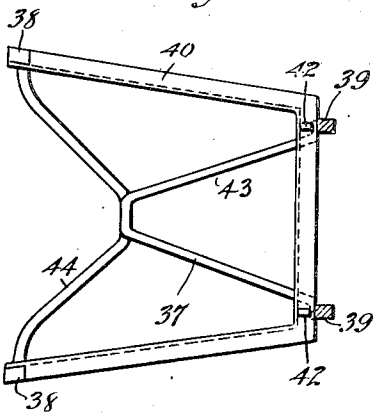
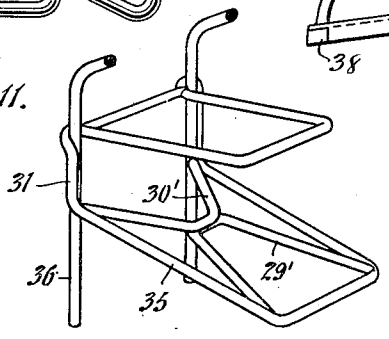


Fig. 11.



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UNITED STATES PATENT OFFICE

1,941,340

NESTABLE CHAIR

Louis Dellert, Brooklyn, N. Y.

Application September 29, 1931
Serial No. 565,847

7 Claims. (Cl. 155—2)

This invention relates to chairs, and particularly to chairs which may be readily nested, the object being to provide a chair which may be nested by movement in a horizontal direction.

Another object of the invention is to provide a nestable chair which may be nested in a horizontal direction and which is an improvement over my prior Patent No. 1,758,826.

An additional object is to provide chairs capable of being nested in a horizontal direction, the chairs being provided with a rung or brace of substantially X-shaped design with the brace so arranged as to permit the occupant of the chair to swing his feet to a position under the chair.

An additional object is to provide an improved nestable chair wherein two or more chairs may be nested without lifting from the floor and without removing or raising the seat section.

In the accompanying drawings—

Figure 1 is a side view of a chair disclosing an embodiment of the invention, the figure including a plurality of chairs in dot-and-dash lines arranged in nested position.

Figure 2 is a front view of the chair shown in Figure 1.

Figure 3 is a top plan view of the chair shown in Figure 2.

Figure 4 is a horizontal sectional view through Figure 1 on line 4—4.

Figure 5 is a side view of a modified form of chair to that shown in Figure 1.

Figure 6 is a front view of the chair shown in Figure 5.

Figure 7 is a top plan view of the chair shown in Figures 5 and 6.

Figure 8 is a side view of a modified form of chair to that shown in Figure 5.

Figure 9 is a side view of a further modified form of chair to that shown in Figure 5.

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

Figure 11 is a fragmentary perspective view of a chair showing a slightly modified structure to that illustrated in Figure 9.

Figure 12 is a side view of a further modified form of chair.

Figure 13 is a sectional view through Figure 12 on line 13—13, the seat being removed.

Referring to the accompanying drawings by numerals, 1 indicates what may be termed the seat section on which a seat 2 is mounted, said seat being hingedly connected by suitable hinge 3. As illustrated in the drawings, the section 1 is made from two tubes bent at point 4 so as to provide an inverted U-shaped back 5 having suitable filling and padding 6. From Figure 4 it will be noted that the section 1 tapers from the front to the rear and in the rear merges into the back 5 and at the front is bent downwardly and merges into the front legs 7, which legs in turn merge into rearwardly extending bars 8, said bars being curved as illustrated in Figure 1 and joined with the connecting bar 9 at the rear. In order to assist bar 9 in holding the legs 7 properly spaced, a cross bar 10 is welded to the legs midway of their height. By reason of the taper, the seat section 1 and a corresponding formation of other parts including a taper of the bars 8, a number of identical chairs may be readily nested as illustrated in Figures 1 and 4. The chairs may be moved longitudinally into nested position without being lifted from the floor. They may be disengaged by reverse movement. It will be noted that chairs may be nested in either of two directions by merely allowing one chair to rest stationary and then moving chairs at the front or the rear to nest therewith. In fact, a number of chairs may be nested simultaneously from the front and rear. When nesting the chairs, the seats 2 will naturally be swung upwardly into contact with the padding 6.

In Figures 5, 6 and 7, a modified form is shown wherein the respective legs 11 extend upwardly and merge into arms 12 which are welded to a back frame 13 carrying a suitable pad 14. The back frame 13 has extensions 15 which are preferably formed with forwardly bent sections 16 as shown in Figure 5 to which the seat 17 is hingedly connected. The seat 17 is provided with lateral extensions 18 adapted to rest on the lugs 19 which are welded or otherwise secured to legs 11. Combined braces and legs 20 are provided and supplied with a rear connecting bar 21, vertically arranged sections 22 and a connecting transverse bar 23. The sections 22 are preferably welded to the legs 11 while the braces 20 are inclined downwardly as illustrated in Figure 5 whereby a number of chairs may be readily nested without being lifted from the floor. When nesting two or more chairs, the seats 17 are naturally raised to a point in contact with the cushion or pad 14.

In Figure 8, a chair is shown which is a modification to that shown in Figure 5. The legs and arms and braces 20 are the same as shown in Figure 5, but the arms 12′ merge into curved shaped portions 24 and a top bar 25 to which a canvas or other fabric seat 26 is secured. The seat 26 is made of any desired fabric secured in any desired way to bar 25 and also to a bar 27 which is welded to the respective legs 11′. This chair may, of course, be readily nested as the seat 26 may be raised as the successive chairs are moved to a nested position.

Figures 9 and 10 show another form of the invention wherein the same general idea of nesting is carried out but with an X-shaped brace 28 instead of the straight brace 20 as shown in Figures 5 and 8. The X-shaped brace 28 is formed triangular in shape from suitable tubing 29 which is welded to the section 30, which sec-

tion merges into vertical sections 31 and then into the seat section 32 which is fixed or rigid in regard to legs 11'' and slope downwardly and rearwardly to permit easy nesting. The section 30 overlaps or is mounted on top of the end of section 29, thus permitting the braces to properly nest. The bracing rod 33 is welded at its ends to the front of the seat section 32 and as the parts are looped around the respective legs 11'', the legs are properly held spaced while the seat frame is properly supported. The legs 11'' merge into arms 12'' which in turn merge into a rectangular back frame 34. It will be noted that the rear bar of the section 29 and, in fact, the entire section is not quite as wide as the distance between the legs 11'' so that the legs of the succeeding chairs being nested may readily slide past until the second chair has been moved to substantially the position shown in dot-and-dash lines in Figure 9, without lifting the chairs or raising the seat.

In Figure 11, a slightly modified form to that shown in Figure 9 is disclosed. In this form, the same structure as shown in Figure 9 is used except that the respective sections 31 merge into a U-shaped brace 35 and the members 29' and 30' are welded to this U-shaped frame. The structure 30' is welded to the upper part of the section 29' and also to frame 35 and legs 36.

In Figures 12 and 13, a slightly different form of chair is shown, but the same X-shaped brace 37 is used. In the structure shown, these two figures are provided with front legs 38 and rear legs 39, the front legs being spaced further apart than the rear legs and connected thereto by seat frame 40 and by the X-shaped brace 37. The seat 41 is hingedly connected at 42 to the frame 40 and is adapted to be swung upwardly out of the way when two or more chairs are nested. It is to be noted that in this form of the invention, the chairs are nested from the front and that the respective braces 35 fit over each other while the respective frames 40 fit together, one within the other. Also the section 43 of one chair will straddle in the same horizontal plane the same section of another chair while the respective sections 44 will telescope one within the other in a similar manner to the frame 40, thus permitting a good nesting action after the seat has been raised. This nesting operation takes place without raising the chair from the floor.

It will be noted that in all the forms of the invention, the chairs may be nested without lifting the same from the floor and when nested will occupy a minimum of space but permit ready removal by movement in a horizontal direction. In this way, the chairs may not be lifted and consequently will not be scarred or injured as they are nested or disassembled.

I claim:

1. A nestable chair including a pair of spaced front legs merging at the upper ends into upwardly and rearwardly extending arms, a back connecting the rear and upper ends of said arms together, a seat frame connected to said front legs adjacent the upper ends thereof, a front bar connecting the front portion of said frame, and a bracing structure connecting the front legs merging into downwardly and rearwardly inclined braces having their lower ends in the same plane as the lower ends of said front legs, the downwardly extending position of said braces and the upwardly extending position of said arms permitting identically shaped chairs to be nested together by a horizontal movement without lifting the same from the floor.

2. A chair comprising a pair of spaced chair legs merging into upwardly and rearwardly extending arms, a back carried by said arms, a seat formed of a U-shaped member having a pair of leg members welded respectively to the respective chair legs near their upper ends, each leg of said seat merging into a downwardly and rearwardly extending brace.

3. A nestable chair including a pair of spaced legs merging into upwardly and rearwardly extending arms connected by a member acting as a back, a substantially U-shaped seat secured at the front end to said legs, said seat merging into downwardly extending sections welded to said legs, and an X-shaped brace connected to said downwardly extending sections, said brace extending downwardly and outwardly from said legs sufficiently to have the lower end in the same plane as the lower end of said legs.

4. A nestable chair comprising a pair of spaced front legs, a seat frame carried by said legs, said seat frame being inclined downwardly from the front to the rear and a substantially X-shaped brace for bracing said front legs extending downwardly and rearwardly from said legs, said brace comprising a pair of substantially V-shaped members, one point of one of the V-shaped members overlapping the apex of the other V-shaped member, said members being rigidly secured together at the point of overlapping one of said V-shaped members being formed so that one end thereof will act as rear legs.

5. A chair comprising a pair of spaced legs merging into a pair of upwardly and rearwardly extending arms, said arms merging into a back at the rear upper end thereof, a seat frame carried by said legs, a front bar secured to said seat frame near the forward part thereof and acting with the seat frame to connect said legs, and a rearwardly and downwardly extending side brace connected to each of said legs, said side braces having their lower ends in the same plane as the lower ends of said spaced legs.

6. A nestable chair including a pair of legs, a seat connected with said legs intermediate the ends thereof, and a brace connected with said legs intermediate the ends thereof, said brace being formed of two overlapping substantially V-shaped members welded together at the point of overlapping, said brace extending rearwardly and downwardly from substantially a central point on said legs to the same plane as the lower ends of said legs so as to act as rear legs, and permit chairs of identical structure to be nested without leaving the floor with the V-shaped members overlapping.

7. A nestable chair including a pair of spaced chair legs merging into upwardly extending arms formed with a connecting member acting as a back, a U-shaped seat frame carried by said legs and extending rearwardly therefrom, a front bar connected to the other part of said seat frame, the side portions of said seat frame merging into downwardly extending sections welded to said chair legs, and downwardly and rearwardly extending braces extending from each of said sections.

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