Feb. 11, 1958 J. BARUCH 2,822,585

PORTABLE FLOORS

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FIG. 1.

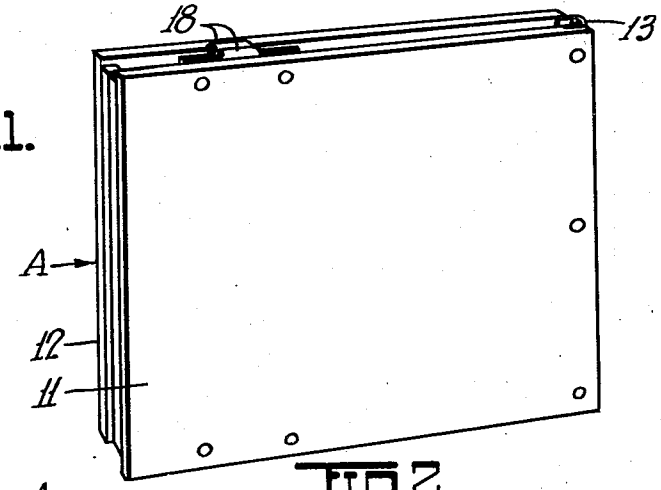


FIG. 2.

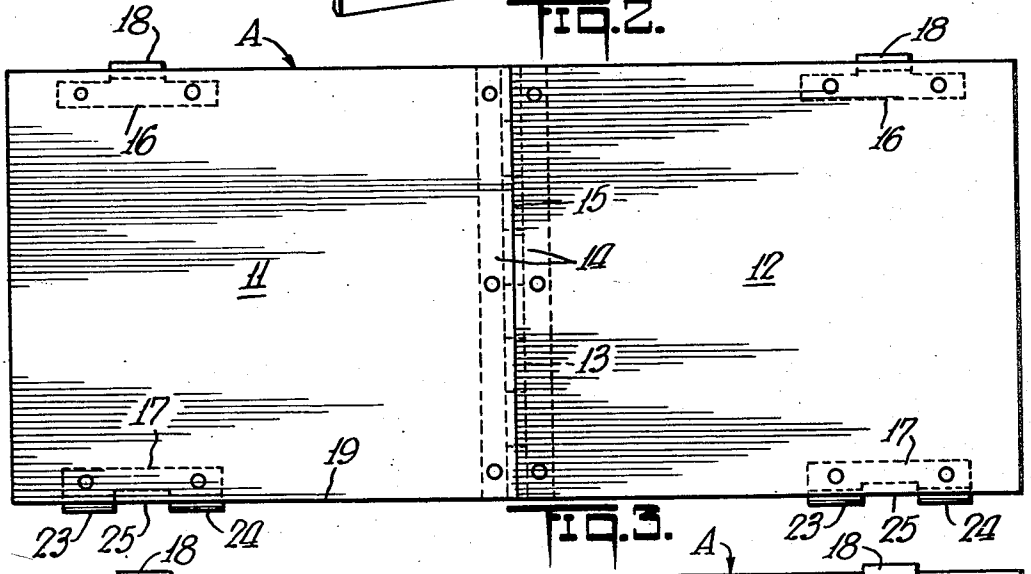
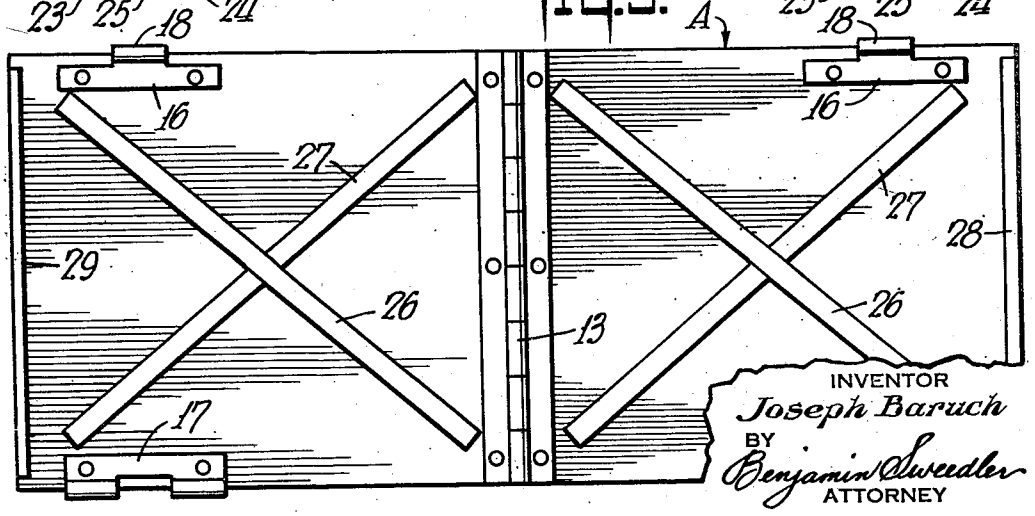


FIG. 3.



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FIG. 5.

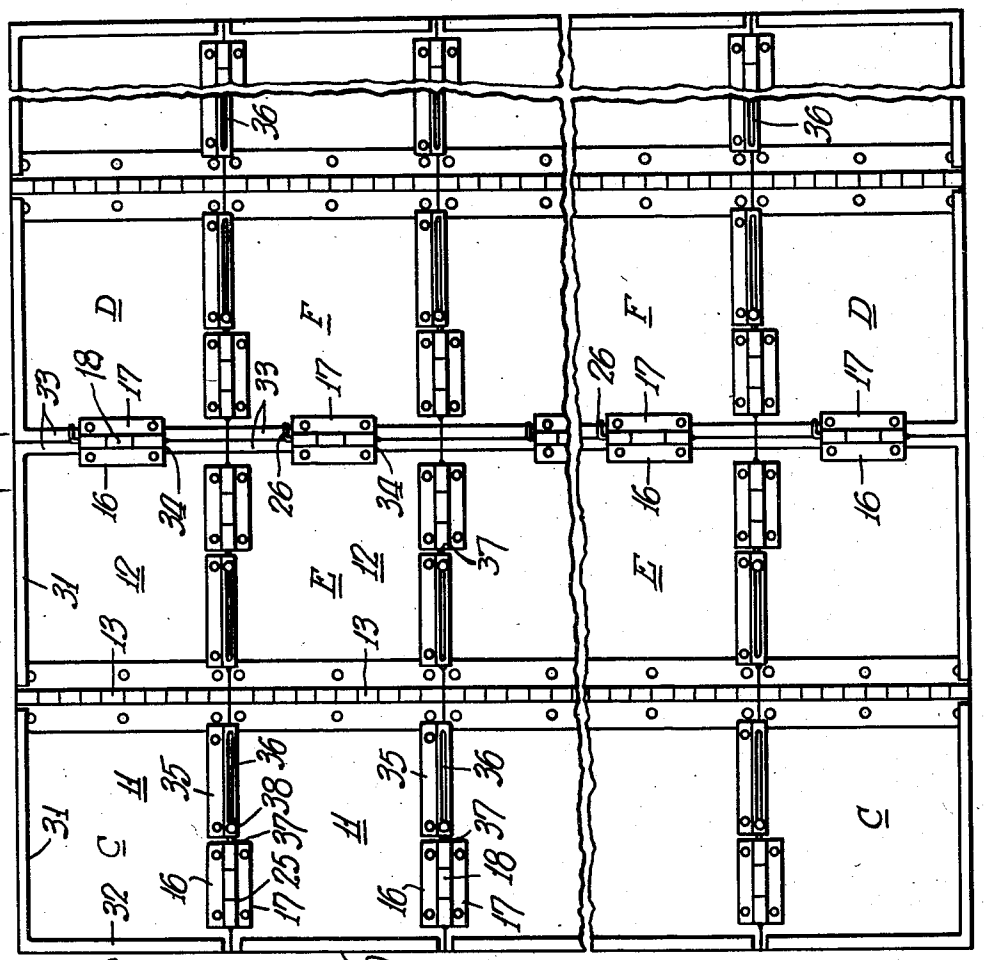
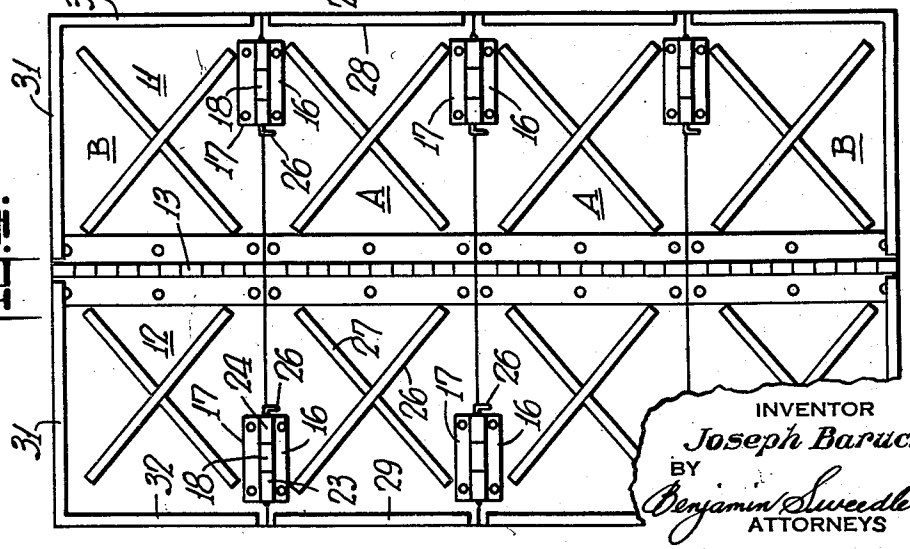


FIG. 4.



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PORTABLE FLOORS

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Application March 31, 1954, Serial No. 420,008

2 Claims. (Cl. 20—6)

This invention relates to portable floors and more particularly to portable floors suitable for use as dance floors and designed to be readily placed on and removed from carpets, rugs or other floor coverings. As indicated, a preferred embodiment of this invention is in a portable dance floor; hence the description of the invention which follows will chiefly be confined to this embodiment. However, it will be understood, the invention is not limited to this embodiment because the floor can be used for other purposes, such, for example, as a temporary floor to protect rugs, carpets, etc., against unusual wear such as would otherwise be encountered were a throng of people to congregate thereon.

It is among the objects of this invention to provide a portable floor composed of foldable sections, which in the folded condition occupy relatively little space, which sections can be readily handled, unfolded and assembled to provide a floor in which the individual parts are rigidly joined together so that the floor provides a satisfactory surface for its intended use, including use as a dance floor, which sections can readily be assembled and disassembled without the use of tools or accessory apparatus by unskilled labor, and which floor, when in place on a carpet, rug or other such surface, will not injure or damage the carpet, rug or other such surface on which it rests.

In the accompanying drawings, in which like parts are identified by the same reference characters, forming a part of this specification and showing for purposes of exemplification preferred forms of this invention, without limiting the claimed invention to such illustrative instances.

Figure 1 is a perspective view of one section of the portable floor consisting of two units in folded position;

Figure 2 is a plan view of a section in unfolded position showing the face or top of the section, i. e., the side of the section which functions as the desired dancing or other exposed surface;

Figure 3 is a plan view showing the underside of the section of Figure 2;

Figure 4 is a plan view showing a plurality of sections assembled to produce a floor, this figure shows the underside of the floor, i. e., the side that rests on the carpet, rug, or other surface on which the floor may be disposed; and

Figure 5 is a fragmentary plan view showing a modified form of floor embodying this invention. This figure shows the underside of the completed floor.

In the embodiment of the invention shown in Figures 1 to 4, inclusive, the floor is composed of two types of sections A and B respectively, A being the intermediate sections and B the sections forming the corners and ends of the floor. Each section consists of two units or panels 11 and 12 which may be of wood, plywood, Masonite or plastic tile providing a desired ornamental or other surface, such as a waxed or gliding surface forming a satisfactory dancing surface when the floor is used for this purpose. Units 11 may be dimensioned as desired depending upon the desired size of the completed floor.

In one embodiment of the invention the units have been made 2½ feet wide and 3 feet long, so that when two units are assembled to form a section, the section is 2½ by 6 feet.

Each section has the two units pivotally fastened, as by a hinge 13 suitably secured to margins 14 near side edges 15. In the embodiment of the invention shown in the drawings, the hinge 13 is disclosed as extending the full length of the side edges 15. It will be understood, however, that a hinge of a length less than that of the side edges 15 may be used, and instead of a single hinge, as shown in Figure 2, two or more hinges spaced along the side edges 15 may be employed. The hinge 13 may be of any standard type which permits folding of the units 11 and 12, so that they are disposed in parallel relation, as shown in Figure 1, forming a compact folded section occupying little space.

Sections A are all alike and are constituted of two units 11, 12 hinged together along side edges 15, as hereinabove described. Each unit 11 has fastened to its underside two brackets 16 and 17. Bracket 16 is provided with a projection 18 extending beyond the marginal edge of the unit. Bracket 17 is disposed on the opposite side 19 of each section 11, is suitably fastened to the underside of this section and is provided with two spaced projections 23, 24, each having a cylindrical bore. The space 25 between projections 23 and 24 is shaped to receive the projection 18 which also has a cylindrical bore. When the projection 18 of one unit is positioned in the opening 25 between projections 23, 24, of a contiguous unit, the cylindrical bore in projection 18 is aligned with those in projections 23, 24, so that a pin 26 (Figure 4) may be passed through the aligned bores to securely lock the unit 11 of one section to the unit 11 of a contiguous section. Throughout this specification, reference numeral 16 identifies a bracket having a projection 18 provided with a cylindrical bore and numeral 17 identifies the other type of bracket having a pair of spaced projections 23, 24 each provided with a cylindrical bore and separated by an opening 25 for receiving a projection 18 with all three bores in alignment.

Each unit 12 has fastened to its underside near the marginal edges thereof brackets 16 and 17 as shown in Figure 2.

Suitably secured to the underside of each unit 11 and 12 are diagonally extending supporting and spacing members 26 and 27. These diagonally extending members desirably are of a length somewhat less than the length of the diagonal of each unit and are positioned on the diagonals of the units terminating short of the corners thereof, as best shown in Figures 3 and 4. Sections A are also provided along the marginal side edges with narrow supporting members 28 and 29 of a depth or height equal to that of diagonal members 26, 27.

Sections B, which form the corner or end sections of the floor, as best shown in Figure 4, have fastened to, or formed integral with, the underside, along the marginal edges, narrow supporting members 31 and 32 of a depth the same as that of diagonally supporting members 26, 27 and the marginal side members 28, 29. Units 11 and 12 of each section B are provided with diagonal supporting and spacing members 26 and 27. The weight of the floor and the weight carried by the floor is supported entirely by members 26, 27, 28, 29, 31 and 32 which support the floor at a height to provide a small clearance between (*a*) the hinges 13, brackets 16 and 17 and (*b*) the rug, carpet or other surface on which the floor rests. In this way damage to such rug, carpet or other surface by the hinges, brackets and the cooperating pins 26 is minimized, if not completely prevented.

When not in use, the sections A and B forming the portable floor of Figure 4 are folded into compact units;

such as shown in Figure 1, which units can be stored in any suitable place e. g., a closet of a home, etc. If it is desired to use the floor, it is only necessary to unfold sections B forming the corners and terminal ends of the floor and unite these sections B with as many of the unfolded sections A as desired to form a floor of any desired length. To effect such uniting of the parts it is only necessary to place each projection 18 of each bracket 16 in a mating recess 25 of a bracket 17 on a contiguous unit and slip pin 26 through the aligned bores locking the units in place, as clearly shown in Figure 4. Obviously, by using a greater number of sections A between terminal sections B a floor of any desired length may be formed.

The modification of Figure 5 differs from that of Figures 1 to 4 chiefly in that the sides of the units forming the sections have the joining pins permanently secured to the underside of each unit, so that they are always available for use and the floor is composed of four types of sections C, D, E and F.

Sections C and D are the terminal, corner or end sections of the portable floor. Each section C is constituted of 2 units 11, 12 joined together by hinges 13 so that they may be folded into a compact assembly similar to that shown in Figure 1. Supporting or spacer, strips 31, 32 are secured to, or integral with, the underside of unit 11 along the marginal edges. A supporting spacer strip 31 is secured to the underside of unit 12 along its marginal edge and a spacer strip 33 interrupted to provide a space 34, is suitably secured to the underside of unit 12 of section C. Bracket 16 is fastened to the underside of unit 12 in the space 34 with the projection 18 extending beyond the marginal side edge as clearly shown in Figure 5.

Secured to the side edges of the units of the sections C, D, E and F is a fastening member which is the same for all units. Hence only one such fastening member will be described in detail. The fastening member, for unit 11 of section C comprises a bracket 16 having a projection 18 which fits into and is received by the opening 25 in bracket 17 on the contiguous unit of section E. Disposed adjacent bracket 16 is a second bracket 35 provided with a longitudinally extending channel 36 in which a pin 37 is mounted for sliding movement. Pin 37 is provided with a button 38 to facilitate movement thereof in the slide 36 and also to maintain the pin 37 permanently positioned for sliding movement within channel 36.

When pin 37 is positioned in the aligned bores in brackets 16 and 17 as shown in Figure 5 the sections are united. To permit disassembly it is only necessary to move pin 37 in the channel 36 to the top of this channel in which position separation of the units can readily be effected.

Unit 12 of section C is provided with a bracket 16 at its top edge for locking with a bracket 17 at the lower edge of section D. Each section D differs from section C chiefly in that the lower edge (viewing Fig. 5) of the underside of each section D is provided with a bracket 17 whereas the upper edge of section C is provided with a bracket 16.

Each section E is constituted of 2 units 11, 12 hinged together by hinge 13 and provided on the underside with the fastening members shown on the drawing and hereinabove described, having a supporting and spacing member 29 along its lower edge (viewing Fig. 5), an interrupted supporting and spacing member 33 along its upper edge and a bracket 16 in the space 34 between the spacing members 33. Sections F differ from sections E chiefly in that they have a bracket 17 on the lower edge for locking engagement with bracket 16 on the upper edge of section E.

In the completed portable floor of Figure 5 the spacing and supporting members 28, 29, 31, 32 and 33 carry the weight of the portable floor as well as of any weight to which the floor may be subjected and position the floor with a small clearance between the hinges, the bracket members and the fastening members on the one hand, and the surface on which the floor rests on the other hand. Thus injury to the surface on which the floor rests is prevented.

From the above description of the parts of Figure 5 it will be clear that the portable floor can readily be disassembled to form individual compact members consisting of two folded units similar to that shown in Figure 1 which can readily be stacked into a small compact pile. When it is desired to use the floor it is only necessary to unfold the individual sections and lock the sections in place by the locking pins 26 and 37.

The floor of Figure 5 is of a width equal to the combined lengths of sections C and D. Thus for sections of the dimensions above indicated the floor will be 12 feet wide and any desired length depending upon the number of sections E and F employed. It will be understood that a floor of any desired width and length, a multiple of a section may be made. In making a floor of a width say, three or any other odd number times the length of section C, the brackets 16 at the underside of sections C are omitted. In this way a floor will result having a finished border, i. e., with no protuberances extending beyond the marginal edges of the floor.

It will be noted that this invention provides a portable floor composed of foldable sections, which sections in the folded condition occupy relatively little space, which sections can be readily unfolded and assembled to provide a floor in which the individual parts are rigidly joined together so that the floor can be used, for example, as a dance floor, which sections can readily be assembled and disassembled without the use of tools and this by unskilled labor and which floor when in place, say, on a carpet or rug, will not injure or damage the same.

Since certain changes may be made in the above-described portable floor and different embodiments of this invention could be made without departing from its scope, it is intended that all matter contained in the above description shall be interpreted as illustrative and not in a limiting sense.

What is claimed is:

1. A portable floor suitable for use as a dance floor, consisting of sections readily assembled and disassembled, each section comprising two rectangular units hinged together on their undersides along a first marginal edge for folding into a compact member with the units in substantially parallel relation when folded and adapted to be unfolded to provide a flat surface free of obstructions and indentations throughout the entire area thereof, each unit having on its underside near a second marginal edge, which second edge is at right angles to the first-mentioned edge, a hollow tubular projection extending laterally away from said second edge and having near a third marginal edge opposite the second marginal edge a hollow tubular projection adapted to be placed in longitudinal alignment with a tubular projection of a contiguous unit, a removable pin adapted to be positioned in the aligned tubular projections to lock them together and thus lock a pair of contiguous sections in abutting relationship, each section having on the underside of one of the pair of units along a fourth marginal edge a hollow tubular projection adapted to be placed in longitudinal alignment with at least one hollow tubular projection on a fourth marginal edge of a unit of contiguous section, a second removable pin adapted to be positioned in the aligned tubular projections on said fourth marginal edge of the units of a second pair of contiguous sections to lock said second pair of contiguous sections together in abutting relationship, thus providing a flat dance surface free of projections and indentations, each unit also having on its underside a supporting member of a thickness slightly greater than that of said projections and said hinge to support the unit at a height so that said projections and said hinge do not exert any appreciable pressure on the surface on which said floor rests.

2. A portable floor suitable for use as a dance floor consisting of sections of two types, each composed of

relatively light-weight material providing a gliding surface forming a satisfactory dancing surface, the sections of one type each consisting of two rectangular units hinged together on their undersides along a first marginal edge for folding into a compact member with the units in substantially parallel relation when folded and adapted to be unfolded to provide a flat surface free of obstructions and indentations throughout the entire area thereof, each unit having on its underside near a second marginal edge, which second edge is at right angles to the first-mentioned edge, a hollow tubular projection extending laterally away from said second edge and having near a third marginal edge opposite the second marginal edge a pair of spaced hollow tubular projections, the said space being adapted to receive the first-mentioned hollow tubular projection of a contiguous unit with all three hollow projections in longitudinal alignment, a removable pin adapted to be positioned in the aligned tubular projections to lock them together and thus lock a first pair of contiguous sections in abutting relationship, each section having on the underside of one of the pair of units along a fourth marginal edge a hollow tubular projection adapted to be placed in longitudinal alignment with at least one hollow tubular projection on a fourth marginal edge of a unit of a contiguous section, a second removable pin adapted to be positioned in the aligned tubular projections on said fourth marginal edge of the units of a second pair of contiguous sections to lock said second pair of contiguous sections together in abutting relationship, thus providing a flat dance surface free of projections and indentations, each unit also having on its underside a supporting member of a thickness slightly greater than that of said projections and said hinge to support the unit at a height so that said projections and said hinge do not exert any appreciable pressure on the surface on which said floor rests, and the sections of the other type, each consisting of two rectangular members hinged together along a first marginal edge and each having along a second marginal edge at right angles to said first marginal edge a tubular projection adapted to be placed in longitudinal alignment with a tubular projection on a unit of a section of the first-mentioned type, a removable pin adapted to be inserted in the aligned tubular projections to lock in abutting relationship a section of the second-mentioned type with a section of the first-mentioned type, and a member of a section of the second-mentioned type having along a third marginal edge on its underside a tubular projection adapted to be placed in longitudinal alignment with a tubular projection on the underside of a third marginal edge of a contiguous section of the second-mentioned type, a removable pin adapted to be placed in the aligned projections on the said third marginal edges of the members of a pair of sections of the second-mentioned type and said members of the sections of the second-mentioned type having along the marginal edges defining the corners thereof spacing and supporting members of a thickness slightly greater than that of said projections and said hinge so that said projections and hinge on the underside of said members do not exert any appreciable pressure on the surface on which said floor rests.

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