June 26, 1962 G. T. CONN 3,040,388

KNOCKDOWN PORTABLE DANCE FLOOR

Filed Sept. 4, 1959 2 Sheets-Sheet 1

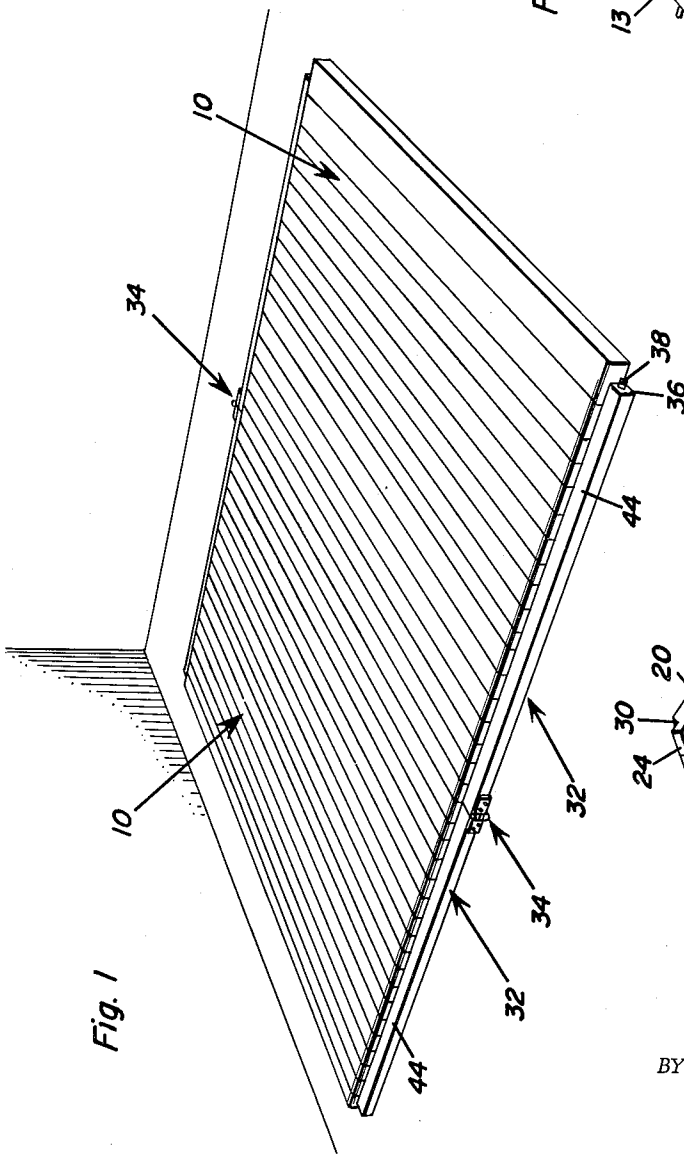


Fig. 1

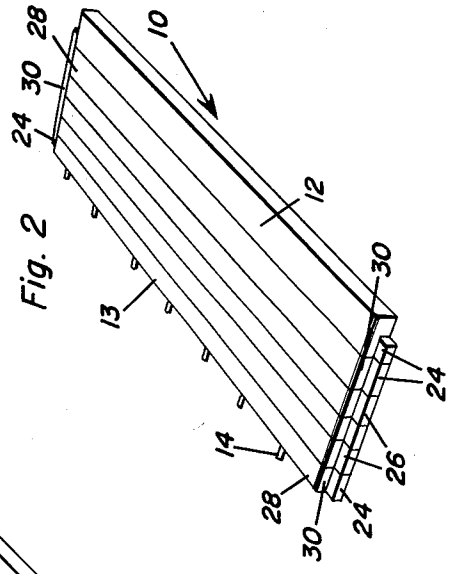


Fig. 2

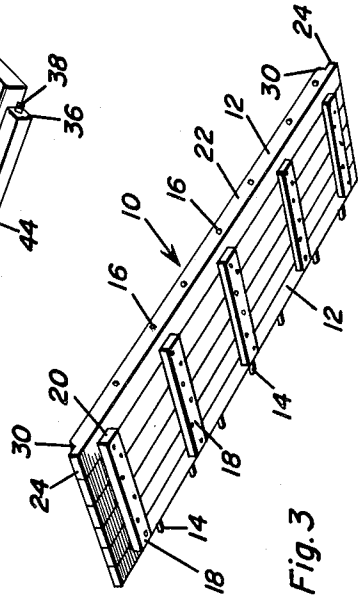


Fig. 3

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KNOCKDOWN PORTABLE DANCE FLOOR

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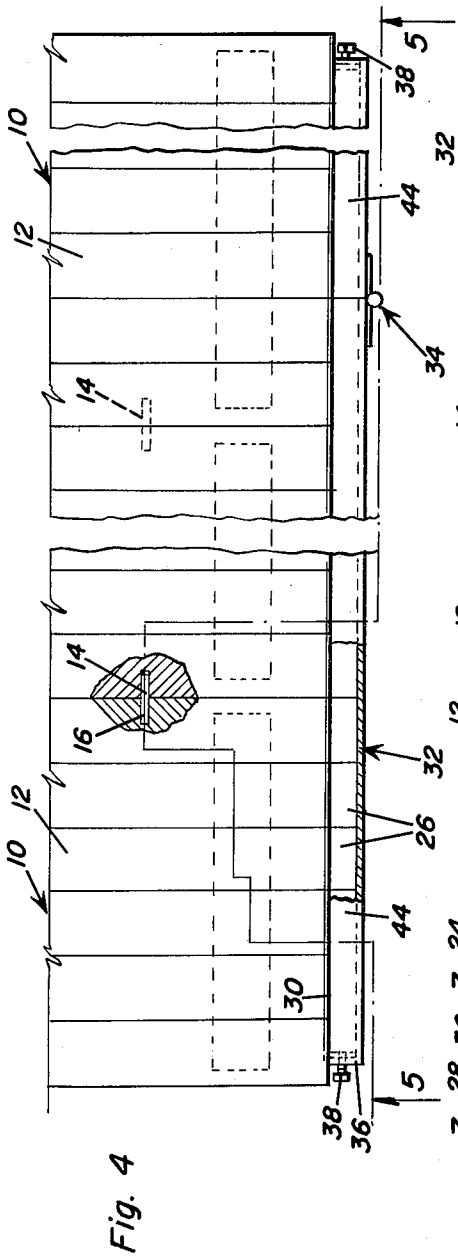


Fig. 4

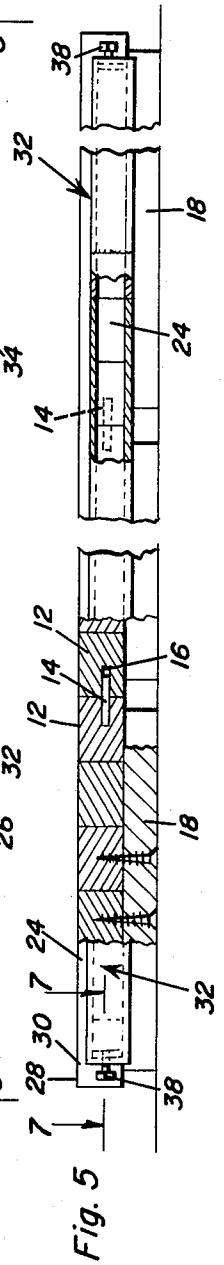


Fig. 5

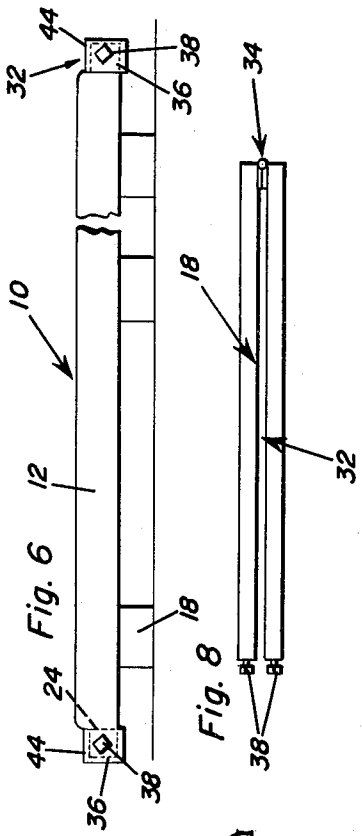


Fig. 6

Fig. 8

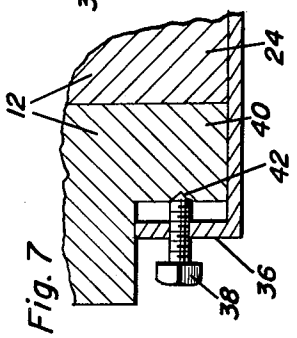


Fig. 7

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KNOCKDOWN PORTABLE DANCE FLOOR

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4 Claims. (Cl. 20—6)

This invention relates to certain new and useful improvements in a portable composite knockdown floor construction which is self-contained and is made up of separably connected panels, that is, specially constructed panels embodying maple, or the like, floor boards, said floor being expressly, but not necessarily, adapted to be placed atop wall-to-wall carpet and use as a dance floor and dismantled and stored away when not in use.

As above suggested, floors in this category of invention are sectional and the sections or panels must be firm and rigid. Therefore, in carrying out this aspect of the improved concept, cleats are used transversely across the bottom of the panels, the ends of the cleats being spaced from the longitudinal edges of the panels. Also, these cleats are such in cross-sectional dimension that they tend to sink in the nap of the carpet, thus "anchoring" the floor and minimizing undesirable slipping of the floor relative to the carpet. Then, too, the rigidity factor prevents undue flexibility and yielding despite the underlying carpet.

More specifically, the invention pertains to a dance floor or the like for home use embodying complemental companion panels fastened together edge-to-edge in substantially coplanar relationship, the bottom side of said floor being provided with a multiplicity of reinforcing cleats adapted to rest, without slipping or sliding on the carpet surface and the over-all weight of the floor causing the cleats to sink and "embed" themselves in the carpet surface in a manner to thus "anchor" the floor on the rug. Said floor being made up of a plurality of substantially duplicate panels each, in turn, being made up of conventional-type floor boards of properly finished uniform construction with the abutting lengthwise edges glued together to provide rigid seams between the boards, certain of said panels having projecting dowel pins adapted to align with and fit into sockets provided therefor cooperating edges of complemental panels, said cleats being cross-wise on said boards and of ample cross-section to insure the strength needed for rigidifying the panel but such that the desired anti-slipping feature is effectually had.

The invention also is regarded as novel in that it comprises a plurality of panels or sections made of floor boards and separably joined together with their top and bottom surfaces flush and providing a smooth planar top surface. Readily attachable and detachable assembling and securing members are provided. These members are of metal, preferably, and channel-shaped in cross-section and they are fitted over and clampingly fastened to reduced tongue-like extensions which are provided on the respective transverse ends of the floor boards. Moreover, the clamping member or members, are made up of complemental channel-shaped parts which are hingedly joined for folding and compact storage.

In addition to the above the hinges for the channel shaped sections or parts of the clamping members are so positioned that they may be said to be oriented with the seams between the floor panels. In other words, the hinges are so arranged that they promote rigidity in that they are out of line with either the seams between the boards or the joints between the respective panels.

Other objects, features and advantages will become more readily apparent from the following description and the accompanying illustrative drawings.

In the drawings, wherein like numerals are employed to designate like parts throughout the views:

FIG. 1 is a view in perspective of the improved dance floor showing how it is constructed and positioned atop a carpet covered floor to function in an obvious manner.

FIG. 2 is a perspective view of one of the sections or panels.

FIG. 3 is also a view in perspective looking at the underneath side of the panel seen in FIG. 2.

FIG. 4 is a view on a larger scale with portions broken away and shown in section.

FIG. 5 is a view taken on the plane of the line 5—5 of FIG. 4, looking in the direction of the arrows and with parts appearing in section and elevation to bring out the construction and arrangement of parts.

FIG. 6 is an end view emphasizing the bottom cleats and end construction of the assembling and clamping members.

FIG. 7 is an exaggerated sectional view taken on the plane of the line 7—7 of FIG. 5.

FIG. 8 is a view in elevation showing how the sections of the clamping and assembling member may be folded for compactness and convenience.

With reference first to FIG. 2 the numeral 10 designates a section or panel of the over-all improved floor. As already mentioned this panel or section is made up of companion coplanar floor boards 12 preferably of maple. The longitudinal edges are glued or otherwise equivalently fastened together. It would be within the purview of the invention to employ tongue and groove joints (not shown) or any other appropriate construction to insure firmness and rigidity of the over-all panel. One lengthwise panel (13 in FIG. 2) is provided along its edge with outstanding dowel pins 14 which are adapted to telescope into keeper sockets provided therefor, as at 16 in FIG. 3. FIG. 3 also illustrates the aforementioned transverse longitudinally spaced parallel rigidifying wooden or equivalent cleats 18. It will be noticed that these cleats have their ends 20 spaced from the lengthwise edges 22. It will be further noticed that each panel is unique in that the transverse ends of the respective floorboards are provided with reduced outstanding extensions or tongues 24. The tongues when in abutting relationship (as illustrated) provide a sort of a keying rib. While the bottom surfaces of the tongues are flush with the bottoms of the floor boards the top surfaces 26 are disposed in a plane below the surfaces 28 of the boards thus providing shoulders as at 30. These tongues or ribs serve to accommodate the aforementioned assembling and connecting means. More specifically this "means" is that illustrated in the drawings. That is to say, the preferred means is a sectional foldable member which is channel-shaped in cross-section. The sections 32 have adjacent ends joined by a hinge 34. The closed outer ends of the channels (see FIG. 7) denoted at 36 are provided with adjusting and clamping screws which may be designated as setscrews 38. If desired the endmost extension 40 (FIG. 7) may be provided with a recess or pocket 42 for reception of the pointed end of the setscrew. When the channel-shaped members are applied to the ribs provided by the aforementioned tongue-like extensions 24 as shown in FIG. 1 it will be evident that the top flanges 44 abut the shoulders 30 and reside in a plane below the board surfaces 28.

It is to be pointed out that each assembling member or channel is such that the hinged sections locate the hinge in the middle of the end of a panel near the center of the floor (rather than at a joint between panels, which would be weakening) so that a highly reliable rigid construction is thus had.

The cleats on the bottom settle into carpeting so that the floor is practical for use over wall-to-wall or other

carpeting; the cleats also provide rigid strength to prevent too much flexibility over carpeting. The channels on the sides provide rigidity between panels, and the setscrews keep the panels in close contact and are readily adjustable to counteract any shrinkage due to climatic changes. The shape and size of the various elements when disassembled make them adaptable for easy carrying and home storage, fitting into any closet with an eight foot ceiling or possibly into a long sofa which might be designed to receive them.

If the hinges on the channels are attached on one butt with nuts and bolts rather than with rivets (the panel could be notched at that place to allow for the bolt ends and nuts) it would be practical to add additional panels as desired by adding a section of channel rather than ordering entire new channels of the proper length, so that the floor would be flexible in its over-all length.

In actual production, the various panels would be doweled and each set of panels forming a floor would be sanded as a unit to eliminate uneven joints between panels. The matched panels would then be marked so that they would always be assembled in the original order rather than being interchangeable.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A portable dance floor comprising a plurality of substantially rectangular, side-abutting sections, each of said sections including parallel boards secured together in side-abutting relation, transversely aligned tongues on the ends of the boards, and means for detachably securing the sections together, said means comprising channel bars receiving the tongues and including closed, apertured end walls, and setscrews threadedly mounted in said end walls and engaged with the outermost tongues for clamping the sections together.

2. A portable dance floor comprising a plurality of substantially rectangular, side-abutting sections, each of said sections including parallel boards secured together in side-abutting relation, transversely aligned tongues on the ends of the boards, and means for detachably securing the sections together, said means comprising channel bars receiving the tongues and including closed, apertured end walls, and setscrews threadedly mounted in said end walls and engaged with the outermost tongues for clamping the sections together, said outermost tongues having pockets therein receiving the setscrews for anchoring the channel bars on the tongues.

3. A portable dance floor comprising a plurality of substantially rectangular, side-abutting sections, each of said sections including parallel boards secured together in side-abutting relation, transversely aligned tongues on the ends of the boards, and means for detachably securing the sections together, said means comprising channel bars receiving the tongues and including closed, apertured end walls, and setscrews threadedly mounted in said end walls and engaged with the outermost tongues for clamping the sections together, said outermost tongues having pockets therein receiving the setscrews for anchoring the channel bars on the tongues, said channel bars being foldable and including sections hingedly connected at one end.

4. For use on a carpet, a portable dance floor comprising a plurality of rectangular, coplanar, side-abutting sections, each of said sections including a plurality of parallel boards adhesively secured together in edge-abutting relation, each section further including cleats secured transversely beneath the boards and having their ends spaced inwardly from the longitudinal sides of the sections, the corresponding cleats of the several sections being longitudinally aligned and spaced and adapted to embed in the carpet for frictionally retaining the floor against slippage thereon, dowel pins detachably connecting the opposed sides of the panels, side-abutting tongues on the ends of the boards downwardly offset from the top surfaces thereof and defining transverse ribs on the ends of the sections, and clamps detachably securing the sections together, said clamps including channel bars receiving the ribs, said channel bars comprising foldable sections hingedly connected at one end and including closed, apertured free ends, and setscrews threadedly mounted in said closed free ends of said channel bar sections and engaged with the outer ends of the adjacent ribs, said outer ends of said adjacent ribs having pockets therein receiving said setscrews for anchoring the channel bars on the ribs.

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