United States Patent [19]

Galloway

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[54] **STORAGE RACK FOR WINE BOTTLES**

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[52] **U.S. Cl.** **211/74,** 211/177, 248/150

[51] **Int. Cl.** **A47b 73/00**

[58] **Field of Search** ..... 211/74, 85, 71, 177, 8; D7/71; D44/29 C; 46/20, 26 (U.S.), 30, 28; 248/150; D6/186, 188, 189

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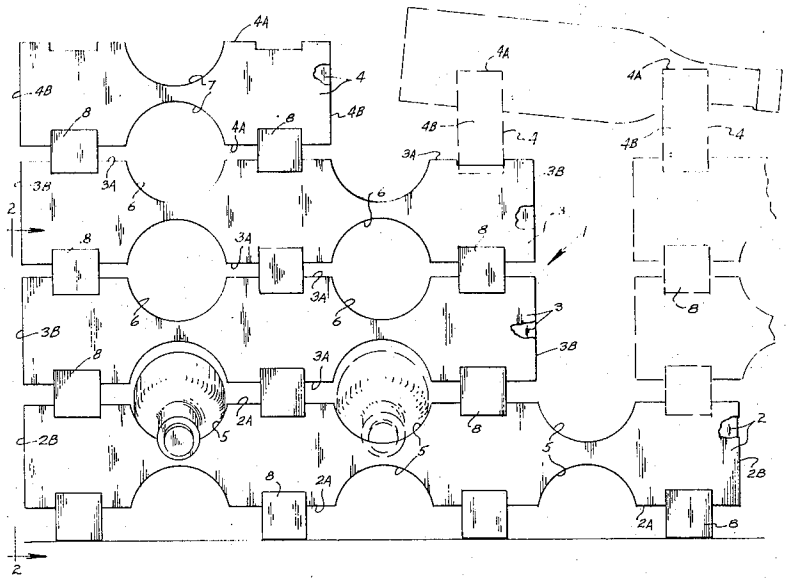
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Attorney, Agent, or Firm—James D. Givnan, Jr.

[57] **ABSTRACT**

A rack of modular construction wherein the bottle supporting members are of different lengths each having arcuate recesses jointly defining bottle receiving areas when said members are assembled to form a rack. Connectors extend horizontally to securely join horizontally spaced front and rear bottle supporting members with said connectors additionally serving to interconnect additional superimposed bottle supporting members. The bottle supporting members and connectors are in interfitted, secure resting engagement and do not require fasteners. Interfitting areas of the components are uniformly spaced to permit assembly in a wide range of rack designs.

1 Claim, 5 Drawing Figures



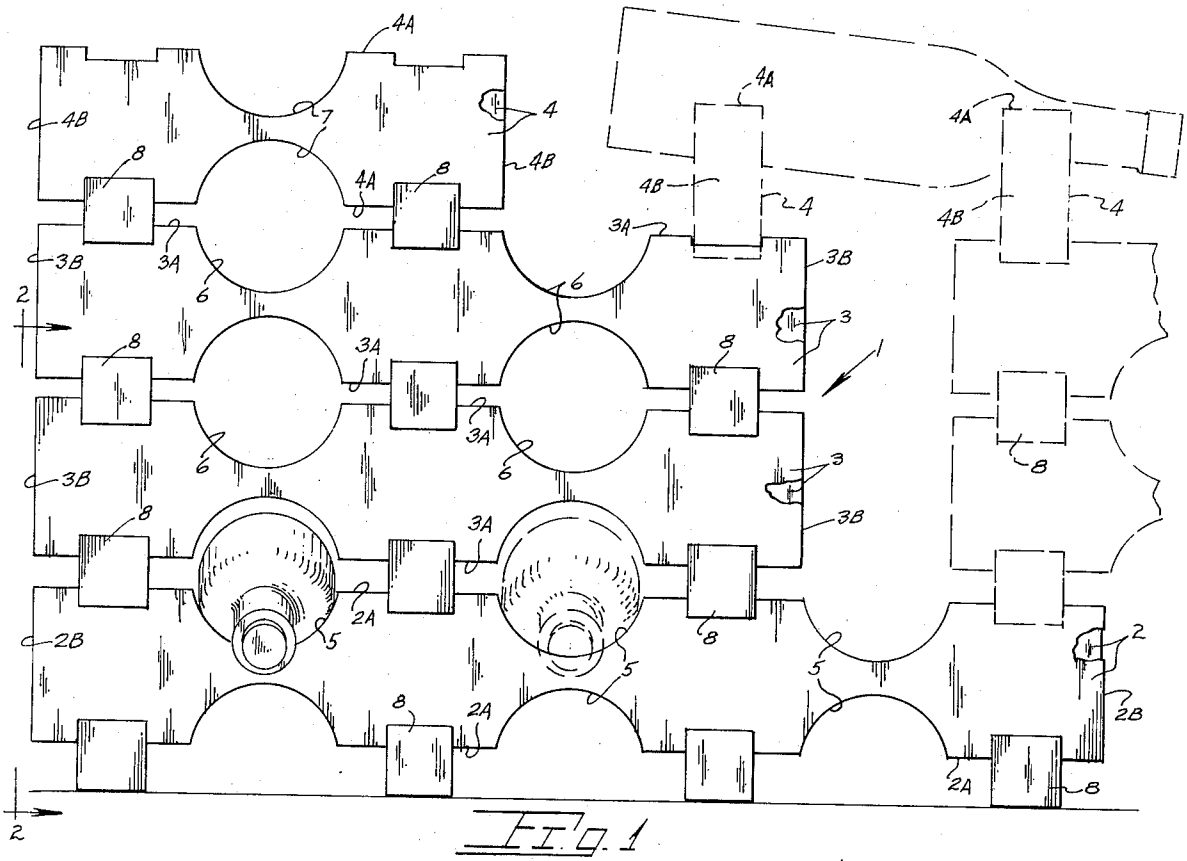


Fig. 1

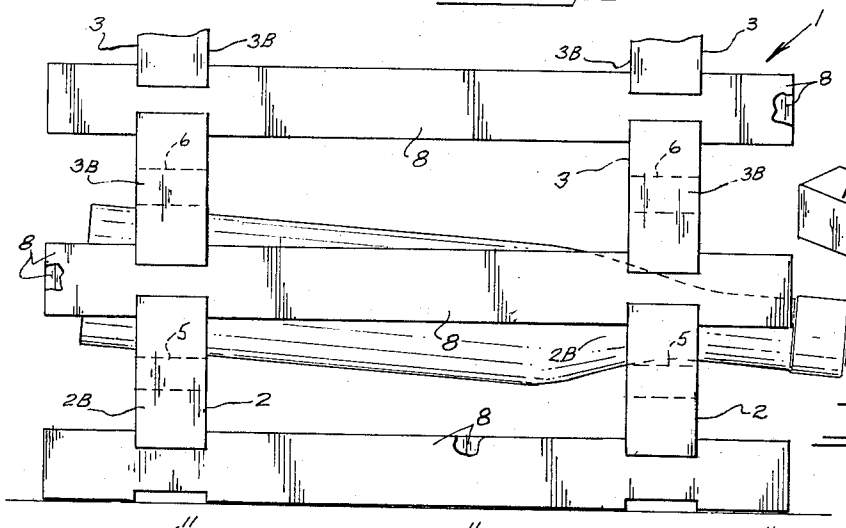


Fig. 2

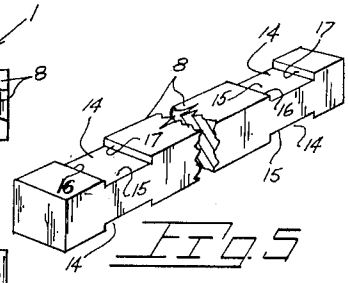


Fig. 5

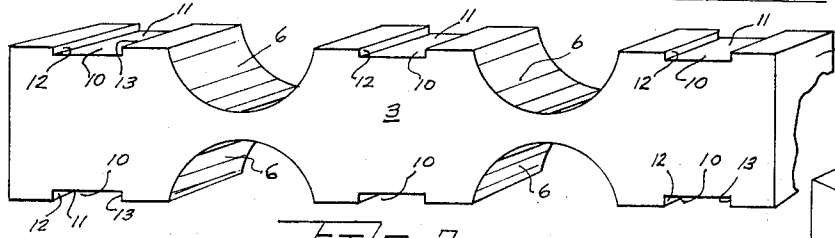


Fig. 3

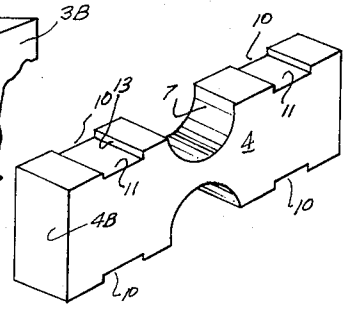


Fig. 4

STORAGE RACK FOR WINE BOTTLES

BACKGROUND OF THE INVENTION

The present invention relates to bottle storage racks and more specifically to a rack adapted for the storage of a varying number of wine bottles.

Well known in the art are various types of structures, termed wine racks, for the horizontal storage of wine bottles. Such racks, are for the most part, permanent structures of a fixed design, capable of storing a fixed number of bottles. As the number of bottles to be stored varies from time to time conventional racks will either be partially empty detracting from their appearance or inadequate to store an increased numer of bottles on hand.

SUMMARY OF THE INVENTION

The instant wine rack comprises modular components each having design features which permit their assembly into a wide variety of wine rack structures to suit the individual's personal desires and space limitations. The modular components in combination with connectors therefor are assembled without the use of tools or fasteners by reason of interfitting portions being shaped for secure rested engagement with one another. Each modular component is recessed to cradle the bottle and further includes inset wall surfaces spaced therealong for rigid rested engagement with the connectors.

An important object of the present invention is the provision of a wine or bottle rack the storage capability of which may be readily varied to correspond to the current number of bottles to be stored. The addition or subtraction of components to vary the rack's capacity does not require tools. Further, the present wine rack may be readily disassembled and reassembled in an entirely different configuration for appearance sake if so desired.

A further important object is the provision of a rack having interfitting components in rested engagement yet having a rigid nature comparable to conventionally constructed racks. Accordingly, the present rack may be assembled to the height desired within a room without risk of collapse. Interfitting joints of the modular bottle supporting members and connectors along with the load supported assure such rigidity.

A further object of the present rack is the provision of a rack which may be constructed in a low cost manner by reason of the rack's members being formed from the trimmed ends of finished lumber resulting from a sawmill trimming operation. Such lumber is of extremely low cost enabling a wine rack of low cost yet one of attractive appearance.

A further important object is the provision of a rack wherein the bottle supporting members may be assembled in right angular relationship to one another for bottle storage in two or more different directions.

BRIEF DESCRIPTION OF THE DRAWING

In the accompanying drawing:

FIG. 1 is a front elevational view of a bottle rack embodying in a typical arrangement the present invention,

FIG. 2 is an elevational view taken along line 2—2 of FIG. 1,

FIG. 3 is an enlarged frontal pespective view of one bottle supporting member of the present rack,

FIG. 4 is a perspective view of another bottle supporting member of the present rack, and

FIG. 5 is a perspective view of a connector.

DESCRIPTION OF PREFERRED EMBODIMENTS

With continuing attention to the accompanying drawings wherein applied reference numerals indicate parts similarly identified in the following description, the reference numeral 1 indicates generally a rack structure for the storage of bottles on their sides and referred to generally by the public as wine racks.

Pairs of bottle supporting modules are indicated at 2, 3 and 4 of progressively shorter lengths with each adapted to support a different number of bottles. Each bottle supporting member is of a unitary nature having later described connector receiving areas of irregular configuration and also bottle receiving recessed areas.

Each member or module 2 through 4 has identical top and bottom surfaces indicated respectively at 2A through 4A along with end walls at 2B through 4B.

Each bottle supporting member defines a plurality of bottle cradling surfaces at 5, 6 and 7 said surfaces are spaced at uniform intervals along members 2 and 3 with the circular areas jointly defined thereby being of a size to receive an inserted bottle. With attention to FIG. 2 it will be seen that the bottle supporting members 2, 3 and 4 are used in horizontally spaced pairs, the spacing of which is determined by a connector 8.

Each connector as well as each bottle supporting member is provided with irregular surface areas for mutual engagement in a secure manner to impart rigidity to an assembled rack regardless of rack height.

Typically shown in FIG. 3 are irregular surface areas at 10 also spaced at uniform intervals along the top and bottom surfaces 2A through 4A with said irregular surface areas embodied within perpendicularly related surfaces 11, 12 and 13. While a specific configuration is disclosed, it will be understood that the irregular surface areas may be otherwise embodied.

With attention directed to FIG. 5, the connector shown therein has irregular surface areas 14 each defined by connector surfaces 15, 16 and 17. Said surfaces are dimensioned so as to enable a snug fit with corresponding irregular surface areas 10 of the bottle supports thus providing a close fitted joint therebetween. The irregular surface areas on the bottle supporting members and connectors are of square configuration as viewed in plan view to permit secure rested engagement of bottle supporting members and connectors or engaged bottle supporting members disposed at right angles to one another.

With attention to FIG. 1 wherein a typical rack is shown in full lines, the rack may be added to from time to time to provide storage for an increased number of bottles, a typical addition being shown in dashed lines. In addition to having a capability for the storage of a varying quantity of bottles, the present rack may be conveniently reassembled into different configurations for simply appearance purposes or for the purpose of changing the rack's overall dimensions, permitting its being relocated in an area of reduced size.

With attention again to FIG. 1, it will be seen that certain bottle supporting members may be used in place of connectors 8 (upper right hand corner of FIG. 1) and accordingly are in right angular relationship to adjacent bottle supporting members which permits the present rack to store bottles in ninety degree orienta-

tion to one another. Such a feature permits the rack to be assembled within a corner of a room and extend along both room walls with the bottles stored therein pointing in different directions.

The bottle supporting members are preferably of wood wherein the wood grain, either natural or treated, provides an overall pleasing appearance to the completed rack. If so desired, the members may, of course, be painted for the appearance desired.

While I have shown but one embodiment of the invention, it will be apparent to those skilled in the art that the invention may be embodied still otherwise without departing from the spirit and scope of the invention.

Having thus described the invention, what I desire to secure under a Letters Patent is:

1. A storage rack for wine bottles with the rack being of modular construction permitting addition or removal of rack components to accommodate a fluctuating number of bottles, said rack comprising,

a plurality of bottle supporting members of different lengths each being of elongate shape having top and bottom edges, end walls and being of a uniform thickness,

said bottle supporting members having arcuate recesses evenly spaced along their top and bottom edges to define bottle receiving areas,

said bottle supporting members additionally having irregular surface areas evenly spaced at uniform intervals along their top and bottom edges intermediate each arcuate recess, to permit connector means disposed between stacked bottle supporting members to engage the irregular surface areas in the opposing top and bottom surfaces of two or more vertically spaced bottle supporting members regardless of the differing length of said members,

connector means joining horizontally spaced bottle supporting members and having top and bottom edges with irregular surface areas thereon for interlocking rested engagement with corresponding irregular surface areas of the bottle supporting members, said irregular surface areas of the connector means spaced apart at the same distance as consecutive irregular areas on said bottle supporting members, and

said irregular areas on said bottle supporting members and said connectors being of square configuration and of the same interval to permit bottle supporting members to rest at right angles upon subjacent bottle supporting members thereby functioning in a dual manner as connectors while also permitting bottles to be stored pointing in two or more mutually perpendicularly related directions.

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