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(54) **Improved wooden vat**

(57) The present invention relates to an improved wooden vat consisting of a container with a prismatic configuration configured from four lateral faces (2) and two lower (3) and upper (4) bases, formed by boards (5) connected by means of dowels (6) inserted in orifices (7), and connected by means of inserting projections (8)

of the upper (4) and lower (3) bases in lower grooves (9) and each of the four lateral faces (2); furthermore having four metal corners (10) in its edges with anchors (11) for fixing the threaded ends of tightening transverse metal bars (12), which are arranged on strips (13) in the form of use designed for acting as a support.

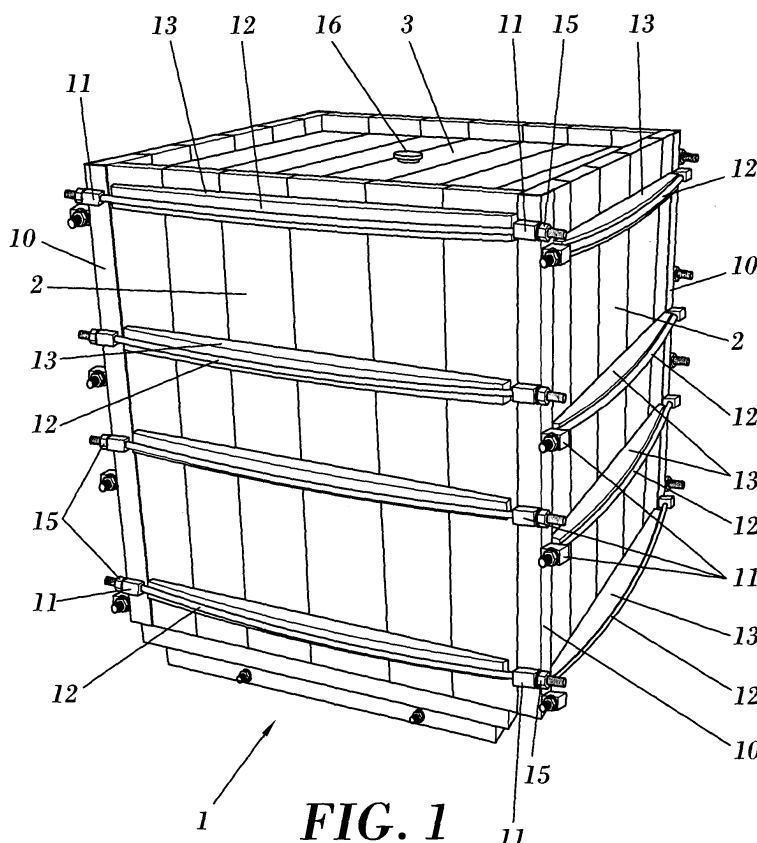


FIG. 1

Description

Object of the Invention

[0001] As expressed by the title of the present specification, the invention relates to an improved wooden vat, providing considerable advantages and innovative features to the function for which it is intended, which features will be described in detail below, involving a remarkable improvement compared to that already known in the market.

[0002] More particularly, the object of the invention focuses on a wooden vat, of the type intended for storing liquids, such as water, wine, oil or others, which adopting a cubic configuration, advantageously facilitating its handling and allowing a better use of space for its storage, has the particularity of being formed from a plurality of boards and fittings the particular design of which allows its assembly without needing to use glue or adhesives.

Field of Application

[0003] The field of application of the present invention is within the sector of the industry dedicated to the manufacture of wooden vats.

Background of the Invention

[0004] As is known, vats are containers intended for storing different liquids, such as water, wine, oil, etc. Wooden vats, the qualities of conservation of which for certain liquids, especially wines, are very important, are traditionally formed from the connection of a plurality of wooden boards, called staves, which are fixed by means of metal rings, adopting a cask configuration. Said construction prevents the use of glue which can affect the result of the product.

[0005] However, said cask design means that the space in transporting and storing vats is not well used, further being hard to handle.

[0006] It would therefore be desirable to create a vat that has a structural configuration more favorable for its handling and for the maximum use of space and requires less specialized manual labor, maintaining the peculiarity of being formed from wooden boards connected without glue, in comparison to those that are built today.

[0007] However, the applicant does not know of the existence of any wooden vat having similar features.

Description of the Invention

[0008] The improved wooden vat proposed by the present invention is therefore a remarkable novelty within its field of application since, according to its creation, the objectives previously indicated as being suitable are specifically achieved, the characterizing details making this possible being suitably described in the final claims attached to the present specification.

[0009] The invention specifically describes a vat intended for storing liquids, which vat adopts a prismatic cube-shaped configuration, being configured from six planar faces, each of which comprises a plurality of boards coplanarly and adjacently connected to one another by means of dowels inserted in internal orifices provided therein for such purpose. The use of other structures with more than six faces is not ruled out.

[0010] Said faces are in turn assembled by means of inserting lateral projections provided in the upper and lower faces which tightly penetrate in respective grooves provided in the four lateral faces.

[0011] The cubic body is thus configured without using glue or adhesives.

[0012] Once the six faces are assembled, metal corners are incorporated in the four lateral edges of the vat, which corners are provided with anchors for fixing the threaded ends of tightening transverse metal bars or tie rods which, arranged on support strips designed for such purpose, will complete the fixing of the vat, assuring its complete tightness.

[0013] These support strips are convex in the face of contact with the tie rods and therefore the tie rods will have the suitable convex shape whereas they are straight in contact with the lateral faces of the vat, this shape allowing a suitable tightening of the tie rods on the faces of the vat.

[0014] Therefore, like traditional vats, the proposed vat is made with wooden boards connected to one another without using any type of glue for said connection, adopting, however, a prismatic configuration which advantageously allows easy transport and stacking of the vats, using space much more efficiently.

[0015] The described improved wooden vat therefore represents an innovative structure with structural and constitutive features unknown up until now for the purpose for which it is intended, which reasons, along with its practical use, confer the vat with sufficient grounds for obtaining the exclusive privilege that is sought.

Description of the Drawings

[0016] To complement the description being made and for the purpose of aiding to better understand the features of the invention, a set of drawings is attached to the present specification as an integral part thereof, in which the following is shown in an illustrative and non-limiting manner:

Figure 1 shows a perspective view of an embodiment of the vat object of the invention, the parts and elements it comprises, as well as the configuration and arrangement thereof, being seen therein.

Figure 2 shows a cross-section view of one of the faces forming the vat, the configuration of the boards and the way of assembling them by means of dowels being seen therein.

Figure 3 shows a longitudinal section view of the vat, the manner of coupling between the faces being seen.

Figure 4 shows a perspective view of one of the metal corners which, together with the tightening bars, complete the assembly system of the vat.

Preferred Embodiment of the Invention

[0017] In view of the mentioned figures and in accordance with the reference numbers used, a preferred embodiment of the invention can be seen therein, comprising the parts and elements which are indicated and described in detail below.

[0018] Thus, as is observed in said figures, the vat (1) proposed by the invention consists of a container adopting a prismatic, preferably cube-shaped configuration, being configured from six planar faces, four lateral faces (2) and two bases, a lower base (3) and another upper base (4), at least one filling orifice (16) being provided in the upper base (4); in which each of said faces (2) and bases (3) and (4) is formed from the coplanar connection of a plurality of boards (5) connected to one another by means of dowels (6) inserted in orifices (7) provided for such purpose on both sides thereof, as observed in Figure 2.

[0019] In turn, in reference to Figure 3, it can be seen how the mentioned faces 2 are connected to one another and to the respective lower (3) and upper (4) bases, likewise without the use of glue or adhesives, by means of inserting lateral projections (8) provided in the upper (4) and lower (3) bases which tightly penetrate in respective grooves (9) provided at the lower part and upper part in each of the four lateral faces (2).

[0020] Once the six faces of the prismatic body are assembled, an external tightening system is provided, making the connection leak-tight, consisting of incorporating, in the four lateral edges of the vat (1), metal corners (10) which are provided with anchors (11) for fixing the threaded ends of tightening transverse metal bars (12) which, arranged on strips (13) in the form of use designed to act as a support, complete the fixing of the faces (2) and lower (3) and upper (4) bases, assuring the tightness of the vat (1).

[0021] It must be emphasized that the mentioned corners (10) are formed by bent L-shaped flat bars which, as indicated, are fitted on the lateral edges of the cube, preferably having the same length as such edges, and that the mentioned anchors (11) consist of integral prominences emerging in an alternating manner from both outer faces of the corners (10), being provided with through holes (14) suitable for receiving the threaded ends of the bars (12), which are tighten by means of nuts (15).

[0022] Having sufficiently described the nature of the present invention as well as the form for putting it into practice, it is not considered necessary to further explain it so that any person skilled in the art can understand its

scope and the advantages derived therefrom, stating that, within its essential nature, it can be put into practice in other embodiments that differ in detail from the embodiment indicated as an example, being likewise covered by the protection that is sought, provided that its fundamental principle is not altered, changed or modified.

Claims

1. Improved wooden vat intended for storing liquids comprising:
 - planar lateral faces formed by the coplanar connection of boards laterally connected to one another.
 - a lower base and another upper base formed by the coplanar connection of boards laterally connected to one another.
 - corners in which two contiguous lateral panels converge.
 - at least two connecting tie rods between respective contiguous corners.
2. Improved wooden vat according to claim 1, **characterized in that** the coplanar connection of boards for forming the lateral faces and/or the lower and upper bases is done by means of dowels (6) inserted in orifices (7).
3. Improved wooden vat according to claim 1, **characterized in that** the connection of the lower and/or upper bases to the lateral faces is performed by means of lateral projections (8) provided perimetrically in the bases which penetrate in respective grooves (9) of the lateral faces.
4. Improved wooden vat according to claim 1, **characterized in that** the corners provide anchors (11) in which the connecting tie rods are connected and fixed between every two contiguous lateral faces.
5. Improved wooden vat according to claims 1 to 4, **characterized in that** the connecting tie rods are threaded bars being secured to the corners by means of end nuts.
6. Improved wooden vat according to claims 1, 4 and 5, **characterized in that** the connecting tie rods are supported in the lateral faces of the vat through strips (13).
7. Improved wooden vat according to claim 6, **characterized in that** the strips (13) are convex in the face of contact with the tie rods and therefore the connecting tie rods between corners adopt the same shape and are planar in the face coinciding with the lateral faces of the vat.

8. Improved wooden vat according to claims 1 and 4, **characterized in that** the corners (10) are formed by bent L-shaped flat bars, and includes anchors (11) consisting of integral prominences emerging in an alternating manner from both outer faces of the corners (10), being provided with through holes (14) suitable for receiving the threaded ends of the tie rods.

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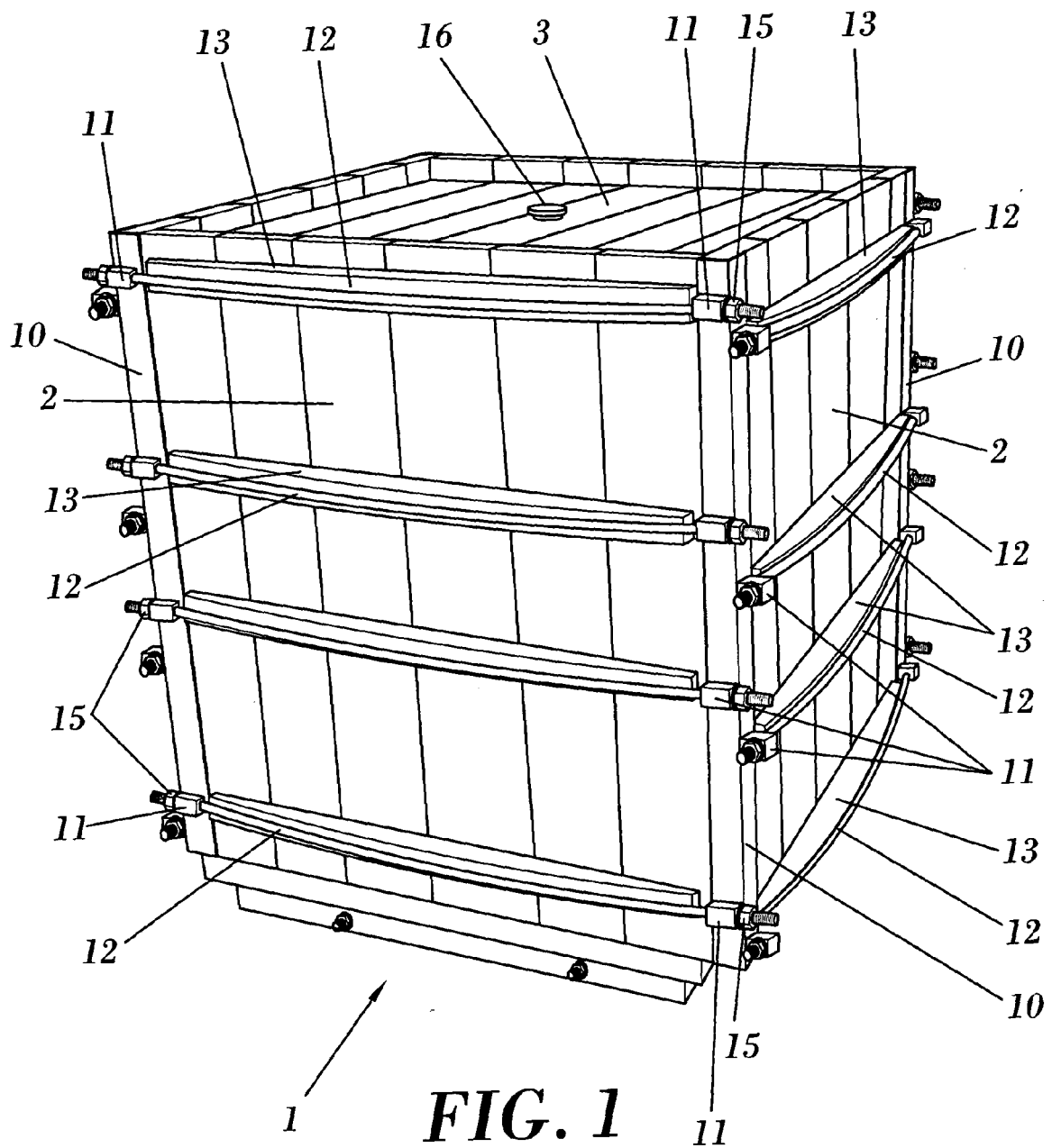
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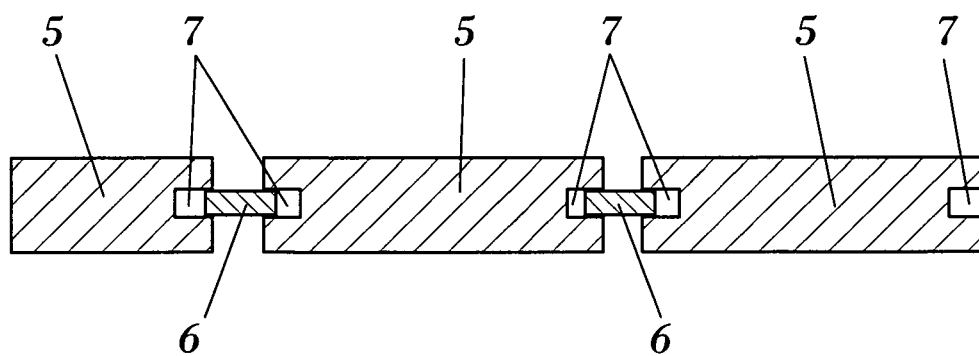


FIG. 2

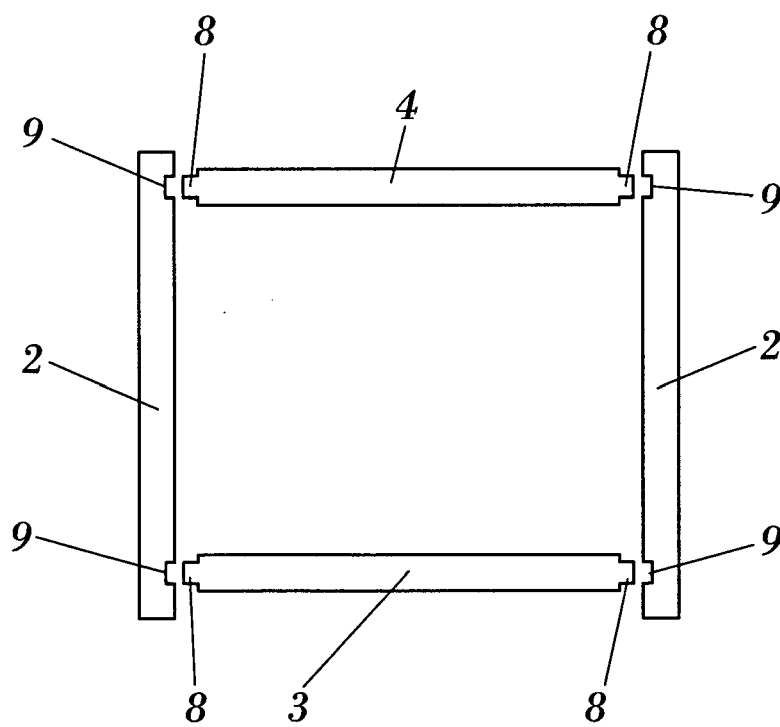


FIG. 3

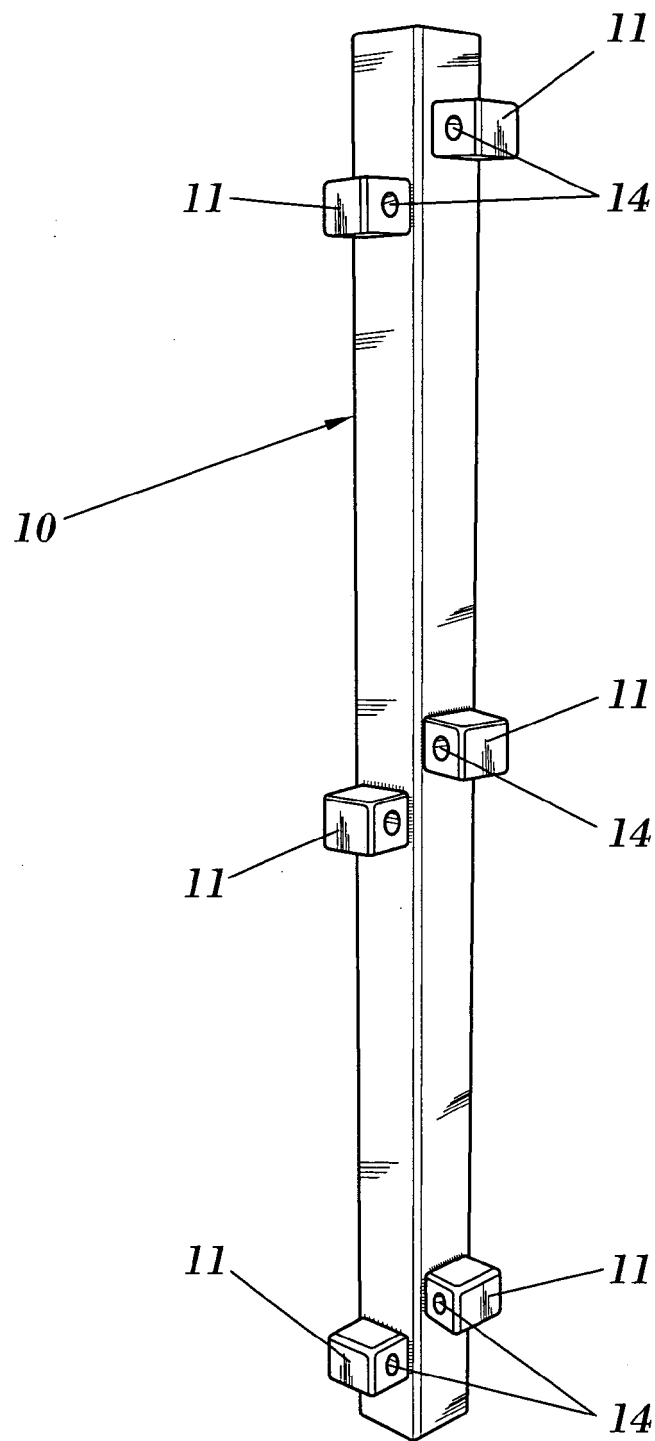


FIG. 4



EUROPEAN SEARCH REPORT

Application Number
EP 09 38 0054

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	FR 1 027 928 A (ROGER ÉMILIEN DARRÉ) 18 May 1953 (1953-05-18)	1,4-7	INV. B65D6/16 B65D6/26
Y	* page 1, left-hand column, line 31 - line 44; figures 1,2 *	2-3	
Y	----- US 3 462 038 A (MORRIS GEORGE RICHARD) 19 August 1969 (1969-08-19)	2-3	
A	* column 4, line 49 - line 75 * * column 6, line 10 - line 58; figures 1-5 *	1	
A	----- US 2 961 113 A (KIENLEN WILBUR A) 22 November 1960 (1960-11-22)	1,8	
X	----- CH 169 895 A (FURTER GOTTHOLD [CH]) 15 June 1934 (1934-06-15)	1,5	
	* page 1, paragraph 2 * * page 2, paragraph 1 - paragraph 2; figures *		

The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			B65D
Place of search		Date of completion of the search	Examiner
The Hague		24 February 2010	Zanghi, Amedeo
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 09 38 0054

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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24-02-2010

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
FR 1027928	A	18-05-1953	NONE	
US 3462038	A	19-08-1969	NONE	
US 2961113	A	22-11-1960	NONE	
CH 169895	A	15-06-1934	NONE	