W. B. PAVEY & G. M. FRENCH.

BARREL RACK.

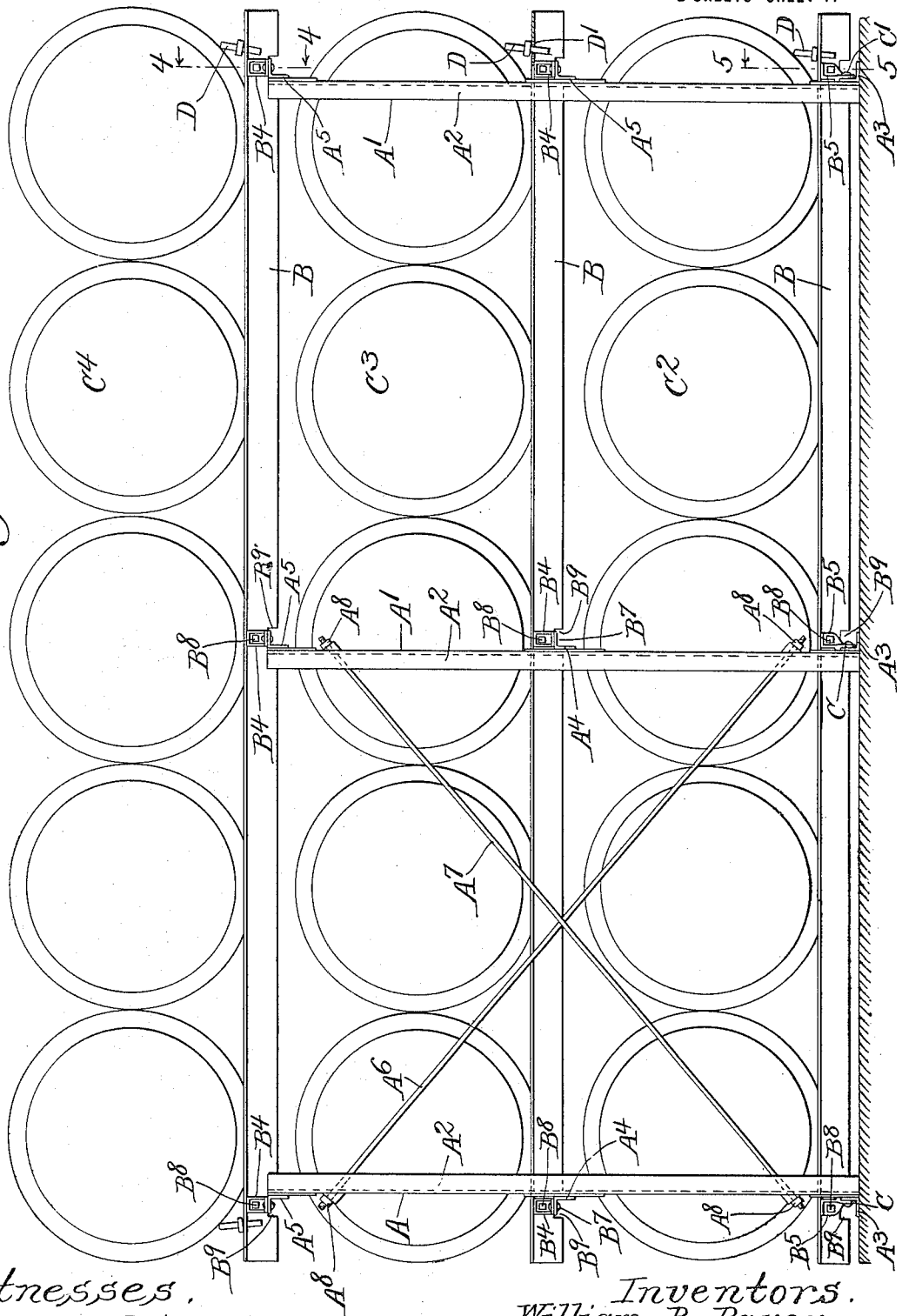
APPLICATION FILED MAY 19, 1916.

1,220,450.

Patented Mar. 27, 1917.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses.
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2 SHEETS—SHEET 2.

Fig. 2.

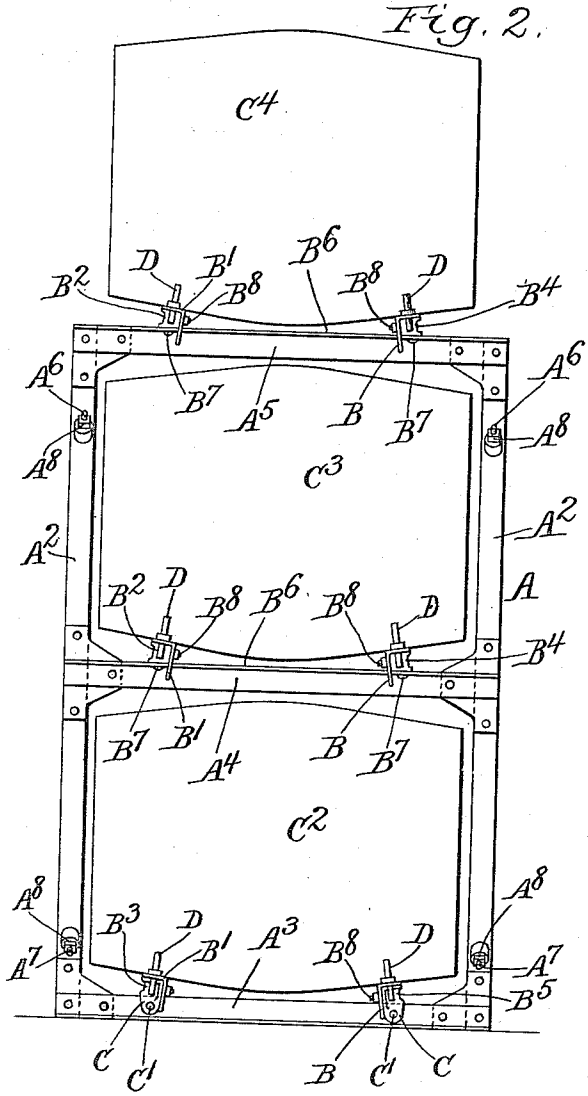


Fig. 3.

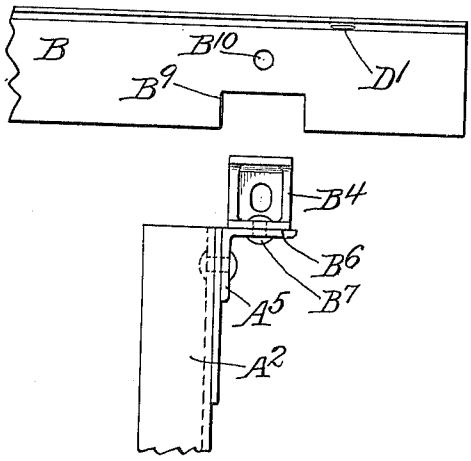


Fig. 4.

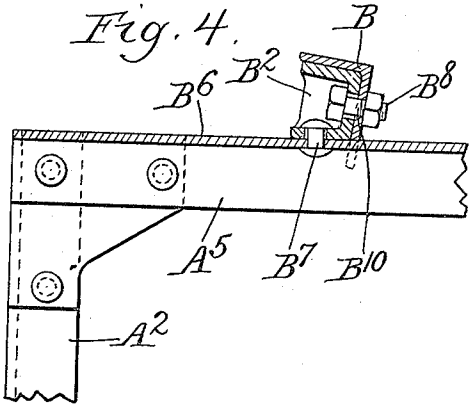


Fig. 5.

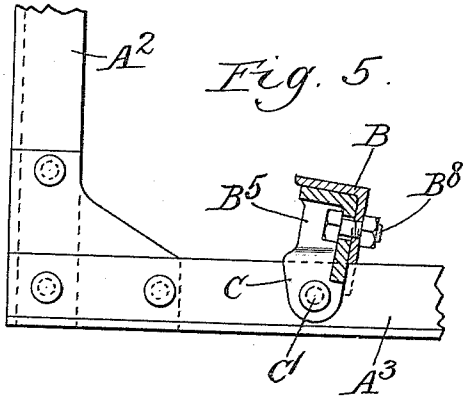
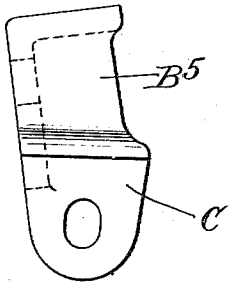


Fig. 6.



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UNITED STATES PATENT OFFICE.

WILLIAM B. PAVEY AND GEORGE M. FRENCH, OF CHICAGO, ILLINOIS, ASSIGNORS TO ECONOMY ENGINEERING COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

BARREL-RACK.

1,220,450. Specification of Letters Patent. Patented Mar. 27, 1917.

Application filed May 19, 1916. Serial No. 98,485.

To all whom it may concern:

Be it known that we, WILLIAM B. PAVEY and GEORGE M. FRENCH, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Barrel-Racks, of which the following is a specification.

Our invention relates to improvements in barrel racks and has for one object to provide a new and improved form of rack whereupon barrels or similar cylindrical packages may be stored. Another object is to provide such a rack as will be light, durable, easy to handle, easy to install and take down and as will require a minimum space. Another object is to provide a rack wherein the successive tiers of barrels or cylindrical packages may be removed or replaced without interference with or by the tiers above or below the one which is being changed. Other objects will appear from time to time in the specification.

Our invention is illustrated more or less diagrammatically in the accompanying drawings, wherein

Figure 1 is a side elevation,

Fig. 2 is an end view;

Fig. 3 is a detail side elevation showing one of the frame members and one of the stools separated but about to be put into position;

Fig. 4 is a section along the line 4—4 of Fig. 1 on an enlarged scale;

Fig. 5 is a section along the line 5—5 of Fig. 1 on an enlarged scale;

Fig. 6 is a side elevation of one of the chairs;

Like parts are indicated by like characters in both the drawings.

A, A^1 are a series of parallel rectangular panels made up of the uprights A^2, A^2, and the cross pieces A^3, A^4, A^5. These panels are held in the upright vertical position parallel one to another by means of cross bars A^6, A^7, passing through the uprights and held in position by the nut A^8. These cross bars coöperate with the barrel rail to form the structure.

B, B^1 are the barrel rails. They are as indicated made up of structural angles. They are mounted on chairs B^2, B^3, B^4, B^5. It will be noted that the chairs B^2, B^4 are right and left hand chairs and adapted to rest upon the upper flat surface B^6 of the cross pieces A^4, A^5. The chairs are preferably riveted as at B^7 and are inclined so that the barrel rail which is held in position by the bolt B^8 is inclined to substantially conform to the curvature of the bilge of the barrel. The rails, it will be noted, are cut away as at B^9 and perforated as at B^{10}, so that they may rest firmly and snugly on the chairs and hang down on either side of the cross pieces.

In order that the structure may have a firm bearing or foundation on the floor, the bottom cross member A^3 has a flat portion resting on the floor, and the chair must therefore be provided with a tongue or flange C extending down and bolted as at C^1 to the upwardly extending flange of the angle. Aside from this difference the chair is exactly the same as are the chairs on the two upper cross members. C^2, C^3, C^4 represent three tiers of barrels resting upon the barrel rail and supported one beneath the other so that each tier is altogether separate and self-contained, and so that the structure does not depend for its permanence upon the barrels themselves.

It will be noted that the rearmost panel is not provided with the cross bars A^6, A^7, this being not necessary owing to the fact that that panel is held firmly in position with respect to the other two by means of the six barrel rails extending back to it.

It will be evident that while we have shown in our drawings a diagrammatic exemplification of our invention, still many changes might be made and a greater or less number of barrel tiers might be used and the barrel tiers might be wider if desired, and we wish therefore that our drawings be regarded as in a sense diagrammatic.

D is a stop adapted to penetrate into an aperture D^1 adapted to hold the stop in position and the stop is arranged so that as a barrel rolls down the rail it strikes the stop and its movement is arrested.

The use and operation of our invention are as follows:—

Our rack is shipped in the knock-down, the panels are previously assembled and shipped as a unit. When the device is to be installed, the panels are set up, the barrel rails are laid upon the chairs and bolted in position and the tie rods are tightened up to hold the whole structure in position as a unit. The barrels are then rolled upon the

barrel rail, the barrels being lifted up by any suitable mechanism or arrangement not here shown when they are to be rolled upon the upper tiers, and the barrels rolled back into the rack easily and freely being propelled by the hand of the operator or any other suitable arrangement. When it is desired to withdraw any barrel, it is only necessary to draw out the barrels in that one tier between the outside and the desired barrel. It is not necessary to disturb more than one tier because the rack itself supports all the load and the barrels themselves do not carry any weight.

Thus the barrels are under no strain whatever and there is no tendency for leakage on the part of the lower barrels owing to compression of the weight of the upper ones.

It will be noted that the frame panels are units, that they are adapted to be parallel one to another, and that they are adapted to be fastened together partly by the barrel supporting rails and partly by the tie or stay members. The result of all this structure is that we have a barrel rack which stands alone by itself as a unit needing no attachment or support to or from walls or other structures.

We claim:

1. A rack for barrels and the like comprising a series of parallel vertical rigid frames, a series of chairs carried by said frames having upper surfaces inwardly inclined, barrel rails removably mounted on said chairs and held in position with their upper bearing surfaces inwardly inclined to conform to the curvature of the bilge of the barrel.

2. A rack for barrels and the like comprising a series of supporting frames and a series of barrel carrying rails mounted thereon, the rails having flat bearing surfaces arranged in parallel groups with their bearing surfaces inwardly and downwardly inclined to conform to the curvature of the bilge of the barrel, chairs upon which such barrel supporting rails are rigidly mounted, said chairs being firmly attached to the frames.

3. A demountable rack for barrels and the like comprising a series of parallel permanent rectangular frames, chairs rigidly mounted on said frames, and rails bolted to the chairs, means for holding the frames in parallel position, the rails being cut away to straddle portions of the frame, the upper barrel bearing surfaces of the rails being inwardly inclined toward one another to conform to the curvature of the barrel bilge.

4. A demountable rack for barrels and the like comprising a series of parallel permanent rectangular frames, chairs rigidly mounted on said frames, and rails bolted to the chairs, means for holding the frames in parallel position, the rails being cut away to straddle portions of the frame, the upper barrel carrying surfaces of the rails being inwardly inclined toward one another to conform to the curvature of the barrel bilge, some of said chairs having downwardly extending members adapted to engage and be rigidly attached to the side members of the frames.

5. A rack for barrels and the like comprising a series of permanent frame barrels, means for holding them in parallel position with respect one to another, said means comprising barrel supporting rails secured to said members, chairs bolted upon the frame members and adapted to support the barrel carrying rails.

6. A rack for barrels and the like comprising a series of permanent frame barrels, means for holding them in parallel position with respect one to another, said means comprising barrel supporting rails secured to said members, chairs bolted upon the frame members and adapted to support the barrel carrying rails, the inclination of the rail contacting portions of the chairs being such that the flat barrel supporting rail surfaces are inclined to substantially conform to the curvature of the bilge and of the barrel.

7. A rack for barrels and the like comprising a series of supported barrel carrying tracks in fixed position and means carried by said tracks for limiting the movement of the barrels therealong, said means comprising a stop pin, the track being apertured to loosely and removably contain the shank of said pin the pin being provided with a centrally disposed collar intermediate its ends and adapted to rest on the upper surface of the rail when in the operative position.

Signed at Chicago, in the county of Cook and State of Illinois, this 13th day of May, 1916.

WILLIAM B. PAVEY.
GEORGE M. FRENCH.

In the presence of witnesses:
ESTHER VAN FRANK,
MINNIE M. LINDENAU.