June 13, 1939. A. M. BARRETT 2,162,497

BARREL RACK

Filed April 13, 1936

Fig. 1

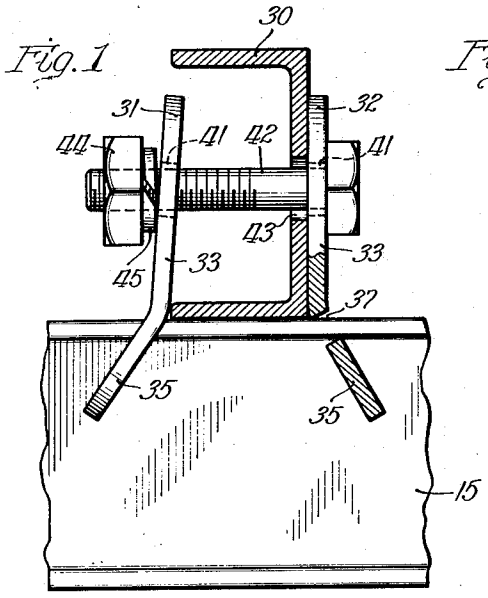
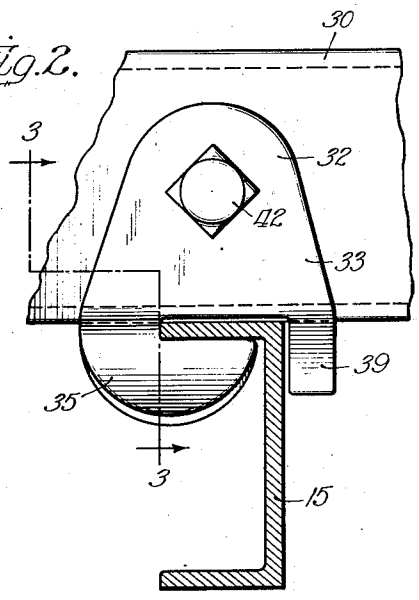


Fig. 2.



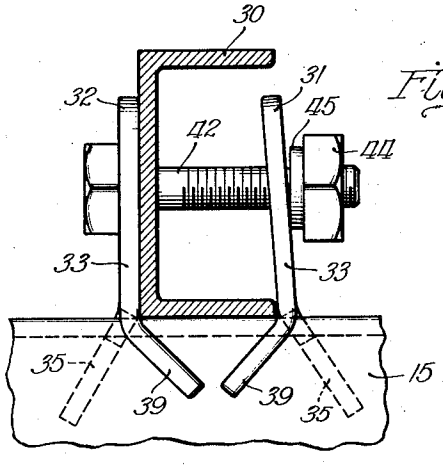
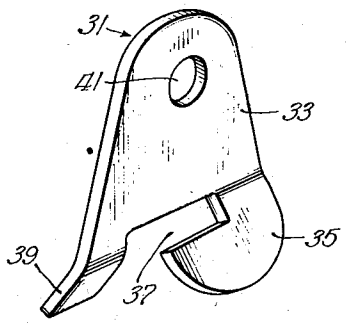


Fig. 3

Fig. 4.



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Patented June 13, 1939

2,162,497

UNITED STATES PATENT OFFICE

2,162,497

BARREL RACK

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Application April 13, 1936, Serial No. 74,070

6 Claims. (Cl. 189—35)

My invention relates generally to structural framework and it has particular relation to the construction of racks for containers such as barrels, oil drums and the like.

It is often desirable to store containers, such as barrels and oil drums, in a location where space is at a premium. The storage arrangement must be such that the containers may be readily stored away and yet are readily accessible. The rack on which the containers are stored must require a minimum of space and be readily adjustable for different types and sizes of containers to be stored thereon.

Oil drums, for example, are provided with rolling rings about their circumference. These rings are spaced differently depending upon the particular size and construction of the drum. Provision must be made for adjusting the tracks on the rack to accommodate these various sizes of drums.

It is customary to construct container racks using structural shapes to provide an open framework on which tracks for the containers may be positioned at different levels. The outer upright members are interconnected by diagonal brace rods. It has been the practice to provide oblong holes near the top and bottom of the outer upright members through which the brace rods, threaded at each end, project. Nuts are provided at the threaded ends for tensioning the brace rods. This construction is expensive and difficult to apply particularly due to the fact that the brace rods intersect the upright members at acute rather than at right angles.

It is, therefore, an object of my invention to provide an adjustable container rack which may be readily and economically constructed.

Another object of my invention is to provide for clamping the rails forming the tracks in a container rack in any relative position along the cross members of the rack.

A further object of my invention is to provide for clamping together a pair of structural shapes at right angles to each other by fastening a clamp assembly to one of the structural shapes only.

Other objects of my invention will in part be obvious and in part appear hereinafter.

My invention, accordingly, is disclosed in the embodiments hereof shown in the accompanying drawing and it comprises the features of construction, combination of elements and arrangement of parts which will be exemplified in the constructions hereinafter set forth and the scope of the application of which will be indicated in the appended claims.

For a more complete understanding of the nature and scope of my invention reference may be had to the following detailed description taken in connection with the accompanying drawing in which:

Figures 1, 2 and 3 are different views showing the manner in which the rails forming the track of a barrel rack are mounted and secured to the cross members; and

Figure 4 is a perspective view of one of the clamping members for securing the rails to the cross members.

With a view to providing a track on which the containers may be rolled runners **30**, preferably of channel-shape, are provided transversely of the cross members **15** as illustrated. It is desirable to provide for clamping the runners **30** to the cross members **15** in such manner that they may be readily adjusted therealong. It will then be possible to accommodate different sizes and shapes of containers having, for example, differently spaced rolling rings.

As shown more clearly in Figures 1, 2 and 3 of the drawing clamp assemblies comprising right and left hand clamp members **31** and **32** are provided. The clamp members **31** and **32** are arranged to be mounted on the runners **30** at intervals corresponding to the horizontal distances between adjacent cross members **15** of a barrel rack. However, the clamp members **31** and **32** are so constructed and arranged that they may be removably secured to the cross members **15**. It is then possible to adjust the distance between the runners **30** to accommodate different sizes of containers.

The construction of the right hand clamp member **31** is shown in detail in Figure 4 of the drawing. As there shown the clamp member **31** is provided with a flat portion **33**, which is arranged to be disposed substantially at right angles to the cross member **15**. The clamp member **31** is also provided with an outwardly turned hook section **35** which is formed by a punching operation to provide a slot **37** as illustrated. An inwardly turned section **39** is also provided. The clamp member **31** is formed preferably from steel plate material and is of a thickness and size depending upon the stress which is to be applied thereto. The slot **37** is formed preferably by a punching operation as is also an opening **41** in the flat portion **33**. The sections **35** and **39** are oppositely bent in a suitable forming machine or by a suitable forming die. The hook-shaped section **35** is arranged to engage the under surface of the top flange of the cross member **15**,

as illustrated more clearly in Figure 2 of the drawing. The section 39 is provided to prevent the clamp member 31 from being moved transversely across the cross member 15 when the assembly is clamped in position. Since the sections 35 and 39 are turned in opposite directions it is possible to place the clamp member 31 in position at any point along the cross member 15, without requiring that it be slipped over the end thereof. It will be understood that the left hand clamp member 32 is constructed in a manner similar to the construction of the right hand clamp member 31, with the exception that the sections 35 and 39 therefor will be turned oppositely.

The clamp members 31 and 32 are assembled on the cross member 15 and between them the runner 30 is positioned. As shown in the drawing the flat portions 33 are disposed substantially at right angles to the cross member 15. A bolt 42 extends through the openings 41 in the flat portions 33 of the right and left hand clamp members 31 and 32 and through an opening 43 in the runner 30, and is secured in position by means of a nut 44 and a lock washer 45, as illustrated. When the nut 44 is tightened on the bolt 42 the clamp members 31 and 32 are drawn toward each other. The hook-shaped sections 35 of these clamp members then engage the undersurface of the top flange of the cross member 15 and securely clamp the runner 30 thereto.

Since the hook shaped section 35 will provide a sufficient gripping effect on the underside of the top flange of the cross member 15, it may be unnecessary to provide the oppositely turned section 39. However, the provision of this section is desirable in order to prevent any possibility of the clamp members 31 and 32 slipping off of the cross member 15. As a further modification the structural shapes 15 and 30 forming respectively the cross members and the runners and shown as being of channel-shape may be of other shapes. For example, these members may have I-shaped cross sections or they may have L-shaped cross sections. It will be understood that the selection of the different shapes will depend upon the application for which the rack and assembly devices is intended.

Since further changes may be made in the foregoing constructions and different embodiments of the invention may be made without departing from the scope thereof, it is intended that all matter shown in the accompanying drawing or disclosed in the foregoing description shall be interpreted as illustrative and not in a limited sense.

I claim as my invention:

1. A clamp assembly for securing together a pair of structural shapes or the like comprising, in combination, a pair of clamp members provided with oppositely turned portions each having a slotted opening therein and arranged and adapted to engage the under side of a flange of one of the shapes and flat portions between which the other shape may be positioned, and a retaining member extending through said flat portions and said other shape to provide the required clamping action.

2. A clamp assembly for securing together a pair of structural shapes or the like comprising, in combination, a pair of clamp members provided with oppositely turned portions each having a slotted opening therein and arranged and adapted to engage the under side of a flange of one of the shapes and flat portions between which the other shape may be positioned, and means for securing said clamp members in fixed position on said one structural shape.

3. An assembly for clamping together at right angles a pair of structural shapes or the like having mutually engaging flanges comprising, in combination, a right hand clamp member, a left hand clamp member, said clamp members being provided with flat portions between which one of the structural shapes may be positioned and with outturned hook portions each having a slotted opening therein for positioning from the same side and engaging the inner surface of a flange of the other shape, and retaining means for securing said clamp members in position.

4. An assembly for clamping together at right angles a pair of structural shapes or the like having mutually engaging flanges comprising, in combination, a right hand clamp member, a left hand clamp member, said clamp members being provided with flat portions between which one of the structural shapes may be positioned and with outturned hook portions each having a slotted opening therein for positioning from the same side and engaging the inner surface of a flange of the other shape, and a retaining member extending through said flat portions and said one structural shape.

5. An assembly for clamping together at right angles a pair of structural shapes or the like having mutually engaging flanges comprising, in combination, a right hand clamp member, a left hand clamp member; each of said clamp members comprising a flat portion between which one of the structural shapes may be disposed, an outturned rigid hook portion for positioning from the same side and engaging the inner surface of a flange of the other shape, and an inturned rigid portion for limiting relative transverse movement of the shapes; and means for retaining said clamp members in clamping position.

6. An assembly for clamping together at right angles a pair of structural shapes or the like having mutually engaging flanges comprising, in combination, a right hand clamp member, a left hand clamp member; each of said clamp members comprising a flat portion between which one of the structural shapes may be disposed, an outturned rigid hook portion for positioning from the same side and engaging the inner surface of a flange of the other shape, and an inturned rigid portion for limiting relative transverse movement of the shapes; and a retaining member extending through said flat portions and said one structural shape.

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