Nov. 5, 1935. A. W. JAMES 2,019,860

CARBOY BOX

Original Filed June 28, 1933

Fig. 1.

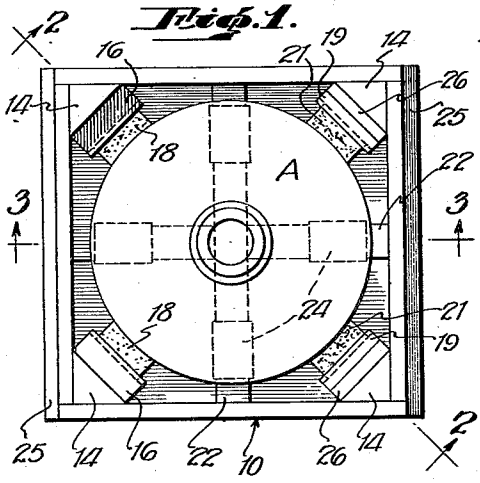


Fig. 2.

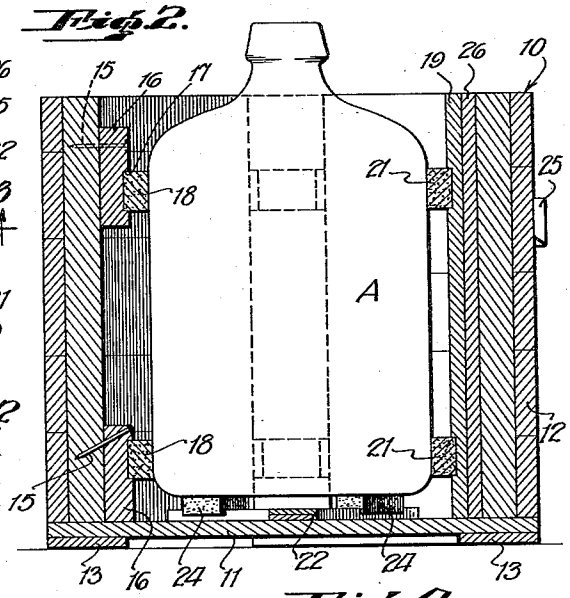


Fig. 3.

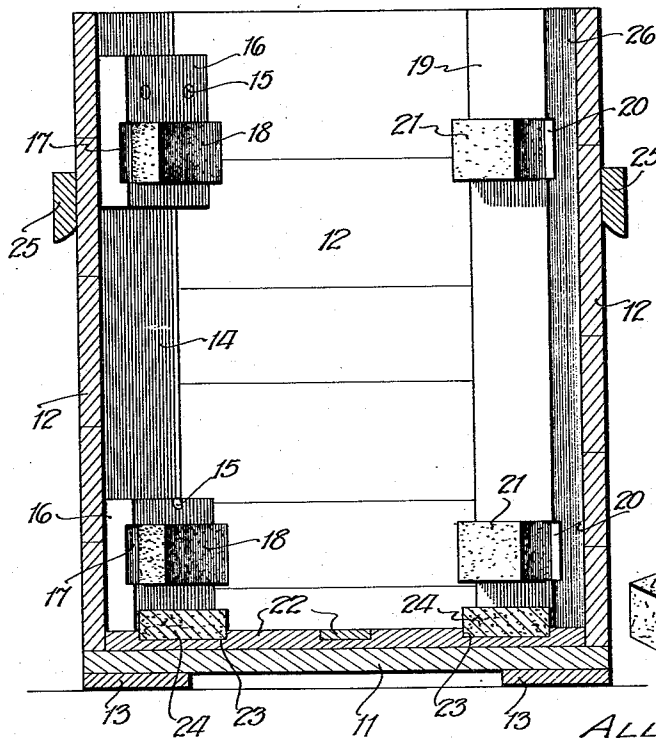
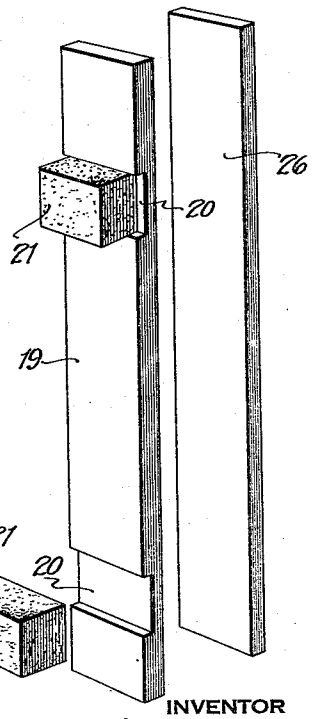


Fig. 4.



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Patented Nov. 5, 1935

2,019,860

UNITED STATES PATENT OFFICE

2,019,860

CARBOY BOX

Allan W. James, Hillside, N. J.

Application June 28, 1933, Serial No. 677,984
Renewed March 27, 1935

2 Claims. (Cl. 217—52)

This invention relates to improvements in shipping cases or boxes and more particularly to a carboy box.

One of the main objects of the invention resides in a simple, inexpensive, and durable carboy box which will meet the requirements prescribed by the Interstate Commerce Commission for shipping containers of this type. One of the important requirements demands that the carboy or other breakable container be so boxed or crated as to withstand the shocks to which the same are subjected under the present handling and transportation conditions. Many different constructions have been devised to absorb the shocks and prevent the same from being transmitted from the box or case to the carboy to prevent breakage, and in some instances, springs have been used, in others resilient slats have been employed, and cushioning blocks in association with wedges have been resorted to. It is therefore the purpose of this invention to provide efficient cushioning means between the walls of the box and the carboy, eliminating the use of springs, wedges and like elements.

Another object of the invention is the provision of a boxed carboy constructed of a size to accommodate a standard sized carboy but which embodies an adjusting feature by which any slight variations in the size of the standard sized carboy due to imperfect manufacture may be compensated for.

A further object of the invention is the provision of a rectangular carboy box having non-resilient posts within the four corners thereof, two adjacent corner posts serving to fixedly support cushioning blocks, while the other two adjacent corner posts are built outwardly by the use of shims which are interposed between the respective corner posts and removable cushioning supporting members. The shims are of a uniform thickness throughout their entire length, and are of sufficient thickness to compensate for the space between the posts and the cushion supporting members and coact therewith to hold the outer faces of the upper and lower cushion blocks in the same vertical plane against the carboy to provide a solid backing for the same at the four corners of the box.

With these and other objects in view, the invention resides in the certain novel construction, combination and arrangement of parts, the essential features of which are hereinafter fully described, are particularly pointed out in the appended claims, and are illustrated in the accompanying drawing, in which:

Figure 1 is a top plan view of my improved boxed carboy.

Figure 2 is a vertical sectional view on the line 2—2 of Figure 1.

Figure 3 is a vertical sectional view on the line 3—3 of Figure 1.

Figure 4 is a detail perspective view of one of the removable cushioning supporting members and its related shims.

Referring to the drawing by reference characters, the numeral 10 designates my improved carboy box in its entirety and which is substantially rectangular in configuration, and open at its top and includes a bottom wall 11 and four vertical side walls 12. Each side wall is preferably constructed of a plurality of slats horizontally disposed to build the side walls to the desired height. Cleats 13 are secured to the under side of the bottom wall 11 and constitute seats to support the bottom wall above the surface on which box may rest.

Secured within the four corners of the box body are corner posts 14, the same being triangular shaped in plan and cross section, and which extend the height of the side walls and serve to reinforce the four corners of the box. Two of the flat surfaces of each corner post fit against the inner sides of two adjacent side walls, while the other or third flat surface, faces inwardly as best seen in Figure 1 of the drawing. Thus the corner posts are disposed in opposed pairs and together with the side walls, they provide a crate or box whose inside dimensions are greater than the diameter of the carboy A, to enable the cushioned furniture now to be described to securely hold the carboy within the box and in spaced relation to the walls thereof.

Fixedly secured as by nails or the like 15 to the inwardly facing flat surfaces of two adjacent corner posts 14 are non-resilient cushion supporting blocks 16. These blocks are arranged adjacent the top and bottom of the respective corner posts and are transversely recessed as at 17, and receive resilient cushion blocks 18. The cushion blocks 18 may be of cork or other like resilient composition and are held in the recesses by adhesive or the like.

Associated with the other two adjacent corner posts 14 are cushion supporting members in the form of slats 19 and which are transversely recessed adjacent their top and bottom ends as at 20 to receive cushion blocks 21. The blocks 21 are of yieldable material and preferably cork and are adhesively secured within the recesses in the same manner as the cushion blocks 18.

These cushion supporting members 18 are removably associated with the respective corner posts and are not placed in position until after the carboy A has been placed in the box.

Due to imperfection in the manufacture of glass carboys, the diameter of a particular size carboy may vary, or the exterior shape may be irregular, and in view of such conditions, I provide a simple and efficient means of compensating for the same and which will presently be described.

Fixedly secured on the inside of the bottom wall 11 are right angularly disposed cross slats or cleats 22, the crossed portions of the same being recessed to provide an interfitting joint therebetween and to enable the slats to be disposed on the same horizontal plane. The upper faces of the slats or cleats 22 are recessed as at 23 adjacent their opposite ends and receive resilient cushion blocks 24 also of cork or the like, the same being adhesively secured within the respective recesses.

After the carboy A is placed in the box body 10, the same rests upon the bottom cushion blocks 23 with the side of the carboy against the fixed cushion blocks 18. The removable cushion supporting members or slats 19 are dropped into position at their respective corners, but being loose, some means is necessary for securing them in position and for setting up an inward pressure against the side walls of the carboy to hold the same in spaced relation to the side walls 12. For this purpose, I employ non-resilient shims 26 which are of a uniform thickness throughout their entire length and are of a length equal to the length of the corner posts 14 against which they fit. In the manufacture of boxed carboys, I intend to employ a stock of shims of different thicknesses to compensate for the varying sizes in the carboys. The shims 26 are inserted between the flat sides of the posts 14 and the respective cushion supporting members or slats 19 and are of a thickness slightly greater than the width of the space between the slats and the posts so as to exert a yielding pressure through the cushion blocks 21 against the sides of the carboy. When first inserting the shims, it will be necessary to press the cushion supporting slats inwardly, but after once inserting the shims into the space they may be easily driven home.

In practice, the open top of the box may be covered, and the neck of the carboy permitted to extend therebeyond as is the usual practice.

Two opposed sides of the carboy box are provided with transversely disposed cleats 25, the under sides of which are beveled to provide hand grip portions for use in the handling of the box during shipment.

From the foregoing description taken in connection with the accompanying drawing, it will be seen that I have provided a boxed carboy in which the four corner posts act as rigid backings for the resilient cork cushioning blocks, together with a means for compensating for any difference in size between the standard size dimension of a carboy. The corner posts act as backings for the resilient cushion blocks and which blocks absorb any shocks imparted to the box through present handling and shipping conditions.

While I have shown and described what I deem to be the most desirable embodiment of my invention, I wish it to be understood that such changes as come within the scope of the appended claims may be resorted to if desired.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent of the United States, is:—

1. In a carboy container, a rectangular box body adapted to receive a carboy, corner posts provided in the four corners of said box body, cushioning blocks fixedly carried by two adjacent corner posts and against which a carboy is adapted to abut, removable non-resilient cushion supporting members spaced from the other two corner posts, resilient cushion blocks carried by said cushion supporting members and facing inwardly of the box body, and shim members of uniform thickness throughout their length interposed between the cushion supporting members, and the respective corner posts for urging the cushion blocks carried thereby into simultaneous pressing engagement with the side walls of a carboy.

2. In a carboy container, a rectangular box body adapted to receive a carboy, triangular shaped corner posts fixedly secured within the four corners of the box body, one of the flat angular faces of said corner posts facing inwardly of the corners of the box body, non-resilient cushion supporting members fixedly mounted on the inwardly facing flat surfaces of two adjacent corner posts, resilient cushion blocks mounted on said supporting members, flat removable non-resilient supporting members, resilient cushion blocks mounted on one of the sides of said removable supporting members, said removable supporting members being loosely inserted within the box body adjacent the other two corner posts, and flat shims of uniform thickness throughout their length interposed between the flat sides of said removable cushion supporting members and the inner flat angular faces of the respective corner posts to cause all the cushion blocks to yieldingly engage the sides of a carboy.

ALLAN W. JAMES.