

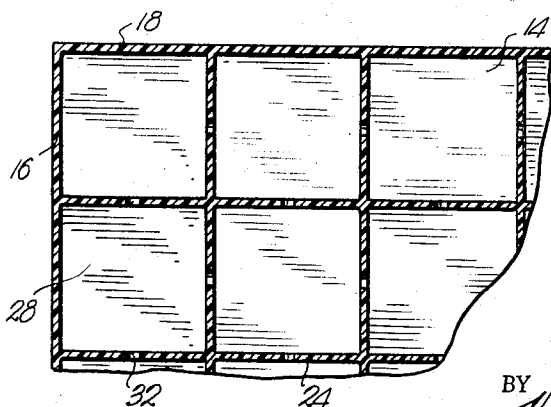
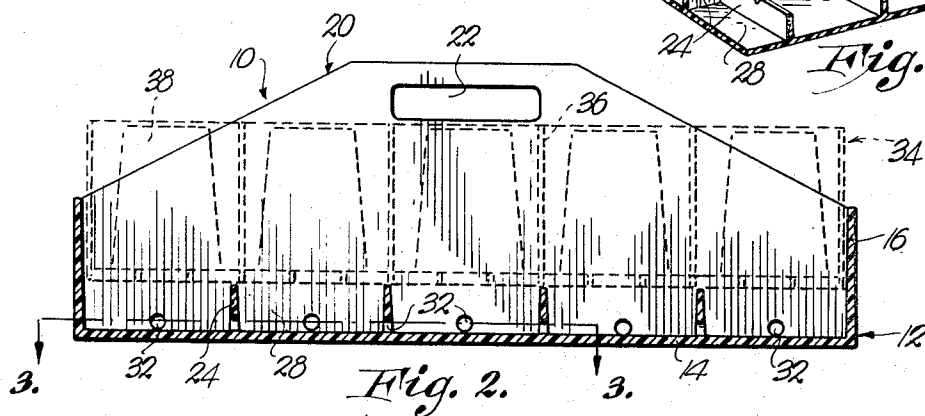
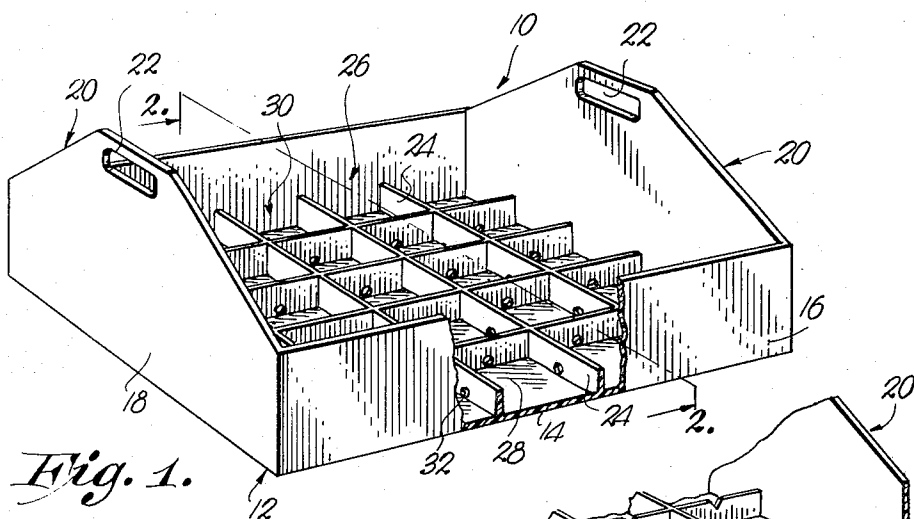
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BUS BOX

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3,367,529
BUS BOX

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ABSTRACT OF THE DISCLOSURE

A bus box for transferring restaurant articles while in conventional dishwashing racks to and from a dishwashing installation. The box includes a closed tray having a series of spaced, intersecting ribs in the tray for supporting the rack and defining separate compartments beneath each of the article receiving positions of the rack. Fluid passageways communicate adjacent compartments for leveling liquid in the tray.

This invention relates to a bus box for bulk handling of soiled cups, drinking glasses or other articles in a restaurant and has as its primary object the provision of novel tray and supporting structure for initially receiving a dishwashing rack whereby soiled glasses or the like may be placed in the rack and carried therewith as a unit with the bus box to the dishwashing apparatus whereupon the rack and its contents may be removed for insertion into the dishwasher. The utilization of our bus box decreases the multiple handling and therefore excess labor heretofore required under conventional restaurant procedures which included initial placement of soiled articles in a bus box or tray and subsequent transfer to a dishwashing rack for cleaning purposes.

It is an important object of our invention to provide a bus box wherein sanitation conditions are improved by decreasing the manual handling of the articles, and additionally, the support structure precludes further contact of the articles with the waste material emptied therefrom, as well as preventing cross-contamination with waste removed from other articles placed in the rack.

In the drawing, FIGURE 1 is a perspective view of a bus box made pursuant to the present invention, parts being broken away and in section for clearness; FIG. 2 is an enlarged, cross-sectional view taken along line 2-2 of FIG. 1 and showing, in phantom, a dishwashing rack and articles placed therein; FIG. 3 is a cross-sectional view taken along line 3-3 of FIG. 2; and FIG. 4 is a fragmentary view similar to FIG. 1 showing an alternate form of the bus box.

The bus box of the present invention, broadly designated by the reference numeral 10, includes a rectangular tray 12 having a bottom 14 and opposed pairs of sidewalls 16 and 18. Each sidewall 18 is provided with an upwardly extending, integral trapezoidal handle 20 having an elongated slot 22 formed therein proximal the upper edge of handle 20.

Supporting structure for receiving a dishwashing rack is provided in bus box 10 and comprises a pair of mutually perpendicular, intersecting sets of parallel ribs 24 traversing bottom 14. Ribs 24 comprise rectangular slats having a height less than sidewalls 16 and 18 whereby a dishwashing rack-receiving space 26 is presented between the sidewalls above ribs 24.

The inner section of ribs 24 presents a number of identical rectangular compartments 28 which cumulatively define a waste reservoir 30 below rack-receiving space 26. A plurality of openings 32 are formed in ribs 24 proximal bottom 14 for a purpose to be hereinafter described.

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In use, a dishwashing rack 34 is placed within rack-receiving space 26 and is carried by the upper edges of ribs 24, as is clear from FIG. 2. Rack 34 includes a plurality of dividers 36 which define article-receiving positions in the rack which are in alignment with respective compartments 28 of bus box 10.

Initially, rack 34 is empty, but as is obvious from FIG. 2, articles such as drinking glasses 38 may be placed in the rack by a bus boy or waiter and in an inverted position. The liquid waste product of glasses 38 will drain into corresponding compartments 28, the flow of the waste product being relatively restricted by virtue of the blocking action of ribs 24. A limited flow of the waste product will be permitted through openings 32, but usually, waste from a particular glass 38 will be confined to the general area of original drainage.

The raised position of rack 34 with respect to bottom 14 and the restricted waste product flow provided by compartments 28 combine to present a bus box having optimum sanitation characteristics. In this regard, waste draining from glasses 38 will not be in contact with the lip surfaces of glasses 38 and thus further contamination is prevented. In the event that the waste liquid is permitted to splash upwardly into contact with glasses 38, the waste liquid will generally be that which has drained from each respective glass due to its area confinement discussed above. This novel provision prevents cross-contamination, i.e., waste draining from one of the glasses 38 will usually not come into contact with any of the other glasses.

The above described advantage is noteworthy for the reason that should there be a breakdown in the cleaning operation, and complete sanitation not produced, the contamination of each glass 38 will be limited primarily to any germs or the like originally carried on the glass. When bus box 10 is carried, excessive splashing of liquid waste is precluded by the baffle characteristics of ribs 24 to further prevent cross-contamination. Splashing is also minimized and overflow is eliminated since a common liquid level is formed throughout bus box 10 due to the restricted lateral flow permitted through openings 32 to adjacent compartments 28.

It will be appreciated that our bus box will eliminate many of the manual handling steps required by prior restaurant operations in the bulk handling of drinking glasses, cups, and similar articles. In this respect, conventional practice has been to initially remove soiled glasses and the like from a table and place the same in a simple tray or bus box, whereupon the bus box and its contents were carried to the kitchen of the restaurant, waste was drained from the articles and the latter then transferred to a dishwashing rack for cleaning operation.

The novel tray and supporting structure of the present invention eliminates the need for draining waste from the articles and transferring the same to a dishwashing rack since these operations are inherently included in the structure of bus box 10.

In the present invention, the prior unsanitary and labor-wasting practice in the bussing, or removal from place of service of cups and similar articles is eliminated and replaced by an efficient process in which the articles are manually handled only once, i.e., at the point of service when the bus boy placed the articles in the rack. The rack and bus box are then carried as a unit to the dishwashing department, it being noted that slot 22 of handle 20 is positioned above rack 34 and its contents whereby handle 20 may easily be manually grasped through slots 22 by the bus boy, the thumbs of the latter extending over the top of handle 20 to hold rack 34 firmly in position in bus box 10.

The rack of articles is lifted clear of the bus box and

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placed directly into the dishwasher, and the bus box is emptied and also sent through the dishwasher. The cleaned articles are then taken to the next point of service, it being appreciated that the articles are not touched by human hands after removal from the point of last use until they are again placed into service, all to the end that breakage, labor requirements and sanitation problems are minimized.

An alternate form of the invention is shown in FIG. 4 wherein V-shaped notches 50 are provided in the top edges of the ribs and replace openings 32 for liquid leveling purposes. The use of notches 50 improves the protection against mixing of the waste contents of individual articles placed in the bus box since a predetermined depth of waste is required in each compartment prior to overflow into adjacent compartments.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

1. A bus box for carrying a plurality of restaurant articles which are supported in a dishwashing rack having a perforate, substantially planar support member and a plurality of dividers defining separate article receiving positions above said support member; said bus box comprising:

- a tray having a bottom, a pair of upright end walls and a pair of upright side walls, said tray being impervious to liquid and being of sufficient size to receive said rack between said walls;
- a plurality of mutually spaced ribs in the tray, said ribs extending upwardly from said bottom and spanning the distance between said side walls;
- a plurality of mutually spaced cross-ribs in the tray, said cross-ribs extending upwardly from said bottom and spanning the distance between said end walls, said ribs being disposed in intersecting relationship with said cross-ribs to define between respective pairs of ribs and cross-ribs a plurality of individual

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compartments, there being a compartment for each article receiving position of said tray, the height of said ribs and cross-ribs being less than the height of said walls, said ribs and cross-ribs being adapted to receive the support member of the rack thereon whereby waste from each of said article receiving positions may drain through said member and into a corresponding one of said compartments when said dishwasher rack is in said bus box, and

a plurality of fluid passageways in said ribs and cross-ribs respectively, there being a passageway communicating each of said compartments with the adjacent compartment to permit leveling of liquid in said tray.

2. The invention of claim 1, and

handle means carried by said end walls above the level of said articles in the rack when the latter is supported on said ribs and cross-ribs whereby the bus box may be carried manually without touching said articles.

3. The invention of claim 1, said ribs and cross-ribs being provided with openings therethrough, said openings defining said passageways.

4. The invention of claim 1, said ribs and cross-ribs being provided with V-shaped notches in the upper marginal edges thereof, said notches defining said passageways.

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