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CRATE BOTTOM FOR RECESSED GAS AND ELECTRIC OVENS

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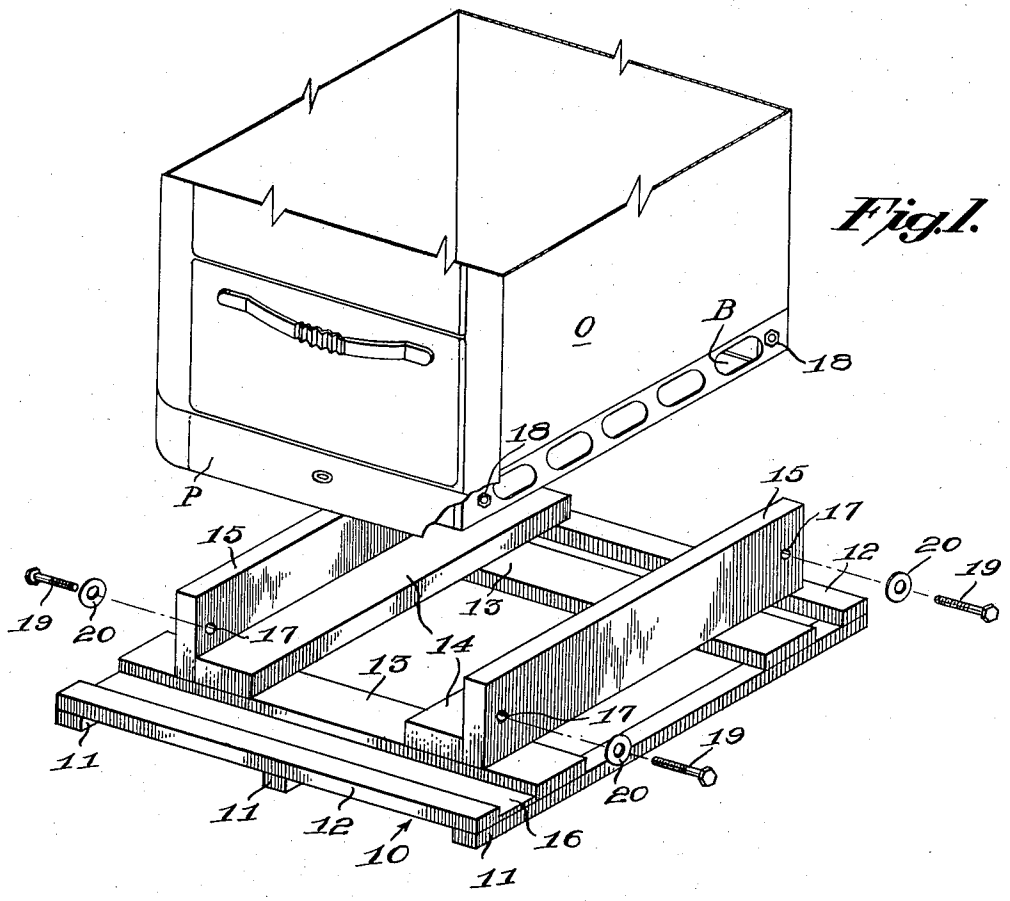


Fig. 1.

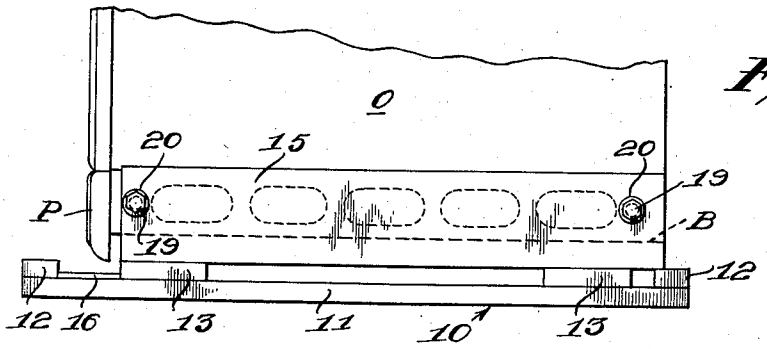


Fig. 2.

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CRATE BOTTOM FOR RECESSED GAS AND ELECTRIC OVENS

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3 Claims. (Cl. 248—119)

This invention relates to a crate bottom for recessed gas and electric ovens.

As is generally known, gas and electric ovens in common with various other forms of merchandise and appliances are provided with crates for their protection during transportation and handling thereof.

Crates as at present used for the protection of recessed gas and electric ovens each generally comprise three parts, a bottom, sides and a top.

The crate bottom is normally employed as a pallet on the assembly line and it must be of sufficient strength to insure safe transit during shipping. In most instances, the appliance is bolted through the lower surface of the crate bottom into corner gussets on the appliance base to secure the appliance in a proper position in the crate.

The sides of the crate are generally provided by a four-sided wrap-around box manufactured in a manner which permits wiring or nailing the open corners together. Wire bound crates are provided with loops at the open corners which are easily twisted to secure the four-sided wrap-around.

The top of the crate is normally a structure similar to the bottom but of just sufficient strength to insure against damage to the appliance due to handling, top loading or other top forces.

A major problem confronting a manufacturer is the assurance that his product will be received by the purchaser in undamaged condition, and that the crate structure will permit ease of removal of the appliance for installation.

While the crate structure above described and as now in use has proven satisfactory so far as the wrap-around sides and top are concerned, the bottom thereof has been found objectionable due to the bolting through the lower surface thereof into gussets on the appliance base, as above referred to.

When the crate bottom is secured to the appliance base by means of bolts extending through the bottom surface of the crate and into nuts located in gussets on the appliance base, as at present, the purchaser or installer is faced with a difficult problem both from the standpoint of time consumed in the removal of the base and also the great liability of damage to the appliance.

The reason for the above is that the appliance must be tilted substantially out of the vertical in order to gain access to the bolts for removal thereof and with heavy appliances such as recessed gas and electric ovens, such is a difficult, dangerous, and tiresome operation.

When the built-in-type of appliances, such as recessed gas and electric ovens, are being sold to the building trade in large quantities, the time consumed by the installer resulting from uncrating operations is of vital importance to sales.

The simpler and safer the method of removing the appliance from the crate bottom, the greater is the acceptance of the appliance to the builder and customer.

In most instances where manufacturers receive damage claims they find that same resulted from handling during uncrating and installation.

It is accordingly a primary object of this invention to provide a crate bottom whereby in the use of same the above noted objection to crate bottoms now in the use will be substantially wholly overcome.

A further object of the invention is the provision of a bottom section for an appliance crate which is easy to apply, easy to remove and the appliance is not subject to damage during such application and removal.

Other objects and advantages of the invention will become apparent in the course of the following detailed description, taken in connection with the accompanying drawing, wherein—

Fig. 1 is an isometric view of the improved crate bottom and showing the bottom portion of a recessed oven as about to be positioned on the crate bottom.

Fig. 2 is a side elevational view of the crate bottom with the lower portion of the oven operatively engaged therewith.

Referring now in detail to the drawing, the oven is generally designated O and which is provided with a lower front panel P projecting below the base B of the oven.

The improved crate bottom is designated in its entirety as **10** and same is of skeleton form and is preferably constructed of a plurality of wooden slats or members which are disposed as follows:

Three lowermost members **11** are disposed in parallel and uniformly spaced relation and which as indicated extend in a direction depthwise of the oven O. Disposed upon and transversely of the members **11** at each of the corresponding opposite ends thereof is a member **12** which members are preferably flush with the opposite ends of members **11**.

The members **11** and **12** are preferably relatively narrow and disposed between the members **12** in parallel relation thereto and also intersecting the members **11** are a pair of relatively wider members **13** which are disposed relatively close to the members **12**.

Supported on the members **13** is what may be termed an oven base receiving trough and which is provided by a pair of spaced parallel and relatively wide members **14** which are disposed transversely of the members **13** and in inwardly spaced relation to the outermost members **11**.

Disposed in contact with the outer edge of each member **14** is a relatively wide vertically disposed member **15** which members **15** engage opposite sides of the oven adjacent the base thereof.

The bottom is completed by a plywood slat **16** which rests on members **11** and fills the gap between members **12** and **13** at the end of the bottom adjacent the front of the oven for a purpose later referred to.

The upright members **15** are each provided with a bolt receiving aperture **17** adjacent each end thereof and the apertures in one member are axially aligned with those in the other member.

The oven O is provided with clinch nuts **18** which when the oven base is supported on members **14** are axially aligned with the apertures **17** in members **15** and a bolt **19** is extended through each aperture **17** and threaded into a corresponding clinch nut **18**, there preferably being provided a washer **20** for disposal between the head of each bolt **19** and the adjacent wall of the respective member **15**.

It is here to be observed that the several members entering into the crate bottom structure are suitably secured together, preferably by nailing.

In the crating of the ovens, same having their bases seated on members **14** and between members **15** with the clinch nuts **18** axially aligned with the apertures **17**, whereupon the bolts **19** are laterally extended through the apertures **17** and into the clinch nuts **18**.

The sides of the ovens are then wrapped as usual with the usual wrap-around structure and the usual crate top is applied to the top of the oven.

Since the side and top of the crate form no part of the present invention, they have not been disclosed.

Upon receipt of a shipment of crated ovens, the purchaser may remove the usual top and side crate parts and the bottom will serve as a pallet and may be retained in secured relation to the oven base until same is installed.

It is to be observed, particularly as shown in Fig. 2, that the lower front panel P of the oven extends below the base B thereof. If such oven were to be bolted through the bottom, the installer on tilting the unit for removal of the crate bottom would experience slipping when the bolts were removed with probable damage to the bottom panel. Such damage will not occur when the crate bottom herein disclosed is employed.

Furthermore, the plywood slat **16** insures against damage of the panel P by fork lift trucks, etc. during movement of the crated appliance.

Having set forth my invention in accordance with a preferred structural embodiment thereof, what I claim and desire to secure by U.S. Letters Patent is:

1. A crate bottom for the base of a generally rectangular appliance having a pair of check nuts in each side thereof and whose axes are horizontally disposed; comprising a plurality of spaced slat members in parallelism with said appliance base sides, a plurality of spaced parallel slat members disposed upon said first slat members in right angular relation thereto, a pair of horizontally disposed spaced parallel slat members disposed upon certain of said last plurality of slat members for vertically supporting said base, and a pair of vertically disposed slat members having their lower edge portions engaged with the opposite edges of said pair of horizontally disposed slat members, said last slat members each being provided with a pair of horizontal apertures, and a bolt extendible through each aperture and removably engaged with a respective check nut in said appliance base.

2. The structure according to claim 1, wherein said second plurality of slat members comprises a pair thereof adjacent the front end of the crate bottom between which a lower front panel of said appliance is disposed when the appliance is in securing position, and a plywood slat disposed between said last pair of slat members and supported on said first plurality of slat members for protecting said panel against damage by fork lift trucks, etc.

3. A crate bottom for an oven including a rectangular base and a front panel extending below the base and wherein said base is provided with a pair of check nuts in each side thereof and whose axes are horizontally disposed; comprising a plurality of spaced slat members in parallelism with the sides of said rectangular base, a plurality of spaced parallel slat members disposed upon said first slat members in right angular relation thereto, a pair of horizontally disposed spaced parallel slat members disposed upon all of said last slat members with the exception of one which is disposed at corresponding ends of said first slat members, said last slat members being adapted to support said base, a pair of vertically disposed slat members having their lower edge portions engaged with the outer edges of said pair of horizontally disposed slat members, said last slat members each being provided with a pair of horizontal apertures for axial register with said check nuts when said base is seated on said horizontally disposed slat members for extension of bolts through the apertures and threaded reception in said check nuts, and a plywood slat supported on said first slats and disposed between said slat member disposed at corresponding ends of said first slat members and an adjacent slat member of said second named slat members above which said front panel is disposed when the oven is in said seated position for the protection of said panel against the action of transporting fork lift trucks.

References Cited in the file of this patent

UNITED STATES PATENTS

462,257	Ivers	Nov. 3, 1891
1,483,648	Whitworth et al.	Feb. 12, 1924
1,505,520	Zabriskie	Aug. 19, 1924
2,665,002	Baumann et al.	Jan. 5, 1954

FOREIGN PATENTS

616,852	Great Britain	Jan. 27, 1949