

Dec. 9, 1958

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2,863,708

DOUBLE DECK FOOD SERVING UNIT

Filed April 18, 1957

3 Sheets-Sheet 1

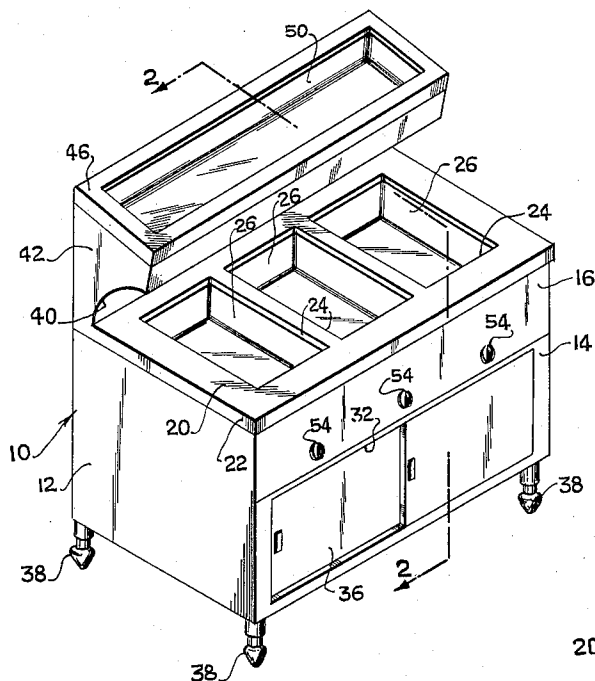


Fig. 1.

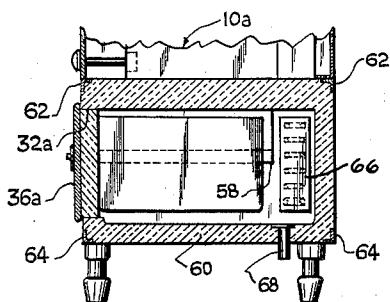


Fig. 4.

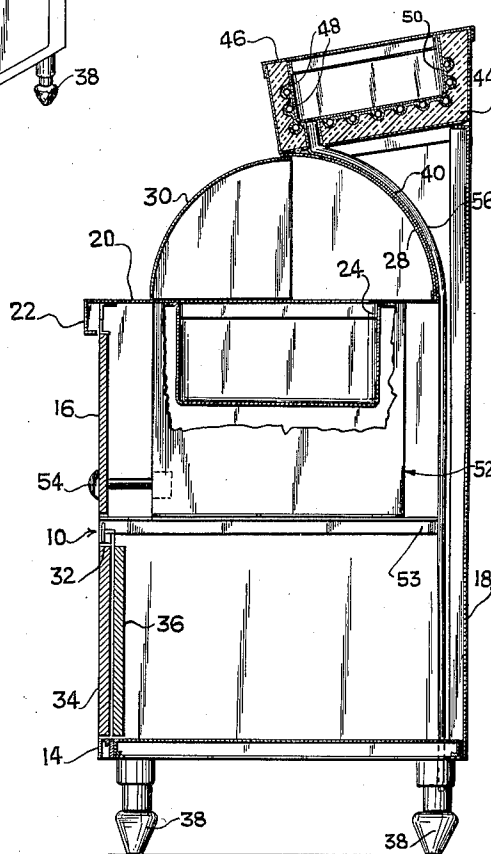


Fig. 2.

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3 Sheets-Sheet 2

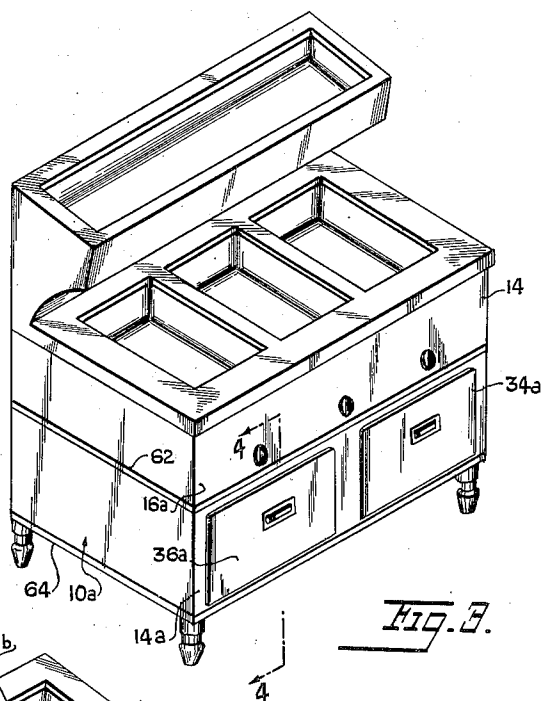


Fig. 3.

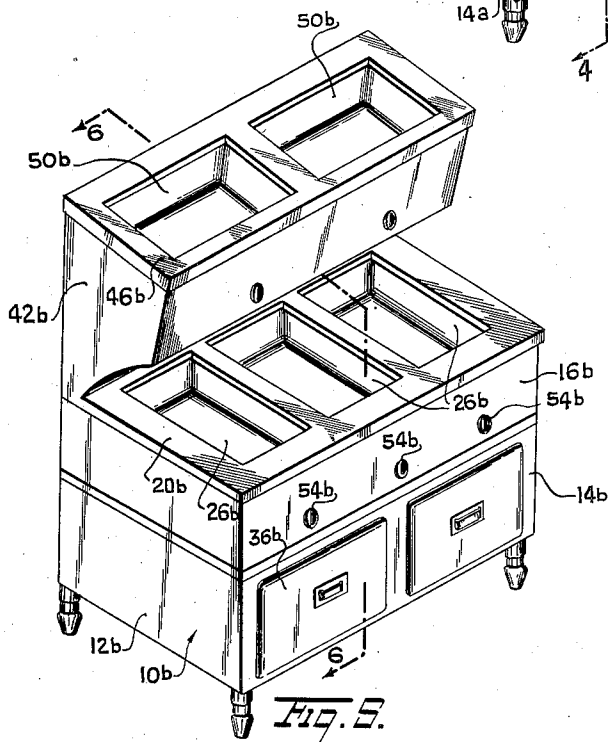


Fig. 5.

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3 Sheets-Sheet 3

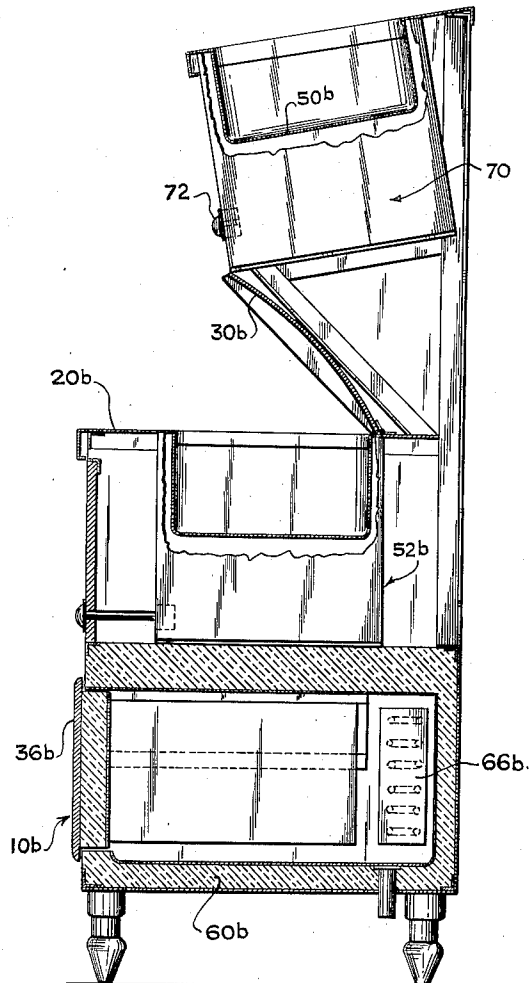


FIG. 6.

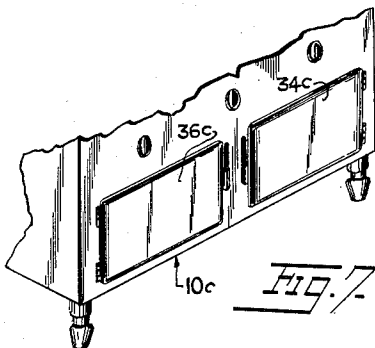


FIG. 7.

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DOUBLE DECK FOOD SERVING UNIT

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1 Claim. (Cl. 312-236)

In restaurants, lunchrooms, and similar establishments, it is conventional practice to utilize a serving unit. Some of these are adapted for heating food, and others for refrigerating food. Conventionally, a structure of this type has a single food-pan-receiving recess, or alternatively, a plurality of such recesses in a common plane. This is true, for example, in the case of a steam table. Means is generally provided for covering one or more of the food-pan-receiving recesses of the unit.

Ordinarily, a serving unit of the type described has a relatively limited capacity, as regards the number of different foods that can be supported in the mentioned space while being maintained in the properly heated, or perhaps in a refrigerated, condition. As a result, where it is desired to maintain in readily accessible positions trays holding more foods than can be normally accommodated in said space, it is common practice to haphazardly locate additional small trays in superposed relation to those already properly supported. This, of course, carries the danger of spoilage of the food, since it is not subjected to a full heating or refrigerating action. Further, the worker cannot operate with full efficiency in these circumstances, since some of the additional trays may fully or partially cover those that are already properly supported in the device.

In view of the above, it is the broad object of the present invention to so form a serving unit as to provide for the support of a substantial number of additional food holding trays, through the provision of an upper deck including one or more recesses in which food pans may be supported.

It is another object to so design the structure that the pans supported in the upper deck will be fully accessible to the worker, while being kept in a properly warmed or refrigerated condition, as the case may be. It is proposed, in this regard, that the upper deck or food support means be tilted toward the worker, while at the same time still affording full and convenient access to the lower or main deck of food trays.

Another object is to so form the unit that the lower and upper decks can be provided either with a single tray, a plurality of trays, or even double rows of pans or trays, thus to increase still further the capacity of the structure for holding different foods while maintaining the same in a fully refrigerated condition or, perhaps, in a properly heated condition.

A further object is to permit manufacture of the unit at very little increase in cost above that required for a conventional unit, while at the same time in effect doubling the food holding capacity of the unit. This desirable result is achieved by utilizing the double-deck formation, in combination with heating or cooling means efficiently located for heating or cooling one or both decks.

Yet another object is to provide a serving unit which, in some forms of the invention, may include a heated lower deck and a refrigerated upper deck of food trays, or vice versa, with this arrangement being, if desired, used

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in combination with a refrigerated storage compartment below the lower deck.

Still another object is to provide a serving unit of the type stated which, so far as the overall floor space and height thereof is concerned, will occupy little or no more space than that required by a conventional unit not having the desirable characteristics of the invention.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claim in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a perspective view of a double-decked serving unit according to the present invention.

Fig. 2 is a transverse sectional view on line 2-2 of Fig. 1.

Fig. 3 is a perspective view of a modified construction.

Fig. 4 is a fragmentary transverse sectional view of the modification shown in Fig. 3, taken substantially on line 4-4 of Fig. 3.

Fig. 5 is a perspective view of a second modification.

Fig. 6 is an enlarged transverse sectional view substantially on line 6-6 of Fig. 5, parts being shown broken away.

Fig. 7 is a fragmentary perspective view of still another form of the invention.

Referring to the drawings in detail, in the form shown in Figs. 1 and 2 the double-decked unit has been generally designated at 10. It will be understood that with respect to certain details, the unit will be formed according to practices regularly followed in the field of restaurant equipment manufacture, that is, stainless steel sheathing can be used to provide an external surface capable of being kept in a sanitary condition, etc.

In the form of the invention shown in Figs. 1 and 2, there is provided a pair of vertical side walls 12, integral or otherwise made rigid with a front wall 14 above which is disposed a removable panel 16. All these would be surfaced with stainless steel or with any other material adapted to permit ready and efficient cleaning of the device for the purpose of maintaining the same in a fully sanitary condition.

The invention also includes a back wall 18, and a table member 20 having at its sides and front a depending, lipped flange 22 (see Fig. 2).

Formed in the table member 20 are rectangular, closely spaced openings 24 formed in any desired number and size. In the illustrated example, three such openings are provided, spaced uniformly from side to side of the unit, and in each of these there is mounted an upwardly opening tray or pan member 26, which is adapted to receive other pans, not shown, in which the food would be disposed. In some embodiments, the food may be placed directly in the pans or trays 26, it being mainly important that the tray means be adapted to be cleaned with maximum ease, while disposing the foods conveniently for dispensing by the worker.

As shown in Fig. 2, roll-type cover means is provided for the several food trays 26, including a stationary, transversely curved cover section 28 at the back of the several food compartments, and a pivoted front cover section 30 also transversely curved through ninety degrees, adapted to be moved into telescoping relation to the stationary section when in open position.

The stationary cover section 28 is disposed against a correspondingly transversely curved partition 40, extending in upwardly diverging relation to the back wall 18 of the serving unit. The partition, at its ends, is integral with end walls 42 of the upper deck portion of the serv-

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ing unit, and supported between the ends of the walls is an elongated, insulated trough-shaped container 44, having a continuous recess extending substantially across the full length of the serving unit. The top of the container may be provided with a flanged cap plate 46, of stainless steel or the like, and refrigerating coils or tubing 48 is disposed in close proximity to a non-corrosive liner 50 of the recess of the container. Various trays, not shown, can be placed in the recess, containing different foods which are to be kept in a refrigerated condition by the tubing 48.

The foods that are to be kept warm are heated by a conventional dry-moist heating unit generally designated 52, which may be supported upon transversely extending angle irons 53 (Fig. 2). The unit 52 is per se conventional, and hence is illustrated somewhat diagrammatically.

The unit 52 may be sectionally constituted, to permit application of heat to selected trays 26. Accordingly, separate controls 54 are provided for the individual trays 26, as shown in Fig. 1.

Below the unit 52, there is provided a hollow storage space constituting a container for any desired purpose. This may or may not be refrigerated, and in the illustrated example is not refrigerated, so that it may hold plates, bowls, etc. The front wall 14 is provided with an opening 32, normally closed by sliding doors 34, 36.

The entire unit may be supported upon individually adjustable legs 38 provided at the several corners of the device, and it will be understood that suitable framing would be provided for the hollow container, to which access is provided through the doors 34, 36. The container is closed at its top by the table portion 20, and in the container there are supported the several heating units 52.

Drainage of the recess in the upper container 44 is provided through a bleeder tube 56 (Fig. 2) opening at its outlet end below the bottom of the storage container.

In the form of the invention shown in Figs. 3 and 4, the construction is identical to that of Figs. 1 and 2, except for the fact that in the serving unit 10^a, the front wall 14 thereof has spaced openings 32^a, receiving sliding drawers 36^a, 34^a, instead of the sliding doors of the first form. Further, in this form the storage container below the heating units is insulated and contains a refrigerating means.

The sliding drawers are mounted on guides 58 extending along the side walls of the refrigerated, insulated storage compartment 60, the insulation of said storage compartment being framed by upper and lower angle iron frame members 62, 64. A refrigerating unit, conventional per se, has been designated at 66 and is mounted in back of the drawers. Drainage from the storage compartment is provided by a drain tube 68.

It thus becomes apparent that in this form, the storage compartment is refrigerated, as well as the upper container, while the lower food support compartments are heated.

In both the Fig. 1 and Fig. 3 forms, the arrangement can be reversed, with the lower food compartments refrigerated and the upper ones heated. Or, alternatively, both the upper and lower units can be heated, or both the upper and lower units refrigerated.

Referring now to the form of the invention shown in Figs. 5 and 6, in this form, designated generally at 10^b, there are provided side walls 12^b, a front wall 14^b, and a removable panel 16^b. In this form of the invention, both the upper and lower food compartments are heated, as will be readily noted from Fig. 6. The lower food compartments have been designated at 26^b, and are heated by heating units 52^b in the same manner as in the first form of the invention. The storage compartments 60^b are refrigerated as at 66^b.

The compartments 26^b in this form are closed by a

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hinged cover 30^b, but it will be understood that a cover such as shown in Fig. 2 can be employed instead. Or, alternatively, the hinged cover 30^b can be used in either of the forms of the invention shown in Figs. 1 and 3.

The table top has been designated 20^b, and is identical to that of the first form of the invention.

In this form, the elongated upper food compartment or container 50^b is recessed within a plurality of heating units 70 which per se are identical to the units 52^b. Individual controls 72 are provided for the several units 70. It may be noted that in Fig. 5, two of the containers 50^b are used instead of a single elongated container, but this is a detail which can be varied as desired in commercial embodiments. Either the single or multiple type of food container can be employed, in either deck, in any form of the invention.

The two containers 50^b, as shown in Fig. 5, are recessed in a capping plate 46^b, carried at the upper ends of the end walls 42^b of the upper deck assembly.

In all forms of the invention, the upper food container or containers are tilted forwardly, at a substantial elevation above the lower deck. The elevation is so selected as to be adapted for making foods supported in the upper deck fully accessible to the standing worker, while at the same time the foods contained in the lower deck of compartments are similarly conveniently accessible to the worker.

In the form of the invention shown in Fig. 7, the construction is identical to that shown in Fig. 5, with the exception that hinged refrigerator doors 34^c, 36^c are embodied in the modified structure 10^c, instead of the insulated drawers 34^b, 36^b shown in Fig. 5. Otherwise, the construction is identical to that of Fig. 5.

In all forms of the invention, there is the common characteristic wherein a raised or elevated food support tray or trays is transversely inclined toward the front of the device, at a substantial elevation above the lower deck of trays. The lower deck of trays is properly located, substantially midway between the front and back of the device with the upper deck partially overlying the lower deck, being supported upon a rear support progressively increased in width in the direction of its top, thus to provide ample space adjacent and above the lower deck for its cover means.

In this way, the capacity of the serving unit is almost doubled as compared to that of conventional units heretofore in use. Further, said capacity is such that the doubling of the same is achieved without substantial increase in the size of the serving unit. No increase in floor area above that required by a conventional unit is involved, and complete and full access to either deck of food trays is obtained, due to the particular formation and relative arrangement of the several components.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and that various changes and modifications may be made within the scope of the invention as defined in the appended claim.

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

A double-decked food serving unit comprising a storage container having a table-like cover plate formed with at least one food-receiving recess, said container including a back wall projecting above the cover plate, a support wall extending upwardly from the cover plate in back of said recess, and food support means mounted between said walls in a position elevated above the cover plate, said unit further including cover means for at least said food-receiving recess of the cover plate, said cover means including a transversely curved, stationary, rear cover section disposed between the cover plate and food support means and a transversely curved, pivoted front cover sec-

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tion adapted to move into telescoping relation to the rear section.

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