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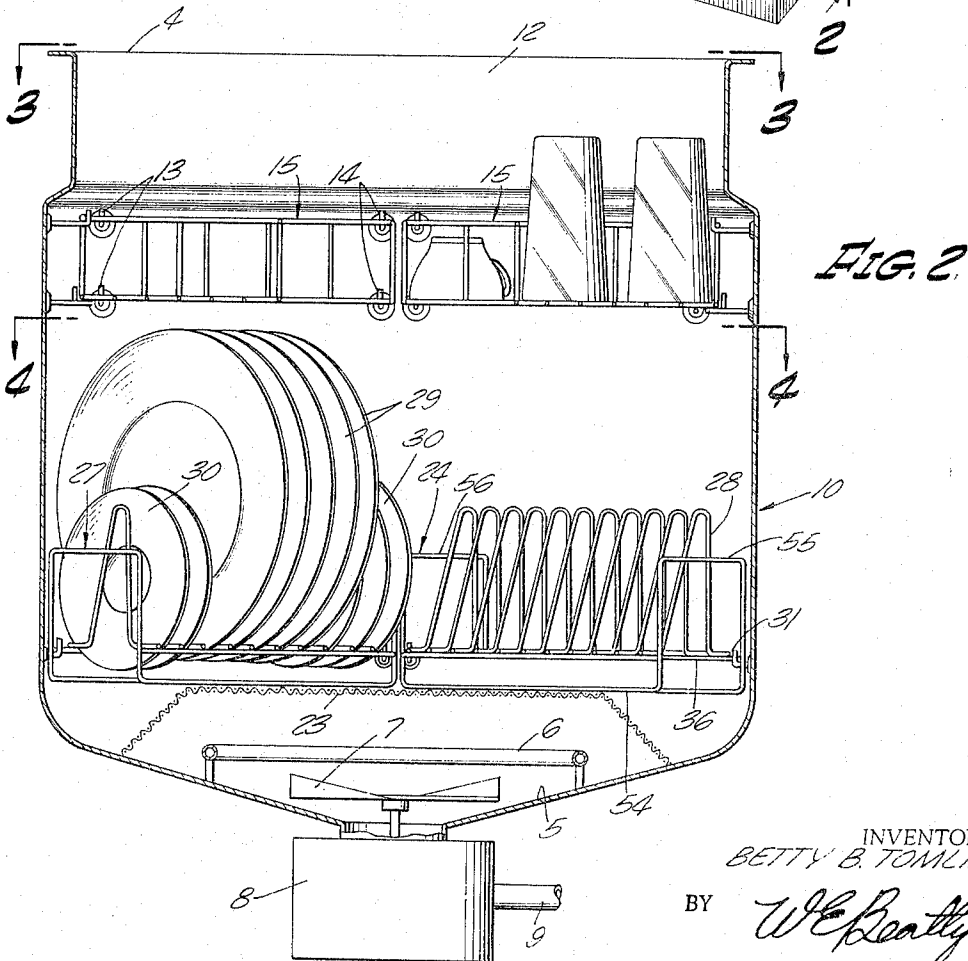
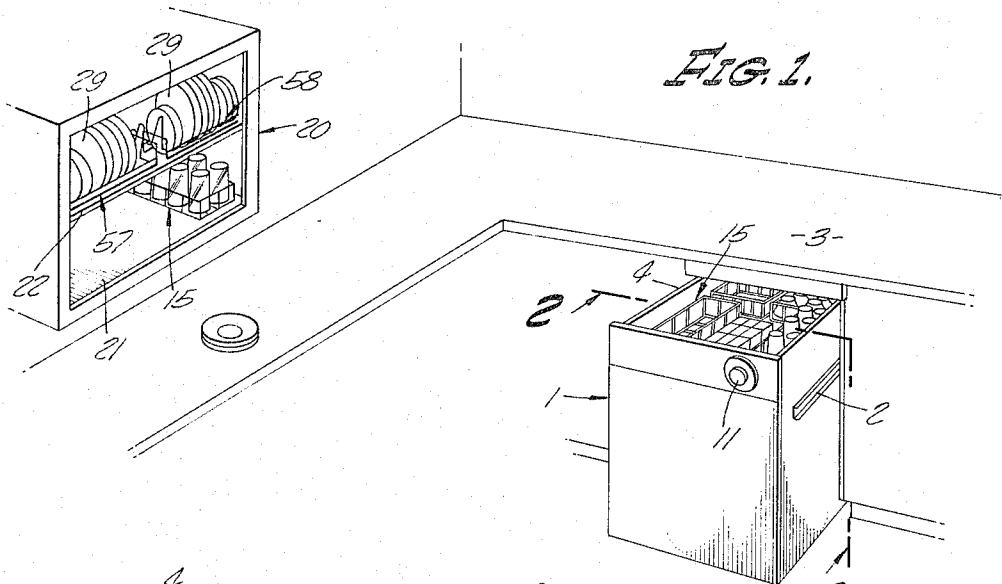
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3,289,683

RACK STRUCTURE FOR A DISHWASHING MACHINE

Filed June 29, 1966

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

FIG. 3.

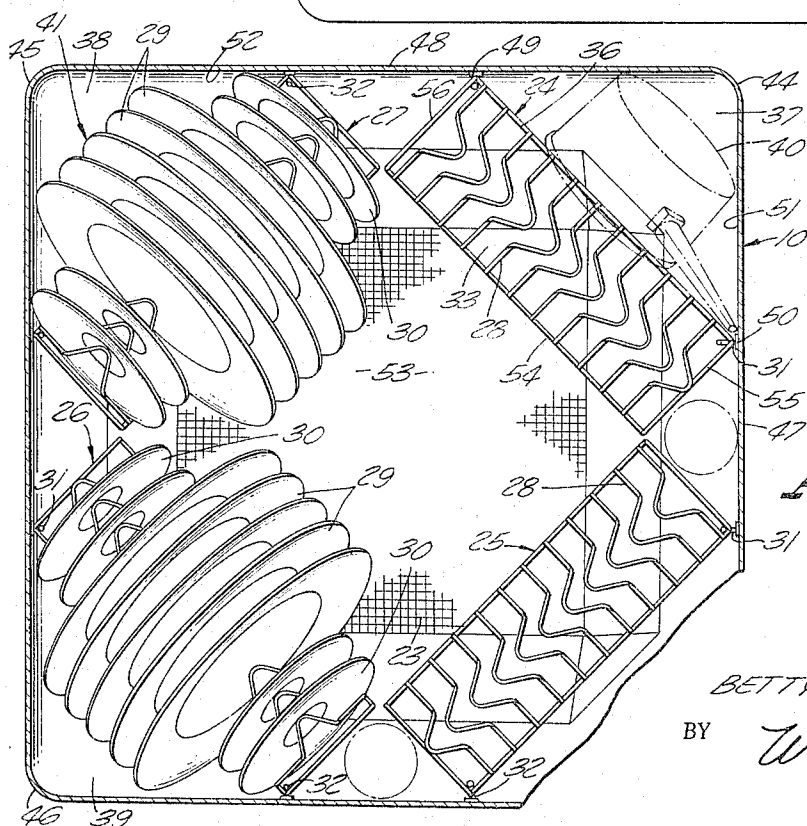
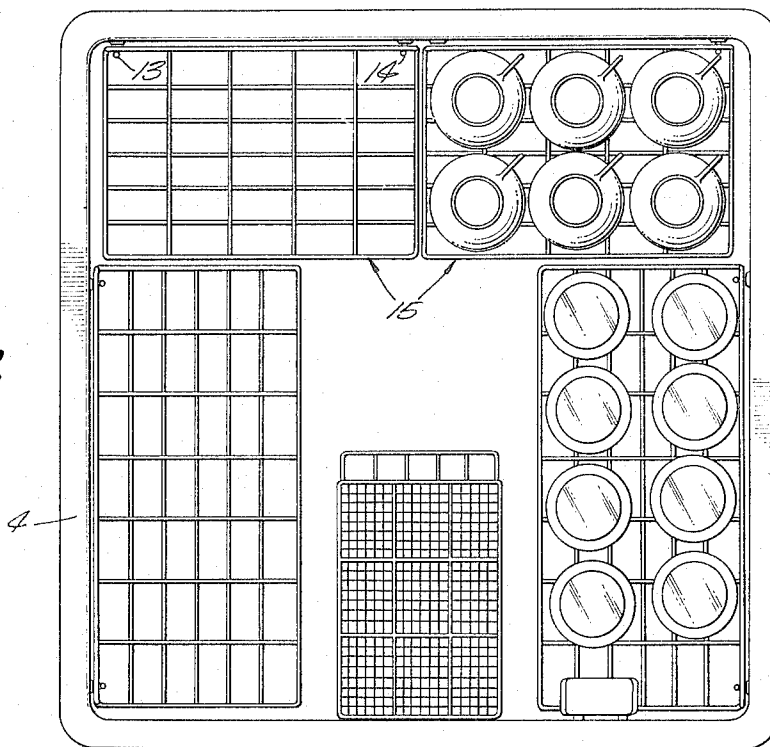


FIG. 4.

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1

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RACK STRUCTURE FOR A DISHWASHING MACHINE

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6 Claims. (Cl. 134-147)

The invention relates to a dishwashing machine and more particularly to an improved rack or tray removable with the dishes therein for storage in a kitchen cabinet.

One object of the invention is to arrange and support one or more trays in the cabinet of the machine so as to provide a storage space having a width at least as great as the width of the tray, at the side of the tray. This is accomplished by providing a tray having a length to extend across the corner of the cabinet, the tray extending from one cabinet wall to the adjacent wall which provides a storage space of the desired dimension between the middle portion of the tray and the corner of the cabinet. A plurality, such as four, of the trays may be similarly arranged, the trays being arranged in a quadrangle with each tray extending across one of the four corners of a rectangular cabinet. Such storage space may be used to house separate dishes or utensils, but a particular advantage lies in the capability of the tray to support dinner plates much larger than the width of the tray, the plates overhanging the tray towards the center of the machine on one side and overhanging into the corner of the cabinet at the other side.

A further object of the invention is to provide an improved support for the tray to permit ready removal while acting as a sturdy support for the loaded tray. This is accomplished by providing hooks on adjacent walls for the opposite ends of the tray at one side of the tray with a screen or shelf for supporting the bottom and the other side of the tray.

The invention is illustrated as applied to a well known G.E. drawer-type of dishwasher but it may be applied to other types of dishwashers.

For further details of the invention, reference may be made to the drawings wherein:

FIG. 1 is a perspective view of a dishwashing machine of well-known type to which the invention is applied together with a cupboard which is adapted to receive the loaded trays removed from the dishwashing machine.

FIG. 2 is an enlarged vertical sectional view on line 2-2 of FIG. 1, the bottom of the cabinet containing trays in accordance with the present invention.

FIG. 3 is a plan view on line 3-3 of FIG. 2 showing one form of removable trays or racks for small articles which may be used at the top of the machine although this form is no part of the present invention.

FIG. 4 is a sectional view on line 4-4 of FIG. 2, showing the improved racks or trays of the present invention for holding large dinner plates.

Referring to the drawings, FIG. 1 illustrates a corner of a kitchen having a well-known G.E. drawer-type of dishwashing machine 1 which has slides, indicated at 2, so that the machine can be removed from, or be moved under, the space under a counter 3. The machine 1 has a lid, not shown, which is cammed into position to cover the open top 4 of the machine when the machine is pushed into position under the counter 3. The machine 1 also has a well-known source of water supply, not shown, and a sump 5 having heater rod 6 for drying, an impeller 7 driven by a motor 8 and a water outlet 9.

The machine 1 is rectangular in shape, in fact being substantially square, having a tank 10 with four walls mutually at right angles to each other.

The machine 1 has a well-known control 11 for con-

2

trolling the rinse, empty, wash, empty, rinse, empty and dry cycles of the machine.

The top 12 of tank 10 has, on the walls thereof, suitable hooks like 13 and 14 for removably supporting trays like 15 which may be removed when they are loaded with the washed and dried dishes for storage in a cabinet, indicated at 20 in FIG. 1, which has shelf spaces 21 and 22 of a size to accommodate not only the loaded trays like 15 removed from the top of the machine, but also the loaded trays 24-27 shown in FIG. 4 and arranged in the bottom of the machine.

In the bottom of the machine is arranged a shelf, or screen, 23 above the heater rod 6 and above the impeller 7, in position to receive and support the bottom portion and one side of each of the four trays indicated at 24, 25, 26 and 27 in FIG. 4. Each of the trays 24-27 is an elongated rectangular tray having spacers like 28, as well known, in order to space and support large plates 29 at the middle portion of the tray or small plates 30 at the ends of the tray. The trays 24-27 are constructed of coated wire, as well known, and have sufficient flexibility to permit catching or fastening a corner thereof on the hooks like 31 and 32 which are provided adjacent the middle like 47 and 48 of adjoining walls in position to fit the opposite ends of the tray at one side of the tray, as indicated at 49, 50, for tray 24. Each of the trays 24-27 extends substantially from the middle portion like 47 of one wall 51 to the middle portion of the adjacent wall 52, as indicated for tray 24. The four trays 24-27 thus form a quadrangle with each tray extending across a corner like 44, 45, 46 of the tank 10. The side 36 of the tray 24 thus forms a triangle with the corner 44 to provide a storage space 37, a similar storage space like 38, 39, being provided at each of the other four corners of the tank. Such storage space 37, 38, 39 may be employed either to receive a dish or utensil, as shown at 40, or preferably it may be employed to receive and house several large dinner plates, as indicated at 41, for the tray 27, the dinner plates overhanging the tray 27 on one side and projecting into the storage space 38 and, on the inner side, projecting into the open or free space 53 at the central portion of the machine.

The screen 23 and the hooks like 31 and 32 for each tray constitute, in effect, a three-point support for each tray, the hooks like 31 and 32 providing two points of support at one side of the tray and a corner or portion like 33 of the screen or shelf 23 acting to support the bottom of the tray like 24 and its opposite side 54. The trays 24-27, when loaded, are readily removable in loaded condition from the machine, as they simply rest on the screen or shelf 23 and are readily removable from their respective hooks like 31 and 32.

For ease of manufacture, the trays 24-27 may all be of the same construction and, when loaded, may be placed in, or removed from, the shelf space provided in the cabinet 20.

From FIG. 4 it is apparent that the distance from the side 36 of tray 24 to the corner 44 is at least as great as the width of the tray 24. Thus, an ample storage space is provided between the side 36 and the adjacent wall 51 and 52 of the tank or cabinet which is of particular advantage when handling large dinner plates like 41 which are substantially wider than the tray itself. The storage space at each corner like 44, 45, 46 is thus of the order of the width of the tray, in fact being greater, as illustrated.

As the trays 24-27 are all of the same construction, each one has at the opposite ends thereof an upright loop forming a handle, as shown at 55 and 56 in FIGS. 2 and 4 for tray 24. This is also illustrated in FIG. 1

3

for the trays 57 and 58 which are of the same construction as each of the trays 24-27, illustrating a loaded tray which has been removed from machine 1 and stored in cabinet 20.

I claim:

1. A dishwashing machine comprising a tank having a rectangular array of side walls and top, and a bottom having a centrally positioned sump and impeller, a rectangular dish tray having a length to extend from the middle portion of one wall to the middle portion of an adjacent wall diagonally across the corner of said cabinet walls, said tray having a side spaced from the corner of the associated tank walls to provide a storage space, said adjacent tank walls each having a hook for supporting the opposite ends of said tray, and a screen in the bottom of said tank above said impeller and extending in supporting relation with the bottom of said tray.

2. A dishwashing machine according to claim 1, said storage space having a dimension from the corner of said tank to the adjacent side of said tray in an amount at least as great as the width of said tray.

3. A dishwashing machine comprising a tank having a rectangular array of side walls and top, and a bottom having a centrally positioned sump and impeller, a plurality of similar rectangular dish trays each having a length to extend from the middle portion of one wall to the middle portion of an adjacent wall diagonally across the corner of the cabinet walls, said trays each having a side spaced from the corner of the associated tank walls to provide a storage space, said adjacent tank walls each having a hook for supporting the opposite ends of

4

each of said trays and a screen in the bottom of said tank above said impeller and extending in supporting relation with the bottom of each of said trays.

4. A dishwashing machine comprising a tank having a rectangular array of four side walls and top, and a bottom having a centrally positioned sump and impeller, a set of four similar rectangular dish trays each having a length to extend from the middle portion of one wall to the middle portion of an adjacent wall diagonally across the corner of the cabinet walls, each of said trays having a side spaced from the corner of the associated tank walls to provide a storage space, said adjacent tank walls having four sets of hooks, each set being on adjacent tank walls for supporting the opposite ends of one of said trays, and a screen in the bottom of said tank above said impeller and extending in supporting relation with the bottom of each of said trays.

5. A dishwashing machine according to claim 4, each of said storage spaces having a dimension from the corner of said tank to the adjacent side of the tray in an amount at least as great as the width of the respective said tray.

6. A dishwashing machine according to claim 1, said hooks providing two supports at said side of said tray, said screen providing a support under the opposite side of said tray, said hooks and said screen constituting substantially a three-point support for said tray.

No references cited.

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