

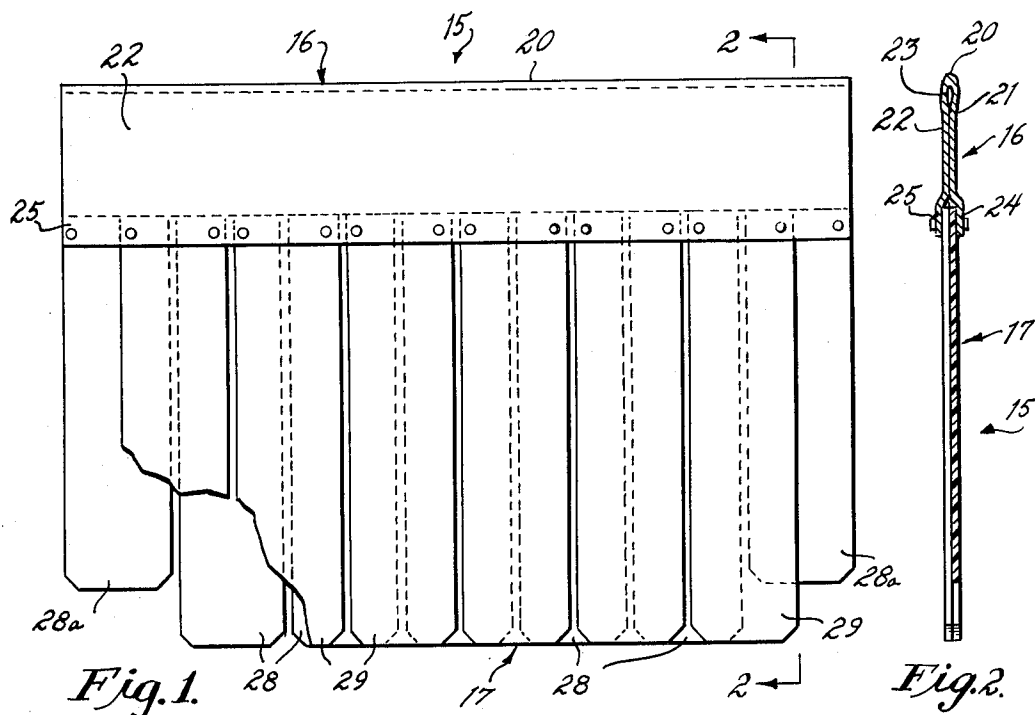
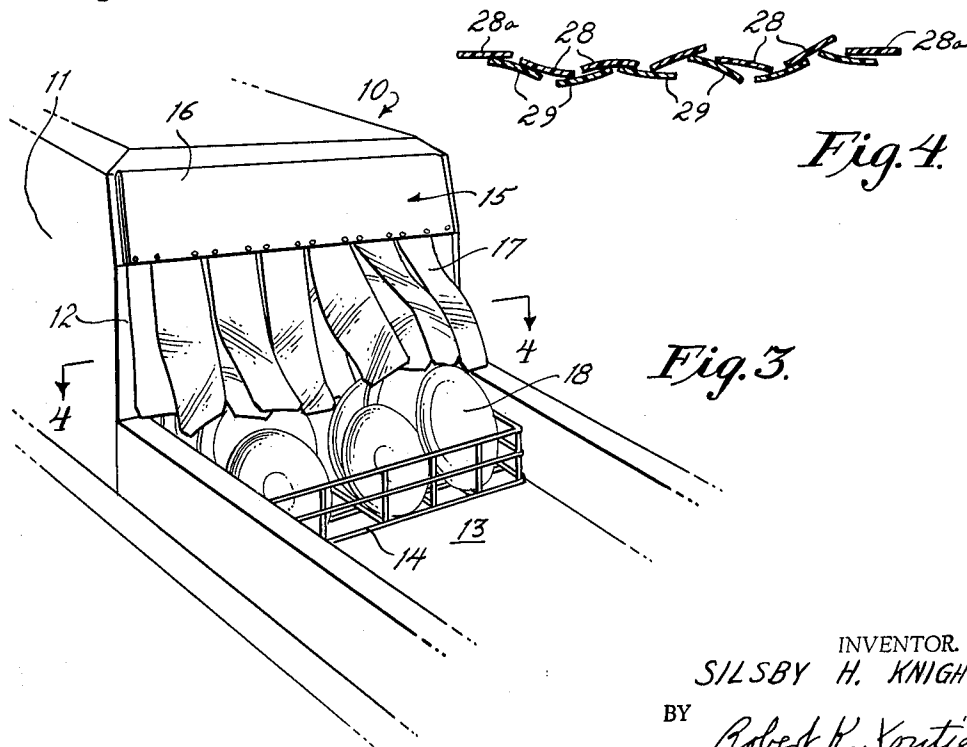
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CURTAIN FOR A DISHWASHER

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CURTAIN FOR A DISHWASHER

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1 Claim. (Cl. 160—184)

This invention relates generally to improvements in dishwashers, and is especially concerned with improvements in commercial dishwashers of the type having pass-through inlet and outlet openings for dishes. This application is a continuation of my copending application Serial No. 194,519 filed May 14, 1962 now abandoned.

Heretofore, as is well known to those versed in the art, the pass-through openings of commercial dishwashers have been provided with curtains in the nature of fabric sheets, fringes and the like, which quickly wear and fray so as to lose their spray-retaining effectiveness, and even in new condition do not effectively perform the intended function as being excessively deflected by passing dishes and permitting the loss of great amounts of water.

Accordingly, it is an important object of the present invention to provide a highly improved curtain for a dishwasher pass-through opening which overcomes the above-mentioned difficulties, being well adapted for effective operation throughout a long useful life, and wherein the curtain of the instant invention passes dishes with a minimum of deflection to more satisfactorily perform its spray-retaining function.

It is a further object of the present invention to provide a dishwashed curtain having the advantageous characteristics mentioned in the preceding paragraph, which is extremely simple in construction, durable and reliable in operation, and which can be economically manufactured for sale at a reasonable price.

Other objects of the present invention will become apparent upon reading the following specification and referring to the accompanying drawings, which form a material part of this disclosure.

The invention accordingly consists in the features of construction, combinations of elements, and arrangements of parts, which will be exemplified in the construction hereinafter described, and of which the scope will be indicated by the appended claim.

In the drawings:

FIGURE 1 is a front elevational view showing a dishwasher curtain constructed in accordance with the teachings of the present invention, and partly broken away for clarity of understanding;

FIGURE 2 is a sectional elevational view taken substantially along the line 2—2 of FIGURE 1;

FIGURE 3 is a perspective view showing a dishwasher curtain of the present invention in operative association with a dishwasher; and

FIGURE 4 is a horizontal sectional view taken generally along the line 4—4 of FIGURE 3.

Referring now more particularly to the drawings, and specifically to FIGURE 3 thereof, a dishwasher is there generally designated 10, and includes a cabinet 11 having a pass-through opening 12. The opening 12 extends across a troughlike track or slideway 13, along which a tray or rack 14 is shown passing outward through the opening 12.

A curtain 15 of the present invention is shown mounted in the opening 12 and illustrated as being deflected by upstanding dishes 18 in the tray 14.

The curtain 15 is shown in greater detail in FIGURES 1 and 2, there being illustrated as composed essentially of a binding 16, and a plurality of slats 17 arranged in side-by-side overlapping relation and depending from the binding 16.

The binding 16 may be fabricated of flexible sheet material and folded downward, as at 20, to define a pair of facing inner and outer fabric layers 21 and 22, respectively. While the binding may be advantageously fabricated of a single sheet of flexible thermoplastic material, it is appreciated that other suitable material may be employed, and the binding may consist of more than a single sheet, if desired.

The binding layers 21 and 22 may be secured together in facing engagement, as by heat-sealing, stitching or the like, and left unsecured in the upper region 23 interiorly of the fold 20 to define an open-ended tunnel or hem for receiving a supporting rod or other suitable support means carried by the cabinet 11.

The sheet layers 21 and 22 of the binding 16 depend, as at 24 and 25 for securement to the elongate strips or slats 17, as by rivets 26, or other suitable securing means.

The slats 17 are preferably fabricated of thermoplastic material, say polyvinyl acetate .040" thick, and arranged generally coplanar with the binding 16, being generally vertically disposed and arranged in side-by-side alternately inward and outward overlapping relation with each other. Thus, there are a group of inner slats 28 arranged in side-by-side, edge-to-edge spaced relation with each other, and a group of outer slats 29 also arranged in side-by-side, edge-to-edge spaced relation. Further, the inner and outer slats are in partially overlapping relation with respect to each other, each inner slat being in side-by-side overlapping relation with the adjacent pair of outer slats, and each other slat similarly being in side-by-side partially overlapping relation with the adjacent pair of inner slats.

The slats 28 and 29 are all secured at their upper ends to the binding 16, as by securing means 26, each slat being free except for its upper-end securement to the binding. Further, as best seen in FIGURE 2, the outer slats 29 may be secured in facing engagement with the outer binding-sheet portion 25, while the inner slats 28 may be secured in facing engagement with the inner binding-sheet portion 24. If desired, the binding-sheet portions 24 and 25 may be heat-sealed to the slats 28 and 29; or, other suitable securing means may be employed, such as stitching passing entirely through the binding-sheet portions 24 and 25 and the interposed upper-end regions of the slats 28 and 29.

The laterally outer or end slats 28a may terminate at their lower ends short of the remaining, laterally inner slats 28 and 29, for conformance with the lower region of the pass-through opening 12. Further, the slats 28 and 29, while depending from the binding 16 toward the lower region of the opening 12, terminate short of the track or trough 13 for convenient movement therealong of the tray 14.

In use, with the curtain 15 suspended in the opening 12, dish-carrying racks or trays 14 may be moved along the track or trough 13, and the upstanding dishes 18 serve to deflect the slats 28 and 29, as seen in FIGURES 3 and 4. The slats 28 and 29, preferably being of flexible thermoplastic material and being in contact with the hot-water spray, are at an elevated temperature somewhere approximating 150–175° F. and therefore very freely twistable about longitudinal axes bendable upward from their lower ends to permit safe and easy movement of the tray 14 and its contained dishes 18 through the opening 12. In operation the slats twist and bend similarly to 20-lb. bond paper, but without permanent deformation under normal conditions. By the alternate overlapping relation of slats 28 and 29 and the free bendability of the slats, an inner slat 28 may be deflected upwardly by a dish and the adjacent outer slats are deflected by the inner slat, the outer slats freely bend-

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ing to twist off or ride laterally over the inner slat while twisting to minimize the escape of liquid or spray. This longitudinal twisting and lateral riding over of adjacent slats is best seen in FIGURES 3 and 4.

While the binding 16 has been shown for mounting on a generally horizontal rod, it is of course appreciated that any suitable detachable securement of the binding extending laterally across the upper region of opening 12 may be employed, such as snaps, turn posts, etc. Thus, the curtain 15 may be conveniently removed and replaced, as required.

From the foregoing it is seen that the present invention provides a dishwasher curtain which fully accomplishes its intended objects and is well adapted to meet practical conditions of manufacture, installation and use.

Although the present invention has been described in some detail by way of illustration and example for purposes of clarity of understanding, it is understood that certain changes and modifications may be made within the spirit of the invention and scope of the appended claim.

What is claimed is:

In a dishwasher, the combination comprising a cabinet having a wall opening, a guideway extending through a lower region of said wall opening for movement along said guideway of dish racks passing through said opening, an elongate binding extending laterally across and closing the upper region of said opening spaced over said guideway, support means removably supporting said binding in position across said opening, a first group of generally flat elongate slats arranged in adjacent spaced

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vertically extending generally coplanar relation each having its upper end fixed to said binding and depending freely therefrom toward said guideway, a second group of generally flat elongate slats arranged in adjacent spaced vertically extending generally coplanar relation with each other and each having one end fixed to said binding and depending freely therefrom toward said guideway, the slats of each group being in facing engagement with and overlapping an adjacent pair of slats of the other group, the lower ends of the end slats of one group terminating short of the lower ends of the remaining slats for conformance with the lower region of the wall opening, and said slats being fabricated of liquid-impervious strip material freely bendable in all directions at elevated temperature, whereby said slats are freely bendable and twistable upon engagement thereby of a passing rack of dishes to effectively maintain an overlapping relation and minimize the escape of dishwasher spray.

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