

[54] **TRAY FOR STORING AND DRYING DISHES AND KITCHEN UTENSILS**

[76] Inventor: **Nathan Manor**, 69 Zahal Street, Zahalia, Israel

[22] Filed: **Jan. 20, 1972**

[21] Appl. No.: **219,487**

[52] U.S. Cl. **312/247, 211/117, 312/312**

[51] Int. Cl. **A47b 51/00**

[58] Field of Search.....211/41, 113, 117, 211/176; 312/247, 294, 312

[56] **References Cited**

UNITED STATES PATENTS

3,433,363	3/1969	Clearman et al.	211/41
R18,402	3/1932	Bebb	211/113
2,506,086	5/1950	Jess	312/247

2,944,540 7/1960 Littell.....312/247

FOREIGN PATENTS OR APPLICATIONS

601,189 4/1948 Great Britain.....211/41

Primary Examiner—Roy D. Frazier

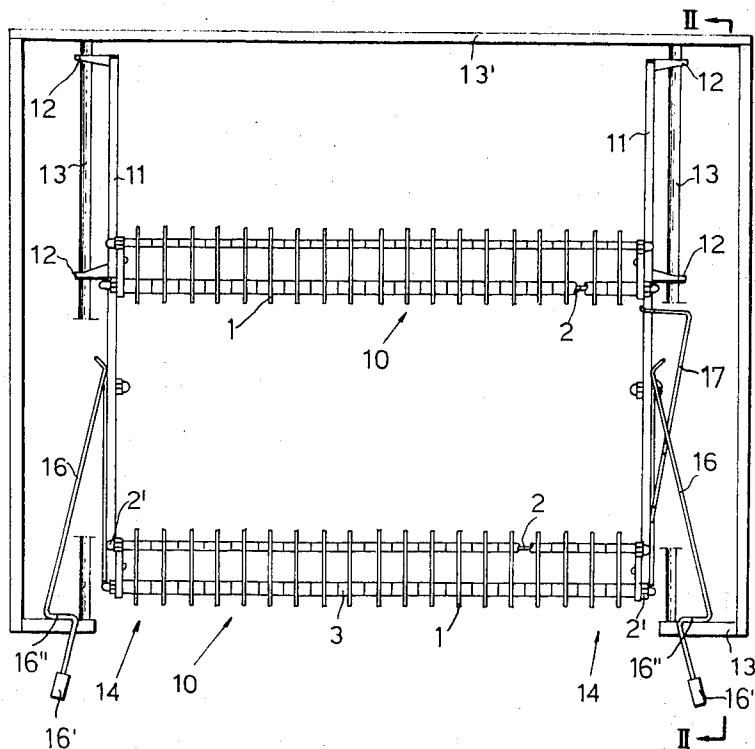
Assistant Examiner—Thomas J. Holko

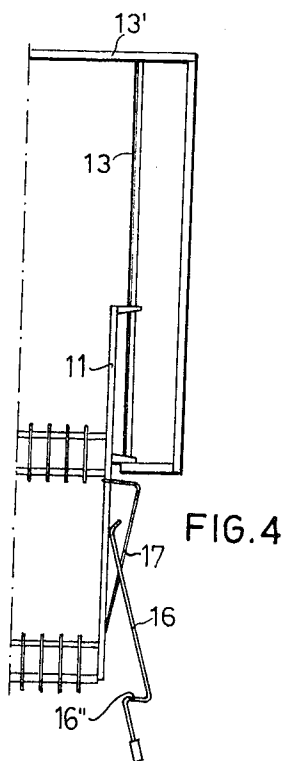
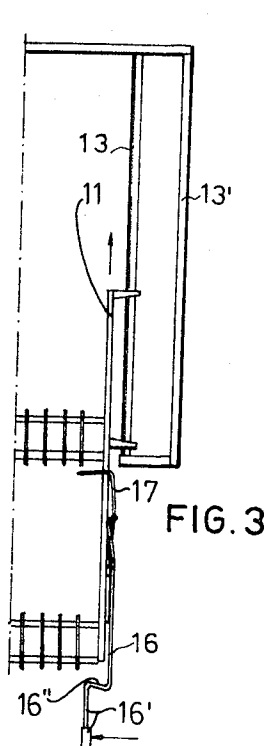
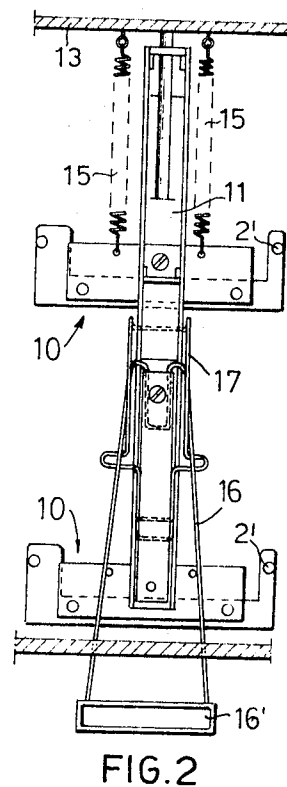
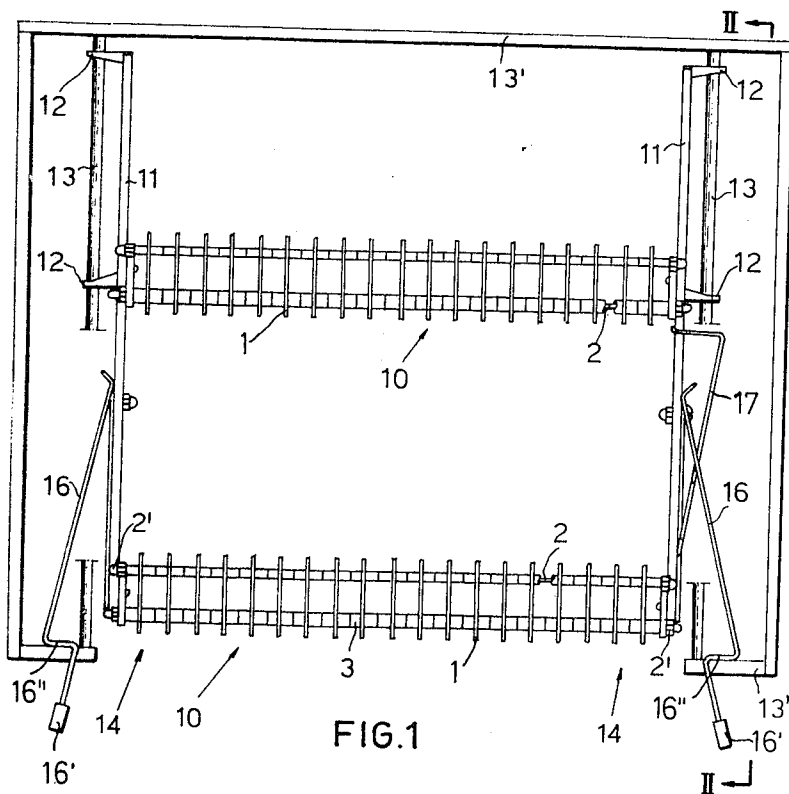
Attorney—Benjamin J. Barish

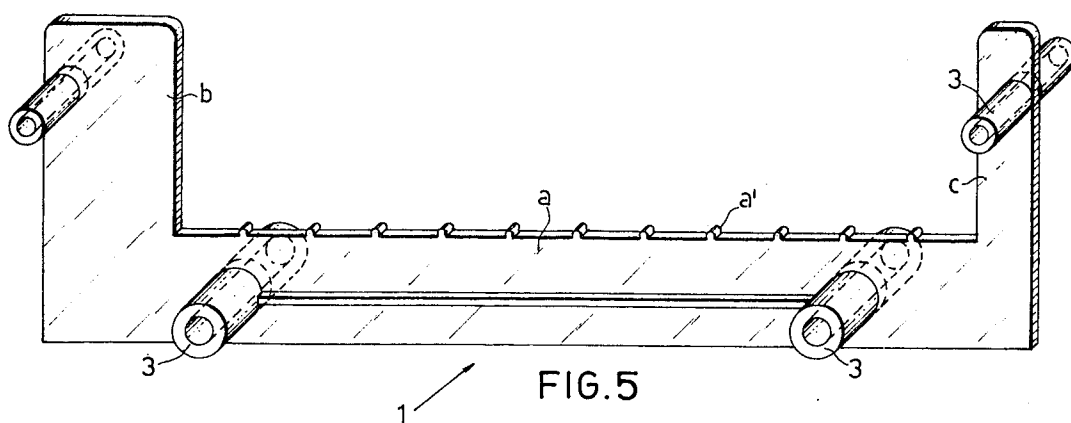
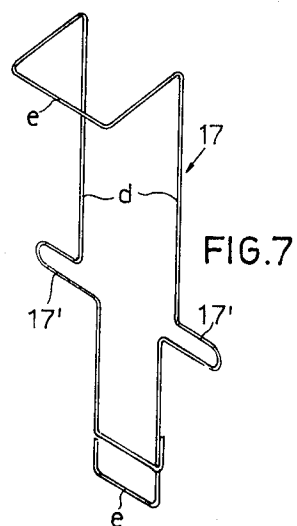
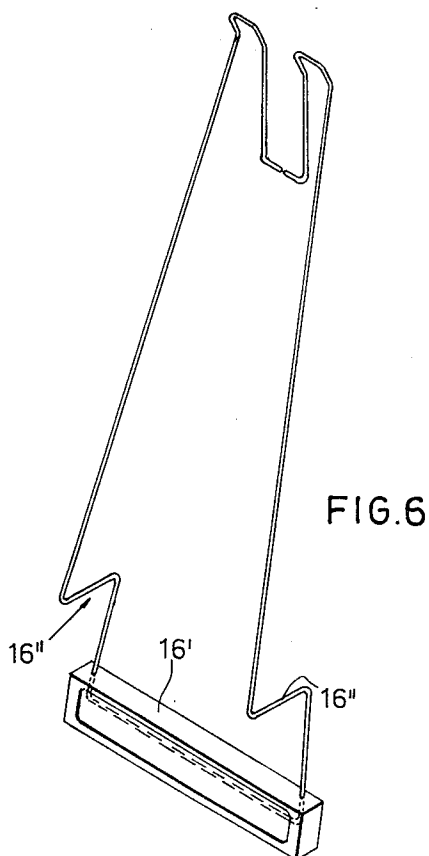
[57] **ABSTRACT**

An assembly of superposed trays, for storing and drying dishes, is slidably supported on rails and vertically retractable into and out of an encasement. A means for moving the assembly includes springy manipulator members fixed to the assembly. The manipulator members include a latch element normally engageable with the encasement to retain the assembly within the encasement.

6 Claims, 7 Drawing Figures







TRAY FOR STORING AND DRYING DISHES AND KITCHEN UTENSILS

BACKGROUND OF THE INVENTION

The present invention relates to trays, and particularly to shelf-like trays for storing and drying dishes and kitchen utensils.

There are known trays used for placing thereon crockery and cutlery which has been rinsed and which are intended to hold the crockery and other articles during drying, the idea being that the water from the said articles of crockery drips into a sink or any other receptacle from which the water can be drained into the plumbing system.

BRIEF SUMMARY OF THE INVENTION

The present invention relates to a tray of this kind which can be built up to any desired size (as far as width is concerned) and which may be used either as a single tray or which may be combined with other like trays to form a shelf-structure for use in drying glasses, crockery or cutlery placed in the trays.

According to the invention the new tray is built up from a number of U-shaped plate like elements arranged in parallel planes which are held together by means of rods passing through a number of such elements and being secured by screw members at the ends thereof, distance pieces being provided between the individual plate like U-members, so as to result in a grid like structure, the webs of the U-member forming the bottom of the tray while the two legs thereof form the side walls preventing the drying articles from falling off.

A number of such trays can be assembled in superposed position and connected to one another to form a "multi-storey" structure which is adapted to receive crockery and domestic glassware to dry thereon. Such an assembly of two or more trays may be installed — as is known — above a kitchen sink and when not in use may be raised into a cupboard-like enclosure, which it enters through the open bottom of such enclosure.

The present invention relates to such an arrangement and more particularly to details for facilitating the lowering and raising of the assembly and for fixing it in position, both in the lowermost (or "loading") position, as well as in the upper position.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention will now be described in detail, having reference to the annexed drawings in which

FIG. 1 is a frontal, elevational view of the new drying arrangement, while

FIG. 2 is an elevational, lateral view thereof,

FIGS. 3 and 4 are fractional, schematical views of the new device illustrating details,

FIG. 5 is a perspective view of one of the elements from which the individual tray is composed,

FIGS. 6 and 7 are perspective views of parts used in the assembled unit comprising two or more of the trays.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Turning first to FIG. 5:

The U-shaped elements indicated by the numeral 1 are preferably made of durable plastics, or metal and comprise a web *a* and two legs *b* and *c*, the leg *b* as seen in FIG. 5 being somewhat wider than the leg *c*. A num-

ber of these elements 1 are placed in parallel to one another, as shown in FIG. 1 and are connected by through-going rods 2 at the ends of which a screw thread is provided so that a nut 2' can be screwed thereon. According to the drawings there are provided two rods 2 passing through the web portion *a* and one rod each passing through the legs *b* and *c*. It is clear that more or less rods may be employed, according to the size of the individual members 1.

In order to keep the members 1 at a fixed distance from one another tubular distance pieces 3 are slid on the respective rods. These distance pieces may be short lengths of metal or plastic tubing. As can be seen, once the nuts 2' have been secured on the ends of the rods 2 a grid like tray is formed so that crockery, say plates, may be placed thereon resting between two members 1 and being supported by the distance pieces 3 extending between two individual members. Preferably the edge of the web portion *a* of member 1 is provided with ribs or bosses *a'* so that tumblers, glasses or cups may be placed thereon and will be prevented from sliding on the supporting members 1.

A number of trays, indicated as a unit by the numeral 10 (FIGS. 1 and 2) are united by being each affixed to two oppositely disposed rails 11. To each rail 11 are affixed two outwardly extending lugs 12 having a hole. Through these holes in the said lugs passes a fixed rod 13, so that the assembly of trays 10, 10 can be raised and lowered, sliding on the said rods 13. As can be seen in FIGS. 1-4 the fixed rods 13 are arranged in a cupboard like encasement 13', the bottom of which is open at 14. Thus the assembly of trays can be inserted into the encasement through the opening 14 and can be pulled out of the encasement through the same opening. To this end the assembly is suspended from the top wall of the encasement by means of springs 15 (which for the sake of greater clarity are not shown in FIG. 1.).

To each of rails 11 is affixed a manipulator member in the form of a springy stirrup like member 16 the lowermost horizontal portion 16' of which forms a hand grip. Above the said grip 16' the two vertical bars of the member 16 are crooked to form an abutment or shoulder 16'' which serves as a latch element. The member 16 is riveted or screwed to the rail 11 and can be flexed towards the rail (see FIG. 3) but will always return to the position shown in FIG. 1 when no pressure is exerted on the said member 16.

A latch member in the form of a further spring member 17 is attached to one or both rails 11. This member is shown in FIG. 7. It comprises two parallel, longitudinal bars *d* and two short head bars, *e*, thus forming an elongated rectangle. The uppermost part of the rectangle, i.e. both bars *d*, are bent through 90°. Preferably the lower bar *e* is doubled, the ends of each bar *d* being bent to opposite directions, as seen in FIG. 7. The member 17 is made of springy wire and is affixed to the rail 11 with its lowermost portion. The two bars *d* have been bent to form two outwardly or laterally extending loops 17'.

The new device functions and is operated as follows:

Assuming the empty rack being in the uppermost position, as shown in FIG. 1 and it being intended to place articles for drying into the individual trays, the two grips 16' are held with both hands of a person and the two members are both flexed inwardly, i.e. towards one another. As a result of the pressure exerted, the members 16 press also against the two loops 17' of members

3

17, so that both members 16 and both members 17 move to lie close to rail 11 (see FIG. 3). Now the shoulders 16'' no longer rest on the bottom part of 13 and the whole assembly can be pulled down, thereby expanding the springs 15. In the lower position the pressure on members 16 is released, which due to their springiness move outwardly, permitting also members 17 to follow this movement so that the uppermost portion of members 17 engages below the bottom of encasement 13, thereby preventing the empty — and thus unweighted rack to be pulled up by the springs 15.

Now the trays can be loaded with the articles to be dried, and then both members 16 are swung again inwardly, thereby pushing the member 17 also inwardly. Now the weight-rack can be lifted upwards which will be facilitated by the springs 15 which tend to pull the structure in upward direction. Water drips from the drying crockery or other articles, through the bottom opening in casing 13'.

What is claimed is:

1. A dish-holding rack for holding a plurality of dishes or the like in an encasement having an open bottom comprising, a plurality of rails adapted to be mounted within the encasement, a tray assembly slidably supported on said rails so as to be movable upwardly into the encasement or downwardly below the encasement, a pair of manipulator members each made of springy material and fixed at its upper end to one side of the tray assembly, each of said manipulator members including a latch element normally engageable with the encasement to retain the tray assembly within the encasement, each manipulator member further including a hand grip at its lower end enabling the user to flex the manipulator members together to disengage the latch elements from the encasement and to move the tray assembly downwardly out of the encasement.

4

2. A rack as defined in claim 1, further including a spring urging the tray assembly to its upper position within the encasement, said rack further including a latch member carried by the tray assembly engageable with the encasement to retain the tray assembly in its lowered position.

3. A rack as defined in claim 2, wherein the said latch member is made of springy material, is mounted at its lower end to the tray assembly and includes a pair of laterally extending elements, and wherein said manipulator members each include a pair of spaced legs straddling said latch member and engageable with the laterally extending elements thereof to withdraw the latch when the manipulator members are flexed together to lower the tray assembly.

4. A rack as defined in claim 2, wherein said part of manipulator members are each made of springy wire fixed at the tops to the tray assembly and formed with a pair of outwardly extending loops constituting said laterally extending elements.

5. A rack as defined in claim 4, wherein said tray assembly comprises a plurality of trays fixed one above the other.

6. A rack as defined in claim 5, wherein each tray comprises a plurality of U-shaped, platelike elements held together by means of rods passing through said elements, screw members securing said U-shaped elements to said rods at the ends thereof, distance pieces interposed between the individual U-shaped elements, thereby forming a grid-like structure, each of said U-shaped elements including a pair of legs joined by a web portion, the web portions of the U-shaped elements forming the bottom of the tray while the two legs thereof form the side walls thereof preventing the drying articles from falling off.

* * * * *

40

45

50

55

60

65