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CONTAINERS

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Fig. 1.

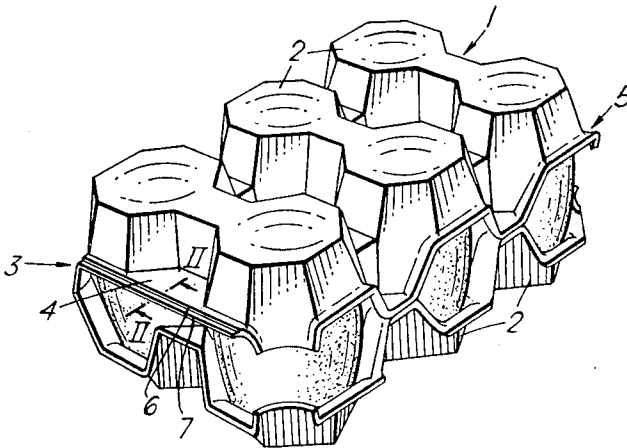


Fig. 2.

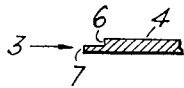
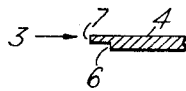


Fig. 3.



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CONTAINERS

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2 Claims. (Cl. 229—2.5)

This invention relates to containers and in particular to moulded packing trays for graded eggs or other fragile or easily damaged articles.

When eggs or fruit are graded, usually according to size, they leave the grading machine on belts one of which is appropriate to each grade and are packed into moulded packing trays which may be moulded from papier-mache or from plastic material.

If the articles are to be retained in the trays without any cover being placed around the trays, the trays usually bear printed matter which states the grade of articles contained in the trays. When, however, the trays are to be contained in an outer wrapper which is automatically placed around the trays the grade indication which is to be visible to the customer is printed on the outer wrapper.

The trays are all of uniform size irrespective of the grade of articles packed therein and it is therefore possible for a single wrapping machine to effect wrapping of all trays. The trays may, however, be delivered to the wrapping machine in haphazard order as regards the grade of articles contained therein and it must be possible for the wrapping machine to distinguish automatically the difference between the grades of articles fed thereto in order that the trays are wrapped by the machine in the outer wrappers appropriate to the grade of articles contained in the trays.

It is a main object of the present invention to provide moulded packing trays for articles of the kind mentioned above, which trays are provided with means indicative of the grade of the articles contained therein and which can be sensed by a wrapping machine to ensure that the machine automatically wraps each tray in an outer wrapper appropriate to the grade of article contained in the tray.

According to the invention there is provided a moulded packing tray for eggs or other fragile or easily damaged articles comprising a plurality of connected pockets each to receive one article, wherein at least one side of the tray is contoured to indicate the grade of articles packed in the tray and to co-operate with automatic sensing devices arranged to effect the selection of a wrapper within which the tray is to be located.

In one embodiment of the invention the tray is a substantially oblong rectangular tray and each of two opposite sides of the tray are similarly contoured to indicate the grade of articles packed in the tray.

The grade-indicating contour may include two substantially vertical portions of the side, or of each said side, which are located one above the other with one of the portions nearer than the other to the centre of the tray.

In order that the invention may be clearly understood some embodiments thereof will now be described, by way of example, with reference to the accompanying drawings, in which:

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FIG. 1 is a pictorial view of a tray according to the invention,

FIG. 2 is a section on line II—II, FIG. 1, and

FIG. 3 is a view similar to FIG. 2 but of an alternative embodiment of the invention.

Referring to the drawings, the tray 1 is moulded from papier-mache or from plastic material in known manner and as is usual contains a plurality of interconnected pockets 2 in which the articles are located when packed into the trays.

Preferably the trays are of substantially oblong rectangular shape and in accordance with the invention at least one side 3 of a marginal portion 4 integral with the pockets is moulded to have a contour which is indicative of the grade of articles to be packed in the trays. It will be understood that the trays will be fed in one direction to a wrapping machine and to avoid the necessity of orienting the trays each of two opposite sides 3, 5 of the trays are similarly contoured to indicate the grade of the articles packed therein.

In the preferred embodiment of the invention the contoured sides of a tray are formed during the moulding of the tray and each contoured side consists of two substantially vertical portions 6, 7 of the side which are located one above the other with one of the portions, that is the portion 6, nearer than the other to the centre of the tray, the contoured side thus being of stepped formation as shown clearly in FIGS. 2 and 3. With this arrangement, and assuming that trays are to be produced to distinguish between two grades of articles, for example between large and standard size eggs, one grade of article will be indicated by the upper of the two side portions, FIG. 3, being further from the centre of the tray than the lower side portion, and the other grade will be indicated by the lower of the two side portions, FIG. 2, being nearer to the centre of the tray than the upper portion. The contouring may extend along the full length of the side 3 or 5, as appropriate, of the tray.

As the loaded tray 1 is fed to the wrapping machine one of the contoured sides 3, 5 of the tray is moved past a pair of electric micro-switches, not shown, which are spaced apart lengthwise of the path of the tray and which are arranged in horizontal planes disposed one over the other so that the actuating plungers of the switches are arranged one to be engaged by a contoured side the lower portion 7 of which is farthest from the centre of the tray, and one by an upper contoured side portion 6 which is farthest from the centre of a tray.

Operation of the micro-switches by the trays is utilised in any suitable manner to control the feeding of a wrapper from one or other of magazines appropriate thereto so that the appropriate wrapper is fed by the machine to receive the tray which ordered the feeding of the wrapper.

Thus it will be understood that by the present invention there are provided trays which present a visual indication of the grade of articles contained, or to be contained, therein and also an indication which can be sensed automatically to control the selection of a wrapper in which the tray is to be located.

I claim:

1. A packing tray for eggs or other fragile or easily damaged articles comprising a plurality of connected moulded pockets and an oblong rectangular horizontal

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marginal portion one side of which is of stepped formation presenting two substantially vertical faces extending along the length of said side with one of the vertical faces nearer than the other to the centre of the tray to provide an indication of the grade of articles packed in the tray.

2. A packing tray for eggs or other fragile or easily damaged articles comprising a plurality of connected moulded pockets and an oblong rectangular horizontal marginal portion each of two opposite sides of which is of stepped formation presenting two substantially verti-

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cal faces extending along the length of the side with one of the vertical faces nearer than the other to the centre of the tray to provide an indication of the grade of articles packed in the tray.

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