Oct. 31, 1950 G. H. WHETZELL 2,528,463

POUCH PACKAGING DEVICE

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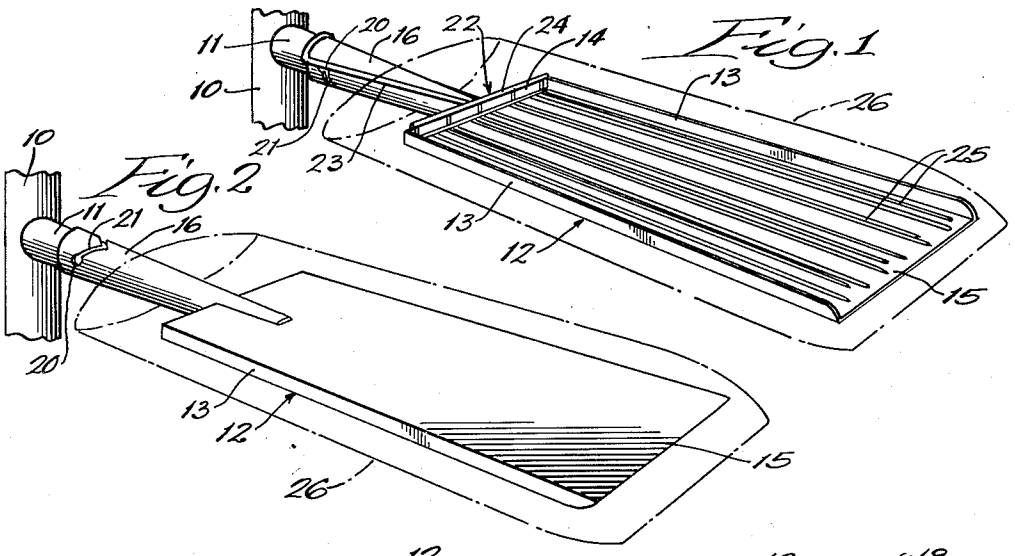

Fig. 1

Fig. 2

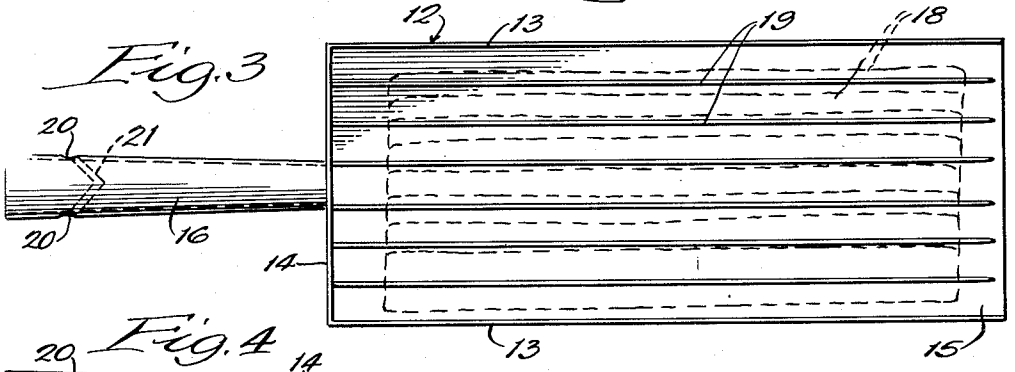

Fig. 3

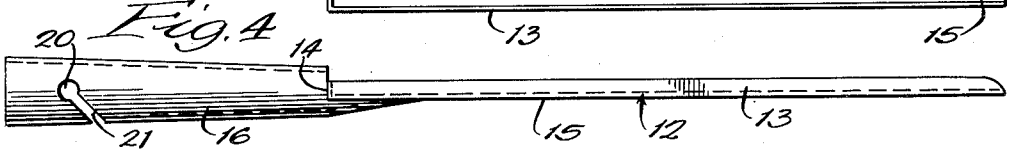

Fig. 4

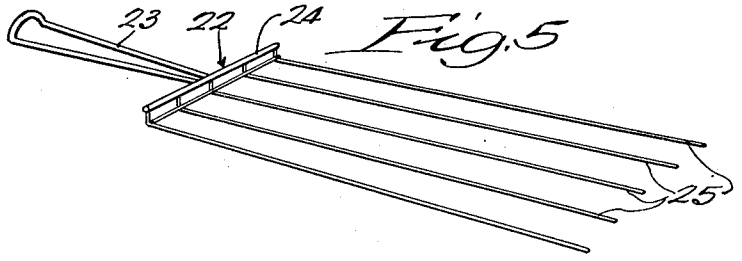

Fig. 5

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POUCH PACKAGING DEVICE

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11 Claims. (Cl. 226—18)

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This invention relates to a pouch packaging device. The device is particularly useful in the packaging of bacon, such as sliced or shingle-style bacon in pouches or envelopes. It will be understood that the apparatus is useful for other purposes.

In the attempts to package sliced bacon and similar products, it is found that great difficulty is experienced in enveloping the bacon without causing the grease to be spread over considerable portions of the package, thus tending to destroy the transparent characteristics of the bag. Further, the bacon tends to cling or "suck" itself onto the surface on which it is stacked and cannot be introduced into the pouch without great difficulty.

An object of the present invention is to overcome the above difficulties and to provide efficient and rapidly-operated means for placing a stack of bacon slices accurately within a pouch so that the bacon engages the pouch only at the one point where it comes to rest within the pouch. Another object is to provide means for packaging bacon and the like in a container or pouch in such a manner that the bacon does not slide against the surfaces inside the pouch and the slices are deposited in the arrangement in which they were originally stacked. Yet another object is to provide means for transferring a neatly stacked group of bacon slices from the surface on which it rests into a transparent pouch in such a manner that the bacon rests neatly in its final position within the pouch which may then be evacuated to bring the transparent walls of the pouch tightly about the bacon stack. Other specific objects and advantages will appear as the specification proceeds.

The invention is illustrated, in a preferred embodiment, by the accompanying drawing, in which—

Figure 1 is a perspective view of apparatus embodying my invention; Fig. 2, a view similar to Fig. 1 but showing the container or paddle reversed; Fig. 3, a top plan view; Fig. 4, a side view in elevation; and Fig. 5, a perspective view of a fork which may be employed with the paddle for the ready removal of bacon, etc.

In the illustration given in Figs. 1 to 4 inclusive, 10 designates a standard to which is secured a tapered horizontal post 11. The post 11 may be formed of steel or other metal welded to the metal standard 10 or, if desired, both the standard 10 and post 11 may be formed of any other suitable material.

I provide a container or paddle 12 having side

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walls 13 and a rear wall 14. The front end of the container 12 is open at 15. A tapered tubular handle 16, adapted to frictionally engage the tapered post 11, is secured to the container 12 by welding the bottom extension 17 to the bottom wall of the container 12, as shown best in Fig. 2.

In order to prevent the bacon from clinging to the bottom wall of the container or paddle 12, I provide the bottom wall with ribs or ridges, etc., which will tend to keep the mass of the bacon away from most of the area of the bottom wall. In the specific illustration given, the bacon 18, indicated in dotted lines, rests upon the raised ribs or ridges 19 which extend longitudinally of the paddle. The bacon is stacked in the usual shingle formation, with the slices of bacon in overlapping relation.

The handle 16 is provided with diametrically-opposed openings 20, and the openings are connected by a slot extending inwardly and downwardly and forming a hook. With this construction, the fork can be readily hung on a wire and allowed to slide to the place where it is needed for packaging further quantities of bacon, etc.

To further facilitate the removal of bacon strips from the paddle 12, I provide a fork 22 which comprises a wire handle 23 curved to fit and to rest upon the top of handle 16, a cross bar 24, and a plurality of tines 25 formed as indicated in Fig. 5. For example, the handle 23 and top bar 24 may be formed of $\frac{3}{16}$ inch wire, and the tines 25 extending downwardly and forwardly therefrom may be formed of $\frac{1}{16}$ inch wire. It will be understood that the size of the wire will be changed depending upon the particular uses to which the structure would be put. It will be understood that the fork 22 may also be formed of strip or other material rather than wire. In the structure shown, I prefer that the tines 25 be formed with blunt ends.

In the practice of the invention, any suitable pouch may be employed. It is preferred ordinarily to use pouches formed of cellophane and other suitable transparent material. In the structure shown in Figs. 1 and 2, a transparent pouch is indicated in dotted lines by the numeral 26.

Operation

In the operation of the device, the paddle 12 may be used with or without the fork 22. In other words, the fork may be placed in position within the paddle, as illustrated in Fig. 1, or it may be omitted, as illustrated in Fig. 3.

Assuming that the fork 22 is placed in position,

as illustrated in Fig. 1, the fork is preferably secured in horizontal position by pressing the tapered handle 16 upon the tapered post 11. The bacon slices may have been preliminarily stacked upon the paddle and fork or may be placed upon the fork and paddle after the paddle has been secured in horizontal position upon the post 11.

With the fork in horizontal position upon the post 11, as illustrated in Fig. 1, a transparent container 26 is drawn over the paddle and bacon. The handle 16 may then be separated from the post 11 and turned completely over so that the bacon will fall upon the lower side of the transparent container. Should the bacon adhere very tightly, the fork may be separated from the paddle by moving it forwardly or downwardly, and the fork may then be withdrawn from the pouch.

Instead of withdrawing the handle 16 completely from the post 11, it may be withdrawn slightly so as to permit the turning of the handle to reverse the position of the paddle, and then the paddle may be pressed again into position to hold it in inverted position.

If the paddle is used without the fork, as illustrated in Fig. 3, it is merely necessary to invert the paddle while the same is enclosed by a container and the weight of the bacon will ordinarily be sufficient to allow it to separate from the paddle.

I prefer to employ a pouch 26 which is closed on all sides except one and, after the pouch is filled with the stacked bacon, to apply vacuum to the open end of the pouch. This operation results in drawing the transparent walls of the pouch 26 tightly around the bacon strips so as to form a compact and attractive package with no smearing of grease thereon. Since the package is substantially free of a grease film, it is clear and the bacon is readily visible throughout its length. The open end of the package is sealed by adhesive, heat sealing, or any other suitable means.

While the ribbed surface of the paddle is usually effective for preventing the sticking of bacon thereon, it is sometimes found that the bacon will not fall off of the surface when the paddle is inverted, and it is, therefore, necessary to use positive means for such removal. In handling such a product, I prefer to employ the fork 22 which has spaced tines 25 adapted to be received in spaced relation upon the bottom wall of paddle 12 and with the handle 23 resting upon the top of the paddle handle 16. The operation of stacking the bacon thereon is the same as heretofore described, and the operation of enclosing the paddle and product with a bag and inverting the paddle is the same as already described. After the paddle is inverted, the handle 23 which extends beyond the end of the transparent bag 26 may be grasped and the fork 22 moved downwardly to transfer the bacon upon the lower side of the bag 26. The fork may then be removed and the bag with its contents evacuated and sealed as heretofore described.

It will be understood that a variety of means may be provided for supporting the paddle 12 in a horizontal position for filling while permitting it to rotate to the inverted position. The means disclosed are simple and are sufficient for illustrating one mode of supporting such a structure for rotation while stabilizing it in the upright and inverted positions.

With the structure shown, it will be noted that the grease-bearing material does not slide along

the bag at any time and does not thus transfer to the bag surface a film of grease which would destroy the transparent characteristic of the package wall engaged. By depositing the bacon upon the bag without sliding movement and then by evacuating the container so as to draw the bag snugly about the bacon, it is found that the transparent walls of the container remain clear and the bacon is visible along its entire exposed surface. The apparatus permits extremely rapid packaging of this difficult-to-package product.

While in the foregoing specification, I have set forth a single illustration in considerable detail for the purpose of illustrating one embodiment of the invention, it will be understood that the details thereof may be varied widely by those skilled in the art without departing from the spirit of my invention.

I claim:

1. A packaging device, comprising a member having a surface adapted to receive the product to be packaged and adapted to be received within a pouch, and means horizontally aligned with said surface for releasably supporting the member in substantially horizontal position to receive the material to be packaged and to be enclosed by a pouch, said supporting means releasing said member for the inversion thereof to cause the contents thereof to fall into said pouch.

2. A packaging device, comprising a container open at one end and adapted to be received within a pouch, and means for rotatably and releasably supporting the container in horizontal position to receive the material to be packaged and to be enclosed by a pouch, said supporting means being releasable from said container to permit the inversion of said container so that the contents thereof will fall into said pouch.

3. In a packaging device, a support, a paddle adapted to receive thereon material to be packaged, and a handle member carried by said paddle and rotatably supported upon said support, said paddle having its outer free end adapted to be received within a pouch, said support for said handle permitting the rotation of the paddle to cause a deposit of the contents thereof into the pouch.

4. In a structure of the character set forth, a support, a tapered post carried by said support, a tapered handle adapted to frictionally and rotatably engage said post, and a paddle carried by said handle and having an outer free end adapted to receive a pouch, said paddle being adapted to be rotated upon said post to cause the contents of the paddle to drop into a pouch drawn thereover.

5. In a structure of the character set forth, a support, a tapered post carried by said support, a tapered handle rotatably carried by said post and adapted to frictionally engage said post, and a paddle carried by said handle and having an outer free end adapted to receive a pouch, said paddle being adapted to be rotated upon said post to cause the contents of the paddle to drop into a pouch drawn thereover, said paddle being provided with spaced raised portions for supporting the contents of the paddle above the bottom wall of the paddle.

6. In a packaging device, a paddle adapted to receive material to be packaged thereon and having a free end to be received within a transparent pouch, and means for rotatably supporting the other end of said paddle in a horizontal upright position and also in a horizontal inverted position.

7. In a pouch packaging device for shingle bacon, a paddle having side walls and a rear wall and having a ribbed bottom wall, the front end of said paddle being open, a hollow handle secured to said paddle and having a tapered outer portion, and a tapered post support rotatably carrying said handle to support the same releasably in a plurality of positions, said paddle having its outer free end adapted to be received within a transparent pouch.

8. A packaging device adapted for packaging sliced bacon and the like in transparent pouches, comprising a paddle provided with a hollow tapered handle, and a post support tapered to frictionally receive said handle, said handle having aligned openings in its wall and connecting slots tapered inwardly and communicating with each other.

9. In a packaging device, a paddle adapted to receive material to be packaged thereon and having a free end adapted to be received within a pouch, a fork member having tines received within said paddle and a handle portion extending therefrom, and means for releasably supporting the other end of said paddle and said fork handle in a horizontal upright position.

10. In a packaging device, a paddle provided with a hollow tapered handle, said paddle having longitudinally-extending ribs adapted to receive

thereon material to be packaged, and a post support tapered to frictionally receive said handle and adapted to release the same to permit the inverting of said paddle.

11. In a packaging device, a paddle having walls extending about all except the front end thereof and adapted to receive a shingle of bacon therein, a handle fixed to said paddle and means for supporting said handle releasably in a horizontal position with one end of said paddle being free to permit a pouch to be drawn about said paddle and said bacon, said handle being removable from said support after the container is drawn thereon to permit the rotation of said paddle to an inverted position.

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