United States Patent

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[54] **FOOD-RETAINING DEVICE**
9 Claims, 3 Drawing Figs.

[52] **U.S. Cl.** ..... **220/85 R**
[51] **Int. Cl.** **B65d 25/00**
[50] **Field of Search** ..... 220/85, 85 K, 1, 4, 73; 292/256.69

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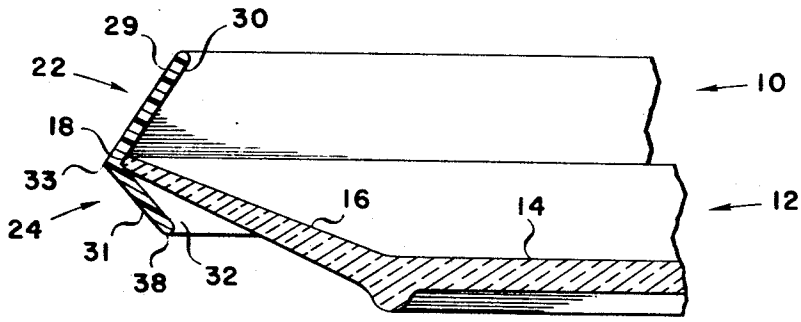
ABSTRACT: A food-retaining device adapted for removable mounting to an ordinary food plate. The device comprises a split ring shaped singular piece of flexible material having a substantially V-shaped cross section, adapted to receive and be mounted upon a food plate which is equal to or slightly larger in diameter than the diameter of the device itself. Mounting of the retainer device upon a plate is accomplished via a twisting and/or prying action exerted upon the ends of the split ring and thereupon inserting of the plate therein. When mounted circumferentially around a plate, the upper section of the retainer is disposed such that it slants upwardly and inwardly toward the center of the plate so that the inner surface thereof acts as a barrier to food which is urged against it, and thus prevents spilling of the food over the edge of the plate or the retainer device itself.



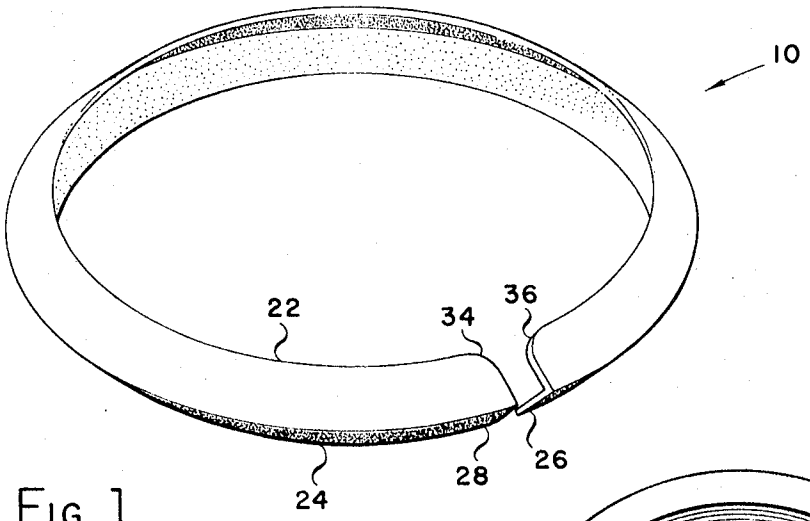


FIG. 1

FIG. 2

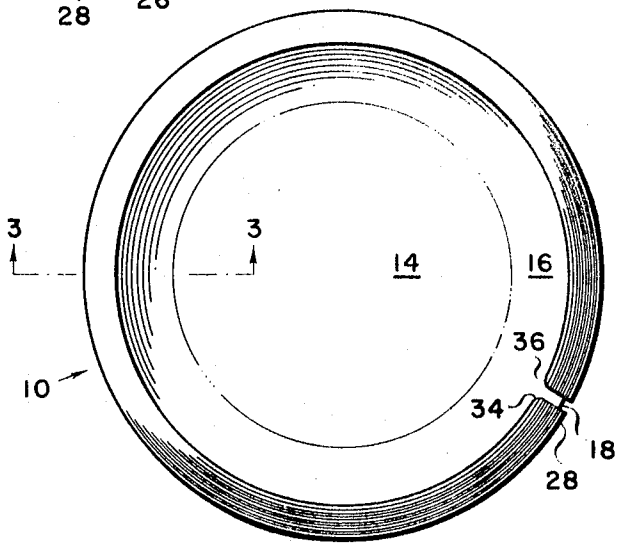
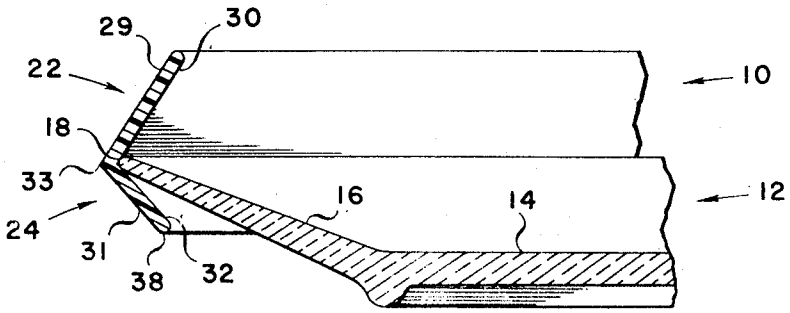


FIG. 3



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FOOD-RETAINING DEVICE

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates in general to a means for retaining food upon a plate and more particularly, to an attachment which, when in place, will provide a barrier against which food on the plate may be urged to facilitate placing the food upon an eating utensil preparatory to eating.

2. Description of the Prior Art

Heretofore, the problem of retaining food upon a plate preparatory to the eating thereof by a child or invalid has always presented a problem.

Many attempts have been made to overcome this problem but with little success. One such attempt was the compartmentalized plate whereby the plate was segregated into various compartments each one of which was for a specific food. This, however, proved of little success, in that the amount of any particular type of food was necessarily limited by the size of the compartment, and also should the person using the same wish to mix two or more of the various foods, he had to urge the food over the wall into an adjoining compartment.

Another such attempt to overcome the aforementioned problems was to use certain rigid attachments adapted to coincide with the upper edge of the compartmentalized plate and being horizontal thereto, which were either permanently or removably connected to the plate. One such disadvantage of these rigid-type attachments was that there was no manner in which they could be adapted for small or slight differences in the diameter or shape of the various sized plates. Also, when they were attached to the plate by means of screws or bolts, food particles tended to accumulate within the threaded apertures in the plate, thereby preventing or inhibiting the cleaning and sterilization thereof which is so vital to the welfare of a child or invalid. Still another distinct disadvantage of such a device was to significantly reduce the size of the compartment aperture into which a spoon or fork could be inserted, thus tending to make its use rather clumsy or awkward. In addition, because of the horizontal attitude of such an attachment with respect to the plate, food tended to rest upon the upper surface thereof after spilling off the fork or spoon and might thereafter easily fall off the dish.

Still another device which was used with little success was the removably mounted vertical barrier. While this barrier or baffle did, to some extent, prevent food from overflowing the plate it had the inherent disadvantage of covering only a very small arcuate section of tee circumference of the plate. Thus, the overwhelming portion of the plate was neither protected nor usable as a barrier against which food could be urged.

SUMMARY OF THE INVENTION

These disadvantages of the prior art have been overcome by the present invention which comprises a split ring-shaped device having a substantially V-shaped cross section adapted to receive and surround the peripheral edge of a food plate or dish. The upper section of the device when mounted to the plate is upwardly and inwardly disposed towards the center of the plate, and is slanted at such an angle that the food urged against the inner surface thereof is easily forced upon the fork or spoon of the person using it.

While the device may, of course, be fabricated from any suitable material which can be bent or twisted, the preferred material would seem to be light, soft plastic which would not tend to corrode. The terminating ends of the split ring are rounded at their upper and lower corners such that they may more easily facilitate the insertion of the plate within the inner surface thereof with a minimal amount of effort.

It is therefore an object of the present invention to provide a new and improved food-retaining device for use on a plate, platter, saucer, or similar vessel which may be readily applied and removed and which is thoroughly sanitary in all respects.

Another object of the present invention is to provide a food-retaining device which may accommodate various size plates or dishes.

Another object of the present invention is to provide a barrier or baffle of a child's or invalid's dish which will aid the former in learning to eat and both to keep the food on the dish.

Another object of the present invention is to provide an easy feeding device adapted to be fabricated entirely of plastic or other light weight flexible material and which is further adapted for mass production techniques thereby making it accessible to the consumer at low cost.

BRIEF DESCRIPTION OF THE DRAWINGS

The features of the present invention which are believed to be novel are set forth with particularity in the appended claims. The present invention, both as to its organization and manner of operation, together with further objects and advantages thereof, may best be understood by reference to the following description taken in connection with the accompanying drawings, in which:

FIG. 1 is a perspective view showing the food-retaining means mounted to a food plate;

FIG. 2 is a plan view of the assembly of FIG. 1; and

FIG. 3 is a fragmentary vertical section taken on the line 3–3 of FIG. 2 and showing the food-retaining means mounted on the plate.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the Figures in detail, a food-retaining device in accordance with the present invention is diagrammatically illustrated in the general direction of the arrow **10** and is shown mounted to a standard food plate **12**. The food plate **12** comprises a substantially central flat section **14** and an outwardly and upwardly extending toroidally shaped outer section **16** circumferentially disposed around the central section **14** which terminates at a rounded peripheral edge **18**.

The food-retaining device **10** is of a generally split ring configuration having a substantially V-shaped cross section formed by an upper section **22** and a lower section **24** which terminate at ends **26** and **28**.

The upper section **22** has a generally truncated right angle conical shape with a central aperture therethrough and defines an outer surface **29** and an inner surface **30**. The lower section **24** likewise has a generally truncated right angle conical shape with a base diameter equal to the base diameter of the section **22** and has a central aperture therethrough and defines an outer surface **31** and an inner surface **32**.

The sections **22** and **24** join at their bases of maximum diameter to form a circumferential edge **33** at or near the midpoint of the device **10** and thereafter diverge from one another inwardly toward the center of the device **10**.

The upper section **22** when mounted on or carried by the plate **12** is inwardly and upwardly disposed toward tee central portion **14** of the plate **12** while the lower section **24** is downwardly and inwardly disposed thereto.

The ends **26** and **28** each include a pair of rounded corners **34** and **36** respectively opposite the circumferential edge **33** to give greater facility for the insertion and removal of the plate **12** from the device **10**.

Upon insertion of the plate **12** into the retaining device **10**, the plate edge **18** will bear against the inner surfaces **30** and **32** of the sections **22** and **24** respectively and are retained in abutting relation thereto by the biasing effect resulting from the slightly larger diameter of the plate **12** as compared with the device **10**.

In operation then, the plate **12** is inserted into the food-retaining device **10** by bending or twisting the device **10** until the plate edge **18** bears against the inner surfaces **30** and **32**. The diameter of the plate **12** being equal to or slightly larger than the diameter of the device **10** causes the device **10** to expand slightly and consequently a biasing effect is produced

whereby the plate edge 18 is firmly fixed relative to the edge 33. When mounted to the plate 12, the inner surface 30 of the upper section 22 is inwardly and upwardly disposed relative to the central section 14 so as to act as a baffle or barrier to food urged against it.

The lower section 24 is disposed inwardly and downwardly with respect to the central section 14 and terminates at the edge 38 which is of a lesser diameter than the diameter of the plate 12 so that the device 10 will be retained on the plate 12.

It is to be noted that while the material for the device 10 must be resilient enough so that it can be bent or twisted to accept the plate 12, it must also possess sufficient strength to withstand the pressure of food and of the eating utensil bearing against it without having its ends 26 and 28 separate so far that it will disengage from the plate 12.

While particular embodiments of the present invention have been shown and described, it will be obvious to those skilled in the art that changes and modifications may be made without departing from this invention in its broader aspects, and, therefore, the aim in the appended claims is to cover all such changes and modifications as fall within the true spirit and scope of this invention.

What I claim is:

1. In combination with a food plate or dish, a food-retaining device for retaining food on said plate or dish and against which food may be urged to force it onto an eating utensil comprising:

a radially flexible or radially expansible ring-shaped element having a substantially V-shaped cross section formed by an upper and a lower ring-shaped section of right angular truncated conical configuration with a central aperture therethrough for accommodating the peripheral edge of said plate, said upper section and said lower section being joined at their base to form a peripheral edge whereby said upper section extends inwardly and upwardly relative to the center of said plate and said lower section extends inwardly and downwardly relative to the center of said plate and in divergent relationship to said upper section and terminates in a peripheral edge of lesser diameter than the diameter of said plate or dish;

said expansible ring-shaped element being resiliently tensioned so as to normally draw inwardly in diameter to forcibly urge against the plate edge;

said ring-shaped element having a transverse split defined between opposing opposite ends of said element that terminate in spaced apart relationship whereby said element is radially expandable against the self-bias of said element normally urged against said plate;

said ring-shaped element having a yieldable diameter normally smaller than the diameter of said plate;

said lower section having an inner exposed surface in space opposing relationship to the external exposed surface of the plate; and said ring-shaped element including said upper and lower sections is composed of a semirigid, plastic material adapted to bend or flex so as to distort said central aperture or opening to accommodate assembly and disassembly of said element on and from said plate respectively.

2. The invention as defined in claim 1 wherein said ring-shaped element is split such that its ends may be twisted or moved relative to one another.

3. The invention as defined in claim 2 wherein each of said ends includes a pair of rounded corners spaced apart from said peripheral edge and from one another and adapted to facilitate the insertion and removal of said plate from the inner surface of said upper and said lower sections of said element.

4. The invention as defined in claim 1 wherein said sectional peripheral edges lie along the same vertical plane.

5. The invention as defined in claim 1 including said split formed through said upper and lower sections to define opposing and spaced apart terminating ends.

6. The invention as defined in claim 5 wherein the configuration of said element in plan view substantially corresponds to the configuration in plan view of said plate.

7. The invention as defined in claim 6 wherein said element composition is characterized by developing a springback force when said opposing terminating ends are moved away from each other, said springback force being sufficient to bias said element into gripping relationship with said plate when assembled thereon.

8. The invention as defined in claim 7 wherein said device is a single piece construction forming a unitary structure.

9. The invention as defined in claim 8 wherein the dimensional length of said upper and lower sections are substantially the same.