The current invention is a food storage box for meals on-the-go and consists of a plastic clam shell box which houses a food tray. The food tray has a plurality of compartments or food wells to receive a variety of foods. The tray provides a visual nutritional guide using graphics and/or labels on the surface of the bottom of each food well to assist the user in packing a nutritionally balanced meal. Each food well is specifically sized to accommodate the appropriate portion sizes for specific age groups or special diets. The interior lid is fitted with a rubber over-mold which, when closed, fits snugly around each food well and around the perimeter of the tray to prevent food from mingling or leaking out of the box and therefore seals the contents of all food wells with a singular lid.
FOOD STORAGE BOX WITH COMPARTMENTALIZED TRAY FOR MEALS ON-THE-GO WITH BUILT IN NUTRITIONAL GUIDE AND PORTION CONTROL

BACKGROUND OF THE INVENTION

[0001] 1. Field of Invention

The present invention relates to meals on-the-go food containers and more particularly to a food container which houses a removable tray with plurality of food wells. The food tray provides the user with a nutritional guide by means of graphic application to the surface of each food well. Furthermore each food well is scientifically proportioned to hold the appropriate food volume per specific age group and dietary needs. The combination of a visual nutritional packing guide and integrated portion control assists the user in packing a nutritionally balanced meal. The present invention also relates to a food storage container that seals multiple food wells with a singular rubber over-molded lid, thereby holding food in place and preventing any food or juice to spill or mingle.

[0003] 2. Description of the Prior Art

Meals-on-the-go food containers include: traditional lunch boxes, bento boxes, reusable and disposable food storage containers, brown paper bags and plastic bags. There is a great variety of products in today’s marketplace that function as meal carriers. These containers include a range of features such as thermal control, multiple compartments and divider structures and closing mechanisms. The variety of materials is just as great, spanning from metal to plastic and fabric. The decorative element used on the food containers is often applied to amuse and beautify the object. Nonetheless there exists a need for a compact portable unit which will allow the user to conveniently pack, store and neatly transport a variety of foods to achieve a nutritionally balanced meal.

[0005] All over the world the meals on-the-go eating trend is on the rise. A growing number of adults and children need to pack and bring their own meals for economic, practical and health reasons. With the current obesity rates on the rise there is a need for a product that educates and guides the user to pack a nutritionally balanced meal. The current invention satisfies a gap in the market place for a product that facilitates packing a meal with its improved functionality. In addition, by means of the current invention’s nutritional packing system (as explained in paragraphs 0033-0034) as an educational component, it provides a new tool to users interested in reinforcing healthy eating habits in a fun and practical way.

SUMMARY OF THE INVENTION

[0006] The object of the current invention is to provide a meals on-the-go food container that is designed to facilitate the preparation, storage, transport and serving of nutritionally balanced meals.

[0007] To achieve the stated objectives, the present invention provides a compact plastic box comprising of an external clam shell box on a hinge with rounded edges and latch closure. Furthermore the interior top lid is constructed with a built-in rubber over-mold to achieve the desired sealing mechanism. The interior of the box houses a removable compartmentalized plastic tray which provides a built-in nutritional guide. The tray houses a plurality of food wells scientifically proportioned to receive food volume specific to a target age group or dietary need. The tray is molded and hollow on the bottom interior side to minimize the weight of the invention. The before mentioned rubber over-mold is designed to tightly, yet easily, fit around the edges of each compartment, ensuring proper seal between the compartments and the outer edges.

[0008] The said built-in nutritional guide is graphically represented on the bottom surface of each food well. This creates an original user friendly visual guide which enables the user to pack a balanced meal by following the built-in nutritional guide.

[0009] In addition to the nutritional guide, the current invention also incorporates built-in portion control. Each food well is proportioned and sized for age and diet appropriate serving sizes. As the portions are predetermined or fixed, the user’s method for packing a balanced meal is simplified using the built-in portion control system.

[0010] Furthermore the present invention improves the transport of meals on-the-go by providing a leak proof multi-compartmentalized food container. The meal box of the current invention houses a food tray with a plurality of food wells. The current invention is fitted to the interior with a singular rubber over-molded lid. Its singular lid with multi-compartment sealing mechanism ensures no interior cross-spill between the compartments and no leakage outside of the box.

[0011] The above and other objects, features and advantages of the present invention will become apparent from the following detailed description taken with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] The present invention is comprised of five separate parts, that cohesively create unique functionality of use.

[0013] The novel features believed to be characteristic of this invention are set forth with particularity in the appended claims. The invention itself however, both as to its built-in nutritional guide and packing system as well as the sealing mechanism, together with further objects and advantages thereof, may best be understood from reference to the following description taken in connection with the accompanying drawings in which:

[0014] FIG. 1 is a perspective view showing the meals on-the-go box in a closed position;

[0015] FIG. 2 is a perspective view showing the meals on-the-go box in an open position;

[0016] FIG. 3 is an exploded view of the meals on-the-go box shown in FIG. 1;

[0017] FIG. 4 is perspective view of the underside of the box lid with rubber over-mold of the meals on-the-go box shown in FIG. 1;

[0018] FIG. 5 is perspective stand alone view of the interior tray of the meals on-the-go box shown in FIG. 2;

[0019] FIG. 6 is a perspective stand alone view of the side and underside of the tray;

[0020] FIG. 7 is a perspective view of the meals on-the-go box with view of exterior base;

DETAILED DESCRIPTION OF THE INVENTION

[0021] The present invention will now be described more fully hereinafter with reference to the accompanying drawings, in which a preferred embodiment of the invention is shown. This invention may, however, be embodied in many different forms and should not be construed as limited to the
embodiment set forth herein. Rather, this embodiment is provided so that this application will be thorough and complete, and will fully convey the true scope of the invention to those skilled in the art. Like numbers refer to like elements throughout the figures.

[0022] The apparatus of this invention is referred generally in FIG. 1-7 as the reference numeral 10 and is intended to provide a food storage container used as a meals on-the-go box with a removable tray which houses a plurality of compartments for separating food products positioned therein. Said food tray has an integrated nutritional packing system described in detail below. Furthermore it is intended to be sealed with a singular rubber over-molded lid. It should be understood that the apparatus 10 may be used to maintain food presentation during travel, prevent leaks and co-mingling of food items.

[0023] Referring initially to FIG. 2, the present invention is a plastic clam shell box 10 with smooth rounded edges with roughly equal hollow halves comprised of a lid 12 and a base 14. The lid 12 and the base 14 are secured with a hinge 16 and therefore rotate relative to one another to access the interior of the box 10. The hinge 16 is constructed to enable the lid 12 to be removed from the base 14, if desired. This improved functionality may be useful for cleaning. The box 10 is closed by utilizing the latch 18 attached to the lid 12 which engages with the base 14 which has a protruding lip 20 to receive the latch 18. Furthermore, the exterior base 14 is fitted with four rounded slight protrusions 38, as seen in FIG. 7, whose function is to stabilize the box 10 when in use.

[0024] Referring to FIG. 2. The base 14 of the box 10 houses a removable compartmentalized food tray 22 which is divided into a plurality of food wells 24 as shown in FIG. 6, which is described in more detail below. When the box 10 is open as in FIG. 2 the lid 12 will rest flat and in line with the base 14. The box 10 is made of all food safe plastic and rubber materials and its dimensions are roughly 8 inches long x6 inches wide x2 inches deep.

[0025] Referring to FIG. 3, the lid 12 is rectangular with a plurality of side walls 32 shown in FIG. 6, which extend downwardly. When closed, the lid 12 covers roughly half the height of the tray 22 which rests on the base 14 of the box 10. On the interior side of the lid 12 are extruded ridges 28, as shown in FIG. 4, which mirror the shape of the food wells 24.

[0026] Referring to FIG. 4, the ridges 28 on the interior of the lid 12 aid the sealing mechanism by providing added pressure to the rubber over-mold 26 to achieve a tight seal. The rubber over-mold 26 is designed to outline the food wells 24 and to fit over the ridges 28. The rubber over-mold 26 is bound to the ridges 28 to achieve a seal when the lid 12 is closed over the tray 22 and fastened with the latch 18 closure.

[0027] Referring to FIG. 5, the core element of the invention lies in the embodiment of the removable food tray 22, which is structured to accommodate a plurality of food wells 24 and designed to work with the rubber over-mold 26 seal, as shown in FIG. 4. The key invention is in the tray 22 assembly, which creates a smart system for composing and storing nutritionally balanced meals on-the-go.

[0028] Referring again to FIG. 5, the tray 22 is substantially rectangular with ergonomically curved edges that follow the curve of the exterior box FIG. 1. One tray wall 32 contains an indentation 30, which accommodates for the design of the exterior latch 18 closure.

[0029] Referring again to FIG. 5, the tray 22 structure is such that there is a horizontal plane which houses a plurality of food wells 24. The horizontal plane is supported by vertical side walls 32 as shown in FIG. 6 extending downwardly 75% of the depth of the tray 22 securing it within the base 14 of the box 10. The underside of the majority of the wells 32 has a thin protruding ridge 34 as shown in FIG. 6, that helps to stabilize the tray 22. The underside of the tray 22 is hollow, as shown in FIG. 6 with the only protrusions being those of the before mentioned tray wells 24. The intentional hollowness reduces the weight of the invention.

[0030] Referring again to FIG. 5 and as portrayed in FIG. 2, the bottom half of the tray 22 rests snugly within the base 14 of the box 10. When the box 10 is in the open position as in FIG. 2 the top half of the tray 22 is exposed enabling the user to easily remove and replace the tray 22. The snug fit also limits movement of the tray 22 and helps to preserve the meal presentation.

[0031] Referring again to FIG. 5, the surface of the tray 22 mostly smooth, aside from thin ridges 36 that outline the perimeter of each food well 24. When the box 10 is in the closed position as in FIG. 1, the surface ridges 36 of the tray 22 engage with the rubber over-mold 26 on the interior lid 12 to create a seal which prevents food from mingling and also provides a leak-proof barrier to the exterior of the invention.

[0032] Referring again to FIG. 5, the before mentioned food wells 24 are smooth and rounded recessed areas which prevent undesired food deposits and facilitates the removal of left overs.

[0033] Referring again to FIG. 5, the key feature of the tray 24 is the nutritional packing system that it embodies. The food wells 24 of the tray 22 are specifically positioned and graphically marked, applied with the technology of in mold labeling, to maximize nutritional balance of the prepared meal. Each well 24 is assigned to host a specific variety of foods. For example, one well 24a may host “fruit” and an apple may be depicted to represent that specific variety of food. The embodied graphic nutritional balance system is used to simplify and guide the user in packing a healthy meal. In addition, the system reinforces good eating habits by educating the user on what consists of a healthy meal. Finally, the graphics also beautify the tray 22 making the experience of packing and eating the meal more enjoyable.

[0034] Referring again to FIG. 5, each well 24 is proportioned for age and diet appropriate serving sizes thereby creating a built-in portion control system to hold a nutritionally recommended food volume amount, sized per target age group. The tray therefore contains a unique system that guides the user to pack a nutritionally balanced meal on the go.

[0035] The versatile meals on-the-go box could appeal to a wide range of individuals of all ages who carry their meals to day care, school and work, and to be used for other meals on-the-go, such as picnics. The advantages of the present invention include, without limitation, that: the tray with multiple food wells together with the singular rubber over-molded lid allows for a variety of foods to be kept in their place during travel without leaking into neighboring food wells or leaking outside the apparatus. The tray which houses a plurality of pre-portioned food wells making up the nutritional guide assists individuals in preparing a nutritionally balanced meal and assists with portion control. As a result, foods packed using the meals on-the-go box with its visual nutritional guide are therefore healthier; food arrives in its place undamaged; and meals are presented in a more appetizing manner.
While the invention has been described with respect to a certain specific embodiment, it will be appreciated that many modifications and changes may be made by those skilled in the art without departing from the spirit of the invention. It is intended therefore by the appended claims to cover all such modification and changes as fall within the true spirit and scope of the invention.

In particular, with respect to the above description, it is to be realized that the optimum dimensional relationship for the parts of the present invention may include variations in size, shape, materials, function, form and manner of operation. The assembly and use of the present invention are deemed readily present and obvious to one skilled in the art.

What is claimed as new and desired to secure by Letters Patent of the United States is:

1. A plastic food storage box for meals-on-the-go comprising of:
   (a) a plastic clam shell box with a top and bottom half each with a plurality of side walls roughly equal in height;
   (b) a plastic clam shell box set on a hinge;
   (c) a plastic clam shell box with a one-latch closure;
   (d) a singular lid with a rubber over-mold which functions as a sealing mechanism for the box keeping food in its place;
   (e) a plastic clam shell box housing a removable food tray for isolating food products therein with a unique nutritional packing system.

2. The meals on-the-go box of claim 1 wherein the singular lid with rubber over-mold, when closed and engaged over the food tray, seals each food well individually preventing food from mingling and seals the perimeter of the food tray preventing leaks to the exterior of the box.

3. The meals on-the-go box of claim 1 wherein the removable food tray with a plurality of food wells provides a built-in nutritional packing system with two key components: (a) by means of graphics and labels visible on the surface of the bottom of each food well creating a visual guide that simplifies the preparation of nutritionally balanced meals; and (b) the plurality of food wells are sized to accommodate a fixed volume of food suitable for specific age groups or specific dietary needs and therefore integrates portion control for the ease of preparation of healthy meals.

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