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(54) Title: **A compartmentalized dietary plate for promoting balanced nutrition and healthy eating habits**

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(57) Abstract:

The present invention relates to a compartmentalized dietary plate system for promoting balanced nutrition and healthy eating habits. The system comprises a plate body having a plurality of distinct food compartments formed therein, wherein the plate body includes five separate compartments designated for fibres, cooked vegetables, protein-rich foods, carbohydrates, and dairy products/probiotics. The compartments are proportioned according to recommended dietary guidelines such that fibres occupy approximately 32% (102), cooked vegetables 21% (104), protein-rich foods 18% (106), carbohydrates 15% (108), and dairy products/probiotics 12% of the total plate area (110). The compartments are visually demarcated by partition walls to provide portion-controlled serving guidance. The plate functions as both a serving utensil and a visual nutritional aid for encouraging balanced diet consumption, dietary diversity, mindful eating habits, and long-term health improvement. Figure associated with Abstract is Fig. 1.

FORM 2
PATENTS ACT, 1970
(39 of 1970)

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The Patents Rules, 2003

COMPLETE SPECIFICATION
(See section 10 and rule 13)

1. TITLE OF THE INVENTION

**“A COMPARTMENTALIZED DIETARY PLATE FOR PROMOTING
BALANCED NUTRITION AND HEALTHY EATING HABITS”**

2. APPLICANT(S)

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3. PREAMBLE TO THE DESCRIPTION
COMPLETE

The following specification particularly describes the invention and the manner in which it is to be performed.

4. DESCRIPTION

Technical Field of the Invention

5 The present invention relates to the field of nutrition, dietary health, and household utility products. More particularly, the invention relates to a compartmentalized dietary plate designed to promote balanced diet consumption according to recommended nutritional guidelines for normal Indian adults.

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Background of the Invention

Balanced nutrition is one of the fundamental requirements for maintaining good health, improving immunity, and preventing lifestyle-related diseases. A proper diet containing the right proportion of carbohydrates, proteins, fibres, vegetables, and
15 dairy products helps in supporting physical growth, metabolic functions, and overall well-being. In modern society, awareness regarding healthy eating habits has increased, yet practical implementation of balanced diet principles remains limited.

Many individuals fail to maintain a balanced diet in their daily meals due to lack of
20 nutritional knowledge, improper portion control, busy lifestyles, and dependence on convenient food choices. In many households, people tend to consume excessive carbohydrates while neglecting essential nutrients such as proteins, fibres, and probiotics. This nutritional imbalance contributes to obesity, diabetes, digestive disorders, and other metabolic health issues.

25

Conventional serving plates and meal practices do not provide any structured guidance regarding portion size or food group distribution. People often rely on assumptions or personal habits while serving meals, which may not align with scientifically recommended dietary guidelines. As a result, even individuals who
30 intend to eat healthy may unknowingly consume unbalanced meals on a regular basis.

Various nutritional awareness programs, diet charts, and educational campaigns have been introduced to promote healthy eating habits. However, these methods often require continuous attention, external guidance, or professional consultation, making them less practical for routine daily use. There remains a need for a simple,
5 affordable, and user-friendly solution that can be easily integrated into everyday meal practices without requiring specialized knowledge.

A practical dietary aid that visually guides individuals regarding what to eat and how much to eat can significantly improve food choices and encourage mindful
10 eating behavior. Such a solution should be suitable for household use as well as institutional environments such as schools, offices, hospitals, and community kitchens, thereby supporting long-term behavioral change and public health improvement.

To address these limitations, the present invention provides a compartmentalized dietary plate is designed according to Indian dietary guidelines. The plate comprises five clearly demarcated compartments representing fibres, cooked vegetables, protein-rich foods, carbohydrates, and dairy products/probiotics in scientifically recommended proportions. The invention serves as both a functional serving utensil
15 and a visual educational tool for promoting balanced nutrition, portion control, and healthier eating habits
20

Objects of the Invention

The primary object of the present invention is to provide a compartmentalized dietary plate designed to promote balanced nutrition according to recommended dietary guidelines.
25

Another object of the present invention is to provide a a visual and practical guide for portion-controlled food consumption by clearly dividing the plate into separate
30 nutritional compartments.

Another object of the present invention is to encourage dietary diversity by ensuring proper intake of fibres, cooked vegetables, protein-rich foods, carbohydrates, and dairy products/probiotics in scientifically recommended proportions.

- 5 Another object of the present invention is to improve awareness and adoption of healthy eating habits among individuals by serving as an educational tool for mindful eating and nutritional discipline.

- 10 Another object of the present invention is to provide a simple, affordable, and user-friendly dietary aid suitable for households, schools, hospitals, office canteens, and community kitchens for long-term public health improvement.

Brief Summary of the Invention

- 15 The following presents a simplified summary of the disclosure in order to provide a basic understanding to the reader. This summary is not an extensive overview of the disclosure and it does not identify key/critical elements of the invention or delineate the scope of the invention. Its sole purpose is to present some concepts disclosed herein in a simplified form as a prelude to the more detailed description that is presented later.

- 20 According to an aspect of the present invention, a compartmentalized dietary plate is provided for promoting balanced nutrition and healthy eating habits among individuals. The invention is designed according to recommended dietary guidelines for normal Indian adults and serves as a practical tool for improving daily food consumption patterns.
- 25

- In accordance with the aspect of the present invention, the dietary plate comprises five clearly demarcated compartments arranged to represent scientifically recommended food portions. The compartments are designated for fibres, cooked vegetables, protein-rich foods, carbohydrates, and dairy products/probiotics, thereby ensuring proper intake of both macro and micronutrients required for overall health and well-being.
- 30

In accordance with the aspect of the present invention, the proportion of each compartment is specifically defined to support balanced meal planning, wherein fibres occupy approximately 32% of the total plate area, cooked vegetables occupy 21%, protein-rich foods occupy 18%, carbohydrates occupy 15%, and dairy products/probiotics occupy 12%. This visual distribution helps users make conscious and nutritionally appropriate food choices during every meal.

In accordance with the aspect of the present invention, the plate functions not only as a serving utensil but also as an educational and behavioral tool that promotes portion control, dietary diversity, and mindful eating habits. The invention helps bridge the gap between nutritional awareness and practical implementation by providing a simple and user-friendly solution for everyday use.

In accordance with the aspect of the present invention, the dietary system may be manufactured using food-safe materials such as stainless steel, ceramic, food-grade plastic, bamboo fiber, or biodegradable materials, making it suitable for use in households, schools, hospitals, office canteens, hostels, and community kitchens for improving long-term public health outcomes.

Brief Description of the Drawings

The invention will be further understood from the following detailed description of a preferred embodiment taken in conjunction with an appended drawing, in which:

Fig. 1 illustrates a schematic representation (100) showing the percentage-wise distribution of fibres, cooked vegetables, protein-rich foods, carbohydrates, and dairy products/probiotics in the dietary plate;

Detailed Description of the Invention

It is to be understood that the present disclosure is not limited in its application to the details of construction and the arrangement of components set forth in the

following description or illustrated in the drawings. The present disclosure is capable of other embodiments and of being practiced or of being carried out in various ways. In addition, it is to be understood that the phraseology and terminology used herein is for the purpose of description and should not be regarded
5 as limiting.

The use of “including”, “comprising” or “having” and variations thereof herein is meant to encompass the items listed thereafter and equivalents thereof as well as additional items. The terms “a” and “an” herein do not denote a limitation of
10 quantity, but rather denote the presence of at least one of the referenced items. Further, the use of terms “first”, “second”, and “third”, and the like, herein do not denote any order, quantity, or importance, but rather are used to distinguish one element from another.

15 According to an exemplary embodiment of the present invention, a compartmentalized dietary plate system is provided for promoting balanced nutrition and healthy eating habits among individuals. The system comprises a plate body having a plurality of distinct food compartments formed therein, wherein the plate body is specially designed to guide users in consuming a balanced diet
20 according to recommended nutritional guidelines.

In accordance with an exemplary embodiment of the present invention, wherein the plate body comprises five separate compartments designated for different food groups including fibres, cooked vegetables, protein-rich foods, carbohydrates, and
25 dairy products/probiotics. These compartments are permanently formed within the plate structure to ensure fixed portion allocation and prevent improper serving of food items.

In accordance with an exemplary embodiment of the present invention, wherein the
30 fibres compartment occupies approximately 32% of the total plate area and is intended for accommodating salads, fruits, sprouts, and raw vegetables. This larger

compartment ensures sufficient intake of dietary fibre, vitamins, minerals, and antioxidants required for digestive health and immunity enhancement.

5 In accordance with an exemplary embodiment of the present invention, wherein the cooked vegetables compartment occupies approximately 21% of the total plate area and is configured for serving seasonal cooked vegetables and vegetable-based preparations. This compartment supports regular intake of essential micronutrients and improves meal diversity.

10 In accordance with an exemplary embodiment of the present invention, wherein the the protein-rich foods compartment occupies approximately 18% of the total plate area and is designed for accommodating pulses, dal, legumes, eggs, paneer, soy products, and equivalent protein sources. This arrangement helps maintain adequate protein consumption necessary for tissue repair, growth, and metabolic functions.

15 In accordance with an exemplary embodiment of the present invention, wherein the carbohydrates compartment occupies approximately 15% of the total plate area and is used for serving rice, chapati, millet, cereals, and other carbohydrate-rich food items. This controlled portion helps prevent excessive carbohydrate consumption
20 while maintaining sufficient energy supply for daily activities.

In accordance with an exemplary embodiment of the present invention, wherein the the dairy products/probiotics compartment occupies approximately 12% of the total plate area and is configured for accommodating curd, buttermilk, yogurt, milk, and
25 probiotic food products. This compartment promotes gut health, calcium intake, and overall digestive balance.

In accordance with an exemplary embodiment of the present invention, wherein the compartments are visually demarcated by partition walls, markings, labels,
30 engraved instructions, or color coding for easy identification of each food group. These visual indicators serve as an educational guide and help users make conscious and nutritionally balanced food choices during every meal.

In accordance with an exemplary embodiment of the present invention, wherein the the plate body may be circular in shape and may be manufactured using food-safe materials such as stainless steel, ceramic, food-grade plastic, bamboo fiber, or biodegradable materials.

5

In accordance with an exemplary embodiment of the present invention, wherein the invention is suitable for use in households, schools, hospitals, office canteens, hostels, and community kitchens for promoting portion control, mindful eating, dietary diversity, and long-term public health improvement.

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In references to figures, Fig. 1 illustrates a schematic representation of the compartmentalized dietary plate system (100) showing the percentage-wise distribution of different food groups, wherein the fibres compartment (102) occupies approximately 32% of the total plate area, the cooked vegetables compartment (104) occupies approximately 21%, the protein-rich foods compartment (106) occupies approximately 18%, the carbohydrates compartment (108) occupies approximately 15%, and the dairy products/probiotics compartment (110) occupies approximately 12%, thereby providing a balanced nutritional serving guide for healthy eating habits.

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5. CLAIMS

We Claim:

1. A compartmentalized dietary plate system (100) for promoting balanced nutrition and healthy eating habits, comprising:
 - a plate body having a plurality of distinct food compartments formed therein;
 - wherein the plate body comprises five separate compartments designated for different food groups including fibres, cooked vegetables, protein-rich foods, carbohydrates, and dairy products/probiotics;
 - wherein each compartment is proportioned according to recommended dietary guidelines such that the fibres compartment (102) occupies approximately 32% of the total plate area, the cooked vegetables compartment (104) occupies approximately 21%, the protein-rich foods compartment (106) occupies approximately 18%, the carbohydrates compartment (108) occupies approximately 15%, and the dairy products/probiotics compartment (110) occupies approximately 12%;
 - wherein the compartments are visually demarcated by partition walls for providing portion-controlled serving guidance to users;and
 - wherein the plate body functions both as a serving utensil and as a visual nutritional aid for encouraging balanced diet consumption, dietary diversity, mindful eating habits, and long-term health improvement.
2. The system (100) as claimed in claim 1, wherein the plate body is circular in shape and comprises a central compartment surrounded by a plurality of peripheral compartments for organized food distribution.

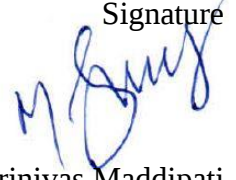
3. The system (100) as claimed in claim 1, wherein the fibres compartment is configured for accommodating salads, fruits, sprouts, and raw vegetables (102).
4. The system (100) as claimed in claim 1, wherein the cooked vegetables compartment is configured for accommodating seasonal cooked vegetables and vegetable-based preparations (104).
5. The system (100) as claimed in claim 1, wherein the protein-rich foods compartment is configured for accommodating pulses, dal, legumes, eggs, paneer, soy products, and equivalent protein sources (106).
6. The system (100) as claimed in claim 1, wherein the carbohydrates compartment is configured for accommodating rice, chapati, millet, cereals, and other carbohydrate-rich food items (108).
7. The system (100) as claimed in claim 1, wherein the dairy products/probiotics compartment is configured for accommodating curd, buttermilk, yogurt, milk, and probiotic food products (110).
8. The system (100) as claimed in claim 1, wherein the plate body is manufactured using food-safe materials selected from stainless steel, ceramic, food-grade plastic, bamboo fiber, and biodegradable materials.
9. The system (100) as claimed in claim 1, wherein the compartments are provided with visual markings, labels, symbols, engraved instructions, or color coding for identification of respective food groups
10. The system (100) as claimed in claim 1, wherein the plate is configured for use in households, schools, hospitals, office canteens, hostels, and community kitchens for promoting healthy eating habits.

6. DATE AND SIGNATURE

Dated this on 28th April 2026

5

Signature

A handwritten signature in blue ink, appearing to be 'M. Srinivas Maddipati', written in a cursive style.

Mr. Srinivas Maddipati

(IN/PA 3124) Agent for applicant

**Title: “A COMPARTMENTALIZED DIETARY PLATE FOR
PROMOTING BALANCED NUTRITION AND HEALTHY EATING
HABITS”**

5 **7. ABSTRACT**

10 The present invention relates to a compartmentalized dietary plate system for promoting balanced nutrition and healthy eating habits. The system comprises a plate body having a plurality of distinct food compartments formed therein, wherein the plate body includes five separate compartments designated for fibres, cooked
15 vegetables, protein-rich foods, carbohydrates, and dairy products/probiotics. The compartments are proportioned according to recommended dietary guidelines such that fibres occupy approximately 32% (102), cooked vegetables 21% (104), protein-rich foods 18% (106), carbohydrates 15% (108), and dairy products/probiotics 12% of the total plate area (110). The compartments are visually demarcated by partition
20 walls to provide portion-controlled serving guidance. The plate functions as both a serving utensil and a visual nutritional aid for encouraging balanced diet consumption, dietary diversity, mindful eating habits, and long-term health improvement.

20 Figure associated with Abstract is Fig. 1.