

SPECIFICATION

Cooking utensil

- 5 This invention deals with the ancient and revered art of food preparation for human consumption, i.e. cooking. Cooking is the art and science of preparing foods for the table, usually by heating them until they are changed in one or more of the following –
- 10 flavour, tenderness, appearance and chemical composition. Thus cooking develops flavour and makes many foods more attractive in appearance. It also makes some foods easier to digest. Because the effect of food is so important to health, cooking has developed into a science and a plethora of cooking utensils has been developed, each having claimed specific advantages, covering everything from more rapid cooking and flavour enhancement to all-day simmering and vitamin retention.
- 15 Whether an electric fry-pan or a gas heated aluminium saucepan is used, problems generally arise in that foods tend to stick to the cooking utensil and eventually burn, which, apart from resulting in the ruining of the food, can also at worst ruin the utensil, or at best make it difficult to clean even with proprietary products comprising steel wool, powdered abrasives, or modern detergents. In any case cooking foods of the "liquid" (e.g. stews or custards) or "discrete" types (e.g. Chinese foods such as fried rice or braised vegetable/meat dishes) required an even, controllable temperature.

- To this end recipes for this type of cooking often specify continual stirring during the higher temperature phase of the operation – in fact Chinese cuisine (Cantonese style) is basically defined as stir-fry cooking done at a high temperature. Clearly the stirring is essential to avoid sticking and burning.

- Similarly, in the art of sweets and confectionary cooking, high temperatures are required, as is constant stirring. On the other hand, dishes such as stews and casseroles are left to cook for hours at a low temperature and require little or no stirring. If these latter dishes could be cooked at a higher temperature, cooking time could be reduced but constant stirring to avoid burning and impairment of flavour would be required.

- Having regard to the problems referred to above, there is clearly a need for a type of cooking utensil which can operate at relatively high temperatures without causing burning of the ingredients. An attempt has been made to supply this need by providing fry-pans and saucepans with TEFLON (Registered Trade Mark) coatings.

- These coatings certainly prevent the food from sticking to the bottom or walls of the utensils, but they still involve two major disadvantages. Firstly, the food can still burn, and secondly continued usage of the utensils at high temperatures destroys the coatings. A third disadvantage is that the coatings are adversely affected if touched with metallic objects such as metal spoons.

- It is therefore the object of this invention to provide a cooking utensil which can be used at high or low temperature without burning the food or causing sticking, and which therefore overcomes the

problems and disadvantages hitherto experienced, and as discussed in the foregoing paragraphs.

- Broadly this invention provides a cooking utensil comprising heating means and a container having an opening for the introduction and removal of ingredients to be cooked, said container being mounted on a stationary stand for rotation about a normally upright axis at a speed sufficient to stir but not to centrifuge its contents and for pivotal movement about a substantially horizontal axis at right angles to the axis of rotation in order to tilt said container and its axis of rotation from its normally upright position to any one of a plurality of inclined positions and means being provided on said stand for retaining said container in any of its positions of angular adjustment.

- A better appreciation of this invention can be gained by reference to the exemplary form thereof illustrated in the accompanying drawing.

- Numeral 1 generally indicates a cooking utensil standing upon a table. An inner food container (2) holds ingredients (4) for cooking, and is enclosed by an insulated electrically heated vessel (3). Container (2) mounts shaft (6) which is rotatably supported within housing (7). Housing (7) encloses a motor (not shown) arranged to drive shaft (6) whereby to rotate inner container (2) at a speed such that the contents (4) are stirred and not centrifuged; the motor includes a speed control whereby to assure proper stirring for ingredients of varying viscosity which would centrifuge at different speeds. A stand (11) mounts the housing (7) about a pivot axis (8), and a wing nut, finger tightening device of the like (8a) is provided on a threaded shaft whereby to fix the inclination of the container (2) upon tightening thereof. If the container (2) is upright, the stirring action is least, but as the inclination increases, the stirring action becomes more vigorous, (i.e. for a fixed speed of rotation below the centrifuging speed).

- Numeral (9) indicates a handle used to control tipping of the container (2) when emptying its contents (4). A power flex (10) supplies current to the motor and heating element which is preferably thermostatically controlled and also controlled by a timing mechanism to set the cooking time. Controls are indicated at (12), (12a).

- It will be appreciated that the heating of container (2) need not be by electricity.

- The rotation motor can be powered from an extension power flux or it may be arranged to be a battery operated motor, whereby there are no restrictions on location of use.

- A quick consideration of the exemplary device described shows up a number of advantages as follows:

1. The device cooks more efficiently and faster than cooking utensils in current use.
2. The device can be used to mix foods *before* as well as during the cooking.
3. A wide variety of foods from stir-fried Chinese cooking to English style custards can be cooked without any sticking to the container, or any burning.
4. There is less danger of accidents during cooking from confined steam, or hot splashing.



5. When cooking is finished, there is no need to scrape the container or to remove it for cleaning — the food is simply tipped out and the container can be readily cleaned in situ.

- 5 6. If the device is of the electric type as illustrated in the drawing, it can be made completely automatically operated on pre-set controls, i.e. temperature, time of heating at various temperatures, speed and amount of rotation can all be pre-set.

- 10 It is emphasised that the exemplary form of the device illustrated in the drawing is one embodiment only of an invention which clearly has wider possibilities in construction and use, and the true essence of the invention will be apparent to one skilled in the art having regard to the foregoing disclosure.

CLAIMS

1. A cooking utensil comprising a heating means and a container having an opening for the introduction and removal of ingredients to be cooked, said container being mounted on a stationary stand for rotation about a normally upright axis at speed sufficient to stir but not to centrifuge its contents and for pivotal movement about a substantially horizontal axis at right angles to the axis of rotation in order to tilt said container and its axis of rotation from its normally upright position to any one of plurality of inclined positions and means being provided on said stand for retaining said container in any of its positions of angular adjustment.

2. A cooking utensil as defined in claim 1 wherein said container is rotated by an electrical motor, said motor being controlled by manually settable controls including time and speed variation devices, whereby both the duration and speed of rotation of the container can be preset.

3. A cooking utensil as defined in claim 1 or claim 2 wherein said heating means are electrical and there are provided manually settable controls for said heating means including a timing device and a thermostat, whereby both the temperature and time of cooking can be preset.

4. A cooking utensil as defined in any one of claims 1, 2 or 3, wherein said axis of rotation of said container is defined by an elongate member projecting outwardly from the bottom of said container, said elongate member being rotatable mounted in a bearing enclosed within a housing tiltably mounted on said stand and means for rotating said container is enclosed within said housing.

5. A cooking utensil as defined in any preceding claim wherein said container is, apart from said opening therein, enclosed within a shell, and said heating means forms part of said shell.

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