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HANDHELD KITCHEN UTENSIL

TECHNOLOGICAL FIELD

This disclosed subject matter relates to handheld kitchen utensils and more specifically it is concerned with a kitchen utensil for at least peeling and slicing of food products.

5 PRIOR ART AND BACKGROUND

References considered to be relevant as background to the presently disclosed subject matter are listed and briefly described below:

US3956825 is directed to a vegetable peeler in one version that is pushed against the vegetable and removes the skin by an impressed blade; in another version, a
10 relatively long blade is rotatable in a frame to remove a variable thickness of the vegetable at each stroke.

US2006037201 is directed to a vegetable peeler having two gripping surfaces connected to each other by a peeling blade as well as a cross-piece. According to the publication, the two lateral gripping surfaces and the interconnecting cross-piece are
15 forming a holder, the dimension of the legs (L) of the U-shaped holder being shorter in peeling direction (A) than the distance (B) between the gripping surfaces. In this way, direct guiding the peeling blade is enabled without any lever arm. The peeling blade, when used, is directly between the fingers and, therefore, can be guided in an extremely precise, handy and safe way.

20 WO08087462 is directed to a hand operated peeler for vegetables, that directs the peels up-and sideways for easy lifting off and prevents their re-adhering to the peeled object. Therefore a discharge section behind the blade is curved in two dimensions and coated with a non-stick layer, the discharge section being part of the blade or closely adhering to it. For adaptation to a preferred working angle, the blade
25 unit can be mounted into the open segment of a sliding ring, which permits swivelling adaptation.

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Acknowledgement of the above references herein is not to be inferred as meaning that these are in any way relevant to the patentability of the presently disclosed subject matter.

GENERAL DESCRIPTION

5 According to the present disclosed subject matter there is provided a multi-task handheld kitchen utensil for at least peeling and slicing of food products.

The term *food products* refers among others to vegetables, fruits, chesses, nuts, meat, poultry, etc.

 According to the present disclosed subject matter there is disclosed a handheld
10 kitchen utensil comprising a frame configured with a cutting blade and a spacer plate, both of which being pivotally mounted to the frame about parallelly extending axes; said cutting blade and spacer plate being pivotally displaceable between at least a peeling position and at least one slicing position.

 The arrangement is such that at the peeling position the cutting blade extends
15 inclined with respect the spacer plate such that a cutting edge of the cutting blade extends below a bottom surface of the spacer plate. At the peeling position the spacer plate is configured to follow an outer surface of the peeled food product.

 Furthermore, at a first slicing position the cutting edge of the cutting blade extends above a top surface of the spacer plate, whilst the cutting blade is substantially
20 parallel to the spacer plate. At this position the top surface of the spacing plate slides against the food product as it is displaced thereabout.

 According to a second slicing position, the cutting edge of the cutting blade extends below the bottom surface of the spacer plate, whilst the cutting blade is substantially parallel to the spacer plate. At this position the bottom surface of the
25 spacing plate slides against the food product as it is displaced thereabout.

 Hereinafter in the specification and claims the term *cutting blade* is used to denote an elongate blade used interchangeably for peeling, cutting, shredding (e.g. producing julienne strips, slivers and the like) etc.

 The kitchen utensil is manipulable in two main positions, namely a peeling
30 position and a slicing position.

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The kitchen utensil of the presently disclosed subject matter can be configured with any one or more of the following features and designs, in combination or separately:

The frame is configured at a fore end of a gripping handle;

5 The gripping handle is ergonomically shaped for comfortable and safe gripping by an individual;

The gripping handle is configured with a juice squeezer at an aft end thereof;

The gripping handle is configured additional kitchen aid functions such as a bottle opener, garlic crusher, corer, pitter, knife sharpener, etc.;

10 The gripping handle is configured with at least one gliding surface on at least one face thereof, for guiding a food product towards the cutting blade;

The gripping handle is configured with gliding surface on each face thereof, for guiding a food product towards the cutting blade;

15 The kitchen utensil is configured with a container (e.g. bowl and the like) engaging portion, whereby the utensil can be engaged with the container, with the cutting blade and spacer plate extending over or within the container;

The engaging portion can be configured as a groove for mounting over a rim of the container;

20 The mounting groove at the container engaging portion may be further fitted with a knife sharpener;

At the slicing mode wall surfaces of the cutting blade extend substantially parallel with wall surfaces of the spacer plate;

The distance between the cutting blade and the spacer plate is adjustable, to thereby control slicing width;

25 The kitchen utensil is configured for using at two distinct slicing modes in which the utensil is held at a different orientation;

The cutting blade is configured with a first cutting edge facing the spacer plate, and a second cutting edge, wherein that it can be inverted upon blunting of the first cutting edge such that the second cutting edge now faces the spacer plate;

30 One or both cutting edges of the cutting blade are patterned, e.g. undulating, serrated;

The device can be used as a shredder for shredding food articles; a shredding blade can be mounted on the frame or on the spacer plate, said shredding blade

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comprising one or more blades extending substantially normal to the cutting blade at its slicing position;

The shredding blade can be detachably attachable to the frame, e.g. by at least partially enveloping the cutting blade.

5 Mutual pivotal displacement of the cutting edge and the spacer plate is restricted to thereby obtain fixed angular positions therebetween;

The cutting blade and the spacer plate are pivotally secured to the frame so as to follow the contour of the food product as the utensil is moved there along;

10 One face of the cutting blade can be configured with a plurality of upright extending blades, the other face of which configured for longitudinal slicing, for fine shredding of food products;

The cutting blade can be arced or otherwise shaped (e.g. V-like shaped); the spacer plate can follow the shape of the cutting blade, however maintaining a constant distance therebetween;

15 The cutting blade and the spacer plate are pivotally loose within a limited range and are self aligned upon applying over a surface of a food product;

Pivotal displacement of the cutting blade and the spacer plate is restricted by restricting members cooperating with corresponding stoppers configured at the frame;

20 The cutting blade and the spacer plate are mutually pivotally displaceable, whereby at the peeling position the angular position of the cutting blade with respect to the spacer plate is substantially predetermined and constant, said angle defined by the spacer plate gliding over the food product;

25 The cutting blade and the spacer plate are pivotally self aligning such that at a slicing position surfaces of the spacer plate are parallel with surfaces of the cutting blade;

The utensil may be provided with a support member adapted to support the utensil at an angle on a surface. Such a support member may be in a form of at least one foldable leg, adapted to be folded over the utensil and to be flush with the surface thereof.

30 The utensil may be configured as having two parts: a handle portion and an operational portion fitted with the frame. According to this example, the handle part may be fitted with a blade receivable within the body of the operational part. In an assembled position the two parts are adjoining and the blade is received within the

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operational part. In a disassembled position, the handle portion fitted with the blade is functional as a knife.

The kitchen utensil is dishwasher safe.

BRIEF DESCRIPTION OF THE DRAWINGS

5 In order to understand the disclosed subject matter and to see how it may be carried out in practice, embodiments will now be described, by way of non-limiting examples only, with reference to the accompanying drawings, in which:

Fig. 1A is a rear isometric view of a kitchen utensil according to a first example of the present disclosed subject matter;

10 **Fig. 1B** is front, bottom isometric view of the kitchen utensil of Fig. 1A;

Fig. 1C is rear, bottom view isometric view of the kitchen utensil of Fig. 1A;

Fig. 1D is front, top view isometric view of the kitchen utensil of Fig. 1A;

Fig. 2A is an enlargement of a head portion of the kitchen utensil of Fig. 1A, at a peeling position;

15 **Fig. 2B** is an enlargement of a head portion of the kitchen utensil of Fig. 1A, at a first slicing position;

Fig. 2C is an enlargement of a head portion of the kitchen utensil of Fig. 1A, at a second slicing position;

Figs. 3A , 3B and 3C are schematic representations of the kitchen utensil of Figs
20 1 and 2, at a peeling position, a first slicing position and a second slicing position, respectively;

Figs. 4A and 4B are top and side views of the kitchen utensil at a peeling position;

Figs. 5A and 5B are a bottom perspective view and a top perspective view,
25 respectively, illustrating the kitchen utensil at a first slicing position;

Figs. 6A and 6B are a top left and top right perspective views, respectively, illustrating the kitchen utensil at a second slicing position;

Fig. 7A illustrates the kitchen utensil mounted over an edge of a bowl;

Fig. 7B illustrates the kitchen utensil at the position of Fig. 7A, while in a
30 slicing position;

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Figs. 8A, 8B and 8C are rear top, front top and front bottom perspective views, respectively, of a kitchen utensil according to a second example of the present disclosed subject matter;

Fig. 9 illustrates a modification of a kitchen utensil according to the first
5 example;

Fig. 10 illustrates yet another modification of a kitchen utensil according to the first example;

Fig. 11 illustrates another modification of a kitchen utensil according to the first example;

10 **Figs. 12A and 12B** illustrate a modification of a kitchen utensil according to the first example; and

Fig. 13 illustrates a modification of a kitchen utensil according to the first example in a disassembled configuration;

15 DETAILED DESCRIPTION OF EMBODIMENTS

Attention is first directed to Figs. 1 and 2 illustrating a kitchen utensil in accordance with the present disclosed subject matter generally designated **20**. The kitchen utensil namely a peeler/slicer kitchen utensil is configured with a frame portion designated **22** extending at a fore end of a handle **24**, said handle **24** designed and
20 shaped ergonomically for comfortable and sturdy gripping by an individual.

As can be seen, best in Figs. 1B and 7A, the handle portion **24** is configured with a container engaging portion in the form of a shaped groove designated **27** configured such that the utensil can be engaged with a container, e.g. a bowl **40** such that the frame portion namely **22** extends over or within the container for a slicing
25 operation as will be discussed hereinafter with reference to Figs. 7A and 7B.

The kitchen utensil **20** is configured such that it has a fore end **30**, and aft end **32**, a top side **34** and a bottom side **36**.

As can be seen in the drawings, the frame portion **22** is configured with two projecting side bars **26** extending substantially parallel to one another and pivotally
30 supporting a cutting blade **42** near a front end of the utensil **20**, and a spacer plate **44** extending behind said cutting blade. Cutting blade **42** is configured with a sharp cutting edge **50**, whilst spacer plate **44** has blunt edges along a bottom surface **54** and a top

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surface **56**, said bottom surface and top surface being substantially parallel to one another and smooth.

As can be seen, best in Figs. 2A to 2C, the cutting blade **42** and the spacer plate **44** are pivotally mounted on the side bars **26** about parallelly extending longitudinal axes (**X₁** and **X₂**, respectively, shown in Figs. 1A and 2B), both of which being substantially perpendicular to a longitudinal axis **X₁** of the handle portion **24**, said cutting blade **42** and spacer plate **44** being pivotally displaceable between at least a peeling position (Figs. 2C, 3A, 4A and 4B) and at least one, though two in the particular example, slicing positions (Figs. 2B, 3B, 3C, 5A, 5B, 6B, 7B and 10), as will be discussed hereinafter in further detail.

As can be seen in figures Fig. 3A, 4A and 4B, at the peeling position, the cutting blade **42** extends inclined with respect to the spacer plate **44** such that the cutting edge **50** of the cutting blade **42** extends below the bottom surface **54** of the spacer plate **44**. Thus, at the peeling position the bottom surface **54** of spacer plate **44** is configured to follow, i.e. slide over an outer surface of the food product **55** being peeled, as illustrated in Fig. 3A, whilst the cutting edge **50** extends at an inclined position, however below said bottom surface **54**, configured for penetrating into the food product **55**, to a restricted depth only, so as to perform a smooth and clean peel of the food product **55**, with the peel **57** emerging above the cutting blade **42**.

In the peeling position the food product **55** is displaced in direction of arrow **60A** or the kitchen utensil **20** is displaced over the food product **55** in direction of arrow **60B**, with the food product **55** allowed to smoothly slide over glide surface **25** at a bottom side of the utensil **20**.

It is further appreciated that at the peeling position the spacer plate **44** pivots into its position only upon applying the utensil over the food article and sliding it thereover (Fig. 2A), whereby the gap between the cutting blade **42** and the spacer plate **44** narrows. However, upon removing the utensil from the food article (i.e. at the end of a peeling stroke), the spacer plate **44** spontaneously displaces into its original position, thereby increasing the gap between the cutting blade **42** whereby the peel can easily disengage and loosely fall away, rendering the utensil ready for another peeling strike. It is appreciated that the spacer plate **44** spontaneously displaces into its original position under its self weight and possibly by the aid of a biasing member.

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At a first slicing position (Fig. 3B) the cutting edge **50** of the cutting blade **42** extends above a top surface **56** of the spacer plate **44**, whilst the cutting blade **42** is substantially parallel to the spacer plate **44**. At this position the top surface **56** of the spacer plate **44** slides over the surface of the food product designated **55** as it is
5 displaced thereabout.

It is noted in Fig. 3B that the food product can be displaced in two principle positions, namely as illustrated by solid lines and designated **55** (illustrated in Figs. 5A 5B), and by dashed lines and designated **55'** in which the food product is displaced substantially perpendicular to the position illustrated by solid lines.

10 At the first principle position the food product **55** is displaced along line **55C**, and at the second principle position the food product **55'** is displaced along line **60D**, wherein at both positions displacement is in direction towards the cutting edge **50**. Alternatively the kitchen utensil **20** is displaced over the food product **55** in direction of arrow **60E**.

15 At both said principle positions the food product **55** is allowed to easily slide over a gliding surface **66** configured over the top surface **34** of the handle portion, said gliding surface **66** configured with a plurality of directing ridges **68**, though a smooth flat or curved surface can serve for the same purpose.

At a second slicing position (schematically represented in Figs. 3C, 6A and 6B)
20 the cutting edge **50** of the cutting blade **42** extends below the bottom surface **54** of the spacer blade **44**, whilst the cutting blade **42** extends substantially parallel to the spacer plate **44**. At this position the bottom surface **54** of the spacing plate **44** slides against the food product **55** as the latter is being displaced in direction of arrow **60F**, or the kitchen utensil **20** is displaced over the food product **55** in direction of arrow **60G**.

25 It is noted in the drawings that pivotal displacement of the cutting blade **42** and of the spacer plate **44** is restricted so as to retain a relation therebetween and with respect to the frame portion **22**, according to the respective peeling/slicing position. This is obtained by restricting members cooperating with corresponding stoppers configured at the frame and at the respective cutting blade **42** and spacer plate **44**.

30 For that purpose, the cutting blade **42** is configured with one or two projecting levers **72** configured for arresting by a stopper element **74** laterally projecting from an inside face of one or both of the arms **26**. The arrangement is such that at the peeling

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position said lever **72** encounters said stopper element **74** thereby arresting it and preventing it from further pivotal displacement.

The spacer plate **44** is configured with one or two arresting members **76**, bent out from the surface of the spacer plate **44**, and configured for arresting the projecting
5 levers **72** of the cutting blade **42**, thereby fixing the angular position therebetween.

The arrangement is such that the cutting blade **42** and the spacer plate **44** are mutually pivotally displaceable, whereby at the peeling position the angular position of the cutting blade with respect to the spacer plate is substantially predetermined and constant, said angle defined by the spacer plate gliding over the food product.

10 It is appreciated that the cutting blade **42** and the spacer plate **44** are pivotally self aligning such that at a slicing position surfaces of the spacer plate are parallel with surfaces of the cutting blade **42**.

Employing the device according to the second principal position (dashed lines) will result in slicing the food article in disc-like shapes, whilst using the device
15 according to the first principal position of figure 2B, or as seen in figure 2C, will result in slicing the food article into elongate pieces. However the shape of the slices depends also on the angle at which the food article is displaced over the cutting blade.

In Figs. 7A and 7B the kitchen utensil **20** is shown in use in conjunction with a bowl **40**, wherein the groove **27** of the handle portion **24** is mounted over the edge **79** of
20 the bowl **40** such that it is now supported thereby and with the frame portion **22** extending within the bowl. In this position a food article **55** is easily sliced, as illustrated in Fig. 7B, the slices **80** allowed to drop directly into the bowl **40**.

Turning now to Figures 8A to 8C there is illustrated a kitchen utensil **120** in accordance with a modification of the presently disclosed subject matter. For sake of
25 clarity, elements similar to those disclosed in connection with the previous embodiment are designated with a like reference number, however shifted by 100.

The kitchen utensil **120** differs from the previous example in its general appearance, however has the same principal functional features. Instead of glide surface **25** and gliding surface **66** there is provided a bar **127** which acts both to rigidify the
30 structure of the device and to provide a support/guidance while peeling/slicing a food item. In addition, the frame portion **122** is configured with a coring member **129**, for coring and removing inedible portions of a food item.

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However, the main difference resides in the provision of a thickness adjusting mechanism designated **133** in the form of a manually adjustable screw member **135** articulated to the frame portion **122** and configured for axially displacing against the spacer plate **144** to thereby restrict the angular pivotal range of the spacer bar. As
5 indicated hereinabove in connection with the previous example, the cutting blade **142** and the spacer plate **144** are associated for restricted angular displacement owing to the restricting members, i.e. projecting levers **172** of the cutting blade **142**, arresting members **176** bent out from the surface of the spacer plate **144**, and the stopper element **174** of the spacer plate **144**.

10 The arrangement is such that the cutting blade **142** and the spacer plate **144** are mutually pivotally displaceable, whereby at the peeling position the angular position of the cutting blade with respect to the spacer plate is substantially predetermined and constant, said angle defined by the spacer plate gliding over the food product.

In Fig. 9 there is illustrated a kitchen utensil **180** resembling that of the first
15 example, however wherein the aft portion **132** is configured with a serrated juice-extracting portion **195** whereby juice can be squeezed from a fruit, e.g. a citrus fruit, etc.

In Fig. 10 the kitchen utensil **200** is similar to the first example, however with the addition of a looped coring element **202** and a shredding element **204**. The shredding element is a blade composed of several parallel extending blades, extending
20 substantially normal to the spacer plate surface for shredding food articles. It is appreciated that the shredding blade **204** can be fixedly or removably mounted on the frame or on the spacer plate.

Turning now to Figure 11 there is illustrated a kitchen utensil **520** in accordance with a modification of the presently disclosed subject matter. For sake of clarity,
25 elements similar to those disclosed in connection with the previous embodiment are designated with a like reference number, however shifted by **500**.

The kitchen utensil **520** differs from the previous examples in its general appearance, however has the same principal functional features. In this example the glide surface **566A** is provided the bottom side **536** of the utensil **520**. The gliding
30 surface **566A** provides a support/guidance while peeling/slicing a food item. In addition, the frame portion **522** is configured with a coring member **529**, for coring and removing inedible portions of a food item.

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Further illustrated in this figure is a knife sharpening surface configured at the grove **527** facilitating stoning of knife blade.

Figures 12A and 12B illustrate kitchen utensil **320** in accordance with a modification of the presently disclosed subject matter. For sake of clarity, elements
5 similar to those disclosed in connection with the embodiment of Fig. 1A are designated with a like reference number, however shifted by **300**.

The kitchen utensil **320** differs from the previous examples in its general appearance, however has the same principal functional features. In this example the glide surface **366A** is provided the top side **334** of the utensil **320**. In addition, the fore
10 end is configured with two pivotally displaceable in the direction of arrow **D** support members **350A** and **350B**. The support members are displaceable between their first configuration seen in Fig. 12A with the members **350A** and **350B** being flush with the fore end of the handle and a second configuration in which the support members **350A** and **350B** are displaced to form elevation of the fore end of the handle from the surface
15 **S**.

Figure 13 illustrates a kitchen utensil **400** in accordance with a modification of the presently disclosed subject matter. For sake of clarity, elements similar to those disclosed in connection with the embodiment illustrated in Fig. 1A are designated with a like reference number, however shifted by **400**.

20 The kitchen utensil **400** differs from the previous examples in its general appearance, however has the same principal functional features. In this example the kitchen utensil **400** is comprised of two parts **440** and **450**. The utensil is fitted with a blade **460** fitted at the handle portion **450** of the utensil such that the blade is receivable within the body part **440** of the utensil. When disengaged, the handle part **450** is
25 operational as a knife with the blade **460** forming the knife blade.

Whilst several embodiments have been described and illustrated with reference to the accompanying drawings, the artisan will appreciate that many variations are possible, which do not depart from the general scope of the present disclosed subject matter, *mutatis mutandis*

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CLAIM:

1. A handheld kitchen utensil comprising: a frame, the frame being configured with a cutting blade and a spacer plate, both of which being pivotally mounted to the frame; said cutting blade and spacer plate being pivotally displaceable
5 between at least a peeling position and at least one slicing position.
2. The handheld kitchen utensil according to claim 1, wherein the cutting blade and the spacer plate, are both mounted about parallelly extending axes.
3. The handheld kitchen utensil according to claim 1, wherein at the peeling position the cutting blade extends inclined with respect the spacer plate such that
10 a cutting edge of the cutting blade extends below a bottom surface of the spacer plate.
4. The handheld kitchen utensil according to claim 1, wherein at one of the at least one slicing position a cutting edge of the cutting blade extends above a top surface of the spacer plate, whilst the cutting blade is substantially parallel to the
15 spacer plate.
5. The handheld kitchen utensil according to claim 1, wherein at one of the at least one slicing position, a cutting edge of the cutting blade extends below the bottom surface of the spacer plate, whilst the cutting blade is substantially parallel to the spacer plate.
- 20 6. The handheld kitchen utensil according to claim 1, wherein the frame is configured at a fore end of a gripping handle.
7. The handheld kitchen utensil according to claim 6, wherein the gripping handle is ergonomically shaped.
8. The handheld kitchen utensil according to claim 7, wherein the gripping handle
25 is configured with a juice squeezer at an aft end thereof.
9. The handheld kitchen utensil according to claim 7, wherein the gripping handle is configured with at least one gliding surface on at least one face thereof, for guiding a food product towards the cutting blade.
10. The handheld kitchen utensil according to claim 1, wherein the kitchen utensil is
30 configured with an engaging portion, whereby the utensil can be engaged with a container, with the cutting blade and spacer plate extending over or within the container.

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11. The handheld kitchen utensil according to claim 1, wherein a distance between the cutting blade and the spacer plate is adjustable, to thereby control slicing width.
12. The handheld kitchen utensil according to claim 1, wherein the kitchen utensil is
5 configured for using at two distinct slicing modes in which the utensil is held at a different orientation.
13. The handheld kitchen utensil according to claim 1, wherein the cutting blade is configured with a first cutting edge facing the spacer plate, and a second cutting edge, wherein that it can be inverted upon blunting of the first cutting edge such
10 that the second cutting edge now faces the spacer plate.
14. The handheld kitchen utensil according to claim 1, wherein a shredding blade can be mounted on the frame or on the spacer plate, said shredding blade comprising one or more blades extending substantially normal to the cutting blade at its slicing position.
15. 15. The handheld kitchen utensil according to claim 1, wherein one face of the cutting blade can be configured with a plurality of upright extending blades, the other face of which is configured for longitudinal slicing, for fine shredding of food products.
16. The handheld kitchen utensil according to claim 1, wherein the cutting blade and
20 the spacer plate are pivotally loose within a limited range and are self aligned upon contact over a surface of an object.
17. The handheld kitchen utensil according to claim 1, wherein pivotal displacement of the cutting blade and the spacer plate is restricted by restricting members cooperating with corresponding stoppers configured at the frame.
- 25 18. The handheld kitchen utensil according to claim 1, wherein the cutting blade and the spacer plate are mutually pivotally displaceable, whereby at the peeling position the angular position of the cutting blade with respect to the spacer plate is substantially predetermined and constant, said angle defined by the spacer plate gliding over the food product.
- 30 19. The handheld kitchen utensil according to claim 1, wherein the cutting blade and the spacer plate are pivotally self aligning such that at a slicing position surfaces of the spacer plate are parallel with surfaces of the cutting blade.