June 12, 1951 E. T. ELKINGTON 2,556,528

VEGETABLE SLICING KNIFE

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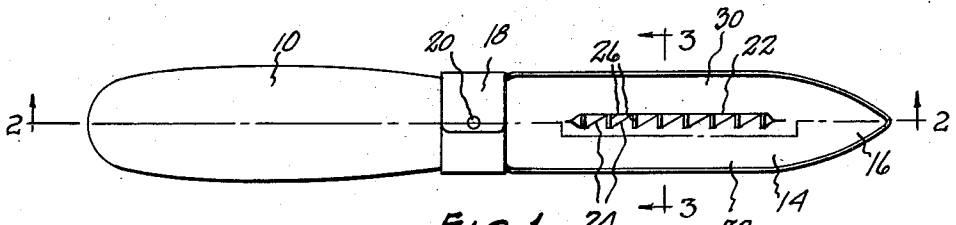


FIG. 1.

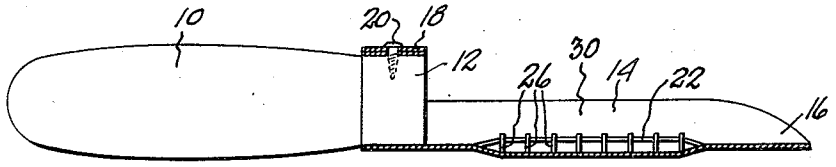


FIG. 2.

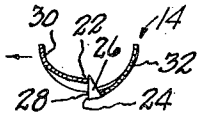


FIG. 3.

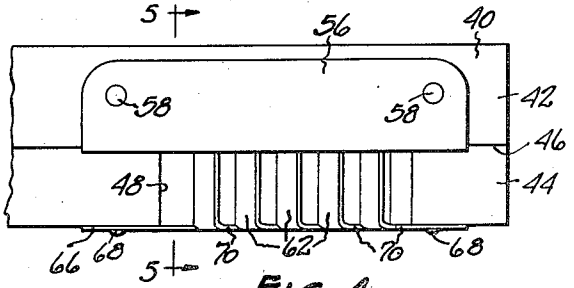


FIG. 4.

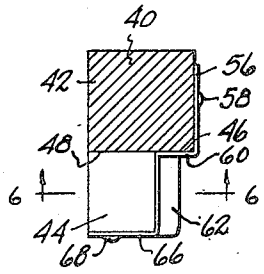


FIG. 5.

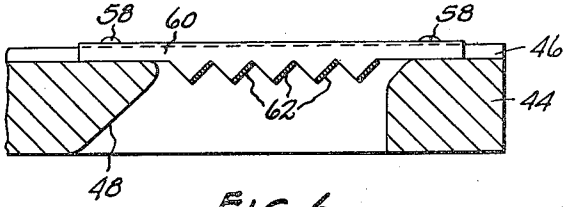


FIG. 6.

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VEGETABLE SLICING KNIFE

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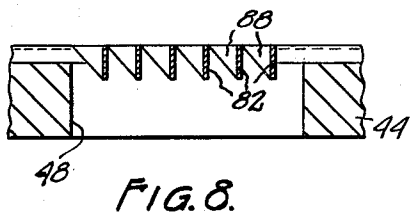


FIG. 8.

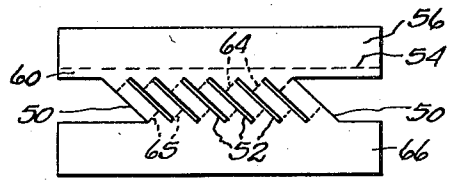


FIG. 7.

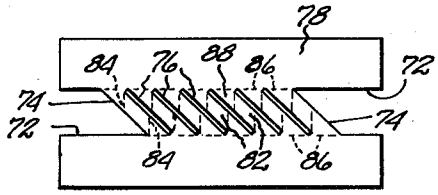


FIG. 9.

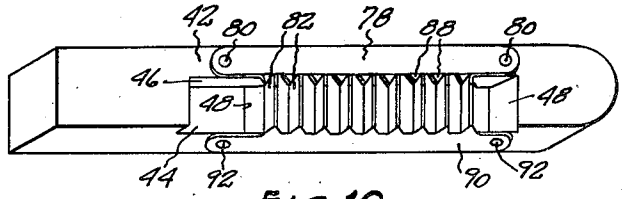


FIG. 10.

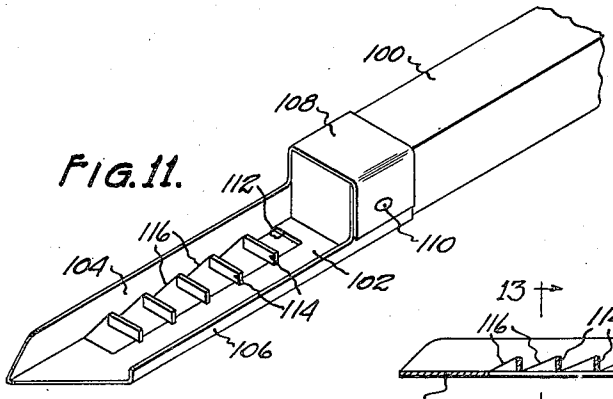


FIG. 11.

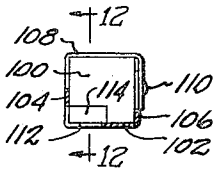


FIG. 13.

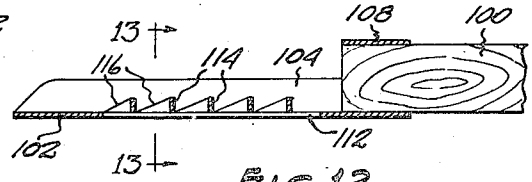


FIG. 12.

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Patented June 12, 1951 2,556,528

UNITED STATES PATENT OFFICE

2,556,528

VEGETABLE SLICING KNIFE

Edward T. Elkington, Warsaw, Ind.

Application December 16, 1947, Serial No. 792,061

2 Claims. (Cl. 30—279)

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This invention relates to improvements in vegetable slicing knives, and more particularly to a hand knife or kitchen knife for use in slicing vegetables and fruits to form strips of uniform thickness.

The objects of the invention are to provide a slicing knife of this character which is simple in construction, inexpensive to manufacture and easy to use; which provides a guide for exactly determining and controlling the dimensions of the slices cut thereby; which has a simple unitary construction, including three cutting edges for defining three sides of a slice; and which utilizes a single cutting element having an opening therein with its edges at opposite sides of the openings offset, and a portion of the element adjacent one of said edges being slotted to define cutting tangs which are bent from the element to span the space between the offset edges and are sharpened to provide cutting edges transverse of said space.

Other objects will be apparent from the following specification.

In the drawing:

Fig. 1 is a face view of one embodiment of the invention.

Fig. 2 is a longitudinal sectional view taken on line 2—2 of Fig. 1.

Fig. 3 is a transverse sectional view taken on line 3—3 of Fig. 1.

Fig. 4 is a fragmentary face view of a modified embodiment of the invention.

Fig. 5 is a transverse sectional view taken on line 5—5 of Fig. 4.

Fig. 6 is a longitudinal sectional view taken on line 6—6 of Fig. 5.

Fig. 7 is a view illustrating the form of the blank from which the cutting element in the embodiment shown in Fig. 4 is formed.

Fig. 8 is a longitudinal sectional view similar to Fig. 6 and illustrating another embodiment of the invention.

Fig. 9 is a face view of the blank used in the embodiment of the invention illustrated in Fig. 8.

Fig. 10 is a perspective view of the knife of the type illustrated in Fig. 8.

Fig. 11 is a perspective view illustrating another embodiment of the invention.

Fig. 12 is a longitudinal sectional view taken on line 12—12 of Fig. 13.

Fig. 13 is a transverse sectional view taken on line 13—13 of Fig. 12.

Referring to the drawings, and particularly to Figs. 1 and 3 thereof which illustrate one embodiment of the invention, the numeral 10 designates

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the handle of a knife having a cylindrical neck portion 12 to which is secured a knife blade 14.

The knife blade 14 is preferably bent into arcuate cross-sectional shape through the major portion of its extent as best illustrated in Fig. 3, and has a pointed end portion 16. The inner end portion of the knife blade 14 has flanges 18 projecting therefrom and fitting snugly around the neck 12 of the handle 10. The flanges 18 are secured in place by a suitable securing member 20. The blade 14 is substantially semi-circular in extent and either or both of its longitudinal marginal edges may be sharpened if desired. It will be understood, however, that the blade 14 may be of greater or lesser transverse extent than the semi-circular form shown.

The blade 14 has a slit formed therein substantially centrally thereof and extending longitudinally thereof for the major portion of its length. This slit defines the edge portion 22 which may be blunt. The portion of the blade opposite that having the blunt edge 22 is provide with a plurality of parallel longitudinally spaced slits extending at an angle to the edge 22 and best shown in Fig. 1 as defining the edge portions 24. The slits define triangular tabs 26 which are bent perpendicularly to the blade on a line perpendicular to the edge 22 in an inward direction, as best seen in Fig. 3. The portion of the blade 14 adjacent the slits hereinabove defined is formed in the manner best illustrated in Figs. 2 and 3, with the portion terminating at the edge 22 inwardly offset from the semi-circular overall contour of the blade, and the portion of the blade from which the tangs 26 project either retained within the original semi-circular contour of the blade or displaced outwardly slightly beyond said semi-circular outline. The parts are so arranged that the off-setting of the adjacent portions of the blade defines a longitudinal slot and is less than the length of the tangs 26 so that the edges 28 of the tangs engage the edge 22 of the blade near its tip. The edges 24 of the blade end 28 of the tang are thus arranged at right angles to each other, and each of these edges is sharpened.

It will be apparent that this knife may be used by causing the lefthand portion 30 thereof at its convex or outer surface to engage the vegetable and thereupon to be forced in the direction of the arrow in Fig. 3 so that the edges 24 of the blade cut the vegetable in a plane parallel to the direction of the arrow. At the same time the cutting edges 28 of the tangs have a cutting action upon this part of the vegetable transverse of the cutting action at the edges 24 so as to slice the vege-

table layer which is cut by the edge 24. Thus, with one single pass of a knife over a vegetable, such as a potato, a plurality of slices of uniform width and thickness are cut simultaneously and a comparatively few passes of the knife will completely slice the vegetable into strips of uniform cross-section. It will be observed that as the strips are cut they engage the inner surface of the righthand portion 32 of the blade, as viewed in Fig. 3, and are thereby effectively separated from the vegetable so that no danger of an incomplete severing of the strips from the vegetable occurs. The device is a simple tool, easily used, light in weight, and which is particularly well suited for cutting potatoes for French frying or for frying in shoe string form, for slicing carrots and other vegetables for use in salads, and for slicing other fruits and vegetables which are desired to be served or prepared for preserving in a sliced form.

A modified embodiment of the invention is illustrated in Figs. 4 to 7, inclusive, wherein the knife has a rigid body portion 40 formed of wood or the like of elongated form, characterized by a longitudinal portion 42 of continuous construction, here shown as rectangular, and a laterally projecting portion 44 of lesser thickness than the portion 42 and defining a shoulder or overhang 46 along one edge of the portion 42. Intermediate its length the portion 46 is completely cut away at 48 to provide a passage therethrough below the part 42.

The blade used in this form is best illustrated in Fig. 7 and constitutes a blank of sheet metal of substantially rectangular form which is longitudinally notched at 50 at its center with the inner ends of the notches extending diagonally thereof. A plurality of parallel slots 52, which are parallel to the inner edges of the cut-away portions 50 and positioned therebetween, are formed in the intermediate portion of the blade. The blade is bent longitudinally on line 54 to define a portion 56 which bears against the side face of the portion 42 above the shoulder 46 and is secured thereto by screws or other securing members 58. The portion 60 of the blade below the bent line 54, as illustrated in Fig. 7, bears against the shoulder 46. The narrow elongated diagonal blade portions 62 between the slots 52 are bent along the lines 64 perpendicular thereto so that the edges of the blade portions 62 extend parallel to but are inwardly offset from the blade portion 56. At their opposite ends the blades 62 are bent along the lines 65 to position the lower terminal portion 66 of the blade blank perpendicular thereto for engagement with the bottom face of the portion 42. The length of the blank is preferably greater than the length of the opening 48 so that the blade part 66 will span said opening 48 and the securing members 68 may fixedly secure it to the handle portion 44 on opposite sides of the opening 48. In this embodiment of the invention the leading edges of the blades 62 are sharpened and the edges 70 along the slots 52 between the bend line 65 and the lower ends of said slots 52 are likewise sharpened to provide cutting edges lengthwise of the knife. This device is used in the same manner as the Fig. 1 form, it being apparent that a single pass of the knife across a vegetable will cut it parallel to the direction of knife movement along the line 70 on one axis and at the leading edges of the blade 62 at a perpendicular axis and in the same general direction. It will be apparent, however, that this form of the invention, where the blank is made as illustrated in Fig. 7, will entail the

diagonal positioning of the blades 62 relative to the length of the knife, as illustrated in Fig. 6. This necessitates movement of the handle in a direction parallel to the planes of the blades 62 which is approximately 45 degrees displaced from the longitudinal axis of the handle and therefore requires special attention to the direction of movement of the blades.

A similar embodiment of the invention, wherein the cutting blades are positioned perpendicular to the longitudinal axis of the device, is illustrated in Figs. 8 to 10. In this embodiment the construction of the handle portion is the same in all respects as that shown in Figs. 4 and 5 and bears the same reference numerals. The blank from which the blade is formed is likewise rectangular and is longitudinally centrally notched at 72 with its inner ends 74 extending at a diagonal of approximately 45 degrees. The central reduced length portion of this blade is slotted at 76 with the ends of the slots terminating in line with the side edges of the cut-away portion 72. The blank just defined has a blade portion 78 which is adapted to be secured to the upper wide portion 42 of the handle by means of securing members 80. The blade portions 82 between the slots 76 are bent at the ends of said slots along the lines 84 perpendicular to the longitudinal axis of the blade and along the lines 86 parallel to the blade blank. This forms triangular portions 88 which bear against the shoulder 69 and positions the blades 82 perpendicular to the handle, as best illustrated in Fig. 8. The bottom portion 90 of the blank bears against the bottom of the reduced portion 44 of the handle and is secured thereto by securing members 92 at opposite ends of the opening 48 in the reduced dimension portion of the handle. In this form the leading edges of the blades 82 and of the edges along said slot 76 between the lower end thereof, as illustrated in Fig. 9, and the lower transverse bend 84 are likewise sharpened. Thus these edges define longitudinal and transverse cutting edges which serve to slice the vegetables in strips, permitting use of the knife by movement in a direction perpendicular to its length to effect this cutting action.

Another embodiment of the invention is illustrated in Figs. 11, 12 and 13, wherein at least the inner end of the handle 100 is formed of rectangular or square cross-section. The handle 100 mounts a blade having a portion 102 of the same width as the handle, a perpendicularly bent portion 104 of comparatively narrow width at one longitudinal edge of the blade 102, and a second narrow blade 106 at its opposite longitudinal edge. The blade may have integrally formed therewith band parts 108 which are folded around the end of the handle and fixedly secured thereto by securing members 110. The blade may be of tapered or pointed form as shown.

The blade portion 102 has an elongated opening 112 cut therein of generally rectangular form having one edge thereof terminating and substantially coinciding with the inner face of the blade portion 104 but preferably with its edge in serrated form. The blade portion 104 is slotted diagonally at uniformly spaced points along its length in upwardly spaced relation to the adjacent serrated edge of the cut-out 112 to define tangs 114. These tangs 114 are bent transversely of the blade 102 and are of a length to span the opening 112. The leading edges of these blade tangs 114 are sharpened and the edges 116 in the blade portion 104 are also sharpened, thus pro-

viding cutting edges disposed in perpendicular relation and respectively transverse and lengthwise of the blade. The handle of the tool is used by gripping the same with the outer face of the blade portion 102 positioned foremost and at a desired level relative to the thickness of the vegetable to be cut. A single pass of the knife in a direction transverse of the blade thus serves to cut the vegetable into strips of the desired length and width.

While various preferred embodiments of the invention have been illustrated and described herein, it will be understood that changes in the construction may be made within the scope of the appended claims without departing from the spirit of the invention.

I claim:

1. A vegetable slicing knife comprising a handle and a blade of substantially arcuate cross-sectional shape, said blade having a longitudinal central slot formed therein, the portions of said blade on opposite sides of said slot being off-set to define a passage facing tangentially of said blade, and tangs formed integrally with the portion of said blade on one side of said slot and bent to transversely span said slot and positioned in parallel planes substantially perpendicular to the plane of said passage, said tangs being of triangular form and bearing against the edge of the blade at the side of said passage opposite that from which they are bent, the passage edges between said tangs at the side from which the tangs are bent being of serrated form.

2. A vegetable slicing knife comprising a handle and a blade transversely bent and substantially U-shaped in cross-section, said blade having a longitudinal central slot formed therein, and tangs formed integrally with the portion of said blade on one side of said slot and bent to transversely span said slot and positioned in parallel planes substantially perpendicular to the plane of said passage, said tangs bearing against the edge of the blade at the side of said passage opposite that from which they are bent, the passage edges between said tangs at the side from which the tangs are bent being of serrated form.

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