

The invention relates to a raw vegetable cutter in accordance with the preamble to claim 1.

Kitchen appliances of this kind are used in preparing potato pancakes, raw vegetable salads and the like. A kitchen appliance having the features of the preamble of claim 1 and constituting a combination of raw vegetable cutter and a grater is known from FR-A-323 456. With the known kitchen appliance potato strips, in particular, can be prepared only imperfectly, since the raw or half-cooked potatoes are often only initially cut, due to the knife arrangement, and the strips produced are not completely cut off. When the food is again passed over the knives the initially cut strips assume a partially transverse position in front of the cutting edges and are thus severed or else come once again into the region of a cutting edge in the longitudinal direction so that they are cut once again in this direction. The result is unevenly cut material and a considerable risk of clogging of the rows of knives. In addition, the arrangement of the rows of knives at one end of the appliance and the provision of a single contact surface is an obstacle to simple and fast cutting of raw vegetables into strips.

The object of the invention, therefore, is to develop the known kitchen appliance further so that any type of raw vegetable, and particularly raw and half-cooked potatoes, can readily and quickly be cut with the maximum uniformity without any risk of clogging the knives.

According to the invention, this problem is solved by the features listed in the characterising part of claim 1.

Particularly advantageous embodiments of the invention will be apparent from the subclaims.

The invention enables vegetables, for example potatoes, to be cut into strips properly in a simple and rapid manner. The invention also provides an appliance construction requiring reduced space, since strips are now cut both on the forward movement and the return movement and thus the same working speed requires only half the number of rows of knives required in the prior art. The contact surface provided on both sides of the rows of knives further promotes effortless cutting, since the vegetable can be passed with momentum over the rows of knives. This reduces the force required to pass the vegetable over the cutting edge, so that half-cooked potatoes, in particular, are not destroyed by excessive retaining forces before the actual cutting operation.

It is particularly advantageous to provide two rows of knives offset from one another. The result of this is that the underside of the potato again becomes substantially flat after being completely passed over the rows of knives, so that practically exactly identical strips are cut on each reciprocation over the rows of knives.

Since the end of the knife is constructed to project away from the plane of the baseplate on the underside of the knife, the advantageous effect is that half-cooked potatoes, in particular, can be processed into strips which roll up in the form of shavings. The term "knife end" denotes that point of the knife at which the potato strip leaves the knife. As a result, on the one hand, Swiss Röstli, for example, becomes very loose, while on the other hand this configuration increases the probability that during the frying operation the potato strips will contact the base of the pan by their curved top, and this promotes even browning. To achieve these advantages, it is very advantageous for the underside of the knife to extend with a concave curvature from the cutting edge to the knife end. According to a development, the cutting edges are constructed as a fillet and are curved in the form of a shaving.

To form slightly helical potato strips the knife thickness can be distributed unsymmetrically in relation to an axis parallel to the cutting direction. The contact surfaces are advantageously smooth so that during cutting the vegetable slides on its webs which have not been cut away.

In order that the knives may cut even more freely, perforations are formed in the baseplate beneath the knives and widen out conically from the top of the baseplate to the underside thereof.

Handling of the kitchen appliance according to the invention is further simplified by the fact that a handle is provided at least at one end of the baseplate as considered in the cutting direction.

Advantageously, the transverse rows of knives each consist of a stamped metal strip. In that case the strip edges can be ground before the stamping of the strip so that the U-shaped cutting edges resulting after stamping are very sharp and thus greatly facilitate cutting of the vegetable.

Exemplified embodiments of the invention are explained in detail hereinafter with reference to drawings wherein:

Fig. 1 is a perspective view of one exemplified embodiment of the raw vegetable cutter according to the invention and

Fig. 2 is an enlarged section on the line VI-VI in Fig. 1.

Fig. 1 illustrates the raw vegetable cutter 1 according to the invention, which consists basically of a flat baseplate 2, with two contact surfaces 3 and 4 on the top.

Two rows of knives 5 and 6 aligned transversely of the cutting direction A are disposed between the contact surfaces 3 and 4. Beneath the knives 5 and 6 the baseplate 2 is formed with slots 7 for the discharge of the strips of raw vegetable towards the underside of the cutter 1. The slots 7 widen out conically towards the underside of the baseplate 2.

Guide webs 8 extending in the cutting direction are disposed on the two longitudinal sides of the baseplate 2 and terminate in a handle 9 at one end of the cutter 1 situated in the cutting direction.

As will be clearer from Fig. 2, the knives 5 and 6 have cutting edges 10 and 11 on both sides of the cutting direction. The cutting edges 10 and 11 are aligned parallel to the cutting direction A, and this means that although the cutting front extends transversely of the cutting direction A the top and bottom of the front area of the cutting edges 10 and 11 extends parallel to the cutting direction as far as a certain knife depth. For the top part of the cutting edges 10 and 11 this means that it is aligned parallel to the baseplate 2.

The knives 5 and 6 are each made from metal strips 13 and 14 respectively by stamping. The metal strips 13 and 14 extend continuously from one guide web 8 to the other. The distance between two adjacent knives 5 and 6 is bridged by a stamped-in web 15 which is situated beneath the plane of the contact surfaces 3 and 4, and hence beneath the actual cutting area.

A transverse web 16 is stamped into the top of the knives 5 and 6, extends over the entire width of the cutter, and forms the downwardly inclined knife ends.

Fig. 2 is a cross-section through a metal strip 13 fitted in the cutter. It will readily be seen that the metal strip is recessed into the baseplate 2 by its bottom webs 15 extending in the cutting direction. If the appliance is made from plastics, the metal strips 13 and 14 can be integrally moulded.

A particular advantage of metal strips is that they can be ground before they are stamped so that the cutting edges of the knives 5 and 6 are particularly sharp.

The operation of the raw vegetable cutter will be described hereinbelow by reference to an example in which it is used as a Rösti cutter. The Rösti cutter is equally suitable for raw and half-cooked and in some cases even completely cooked potatoes. The potato for cutting is placed, for example, in a known holder (not shown in detail) and is first applied with the holder to the contact surface 3. The potato is then passed over the knives 5 and 6 in the cutting direction A, a strip being cut off from the underside of the potato. Depending upon whether the potato is raw, half-cooked, or fully cooked, the strip will form as a curved shaving.

If the two rows of knives 5 and 6 are so offset that in each case there is one knife 5 centrally behind the gap between two knives 6, the potato will be substantially flat again on the underside if it is passed completely over the two rows of knives and is situated on the contact surface 4. The potato is then passed from the contact surface 4 against the knives 6 with varying momentum, strips being cut out of the potato in the manner already described. This process is repeated until the potato is finally cut up. The guide webs 8 are intended to support the holder (not shown) and are therefore slightly higher than the maximum height of the cutting edges of the knives 5 and 6.

Not only potatoes, but also other vegetables can be processed with the raw vegetable cutter according to the invention, e.g. to make raw vegetable salads. In that case the knife cutting edges may, for example, have a trapezoidal shape.

Contrary to what is shown in the exemplified embodiments, the transverse rows of knives can also be disposed at a slight angle to the cutting direction, although even in that case the cutting edges are still situated parallel to the cutting direction.



CLAIMS

1. A raw vegetable cutter for cutting raw vegetables into strips, comprising a baseplate (2), the top of which is provided with a contact surface (3, 4) and which has at least one row of knives (5, 6) extending substantially transversely of the direction of cutting, the knives projecting by substantially U-shaped edges (10, 11) vertically above the contact surface (3, 4) and being open towards the underside of the baseplate (2), the underside of the knives (5, 6) being at least partly inclined to the baseplate and the row of knives (5, 6) being formed from a thin metal strip with the formation of top and bottom transverse webs (15) and side webs connecting the same, the said webs being formed integrally by meander-fashion bending, the top transverse webs projecting beyond the contact surface (3, 4) and being aligned substantially parallel to the plane of the contact surface (3, 4) with respect to the cutting direction (A), characterised in that the row of knives (5, 6) is disposed between coplanar contact surfaces (3, 4) and the row of knives (5, 6) is secured in the baseplate (2) by the bottom transverse webs (15), the bottom transverse webs (15) being disposed beneath the contact surfaces (3, 4).

2. A raw vegetable cutter according to claim 1, characterised in that to form double-edged knives (5, 6) the top transverse webs are aligned parallel to the plane of the contact surfaces (3, 4) and are recessed in the middle in each case towards the baseplate (2) with respect to the cutting direction (A).

3. A raw vegetable cutter according to claim 1 or 2, characterised in that the recesses (16) of the top transverse webs are substantially triangular as considered transversely of the cutting direction (A).

4. A raw vegetable cutter according to any one of claims 1 to 3, characterised in that the recesses (16) terminate at a distance above the plane of the contact surfaces (3, 4).

5. A raw vegetable cutter according to any one of claims 1 to 4, characterised in that the distance between the middle of a recess (16) and the associated edges (10, 11) of a knife is equal to about 2 to 3 times the depth of the recess (16).

6. A raw vegetable cutter according to any one of claims 1 to 5, characterised in that the distance from the edge of a recess (16) to the associated adjacent edge (10,



11) corresponds approximately to one times the depth of a recess (18).

7. A raw vegetable cutter according to any one of claims 1 to 6, characterised in that the width of a top transverse web corresponds approximately to that of a bottom transverse web (15).

8. A raw vegetable cutter according to any one of claims 1 to 7, characterised in that two rows of knives (5, 6) are disposed on the baseplate (2) consecutively as considered in the direction of cutting (A) and in staggered relationship transversely to the direction of cutting (A).

9. A raw vegetable cutter according to any one of claims 1 to 8, characterised in that the knife rows (5, 6) are disposed on the baseplate (2) at right angles to the cutting direction (A).

10. A raw vegetable cutter according to any one of claims 1 to 9, characterised in that the baseplate (2) is made from plastics.

