July 6, 1954 E. MORRIS 2,682,901

VEGETABLE SLICER HAVING A VERTICALLY RECIPROCATING BLADE

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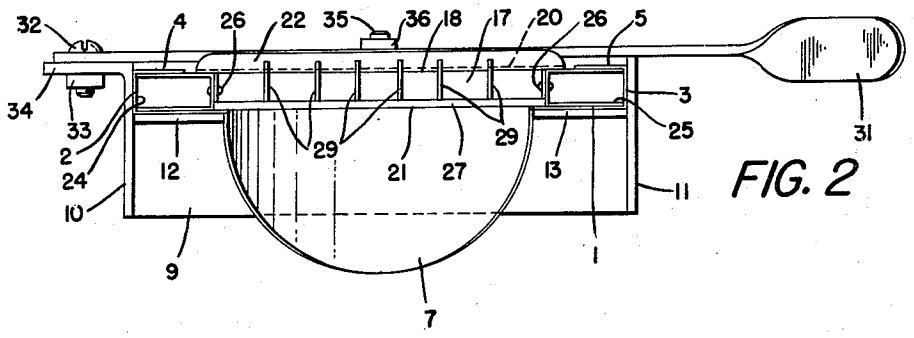

FIG. 2

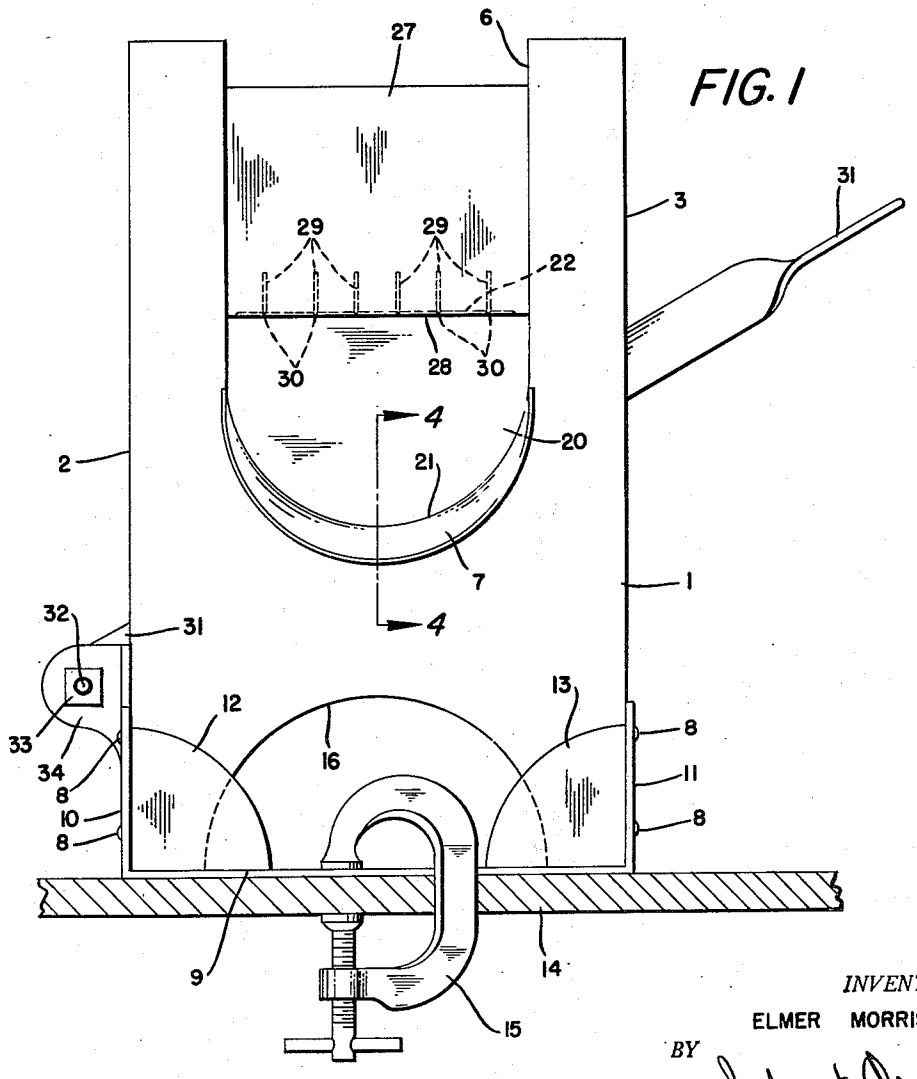

FIG. 1

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FIG. 3

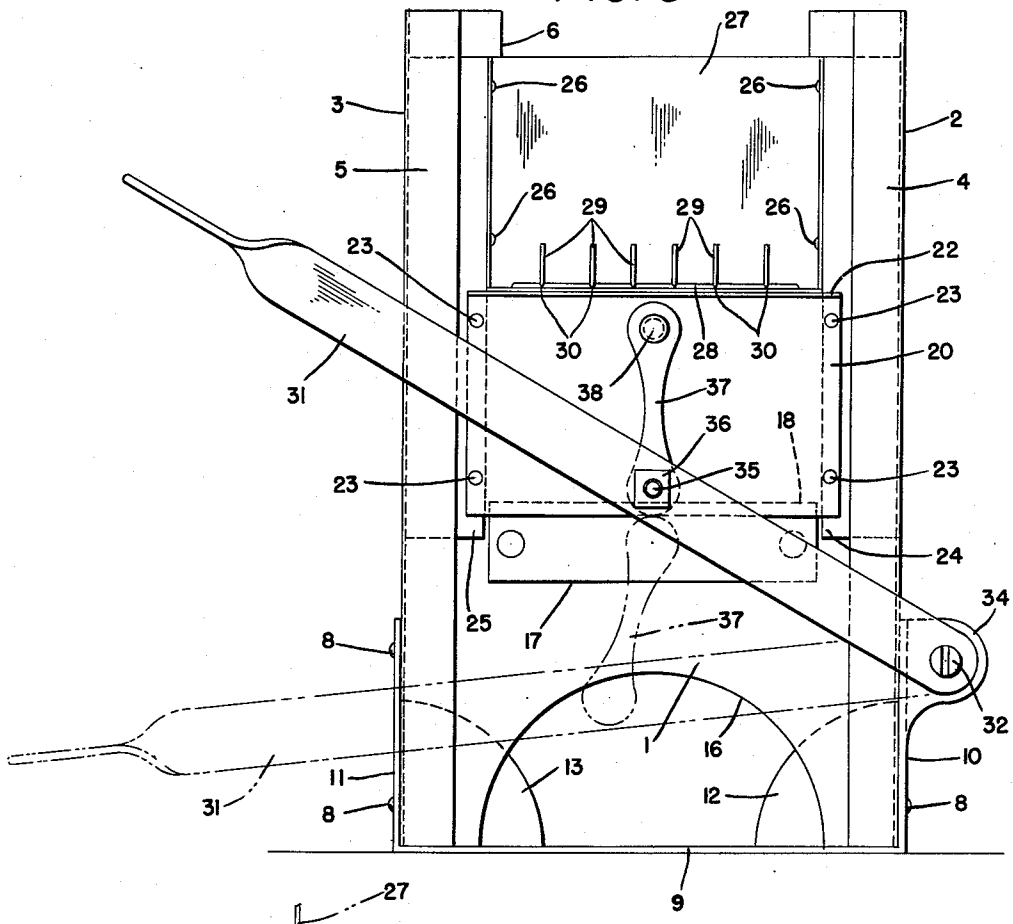
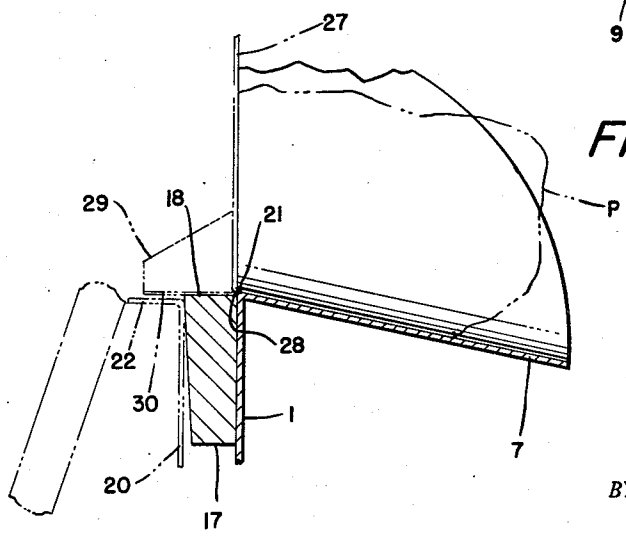


FIG. 4



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UNITED STATES PATENT OFFICE

2,682,901

VEGETABLE SLICER HAVING A VERTICALLY RECIPROCATING BLADE

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Application June 11, 1952, Serial No. 292,829

5 Claims. (Cl. 146—160)

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This invention relates generally to a potato and vegetable slicer.

A primary object of the invention is to provide a device of the character described, which is easy and simple to operate, and which can be easily cleaned and wiped after use.

Another object of the invention is to provide a device of the character described, which is light in weight, can be quickly clamped to a table or other support for use, and is neat and compact in appearance, lending itself to easy storage when not in use.

A further object of the invention is to provide a device of the character described which consists of a minimum number of parts which can be easily and quickly assembled, and which can be made in large quantities at relatively low cost.

Other objects and advantages of my invention will be apparent during the course of the following description. In the accompanying drawings forming a part of this specification and in which like numerals are employed to designate like parts throughout the same,

Fig. 1 is a front elevational view of the device;

Fig. 2 is a top plan view of the device;

Fig. 3 is a rear elevational view of the device, and

Fig. 4 is a fragmentary cross-sectional view, taken on the line 4—4 of Fig. 1.

Referring more particularly to the drawings, the device will be seen to comprise a frame or housing formed of sheet metal having a vertical front wall 1, sides 2 and 3, and inturned flanges 4 and 5, parallel with the wall 1.

The front wall 1 has a U-shaped recess 6 in its upper end, and extending forwardly from the lower edge of this recess is a guide or trough 7 of arcuate shaped cross-section, and preferably formed integrally with the sheet of metal from which the frame is formed. The potato to be sliced or cut is pushed upwardly along this guide or trough, as shown in Fig. 4. The intersection of the trough 7 and wall 1 forms an arcuate cutting edge 21.

The housing is adapted to be secured, as by rivets 8, to a base member, which may be made of an aluminum casting, and which comprises a base 9, sides 10 and 11, and webs 12 and 13 interconnecting the base and sides to strengthen and rigidify the base member.

The base member is adapted to be clamped to a table or other support 14, as by means of a C-clamp 15, as shown in Fig. 1, and in order to facilitate use of such a clamp, the front wall 1 has a recess 16 formed in its lower portion.

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Secured to the rear surface of the front wall 1, is a bar 17 (Fig. 4) having an edge 18 (Fig. 4) which is just below the upper end of the trough or guide 7.

Mounted for vertical reciprocal movement relatively to the aforesaid housing is a gauge plate 20 having a rearwardly extending short flange 22 at its upper edge. The plate 20 is secured, as by rivets 23 to a pair of channel members 24 and 25 which are slidable vertically in the guides or channels formed by the marginal portions of the front wall 1, sides 2 and 3, and flanges 4 and 5 of the frame or housing.

Secured to the webs of the channels 24 and 25, as by means of rivets 26, is a cutter blade 27 having a knife edge 28 at its lower edge. The knife edge 28 is spaced about ⅛" vertically from the flange 22 of the plate 20, as shown in Fig. 3.

Secured to and extending rearwardly from the lower portion of the blade 27 is a series of transversely spaced parallel knives or cutters 29, each of triangular shaped contour, and each provided at its lower edge with a knife edge 30, which is coplanar with the edge 28 of the blade 27 and extends at right angles to the edge 28.

Means have also been provided for imparting a reciprocal vertical movement to the plate 20 and cutter blade 27. Such means comprises a handle or lever 31, one end of which is pivotally secured, as by a screw bolt 32 and nut 33, to an ear 34 which is formed integrally with and extends at right angles to the side 10 of the base member. Pivotally secured to lever 31 at a point intermediate its ends, as by a screwbolt 35 and nut 36, is a link 37, the upper end of which is pivotally secured, as by a rivet 38, to the plate 20, at a point adjacent the upper edge of the latter, and centrally thereof.

The use or operation of the device will now be briefly described.

With the parts as shown in solid lines in Figs. 1, 2 and 3, the potato P (Fig. 4) is pushed upwardly along the trough 7 until the forward end of the potato abuts the gauge plate 20. The handle 31 is then moved downwardly to the broken line position shown in Fig. 3, causing the knife edge 28 of the cutter blade 27 to slice the potato transversely as the edge 28 passes the cutting edge 21. At the same time, the aforesaid slice is sliced longitudinally into French fry slices by the cutters 29, the slicing being completed when the cutters 29 abut the upper surface of the bar 17. In the course of this slicing action, the plate 20 moves downwardly past the edge 18 of the bar 17.

At the completion of this slicing action, the plate **20** and blade **27** are again moved upwardly to their initial position, the potato again moved upwardly against the plate **20** and the slicing operation is repeated. This action is continued until the entire potato is sliced.

Although the device has been described particularly with reference to its use as a potato slicer, it will be readily understood that it can be just as easily used for slicing or cutting other vegetables.

The device, as thus described, is easy and simple to operate, and can be easily cleaned and wiped after use, particularly where the essential parts are made of stainless steel or enameled sheet metal. It is light in weight, can be quickly clamped to a table for use, and is neat and compact in appearance, lending itself to easy storage when not in use.

It consists of a minimum number of parts which can be easily and quickly assembled, and which can be made in large quantities at relatively low cost.

It is to be understood that the form of my invention, herewith shown and described, is to be taken as a preferred example of the same, and that various changes in the shape, size, and arrangement of parts may be resorted to, without departing from the spirit of my invention, or the scope of the subjoined claims.

Having thus described my invention, I claim:

1. In combination with an upwardly inclined channel-shaped trough having an upper terminal portion forming a cutting edge and lying in a substantially vertical plane, a uni-planar vertically movable slicing blade in substantial contact with said edge, said blade having a substantially straight lower cutting edge, at least one cutter attached to said slicing blade and extending normally thereto in a direction away from said trough, said cutter having a substantially straight edge in the same plane as that of the slicing blade, and a uni-planar gauge plate operatively connected to said slicing blade in a plane parallel thereto, away from said trough and downwardly from said cutter.

2. A combination, as defined in claim 1, wherein said gauge plate is in operative alignment with said trough when said slicing blade is in its uppermost position, and is depressed below said trough when said slicing blade is in its lowermost position.

3. A combinaton, as defined in claim 1, including a housing having flanged parallel spaced marginal portions providing channels, channel members slidably mounted in said channels for vertical movement therein, and means securing said slicing blade and said gauge plate to said channel members for movement therewith.

4. A combination, as defined in claim 3, including means operatively connected to said slicing blade and said gauge plate for imparting vertical reciprocal movement thereto.

5. A combination, as defined in claim 3, including a bar member supported by said housing below said terminal portion of said trough and in the path of movement of said cutter, whereby said bars provide an abutment for the cutting edge of said cutter.

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