UNITED STATES PATENT OFFICE.

STANLEY KENDREK, OF LAWRENCE, MASSACHUSETTS.

VEGETABLE SLICING AND CUTTING MACHINE.


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To all whom it may concern:

Be it known that I, STANLEY KENDREK, a citizen of Poland, residing at Lawrence, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Vegetable Slicing and Cutting Machines, of which the following is a specification.

This invention relates to a vegetable slicing machine and it has for an object to provide a simple and inexpensive machine which will operate efficiently and economically and which is arranged to discharge separately therefrom the sliced material and such unsliced particles as may fail to go through the cutters.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

Figure 1 of the drawings is a side elevation of my improved vegetable slicing machine, part of the casing being broken away to show the interior construction.

Fig. 2 is a plan view.

Fig. 3 is a plan view with the upper half of the casing swung back.

Fig. 4 is a fragmentary section on the line 4-4 of Fig. 3.

Fig. 5 is a detail perspective view of the presser element.

Fig. 6 is a fragmentary section on the line 6-6 of Fig. 1.

As here embodied my improved vegetable slicing machine comprises a casing of substantially rectangular shape and made up of a lower half or section 10 and an upper section 10'. These sections are secured together along one end by the hinges 11 an ordinary snap fastener 12 being provided at the opposite end to hold the two sections together.

Journalized in one side of this casing, preferably parallel to the hinge axis of the casing halves and at the meeting line thereof, is a stub shaft 13 on which is mounted a slicing drum 14. This drum is in the form of a frustum of a cone with the smaller end closed and the larger end open, the portion of the side wall of the casing with which the larger end of the drum registers being cut away at 15 to provide an opening through which the sliced material may be discharged from the machine. The stub shaft 13 is suitably supported by the downturned ends 16 of a resilient strap 17 which extends through the drum 14 and is secured at its opposite end to a frame piece 18 extending across the opening 15, this construction being designed to permit of yielding of the drum in the event of rocks or the like being accidentally fed thereto. The shaft 13 extends through an enlarged opening 20 in the wall of the casing and has a crank handle 21 fixed thereon when the machine is to be operated by hand, it being understood that a pulley or other device may be mounted on this shaft when the machine is to be operated by power.

Carried in the periphery of the drum 14 are a series of slicing knives 22 which are preferably spirally arranged thereon and extend tangentially from their back edges to their cutting edges the latter thus projecting beyond the surface of the drum, with slots 23 formed in the drum adjacent the cutting edges of the knives. These knives may be secured to the drum by means of lugs 25 on their ends riveted or otherwise secured to radial flanges 26 at opposite ends of the drum.

Formed in the top of the casing is an opening through which the material is fed to the drum, this material being in certain cases forced downwardly against the drum by a rectangular frame-like presser element 28 which is inserted in the opening in the casing, this element in other cases serving as a hopper, while a discharge chute 29 leads downward from the lower side of the drum to the bottom of the casing. Surrounding the drum with openings at top and bottom for entrance of material to the drum and discharge to the chute 29, is a circularly curved wall element 30 which extends from side to side of the casing and is formed in part on each half of the latter, this wall element being parallel to the drum and spaced a short distance therefrom forming a confining element for the material being sliced. At the meeting line of the two sections of the drum horizontal partition members 31 are provided which extend between the end walls of the drum and the circularly curved wall element 30.

In the operation of the device, when material consisting of a single large piece, such as a head of cabbage is to be sliced, the presser element 28 is removed, the article to be sliced is inserted in the opening in the top of the casing, and the presser element
pressed downwardly thereagainst. When smaller articles are to be sliced the element may remain in the hopper forming position shown in Fig. 1 and the material placed therein and fed by its own weight to the slicing drum.

The material sliced passes through the slots 23 into the drum and is discharged from the open end thereof. Larger pieces which may be left pass around the drum between the latter and the wall 30 and are discharged through the chute 29 while any of the residue too large to pass downward into the chute is thrown off into a chamber 32 formed in the end of the casing by the construction above referred to from which it may be later removed. It will be noted that the mounting of the drum enables the latter to yield in the event of rocks or the like being among the material fed to the drum, thus preventing damage to the knives and permitting such rocks or the like passing around the drum to the chute.

Having thus described my invention what I claim as new and desire to protect by Letters Patent of the United States is as follows:

1. In a vegetable slicing machine, a rotary drum, a confining element for the material to be sliced partially surrounding said drum, a series of knives in the peripheral wall of said drum, said wall presenting slots adjacent said knives, means resiliently mounting said drum at the small end thereof to permit of transverse movement of the other end thereof with respect to the said confining element, and a hopper leading to said drum.

2. In a vegetable slicing machine, a rotary drum in the form of a frustum of a cone, a confining element for the material to be sliced partially surrounding said drum, a series of knives in the peripheral wall of said drum, said wall presenting slots extending along adjacent said knives, and a hopper leading to said drum, means resiliently mounting said drum at the small end thereof to permit of transverse movement of the other end thereof with respect to the said confining element.

3. In a vegetable slicing machine, a rotary drum in the form of a frustum of a cone, a confining element for the material to be sliced partially surrounding said drum, the large end of said drum being open and the small end closed, a series of knives spirally arranged in the periphery of the drum with their cutting edges spaced from the latter, said drum being formed to present slots leading through the wall thereof adjacent the cutting edges of the knives, and means resiliently mounting said drum to permit of yielding thereof, for the purpose set forth.

4. In a vegetable slicing machine, a rotary drum in the form of a frustum of a cone, the large end of said drum being open and the small end closed, a series of knives spirally arranged in the periphery of the drum with their cutting edges spaced from the latter, said drum being formed to present slots leading through the wall thereof adjacent the cutting edges of the knives, and means resiliently mounting said drum to permit of yielding thereof, for the purpose set forth.

5. In a vegetable slicing machine, a rotary drum in the form of a frustum of a cone, the large end of said drum being open and the small end closed, a series of knives spirally arranged in the periphery of the drum with their cutting edges spaced from the latter, said drum being formed to present slots leading through the wall thereof adjacent the cutting edges of the knives, and means resiliently mounting said drum to permit of yielding thereof, for the purpose set forth.

6. In a vegetable slicing machine, a rotary drum in the form of a frustum of a cone, the large end of said drum being open and the small end closed, a series of knives spirally arranged in the periphery of the drum with their cutting edges spaced from the latter, said drum being formed to present slots leading through the wall thereof adjacent the cutting edges of the knives, and means resiliently mounting said drum to permit of yielding thereof, for the purpose set forth.

7. In a vegetable slicing machine, a rotary drum in the form of a frustum of a cone, the large end of said drum being open and the small end closed, a series of knives spirally arranged in the periphery of the drum with their cutting edges spaced from the latter, said drum being formed to present slots leading through the wall thereof adjacent the cutting edges of the knives, and means resiliently mounting said drum to permit of yielding thereof, for the purpose set forth.

In testimony whereof I have affixed my signature.

STANLEY KENDRED.