

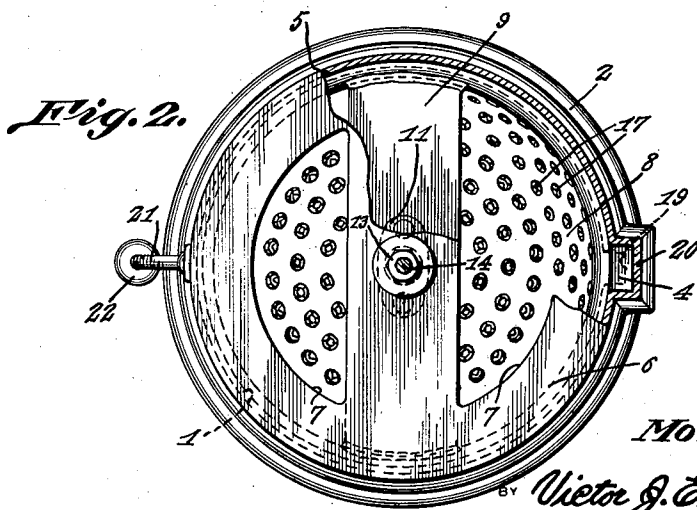
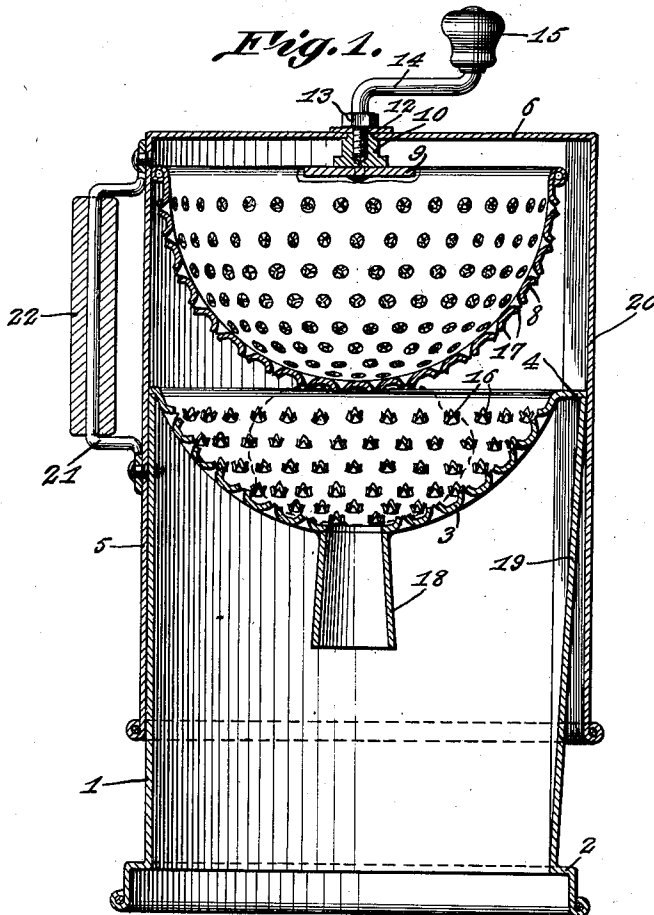
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M. KARP

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VEGETABLE GRATER

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Morris Karp,
INVENTOR

BY *Victor J. Evans & Co.*

ATTORNEYS

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VEGETABLE GRATER

Morris Karp, Philadelphia, Pa.

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3 Claims. (Cl. 146—177)

This invention relates to vegetable graters, and its general object is to provide a grater that is primarily designed for household use, and includes lower and upper telescopically mounted sections, each having a substantially semispherical grater element, with the upper element rotatably mounted and to bear against material placed within the lower element, whereby upon rotation of the upper element the material will be grated and passed through the lower element in a comminuted condition to be received by a container within which the device may be mounted.

A further object is to provide a vegetable grater that can be used without possibility of injury to the hands of the user, in that the grating teeth are completely enclosed when the device is in use, and provision is made to eliminate contact of the teeth of one element with those of the other, so as to prevent damaging the teeth.

Another object is to provide a vegetable grater, that is simple in construction, easy to clean, inexpensive to manufacture, and extremely efficient in operation, use and service.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawing and specifically pointed out in the appended claims.

In describing the invention in detail, reference will be had to the accompanying drawing wherein like characters denote like or corresponding parts throughout the several views, and in which:

Figure 1 is a vertical sectional view taken through the grater which forms the subject matter of the present invention.

Figure 2 is a top plan view with parts broken away and in section.

Referring to the drawing in detail, it will be noted that the lower or base section includes a hollow substantially cylindrical body outwardly offset from adjacent its lower end to provide an abutment shoulder 2, for a purpose which will be later apparent, and the lower edge is provided with a wire reinforced bead. The grating element 3 of the lower section is of substantially semispherical formation to provide a receptacle for the material to be grated and includes a marginal flange 4 about its upper edge, that is fixed to the upper edge of the body 1, with the semispherical portion extending into the body, as clearly shown in Figure 1.

The upper section likewise includes a hollow substantially cylindrical body 5 of a diameter

to slidably fit about the body 1 for telescopic association therewith, as well as for removal therefrom, and the lower edge of the body 5 is provided with a reinforced bead, while formed on the upper end thereof is a top wall 6 having substantially semicircular openings 7 therein, disposed upon opposite sides of its transverse center, as shown in Figure 2.

The upper grating element 8 is likewise of substantially semispherical formation, but is preferably deeper than the lower element 3, and has a cross strip 9 fixed to and bridging the wire reinforced beaded upper end thereof. Disposed on the strip 9 centrally thereof is a bearing collar 10 provided with diametrically opposed ears 11 riveted or otherwise fixed to the strip, and the collar is formed to provide a reduced upper bearing portion 12 mounted for rotation in a centrally disposed opening in the top wall 6. The portion 12 provides a shoulder bearing against the under face of the top wall, and the collar has a threaded bore therein which opens through its upper end. Threaded in the bore and held therein by a lock nut 13 is the lower cranked end portion of a crank handle 14 that has a knob 15 rotatably mounted on its upper cranked end portion, and a bearing washer is disposed between the nut 13 and the upper face of the top wall 6. By that construction, it will be apparent that the upper grating element is carried by the top wall 6 and is rotated by the crank handle for cooperation with the lower grating element when the upper section is mounted on the lower section, as clearly shown in Figure 1.

Each of the grating elements are perforated in a manner to provide teeth, and the teeth 16 of the lower element extend inwardly therefrom while the teeth 17 of the upper element extend outwardly therefrom, so that they will cooperate to set up a grating action against the material disposed within the lower element, when the upper element is rotated by the handle 14.

The lower grating element is provided with a tubular outlet spout 18 formed on and depending from an opening disposed centrally in the bottom thereof, and the spout is preferably tapered outwardly toward its lower end.

In order to prevent rotation of the upper section relative to the lower section, the body 1 is formed with a laterally directed vertically disposed square cornered guide rib 19 extending from the upper end thereof to the shoulder 2, and tapering inwardly accordingly to merge into the body 1 at the shoulder, while the body 5 of

the upper section is formed with a square cornered channel portion 20 throughout its length, and which provides a groove to slidably fit and receive the rib 19, as clearly shown in Figure 1, consequently it will be seen that the upper section is not only held against rotation, but is guided in its movement on the lower section.

Fixed to the body 5 diametrically opposite the channel portion 20 is a handle 21 that extends along the length thereof from its upper end, and this handle in the form shown includes a roller gripping element 22.

From the above description and disclosure in the drawing, it is believed that the operation of my grater will be obvious, but it might be mentioned that when it is desired to use the same, the upper section is removed from the lower section and the material to be grated, such as a potato or the like, shown in dotted lines in Figure 1 is disposed within the lower element 3. The upper section is then replaced and upon movement of the handle 14, the material will be grated and passed through the spout 18 for disposal within a container within which the device may be mounted.

In order to prevent the teeth 17 from contacting the teeth 16, so as to eliminate damage thereof, the grating element 8 is positioned with respect to the upper section and the latter is of a length, so that when the lower edge thereof engages the shoulder 2, the teeth 17 will be held in spaced relation with respect to the teeth 16, but of course in close proximity thereto, to bring about complete grating of the material.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What I claim is:

1. A grating device comprising a lower section including a hollow body, an upper section including a hollow body slidably mounted on the body of the lower section, a toothed substantially semispherical grating element fixed to the upper end of the body of the lower section for receiving material to be grated, a toothed substantially semispherical grating element mounted for rotation within the body of the upper section to overlie the fixed element, the teeth of the respective elements being directed toward each other for cooperative association, means for guiding the body of the upper section in its movement and to prevent rotation thereof relative to the lower section, handled means for rotating the rotary element, and means on the lower section and arranged in the path of the upper section to limit movement of the latter to prevent con-

tact of the teeth of the rotary element with the teeth of the fixed element.

2. A grating device comprising a lower section including a hollow substantially cylindrical body, an upper section including a hollow substantially cylindrical body telescopically mounted on the lower section for sliding movement, a substantially semispherical grating element fixed to the upper end of the body of the lower section for receiving material to be grated, a substantially semispherical grating element rotatably mounted and carried by the upper section for cooperation with the fixed element, said grating elements being perforated, teeth extending from the perforations of the fixed element and within the latter, teeth extending from the perforations of the rotary element and outwardly therefrom for disposal toward the teeth of the fixed element for cooperation therewith, an outlet spout depending centrally from the fixed element, handled means for rotating the rotary element, means for guiding the body of the upper section in its movement and to prevent rotation thereof relative to the lower section, and means on the lower section and arranged in the path of the upper section to limit the movement of the latter to prevent contact of the teeth of the rotary element with those of the fixed element.

3. A grating device comprising a lower section including a hollow substantially cylindrical body, an upper section including a hollow substantially cylindrical body slidably mounted on the body of the lower section, a perforated toothed substantially semispherical grating element fixed to the upper end of the body of the lower section and disposed therein for receiving material to be grated, a top wall for the upper section, a perforated toothed substantially semispherical grating element disposed within the body of the upper section, the teeth of the respective elements being directed toward each other for cooperative association, a cross strip secured to and bridging the second grating element, bearing means fixed to the cross strip and mounted for rotation in the top wall, a handle secured to the bearing means and extending above the top wall for rotating the second grating element, means for guiding the body of the upper section in its movement and to prevent rotation thereof relative to the lower section, said guiding means being formed on the bodies of the sections and extending laterally therefrom along their length, a handle fixed to the body of the upper section diametrically opposite the guiding means, means on the lower section and arranged in the path of the upper section to limit movement thereof to prevent contact of the teeth of the rotary element with the teeth of the fixed element, and an outlet spout formed on and depending from the fixed element.

MORRIS KARP.