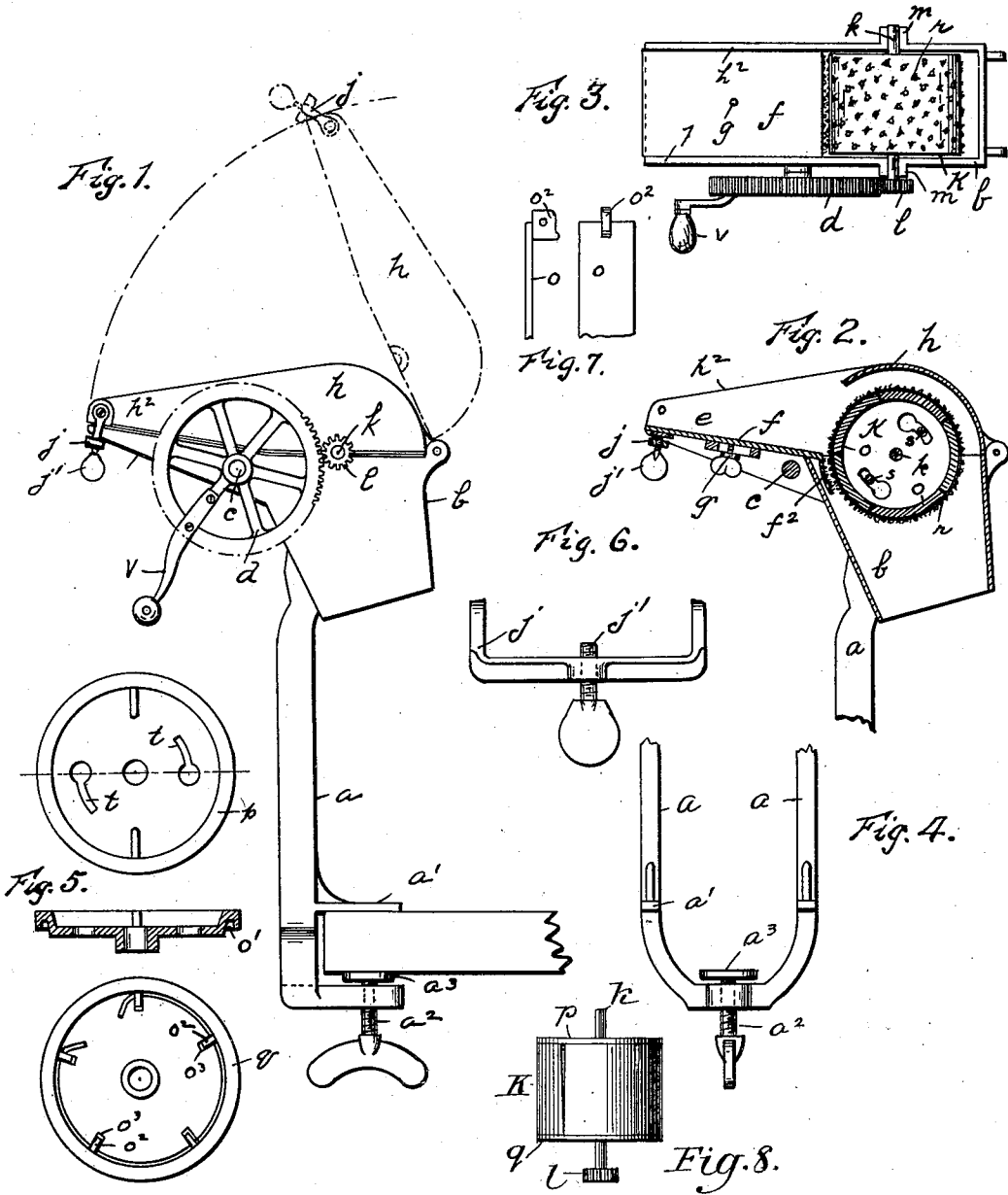


J. F. ROTE.
VEGETABLE GRATER.
(Application filed Oct. 24, 1900.)

(No Model.)



John F. Rote,
Inventor

Witnesses
Florence Kelly
Katharine Kelly.

By Attorney *E. A. Kelly*

UNITED STATES PATENT OFFICE.

JOHN F. ROTE, OF READING, PENNSYLVANIA.

VEGETABLE-GRATER.

SPECIFICATION forming part of Letters Patent No. 686,421, dated November 12, 1901.

Application filed October 24, 1900. Serial No. 34,124. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. ROTE, a citizen of the United States, residing at Reading, in the county of Berks and State of Pennsylvania, have invented certain new and useful Improvements in Vegetable-Graters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in rotary graters of the class more particularly intended for grating or shredding vegetables, fish, &c.

The object of the invention is to provide a machine that will be effective, easily operated, and comparatively simple in construction.

The invention is fully described in the following specification and clearly illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my machine. Fig. 2 is a vertical sectional view. Fig. 3 is a plan view with the cover removed. Fig. 4 is an end view of the clamping-jaw. Fig. 5 shows the cylinder-heads in detail, and Fig. 6 the clamping-yoke. Fig. 7 shows a cylinder-section end. Fig. 8 is a longitudinal sectional view of the cylinder.

The standards *a* are formed with jaws *a'* and set-screw *a²* for securing the machine to a table or other suitable support. The casing is mounted on these standards and consists of a body portion *b*, on which is mounted the shaft *c*, carrying the main gear-wheel *d*. The forward end of this portion is formed with a feed-hopper *e*, in the base of which is arranged a table *f*. This table is adjustable by means of a set-screw *g* and carries a curved projection *f²*, depending therefrom adjacent to the periphery of the cylinder. The upper portion *h* of the casing is hung pivotally to the rear of the body portion *b*, and its forward end is cut away to provide an opening for the material to be operated upon and is formed of side boards *h²*, extending along the line of the table and provided with a swinging clamp or yoke *j*, which supports the ends of said side boards and capable of swinging under the end of the feed-hopper and secured thereto by means of a set-screw *j'*.

The cylinder *K* is mounted on a shaft *k*,

which carries a small gear-wheel *l* at one end, which meshes with the gear-wheel *d*. The shaft *k* rests in bearings *m* on both sides of the body of the machine, half of each of these bearings being formed on the body portion *b* and the upper half on the cover portion *h*, forming cap-bearings.

The cylinder *K* is formed in sections *o*, slightly tapered at one end, allowing the cylinder to be compressed at that end sufficiently to permit the metal tube, hereinafter referred to, to slide freely thereon. The head *p* is tapered, so that when it is placed in position it will expand the sections *o*, and both heads have circumferential grooves *o'*, adapted to receive the ends of the sections and hold them together. The whole is covered with a tube of thin metal *r*, formed with a series of small teeth caused by perforation from the under side. The heads *p* and *q* are joined by two rods *s*, secured permanently to the head *q* and passing through curved slots *t* in the head *p*, where they are provided with nuts for tightening them up. It is this drawing together of the heads that expands the cylinder, tightening the perforated grater-tube *r* thereon. When the yoke is released from its hold on the body *b* and swung upward, as shown in Fig. 1, dotted lines, the cylinder, with its shaft and gear-wheel *l*, may be readily lifted out of the bearings *m* and removed from the machine for cleaning or other purpose. The sliding table *f* can be adjusted to the proper distance from the cylinder by means of the set-screw, so that the work will be either fine or coarse, as desired. The rotation of the main gear-wheel through the handle *v* will, through the wheel *l*, cause the cylinder to rotate, and the grating will be effected between the surface thereof and the depending portion *f²* of the sliding table, which is also roughened on its face.

The clamping device consists of two projections *a'*, adapted to rest on the top of the table, and a single projection to extend beneath it and through which a set-screw *a²* passes. The set-screw has an enlarged head *a³*, which gives it a greater holding-surface and prevents damage to the table.

The sections *o* of the cylinder are provided at their ends opposite the tapered ends with lugs *o²*, adapted to enter corresponding open-

ings o^3 in the cylinder-head, and the projecting portions of said lugs are secured by means of a wire or pins.

Having thus fully described my invention, what I claim is—

1. In a grater, the revolving cylinder made in sections tapered toward one end and having lugs at their other ends adapted to enter openings in the cylinder-head, both ends of which sections enter circumferential grooves in the cylinder-heads, bolts secured to one head and passing through curved slots t in the opposite head, the heads having tapered surfaces and the whole covered by a tube of thin metal having toothed surface and mounted solidly on a shaft carrying a gear-wheel at its end, substantially as described.

2. In a grater, the body portion b having a feed-table formed of side boards and a slid-

ing plate, projecting brackets w supporting said table and having a shaft mounted therein on which is mounted a gear-wheel, and a cylinder formed in sections tapered at one end and having lugs projecting through the one head thereof, both heads being of dish form, held together by bolts and covered by a toothed grater-tube, and a top portion pivoted at its rear to the body and having a locking-yoke at its forward end adapted to clamp the two portions of the machine together and securely hold the shaft and cylinder in position, all substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN F. ROTE.

Witnesses:

ED. A. KELLY,
WM. H. HOUCK.