W. MILD.

Vegetable Grater and Cutter.

No. 220,723. Patented Oct. 21, 1879.

Fig. 1.

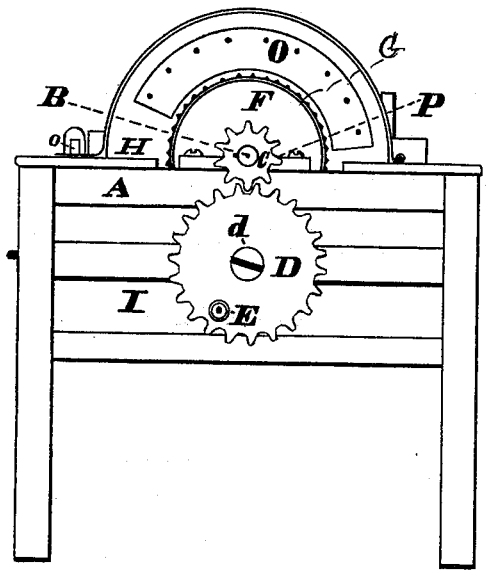


Fig. 2.

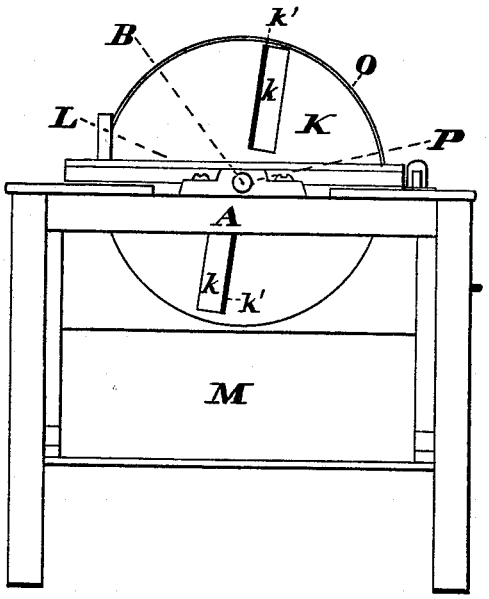


Fig. 3.

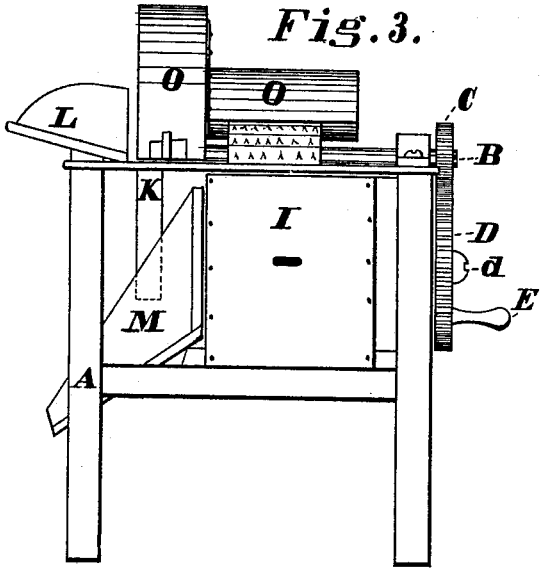
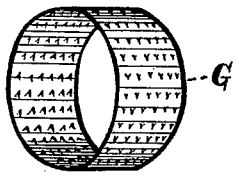


Fig. 4.



Attest

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UNITED STATES PATENT OFFICE.

WILLIAM MILD, OF HAMILTON, OHIO.

IMPROVEMENT IN VEGETABLE GRATERS AND CUTTERS.

Specification forming part of Letters Patent No. **220,723**, dated October 21, 1879; application filed August 11, 1879.

To all whom it may concern:

Be it known that I, WILLIAM MILD, of Hamilton, in the county of Butler and State of Ohio, have invented certain new and useful Improvements in Vegetable Graters and Cutters, of which the following is a specification.

My invention relates to that class of machines known as "vegetable graters and cutters," and has for its object the construction of the vegetable-grater in such a manner that the grater-cylinder can be removed from the machine for cleaning, or laid away to prevent corrosion when the machine is out of use.

In all other machines for this purpose, so far as I am aware, the grater is connected to the driving drum or shaft in such a manner that it is impossible to clean it thoroughly when it is desired to change the machine from one vegetable to another. As an instance, were the grater in use on cocoa-nut, and it became necessary to change it quickly to some other vegetable, it could not be cleaned so thoroughly as to prevent fragments of the former vegetable grated mingling with the next vegetable operated upon. I also conveniently arrange upon the same shaft with the grater a revolving vegetable-cutter, the heavy disk of which serves as a balance-wheel for the machine.

In the accompanying drawings, Figure 1 is an elevation of my machine from the driving side. Fig. 2 is an elevation from the revolving-cutter side. Fig. 3 is an end elevation, and Fig. 4 the perforated grater.

Similar letters of reference indicate similar parts.

A is the frame of the machine, made of wood or iron, upon which is mounted a revolving shaft, B. Upon the driving end of this shaft is keyed or otherwise secured a spur-pinion, C, which gears into and is driven by the spur-wheel D, mounted on the idler-stud *d*. Into the side of the spur-wheel a crank-handle, E, is secured to furnish the rotatory motion; or the crank-handle may be replaced by a wrist-pin, and the machine driven by foot-power.

F is the grater hub or cylinder, made of iron or other metal, and firmly secured to the shaft by a key or set-screw. The periphery of the cylinder F is turned true and smooth to receive the grater G. The grater consists simply of a cylinder of tin-plate perforated from the inside in the usual manner, and constructed to closely fit the outer surface of the hub or cylinder F.

The vegetables to be operated upon are held on the table H and pressed against the grater. The grated vegetable is deposited in the box or drawer I, situate directly under the grater, which is on runners and can be removed when necessary.

The vegetable-cutter consists of a heavy metal disk, K, firmly secured to the shaft B, and fitted with knives *k k*, secured in position by set-screws from the back. These knives may be set radially, as shown, or at an angle to the radius, and are arranged for ready adjustment for different thicknesses of cut. In front of the disk K, and above the revolving shaft B, is secured an inclined table, L, upon which are placed the vegetables to be reduced or cut. The cuttings pass through the mortises *k' k'* in the disk K, and are deposited on the apron *m*, which, in turn, delivers the cuttings into a tub or other convenient receptacle placed under the machine.

A guard or cover, O, hinged at the back and secured in position by the key *o*, prevents the grater or cutter throwing particles of vegetable off at a tangent, which, in operation, they would do were the guard O removed.

In constructing the machine for the trade, I propose to secure the boxes P P by means of thumb-nuts and bolts, and to slot the bolt-holes in the boxes to one side, in order that, by loosening the thumb-nuts, the boxes can be drawn to one side, and the shaft and cutting and grating machinery be removed and laid away when the machine is out of use.

The grater G is driven by frictional contact; and it is essential that the tin cylinder be made to fit the hub F so closely as to require a slight effort to press the cylinder G off or on.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The grater G, constructed to slip freely on and off the hub F, in combination with said

hub F, shaft B, pinion C, and spur-wheel D, or equivalent driving mechanism, table H, and guard O, for the purpose and substantially as shown and described.

2. In rotating vegetable-graters, a loose cylindrical grater, G, constructed to slip freely on and off the hub F, and driven by frictional contact with said hub, when arranged substantially as shown and described.

In testimony whereof I have hereunto set my hand this 4th day of August, 1879.

WILLIAM MILD.

Witnesses:
O. H. TEMPLE,
COLLIN FORD, Jr.