

(Model.)

E. SCHMITZ.

VEGETABLE GRINDER AND SLICER.

No. 290,120.

Patented Dec. 11, 1883.

Fig. 1.

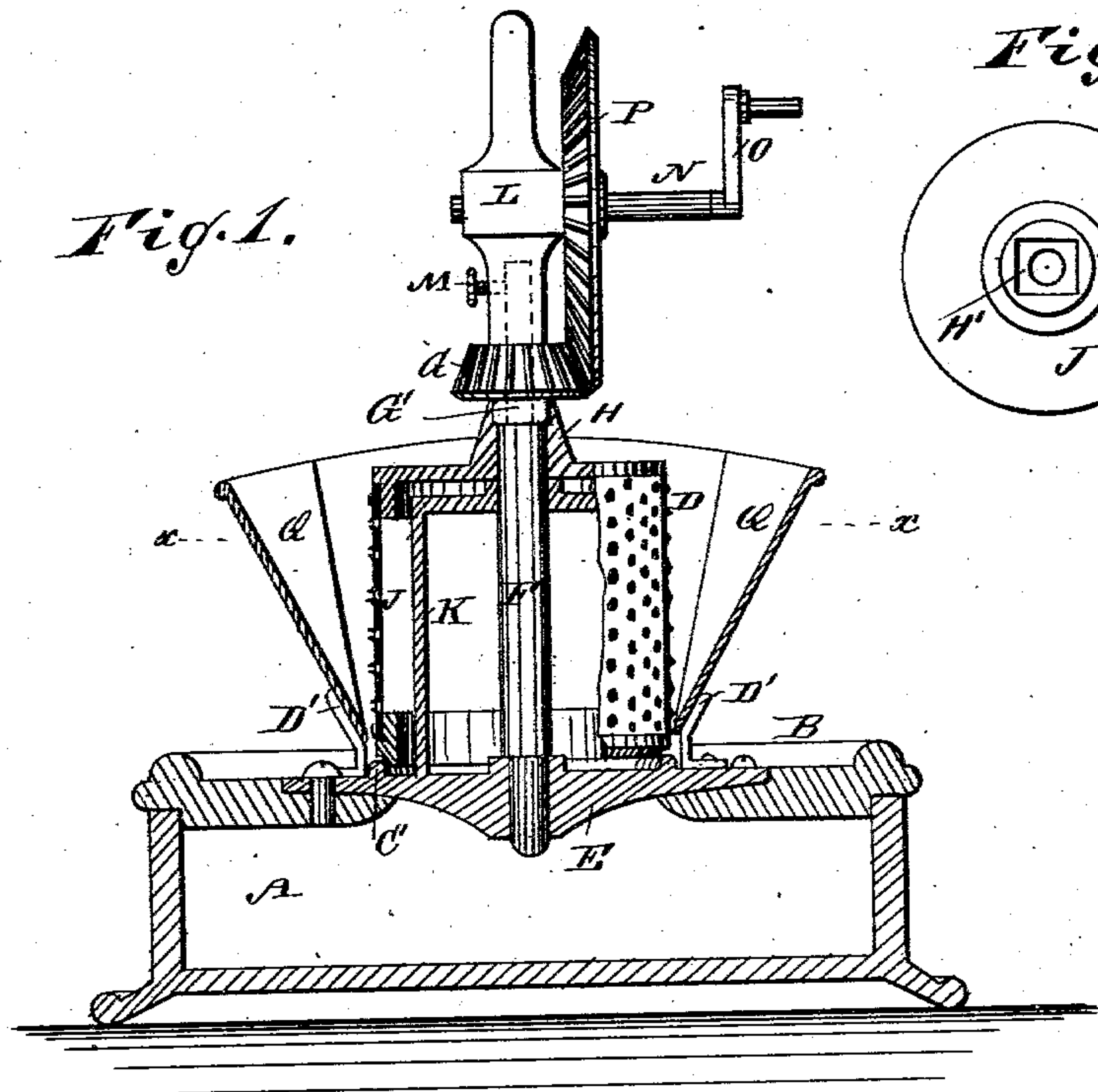


Fig. 5.

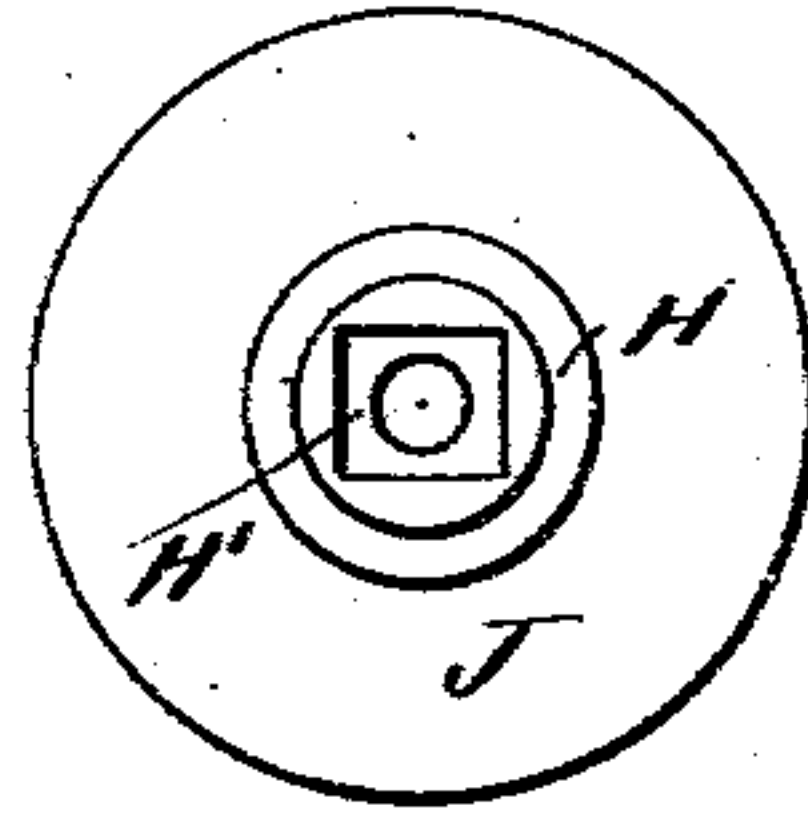


Fig. 3.

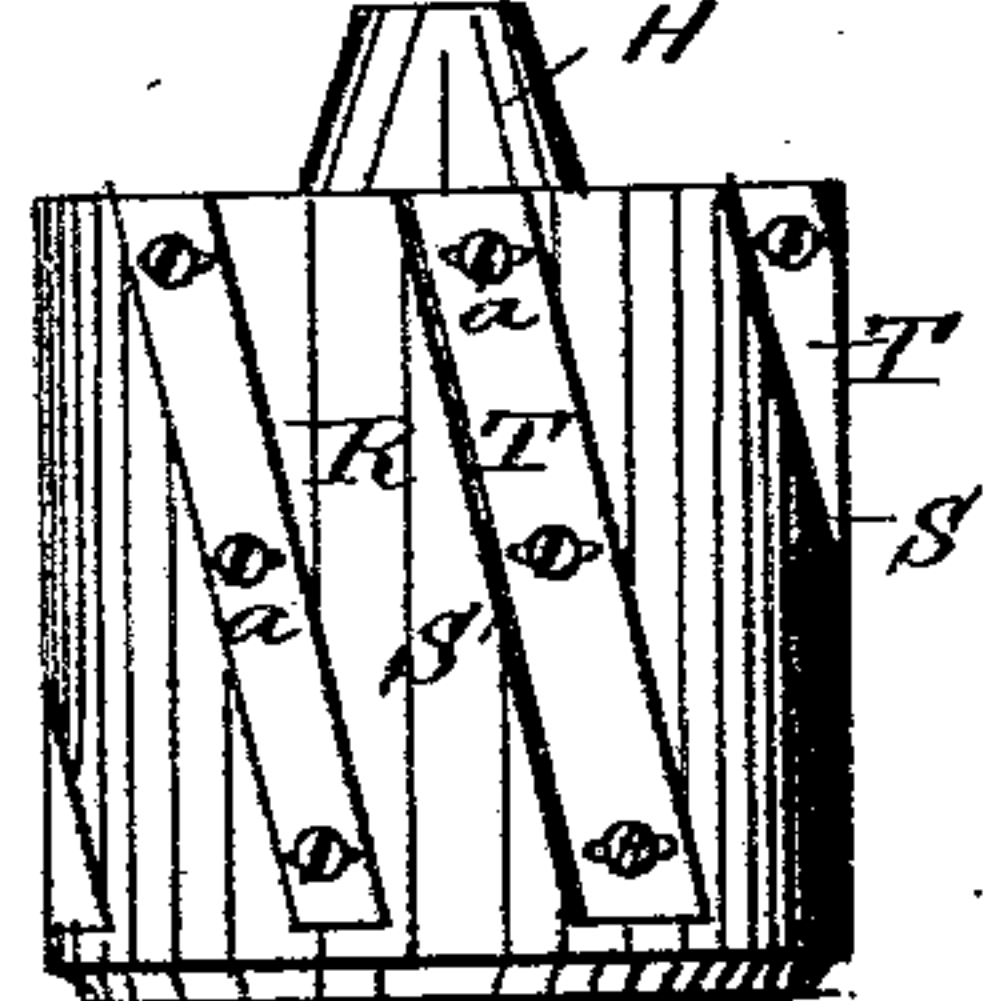


Fig. 4.

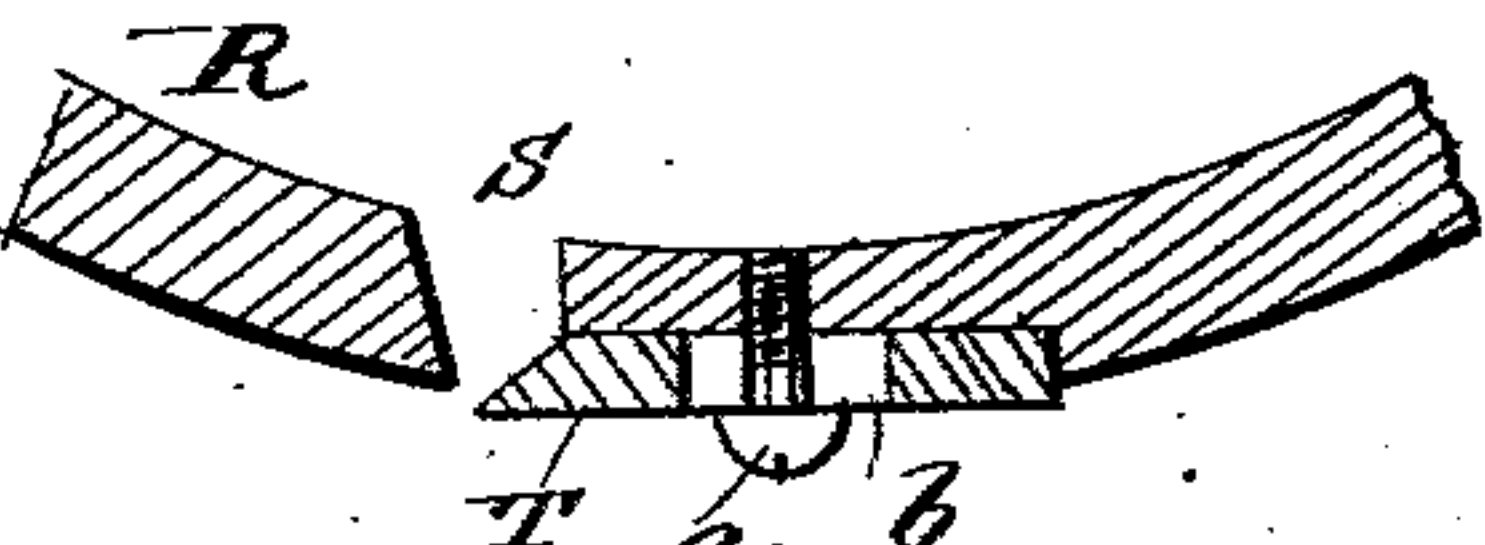
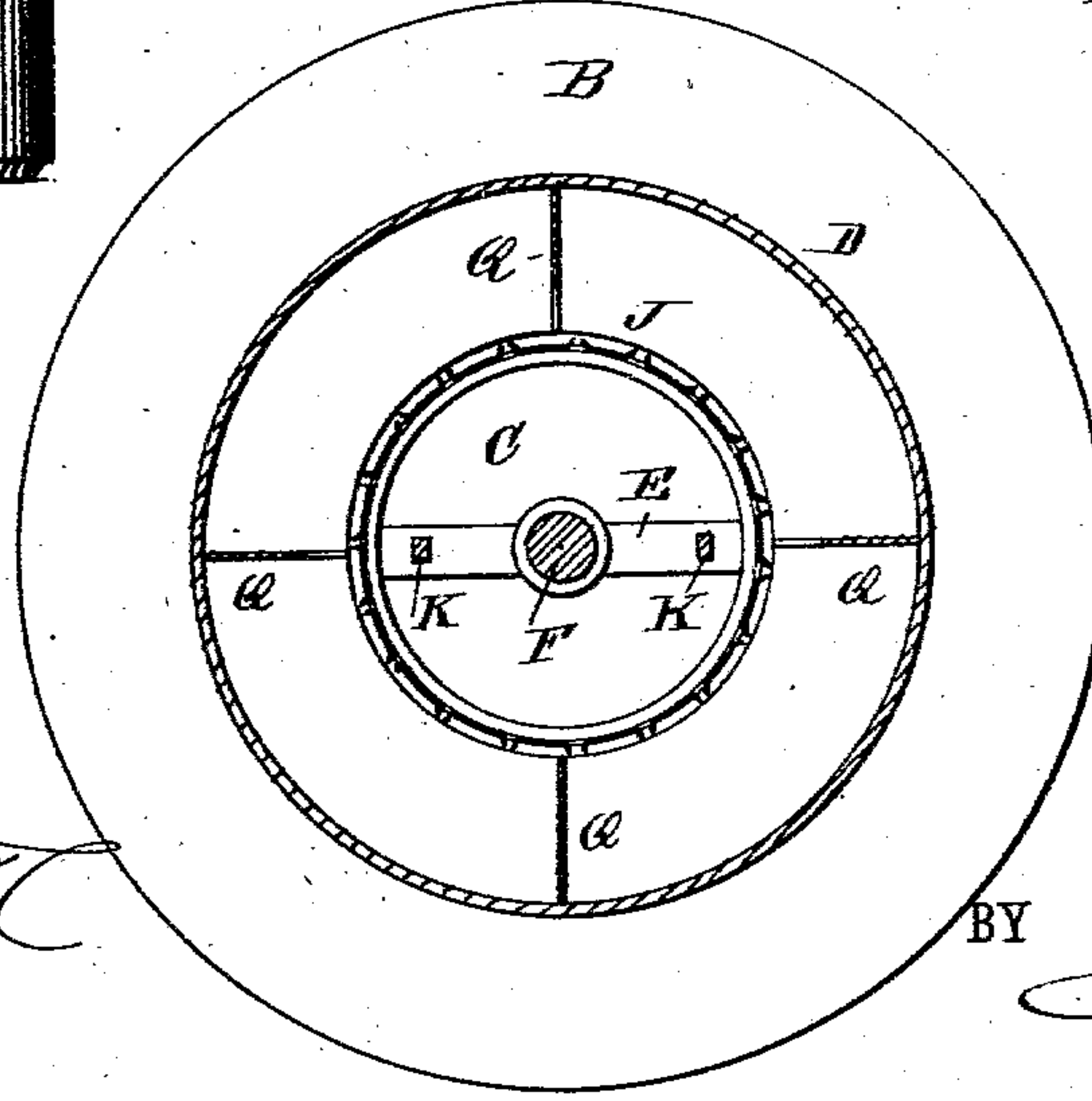


Fig. 2.



WITNESSES:

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EDWARD SCHMITZ, OF WINSTED, CONNECTICUT.

VEGETABLE GRINDER AND SLICER.

SPECIFICATION forming part of Letters Patent No. 290,120, dated December 11, 1883.

Application filed May 21, 1883. (Model.)

To all whom it may concern:

Be it known that I, EDWARD SCHMITZ, of Winsted, in the county of Litchfield and State of Connecticut, have invented a new and Improved Vegetable Grinder and Slicer, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved machine for grinding, grating, or cutting cabbage, potatoes, and other vegetables for domestic use or for feeding cattle.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a cross-sectional elevation of my improved potato-grinder. Fig. 2 is a sectional plan view of the same. Fig. 3 is a longitudinal elevation of the cutter-cylinder. Fig. 4 is a detail enlarged horizontal sectional view of a part of the same. Fig. 5 is a plan view of the grinding or cutting cylinder.

A cylindrical or other vessel, A, is provided with a removable cover, B, having a central opening, C, over which a large funnel-shaped vessel or hopper, D, is held by short arm D', secured to the lower edge of the hopper and to the cover B, in such a manner that the lower edge of the hopper will be a short distance above the cover, thus permitting the ground or grated vegetables, &c., to pass through the annular opening at the bottom of the hopper upon the cover B. A cross-bar, E, crossing the opening C, is secured on the cover, and in the said bar E the lower end of a vertical shaft, F, is journaled, on which shaft a bevel-pinion, G, is loosely mounted. The said pinion is provided in its under side with a squared projection, G', adapted to pass into a squared recess, H', in the upper end of collar H, on the top of a cylindrical grater, J, preferably made of sheet metal, provided with perforations from the inner toward the outer side, the ragged edges of which perforations form the grating-teeth. The said grating-cylinder is also loosely mounted on the shaft F, and rests upon an upright frame, K, resting on the cross-bar E, through the cross-piece of which frame the shaft F passes loosely. An annular ridge, C', is formed around the edge of the aperture C on the upper surface of the cover B, and the

bottom edge of the cylinder J is beveled off to correspond with the said ridge. A vertical handle-piece, L, is loosely mounted on the upper end of the shaft F, and can be locked on the same by means of a binding-screw, M. A shaft, N, provided with a crank-handle, O, is journaled in the said piece L, and on the said shaft a bevel cog-wheel, P, is rigidly mounted, which engages with the bevel-pinion G. A series of blades, Q, increasing in width from the bottom toward the top, are secured to the inner side of the funnel or hopper D. The grating-cylinder J can be replaced by a cylinder, R, having inclined slots S, on one edge of each of which a cutting-blade, T, is held adjustably by screws a passing through transverse slots b in the blades and into the cylinder. The cylinder R is also provided with a collar, H, having a squared recess in its upper end. The potatoes, &c., to be ground are thrown into the hopper, and the grating or grinding cylinder is rotated by turning the handle O. The ground vegetables pass through the perforations in the cylinder and drop to the bottom of the receptacle A. Part of the ground vegetables passes through the space between the bottom of the hopper D and the cover B. The blades Q prevent the potatoes, &c., from being carried around in the hopper by the grating-cylinder. If the grating-cylinder is to be removed to be replaced by another, the handle-piece L is first removed, then the pinion G and the cylinder are removed, and the fresh cylinder is placed on the shaft. If vegetables are to be cut or sliced, the cylinder R is placed on the shaft F.

The blades T can be adjusted to cut the vegetables fine or coarse, according to the use to be made of the cut vegetables.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a vegetable grater or grinder, the centrally-open cover B, hopper D, and intermediate support, D', all combined to bring the lower edge of the hopper a little above the cover, and thus admit of the discharge of a part of the grated vegetables, substantially as described.

2. In a vegetable grater or grinder, the combination, with a grater-cylinder, J, beveled at the bottom edge, of the vessel-cover B, having around the edge of a central aperture, C, the

annular ridge C', adapted to support the grater-cylinder, as shown and described.

3. The combination, with the shaft F, of a grater-cylinder, J, having a collar, H, with
5 squared recess H', the pinion G, having a squared projection fitting said recess, and the piece L, carrying loose crank-shaft N, with
beveled spur-wheel P, and having a socket
10 loosely fitted over the said shaft, whereby the cylinder may be rotated, removed, and replaced, as described.

4. In a grinder, the combination, with the receptacle A, of a frame, K, held on the same, and a revolving grating or cutting cylinder
15 resting on the frame K, substantially as herein shown and described, and for the purpose set forth.

5. In a grinder, the combination, with the receptacle A, of the cross-bar E, secured on
20 its cover B, the frame K on the cross-bar E, and a grating or cutting cylinder resting on the frame K, substantially as herein shown and described, and for the purpose set forth.

6. In a grinder, the combination, with the
25 shaft F, of a grating or cutting cylinder

mounted on the same, the handle-piece L, the set-screw *m*, and a shaft, N, journaled in the handle-piece, on which shaft N a wheel is mounted for operating the grating or cutting cylinder, substantially as herein shown and
30 described, and for the purpose set forth.

7. In a grinder, the combination, with the receptacle A, of the top B, having an aperture, C, surrounded by a ridge, C', the shaft F, and the grating or cutting cylinder mounted
35 on the shaft F, and having its bottom edge recessed to correspond with the ridge C', substantially as herein shown and described, and for the purpose set forth.

8. In a grinder, the combination, with the
40 hopper or funnel D, of the shaft F, the frame K, a grating-cylinder, J, the scraper-blades Q in the funnel, and devices for revolving the grater-cylinder, substantially as herein shown and described, and for the purpose set forth.

EDWARD SCHMITZ.

Witnesses:

EDWARD WHITING,
CHARLES B. HOLMES.