

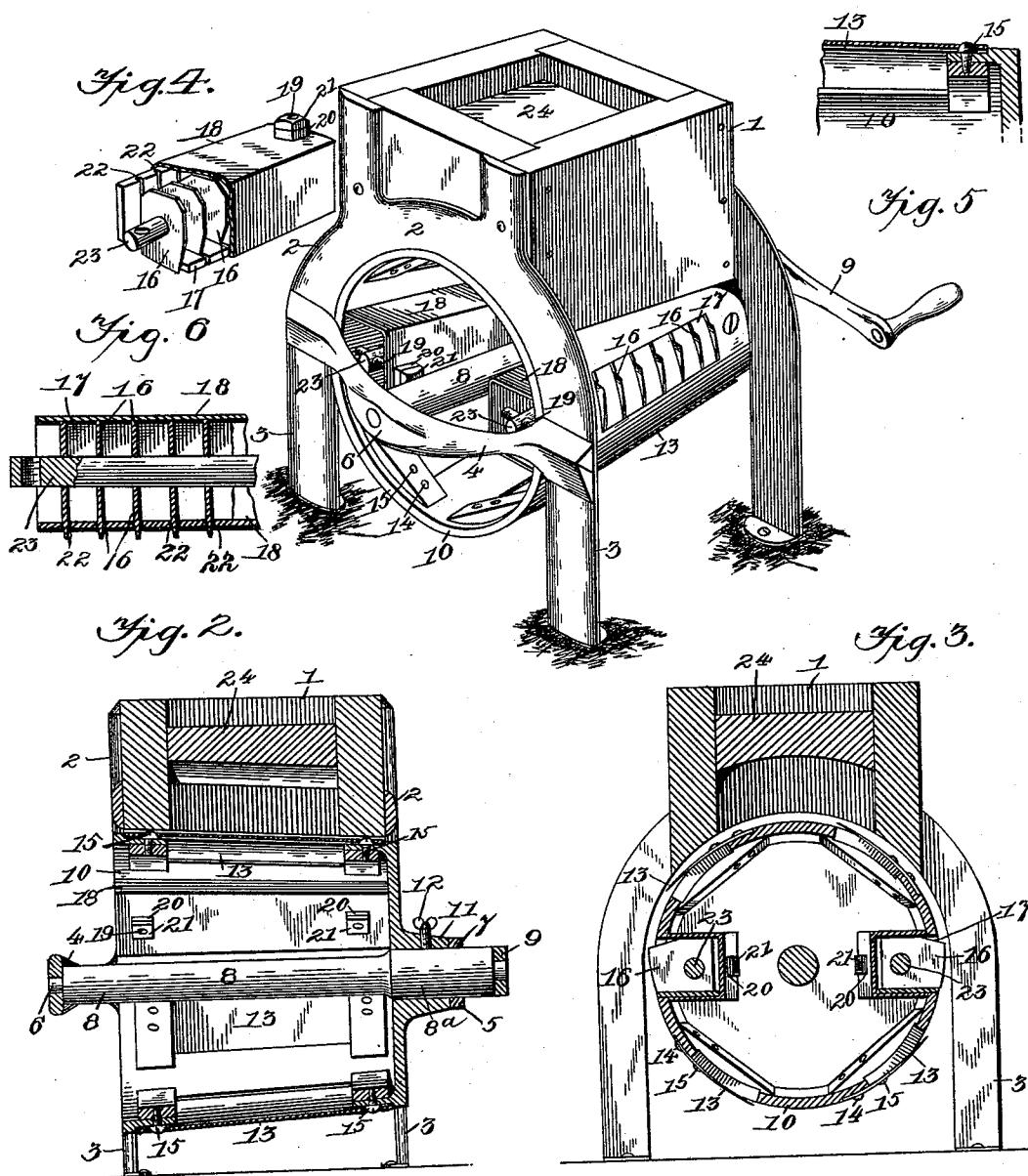
(No Model)

J. BETZ.
VEGETABLE CUTTER.

No. 582,614.

Patented May 18, 1897.

Fig. 1.



Inventor
John Betz.

Witnesses

T. L. Mockabee

[Signature]

By his Attorneys,

Cashow & Co.

UNITED STATES PATENT OFFICE.

JOHN BETZ, OF JORDAN, MINNESOTA.

VEGETABLE-CUTTER.

SPECIFICATION forming part of Letters Patent No. 582,614, dated May 18, 1897.

Application filed June 13, 1896. Serial No. 595,453. (No model.)

To all whom it may concern:

Be it known that I, JOHN BETZ, a citizen of the United States, residing at Jordan, in the county of Scott and State of Minnesota, have invented a new and useful Vegetable-Cutter, of which the following is a specification.

My invention relates to vegetable-cutters, and has for its object to provide a simple, inexpensive, and efficient construction and arrangement of parts whereby vegetables may be simultaneously scored and cut and to provide adjusting devices for varying the projection of the cutting edges.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a vegetable-cutter constructed in accordance with my invention. Fig. 2 is a central longitudinal section of the same. Fig. 3 is a central transverse section. Fig. 4 is a detail perspective view of one of the slicing-cutters, including the guide and knives, detached from the drum or carrier. Fig. 5 is a detail sectional view to show one of the adjustable rests for the cutting-knives. Fig. 6 is a detail longitudinal section of one set of the scoring-knives, taken in the plane of the connecting-rod.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

The hopper 1 is supported by end castings 2, provided with legs or standards 3, and said castings are provided, respectively, with outwardly-bowed brackets 4 and 5, having central bearings 6 and 7 for the shaft 8. One end of the shaft is enlarged, as shown at 8^a, to fit in the bearing 7, and is terminally reduced and threaded to engage the eye of the crank-arm 9, and the opposite extremity of said shaft is reduced to fit in the bearing 6.

The drum or knife-carrier 10 is of longitudinally-tapered or conical construction, with its smaller or reduced end closed and provided with a central elongated sleeve 11 to receive the enlarged portion of the shaft, the length of this enlarged portion of the shaft being sufficient to provide for longitudinal adjustment of the drum or carrier thereon to insure the

proper position of the surface of the drum with relation to the under concaved surface of the hopper. The enlarged end of the drum is open to give access to the interior thereof and the same is held at the desired adjustment by means of a set-screw 12, extending through the hub or sleeve portion of the drum and engaging the shaft.

The drum or carrier is provided at intervals with slots, contiguous to and covering which are arranged the slicing-knives 13, having securing-screws 14 and adjustable rests 15, said rests being arranged between the securing-screws and the cutting edges of the knives and being accessible through perforations in the knives, whereby the cutting edges may be raised or depressed by the adjustment of the rests. In the construction illustrated four of these slicing-knives are employed, and located between the same are scoring-cutters each of which is provided with a longitudinal series of knives 16, arranged perpendicular to the axis of the drum and adapted to project beyond the surface thereof to cut the vegetable or other object in planes perpendicular to that of the slicing-knives. These scoring-knives are mounted in a guide consisting of a slotted face-plate 17, let into the shell of the drum, with its surface flush with that of the drum, and a box 18, inclosing the body portions of the cutters, which are within the shell, said box being held in place by means of screws 19, which extend radially through the shell of the drum and are provided at their inner ends with nuts 20 and lock-nuts 21, whereby said screws may be turned with the nuts without tightening or loosening the box, which forms a shield or guard for the inclosed portions of the scoring-knives. The guide-slots in the face-plate 17 are extended at the rear side of the box, forming a shield or guard to form guide extensions 22, in which the rear edges of the scoring-knives fit, and extending longitudinally through the scoring-knives is a rod or bar 23, provided at its extremities with threaded openings in which operate said screws. Hence by turning the screws the rod or bar may be moved toward or from the surface of the shell to adjust the scoring-knives.

As the vegetable or other object is sliced the detached portions are deposited in the in-

terior of the drum or carrier, from which they are discharged as the operation proceeds by reason of the inclination of the lower side of the shell toward the open end thereof.

5 In order to insure the proper contact of the vegetables with the surface of the drum or carrier to enable the knives to cut the same, I employ a follower 24, having a concaved under side to correspond with the tapered or
10 conical surface of the drum, said follower being depressed, when necessary, by one hand of the operator, while the other is employed to turn the drum.

Various changes in the form, proportion,
15 and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described my invention, what I
20 claim is—

1. In a device of the class described, the combination with a hopper and a hollow rotary drum carrying slicing-knives, of scoring-knives mounted to project beyond the surface
25 of the drum in transverse planes perpendicular to the slicing-knives and provided within the drum with longitudinally-registering openings, a connecting-rod extending through the registering-opening to connect the scor-
30 ing-knives in series, said knives being removable from the rod, guide-grooves arranged respectively in the planes of and receiving the edges of the knives to hold them at the proper intervals on the rod, and means for adjusting
35 the rod toward and from the exterior surface of the drum to vary the projection of the scoring-knives, substantially as specified.

2. In a device of the class described, the combination with a hopper and a rotary drum
40 carrying slicing-knives, of scoring-knives mounted to project beyond the surface of the drum in transverse planes perpendicular to the slicing-knives and having longitudinally-registering openings, a rod engaging said reg-
45 istering openings to connect the scoring-knives in series and provided with terminal-

threaded openings, terminally-mounted ad-justing-screws engaging said threaded open-ings in the rod and adapted to be rotated to adjust the rod toward and from the exterior
50 surface of the drum, and means, as lock-nuts, for securing the adjusting-screws against rotation when the rod is arranged at the desired adjustment, substantially as specified.

3. In a device of the class described, the
55 combination with a hopper and a hollow rotary drum carrying slicing-knives, of a transversely-slotted face-plate let into the surface of the drum, a hollow shield or guard ar-
60 ranged within the drum contiguous to and communicating with the slots of the face-plate, said shield or guard being provided re-spectively in alinement with the transverse slots with grooves forming guide extensions,
65 scoring-knives arranged in the shield or guard to project through the transverse slots in the face-plate and fitted at their rear edges in said guide extensions, a longitudinally-dis-
70 posed rod connecting and removably attached to the scoring-knives, and means for adjust-ing said connecting-rod to vary the projec-
75 tion of the knives, substantially as specified.

4. In a device of the class described, the combination of a hopper and a hollow rotary
75 drum carrying slicing-knives, of a transversely-slotted face-plate let into the surface of the drum, scoring-knives mounted respec-tively in the slots of the face-plate, a box
80 forming a shield or guard arranged within the drum to inclose the body portions of the scoring-knives, and radially-disposed feed-screws engaging the shield to hold it in oper-
85 ative position and threaded in a rod by which the scoring-knives are connected in longitu-dinal series, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN BETZ.

Witnesses:

JOHN RUTHS,
P. H. CASEY.