

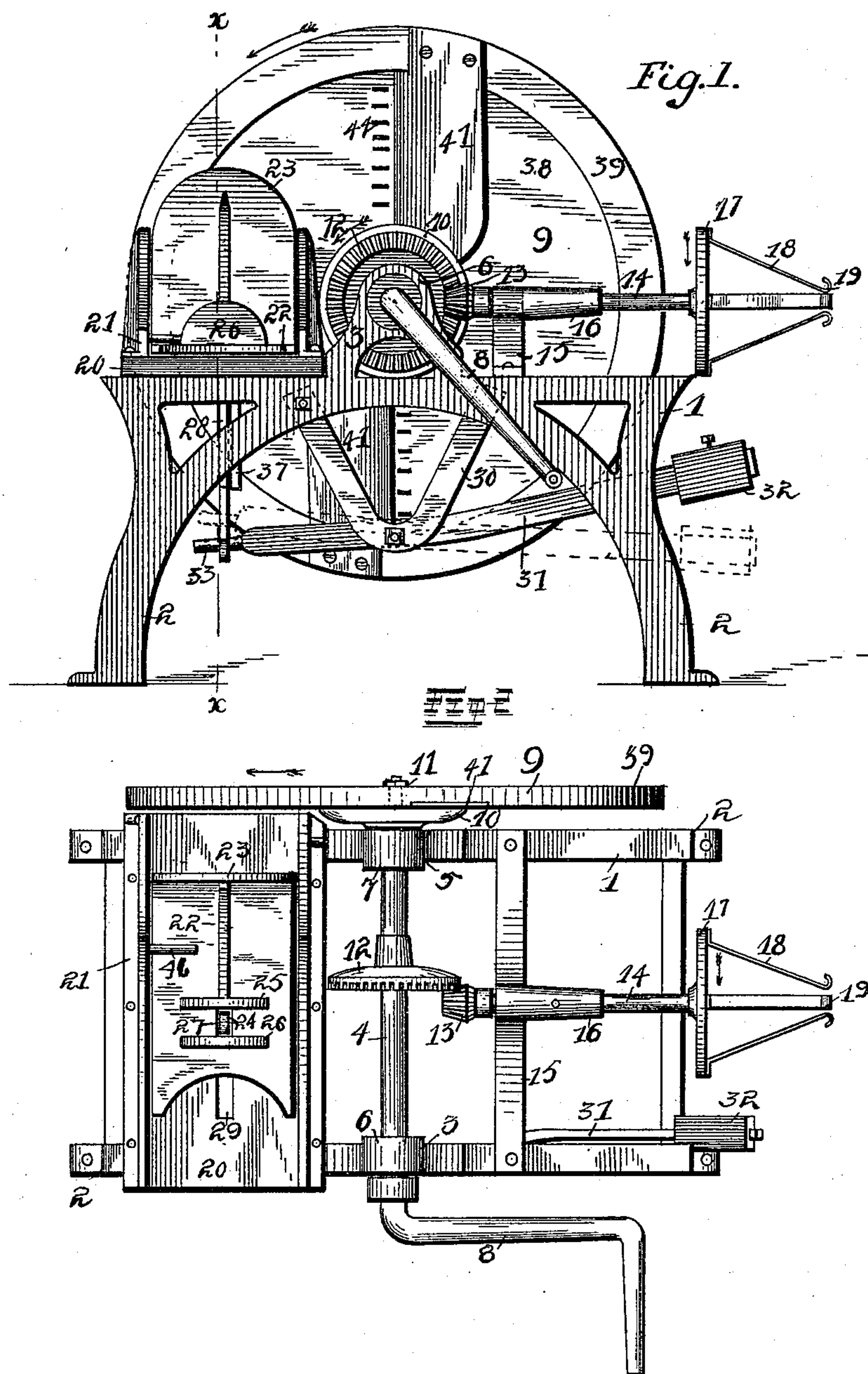
(No Model.)

2 Sheets—Sheet 1.

M. J. CUNNINGHAM.
VEGETABLE CUTTER.

No. 494,416.

Patented Mar. 28, 1893.



Witnesses
Alfred A. Eider
Herbert S. Robinson

Inventor
Martin J. Cunningham
By his Attorneys
Migdon & Migdon & Longau.

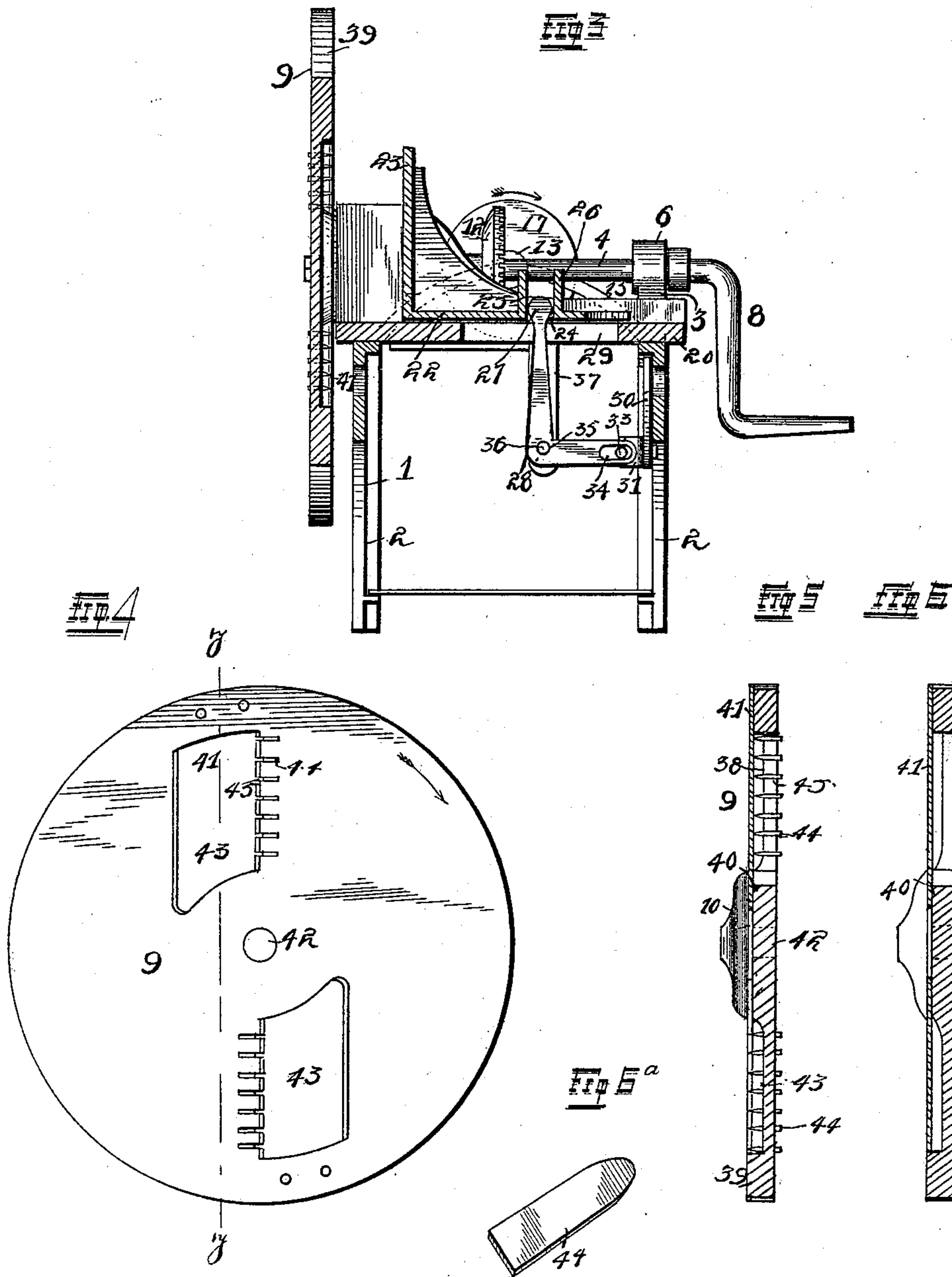
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UNITED STATES PATENT OFFICE.

MARTIN J. CUNNINGHAM, OF SPRINGFIELD, MISSOURI, ASSIGNOR OF ONE-HALF TO AUGUST F. LEONHARDT, OF SAME PLACE.

VEGETABLE-CUTTER.

SPECIFICATION forming part of Letters Patent No. 494,416, dated March 28, 1893.

Application filed July 21, 1892. Serial No. 440,718. (No model.)

To all whom it may concern:

Be it known that I, MARTIN J. CUNNINGHAM, of the city of Springfield, Greene county, and State of Missouri, have invented certain new and useful Improvements in Vegetable-Cutters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in "vegetable cutters" and consists in the novel construction, combination and arrangement of parts as will be more fully hereinafter described and designated in the claims.

The object of my invention is to improve upon the present devices in use for the paring and cutting of vegetables, and it embodies lightness and durability of construction and economy in use.

In the drawings: Figure 1 is a rear elevation of my complete invention. Fig. 2 is a top plan view of same. Fig. 3 is an end view taken on a line xx of Fig. 1. Fig. 4 is a front view of the cutter. Fig. 5 is a detail sectional view of the cutter taken on a line xx in Fig. 4, and Fig. 5^a is a perspective view of one of the small cutters. Fig. 6 is a detail sectional view taken on a line similar to yy in Fig. 4, of an auxiliary cutter or disk, which forms a part of my invention.

Referring to the drawings: The parts of my invention are supported essentially by a cast frame 1, with depending legs 2 formed therewith. On one side it has a projecting arm 3 adapted to form a bearing for a shaft as will be more fully hereinafter described. Said upwardly projecting arm 3 is located upon a rear side of the frame, and on the front side of same, and adapted to provide a bearing for the other end of the shaft 4, is a similar projecting arm 5.

The parts hereinbefore described are preferably made in one casting as it insures a greater strength to the frame. The shaft 4 fitted into bearings 6 and 7 located respectively in the projecting arms 3 and 5 has secured to the rear projecting end of same, a crank 8 by which it is manipulated. The front end of said shaft projects beyond the front of the frame such a distance as will admit of the

cutter 9 and its supporting flange 10 to be secured thereon by means of a nut 11, adapted to screw on the end of said shaft. The flange 10 is in the form of a plate of sufficient thickness to hold the disk or cutter 9 away from contact with the frame 1 of the machine. It is provided with a central perforation which admits of its being loosely fit over the projecting ends of the shaft. The shaft 4 at a point midway between the side arms of the frame is provided with a gear 12, the teeth of same being upon its flat side, and adapted to engage the teeth of the pinion 13, secured upon the inner end of the countershaft 14.

A cross arm 15 is secured at either end to the side arms of the frame, and has upon its upper side a sleeve 16 which provides a bearing for the counter-shaft 14, said shaft 14 being set at right angles with the shaft 4. The outer free end of said counter-shaft 14 has secured thereon a disk 17, carrying four flat knife-edged pieces 18, which project from the outer periphery of said disk 17 in the form of a cone. The outer or free ends of the knives 18 are turned outwardly and form hooks 19 which are adapted to engage the vegetable in paring, as will be more fully hereinafter described.

Secured to the upper sides of the frame 1 and opposite to the counter-shaft 14 is a platform 20 made of wood or other suitable material. Upon this platform 20 are secured parts as follows:—Two upright side guides 21 forming a track or guide for a traveling stop piece 22. Said stop piece 22 is composed of a flat piece of metal adapted to fit within the side guides 21 and upon the top of the platform 20, and has upon its front end, and located at right angles therewith an upwardly projecting shoulder 23, in front of which are placed vegetables for cutting. The lower plate 22 is provided with a longitudinal slot 24, and two projecting lugs 25 and 26 located over said slot and between which the head 27 of a bell-crank lever 28 is adapted to work, through a perforation 29 in the platform 20.

Upon the rear side of the frame is secured a depending V-shaped arm 30 to which is pivotally balanced a lever 31 provided upon its outer or free end with a weight 32. Its inner

end 33 is rounded to engage in a slot 34 in the lower free end of the bell-crank lever 28. At the turn in said lever is a perforation 35 through which a pivot 36 passes into a depending arm 37 secured to the under side of the platform 20.

I will now proceed to describe the design and construction of the disk or cutter. As best shown in Fig. 5 its outer flat surface is perfectly regular while its inner surface is provided with an annular depression 38 which leaves a flange 39 around the outer periphery of said disk, and a hub flange 40 in the center adapted to fit over said hub flange 40 to secure the inner ends of the knives 41 is the flange 10 hereinbefore described.

The center of the cutter or disk and the flange 10 have corresponding perforations 42 adapted to fit over the projecting end of the shaft 4, and be secured thereon by the nut 11. The flange 10 by reason of its thickness holds the inner side of the disk in direct contact with the front of the cutting box hereinbefore described.

The principal cutting knives 41 are set in and secured in the flange 39 at one of their ends and the other end is set into the hub-flange 40 and held therein by the contact of the flange 10 therewith. These knives 41 are set over apertures 43 in the said disk, and what I term the inner side of said perforation 43, being next to the cutting edge of the knife 41, is secured a number of radially arranged knives 44 which are driven in slots 45, and project inward from the inner surface of said revoluble disk a desirable distance so that the vegetable that is cut is sliced one way before engaging the other knives 43 which re-slice them.

The removable revoluble disk, shown in Fig. 6 is readily adapted to be secured upon the projecting end of the shaft 4 after the removal of the other disk, and said disk is only provided with two knives such as 41 which consequently only cut the potatoes or other vegetables one way, while the combination of the knives 41, and the small auxiliary knives 44 make what is termed "French" quartered potatoes.

The cutter shown in Fig. 6 is especially adapted for the cutting of cabbage for "sauerkraut," and the plain slicing of vegetables.

Any number of disks having knives adapted to cut or slice vegetables in different forms may be provided and are adapted to be readily fitted to my device.

Having stated the object and described the parts in detail of my invention, I will now proceed with its operation.

As before stated a reciprocating motion is imparted to the stop-slide 22 by the manipulation of the weighted lever 31. The vegetables are placed between the upright projection 23, and the inner surface of the cutting disk and the weight 32 upon the end of the lever 31, and by means of the connection between the lever 21 and the traveling stop 32 it keeps said veg-

etable in cutting contact with the knives until said vegetables are all cut up. While the cutting disk travels or rotates in a downward direction toward the cutting box as shown by the arrow in Fig. 1, the disk 17 with the paring knives 18 thereon travels in an opposite direction, both disks being operated by the manipulation of the crank 8, upon the outer end of the shaft 4 by means of which said shaft is rotated. When the cutting box is full of vegetables and the sliding-stop in position as shown in Fig. 1, the weighted lever 31 is up. As the potatoes or other vegetables are cut, the sliding plate 22 travels toward the cutter thus keeping the vegetable in continual contact with the knife until the supply in the box, and the weighted lever 31 is in position as shown by dotted lines in Fig. 1. To renew the supply of vegetables, the weighted lever 32 is lifted up thus throwing back the traveling plate 22 and the space is again filled up. The backward movement of the traveling plate 22 is controlled by a pin 46 which is set in the side 21 of the cutting box.

When using the cutter shown in Fig. 5 the small knives 44 are the first to engage in the potato. They slice the potato in one direction while the larger knife 41 slices it in an opposite cross direction, thus turning out the potato in long square pieces.

When using the cutter shown in Fig. 6 the knife is secured closer to the inner surface of the disk and consequently when it engages the potato it only slices it in one direction, leaving a thin flat slice preferably adapted for "frying."

To pare the potatoes, the parer located upon the ends of the counter-shaft 14 is used, the same being rapidly turned by its pinion connection with the shaft 4. The end of the potato is pushed in between the four ends of the blades 18 and pared half-way of its length. It is then pulled out, the other end pushed in until it is pared to a point where the operation upon the other end was stopped.

Having fully described my invention, what I claim is—

1. In a vegetable cutter, the combination, with a frame carrying a cutter and provided with a receiving chamber located at right angles to said cutter and having a longitudinally slotted bottom, of a follower working in said chamber, a crank-lever journaled upon the frame and having one end engaging said follower, a second lever journaled upon the frame at right angles to said crank-lever and having its opposing end loosely connected with the free end of the latter, and a weight mounted upon the free end of said second lever; substantially as and for the purpose set forth.

2. In a vegetable cutter, the combination, with a frame carrying a cutter and provided with a receiving chamber located at right angles to said cutter and having a longitudinally slotted bottom, of a follower working in said chamber, a crank-lever journaled upon

the frame and having one end engaging said
follower and its other end provided with a
slot, a second lever journaled upon the frame
at right angles to said crank-lever and having
5 its opposing end engaging the slot in the lat-
ter, and a weight adjustably mounted on the
free end of said second lever; substantially
as and for the purpose set forth.

3. In a vegetable cutter, the combination,
10 with the frame carrying a rotary cutter, of a
rotary peeling device geared with said cutter

and comprising a disk, and outwardly con-
verging spring blades, the free ends of the
latter being curved outwardly; substantially
as and for the purpose set forth.

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

MARTIN J. CUNNINGHAM.

Witnesses:

ALFRED A. EICKS,

HERBERT S. ROBINSON.