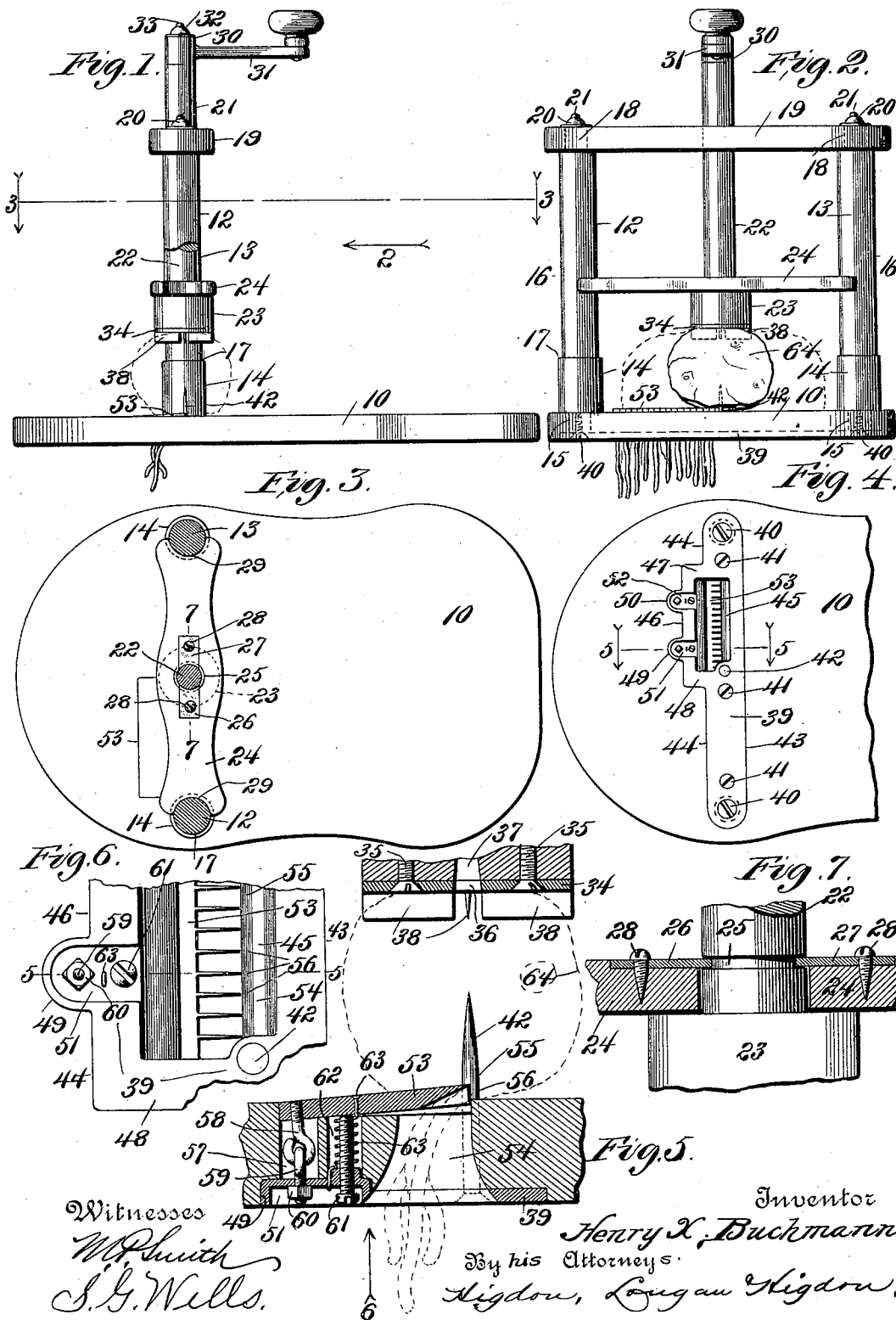


(No Model.)

H. X. BUCHMANN.
VEGETABLE CUTTER.

No. 579,816.

Patented Mar. 30, 1897.



UNITED STATES PATENT OFFICE.

HENRY X. BUCHMANN, OF ST. LOUIS, MISSOURI.

VEGETABLE-CUTTER.

SPECIFICATION forming part of Letters Patent No. 579,816, dated March 30, 1897.

Application filed November 2, 1896. Serial No. 610,872. (No model.)

To all whom it may concern:

Be it known that I, HENRY X. BUCHMANN, of the city of St. Louis, 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 vegetable-cutters; and it consists in the novel construction, combination, and arrangement of parts hereinafter shown, described, and claimed.

Figure 1 is a side elevation of my improved vegetable-cutter, parts being broken away to more clearly illustrate the same. Fig. 2 is a rear elevation looking in the direction indicated by the arrow in Fig. 1. Fig. 3 is a horizontal sectional view taken approximately on the line 3 3 of Fig. 1 and looking in the direction indicated by the arrow. Fig. 4 is a bottom plan view, parts being broken away to economize space. Fig. 5 is a detail vertical sectional view taken approximately on the line 5 5 of Fig. 4 and looking in the direction indicated by the arrows. Fig. 6 is an enlarged detail plan view of the parts shown in Fig. 5 and looking in the direction indicated by the arrow 6. Fig. 7 is a vertical sectional view taken approximately on the line 7 7 of Fig. 3, parts being broken away to economize space.

In the construction of my improved vegetable-cutter I employ the base 10, in which the lower ends of the posts 12 and 13 are fixed. The base 10 is a flat plate, preferably of wood and designed to rest upon the table or other suitable support, and may be of any desired outlines. The posts 12 and 13 are preferably turned out of wood and have the enlarged portions 14, the lower ends of which rest directly upon the upper face of the base 10. The portions 15 of the posts are turned down smaller than the portions 14 and concentric to said portions and fit closely within the vertical openings bored through the base 10, as required to support said posts in a vertical position relative to said base. The portions 16 of the posts are turned down slightly smaller than the portions 14 and concentric to said portions, thus forming the shoulders 17, between the portions 14 and the portions 16. The portions 18 of the posts are turned

down smaller than the portions 16 and concentric to said portions. The corresponding parts of the posts 12 and 13 are in horizontal alinement with each other and transversely of the base 10 and near one end thereof.

The cross-bar 19 has vertical apertures bored in its ends in which the portions 18 of the posts are inserted, thus connecting the upper ends of the posts.

The disks 20 are somewhat larger in diameter than the portions 18 of the posts, and said disks are placed upon the upper ends of said portions 18 with their peripheries concentric to the posts, and said disks are held removably in position by means of the screws 21.

The shaft 22 is rotatably and slidingly mounted in a bearing formed vertically through the center of the cross-bar 19. The shaft 22 is preferably turned out of wood and has a head 23 on its lower end and formed integral therewith, which head is turned concentric with the shaft. The sliding cross-bar 24 has an opening in its center through which the shaft 22 passes, and said cross-bar rests upon the upper end of the head 23. A recess 25 is formed around the shaft 22 and in horizontal alinement with the upper surface of the cross-bar 24.

Metallic plates 26 and 27 are embedded in the upper face of the cross-bar 24 upon opposite sides of the shaft 22, and the inner ends of said plates engage in the recess 25, as shown in Fig. 7, and the plates are held removably in position by means of the screws 28. When the plates 26 and 27 are in position as described, they prevent the shaft 22 from sliding through the bearing in the sliding cross-bar 24.

Segmental recesses 29 are formed vertically in the ends of the cross-bar 24, and said cross-bar fits between the posts 12 and 13, with said posts engaging in said recesses 29, thus forming a vertical sliding connection between the sliding cross-bar 24 and the posts 12 and 13. When the cross-bar slides downwardly to its lowermost position, its ends rest upon the shoulders 17 on the posts 12 and 13 and thus limit the downward motion of the shaft 22. The upper end of the shaft 22 is squared and inserted in a corresponding aperture formed in the head 30, which head is formed upon the end of the crank 31.

The disk 32 is placed upon the upper end of the shaft 22 and above the head 30 and is held removably in position by means of the screw 33, which screw is inserted through said disk and screw-seated in the squared end of said shaft, thus holding the crank-handle 31 in position upon said shaft.

A disk 34 is attached to the lower end of the head 23 by means of the screws 35, which screws are inserted upwardly through said disk and into said head. The disk 34 is substantially of the same diameter as the head 23, and in its center is formed a circular opening 36, which coincides with a similar opening 37, formed in the lower end of the head 23.

Knives 38 project downwardly from the disk 34 and are arranged radially relative to the opening 36.

A plate 39 (shown in Fig. 4) is embedded in the bottom surface of the base 10. The lower ends of the portions 15 of the posts 12 and 13 rest upon the upper face of the ends of the plate 39, and screws 40 are inserted through said plate and seated in said posts, thus holding said posts from being withdrawn from the base 10. The plate 39 is attached to the base 10 and held in position by means of the screws 41, inserted through said plate and seated in said base. A pointed pin 42 is fixed in the plate 39 and projects upwardly through the base 10 and in position to pass into the openings 36 and 37 when the head 23 descends to a point near the base 10. The head of the pin 42 is riveted or welded into the plate 39, as required to form a rigid connection with said plate.

The body of the plate 39 is rectangular in cross-section and its rear edge 43 is substantially straight and extends nearly across the bottom of the base 10. The front edge 44 runs parallel with the inner edge 43 to points near the aperture 45. The aperture 45 is formed vertically through the plate 39 and extends from near the pin 42 toward and nearly to one of the ends of the plate. The portion of the plate through which the aperture 45 is formed is considerably wider than the remainder of the plate. The front side of the aperture 45 is bounded by the portion 46, which extends in a line parallel with the lines 43 and 44, and the ends of said portion 46 are connected to the body of the plate by the portions 47 and 48, which are joined to and formed integral with the ends of the portion 46 and at right angles to said portion.

Semicircular lugs 49 and 50 extend forwardly from the portion 46, and the recesses 51 and 52 are formed from the lower faces of said lugs and the corresponding portions of the portion 46.

The plate 53 is embedded in the upper surface of the base 10 and adjustably connected to said base. An opening 54 is formed vertically through the base 10, corresponding to the opening 45 through the plate 39. A cutting edge 55 is formed upon the plate 53, and said plate is mounted with one end of the

cutting edge 55 adjacent to the pin 42, and said edge 55 extending from said pin above the opening 54 and in a line parallel with the edge 43. Vertical cutting edges 56 are formed upon the plate 53 below the edge 55 and intersecting said edge. Centrally-located apertures are formed vertically through the lugs 49 and 50, and openings 57 are formed vertically through the base 10 above said lugs.

Two screw-eyes 58 are screw-seated in the plate 53 from its lower side, and said screw-eyes extend downwardly, one into each of the openings 57, as shown in Fig. 5. Screw-eyes 59 have their eyes hooked into the eyes of the screw-eyes 58, and the screw-threaded ends of said screw-eyes 59 extend downwardly through the openings in the lugs 49 and 50, and the nuts 60 are placed upon said screw-threaded ends and hold said screw-eyes in position, thus forming a hinged connection between the plate 53 and the plate 39. The plate 53 normally rests upon the base 10. Set-screws 61 are inserted through the screw-threaded apertures located directly in front of the nuts 60, and said set-screws project upwardly through the openings 62, formed in the base 10 a short distance in front of the openings 57, and the points of said set-screws engage the under side of the plate 53.

Retractable coil-springs 63 have their upper ends attached to the plate 53, and said springs extend downwardly through the openings 62 around the set-screws 61, and the lower ends of said springs are attached to the plate 39. When the set-screws 61 are operated in the proper direction, the edge 55 of the plate 53 will be elevated by the points of the set-screws pressing upwardly under said plate, and when they are operated in the opposite direction said edge will be lowered by the tension of the coil-springs 63. The upper ends of the springs 63 may be passed through the openings in the plate 53 and riveted in position, and the lower ends of said springs may be passed through the plate 39 and drawn down to give the proper tension to the springs and then riveted in position, or said ends may be attached in any convenient manner.

In the practical operation of my improved vegetable-cutter a potato, turnip, or other suitable vegetable 64 is placed under the head 23 and upon the pointed pin 42. Then the crank-handle 31 is operated to press the knives into the upper side of said vegetable and to press the pin 42 into the lower side of said vegetable. Then as the crank-handle 31 is operated in the proper direction to bring the vegetable against the edge 55 the vegetable is cut into the spiral slice, which slice passes downwardly below the edge 55 and through the opening 54. The slice formed by the edge 55 is split into strips by means of the vertical edges 56. When the vegetable has been nearly used up, the ends of the sliding cross-bar 24 will strike the shoulder 17 and keep the knives 38 from striking the edge 55. By adjusting the set-screws 61 the thick-

ness of the slices may be regulated to suit the operator.

I claim—

1. In a vegetable-cutter, a suitable base, 5 posts projecting upwardly from said base, a cross-bar connecting the upper ends of said posts, a vertical shaft rotatably and slidingly mounted in a centrally-located bearing in said cross-bar, a head upon the lower end of said 10 shaft, knives upon the lower face of said head, a sliding cross-bar carried by said shaft and operating between said posts, plates attached to said sliding bar and operating in an annular recess in said shaft to prevent said shaft 15 from sliding through said sliding cross-bar, a center point projecting upwardly from said base, a plate attached to the lower face of said base, a plate, having cutting edges, upon the upper side of said base and in vertical alinement 20 with the first-mentioned plate, a hinge connection between said plates and through said base, a set-screw screw-seated in the first-mentioned plate and passing through

said base and engaging the under surface of the last-mentioned plate, and a retractile 25 coil-spring connecting said plates, substantially as specified.

2. In a vegetable-cutter, a suitable base, a plate attached to the lower face of said base, a plate, having cutting edges, upon the upper 30 side of said base and in vertical alinement with the first-mentioned plate, a hinge connection between said plates and through said base, a set-screw screw-seated in the first-mentioned plate and passing through said 35 base and engaging the under surface of the last-mentioned plate, and a retractile coil-spring connecting said plates, substantially as specified.

In testimony whereof I affix my signature 40 in presence of two witnesses.

HENRY X. BUCHMANN.

Witnesses:

S. G. WELLS,
MAUD GRIFFIN.