



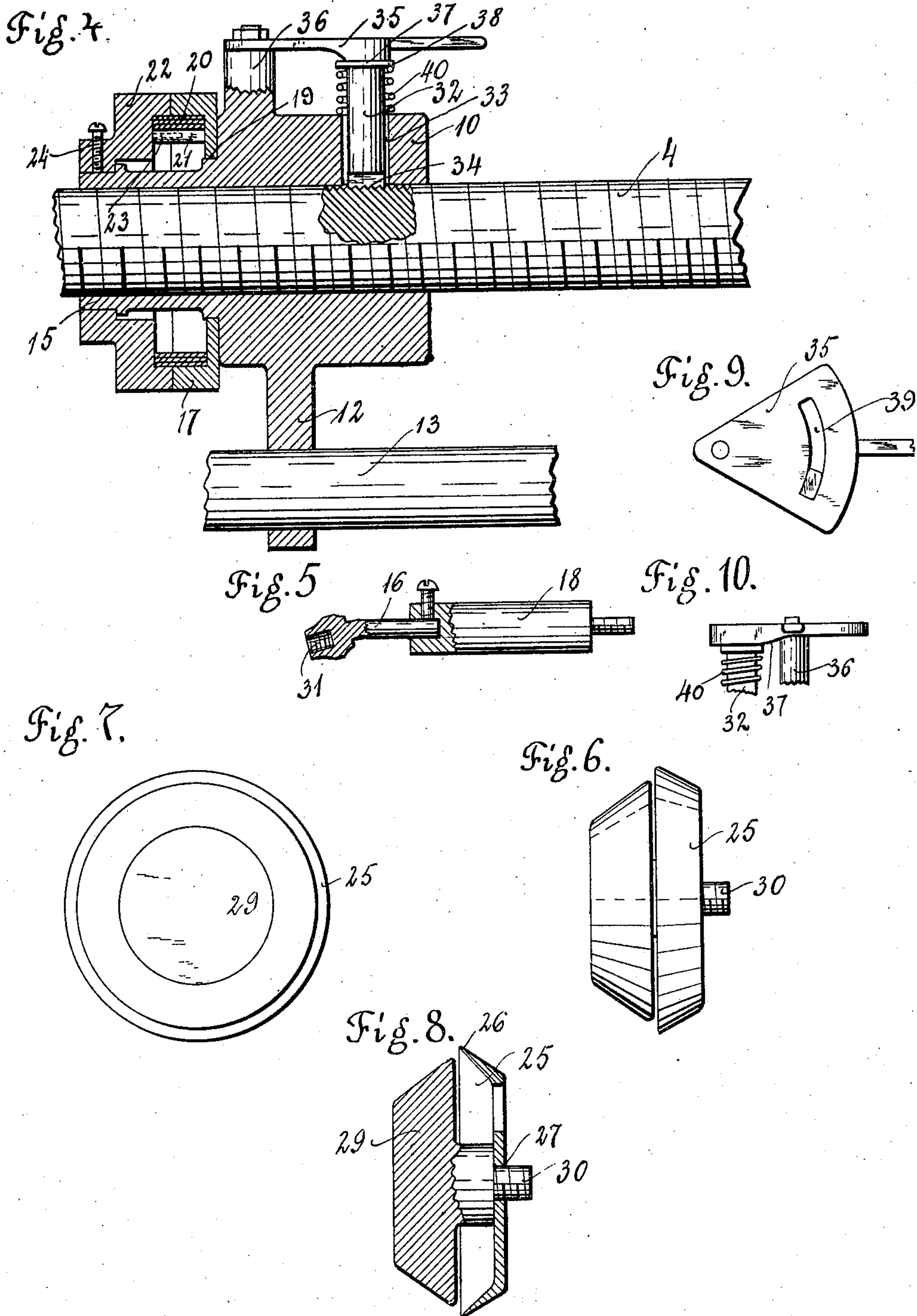
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W. VOGEL.  
FRUIT AND VEGETABLE PEELING MACHINE.

APPLICATION FILED DEC. 1, 1905.

2 SHEETS—SHEET 2.



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## FRUIT AND VEGETABLE PEELING MACHINE.

No. 846,765.

Specification of Letters Patent.

Patented March 12, 1907.

Application filed December 1, 1905. Serial No. 289,725.

*To all whom it may concern:*

Be it known that I, WILLIAM VOGEL, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Fruit and Vegetable Peeling Machines, of which the following is a specification.

The present invention pertains to improvements in vegetable and fruit peelers, and particularly to that class of peeling-machines in which the vegetable or fruit is secured to a fork-shaft and rotated thereby, said fork-shaft being parallel with the peeling-knife, which is fed by a worm-spindle.

The object of my invention is to provide for a peeling-machine which will be simple in its construction and permit a rapid peeling of vegetable or fruit.

With this and other objects in view my invention consists in the arrangement, construction, and combination of parts, and particularly in the construction of the peeling-knife.

In order to make my invention more clear, I have illustrated the same in the accompanying drawings, in which similar reference-letters denote corresponding parts, and in which—

Figure 1 is a front elevation of my peeling-machine; Fig. 2, a plan view, and Fig. 3 a side view, thereof; Fig. 4, an enlarged vertical section through the knife-holder attachment; Fig. 5, a longitudinal section through the knife-holder; Fig. 6, an enlarged side view of the knife; Fig. 7, a front view, and Fig. 8 a cross-section; Fig. 9, a plan view of a detail part thereof, and Fig. 10 an elevational view of the same.

In the drawing, 1 denotes a frame, the lower part of which is formed to a clamp 2, having a screw 3, by means of which the frame can be attached to the edge of a table or stand. Rotatably borne in the frame 1 is a worm-spindle 4, which projects laterally therefrom and which is adapted to be driven by intermeshing gear-wheels 5 6, Figs. 1, 3, the wheel 6 being rigidly mounted on one of the extremities of the spindle, and the wheel 5 is borne in a bracket projecting rearward from the frame 1. The fork-shaft 7 is rotatively borne within the frame 1 and carries at its rear end a gear-wheel 8, which is in meshing connection with the gear 5. The

gear-wheels may be revolved by hand by means of a handle 9.

Loosely mounted upon the worm-spindle is a head-piece or carriage 10, which is adapted to carry the knife 11 and which has a downwardly-projecting lug 12. This lug is adapted to engage a guide-rod 13, rigidly fixed to the frame 1 and extending laterally parallel to the worm-spindle 4. The head-piece has a transversal bore 14 for the passage of the spindle 4, and at one of its sides it is reduced in its diameter and cylindrically turned to form a tubular projection or lug 15, on which the knife-holder 16 is mounted.

The knife-holder consists of an open cylindrical casing 17, from the outer circumference of which projects an arm 18. This casing has in its base a cylindrical bore 19 to allow of the casing being slipped over the tubular lug 15 of the carriage 10 and of loosely bearing thereon. Within this casing a coil-spring 20 is arranged, one end of which is adapted to be fixed to the inner wall of the casing, and the other end is bent to a hook 21. The width of the coil-spring 20 is somewhat larger than that of the inner circumferential wall of the casing 17, so that the said spring will somewhat project outward from within the casing and engage in a second casing 22, that is similarly shaped and adapted to be also loosely mounted on the tubular extension 15 of the head-piece at the side of the casing 17. From the inner wall of said second casing projects a pin 23, which when turning the second casing 22 around will engage the hook 21 of the coil 20 and wind up the latter. By means of set-screws 24 the second-casing 22 can be rigidly fixed to the tubular extension 15, so that the wound-up spring will tend to press down the arm 18, projecting from the casing 17. The arm 18 extends toward the fork-shaft 7 and carries at its forward end the knife.

The knife consists of a truncated hollow cone 25, which is open at one end and at its other end has a perforated or cut-out wall. The edge 26 at the open end of the cone is sharpened to form a blade. A conically-shaped piece 29 is adapted to loosely fit in the hollow cone 25 and to project somewhat outward through the open end thereof. Extending centrally from the inner end of said conical piece 29 is a threaded projection or pin 30, which is adapted to project through a



bore 27 in the perforated wall of the cone 25 and to screw in a threaded bore 31, arranged in the holder 16. This piece 29 serves as a guide for the conical knife 25, and the width of the annular space formed between the outer circumference of the piece 29 and the inner circumference of the cone 25 will determine the thickness of the peel to be cut off.

As stated in the beginning, the head-piece 10 is loosely mounted on the worm-spindle, so that normally it will allow a free rotation of the worm and can be fed along the latter in either direction. To bring the head-piece 10 into engagement with the worm, so that in rotating the latter the head-piece will be fed forward, together with the knife, a bolt 32 is loosely guided through a bore 33, arranged transversely to the worm in the head-piece 10, which bolt has at its inner end projecting toward the spindle worm-thread 34, which is adapted to mesh with the worm-spindle when put in engagement therewith by means of a sector-shaped arm 35, pivoted to a projection 36 on the head-piece 10. The lower edge 37 of the sector-arm is cam-shaped and adapted to bear on a collar 38 of the bolt 32. Within a slot 39 in the sector-arm 35 the upper end of the bolt 32 is guided, so that by turning the arm in a certain direction the cam-shaped edge of the lever will press the bolt inward and bring its threaded inner end into engagement with the worm-spindle. A spring 40, arranged between the collar of the bolt 32 and the head-piece 10, tends to draw the bolt out of engagement with the worm 4.

In using my machine the head-piece 10, carrying the knife, is adjusted at the rear end of the worm-spindle 4, and by lifting the knife-holder 18 the knife is placed to bear on the vegetable or fruit to be peeled. Thereupon the bolt 32 is pressed down by the sector-arm 35, whereby the head-piece 10 is brought in meshing connection with the worm. By the rotation of the spindle 4 the head-piece will be fed along the latter as the knife will peel the fruit, which is revolved by the fork-shaft 7 and against which it is pressed by the coil-spring 20. The skin will be peeled off in a continuous strip, which will enter into the annular space between the

piece 29 and the cone 25 and pass out through the perforated back of the ring 25.

It is understood that various changes may be made in the different parts of my machine by those skilled in the art without deviating from the spirit of my invention.

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

1. In a fruit and vegetable peeling machine the combination with a frame and a rotary fork-shaft therein for the fruit or vegetable, of a worm-spindle rotatively borne in the said frame, means for rotation of the worm-spindle and the fork-shaft simultaneously, a carriage loosely mounted on the worm-spindle, a tubular projection at one end of the said carriage, a knife-holder comprising an open casing loosely mounted on the said tubular projection, an arm projecting from the circumference of said casing, a spring arranged in said casing, a second casing rotatively and adjustably borne on the tubular projection alongside the casing of the knife-holder, means in said second casing to engage and wind up the said spring, means for adjusting the said second casing, means for coupling the carriage with the worm-spindle to permit of its being fed along the same, and a knife at the forward end of the knife-holder, substantially as set forth.

2. In a fruit and vegetable peeling machine, the combination with a knife-holder, of a knife comprising a truncated conical ring sharpened at its upwardly-projecting base, a truncated conical guide-piece loosely fitting in the base portion of the said conical ring, a threaded pin projecting centrally from said guide-piece through the conical ring and adapted to be screwed to the knife-holder, said pin allowing the adjustment of the guide-piece to project more or less outward from the conical ring, whereby the thickness of the peel to be cut off can be varied, substantially as set forth.

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

WILLIAM VOGEL.

Witnesses:

BETTY VOGEL,  
ISIDOR COHENE.