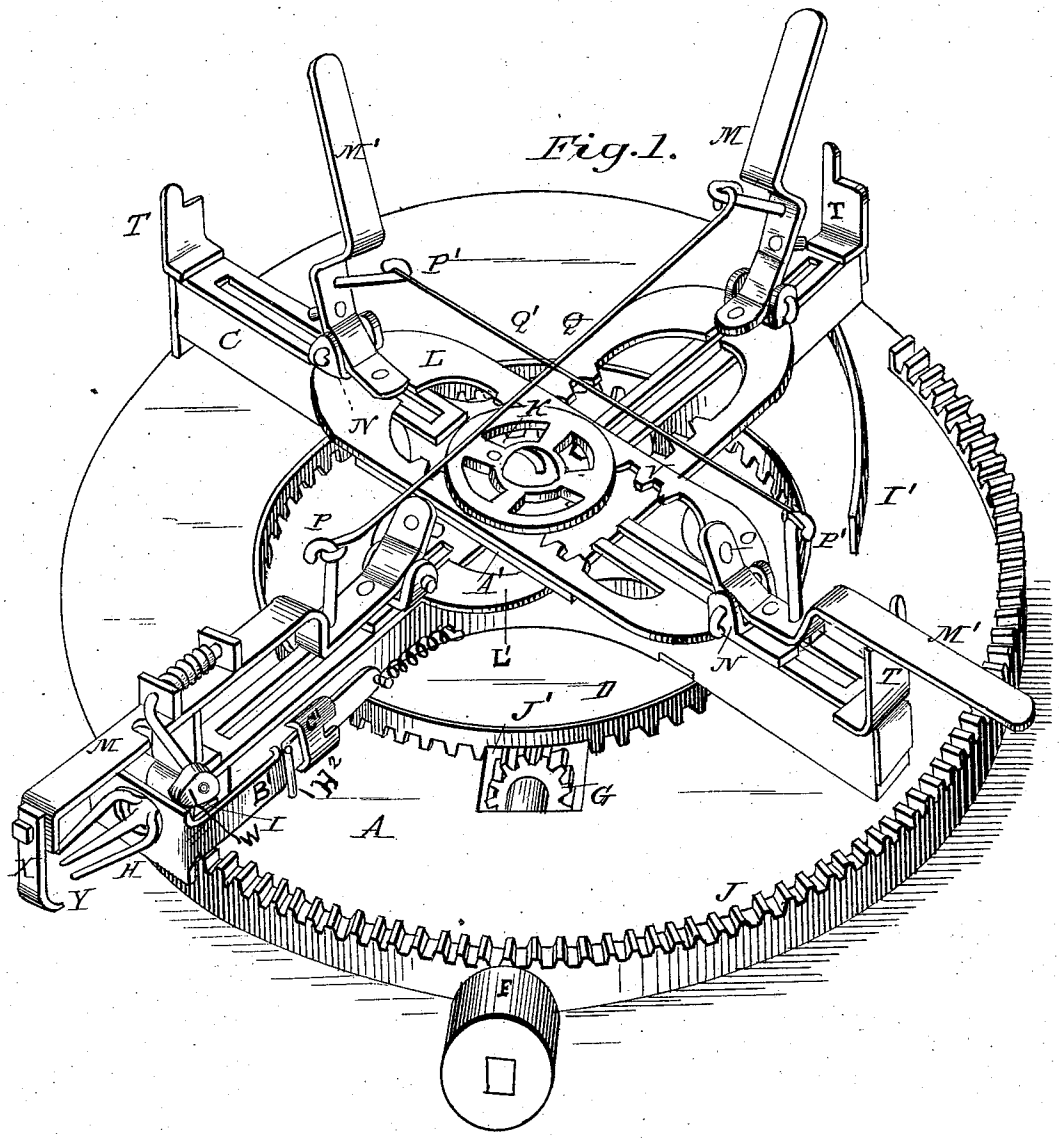
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APPLE PARER.

No. 287,601. Patented Oct. 30, 1883.

Fig. 1.



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Fig 2

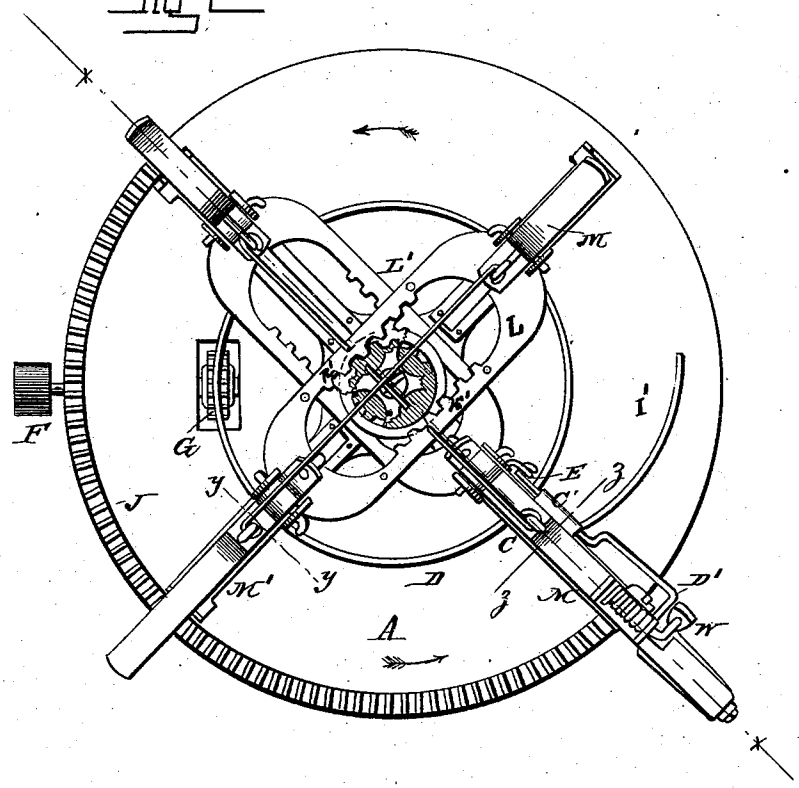


Fig 6

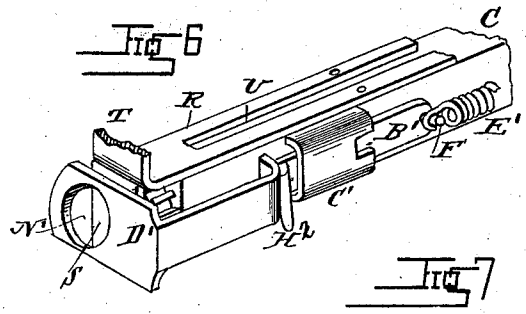


Fig 5

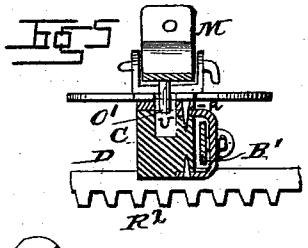
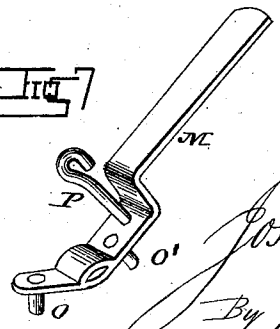


Fig 7



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APPLE PARER.

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Fig 3

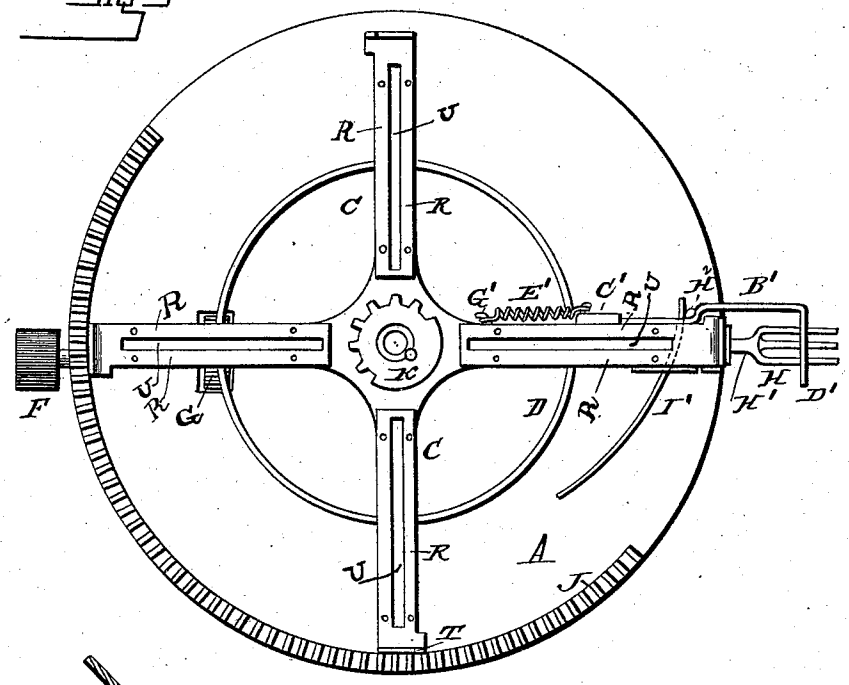
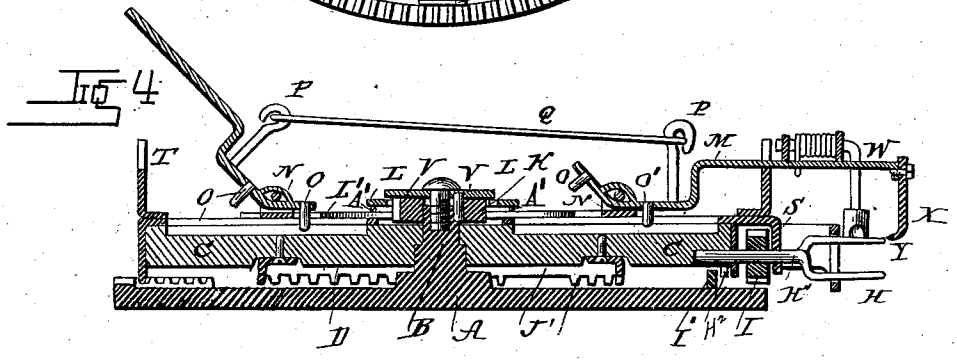


Fig 4



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UNITED STATES PATENT OFFICE.

JOSHUA L. WILCOX, OF FLINT, MICHIGAN.

APPLE-PARER.

SPECIFICATION forming part of Letters Patent No. 287,601, dated October 30, 1883.

Application filed June 23, 1883. (Model.)

To all whom it may concern:

Be it known that I, JOSHUA L. WILCOX, of Flint, in the county of Genesee and State of Michigan, have invented certain new and useful Improvements in Paring, Slicing, and Coring Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved paring, slicing, and coring machine. Fig. 2 is a top or plan view of the same, the parts being turned to a different position from that shown in Fig. 1. Fig. 3 is a top view of the base-plate and the cross. Fig. 4 is a longitudinal vertical sectional view on line *x x*, Fig. 2. Fig. 5 is a cross-sectional view through one of the arms of the cross on line *z z*, Fig. 2; and Figs. 6 and 7 are detail views of parts of the machine, which are hereinafter described.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to a combined paring, slicing, and coring machine; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying three sheets of drawings, A represents a solid metal base-plate, which has a vertical post or spindle, B, arising from its center.

C indicates the cross, which consists of two arms, which intersect each other at right angles, and have an opening in their center, through which the post or spindle B passes. A metal hoop or circle, D, is fastened to the under side of the cross, and has its lower edge provided with cogs or teeth R^2. The hoop D and the cross are concentric. The base-plate A is recessed for the reception of a drive-shaft, E, working in suitable bearings, and having on its outer end a pulley-wheel, F, and on its inner end a pinion, G, the teeth of which mesh with the teeth on the metal hoop or circle D. A fork, H, is attached to the end of each arm of the cross C by having the fork-shaft H′ inserted longitudinally into the end of the arm. A pinion, I, on each of the fork-shafts gears into a series of upwardly-projecting cogs or teeth J on the edge of the base-plate A, thereby rotating the forks H, when the cross C is revolved upon its center. The teeth J extend around one-half of the circumference of the base-plate, as will be seen by reference to Fig. 2 of the drawings.

K represents a pinion having one-half of its periphery solid, while the other half is provided with cogs or teeth and fastened upon the central post or spindle, B, above the cross C, by being keyed upon the spindle, so as to remain stationary while the cross C revolves.

L L′ represent two metal plates cut out to form double racks, the opposite sides of each rack being at such a distance apart that when the racks are placed upon the cross C, with the pinion K in their center, the points of the teeth on one side of a rack, pressing against the unbroken periphery of the pinion, will force the teeth on the opposite side of the rack between the teeth on the opposite side of the pinion.

M M′ represent the knife-bars, which are pivoted at their inner ends between upwardly-projecting jaws N on the ends of the metal plates or racks L L′. Each knife-bar is provided at its inner end with two downwardly-projecting guide-pins, O O′, one on each side of the joint N, which fit into slots or recesses on the top of the arms of the cross, and serve to prevent all lateral motion on the part of the racks L L′. The inner end of each knife-bar, to which the guide-pin O′ is attached, is bent upward, as shown at Fig. 4, in order to permit of the outer end of the knife-bar, to which the paring-knife is attached, being raised or lowered.

P P represent upwardly-projecting arms—one on each of the knife-bars M M—bent at their upper ends to form hooks adapted to engage the ends of a metal rod, Q, the said rod being of such a length that when one of the arms M is depressed the opposite arm will be raised or elevated. The knife-bars M′ M′ are provided with similar upwardly-projecting arms, P′ P′, having their upper ends bent to form hooks adapted to engage the ends of a metal rod, Q′, of such a length that when one

of the knife-bars M′ is depressed the opposite knife-bar will be raised.

To the under side of the top rack, L, are fastened chafing-rods A′, which protect the surface of the lower rack, L′, from wear.

A metal strip or plate, R, is fastened upon the top of each arm of the cross C, the outer end of each of the strips or plates extending out beyond the end of the arm and being bent down at right angles, as shown at Fig. 6, the downwardly-projecting end S having an opening through which the fork-shaft H′ passes, the end S thus serving as a support or bearing for the fork-shaft. A longitudinal groove or recess, U, is made in the upper surface of each arm for the reception of the guide-pins O O′. An upwardly-projecting arm, T, is attached to the outer end of each arm of the cross, upon the ends of which (arms T) the knife-bars rest when in operative position. A metal disk, V, is fastened upon the top of the spindle B, and serves to hold the racks L L′ in position. Near the outer end of each knife-bar is attached a paring-knife, W, which is of the form usually employed, while to the outer end of each knife-bar the slicing-knife X is fastened, as shown at Fig. 1. The point of the slicing-knife is bent inward at right angles to the blade, to form a corer, Y.

The device for stripping the core of the apple from the fork after the apple has been pared and sliced consists of a metal strip, B′, working in a sleeve, C′, which is fastened to the side of the arm of the cross, the outer end of the metal strip B′ being bent at right angles, as shown in Fig. 6, the bent end D′ being provided with an opening, N′, through which the tines of the impaling-fork pass. A downwardly-projecting pin or stud, H″, is attached to the strip B′, as shown in the drawings. A spiral spring, E′, fastened at one end to a pin or stud, F′, on the inner end of the strip B′, and at the other end to a similar pin or stud, G′, in the arm of the cross, serves to draw the strip B′ back into its normal position after it has removed the cylindrical core-piece from the fork, as hereinafter described.

I′ represents a segmental strip of metal fastened to the base-plate at the point and in the position shown in the drawings. The metal hoop or circle D has four open spaces, J′, on its lower edge, made by removing several of the teeth on that edge, the object of this arrangement being that when the pinion G on the drive-shaft F comes opposite the said spaces the cross C will cease to rotate, for the purpose hereinafter described.

The operation of my improved paring, slicing, and coring machine is as follows: The cross C, being in the position shown in Fig. 1, with the pinion on the drive-shaft resting in one of the open spaces J′, previously referred to, an apple is placed upon the fork H on the end of the arm, which is immediately to the left of the drive-shaft in Fig. 1, and the knife-bar belonging to the said arm is depressed until it rests upon the top of the supporting-arm T. By pushing the arm of the cross a little to the right, the pinion on the drive-shaft will mesh with the teeth on the lower edge of the hoop or circle D, and thereby rotate the cross until the pinion on the drive-shaft comes to another of the open spaces J′, when the cross stops, thus allowing the operator to place an apple on the fork of the arm immediately following, and to press the knife-bar of that arm into operative position, as before explained. As the cross rotates the pinion I on the fork-shaft gears into the teeth J on the edge of the base-plate, thereby rotating the fork and the apple impaled upon it. The cross turns in the direction indicated by the arrow in Fig. 2, carrying the racks L L′ with it. The teeth on the side R′ of the rack L will mesh with the teeth on the stationary pinion K, thereby drawing the rack L back and causing the paring-knife on the end of the knife-bar to pass over the entire length of the apple on the rotating fork H, so as to cut a continuous paring from the fruit from the blossom to the stem end. As the knife-bar is carried back over the apple the slicing-knife X (which is fastened to the outer end of the knife-bar beyond the paring-knife) cuts the apple into a continuous spiral shaving. The end of the slicing-knife is bent to form a corer, Y, as previously described. By the time the end of the arm first referred to has passed from one end to the other of the series of cogs or teeth J on the edge of the base-plate, the apple will have been pared and sliced, and a cylindrical core-piece and sliced apple will remain upon the impaling-fork. At this point the downwardly-projecting pin or stud H″ comes in contact with the upper edge of the segmental strip I′, and as the cross rotates the pin, following the outward curve of the strip I′, will force the perforated end of the strip B′ out along the tines of the fork until the cylindrical core-piece and sliced apple are stripped from the fork. When the pin H has passed beyond the outer end of the strip I′, the spring E′ will draw the stripping device back into its normal position. When the cross C has reached this point, as shown in Fig. 2, the side R′ of the rack L will be opposite the unbroken periphery of the stationary pinion K. The teeth on the opposite side, K′, of the rack L will mesh with the teeth on the pinion, thereby reversing the gear, so that it will draw in the opposite direction. The other rack, L′, operates in the same manner.

From the foregoing description, taken in connection with the accompanying drawings, the operation of my improved paring, slicing, and coring machine will readily be understood without requiring further explanation. It will be seen that my improved machine will pare, slice, and core two or more apples at once, thus effecting a great saving of time.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a paring, slicing, and coring machine of the described construction, the combination

of the metal strip B′, having a perforated curved portion, D′, sleeve C, pin or stud F′, and coiled spring E′, with the segmental strip I′, attached to the base-plate, substantially as described, for the purpose set forth.

2. In a paring, slicing, and coring machine of the described construction, the combination of the base-plate A, having central vertical post, B, provided with the stationary pinion K, cross C, adapted to be rotated upon the central post, B, double racks L L′, movably secured upon the cross C, with the stationary pinion K in their center, and means by which the cross C is rotated, constructed and combined substantially as and for the purpose shown and set forth.

3. In a paring, slicing, and coring machine, the combination of the base-plate A, provided with a series of teeth or cogs, J, and having a vertical post or spindle, B, in its center, cross C, cogged or toothed metal hoop or circle D, constructed as described, forks H, provided with a pinion, I, on each fork-shaft, pinion K, double racks L L′, and operating-pinion G, provided with the means for rotating it, and adapted to engage the cogged circle D, all constructed and combined to operate substantially as and for the purpose shown and described.

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

JOSHUA L. WILCOX.

Witnesses:
JNO. ALGOE,
W. A. BURR.