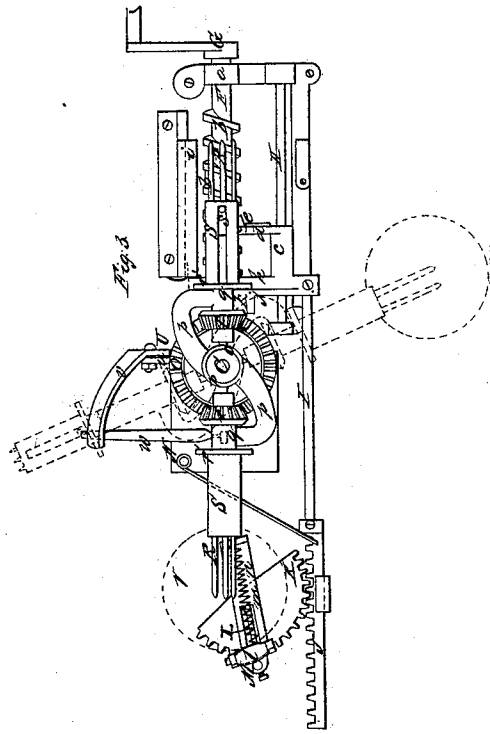
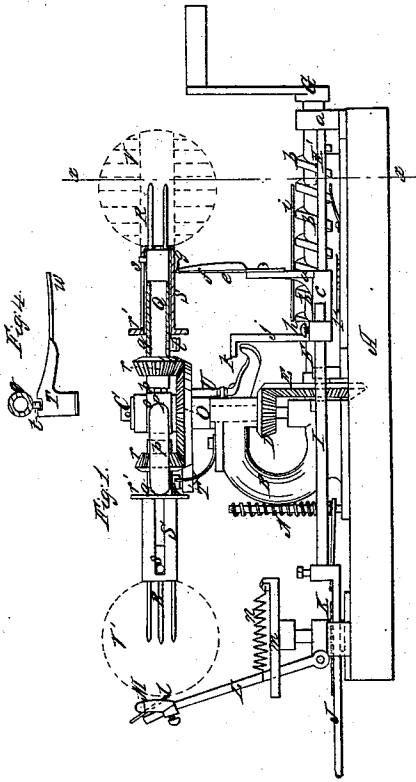
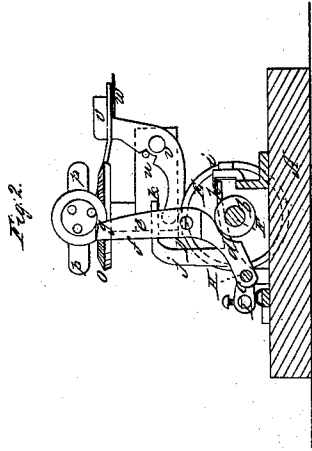


*R. W. Thickins,*

*Apple Parer,*

*N<sup>o</sup> 17,901.*

*Patented July 28, 1857.*



# UNITED STATES PATENT OFFICE.

R. W. THICKINS, OF BRASHER IRON WORKS, NEW YORK.

MACHINE FOR PARING AND SLICING APPLES.

Specification of Letters Patent No. 17,901, dated July 28, 1857.

*To all whom it may concern:*

Be it known that I, R. W. THICKINS, of Brasher Iron Works, in the county of St. Lawrence and State of New York, have invented a new and Improved Implement or Device for Paring and Slicing Apples; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a side view of my improvement. Fig. 2, is a transverse vertical section of ditto ( $\alpha$ ), ( $\alpha$ ), Fig. 1, showing the plane of section. Fig. 3 is a plan or top view of ditto. Fig. 4 is a detached view of the catch which retains the fork arbors in proper position.

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

This invention consists in the employment or use of two rotating arbors provided with forks, and attached to a rotating head and using in connection therewith a screw, rack-gear segment and spring for operating the knife, or cutter, and also employing a curved lever so arranged as to discharge the cores from one of the forks and also to trip or actuate the catch which retains the rack, so that the knife may be thrown back to its original position after being actuated or moved by the rack.

The invention by means of the parts above referred to will pare and slice apples at the same time, an apple on one fork being pared while that on the other is being sliced, and as the arbors are rotated so as to bring the pared apple opposite the slicing knife, the discharging device will throw the core from the opposite fork which is then ready to receive an apple to be pared. At the same time and by the same movement of the arbors the catch, which retains the knife at the end of its forward stroke or movement, is actuated so that the knife may be thrown back by the spring to its original position.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a bed plate which may be constructed of wood or iron, and B represents a cast iron support, curved as shown in Fig. 1, and having a vertical arbor C fitted in it. A bevel pinion D is fitted on the lower part of the arbor. This pinion D gears into a bevel wheel E which is fitted on the inner end of a horizontal shaft F, which

has a crank G on its outer end. The inner end of the shaft F has its bearing in the lower part of the support B, and its outer bearing ( $a$ ) is attached to the bed plate A. 60

On the shaft F a screw thread ( $b$ ) is formed, and on a rod H, which is secured to the bed-plate A parallel with the shaft F, a sliding collar ( $c$ ) is placed, said collar having an arm ( $d$ ) at its outer end to which arm a slicing knife ( $e$ ) is secured. This knife ( $e$ ) is placed in a vertical position having a one cutting edge ( $f$ ), and its upper end ( $g$ ) is bent over at right angles with its vertical position as shown clearly in Fig. 1. An arm ( $h$ ) is at the opposite end of the collar ( $c$ ), and the outer end of this arm, when it is moved in the direction of arrow 1, fits underneath a ledge or plate ( $i$ ) attached to the bed plate A, and the arm at the same time fits between the thread of the screw on the shaft F. To the arm ( $k$ ) a vertical bar ( $j$ ) is attached, said bar having a horizontal projection ( $k$ ) on its upper end. 70

The collar ( $c$ ) is attached to a rod I which has a rack J secured to one end. This rack gears in a segment K which works on a vertical pin on the bed plate A. To the segment K the lower end of a rod L is pivoted. This rod is the knife arm. The knife  $l$  being fitted in a stock M on the upper end of said rod or arm. The knife ( $l$ ) and stock M are of the usual construction, and therefore do not require a minute description. The rod or arm L passes through a slotted plate ( $m$ ) which is attached to the segment K, and a spiral spring ( $n$ ) is attached to the rod or arm L, one end of said spring being attached to the plate ( $m$ ). This spring has a tendency to keep the knife drawn inward or toward the point over the center of the segment K. 80 85 90 95

N represents a spring, the lower part or end of which bears against the rack J as shown clearly in Fig. 3. 100

On the upper end of the vertical arbor C a bevel wheel O is placed, said wheel being permanently attached to the arbor, and on the upper end of the arbor C a head P is placed loosely. This head P is formed of a hub or boss ( $o$ ) having a curved arm ( $p$ ) attached to opposite ends, a socket ( $q$ ) being formed at the end of each arm. In each socket ( $q$ ) an arbor Q is fitted, and on the inner end of each arbor a pinion ( $r$ ) is placed, said pinions gearing into the wheel O. To the outer end of each arbor Q a fork R is 105 110

attached, and a tube S is fitted, on each socket (*q*), said tubes having flanches (*r'*) at their inner ends. Those tubes are each slotted longitudinally and pins (*s*) attached to the hubs of the forks, fit in the slots of the tubes.

On the under side of the sockets (*q*), projections (*t*) are formed, and these projections fit alternately in a catch T, which is attached to the upper part of the support B. This catch is merely a notched spring plate which retains in proper position the projections (*t*), by its own elasticity. The catch holds the head P, and consequently the arbors Q, Q, in proper position.

The support B has a horizontal arm (*u*) formed on it; and to this arm a lever U is pivoted. This lever has a curved arm (*v*) attached to its upper end, as shown in Figs. 2 and 3; and the lower end of said lever projects downward to a point in line with the upper end of the vertical bar (*j*) on the collar (*c*), see Fig. 1. The catch T has an arm (*w*) attached to it at one side.

The operation is as follows:—An apple V is placed on one end of the forks R, and the knife (*l*) is kept pressed against its inner end by the spring (*n*), the arm (*h*) being at the outer end of the screw. By turning the crank G the two arbors Q will be made to rotate by means of the gearing E, D, O, (*r*) (*r*), and the apple V is of course rotated. As the shaft F rotates the screw thread (*b*) forces the collar (*c*) forward in the direction indicated by arrow 1, and the rack J is of course moved in the same direction and the segment K rotated. The rotation of the segment K causes the knife (*l*) to pass from the inner to the outer end of the apple performing one half of a revolution around it, thereby paring the apple. The knife (*l*) completes its movement when the arm (*h*) reaches the inner end of the shaft F, and the catch T is then depressed by hand, and the head P is turned so that the apple V will be brought around opposite the knife (*e*) and a fresh apple V' is placed on the opposite fork R, and as both apples are rotated at the same time, it will be seen that one apple V' is being pared, while the one V, that was formerly pared is being sliced, the knife or cutter (*e*) being fed forward with the collar (*c*). As the head P is turned the flanch (*r*) of the tube S which encompasses the fork containing the core of the apple just sliced,

catches against a flanch on the arm (*v*) and the core is forced off from the fork by the tube S, at the same time the arm (*v*) is depressed the lower end of the lever U rises so as to actuate the bar (*j*) and the arm (*h*) which was retained by catching against the inner end of the ledge (*i*), is thrown up and the spring N throws back the rack J, and knife (*l*) to their original position.

The above invention is extremely simple, and performs its work rapidly and well. There are no parts liable to get out of repair, and it possesses advantages over those which have hitherto been devised, for paring and slicing, it being much simpler and more economical to manufacture.

I do not claim broadly paring and slicing apples at one and the same time, for implements for effecting the same purpose have been previously invented;—but

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is:

1. The two arbors Q, Q, attached to the rotating head P, when used in connection with the screw shaft F; collar (*c*), with arms (*h*), (*d*), attached; the rack J; and geared segment K, to which the knife arm L is attached;—the above parts being arranged substantially as herein shown, for the purpose specified.

I do not claim separately or in themselves considered the employment or use of sliding tubes placed over or on the forks for the purpose of automatically discharging the cores therefrom, for such tubes have been previously used and the same may be seen in the paring machine patented by I. D. Seagrave April 18, 1854. I therefore distinctly disclaim all parts or arrangement of parts covered or claimed by said Seagrave and I confine myself to the precise arrangement and combination of parts specifically as herein shown and described.

What I do claim therefore is—

2. The sliding tubes S, and lever V, with curved arms, (*v*) attached when combined with the arbors Q, Q, arranged as shown, so that by the same movement of the head P, the several parts are made to work automatically as herein set forth.

R. W. THICKINS.

Witnesses:

W. WATT,  
GEORGE D. GILLET.