D. H. WHITTEMORE.

Apple Parer and Slicer.

No. 226,217. Patented April 6, 1880.

Fig. 3.

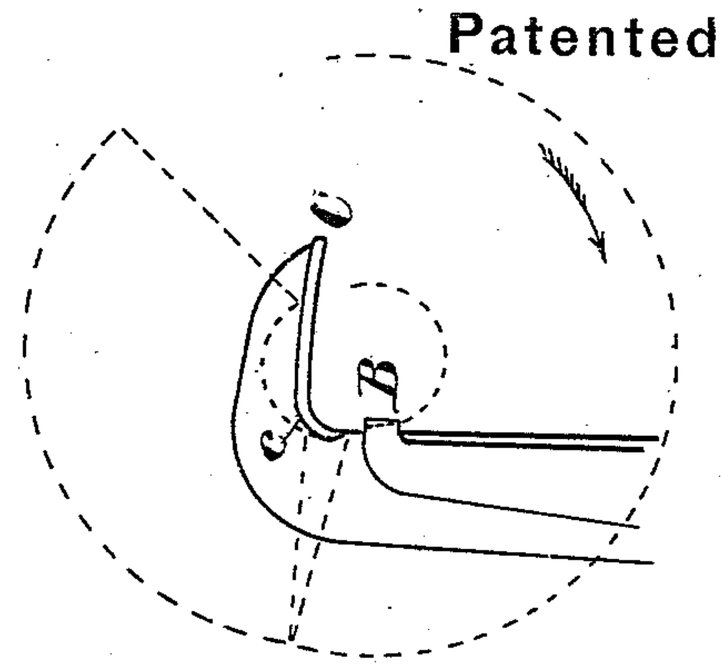


Fig. 2.

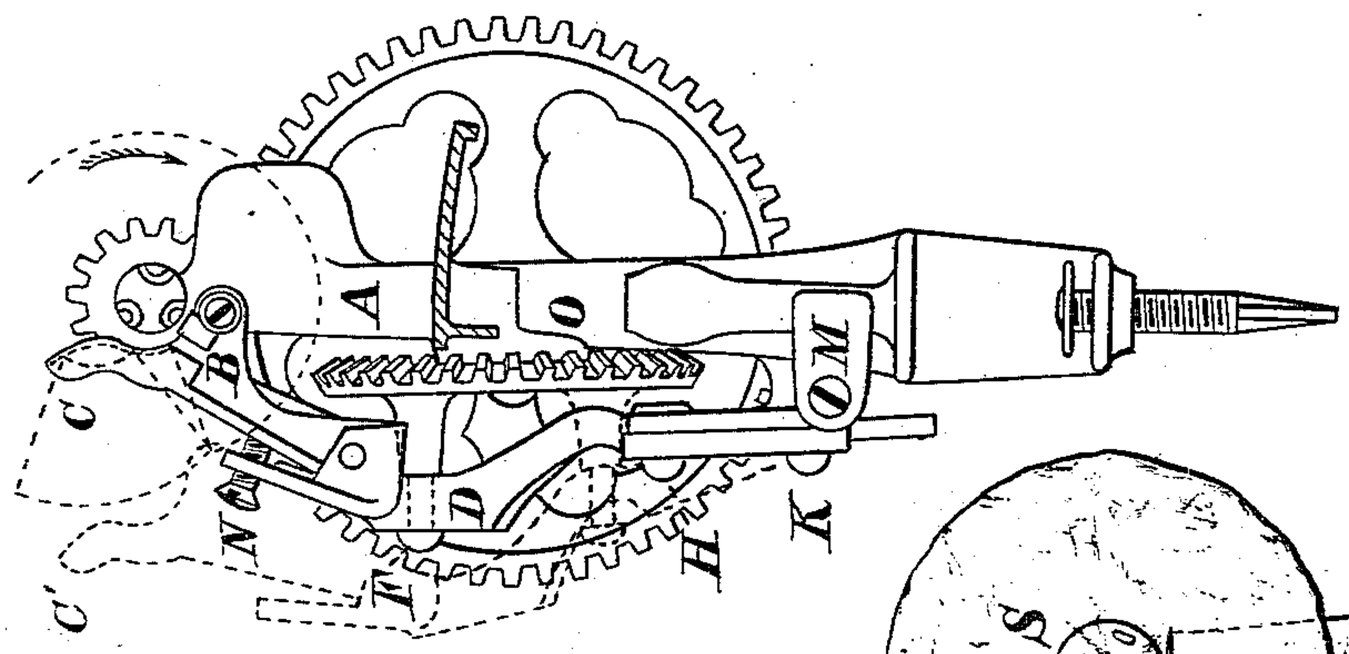


Fig. 4.

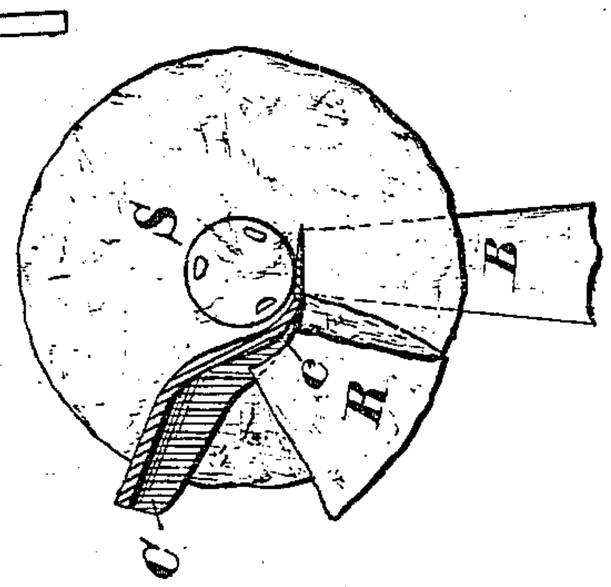
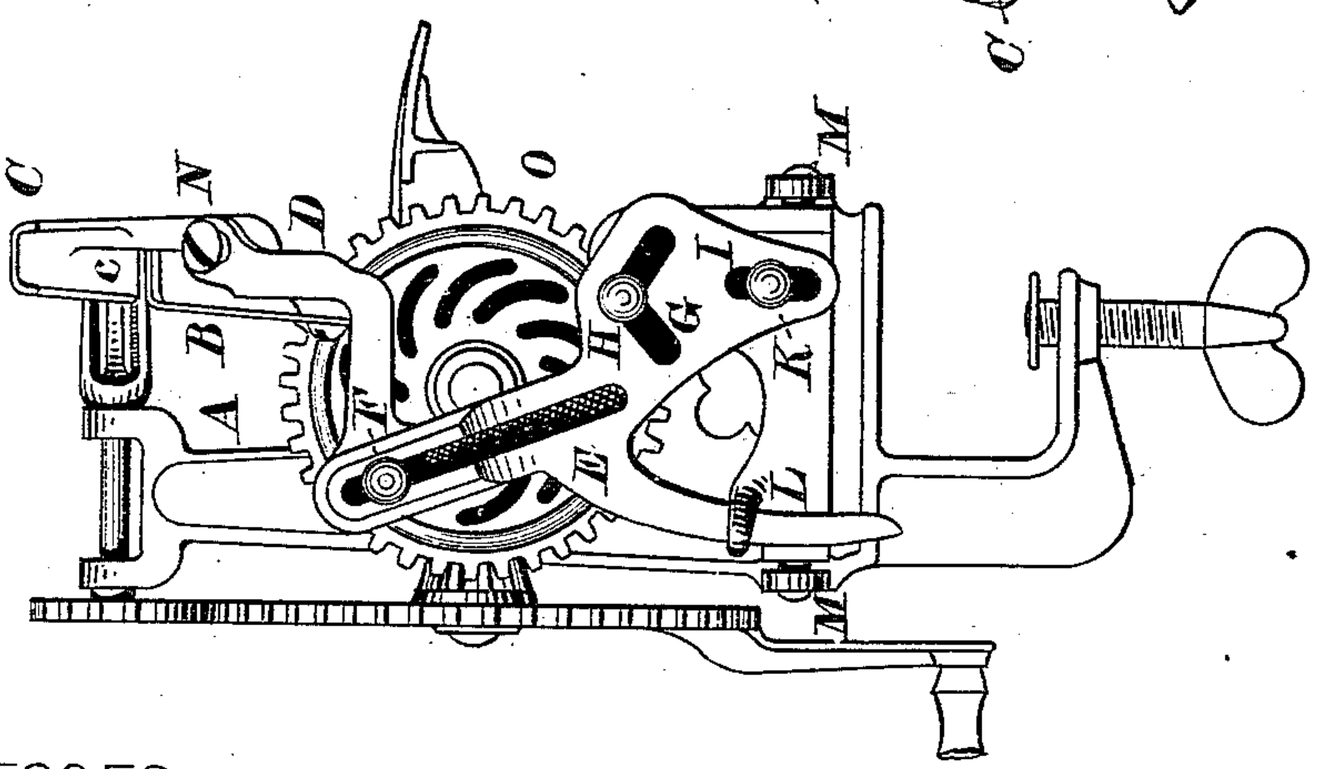


Fig. 1.



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UNITED STATES PATENT OFFICE.

DAVID H. WHITTEMORE, OF WORCESTER, MASSACHUSETTS.

APPLE PARER AND SLICER.

SPECIFICATION forming part of Letters Patent No. 226,217, dated April 6, 1880.

Application filed February 15, 1879.

To all whom it may concern:

Be it known that I, DAVID H. WHITTEMORE, of the city and county of Worcester, State of Massachusetts, have invented certain new and useful Improvements in Apple-Parers, of which the following is a specification.

My invention relates to the slicing and coring of the apple simultaneously with the paring in an automatic machine, its principles being applicable to many forms of parers, but more particularly so to the one patented by me in November, 1866, numbered 59,884.

Its nature is shown in the following description and accompanying drawings of a machine embodying my invention.

In said drawings, Figure 1 is a side view of the slicer and corer; Fig. 2, a view at right angles to Fig. 1, as looking at the end of the fork, the paring-knife being left off of both to leave the drawings more clear. Fig. 3 shows the operation of the breaker in connection with the slicer, Fig. 4 showing a section of the breaker C, with an apple in position and a part of the slice as being broken by the surface *c* of the breaker.

The same letters indicate the same parts in each of the figures.

B is the slicer-knife, secured to the arm D by a pivot or equivalent means, and is adjusted by the screw N, so as to work as near as may be desired to the fork, the arm D being movable on the swinging plate L, which is pivoted at M M to the frame of the machine, the arm D having an angular slot, G, and a straight one, I, through it, in which the pins K and H play, respectively, these pins being secured in the plate L, and by their heads holding the arm D close to it. E is another slot in the bent portion of the arm D, and receives the pin F of the driving-wheel O, from which it receives its motion, the pin F having a shoulder, as shown in Fig. 2, to act on one side of the arm D, and a head acting on the other. As the wheel O is revolved the pin F, in descending to pass the lower half of its revolution, acts by its shoulder pressing against the sloping portion or incline of the arm D, forcing it and its plate L to turn on the pivots M and bring the top C to the position C′, (shown in broken lines in Fig. 2,) or, in other words, throw the arm D off and away from the fork and apple thereon, and hold it so while it is being carried to the extreme right of Fig. 1, when the pin F, reaching that side of its course in rising, brings, by its head, the arm D back to the position to operate on the apple, which it does while the pin F is passing the upper half of its revolution.

The knife B at its upper end has a small lip turned at right angles to its body, which cuts the spiral slice from the core, as in the slicing-machines heretofore patented by me, a new automatic motion being given to the knife in this machine by the above-described motion of the arm D, and its line of motion along the fork and core in operation being controlled by the slots G and I and their respective pins, the angular form of the slot G causing the knife to rise at each end of its vibration, and thus form a straight or tapered core; or, by varying the slot and pin, the core be left smaller at each end, thus giving a great advantage over a knife swinging from a pivot at I, which could only make a core larger at each end and smaller in the middle.

In connection with the lip of the knife B, or as a part or extension of the bent lip thereof, I use a breaker, C, so placed that the cut slice of the apple, instead of moving over close round the core, as it does in machines heretofore made, is guided off, as shown in broken lines, Fig. 2, and more plainly in full lines in Fig. 4, where R shows a piece of the sliced apple as just broken from the rest of the apple S by the surface *c* of the breaker, causing it to break off and fall in regular pieces to the left, while the parings are thrown off on the opposite side.

Another form and modification of the breaker C is shown in Fig. 3, operating in a similar manner.

The other parts of the machine not described are similar to those in my aforesaid patent of 1866, and the operation is the same, with the addition in this of the coring, slicing, and breaking after the paring in that, and thus paring, coring, slicing, and breaking at one continuous operation, all working automatically, and then returning to their first position by a continuous motion of the crank similar to the paring accomplished by machine described in said patent.

Having thus fully described my invention,

what I claim therein as new, and desire to patent, is—

1. In a coring and slicing machine, a knife having a portion bent sidewise, in combination with a wedge-like piece extending rearwardly from said bent portion, whereby the slice of fruit cut off by the knife is broken into pieces, substantially as described.

2. In an apple parer and slicer, the combination of the slotted arm D, having an incline, and the shouldered headed pin F, working in the slot for giving motion thereto, substantially as set forth.

3. The angular or curved slot G and its pin H, in combination with slot I, its pin K, and the arm D, substantially as described.

4. The automatic corer, slicer, and breaker described, consisting of the lipped knife B, breaker C, the arm D, and their operating mechanisms, as set forth.

5. The corer and slicer described, consisting of the automatically-operated lipped knife B, breaker C, arm D, and their operating mechanisms, automatically combined with the paring-machine, consisting of a revolving fork and paring-knife, substantially as set forth and described.

D. H. WHITTEMORE.

Witnesses:
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