

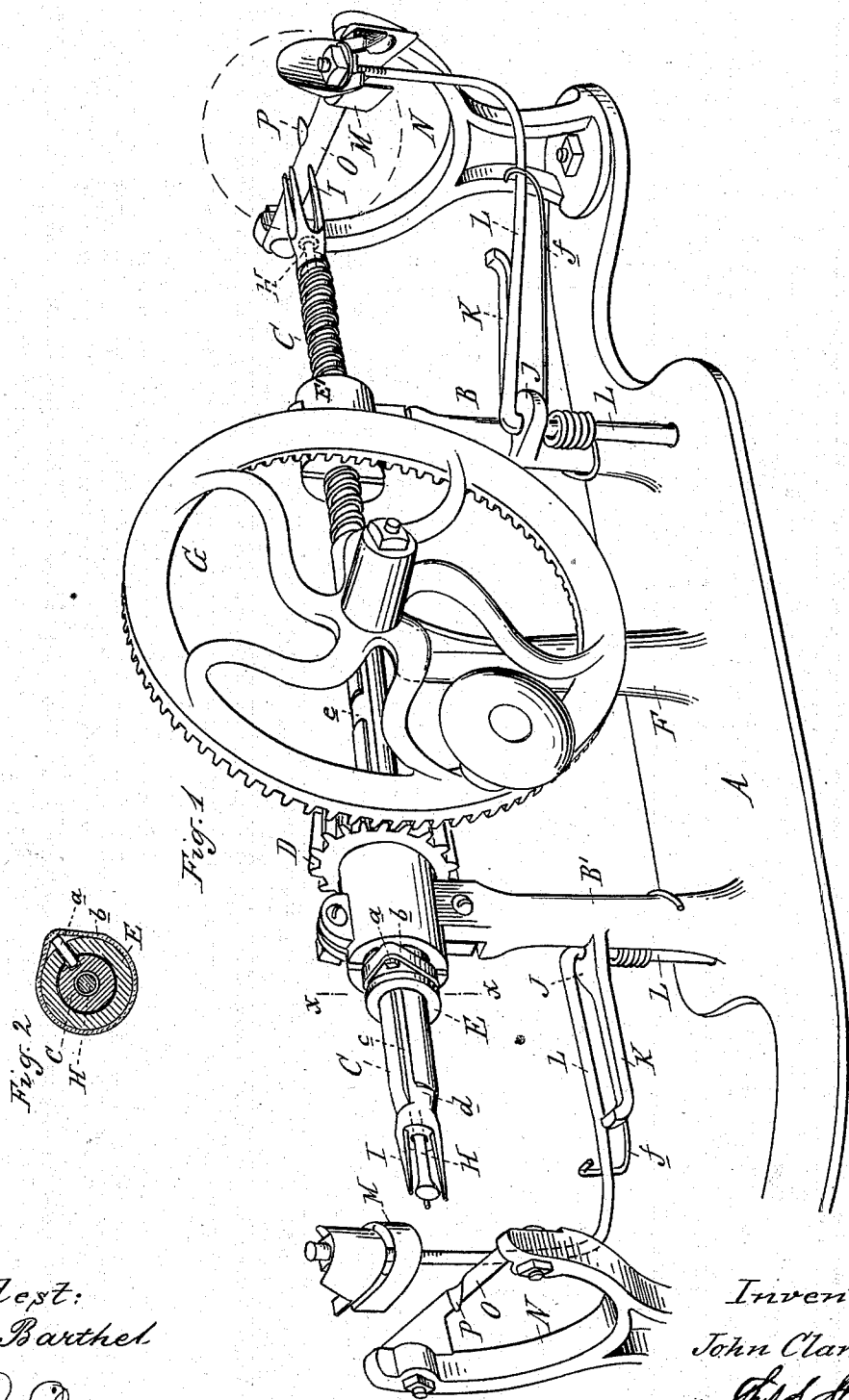
(Model.)

J. CLARK.

APPLE PARER, CORER, AND SLICER.

No. 249,456.

Patented Nov. 15, 1881.



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UNITED STATES PATENT OFFICE.

JOHN CLARK, OF PONTIAC, MICHIGAN.

APPLE PARER, CORER, AND SLICER.

SPECIFICATION forming part of Letters Patent No. 249,456, dated November 15, 1881.

Application filed July 27, 1881. (Model.)

To all whom it may concern:

Be it known that I, JOHN CLARK, of Pontiac, in the county of Oakland and State of Michigan, have invented an Improvement in Apple-Paring Machines, of which the following is a specification.

The nature of this invention relates to certain new and useful improvements in that class of machines especially designed for paring, coring, and slicing apples preparatory to drying; and the invention consists in the peculiar construction, arrangement, and various combinations of the parts, all as more fully set forth.

Figure 1 is a perspective view of my improved machine. Fig. 2 is a cross-section on the line X X in Fig. 1.

In the accompanying drawings, which form a part of this specification, A represents the bed-plate of my machine, designed to be secured to any suitable bench.

B B' represent two standards rising from the bed A. Through the upper end of the standard B one end of the fork-shaft C is properly threaded, said shaft being threaded about one-half its length. The opposite end of this shaft C is properly journaled through the bevel-pinion D, the hollow hub E of which is properly journaled in the upper end of the standard B'. Through this hollow hub, and near one end, is placed the slip-key *a*, which is held in position by the spring-band *b*. The inner end of this slip-key engages with a key-seat, *c*, cut in the face of the shaft C, the shaft being cut away at *d e* upon opposite sides of the key-seat, as shown, and for the purposes hereinafter described.

F represents another standard rising from the base A, and has journaled in its upper end the driving-wheel G, which meshes with bevel-pinion D.

H is a plunger-rod which passes through the hollow shaft C, which latter carries upon each end a fork, I.

Projecting laterally from the standards B B', and upon opposite sides of the machine, are studs J and arms K, and as both ends of the machine are alike from this out in point of construction, I will describe but one end.

Through the inner end of the stud J is pivotally secured the downwardly-projecting end of the bar L, to the outer and upper end of

which is secured the paring-knife M, of any suitable construction, a suitable spring, *f*, being employed to keep the paring-bar in its closed position when it rests against the arms K, which latter prevent the paring-knives from coming in contact with the forks in the operation of the machine.

To the outer ends of the base A are adjustably secured the Y-shaped standards N, in the upper ends of which are secured the slicing-knives O, which should be adjusted to stand upon the same lead as that of the screw-thread upon the shaft C, but in the opposite direction. These slicing-knives O are formed of strips of thin sheet metal, and are secured in their respective standards by compressing the outer ends of the standards by a suitable clamp when the knives are inserted and bolted or secured to place, and upon the removal of the clamp the expansion of the upper ends of the standards draws the knives tight, rendering them almost rigid and inflexible, and each one of these knives is provided with a coring-knife, P, formed by bending a portion of the knife O at right angles to its body, and in adjusting the knives such coring-knife should come on a line with the axial center of the fork-shaft.

In practice an apple is placed upon the fork at one end of the machine, in doing which the plunger is projected at the opposite end of the shaft. The driving-wheel is then rotated in the direction which in its rotation will cause the shaft and apple to travel toward the paring-knife upon that end of the machine, coming in contact with which, the knife follows the general contour of the apple, removing a thin paring therefrom, and as the shaft still advances with the apple it comes in contact with the slicing-knife and the coring-knife, rotating and advancing until the apple has been entirely pared, the core cut around by the coring-knife, and the apple cut into screw shape by the slicing-knife, the shaft advancing until the slip-key *a* comes opposite the cut-away portion *d* in the key-seat, when the hollow hub of the bevel-pinion will continue to rotate without imparting movement to the shaft. At this point an apple is placed upon the fork at the opposite end of the machine, which drives the plunger upon the opposite end, forcing it off, and

from whence it falls into a proper receptacle. By then reversing the movement of the drive-wheel the shaft is advanced in the opposite direction, the apple being pared, cored, and sliced the same as before described, the shaft advancing in this direction until the slip-key comes to the cut-away portion *e* in the shaft C, when the bevel-pinion will rotate as the drive-wheel is turned without imparting motion to the shaft, as before, this movement being somewhat essential in order that in the rapid working of the machine the shaft may not be turned or screwed into the support or nut beyond a certain point.

While I have described my device as being provided with a hollow fork-shaft, I do not wish to confine myself to such construction, as it is evident that the machine would operate fully as well in its paring, slicing, and coring with a solid shaft, dispensing with the plunger, only necessitating the removal of the apple by hand after it has been operated upon. I, however, design manufacturing them with a hollow shaft and provided with a plunger, as by their employment I am enabled to do cleaner work than where the apple has to be removed by hand.

What I claim as my invention is—

1. In an apple-paring machine, a rotating fork-shaft carrying a fork at each end and adapted to reciprocate in suitable bearings, substantially as described.

2. In an apple-paring machine and in combination with a hollow rotating shaft carrying a fork upon each end, the plunger I, reciprocating and extending entirely through said shaft, and provided at each end with a head working within the forks, as and for the purpose specified.

3. In an apple-paring machine, a rotating shaft carrying a fork at each end and adapted to reciprocate in suitable bearings and to reverse its rotary movement with each reciprocation, substantially as and for the purpose specified.

4. In an apple-paring machine, and in combination with a rotating and reciprocating hollow fork-shaft, the plunger H, sliding within said fork-shaft, and adapted to be operated by the act of placing an apple on the fork-shaft, substantially as described.

5. In an apple-paring machine provided with an apple-holder having a rotary and a forward motion, as described, the bifurcated standard N, in combination with the thin sheet-metal knife O, having its ends securely bolted to the standard while the two arms of said standard are pressed together, whereby the knife is tightly strained in the standard when the pressure is removed, substantially as specified.

6. In an apple-paring machine constructed substantially as described, and in combination with the fork-shaft C thereof, provided with a key-seat, *c*, and cut-away portions *d e*, the bevel-pinion D, provided with a hollow hub, E, and a slip-key, *a*, substantially as and for the purposes described.

7. In an apple-paring machine, the shaft C, having a fork at each end, and provided with a screw-thread, C, a key-seat, *c*, and cut-away portions *d e*, in combination with the threaded bearing E', the hub E, provided with the slip-pin *a*, the knives O O, and suitable devices for rotating the shaft C, substantially as described.

8. In an apple-paring machine, the rotating and reciprocating shaft C, having a screw-thread at one end, and provided with a key-seat, *c*, and cut-away portions *d e*, in combination with the hub E, the pin *a*, sliding in a hole in said hub, and the spring-band *b*, for holding the pin toward the shaft, as and for the purpose specified.

JOHN CLARK.

Witnesses:

E. SCULLY,
H. SPRAGUE.