

(Model.)

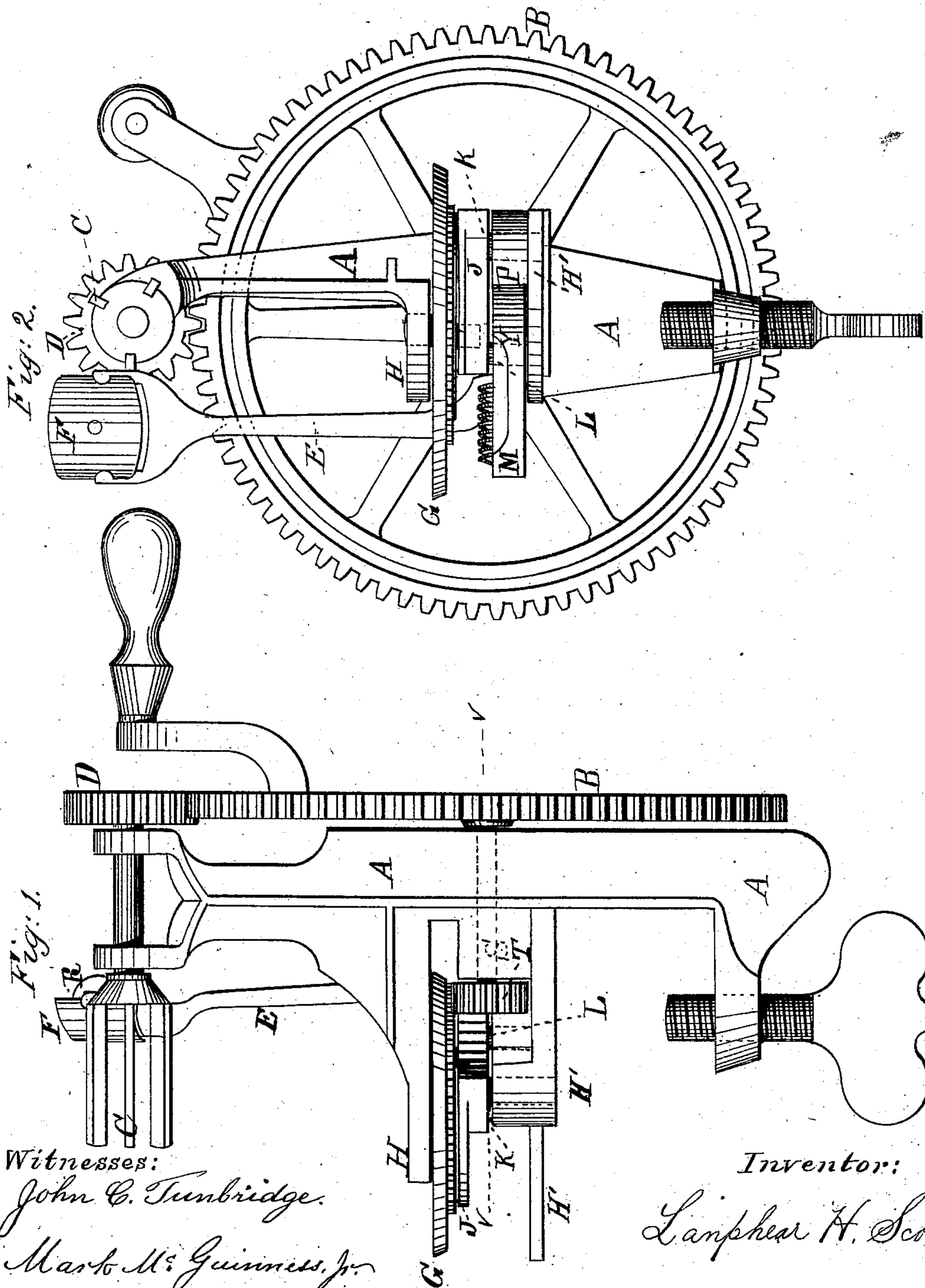
2 Sheets—Sheet 1.

L. H. SCOTT.

APPLE PARER.

No. 292,592.

Patented Jan. 29, 1884.



Witnesses:

John C. Tunbridge.

Mark M. Guinness, Jr.

Inventor:

Lanphear H. Scott.

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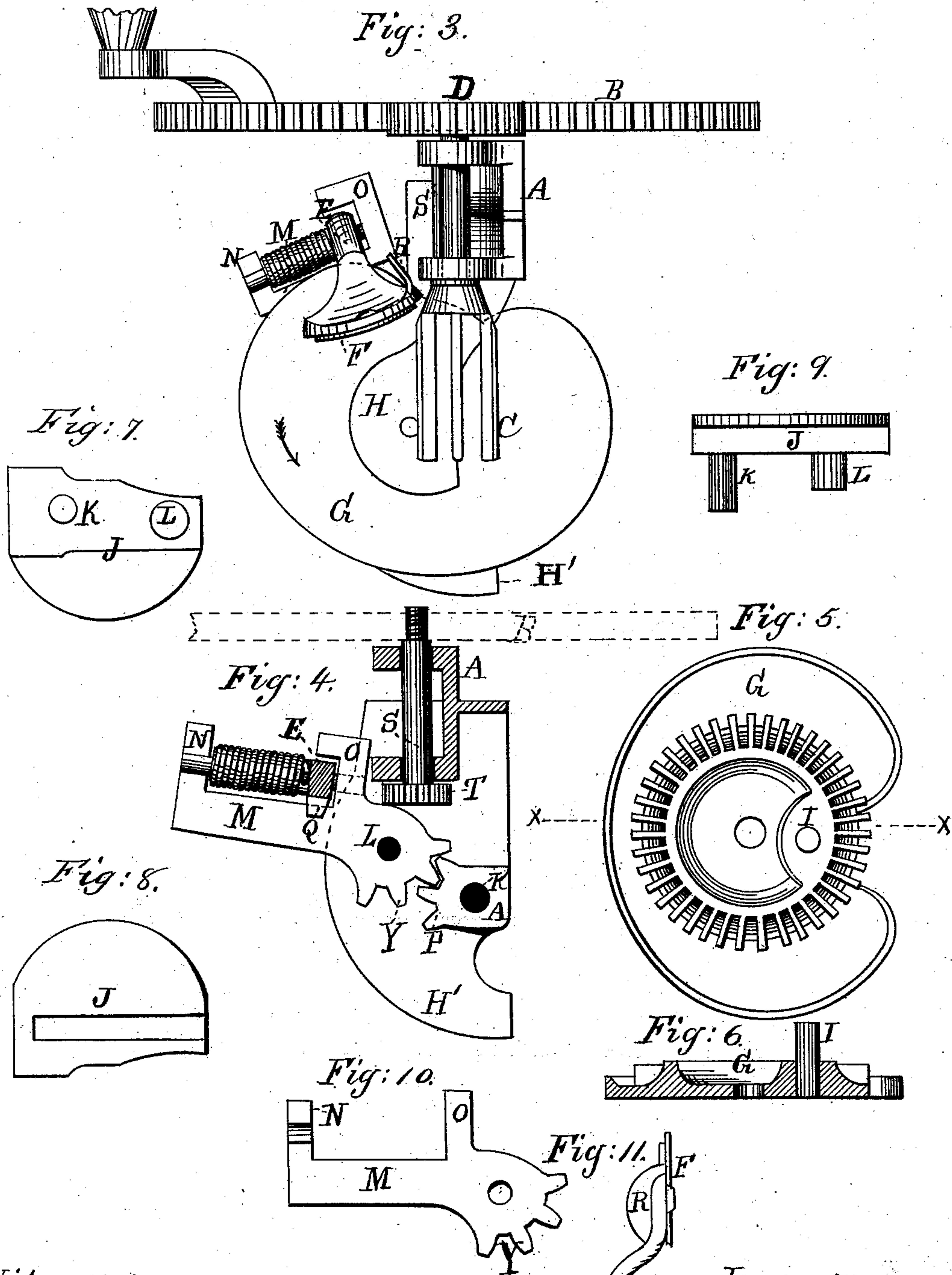
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# UNITED STATES PATENT OFFICE.

LANPHEAR H. SCOTT, OF NEWARK, NEW JERSEY.

## APPLE-PARER.

SPECIFICATION forming part of Letters Patent No. 292,592, dated January 29, 1884.

Application filed July 3, 1883. (Model.)

*To all whom it may concern:*

Be it known that I, LANPHEAR H. SCOTT, residing at Newark, in the county of Essex and State of New Jersey, have invented a new and useful Apple-Paring Machine, of which the following is a specification.

My invention relates to an improvement in apple-paring machines; and the objects are to produce a parer which is small, light, and compact, simple in construction, cheap, and effective in its operation. I accomplish these objects by means of mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation view; Fig. 2, a side elevation; Fig. 3, a plan view; Fig. 4, a horizontal section taken on line *vv* of Fig. 1; Fig. 5, an inverted plan view of the "table-wheel;" Fig. 6, a section of the table-wheel, taken on line *xx*, of Fig. 5; Fig. 7, an inverted plan view of the slotted lever; Fig. 8, a top view of the same; Fig. 9, a side view of the same; Fig. 10, a plan view, in detail, of the knife-carriage; Fig. 11, an edge view, in detail, of the knife-arm, head, and paring-guard.

Similar letters refer to similar parts throughout the several views.

I will now describe in detail the construction and mode of operating my invention.

The use in paring-machines of the cam-shaped table-wheel, the slotted lever, the knife-carriage provided with segment of cog-wheel gearing, &c., and the paring-guard is not new. There are various devices employing one or more of these elements, and approaching each other in principle to a greater or less extent, the state of the art in this particular—viz., of paring the fruit and reversing the knife rapidly, at the same time throwing it off from contact with the fruit—being somewhat advanced. I confine myself to the specific novel arrangement and combination described and claimed.

The general principles are somewhat similar to the invention shown in Letters Patent to Frost, No. 33,016, August 6, 1861, in which is shown a cam-shaped table-wheel operating a slotted lever by means of a pin engaging in said slot, producing a horizontally-oscillating movement of said lever, having a slow motion when paring, and a quick return to normal position when not in contact with the apple.

As the mode of producing this back-and-forward or oscillating movement is fully set forth in patent above mentioned, I do not consider it necessary to go at length into that part of my invention, it being a common mechanical movement in general use.

My invention complete is shown in Figs. 1, 2, and 3, the position being with the knife at the butt of the apple, the point where it first starts to pare, and in Fig. 4, also, the knife is shown in the same position.

In Figs. 1, 2, and 3, A is the standard or frame on which the general machine is built. B is the driving-wheel, or, as it is commonly called, the "driver." C is the fork which holds the apple; D, the fork-pinion; E, the "knife-arm;" F, the paring-knife, and G the table-wheel.

On the frame A is a foot or arm, H, to which is pivoted, by a screw, rivet, or other convenient mode, the table-wheel G, its flat or smooth side being uppermost. This wheel (the edge of which is seen in Figs. 1 and 2, the top or flat side in Fig. 3, the under side or inverted view in Fig. 5, and the sectional view in Fig. 6) is cam-shaped for the purpose of throwing the knife-arm away from the fruit when it is pared, and keeping said arm from coming in contact with fruit when said arm is returning to its normal position at butt of apple. The wheel has a short projecting pin, I, cast on it, Figs. 5 and 6, to engage in the slotted lever J, giving said lever a horizontally-oscillating movement of about ninety degrees.

Figs. 7, 8, and 9 represent this slotted lever in detail, Fig. 7 being an inverted view, showing the two pivots K and L, Fig. 8 being a top or plan view, and showing the slot of the lever, in which pin I, Figs. 5 and 6, plays, and Fig. 9 being an edge or side view, showing, also, the pivots K and L. The shorter pivot, L, works in knife-carriage M, drawing said carriage with it in its oscillating motion.

Fig. 10 represents this carriage in a plan view. The knife-arm E is hung on projections N and O, any convenient mode common in apple-parers being used. The arm is provided with a spiral spring, arranged in the ordinary manner, to press the knife and its arm against the fruit. The working of this carriage is most plainly seen in Fig. 4. Its



gearing Y meshes with the cogged segment P on arm H', and the object of this gearing Y and P is to give to the knife-carriage a greater swing than that produced by the slotted lever alone. By means of this gearing the knife-arm and its carriage describes a segment of a circle of about one hundred and eighty degrees in a horizontal plane, or almost double that of the lever itself, and herein consists the main feature of my invention—viz., the employment of this or equivalent mechanism to produce a like result. The knife, having nearly a half-circle motion, conforms to the general curve of the apple, and the knife-arm E retains, in going over the apple, an almost vertical position, thus approximating to more of a cutting-angle than ordinary parers, which have more of a tendency to tear off the paring than to make a clear cut, as the mechanism of my machine allows the knife to do. The knife-arm (for the purpose of preventing its striking against the fork if the machine should be turned when there is no apple on the fork) may abut against carriage at Q, Fig. 10; or, as seen in Fig. 4, it may be provided with a slight projection to rest on the carriage at the same place.

Fig. 11 shows the knife and arm-head.

Having described the various parts of my invention, I will now explain the manner of assembling those parts into the machine complete.

The frame A, driving-wheel B, its arbor S, and pinion T are fully shown in Fig. 1, as are also the fork, its arbor, and pinion D. The table-wheel G is pivoted (flat side uppermost) to foot H on frame A, Figs. 1, 2, and 3. The knife-carriage M is placed in position, as seen in Fig. 4, and the slotted lever J (slotted side uppermost) is placed in position by pivot K being inserted in its bearing on arm H', and pivot L in its bearing in the knife-carriage. The knife-arm is then attached to its carriage and the assembling is completed.

Figs. 1 and 2 clearly illustrate the machine in the relative position of those parts.

The operation of the machine is as follows: The machine is set in motion by turning the driving-wheel B from you, as is usual in paring-machines. This produces a motion from left to right on the table-wheel G, or in the direction of the arrow, as seen in Fig. 3. The pin I, Fig. 5, on the table-wheel G, operating in the slot of lever J, gives said lever an outward motion toward the end of apple farthest from butt of the fork, carrying the knife and knife-carriage with it by means of its pivot L engaging with carriage M. When the lever J reverses its movement and travels back toward its starting-point, (its starting-point being shown in position in Fig. 4,) the table-

wheel G strikes the knife-arm near its hanging-point, and throws off the arm, preventing contact with the fruit, this being the object of the cam on table-wheel G.

The mechanism shown in my invention may be varied slightly in the following manner: The knife may be operated on the side opposite to that shown in the drawings, by inverting the table-wheel, and making suitable corresponding changes in other parts. The knife may be made to start to pare from the outer end of apple, paring inward toward the butt, by leaving the knife in the same side, as shown in the drawings, and inverting the table-wheel.

Although I prefer the gearing, as shown in my invention, to produce the extra swing to the knife, making a full half-circle, yet the same result is equally as well accomplished by means of one or more pins in upright position, to take the place of cogged segment P on arm H', and a knife-carriage with one or more slots may operate on said pins, producing the same motion.

The machine shown in my invention requires four turns to pare an apple and reverse the knife to its starting-point, two and one-half turns of the driver paring the apple, and one and one-half turn reversing the knife to starting-point. This number of turns may be varied by changing number of teeth in driving-wheel pinion T, reducing it to as low as one full turn of the driving-wheel, in a large machine, to accomplish the same result as four turns.

Having thus fully set forth and described my invention, what I claim, and desire to secure by Letters Patent, is—

In an apple-parer, the standard A, provided with the feet or arms H H', the latter of which is provided with a fixed cogged segment, P, into which meshes the cogged knife-carriage M Y, said knife-carriage being pivoted to the slotted lever J by means of a stud or pivot, L, on the under side thereof, which lever is pivoted by a stud, K, on its under side to the arm H', in combination with the cam-shaped table-wheel G, which is provided with a pin, I, on its under side for operating in the slot in lever J, whereby the said slotted lever and the knife-carriage are given a forward and reverse motion, and the knife is carried around the fruit, and its motion rapidly reversed, and at the same it is thrown clear of the fruit, and the necessary operating mechanism, substantially as set forth and described.

LANPHEAR H. SCOTT.

Witnesses:

CHARLES H. PELL,  
WILLIAM L. FORCE.