

(Model.)

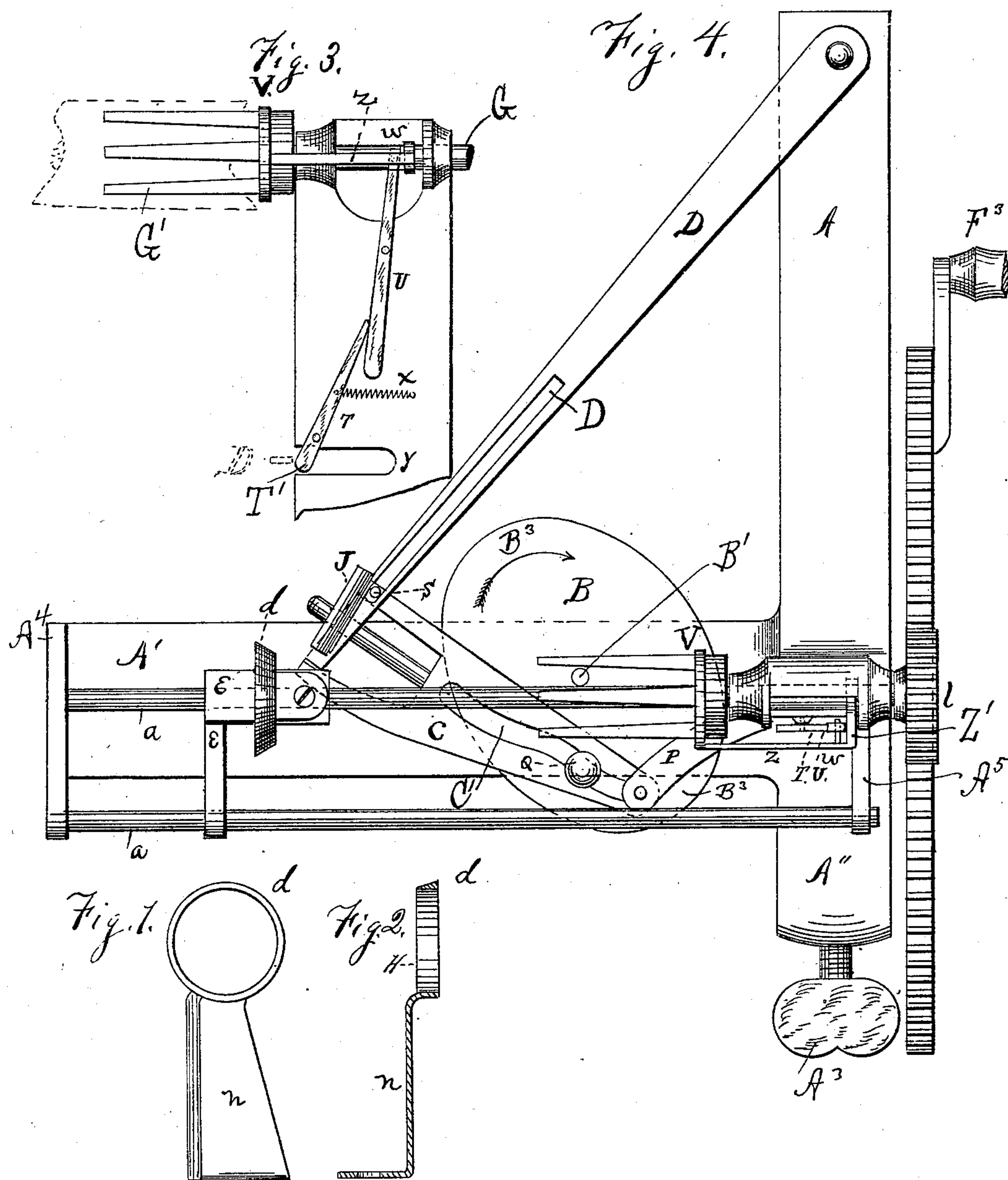
2 Sheets—Sheet 1.

L. H. SCOTT.

APPLE PARER.

No. 285,687.

Patented Sept. 25, 1883.



Witnesses:

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(Model.)

2 Sheets—Sheet 2.

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Fig. 5.

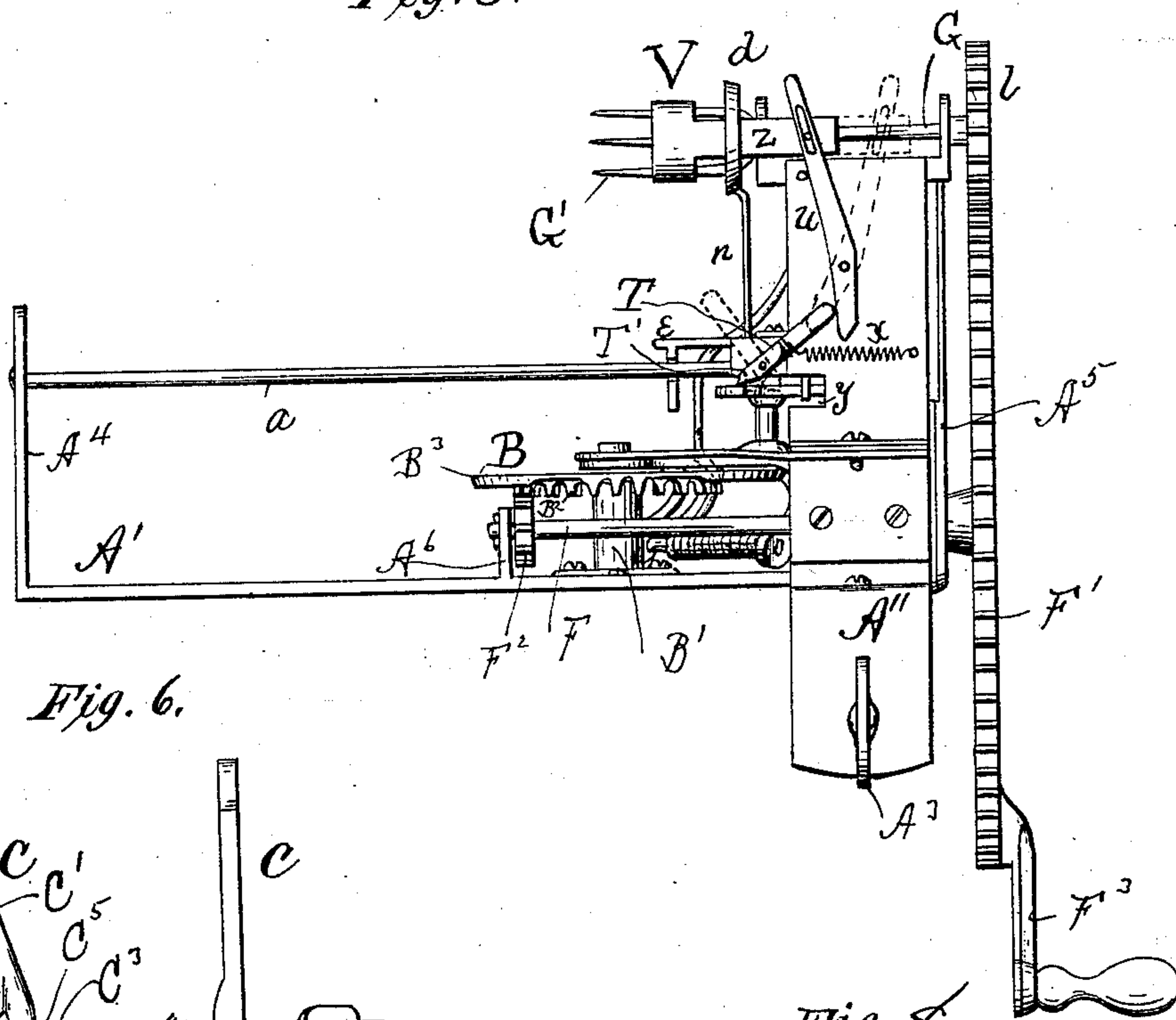


Fig. 6.

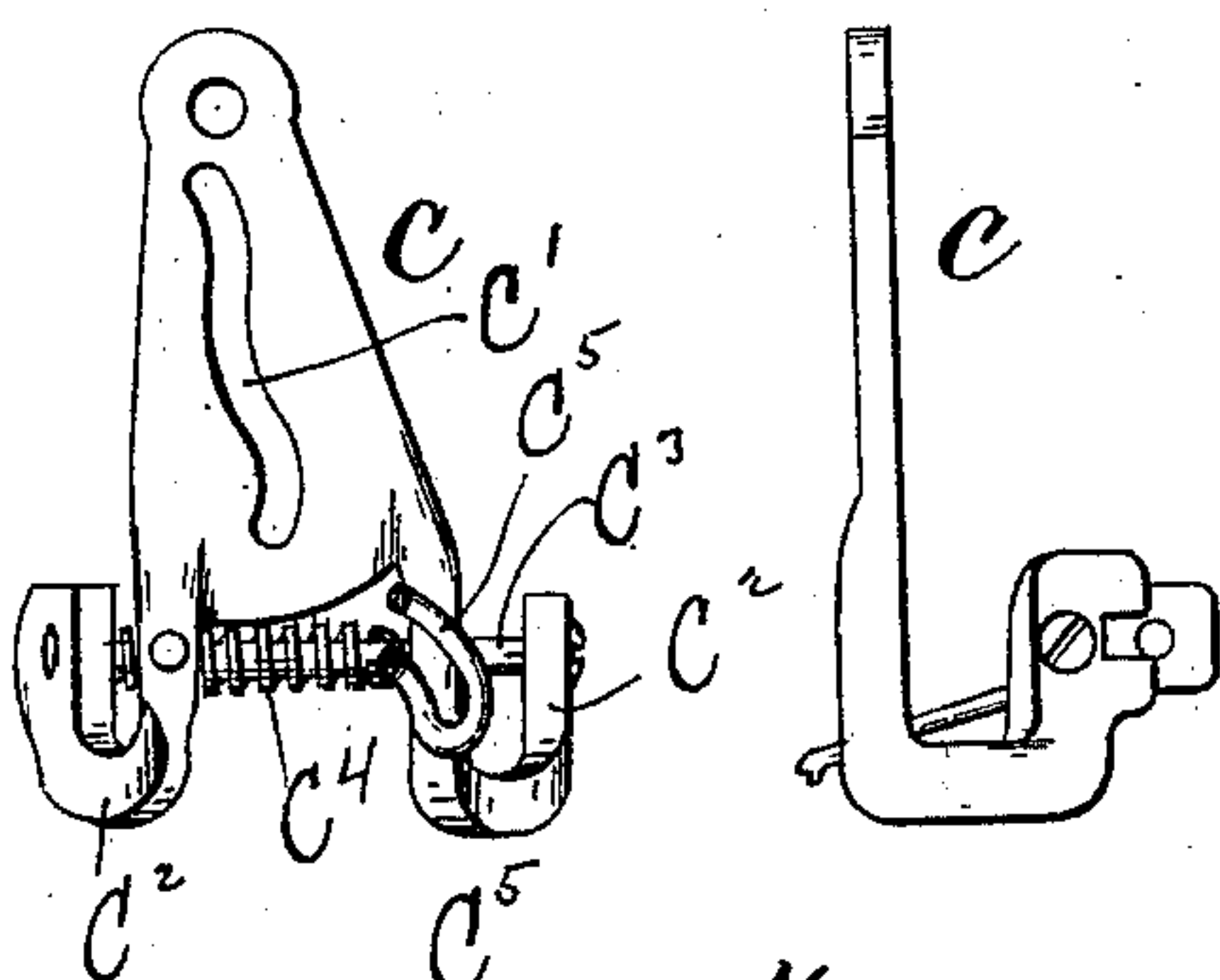


Fig. 7.

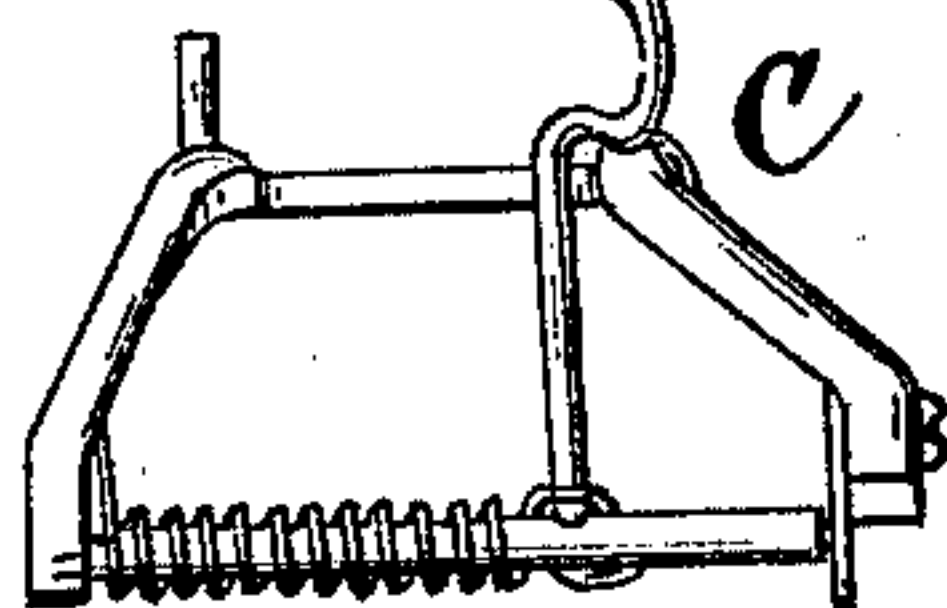
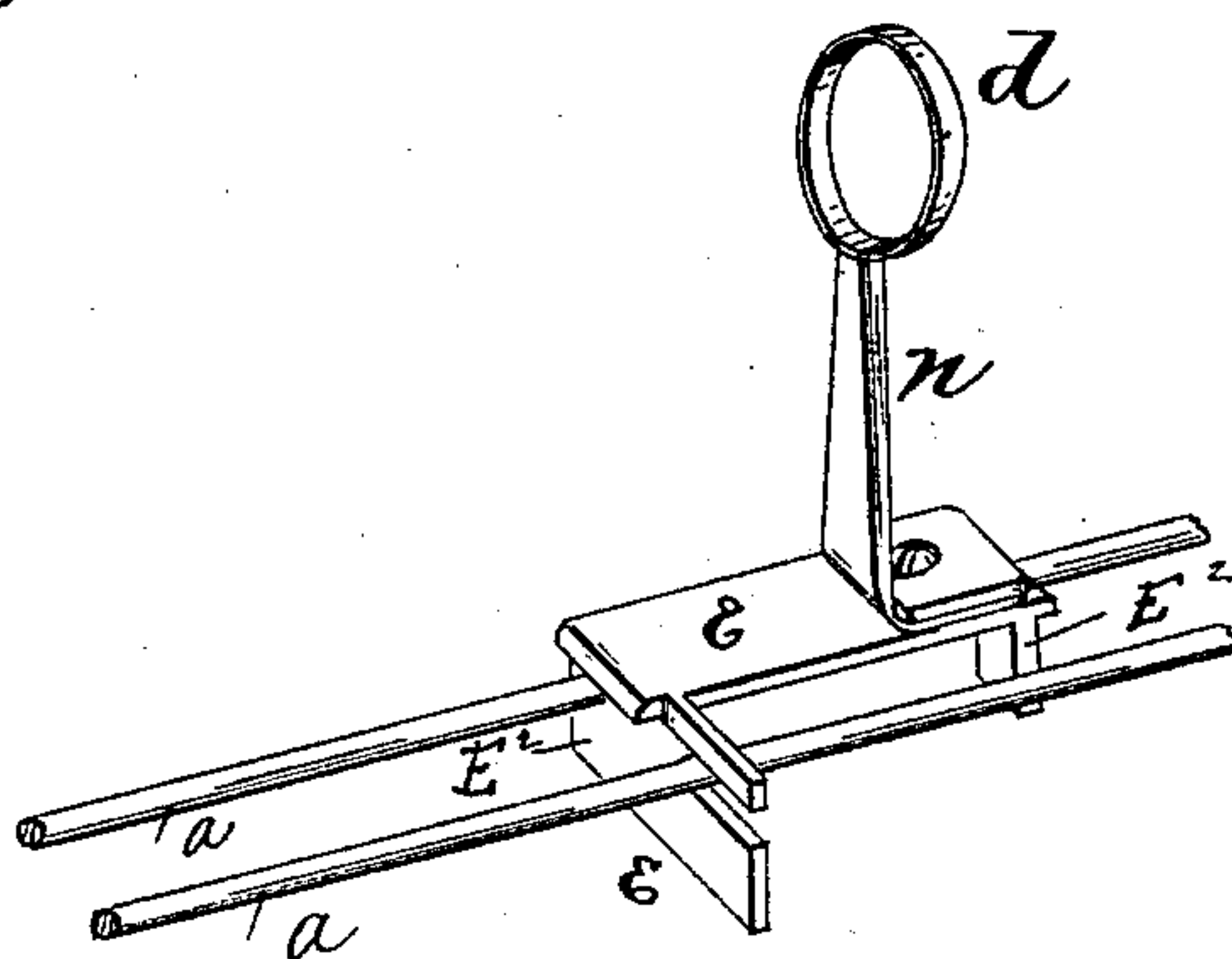


Fig. 8.



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UNITED STATES PATENT OFFICE.

LANPHEAR H. SCOTT, OF NEWARK, NEW JERSEY.

APPLE-PARER.

SPECIFICATION forming part of Letters Patent No. 285,687, dated September 25, 1883.

Application filed February 17, 1883. (Model.)

To all whom it may concern:

Be it known that I, LANPHEAR H. SCOTT, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Apple-Parers, of which the following is the description.

My invention relates to that class of fruit-paring machines wherein the paring, coring, and slicing are all done simultaneously and by the same driving or operating gears.

It consists in the several combinations of the various parts of the device, as will be hereinafter fully described, and pointed out in the claims.

In the drawings, Figures 1 and 2 are detail views of a coring and slicing knife. Fig. 3 is a detail view, showing the tines and push-off. Fig. 4 is a front elevation of my machine. Fig. 5 is an inverted plan view thereof. Fig. 6 shows the knife-carrying arm in front and edge view. Fig. 7 is an end view thereof, and Fig. 8 shows the coring and slicing knife mounted on its supporting-rails.

The framing of my machine is composed of the base-plate A'', the standard A, projected up from the inner end thereof, and the plate A', extended laterally from the plate A'' at right angles to the standard A, as shown. The base-plate A'' is provided with clamping-screw A³, whereby the machine may be secured on a bench or table. The outer end of the plate A' is bent up to provide the bearing A⁴, and a bearing, A⁵, is carried forward from the standard A in a direction parallel to the base A'', but in a plane at right angles to that of the said base, as shown. The rails *a a* extend between the bearings A⁴ A⁵ and provide a support for the slicing and coring knife carriage E, which is placed and slides thereon. From the lower side of the carriage lugs E² are projected down below the rails *a* in position to be engaged by the swinging end of the arm, hereinafter described, which carries the knife-table back and forth in the operation of the machine.

To the standard A, near its upper end, I pivot one end of the swinging arm D, the other or swinging end of which extends between the lugs E² of the carriage E. Through this arm D is formed the slot D'.

The shaft F is journaled in the bearing A⁵

and in a lug, A⁶, which is projected up from plate A', and said shaft is provided on one end with the pinion F², and on its other end with the gear-wheel F', to which the crank-handle F³ is fixed.

The oval or cam shaped table-wheel B is journaled on pin B', over the shaft F, and is provided on its under side with the gear B², meshed with the pinion F², whereby the wheel B is revolved. This wheel turns in a vertical plane, and on its plain face, which is that one next the operator, is fixed a pin, Q. This table-wheel is preferably made in the oval shape shown, providing the eccentric cams or projections B³ B³.

An arm, C, is pivoted at its lower end to the frame, and extends across the plain face of the wheel C. It is formed with a slot, C', through which the pin Q extends, and whereby the arm C is oscillated or moved from side to side across the face of the wheel. The upper end of the arm C is bifurcated, providing the arms C² C², which extend down over the upper edge of the wheel B, and between which is journaled the shaft C³, which supports the paring-knife J. On this shaft C³, I place the spring C⁴, which tends to turn the said shaft so as to hold the knife-carrying rod C⁵ against the cam or eccentric edge of the wheel B. From the arm C, near its upper end, I project the pin S, which enters the groove D' in arm D, and causes the said arm to move or oscillate to and away from the tines as the arm C is carried from side to side, and the carriage E is moved to and from the tines by the swinging arm D through the connection before described.

The fork-shaft G is journaled in the forward end of the base A'', and is provided on one end with the fork G', and on its other with the pinion I, meshed with the wheel F', whereby the shaft is revolved. A cylindrical or ring-shaped push-off, V, is placed on and encircles the fork G', and is preferably provided with the shank Z, which is bent at its ends to provide a right-angled portion, Z', which is perforated to form an opening through which the shaft G is passed, and the push-off thereby held more firmly on the fork.

A lever, U, is pivoted on the base-plate A'', and has one end connected with the push-off and its other end arranged to be struck by the

hammer-pawl T, which is pivoted on the plate A", below the lever U, and has its end T' arranged to extend across a slot, *y*, cut in the edge of the plate A", and its other or striking end is connected by spring *x* with the plate A", which spring *x* tends to force the hammer T to the position shown in full lines, Fig. 5, when the said hammer is not held in its other positions, as will be described.

10 The slicing-knife *n* is mounted on the carriage E, and the coring-knife *d* is secured on the upper end of the knife *n*, and is so constructed as to encircle the fork G', as shown in Fig. 5, when the carriage E is moved to the position shown in said figure.

15 In the operation of my machine, when the several parts are in the position shown in Fig. 4, the apple or other fruit to be pared is pushed on the fork G' and carries the push-off V back to the position shown in Fig. 3. This carries the lever U and hammer T to the position shown in said figures, and the end T' of the hammer T extends across the slot *y*. As the wheel F' is revolved it, by the gearing described, revolves the table-wheel B and the fork G'. The table B, by pin Q, carries the oscillating arm C across toward the opposite end of the apple, and the cam or eccentric shape of said table B gives to the knife J the line of motion necessary to conform the same to the shape of the apple during the paring operation, and holds it out clear of the apple on the return of the paring-knife to the starting-point. At the same time the pin S, working in slot D', carries the swinging arm D, and thereby the table E and the coring and slicing knife, toward the apple, and the operation of coring and slicing goes on simultaneously with that of paring. When the apple has been

40 pared and cored, the end of arm D has entered slot *y* and carried the hammer T to the position shown in dotted lines, Fig. 5, and just as the coring is completed the said hammer escapes from the end of arm D, and striking the lower end of lever U, and by the force given by spring *x*, carries the said lever and the push-off V into the position shown in Fig. 5, throwing the core from the tines, the cored apple remaining on the fork, whence it may be removed with ease. The coring-ring, it will be seen, is of larger diameter than the push-off, and slides over the same as the carriage E is carried forward in slicing and coring the apple, and permits the push-off to pass through it as the core is thrown off, as will be understood on reference to the drawings.

I am aware that a patent has been granted to one Henry A. Frost, No. 33,016, dat-

ed August 6, 1861, for an apple-parer, comprising in its structure the general arrangement hereinbefore shown and described, for simply paring the apple without pushing it off, or without coring and slicing it; and I do not broadly claim such as my invention.

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

1. The combination, with the coring-knife and the push-off, of a lever having one end pivoted to the frame, and its other end connected with and adapted to impart motion to the coring-knife carriage, a lever-arm, U, spring *x*, a hammer, T, having one end arranged to strike the lower end of arm U, and its other end arranged to be engaged by the end of arm D, and the operating mechanism, substantially as set forth.

2. In an apple parer and corer, the combination, with the fork, of a ring-shaped coring-knife encircling and moving along the tines, a ring-shaped push-off or doffer encircling the inner end of the tines and having an external diameter less than the inner diameter of the coring-knife, and adapted to be thrust through said coring-knife, and means whereby, at the instant the coring is completed, the doffer is driven against the end of the core and through the coring-knife, thereby doffing the core before the apple is removed from the tines, substantially as set forth.

3. The combination, with the push-off, of the pivoted lever U, the hammer or lever T, spring *x*, and means for operating the hammer-lever T, as and for the purposes set forth.

4. The combination of a coring and slicing knife with a cam-shaped table-wheel, B, revolving in a vertical plane, and slotted lever D and arm C, whereby a back and forward motion is imparted to said coring and slicing knife, substantially as set forth.

5. The combination, in an apple-paring machine, of the paring-knife, the carriage supporting the coring and slicing knife, and mounted on suitable rails or ways, the swinging arm C, having one end pivoted to the framing and its other end engaging the lever-arm D, the lever-arm D connected midway its ends to the arm C, with one end pivoted to the framing and its other end engaging the coring and slicing knife carriage, and the necessary operating mechanism, substantially as and for the purposes set forth.

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