

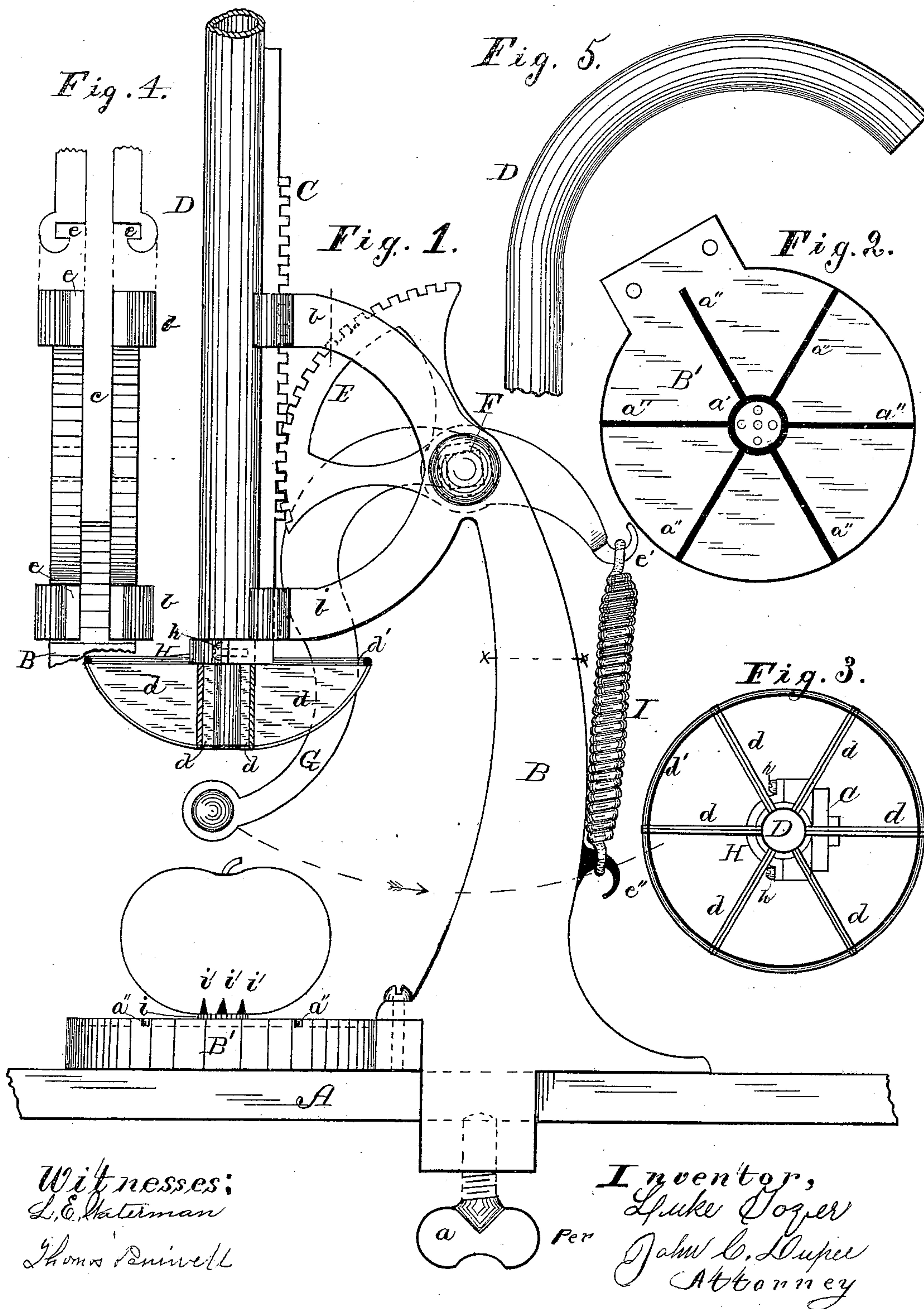
(No Model.)

L. TOZER.

APPLE CORER AND SLICER.

No. 262,332.

Patented Aug. 8, 1882.



UNITED STATES PATENT OFFICE.

LUKE TOZER, OF MAROA, ILLINOIS.

APPLE CORER AND SLICER.

SPECIFICATION forming part of Letters Patent No. 262,332, dated August 8, 1882.

Application filed June 8, 1882. (No model.)

To all whom it may concern:

Be it known that I, LUKE TOZER, a citizen of the United States, residing at Maroa, in the county of Macon and State of Illinois, have invented a new and useful Improvement in Apple Corers and Slicers, of which the following is a specification.

My invention relates to certain new and useful improvements in machines for coring and slicing apples, the objects of which are to provide a device simple and cheap in construction, consisting in the employment of a series of lateral blades or cutters arranged around a central tube, reciprocated by a rack-and-segment gear, all arranged to operate in combination with a suitable standard or frame and base-block, as hereinafter fully described. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the machine, the curved portion of the tube and two of the blades being broken off, and is represented as being clamped to the edge of a table. Fig. 2 is a plan of the removable block or bed-piece, showing a circular and lateral groove, corresponding with the tube and its blades. Fig. 3 is an end view of the blades, the tube, and the rack, showing the manner of securing the tube to the rack. Fig. 4 is a front view of the head, broken off on line *xx*, Fig. 1, showing the slot or opening within which the segment-gear swings, and also showing the guides which support the rack. Fig. 5 represents the upper curved portion of the tube broken off.

Similar letters refer to similar parts throughout the several views.

A represents the top of a table to which the machine is attached by a clamping-screw, *a*.

B is the main frame or standard, provided with lateral-extending arms *b b*, which support the rack C and tube D, and are provided with slots *e e*, which serve as guides to the rack C, and within which it reciprocates.

d represents the blades, of which there are a number arranged around the central tube, D, and having circular edges, as shown, which make a shearing cut as they are forced through the apple.

E represents a segment-gear, which is pivoted on the shaft F, and swings within the slot *c* in the arms *b b*, provided for that purpose.

The shaft F has a large head on one end, its opposite end being squared to fit the socket at the end of the crank or hand lever G. The rear end of the segment-gear extends back of the standard, as shown, and terminates in a hook, *e'*, to which the spring I is attached. Toward the bottom of the standard is a corresponding hook, *e''*, to which the lower end of the spring is attached. The object of this spring is to raise the tube and blades after the apple is cut, and its tension is sufficient to keep the tube in an elevated position at all times when not forced down by the hand lever or crank G through the medium of the segment-gear and rack.

The removable block or bed-piece B' is provided with a circular groove, *a'*, and a series of lateral grooves, *a'' a'' a''*, corresponding with the number of blades used, also a boss, *i*, having one or more spurs, *i'*, which, when the apple is set upon them, hold it in place while it is being cored and sliced. The diameter of the boss *i* being less than the inside of the tube allows the tube to drop to the bottom of the circular groove *a'*, thus severing any peeling that may be left upon the apple, and insuring the separation of all the slices.

The object of having the block B' and the tube D removable is for the purpose of inserting other tubes and blocks having a greater or less number of blades, so that the apples may be sliced to any degree of fineness desired. The tube D is attached to the front side of the rack by a clamp, H, held in by screws *h h*, and can be removed and substituted by another by simply removing the screws. The back of each blade rests against the clamp and the lower end of the rack, which affords a suitable support for the blades and prevents the tube from slipping longitudinally when in use. A ring, *d'*, formed of wire or other suitable material, is secured to the back of the blades, as shown in Figs. 1 and 3, to stiffen and prevent lateral vibration of said blades in case they should strike any hard substance in the apple. The upper part of the tube D is curved, as shown in Fig. 5, to convey the cores off to one side and deposit them in a suitable receptacle provided for the purpose, which may be placed on the table convenient to the operator.

Having thus described the construction of

the machine, the operation is as follows: Place an apple upon the central boss, *i*, of the block, so that the spurs *i'* will stick into it and hold it in place. Then grasp the hand lever or crank *G*, and pull it in the direction indicated by dotted lines and arrow, Fig. 1. This movement forces the tube and blades down through the apple, cutting it in slices. The core passes into the tube and remains near its lower end until the operation is repeated, the cores forming a column up through the tube until they finally drop out at the curved end, as before described. The tube and blades are returned to their proper position of rest, as shown in Fig. 1, by the action of the spring *I*, attached to the hook on the standard and the rear extension of the segment-gear. The rapidity of the operation depends entirely upon the agility of the operator, as no mechanical skill is required to manipulate the machine.

Having thus fully described my invention, what I believe to be new, and desire to secure by Letters Patent, is—

1. In a machine for coring and slicing apples, having a standard adapted to be secured to the edge of a table or other suitable support, the combination of the lateral forked arms *b b*, provided with slots *e e* for the reception of a rack, *C*, and the transverse slot *c*, adapted to receive the segment-gear, the said segment-gear *E* being pivoted on the shaft *F*, which passes through the standard at the junction of

the arms, and having a rear extension terminating in a hook, *e'*, with the spring *I* connected with said hook and the hook *e''* on the standard, substantially as and for the purpose specified.

2. A machine for coring and slicing apples, consisting of a standard, *B*, and removable block or bed-plate *B'*, a segment-gear, *E*, pivoted upon a shaft, *F*, and adapted to swing within a transverse slot, *c*, and engage with the rack *C*, and the tube *D*, attached to said rack and provided with blades *d d* at its lower end, its upper end curved, as shown, all arranged to operate substantially as and for the purpose specified.

3. In a machine for coring and slicing apples, the combination, with the standard and segment-gear, of the rack *C*, supported by and adapted to reciprocate within slots *e e* at the end of the arms *b b*, and the tube *D*, secured to the front side of said rack and provided with a series of blades, *d d*, secured to its lower end, substantially as shown, and for the purpose specified.

In testimony that I claim the within-described machine as my invention I have hereunto set my hand and affixed my seal this 2d day of June, A. D. 1882.

LUKE TOZER. [L. S.]

Witnesses:

S. F. GREER,

JOHN C. DUPEE.