(No Model.)

I. PLATSCHART.

APPLE SLICER.

No. 452,034. Patented May 12, 1891.

Fig. I.

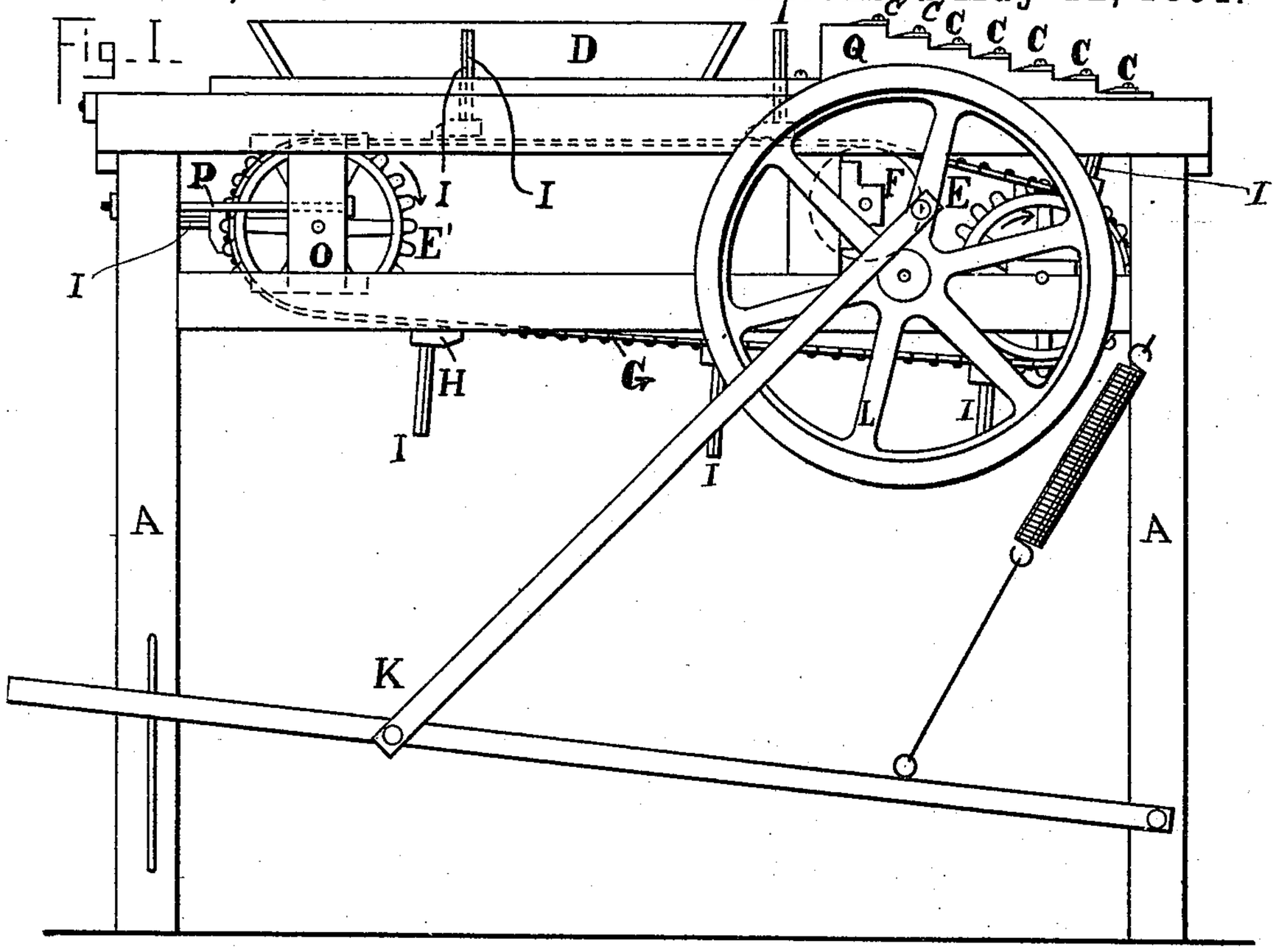


Fig. II.

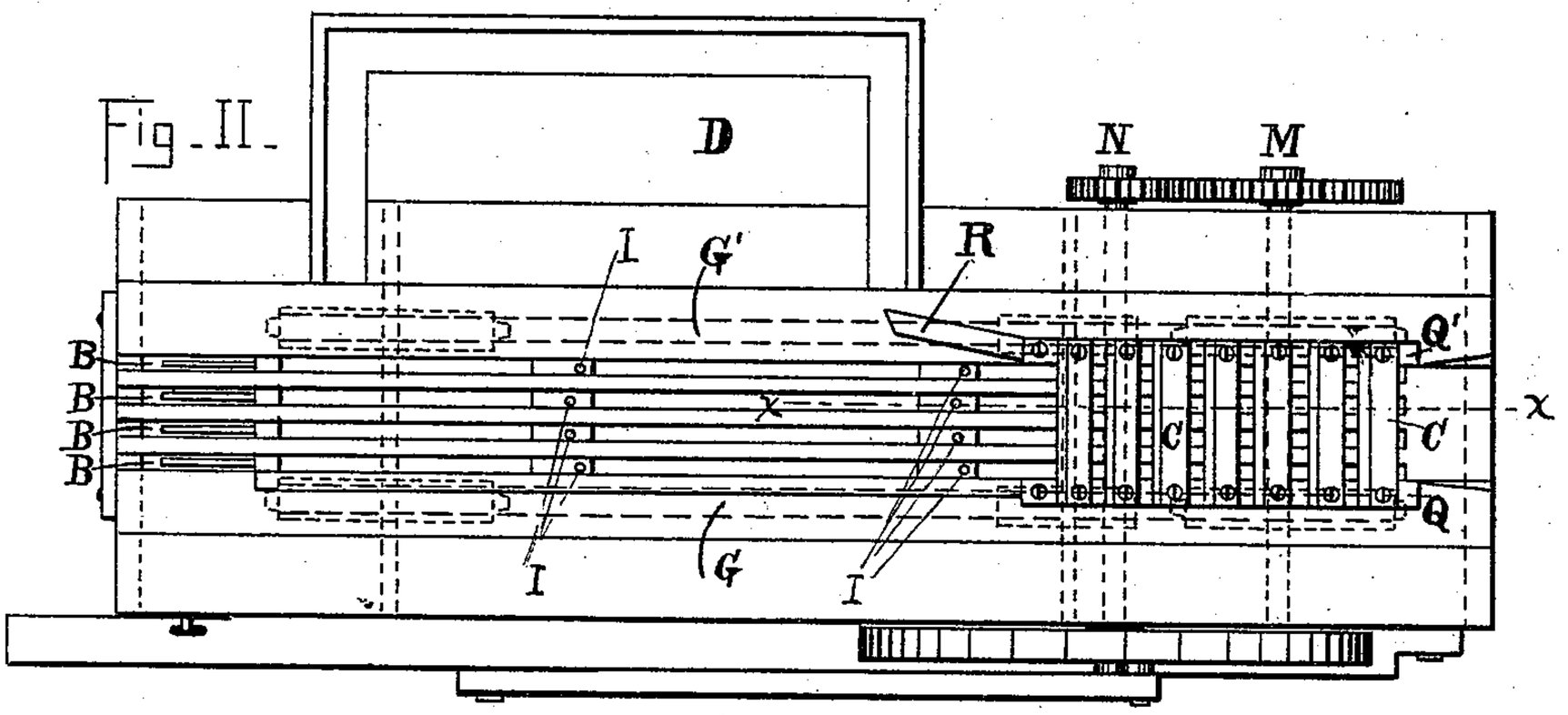
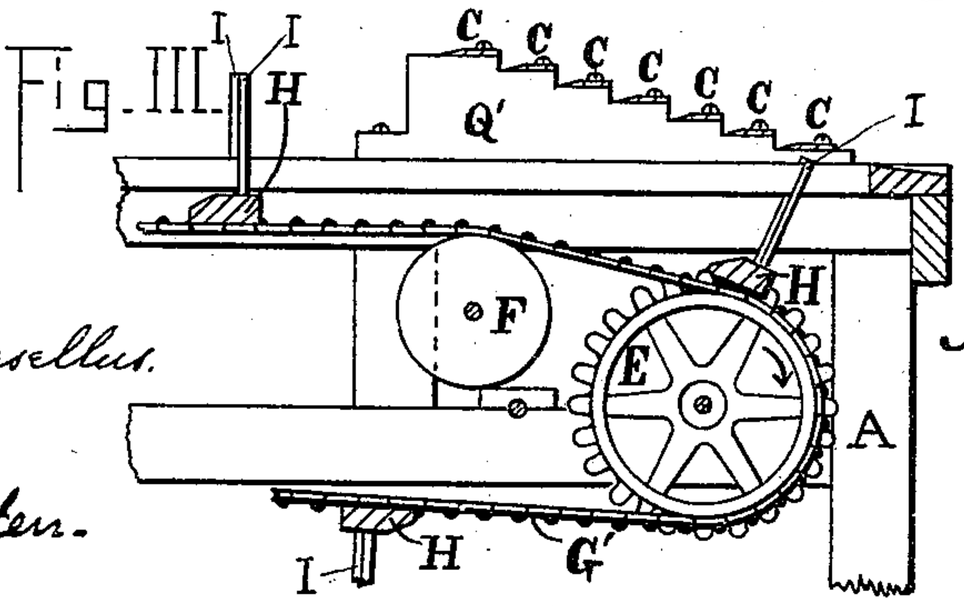


Fig. III.



Witnesses.

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UNITED STATES PATENT OFFICE.

ISAAC PLATSCHART, OF SODUS, NEW YORK.

APPLE-SLICER.

SPECIFICATION forming part of Letters Patent No. 452,034, dated May 12, 1891.

Application filed January 30, 1891. Serial No. 379,675. (No model.)

To all whom it may concern:

Be it known that I, ISAAC PLATSCHART, of the town of Sodus, in the county of Wayne and State of New York, have invented certain new and useful Improvements in Apple-Slicers, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to the improvements in apple-slicers hereinafter described and claimed.

Referring to the accompanying drawings, Figure I is a side elevation of my device. Fig. II is a top plan view thereof. Fig. III is a vertical sectional view on the line *x x* of Fig. II.

A is a suitable table and frame-work forming the support for the mechanism.

B B are longitudinal straight slots formed in the top of said table.

C C are a series of stepped knives arranged in planes parallel to and at regular suitable distances from the top of the table.

D is a shelf or hopper to hold the apples in a convenient position before subjecting them to the slicing.

E E′ are two pairs of sprocket-wheels arranged under and near the ends of the top of the table.

F is a guide-pulley arranged under the top of the table. Around the two sprocket-wheels and over the guide-pulley F pass two endless chains or belts G G′ a little farther apart than the distance of the outer sides of the outer slots B B. The sprocket-wheel E′ and the guide-pulley F are so arranged that the chains pass from the top of the sprocket-wheel E′ over the top of the guide-pulley F parallel to the bed of the table. The top of the sprocket-wheel E is set at a lower level than the top of the guide-pulley F and at such a distance that the chain G G′, passing from the guide-pulley F to the sprocket-wheel E, shall be parallel with a plane passing through the edges of the knives C C. To each chain G G′ and at right angles to them are fastened a series of blocks or supports H H. These blocks are fastened to the outer sides of the chains or in such a manner that the chains and blocks may pass freely around the sprocket-wheels E E′ and over the guide-pulley F. Upon these blocks or supports are fastened a series of upright pins or fingers I I, which are so arranged as to pass through the slots and to project above the plane of the top of the table.

Any suitable mechanism, such as the treadle K, fly-wheel L, and gear-wheels M N, may be used to give motion to one of the sprocket-wheels, and thus to move the chains. The sprocket-wheel E′ is journaled in a suitable movable block O, the position of which can be regulated by a tightening-screw P, so that as the chains or belts G G′ stretch they can be properly tightened, or any other suitable mechanism for this purpose may be employed.

The sprocket-wheels E E′ move in the direction indicated by the arrows.

Similar letters refer to similar parts throughout the several views.

If an apple (preferably previously cored and peeled) is placed upon the slats separating the slots B B and the machine is set in motion, the fingers I I will come in contact with it and will push it along the top of the table toward the set of knives. The guide-pulley F is placed substantially under the first knife, and the sprocket-wheel E is placed nearly under the last knife, of the series. The apple thus being moved along meets the first knife and a slice is taken from it. The belt changes its direction, and since the bed of the table is level the effect of the change of direction of the chains, to which are attached the blocks H and the fingers I I, will be that the fingers pass through the slots away from the knives, so as not to strike them, while the apple moves along in the same plane, being pushed by the fingers I I. It will therefore be sliced by the successive knives and the slices will be successively pushed off through the knives by the slicing of the next apple and will fall into any suitable receptacle at the end of the table.

A proper speed is given to the sprocket-wheels, chains, and fingers, and apples may be rapidly placed from the shelf D upon the top of the table between the successive sets of fingers and will be successively moved along and sliced.

The knives C C are set upon suitable supports Q Q′, having regular steps made upon them and may be bolted or otherwise fastened

to said supports Q Q'. One or more guides R may be placed upon the top of the table, so that apples will be guided into the space between the supports Q Q'. It is evident that a single belt may be used instead of the pair of chains or belts; but I prefer the form above described and shown.

My device is inexpensive to build, is easy to operate, and is rapid in action, inasmuch as the action is continuous and in one direction and there is no lost motion. The sets of fingers I I are set at such distances apart as will enable the operator to place an apple between the successive sets when the machine is running at its highest practicable speed.

What I claim is—

1. The combination of the table, the endless carrier-belt, mounted as described, the fingers attached to said belt, the straight longitudinal slots in said table, and the set of stepped knives, all operating as described.

2. The combination of a table having longitudinal slots with series of stepped knives set thereon in parallel planes, endless chains or belts, a series of sets of fingers attached to said chains or belts and arranged to pass through and move along said slots, and means for continuously moving and guiding said chains or belts first parallel to said table and then parallel to the plane of the edges of said knives.

3. The combination of a table having longitudinal slots, a series of stepped knives set upon said table, endless chains or belts set under said table and bearing blocks having fingers set to register with and extend through the slots in the table, together with means for guiding the chains or belts first parallel with the said table and then parallel with the plane of the edges of said knives, and means for causing said fingers to move toward and under said knives.

4. The combination of a table having longitudinal slots, a series of stepped knives set in parallel planes upon one end of said slotted table, sprocket-wheels set under each end of said table, endless chains or belts passing around said sprocket-wheels, supports attached crosswise to said chains, fingers fastened to said supports and arranged to register with and extend through said slots, and means for causing said fingers to move away from each knife as they approach the same.

5. The combination of a table having longitudinal slots, a series of stepped knives set in parallel planes upon one end of said slotted table, a sprocket-wheel set under one end of said table, a guide-pulley set approximately under the highest of said knives and a sprocket-wheel set approximately under the lowest of said knives and on a lower level than the guide-pulley, endless chains or belts passing around said sprocket-wheels and over said guide-pulley, supports attached crosswise to said chains, sets of fingers fastened to said supports and arranged to register with and extend through said slots, whereby each set of fingers pushes an apple along said table and then as it approaches each knife the fingers move away from the same.

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Witnesses:
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