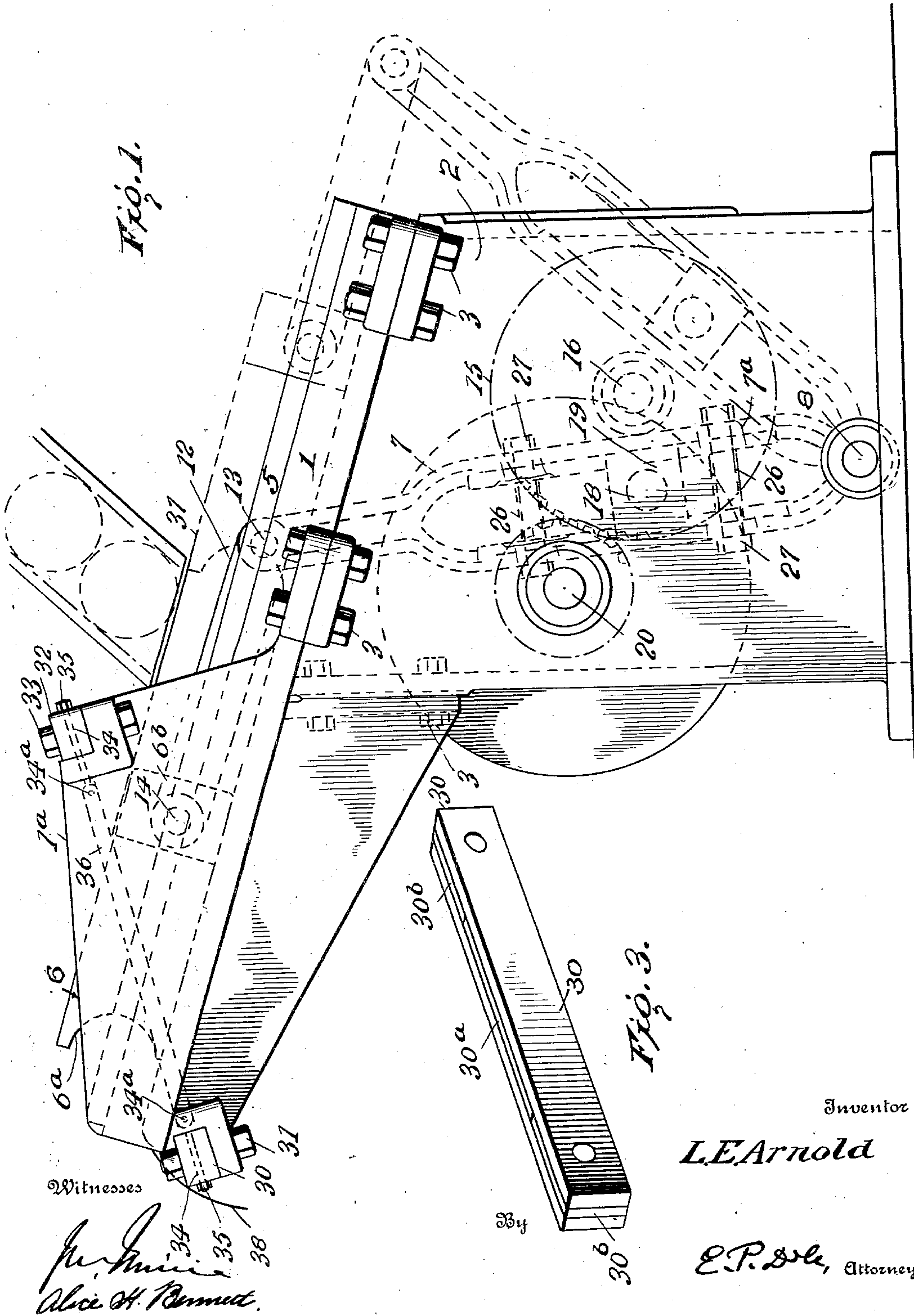


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SLICING MACHINE.
APPLICATION FILED MAY 29, 1906.

Patented Aug. 3, 1909.
2 SHEETS—SHEET 1.

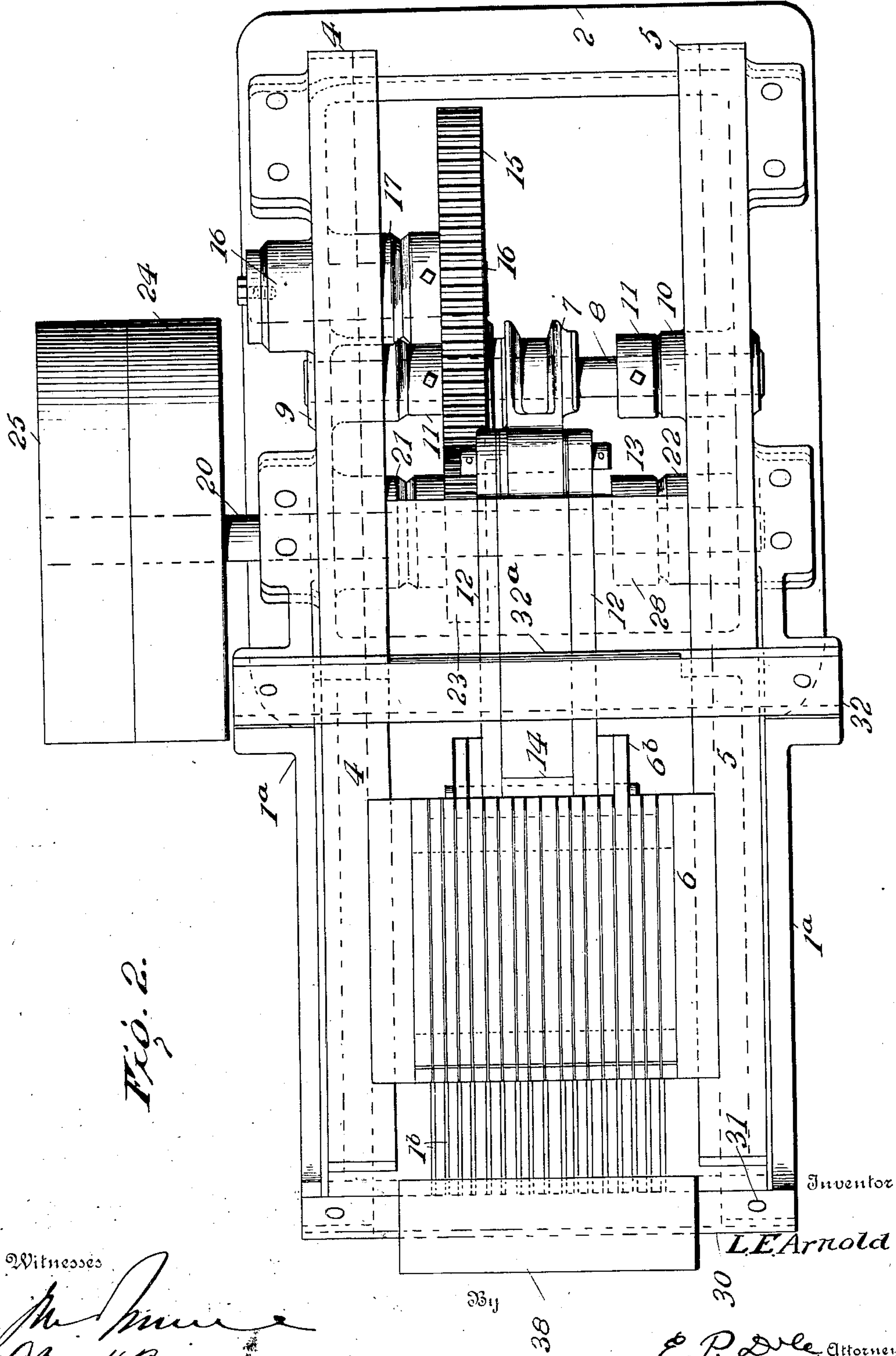
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UNITED STATES PATENT OFFICE.

LOUIS E. ARNOLD, OF HONOLULU, TERRITORY OF HAWAII.

SLICING-MACHINE.

No. 930,021.

Specification of Letters Patent.

Patented Aug. 3, 1909.

Application filed May 29, 1906. Serial No. 319,326.

To all whom it may concern:

Be it known that I, LOUIS E. ARNOLD, a citizen of the United States, residing at Honolulu, county of Oahu, Territory of Hawaii, have invented a new and useful Slicing-Machine, of which the following is a specification.

My invention relates to improvements in machines for slicing fruit and the like, particularly pineapples, in which the fruit is sliced by being forced against a plurality of stationary knives.

The object of my improvements is to produce a machine of this character which is automatic, rapid and efficient in operation. I accomplish these objects by the mechanism illustrated in the accompanying drawing, in which—

Figure 1 is a side elevation of the machine; Fig. 2 is a plan view thereof with the blades removed; and Fig. 3 is an isometric view of a cross-bar.

Similar characters of reference indicate corresponding parts in the several views.

The frame 1 is inclined to the horizontal and is supported by the base 2, to which it is bolted by the bolts 3. Guides 4, 5 are attached to the frame 1, and the sides of the block 6 are grooved to receive the said guides 4, 5 and slide thereon. The front end 6^a of the block 6 is curved to fit the peeled and sized fruit. A rocker-arm 7 is keyed to a shaft 8 mounted in the bosses 9, 10 near the bottom of opposite sides of the base 2. The shaft 8 is provided with set-collars 11. Links 12 connect the upper end of the rocker-arm 7 with the rear end 6^b of the block 6 by the pins 13 and 14 respectively. A gear 15 is secured to the shaft 16 journaled in the box 17 in the side of the base 2. The gear 15 is provided with a crank-pin 18. A brass block 19 fits over the crank-pin 18 and slides within the slotted portion of the rocker-arm 7. A shaft 20 is journaled in boxes 21, 22 in the sides of the base 2, and is provided with the pinion 23 meshing with the gear 15. The shaft 20 is also provided with a tight and a loose pulley, 24 and 25 respectively, outside of the base of the machine, and with a set-collar 28. The slotted portion of the rocker-arm 7 is stiffened by distance pipes 26 between the lugs 7^a and bolts 27 through said lugs and distance-pipes.

A cross-bar 30 is bolted by the bolts 31 to the sides of and below the forward end of the frame 1. A similar cross-bar 32 is bolted by

the bolts 33 to the raised sides 1^a of the frame 1. These bars 30, 32 are provided with slots 30^a, 32^a respectively, in which are placed a plurality of small bars 34. One end of each bar 34 is threaded and provided with a nut 35, and the other end is provided with a pin 34^a. The ends of a knife blade 36 are hooked on the pins 34^a of each corresponding pair of bars 34 in the slots 30^a and 32^a. The blades 36 are similar to hack-saw blades with a knife edge in lieu of teeth. These blades 36 pass through slots 1^b in the frame 1 at its front end, with their cutting edges downward. Tension on the blades 36 is obtained by tightening the nuts 35. It will be noted that the blades 36 lie in vertical parallel planes, and that their cutting edges are inclined about 30 degrees to the plane of the frame 1. The block 6 is slotted to clear the blades 36 when the former is in its forward position. A plate 37 is attached to the top of the block 6 and projects rearwardly from same. A curved plate 38 is attached to the front end of the frame 1 and above the cross-bar 30.

In operation, starting from the position shown in Fig. 1, the peeled and sized fruit rolls down a chute above the machine and encounters the plate 37. The belt, connecting with any suitable source of power, being now shifted from the loose pulley 25 to the tight pulley 24, the gear 15 carrying the crank-pin 18 is revolved, thereby causing the rocker-arm 7 to swing rearward, drawing with it the block 6 which slides on the guides 4 and 5. The fruit rolls on the plate 37 and on the top of the block 6 until the rear position of said block 6 is reached, whereupon one fruit drops upon the frame 1 in front of the block 6, and is engaged by the curved front end 6^a of said block as it now moves forward. Continuing forward, this fruit encounters the blades 36 and is thereby sliced, a shearing cut being effected. The slices are pushed over the curved plate 38 and drop onto a conveyer (not shown) by which they are delivered to the sorters and packers. The juice runs down the central portion of the frame 1, and is caught by a trough under the lower edge of same (not shown.)

I claim:

1. An improved slicing machine having in combination an inclined frame-work having a series of parallel slots at its front end, two cross bars extending parallel with each other and spaced apart and arranged in different

- vertical planes, a series of blades or cutters extending between the cross bars having their opposite ends connected to the latter, one of said cross bars being disposed below 5 and the other above the plane of said slots whereby intermediate portions of the blades extend through the slots, means for feeding material to said blades and means for regulating the tension of said blades.
- 10 2. An improved slicing machine including an inclined frame-work having parallel longitudinal slots formed in its front end, a cross bar fixed in the upper portion of said frame 15 above said slots, a corresponding cross bar fixed to the front end of the frame below said slots, blades or cutters extending at an angle to the inclined frame-work and passing through said slots, bars at the ends of the cutters extending longitudinally in line there- 20 with, said last-named bars extending through the cross bars and having means whereby the tension of the cutters may be adjusted, and a block or plunger reciprocable within said frame-work adapted to feed the material to 25 be cut beneath said cutters.
3. An improved slicing machine including a base and a frame mounted thereon and

upwardly inclined, the forward end of said frame being provided with parallel longitudinal slots, a feed chute connecting with said 30 frame, a plunger reciprocable in the frame and beneath the delivery end of the feed chute, said plunger having an extension forming a movable bottom for said chute whereby the extension supports the fruit and 35 allows the same to drop into the range of action of the plunger when the latter is retracted until its front end uncovers the end of the chute, a series of parallel longitudinally extending blades inclined relative to 40 the inclination of the frame, said blades extending through said slots, a cross bar in the upper portion of the frame, a second cross bar in the front of the frame below said slots, bars connected to the ends of the blades or 45 cutters and extending through the cross bars and forming longitudinal extensions of said blades, and means cooperating with the last-named bars and the cross bars for regulating the tension of the blades.

LOUIS E. ARNOLD.

Witnesses:

JAMES D. DOLE,
R. W. ATKINSON.