(Model.)

A. J. L. LORETZ.

CUTTING MACHINE.

No. 383,892. Patented June 5, 1888.

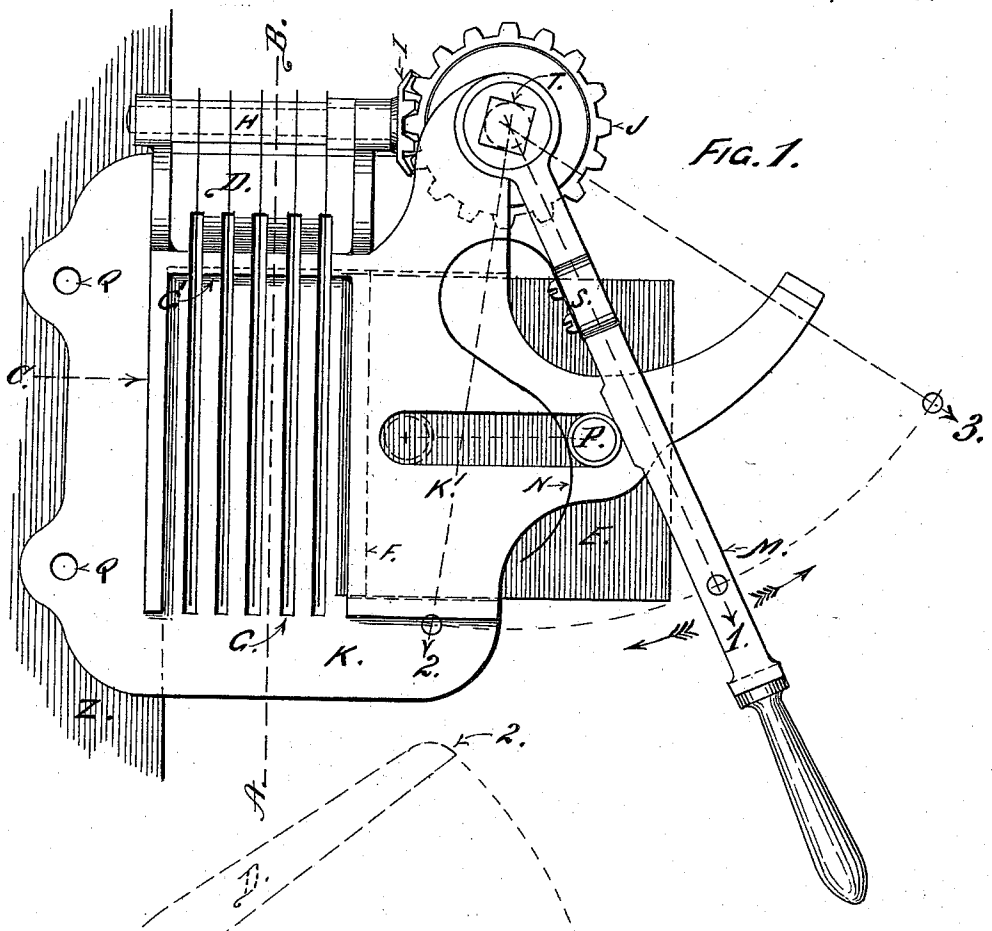


FIG. 1.

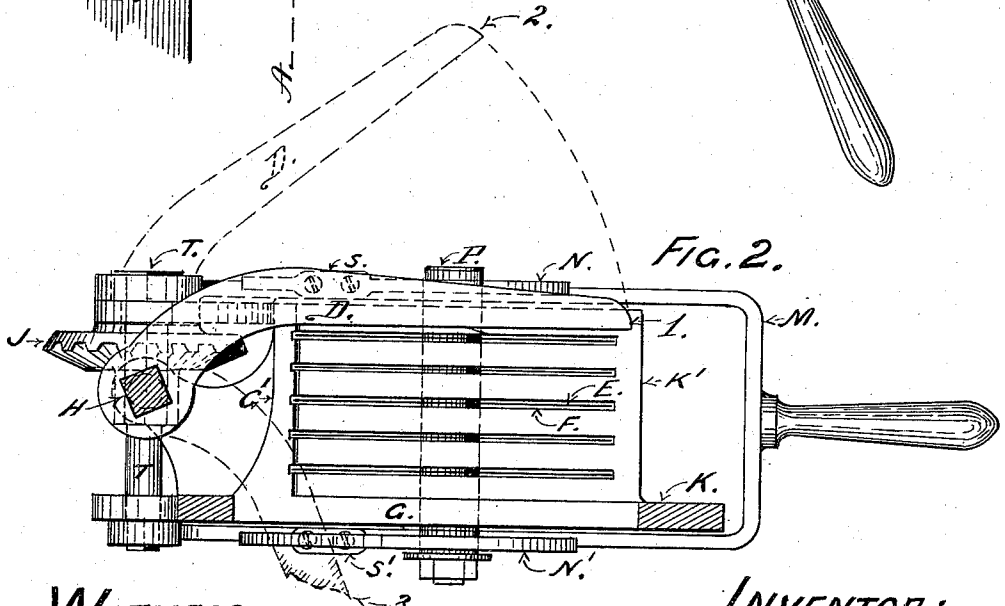


FIG. 2.

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ARTHUR J. L. LORETZ, OF BROOKLYN, NEW YORK.

CUTTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 383,892, dated June 5, 1888.

Application filed October 22, 1887. Serial No. 253,066. (Model.)

To all whom it may concern:

Be it known that I, ARTHUR J. L. LORETZ, of the city of Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful Device in Cutting-Machines, of which the following is a specification, reference being had to the accompanying drawings, and letters of reference marked thereon, which form part of this specification.

The object of this invention is to produce a machine for cutting potatoes, after being peeled, into uniform long square pieces about five-sixteenths of an inch square at cross-sectional area and having a length equal to the full length of the potato lengthwise. When thus cut they are ready to be fried and served as what is known as "French fry potatoes," the delicacy of such preparation depending upon the uniformity in thickness of each piece, thereby admitting of all being cooked to an equal degree of tenderness, which cannot be done where the pieces are cut irregularly by the slow process of manual labor. To produce such a machine great difficulty has been experienced to hold the potato in position while subject to the necessary cutting operation to produce the above result, it requiring two cuts, and the difficulty lying in holding the particles together after the first cut, so as to subject them, with regularity of form, to the final or second cutting, producing the small, square long pieces. The method by which I accomplish this result is to construct a machine which consists of a box-shaped holder, into which the potato is placed in a horizontal position and cut therein by means of a series of cutters into horizontal layers, which layers are left lying in such horizontal position, to be recut by descending vertical cutters, completing the whole operation.

In the drawings, Figure 1 is a plan and top view of such a machine, and Fig. 2 is a sectional side view from C through A B of Fig. 1.

Similar letters of reference indicate similar parts in both figures.

In Fig. 1, K is the box-shaped holder, secured to the edge of table Z by screws Q.

In Fig. 2, F are gratings, or what I call "guards," in the side K′ of holder K, through and in which the horizontal cutters E slide, which perform the first cut when operated upon pin P by lever M and when moving in their cutting direction toward the side or abutment C from position 1 to 2, Fig. 1, the springs N, secured at S to lever M and acting on pin P, returning the cutters to original position when lever M is moved from position 2 to 1, Fig. 1.

G, Fig. 1, are gratings in the base of holder K, through which the vertical cutters D on shaft H vibrate. The cutters D are secured to shaft H, which receives its vibrating motion through bevel-pinion I, acted upon by bevel-wheel J, which is secured to lever M by vertical center-pin T.

The cutting operation of the machine is as follows: A potato being placed in the holder K from the direction A, Fig. 1, and shoved back close to G′, will now be confined and held in place by five sides—viz., at bottom by gratings G; sides, by abutment C and guards F, back G′ and top by cutters D. The lever M, being now moved from position 1 to 2, Fig. 1, will drive the horizontal cutters E through the sides of the potato until they reach the abutment C, thus cutting the potato into horizontal flat layers equal in thickness to the distance of the cutters set apart, which is about five-sixteenths of an inch. The cutters E being now withdrawn by the lever being moved from position 2 to 1, Fig. 1, the flat slices will remain lying on top of each other, the guards F in the side K′ preventing them from following up the receding cutters E, thus leaving the layers in perfect position for the vertical or final cut. The lever M being now moved from position 1 to 3, Fig. 1, the cutters E will lie idle, while the bevel-gears J and I will cause the vertical cutters D on shaft H to oscillate from 1 to 3, Fig. 2, thereby passing entirely through the above-mentioned layers and gratings G and cutting the flat slices of potato into long square pieces of uniform thickness, the vertical cutters being set five-sixteenths of an inch apart on shaft H, similar to the cutter E. The vertical cutters D having now passed clean through the flat layers of potato held by gratings G, and having performed the last cut, as above stated, will now, on their return movement, by the action of the springs N when the lever M is released, carry the cut substance on their backs out of the holder K

and throw the same back in direction of shaft H, where it can be received into a proper receptacle.

Having now explained the nature of my invention, what I claim, and desire to secure by Letters Patent, is—

The combination of holder K, provided with abutment C, guards F, bottom gratings, G, back gratings, G', horizontal cutters E, vertical cutters D, lever M, springs N, gears J and I, and shaft H, substantially as and for the purpose herein set forth.

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Witnesses:
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