W. KAUFMAN.

OPERATING MECHANISM FOR POTATO CUTTERS.

APPLICATION FILED NOV. 20, 1915.

1,172,214. Patented Feb. 15, 1916.

2 SHEETS—SHEET 1.

Fig. 2.

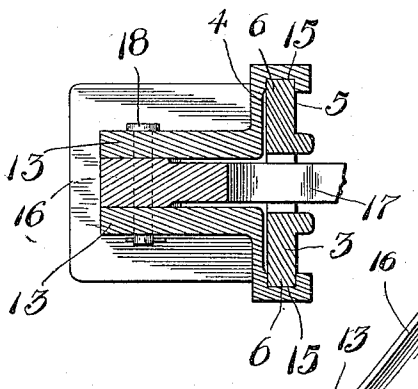


Fig. 1.

Inventor

W. Kaufman.

Witnesses

C. J. Maddox

J. W. Garner

By Victor J. Evans

Attorney

THE COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

W. KAUFMAN.

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Fig. 3.

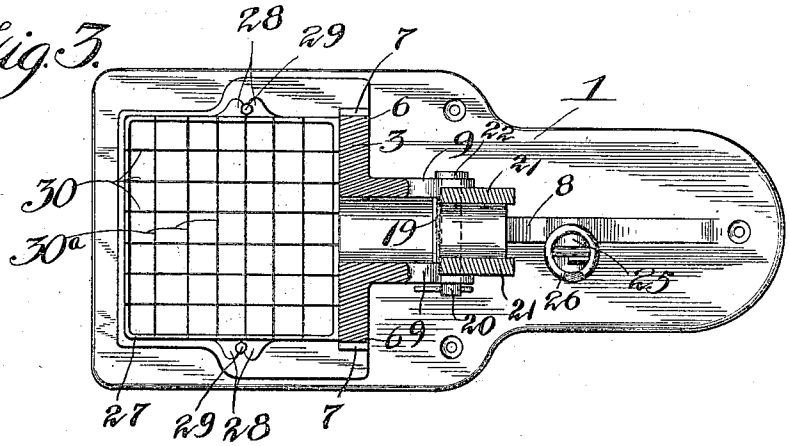
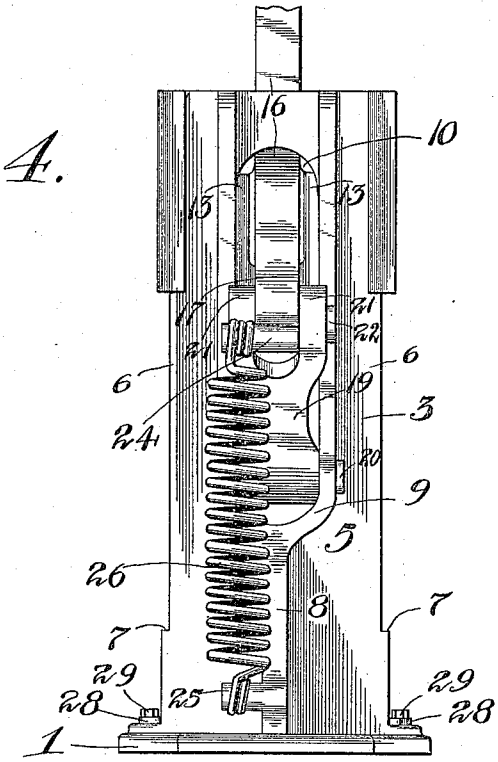


Fig. 4.



Inventor

W. Kaufman

Witnesses

C. J. Maddox

J. W. Evans

By Victor J. Evans

Attorney

THE COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WOLFF KAUFMAN, OF PATERSON, NEW JERSEY.

OPERATING MECHANISM FOR POTATO-CUTTERS.

1,172,214. Specification of Letters Patent. Patented Feb. 15, 1916.

Application filed November 20, 1915. Serial No. 62,598.

To all whom it may concern:

Be it known that I, WOLFF KAUFMAN, a citizen of the United States, residing at Paterson, in the county of Passaic and State of New Jersey, have invented new and useful Improvements in Operating Mechanism for Potato-Cutters, of which the following is a specification.

This invention is an improved machine for cutting potatoes and other like articles into long strips, the object of the invention being to provide an improved machine of this character which is adapted to cut a potato or the like into strips at a single operation, is simple in construction, is very strong and durable, which may be easily kept clean and which is not likely to get out of order.

The invention consists in the construction, combination, and arrangement of devices hereinafter described and claimed.

In the accompanying drawings: Figure 1 is partly a side elevation and partly a vertical sectional view of a potato cutting machine constructed in accordance with my invention showing the plunger in raised position in full lines and in lowered position in dotted lines. Fig. 2 is a horizontal sectional view of the same on the plane indicated by the line *a*—*a* of Fig. 1. Fig. 3 is a similar view on the plane indicated by the line *b*—*b* of Fig. 1. Fig. 4 is a rear elevation of the same.

The base 1 is formed with a rectangular opening 2 and is also formed with a vertical standard 3, near the inner side of said opening and which standard presents parallel front and rear faces 4, 5, forming guiding edges or ways 6 at opposite sides of the standard and stop shoulders 7 at the lower ends of said guide ways. Formed on the rear side of the standard and rising upwardly and also formed with the base is a reinforcing web 8, the upper portion of which is branched to form spaced members 9. The space between the said members communicates with a vertical slot 10 with which the standard is provided.

A plunger 11, which is provided on its lower side with fingers 12, is also provided on its upper side with a pair of spaced lugs 13 which are united to guide arms being provided in their opposing sides with vertical guide grooves 15 which receive the guide ways 6, formed at the sides of the standard. Hence the plunger is arranged for vertical movement on the standard and is guided thereby.

A bell crank lever 16 has its shorter arm 17 extended through and arranged to operate in the slot 10. The bell crank lever has its angular portion where the arms unite, arranged between the lugs 13 and pivotally connected to the plunger by a pivot pin 18. A link 19 has its lower end arranged between the members 9 of the web 8 and mounted on a pivot pin 20, the upper end of said link being forked and its arms 21 being arranged on opposite sides of the lever arm 17 and pivotally connected to said lever arm by means of a pin 22. Said lever arm extends rearwardly of the link and is provided on one side of its rear extension 23 with a transversely extending stud 24. A similar stud 25 projects from one side of the lower portion of the reinforcing web 8 and the said studs are engaged by the ends of a coiled retractile spring 26, the tension of which draws the rear end of the lever arm 17 downwardly, causing said lever arm to fulcrum on the pivot pin 22 and to normally raise the plunger and normally hold the plunger in raised position.

A frame 27, the inner side of which corresponds in size and shape with the opening 2 of the base, is provided at its ends with solid lugs 28, said frame bearing on the base and being detachably secured thereto by bolts 29 which engage the slots of its lugs. This frame is provided with crossed blades 30 30^a which are sharpened at their upper edges and are suitably spaced and correspond with the crossed kerfs between the fingers 12, so that when the plunger is forced downwardly by the lever, the fingers are caused to pass down through the spaces between and formed by the blades on knives and the frame. The upper edges of the blades 30^a extend higher than those of the blades 30.

When a potato or other like vegetable or fruit has been placed on the upper edges of the blades or knives, the plunger is moved downwardly by manually operating the lever and is caused to force the potato downwardly so that the knives or blades pass through it and cut the potato into long strips which are rectangular in cross section, one stroke of the plunger sufficing to divide the entire potato into such strips as will be understood. When in use, the base will have

its inner end portion secured on a table or the like so that the outer end thereof which is provided with an opening and which carries the frame and cutting knives or blades will extend beyond the edge of the table so that the strips of potato as they drop through the openings may be caused to fall into a receptacle arranged to receive them.

Having described the invention, what is claimed is:

1. In a machine of the class described, a member provided with a longitudinal slot and also provided on one side with bearings, a member movable on said slotted member and provided with guide arms having guide grooves in their opposing sides receiving the opposite side edges of said slotted member so that said guide edges of the slotted member form guides for said movable member, a bell crank lever pivotally connected to the movable member and having one of its arms extended through the slot of the slotted member and a link pivotally mounted on said bearings and also pivotally connected to the said arm of the lever.

2. In a machine of the class described, a member provided with a longitudinal slot and also provided on one side with bearings, a member movable on said slotted member and provided with guide arms having guide grooves in their opposing sides receiving opposite side edges of said slotted member so that said guide edges of the slotted member form guides for said movable member, a bell crank lever pivotally connected to the movable member and having one of its arms extended through the slot of the slotted member and a link pivotally mounted on said bearings and also pivotally connected to the said arm of the lever, the said lever arm having a rearwardly projecting portion extending beyond said link and a spring connected to said extended portion of the lever arm and serving to move the movable member in one direction.

In testimony whereof I affix my signature in presence of two witnesses.

WOLFF KAUFMAN.

Witnesses:
DAVE WEIL,
MARIE C. BALL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."