

(No Model.)

N. G. BLISS.
POTATO CUTTER.

No. 563,547.

Patented July 7, 1896.

Fig. 1.

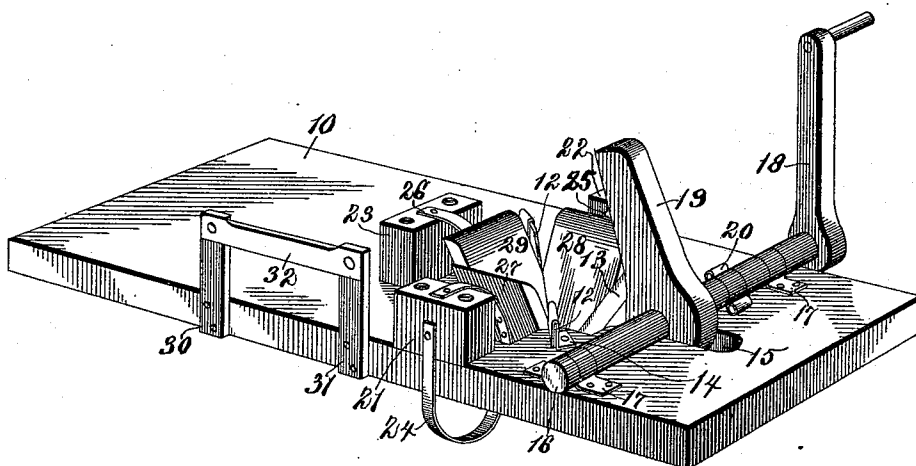
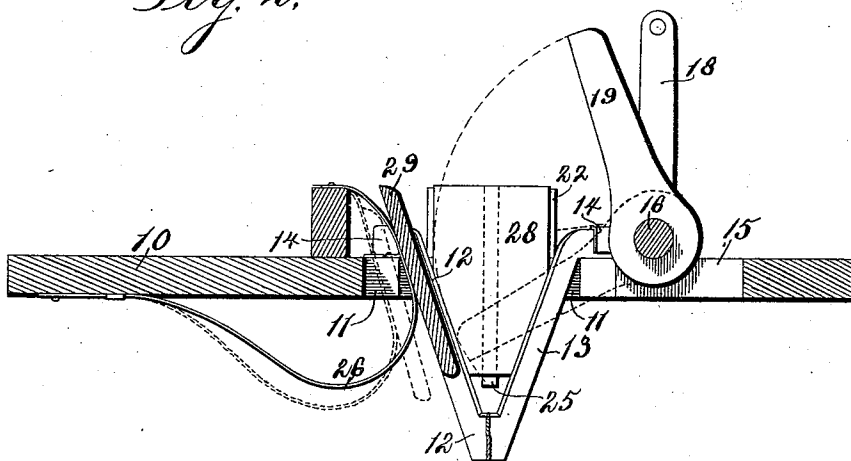


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

NORMAN G. BLISS, OF COLFAX, IOWA.

POTATO-CUTTER.

SPECIFICATION forming part of Letters Patent No. 563,547, dated July 7, 1896.

Application filed June 10, 1895. Serial No. 552,202. (No model.)

To all whom it may concern:

Be it known that I, NORMAN G. BLISS, a citizen of the United States of America, residing at Colfax, in the county of Jasper and State of Iowa, have invented a Potato-Cutter, of which the following is a specification.

My object is to provide a portable machine that is adapted to be operated manually by means of a crank on a shaft to cut potatoes into pieces of practically uniform size to be used for planting.

This invention consists in the combination of a supporting-board having an aperture, knives located beneath and in said aperture and secured to said board, valves flexibly mounted contiguous to said knives, a rock-shaft mounted for manual actuation on said board, and a pressing-arm mounted on said rock-shaft and extended across the aperture between the valves.

This invention consists, further, in a supporting-board, a knife mounted on said board, whereby large potatoes may be halved, and means manually operated for subdividing the potatoes to a greater degree than halving.

This invention consists, further, in the construction, arrangement, and combination of elements hereinafter set forth, pointed out in the claims, and illustrated by the accompanying drawings, in which—

Figure 1 is a perspective of the complete machine. Fig. 2 is a longitudinal central sectional elevation of the machine, the dotted lines indicating the parts in positions assumed in cutting the potatoes.

In the construction of the machine as shown the numeral 10 designates a supporting-board having an aperture 11, shaped similar to a Maltese cross, formed in one end portion thereof. Knives 12 13 are provided, which knives are bent at their centers and cross each other. The ends of the knives 12 13 are bent outwardly and secured by clips 14 to the board 10 at the corners of the aperture 11, the major portion of the knives being within the aperture and below the upper surface of said board. The space inclosed by the annular plane of the cutting edges of the knives is of inverted-frustum shape. A slot 15 is formed in and extends longitudinally of the board 10, one end of which slot opens to one arm of the aperture 11. A rock-shaft 16 is mounted

in bearings 17 17, fixed to the upper surface of the board 10, which shaft extends across the slot 15 and is provided with a winch 18 at one end for manual actuation. A pressing-arm 19 is fixed at one end to the central portion of the rock-shaft 16, and is located in the slot 15. A stop 20 is fixed to the shaft 16, which stop has two projections designed for engagement with the board 10 to limit and determine the travel or oscillation of the shaft. Standards 21 22 23 are fixed to and project upwardly from the board 10. Springs 24 25, made of thin flat steel, are fixed at both ends to the standards 21 22, and the body portions of said springs extend through the aperture 11 adjacent to the knives 12 13. A spring 26 is fixed at one end to the standard 25, extends through the aperture 11 adjacent to the knives 12 13, and is fixed at the opposite end to the lower surface of the board 10. Valves 27 28 29 are fixed to the springs 21 22 23, respectively, which valves close in the spaces between the knives 12 13.

It is obvious that standards projecting upward from the board or base 10 are essential in retaining the valves at a proper elevation relative to the center of motion of the arm 19, that coacts with the valves in directing potatoes to the knives.

Standards 30 31 are fixed to and extend upwardly from one edge of the board 10, and a knife 32 is fixed to the upper end portions of said standards.

In practical use the rock-shaft is positioned as shown by solid lines in Fig. 2, a potato is deposited on the knives and valves, and the rock-shaft oscillated to depress the pressing-arm 19 against the said potato and thereby force the potato through the apertures 11 against the knife-edges, which cut and subdivide the same, the valves yielding to permit the passage of the sections. If the potatoes are so large as to clog the aperture, they are halved first by manual pressure against the knife 32.

I claim as my invention.

1. In a potato-cutter, a support having an opening for the passage of potatoes and a vibrating arm, standards fixed on top of the support and near the opening, spring-actuated valves fixed to the standards to extend downward through the opening, V-shaped knives

fixed to the support to extend downward and in crossed position through the opening in the support, and a shaft in bearings fixed to the support and having an arm adapted to
5 traverse a space between the spring-actuated valves, arranged and combined to operate in the manner set forth for the purposes stated.

2. A potato-cutter comprising a base or board having an opening for the passage of
10 potatoes and a vibrating arm, a fixed stop to restrict the motion of the arm, fixed standards on top of the board to support spring-actuated valves extended downward through the said opening, V-shaped knives fixed in
15 crossed position in said opening, a shaft in fixed bearings and having an arm adapted to

traverse the said openings and space between mating spring-actuated valves, all arranged and combined to operate in the manner set forth. 20

3. In a potato-cutter, the spring-actuated blocks and the V-shaped cutter in combination with a bench having an opening to admit the blocks, and a reciprocating plunger for pressing potatoes upon and down through between the branches of the cutters as and for 25 the purpose stated.

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Witnesses:

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