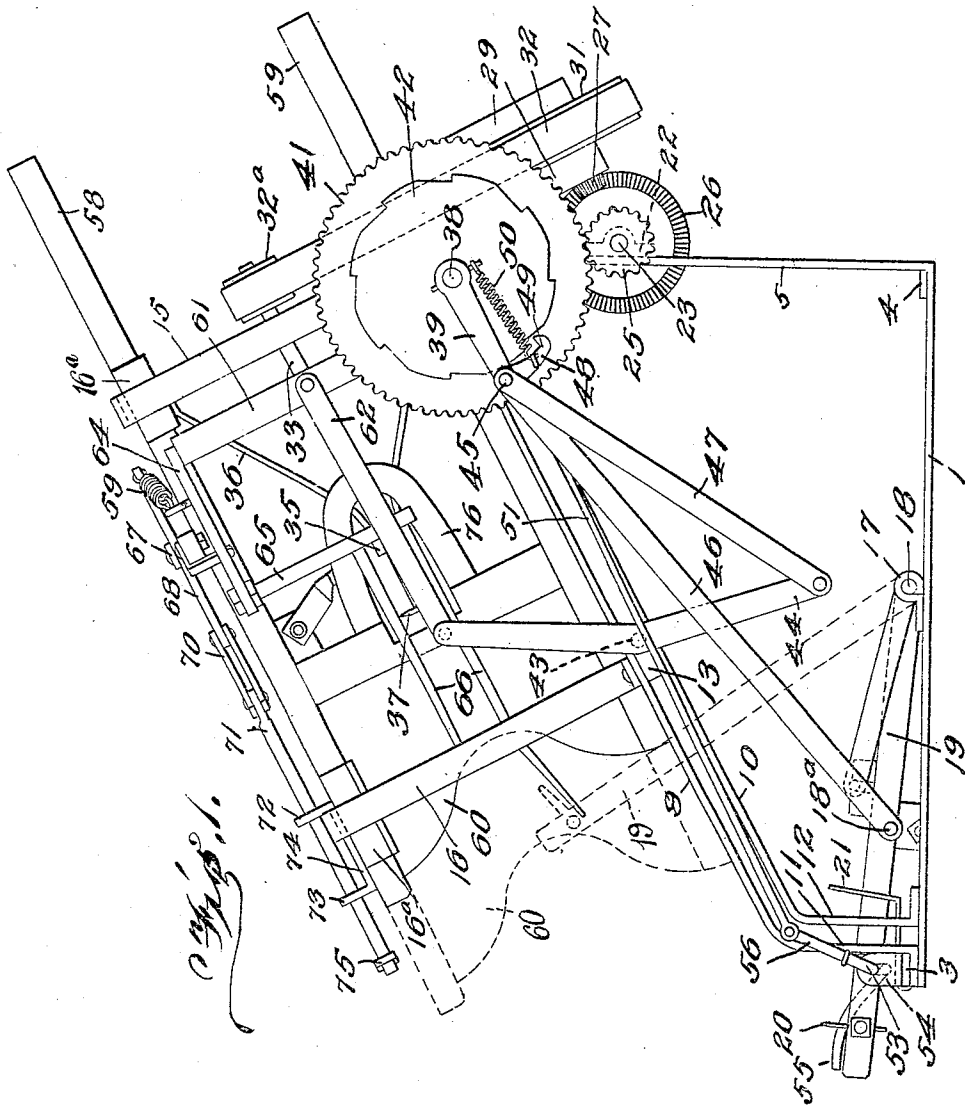


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MACHINE FOR SPLITTING AND CORE SLICING CABBAGES.
APPLICATION FILED APR. 10, 1909.

941,262.

Patented Nov. 23, 1909.
4 SHEETS—SHEET 1.



Witnesses
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A. R. Walton

Inventor
Louis Lecheler

By *Mrs. F. W. F. F. F.*

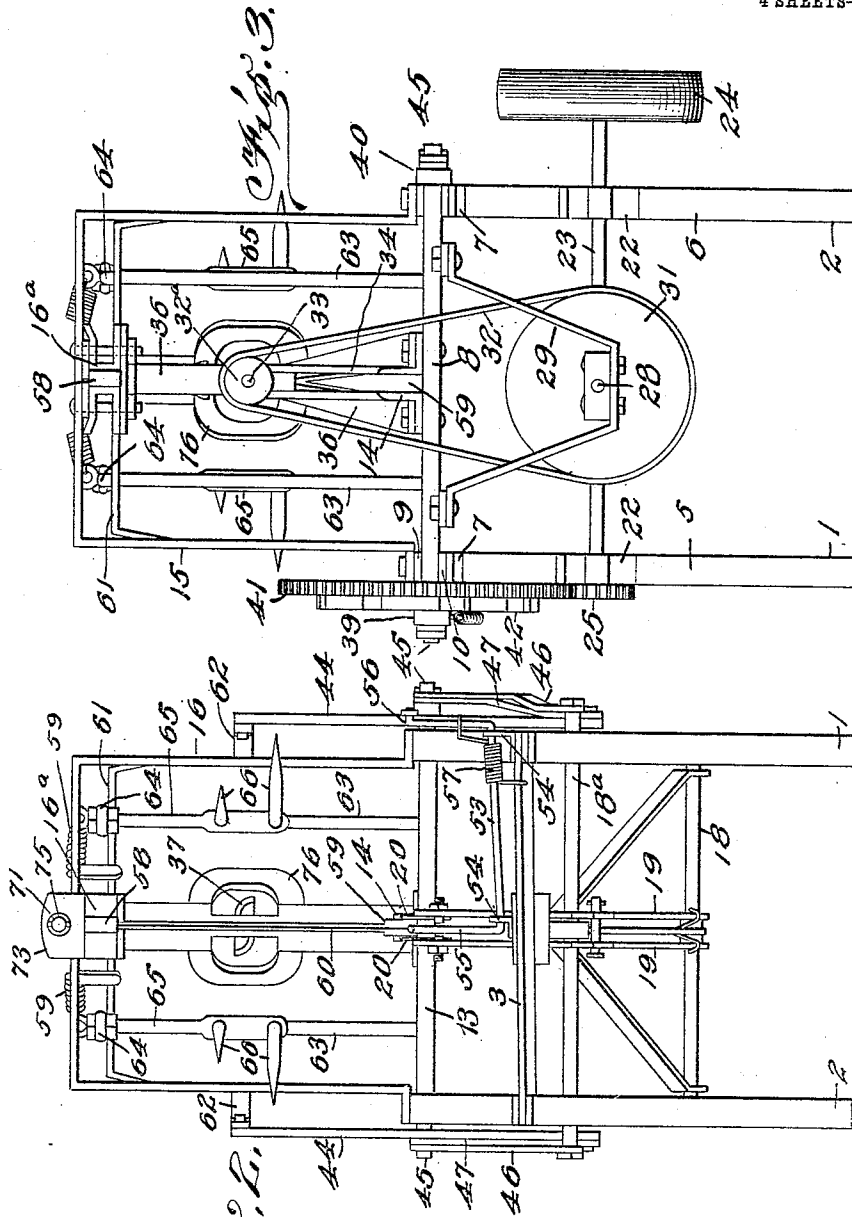
Attorney S.

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Geo L Thom
A. R. Walton

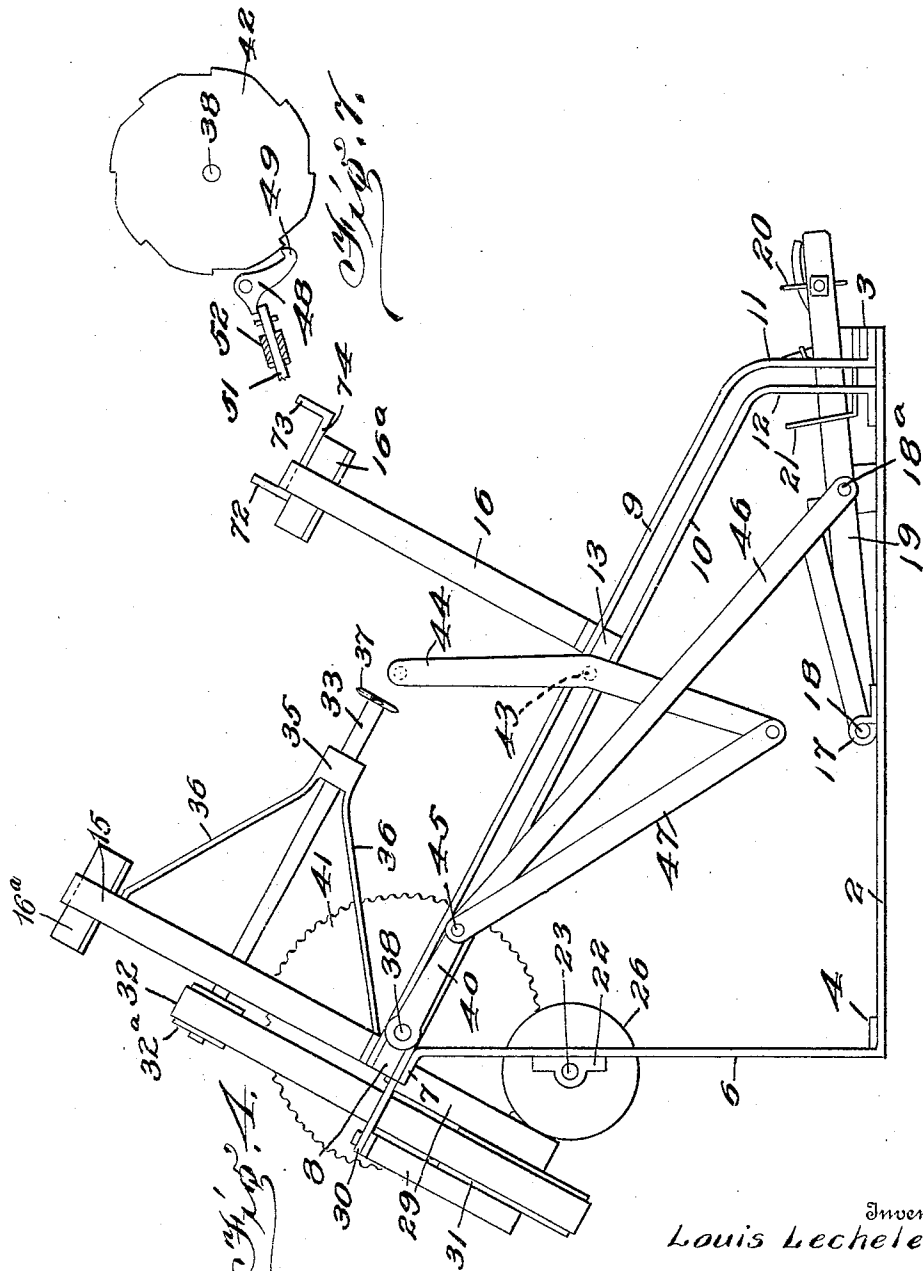
Louis Lecheler Inventor

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Witnesses

Witnesses
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UNITED STATES PATENT OFFICE.

LOUIS LECHER, OF CHICAGO, ILLINOIS.

MACHINE FOR SPLITTING AND CORE-SLICING CABBAGES.

941,262.

Specification of Letters Patent.

Patented Nov. 23, 1909.

Application filed April 10, 1909. Serial No. 489,125.

To all whom it may concern:

Be it known that I, LOUIS LECHER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Machines for Splitting and Core-Slicing Cabbages, of which the following is a specification.

My invention relates to machines for splitting and core-slicing cabbages, and my object is to provide a novel, simple, and durable apparatus for performing these operations, and one which will prepare the cabbages in such manner as to keep the sliced core to the leaves of the cabbages, making strips of maximum length for sauer kraut.

In the accompanying drawings, I have shown a machine forming an embodiment of my invention, and in said drawings—
Figure 1 is a side elevation of the machine;
Fig. 2 is a front elevation thereof; Fig. 3 is a rear elevation thereof; Fig. 4 is a side elevation of the stationary frame, with the sliding cutter frame removed, and looking at the opposite side of the machine from Fig. 1; Fig. 5 is a central vertical cross section through the main frame shown in Fig. 4; Fig. 6 is a top plan view of the sliding cutter frame removed, and Fig. 7 is an elevation in detail, of the ratchet wheel.

As shown, I provide a main stationary frame comprising parallel horizontal base bars 1 and 2, having transverse bars 3 and 4 connected therebetween at the forward ends and adjacent their rear ends respectively. At their rear ends, bars 1 and 2 have integral vertical extensions 5 and 6 respectively, forming legs, having rearwardly bent extremities 7, between which extends a rear transverse frame bar 8, secured at its ends thereto. Secured at their rear ends to the extremities 7 of the legs 5 and 6 respectively, and through the extremities of the transverse bar 8 are the side frame bars 9 and 10, each comprising parallel members spaced slightly apart from one another. The side bars 9 and 10 extend forwardly and downwardly at an inclined angle and have their forward ends 11 and 12 bent perpendicularly to, and secured to, the forward ends of base bars 1 and 2. Said side bars 9 and 10 are further braced and connected by an inter-

mediate transverse bar 13 secured therebetween forwardly of the center thereof, said intermediate transverse frame bar 13 and the rear transverse frame bar 8 being provided centrally thereof with journal brackets 14. The main frame further comprises inverted U-shaped members 15 and 16 secured to, and extending upwardly at right angles to the side frame bars 9 and 10, and spanning the same respectively in alinement with the rear and intermediate transverse bars 8 and 13, which members 15 and 16 have journal brackets 16^a vertically alined above the brackets 14 of said transverse bars.

The frame base bars 1 and 2, are provided with journal brackets 17, approximately centrally of their length, between which extends a shaft 18, centrally of which is connected the rear ends of the parallel swinging article holding bars 19, having upwardly projecting pins 20 upon their forward ends, which extend forwardly beyond the forward transverse frame bar 3. The article holding bars 19 are swung upwardly and rearwardly upon the shaft 18 as a pivot, by parts to be hereinafter described, certain portions of which are connected to each end of a rod 18^a passing transversely through bars 19 and extending outwardly slightly beyond the side bars 9 and 10. In their lowered position, the forward portions of bars 19 rest upon the forward transverse bar 3 and engage between upwardly projecting prongs 21 one extending at each side thereof from said bar 3.

The legs 5 and 6 are provided with journal brackets 22, through which a transverse shaft 23 extends, having upon one end a pulley 24 adapted to be belt connected to a suitable source of power (not shown) and having upon its opposite end a small gear wheel 25. Shaft 23 also has a central bevel gear 26, which meshes with a smaller bevel gear 27 mounted upon a short shaft 28 journaled through the lower portion of U-shaped brackets 29 having their upper ends secured to rearwardly extending pieces 30 connected to the rear transverse frame bar 8, said shaft 28 being provided with a central pulley 31 between brackets 29, connected by a belt 32 to a smaller pulley 32^a upon the end of a cutter shaft 33, journaled through a rear

bracket 34, upstanding centrally from the rear bar 8, and through a forward bracket comprising a block 35 held between the forward ends of forwardly converging arms 36, the rear ends of which are secured to the frame bar 8 and to the journal bracket 16^a of the rear frame 15. Shaft 33 is provided with a toothed wheel 37 upon its forward end, and is rotated by the connections just described.

Mounted transversely through blocks between the members of the side bars 9 and 10, forwardly of the rear transverse bar 8, is a rotatable shaft 38 its ends beyond bars 9 and 10 being provided with rigid crank arms 39 and 40, and provided adjacent crank arm 40, with a loosely rotatable gear wheel 41 meshing with gear wheel 25 of the lower shaft 23, and with a loosely rotatable ratchet wheel 42, of less diameter than the gear wheel 41.

Mounted rearwardly of the intermediate transverse frame bar 13, and transversely of the frame, through straps secured to said bar 13, is a rotatable shaft 43, the ends of which extend outwardly through the members of the side bars 9 and 10 and have vertical arms 44 intermediately secured thereto. The crank pins 45 of the crank arms 39 and 40 of shaft 38 have connecting arms 46 extending therefrom at each side of the main frame, to the ends of the rod 18^a extending through the article holding bars 19, and also have connecting rods or arms 47 extending therefrom at each side of the main frame, to the lower ends of the vertical arms 44. The crank arm 40 upon the right hand end of shaft 38, has its crank pin extending through the same toward gear wheel 41, adjacent the peripheral-edge of ratchet wheel 42, and provided thereon with a bell-crank-lever 48, one end of which, as shown, forms a pawl 49 engaging the ratcheted edge of wheel 42, being drawn thereto by a spring 50 extending between the same and the extremity of shaft 38. A latch bar 51 longitudinally movable along the outside of, and parallel with, the side frame bar 10, through a bracket 52 attached to said frame bar, and extending into the path of movement of lever 48, serves to engage the other end of said lever, to prevent crank 40 and shaft 38 from being rotated. A rock shaft 53 mounted through brackets 54 upon the forward transverse frame bar 3, has an angular inner end 55 extending forwardly between, and slightly above, the members comprising the article holding bars 19, and has also an angular outer end 56 extending upwardly and rearwardly and loosely connected to the forward end of latch bar 51. Thus when the article is placed as before described, upon the prongs of bars 19, it depresses the

angular end 55 of rock shaft 53, rocking said shaft and, by means of its angular end 56, drawing the latch bar 51 longitudinally and forwardly in order that pawl 49 may engage ratchet wheel 42 and operate the machine, such release being, however, under the tension of a spring 57 surrounding rock shaft 53, which returns the latch bar to its original position, to reengage lever 48, and stop the machine after each complete operation thereof.

The sliding cutter frame which is mounted within the main frame, comprises upper and lower longitudinal parallel bars 58 and 59 respectively, slidably mounted through the journal brackets 16^a of the U-shaped members 15 and 16, and through the brackets 14 of the transverse frame bars 8 and 13, said bars 58 and 59 carrying a cutting blade or knife 60 secured between the forward ends thereof. Said frame further comprises a rectangular member 61 secured to bars 58 and 59, between the U-shaped members 15 and 16 of the main frame, to the side pieces of which member 61 are pivotally secured the rear ends of connecting rods 62, extending between the same and the upper ends of the vertical arms 44, by which means the said frame is moved forwardly and relatively against the article advanced by the holding bars 19, cutting the article in halves and then carrying the same rearwardly upon the rotating cutter 37, as the bars 19 move forwardly again. Mounted loosely and vertically through aligned openings in the upper and lower pieces of the rectangular member 61, parallel to and adjacent each of the side pieces thereof, are rods 63 having upon their upper ends, forward extensions 64, to the ends of which are rigidly secured depending bars 65 having forwardly extending fingers 66 adjacent their lower ends and approximately centrally of the cutting blade 60. The upper sliding frame bar 58 is provided with a transverse bracket 67 forwardly of member 61, in which are centrally pivoted levers 68 having their rear ends connected, by coil springs 69, to the forward extensions 64 of the rods 63. The forward ends of levers 68 are connected, by links 70, to the rear enlarged and flattened end 71^a of a rod 71 extending forwardly and through the rear and forward upstanding guide ears 72 and 73 respectively, of a plate 74 secured to the forward U-shaped member 15 of the main frame, said rod 71 having a rigid collar 75 forwardly of guide ear 73. Thus upon the forward movement of the sliding cutter frame, the rear end 71^a of rod 71 will strike the rear guide ear 72 and cause the links 70 to flex and straighten out in transverse alinement, with their flattened ends abutting one another, at the same time

spreading the forward ends of levers 68 and forcing their rear ends together and swinging the rod extensions 64 and the bar fingers 66 inwardly against the cutting blade 60, to
 5 clamp the halves of the article after the same has been cut. Thus, also, upon the rearward movement of the sliding frame, the rod collar 75 will strike the forward guide ear 73, pulling links 70 together and causing
 10 fingers 66 to recede from the halves of the article, which by this time have had the cores thereof sliced by the rotating cutter 37, to permit the said article halves to drop.

From the foregoing it is thought the operation will be perfectly apparent, and need not be further described.

To prevent the crowding of the cabbage-halves against cutter 37 upon the rearward movement of the sliding frame, rearwardly diverging U-shaped guard members 76 are secured upon the rear edge of blade 60, in such manner that cutter 37 may pass between and into the same.

I claim:

25 1. In a machine of the character described, the combination of means to receive and advance a cabbage, a blade arranged in the path of movement of the cabbage to split the same, and means against which the split portions are advanced, to slice the core thereof.

30 2. In a machine of the character described, the combination of means to receive and advance a cabbage, a blade arranged in the path of movement of the cabbage to split the same, and a rotating cutting wheel against which the split portions are advanced to slice the core thereof.

3. In a machine of the character described, the combination of a splitting blade and a rotating core slicing wheel, and means to advance a cabbage successively against the same to split, and slice the core thereof.

4. In a machine of the character described, the combination of means to receive and advance a cabbage, a blade arranged in the path of movement of the cabbage to split the same, means to clamp the split portions, and means against which said split portions are advanced, to slice the core thereof.

50 5. In a machine of the character described, the combination of means to receive and advance a cabbage, a blade arranged in the path of movement of the cabbage to split the same, means to clamp the split portions, and a rotating cutting wheel against which the split portions are advanced, to slice the core thereof.

6. In a machine of the character described, the combination of a splitting blade, a rotating core slicing wheel, means to advance a cabbage successively against the said blade and said wheel, means to clamp the cabbage portions after the splitting operation, and

means to release said last named means after the core slicing operation.

65 7. In a machine of the character described, the combination of a frame, a splitting blade and a core slicing wheel arranged therein, a driven shaft, connections for rotating said slicing wheel, means in said frame for receiving and advancing a cabbage successively to said blade and said wheel, normally inoperative connections between said driven shaft and said advancing means, and means to render said connections operative, actuated by a
 70 cabbage in said receiving means.

8. In a machine of the character described, the combination of a main stationary frame, a sliding cutter frame therein, means to advance a cabbage to said cutter frame to split the same, and a rotatable core slicing wheel mounted in said main frame and against which said cutter frame moves the split cabbage.

9. In a machine of the character described, the combination of a main stationary frame, a sliding cutter frame therein, means to advance a cabbage to said cutter frame to split the same, means carried by said cutter frame for clamping the split portions, a rotatable
 85 core slicing wheel mounted in said main frame and against which said cutter frame moves the said split portions, and means to release said clamping means.

10. In a machine of the character described, the combination of a main stationary frame, a forwardly and rearwardly movable cutter frame therein, means for advancing a cabbage to said cutter frame upon one movement thereof to split the same, and a rotatable slicing wheel mounted in said main frame and against which said cutter frame moves the split cabbage upon the opposite movement thereof.

11. In a machine of the character described, the combination of a main stationary frame, a forwardly and rearwardly sliding cutter frame therein, means to advance a cabbage to said cutter frame upon one movement thereof to split the cabbage, clamping fingers carried by said cutter frame to clamp the split cabbage portions, a rotatable slicing wheel mounted in said main frame and against which said cutter frame moves the split cabbage upon the opposite movement thereof, and link levers to close said clamping fingers at the limit of the first named movement of said cutter frame, and open the same at the limit of the last named movement thereof.

12. In a machine of the character described, the combination of a main stationary frame, a forwardly and rearwardly sliding cutter frame therein, means to advance a cabbage to said cutter frame upon one movement thereof, a rotatable slicing wheel mounted in

said main frame and against which said cutter frame, in its opposite movement, advances the split cabbage, a driven shaft in said main frame, connections between the
5 same and said slicing wheel to rotate the latter, normally inoperative connections between said driven shaft and said advancing means and said cutter frame, and means to

render said connections operative, actuated by a cabbage in said advancing means. 10

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

LOUIS LECHER.

Witnesses:

WM. J. ROBINSON,
H. G. BATCHELOR.