L. KIRSCH.

KRAUT CUTTER.

APPLICATION FILED JULY 23, 1915.

1,189,702.

Patented July 4, 1916.

2 SHEETS—SHEET 1.

Fig. 1.

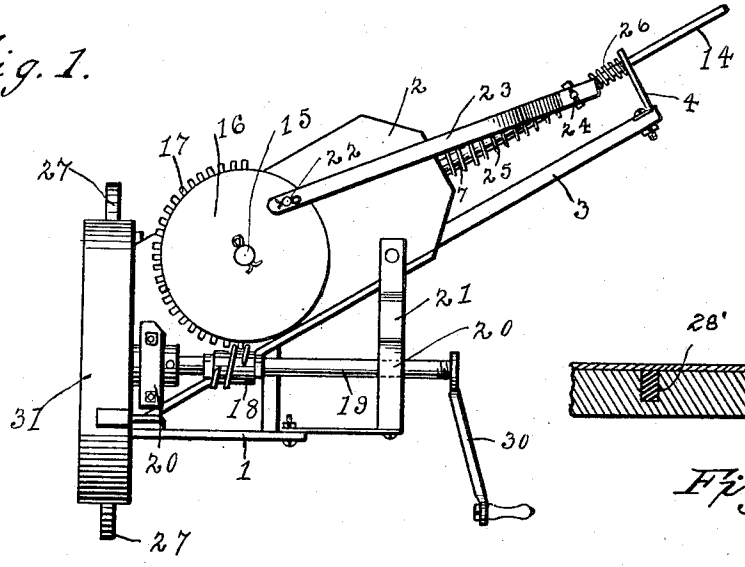


Fig. 9.

Fig. 3.

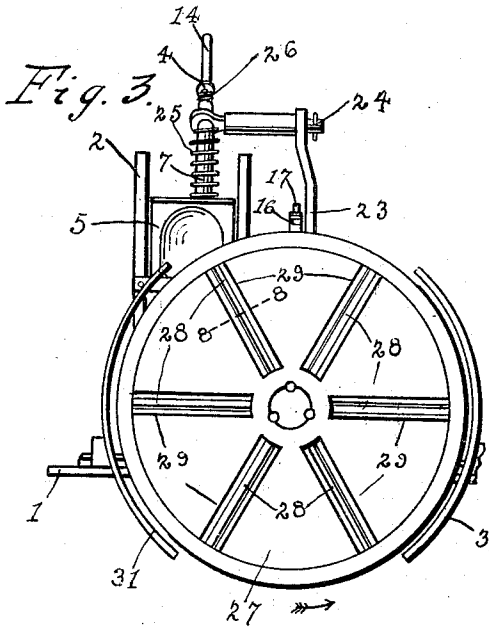
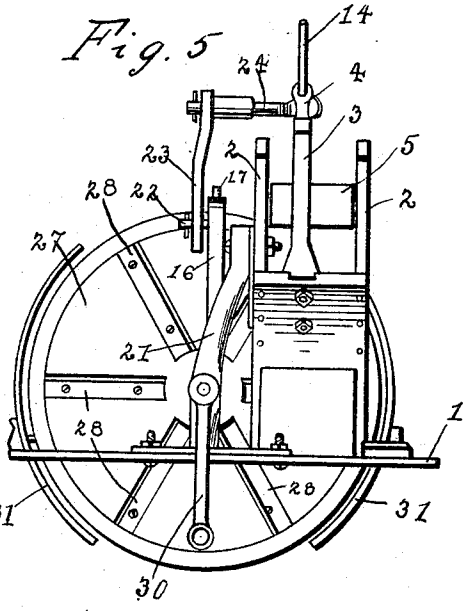


Fig. 5



Witnesses

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2 SHEETS—SHEET 2.

Fig. 2.

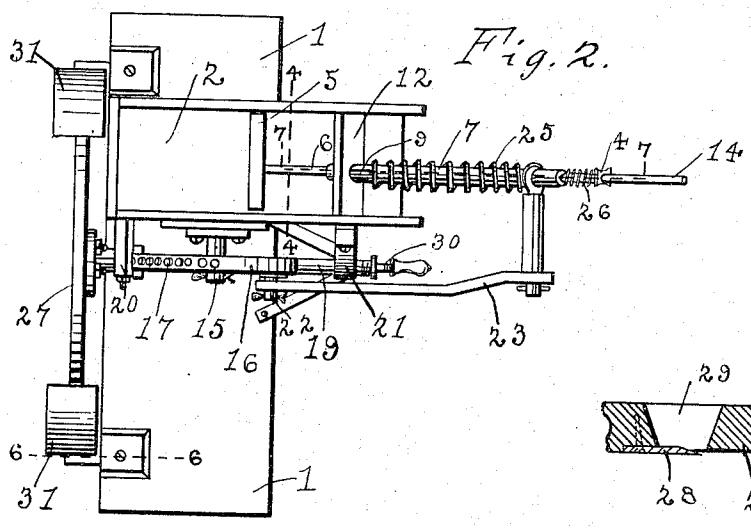


Fig. 8

Fig. 7.

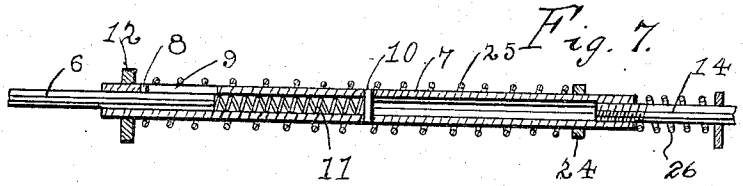


Fig. 4.

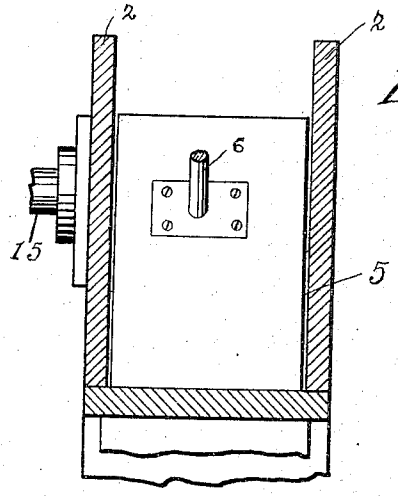
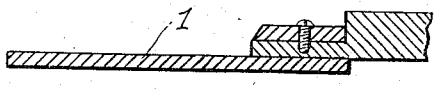


Fig. 6



Witnesses

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UNITED STATES PATENT OFFICE.

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KRAUT-CUTTER.

1,189,702. Specification of Letters Patent. Patented July 4, 1916.

Application filed July 23, 1915. Serial No. 41,556.

To all whom it may concern:

Be it known that I, LOUIS KIRSCH, a citizen of the United States, residing at Nicktown, in the county of Cambria, State of Pennsylvania, have invented certain new and useful Improvements in Kraut-Cutters; and I do hereby declare the follwing to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention is directed to improvements in kraut cutters, and has for its object to so construct a device of this character that the cabbage to be cut may be placed in the hopper and gradually forced in contact with the cutter head.

A further object of the invention is to provide a follower which will yieldably hold the cabbage to be cut against the cutter head, said follower being adapted to return automatically to its inoperative position after the cabbage has been cut.

A still further object of the invention is to provide a novel form of means for feeding the cabbage to the cutter head.

With these and other objects in view, this invention resides in the novel features of construction, formation, combination and arrangement of parts to be hereinafter more fully described, claimed and illustrated in the accompanying drawing, in which:—

Figure 1 is a side elevation of the device. Fig. 2 is a top plan view. Fig. 3 is a front elevation. Fig. 4 is a sectional view on line 4—4 of Fig. 2. Fig. 5 is a rear elevation. Fig. 6 is a sectional view on line 6—6 of Fig. 2. Fig. 7 is a sectional view on line 7—7 of Fig. 2. Fig. 8 is a similar view on line 8—8 of Fig. 3. Fig. 9 is a sectional view, taken at right angles to Fig. 8.

Referring to the drawing the numeral 1 designates a base, which is adapted to be placed upon a bench or other suitable support.

Supported on the base 1 is a hopper 2, said hopper having an upwardly extending arm 3 secured to its upper end, said arm being provided with a guide 4, the purpose of which will appear later. The hopper 2 is disposed in inclined relation to the base 1 and has slidable therein a follower 5 to the rear face of which is attached a rod 6, said rod being slidably connected in the bore of the tubular rod 7. The rod 6 is provided with a stop 8, which operates in the slot 9 formed in the rod 7, said stop serving to limit the sliding movement of said rod in opposite directions. A transverse pin 10 is carried by the tubular rod 7 and is engaged by the upper end of the coil spring 11, which is located in the rod 7, said coil spring having its lower end engaged with the upper end of the rod 6.

Supported transversely of the hopper 1 is a bar 12 which is provided with a central bearing 13 for slidably receiving the tubular rod 7, said rod having secured in its upper end a rod 14, which slidably engages the guide 4.

Supported by one side of the hopper 2 is a stub shaft 15 which rotatably supports the disk 16, said disk having its circumference provided with a series of teeth 17, which extend half way around the periphery of said disk and are adapted to mesh with the worm gear 18 which is fixed to the shaft 19, said shaft being rotatably supported in bearings 20. One of the bearings 20 is supported by one side of the hopper 1, while the other is formed in the standard 21, which is supported by the base 1, and has its upper end fixed to one side of the hopper 1.

Eccentrically associated with the disk 16 is a pin 22 which is pivotally connected to the lower end of the pitman 23, the upper end of which is pivotally connected to the shaft 24, said shaft having its inner end fixed to the tubular rod 7. Encircling the tubular rod 7, and having its lower end engaged with the bar 12 and its upper end with the inner end of the shaft 24, is a coil spring 25. The coil spring 25 serves to return the follower to its inoperative position in a manner to be hereinafter described. Encircling the rod 14, and interposed between the upper end of the rod 7 and the guide 4 is a coil spring 26, said spring serving to cushion the rebound of the rod 7.

Fixed to the forward end of the shaft 19 is a circular cutter head 27, said head having a plurality of radially disposed cutting blades 28, and associated with each blade is a discharge slot 29. The cutter head 27 traverses the lower open end of the hopper 1 in its rotary movement. Rotary movement is imparted to the shaft 19, and thus the cutter head 27 through the medium of the hand crank 30, which is attached to the rear end of the shaft 19 and in convenient reach of the operator.

In operation the cabbage to be cut is placed in advance of the follower 5, and

rests against the cutter head 27, whereupon the shaft 19 is rotated and at which time the worm 18 and teeth 17 are in mesh, thus imparting rotation to the disk 16, with the result that the pitman 23 will pull or force the rod 7 downwardly, thus compressing the spring 25. As the follower 5 continues to move downwardly, crushing of the cabbage is prevented since the rod 6 slides within the tube 7, and against the action of the spring 11, the tension of which being sufficient to hold the cabbage in yielding engagement with the rotating cutter head. Upon the disk 16 completing a semi-revolution, the follower will have moved from the position shown in Fig. 2 to a position adjacent the cutter at which time the worm 18 and teeth 17 will be disengaged, thereby permitting the spring 25 to return the follower to its initial or retracted position, the spring likewise serving to complete the rotation of the disk and again position the teeth 17 to engage the worm 18. Since the disk 16 is provided with teeth for one-half of its circumference it is obvious that the plain periphery of the disk can move over the worm without interference. The rebound of the rod 7 occasioned by the disengagement of the teeth 17 and worm 18 and expansion of the spring 25 is absorbed or cushioned by the spring 26.

Detachably connected to the base 1 are curved shields 31, which serve to direct the cut cabbage into a suitable receptacle.

By providing the coil spring 11, it will be noted that the plunger is prevented from forcing the cabbage too hard against the cutter head.

Interposed between the blades 28 and head 27 are rubber blocks 28′, and since the blades are held in place by adjusting bolts 32, said blades, as is obvious, can be adjusted so that the cabbage may be cut coarse or fine, as desired.

What is claimed is:—

A machine of the class described comprising a hopper, a cutter head traversing the discharge end of the hopper, a shaft for supporting the cutter head, a gear fixed to the shaft, a disk rotatably supported by the hopper, and having half of its periphery provided with teeth and the other half plain, a rod slidably supported by the hopper, a follower yieldably connected to the rod, a shaft fixed to the rod, a pitman pivotally connecting the shaft and disk, a cross bar mounted in the hopper, a coil spring encircling the rod and located between the cross bar and last named shaft, means for rotating the first named shaft to cause gradual rotation of the disk when the teeth thereof are in mesh with the worm gear, whereby the rod and follower are moved forwardly in the hopper and the spring is compressed, continued rotation of the last named shaft causing disengagement of the teeth and worm gear to permit the disk to rotate rapidly during the expansion of said spring and movement of the plain half of the disk over the worm gear, thereby permitting the follower to return to the rear end of the hopper.

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

LOUIS KIRSCH.

Witnesses:
GEORGE HOUCK,
JOHN KLINE.

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