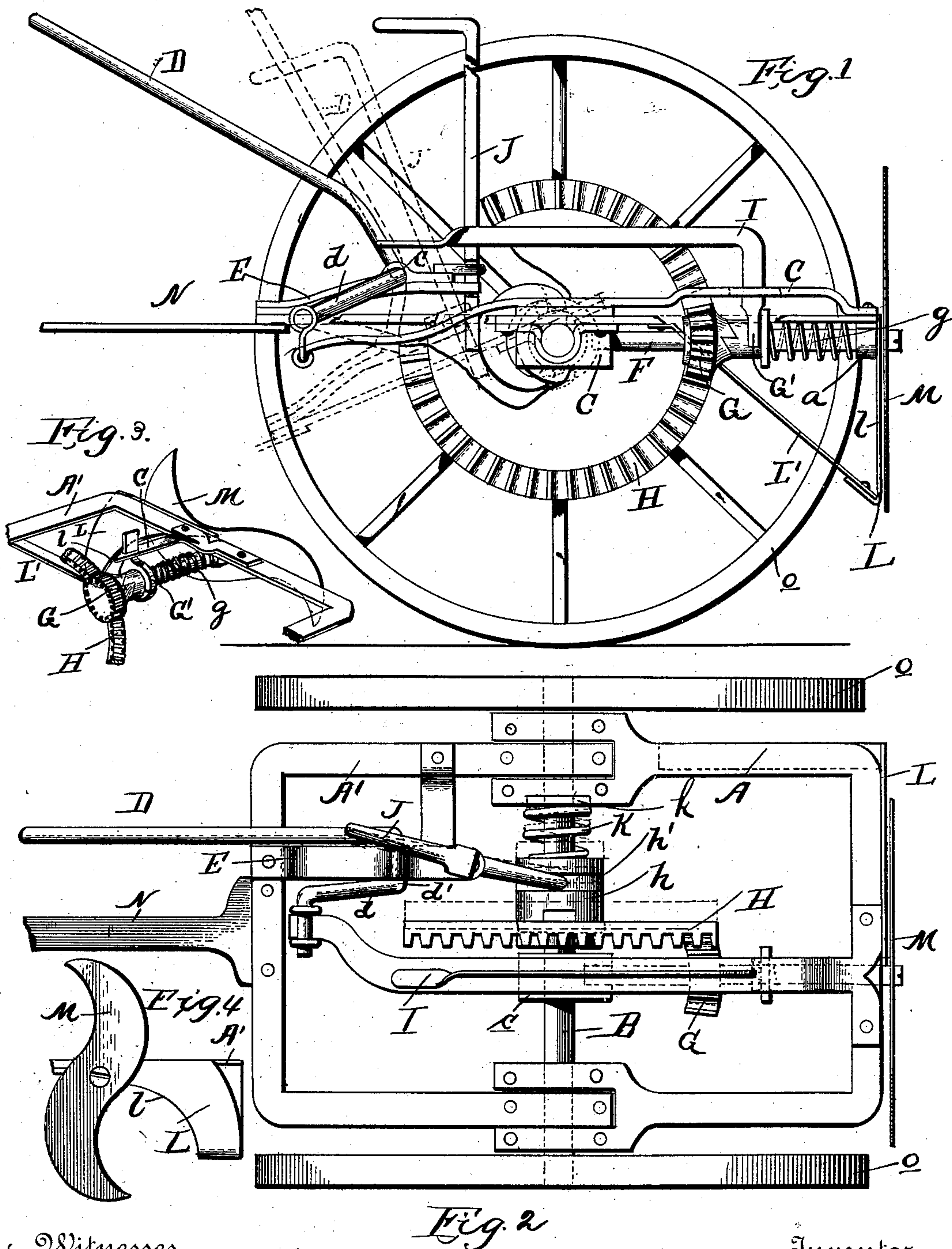


(No Model.)

W. WALKER.
CORNSTALK CUTTER.

No. 359,300.

Patented Mar. 15, 1887.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM WALKER, OF SCANDIA, KANSAS.

CORNSTALK-CUTTER.

SPECIFICATION forming part of Letters Patent No. 359,300, dated March 15, 1887.

Application filed November 6, 1886. Serial No. 218,141. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WALKER, a citizen of the United States, residing at Scandia, in the county of Republic and State of Kansas, have invented certain new and useful Improvements in Cornstalk-Cutters; and I do declare the following 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to an improved cornstalk-cutter, which will be more fully described and claimed hereinafter.

In the drawings, Figure 1 is a side view, having the nearer wheel removed and parts broken away, of a cornstalk-cutter embodying my improvements. Fig. 2 is a plan view, and Fig. 3 is a perspective view, of the rear portion of the frame; and Fig. 4 is a rear view of the cutter and knife-edge bracket.

The object of this invention is to devise a simple and compact machine for cutting stalks, preferably cornstalks, as they are left standing in the field after the corn has been harvested. The machine is drawn over such stalks, bending or breaking them down, and the knife or cutter in the rear severs the stalks close to the ground.

The frame of the machine comprises the two parts A and A', hinged together at their proximate ends, which ends are provided with bearings mounted upon the axle B. The arm C, connected at its rear end with the closed end of the frame A, extends forward and is connected with the frame-operating lever D by the link d. Said arm is provided with a bearing, c, which is journaled upon the axle B, as shown. The frame-operating lever D is supported by the bracket E, and has that portion to the right of the bracket extended upward in a nearly vertical line and that portion to the left extended substantially parallel with said bracket for a portion of its length, and its end d' bent at right angles thereto and having the upper end of the link d pivotally connected therewith. The link d forms a flexible connection between the end of the frame-

operating lever and the arm C, so that the variation in the distance between the relative position of the parts may be taken up.

The cutter-shaft F is arranged, preferably, at right angles to the axle and mounted in the rear part, A, of the frame, between its closed end and the axle, in which position it is journaled at its inner end in the bearing c, and at its outer end in the box a, secured to the under side of the closed end of the part A of the frame, as shown. The pinion G is loosely mounted upon the cutter-shaft, so that it may have an independent rotary movement thereon without communicating any motion thereto from the axle through the gear-wheel H, mounted upon said axle and adapted to mesh therewith. The clutch G' is keyed upon the cutter-shaft so as to rotate therewith and be free to have a longitudinal movement thereon to and from the pinion G, and is controlled in its movements by the clutch-operating lever I, which is loosely mounted in the arm C. That end of the clutch adjacent to the pinion is provided with the usual clutch-teeth, which are adapted to engage with corresponding teeth formed on the adjacent side of said pinion and cause the cutter-shaft and pinion to rotate together. The spiral spring g, encircling the cutter-shaft and interposed between the bearing a and the clutch, holds the latter normally in contact with the pinion.

The gear-wheel H is keyed to the axle by feather and spline in such manner that it has a longitudinal movement thereon to and from the pinion G. The sleeve h, projecting from a side thereof, has an annular groove, h', near its outer end, in which are seated the arms of the bifurcated end of the gear-wheel-operating lever J, vertically journaled near the outer corner of the bracket E. By this means the gear-wheel may be thrown in and out of mesh with the pinion G at will, and as often as occasion may require. The gear-wheel is normally held in position with said pinion by the spring K, encircling a portion of the axle and interposed between the end of the sleeve h and the washer k, resting against the inner side of the hinged joint between the parts of the frame.

The knife-edged bracket L, secured near the right-hand corner of the part A of the frame,

is stayed by the brace L', and has the knife-edge 7 curved downwardly and outwardly, as shown.

The cutter M, secured to the rear end of the cutter-shaft, is S-shaped and secured to said shaft midway between its ends. It is so disposed that the concave edges act in opposition to the knife-edge bracket L.

These several operating-levers will be provided with suitable hand-wrenches and notched segments to hold them in an adjusted position.

The draft is applied to the machine by means of the tongue N, secured to the part A', and motion is imparted to the axle through the drive-wheels O, which are secured to the outer ends of the axle. The gear-wheel H is caused to revolve with the axle by means of the feather-and-spline connection, and, meshing with the pinion G, drives the cutter-shaft, as will be readily understood. The cutter-shaft may be thrown out of gear by disengaging the clutch G' from the pinion, or moving the gear-wheel out of mesh with said pinion. Either or both of these means may be made use of. The pitch of the part A of the frame may be regulated to suit the height of stalk at pleasure by the frame-operating lever D, as hereinbefore set forth.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a cornstalk-cutter, the combination of the two-part frame hinged upon the axle, the arm connected with the rear portion of the frame and journaled upon the axle, and the frame-operating lever mounted upon the forward portion of the frame and connected with said arm, substantially as and for the purpose described.

2. In a cornstalk-cutter, the combination of the two-part frame, the axle, means for ad-

justing the pitch of the rear portion of the frame, the cutter-shaft mounted in one portion of the frame, substantially at right angles to the axle, gearing between the axle and cutter-shaft, the clutch keyed to the cutter-shaft and having a longitudinal movement thereon, and the clutch-operating lever, substantially as set forth.

3. In a cornstalk-cutter, the combination of the frame, the axle, the cutter-shaft, the pinion upon the cutter-shaft, the gear-wheel keyed to and free to have a longitudinal movement upon the axle, and the gear-wheel-operating lever, substantially as set forth.

4. In a cornstalk-cutter, the combination of the two-part frame hinged together, the axle, the cutter-shaft, the pinion on the cutter-shaft, the gear-wheel keyed to and having a longitudinal movement upon the axle, and the gear-wheel-operating lever journaled vertically to the frame, substantially as set forth.

5. The herein-described cornstalk-cutter, comprising the following elements: the hinged frame, the axle, the arm connected with the rear portion of the frame and journaled upon the axle, the frame-operating lever, the knife-edged bracket, the cutter-shaft, the gear-wheel keyed to and free to have a longitudinal movement upon the axle, the gear-wheel-operating lever, the pinion loosely mounted upon the cutter-shaft, the clutch keyed to and free to be moved longitudinally upon said cutter-shaft, and the clutch-operating lever, substantially as set forth.

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

WILLIAM WALKER.

Witnesses:

THEO. ENGSTROM,
W. B. GULICK.