(No Model.)

J. WISE.

CORN HARVESTER.

No. 454,102. Patented June 16, 1891.

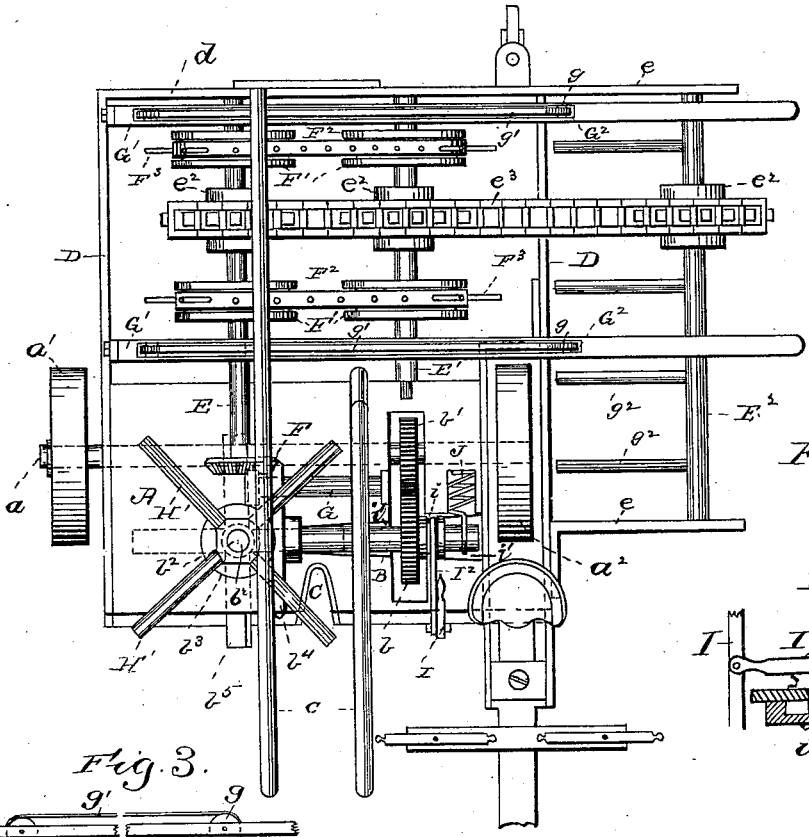

Fig. 1.

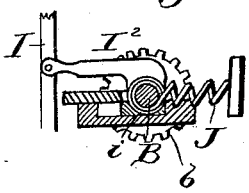

Fig. 4.

Fig. 3.

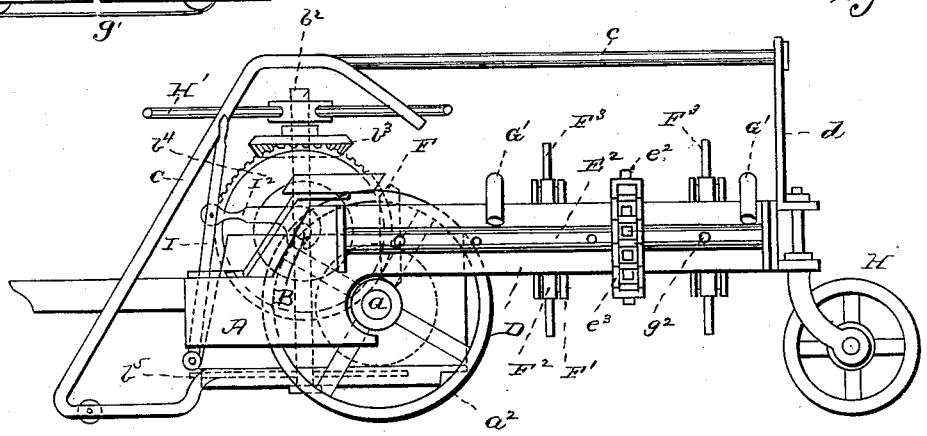

Fig. 2.

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JACOB WISE, OF DARETOWN, NEW JERSEY.

CORN-HARVESTER.

SPECIFICATION forming part of Letters Patent No. 454,102, dated June 16, 1891.

Application filed November 22, 1890. Serial No. 372,388. (No model.)

To all whom it may concern:

Be it known that I, JACOB WISE, a citizen of the United States of America, residing at Daretown, in the county of Salem and State of New Jersey, have invented certain new and useful Improvements in Cornstalk-Cutters, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention has relation to cornstalk-cutters; and it consists in the construction and novel arrangements of parts, as hereinafter specified, illustrated in the accompanying drawings, and pointed out in the appended claims.

The object of my invention is to provide a cornstalk-cutter of simple and inexpensive construction, whereby the cornstalks, when they have been cut, are forced rearwardly upon an endless carrier and dumped to one side of the machine in piles ready to be tied up in bundles; further, so to construct the gearing mechanism, located in the forward part of the frame, that it may be readily thrown in or out of gear.

In the drawings, Figure 1 is a plan view of my improved cornstalk-cutter. Fig. 2 is a side elevation of the same. Fig. 3 is an enlarged broken detailed side view of one of the slotted bars G′, having an endless carrier-belt and rollers to aid the lateral delivery of the cornstalk. Fig. 4 is a similar view, partly in section, showing the throwing in and out of gear mechanism for transmitting motion from the driving-shaft to the cutter or knife carrying shaft and to the shaft for actuating the cornstalk-delivery belts, and the endless sprocket-wheel belt for actuating the shaft and the throw-off arms for the delivery of the piles of cornstalks.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts in all the figures, the letter A designates the main frame, provided with suitable bearings, in which is journaled the axle *a*, carrying at its ends the driving-wheels a' a^2, the former of which is rigidly secured to said axle.

Journaled in suitable bearings formed in the frame A, forward of the axle *a*, is a shaft B, carrying a gear-wheel *b*, which meshes with a like wheel *b′*, secured to the axle *a*.

b^2 designates a vertical shaft supported in bearings formed in the frame A, said shaft carrying near its upper end a beveled gear-wheel b^3, meshing with a like wheel b^4, secured to the end of the shaft B. At the lower end of the vertical shaft b^2, and secured thereto in any desired manner, are laterally-extending knives b^5 for severing the cornstalks, as will hereinafter be explained.

At each side of the guide-slot C, formed in the frame A, are secured the forwardly-projecting shoes or arms *c*, which extend upwardly and rearwardly, as shown in Figs. 1 and 2. Secured by means of bolts to the frame A are rearwardly-extending arms D, braced at their rear ends by a transverse brace *d*.

To readily permit of the cornstalks being carried rearwardly as they are severed, I prefer to employ the following means: The letters E and E′ designate parallel longitudinal shafts journaled at their forward ends in the bearings formed in the main frame and at their rear ends in the bearings formed in the brace *d*. Extending laterally to one side of the frame A and brace *d* are brackets *e*, provided at their outer ends with bearings, in which is journaled a shaft E^2. Rigidly secured to the shafts E, E′, and E^2 are sprocket-wheels e^2, connected by the sprocket-chain e^3. Secured to the forward end of the shaft E is a bevel-gear F, which meshes with the like wheel b^4. Secured to the shafts E and E′ at each side of the sprocket-wheels e^2 are flanged wheels F′, as shown in Fig. 1, which are connected by endless carrier-belts F^2, provided with spurs F^3. Journaled in suitable bearings formed in the main frame immediately above the axle *a* is a transverse roller G, and secured to one of the arms D, outside of the flange-wheels F′, are transverse bars G′, provided with longitudinal slots G^2, in which are journaled rollers *g*, each pin of which is encompassed by an endless carrier-belt *g′*. Extending at right angles from the shaft E^2 are arms g^2, designed when the cornstalks have been cut and placed in piles on the bars G to throw them off, as will hereinafter appear.

For readily supporting the rear end of the machine I secure thereto a wheel H, as shown in Fig. 2, and in order that the cornstalks as they enter the guide-slot C and are severed

by the knives b^5 may be forced backward upon the rollers G, I secure to the upper end of the vertical shaft b^2 laterally-extending arms H′.

When the machine is being conveyed to or from the field, and if it is desired to throw the machine out of gear, I employ the following means: Pivoted between the lugs located on the main frame to one side of the driver's seat is an upstanding lever I, having pivoted thereto a rearwardly-extending arm I^2, which is provided with downwardly-extending arms engaging a groove *i*, formed in the hub of the gear-wheel *b*, and to readily hold the several gear-wheels in connection with one another I secure to the free end of the shaft B a coil-spring J, its opposite end being secured to the main frame. To permit the shaft B to be moved horizontally, whereby the gear-wheels are thrown in and out of gear, the shaft is journaled in a bearing-block *i*, adapted to slide in ways in the main frame, as clearly shown in Fig. 4.

The machine is provided at one side, as shown, with a tongue, to which horses may be attached for drawing the machine.

The operation of my machine, taken in connection with the above description and accompanying drawings, may be briefly described as follows: The machine having been thrown in gear, motion is imparted to the knives, and as the cornstalks enter the guide-slot they are severed and forced back upon the roller G and endless belts F^2 by means of the arms H′. They are then carried to one side of the frame and held on the end of the transverse bars G′ until the arms g^2, carried by the shaft E^2, come around and throw them off.

I do not desire to confine myself to the precise construction herein shown and described, as many minor changes may be made without departing from the scope and spirit of my invention.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a cornstalk-cutter, the combination, with the knife and the radial arm-carrying shaft and means for actuating said shaft, of the guide arms or shoes adapted to conduct the stalks to the arms of said shaft, the transverse bars provided with slots within which are journaled rollers, each pair of which is encompassed by an endless-belt carrier, and means for carrying the stalks resting upon said belt-carriers to the point of delivery, substantially as set forth.

2. In a cornstalk-cutter, the combination of the knife and radial arm-carrying shaft, means for actuating said shaft, the guide arms or shoes adapted to conduct the stalks to the arms of said shaft, the transverse bars provided with endless-belt carriers, the endless belt carrying series of spurs or teeth arranged in parallel planes with said transverse bars and their belt-carriers, and means for the delivery of the stalks after leaving said toothed belts, substantially as set forth.

3. In a cornstalk-cutter, the combination of the knife and radial arm-carrying shaft, means for actuating said shaft, the guide arms or shoes adapted to conduct the stalks to the arms of said shaft, the transverse bars provided with endless-belt carriers, the endless belts carrying series of spurs or teeth arranged in parallel planes with said transverse bars and their belt-carriers, the shaft having the throw-off arms, and the endless sprocket-chain, together with means for actuating the shafts of said belt-carriers and toothed belts, substantially as specified.

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

JACOB WISE.

Witnesses:
JOHN M. KROM,
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