

(No Model.)

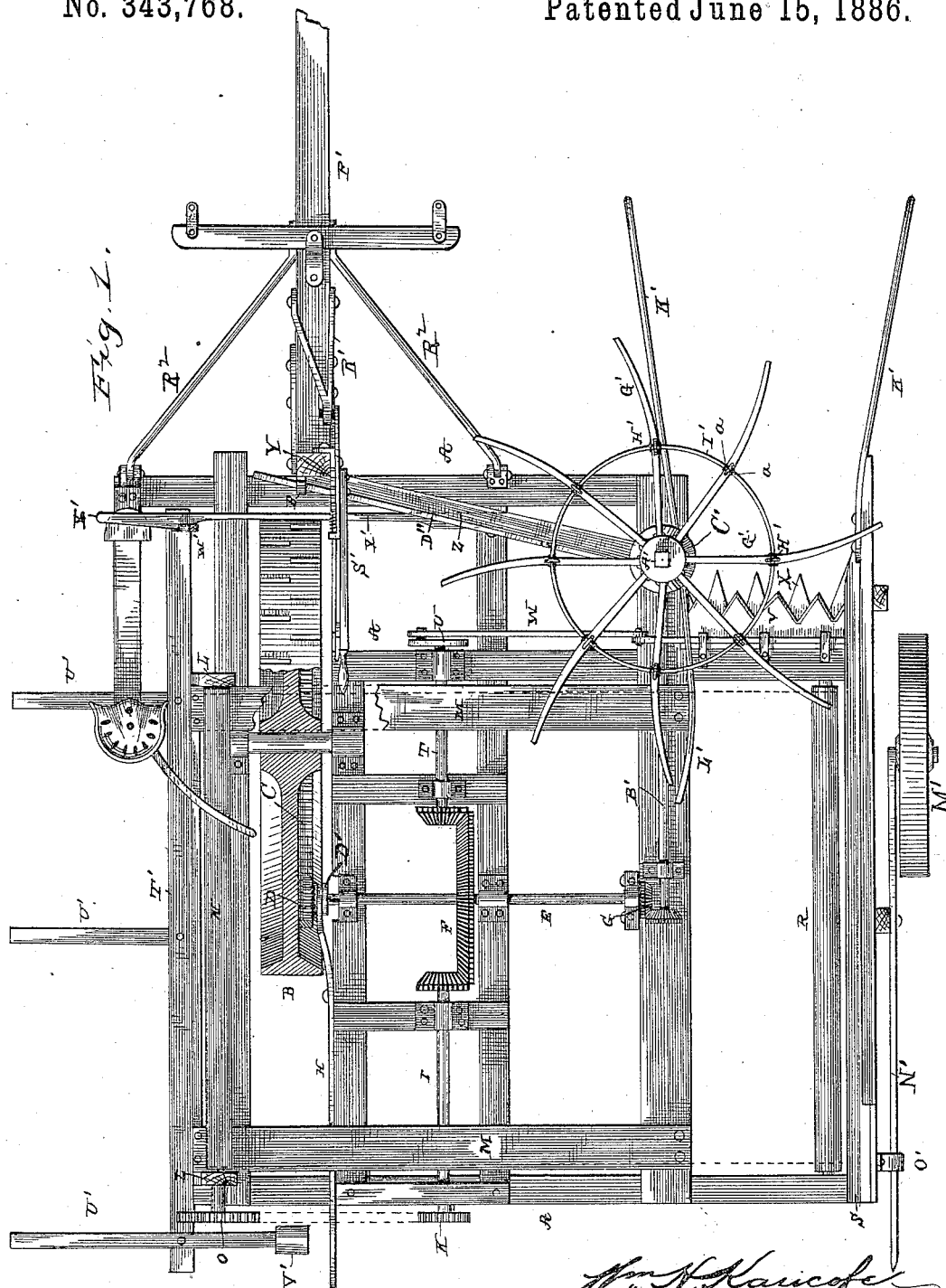
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W. H. KARICOFÉ.

CORN HARVESTER.

No. 343,768.

Patented June 15, 1886.



WITNESSES

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Chas. H. Davis
F. L. Chapman

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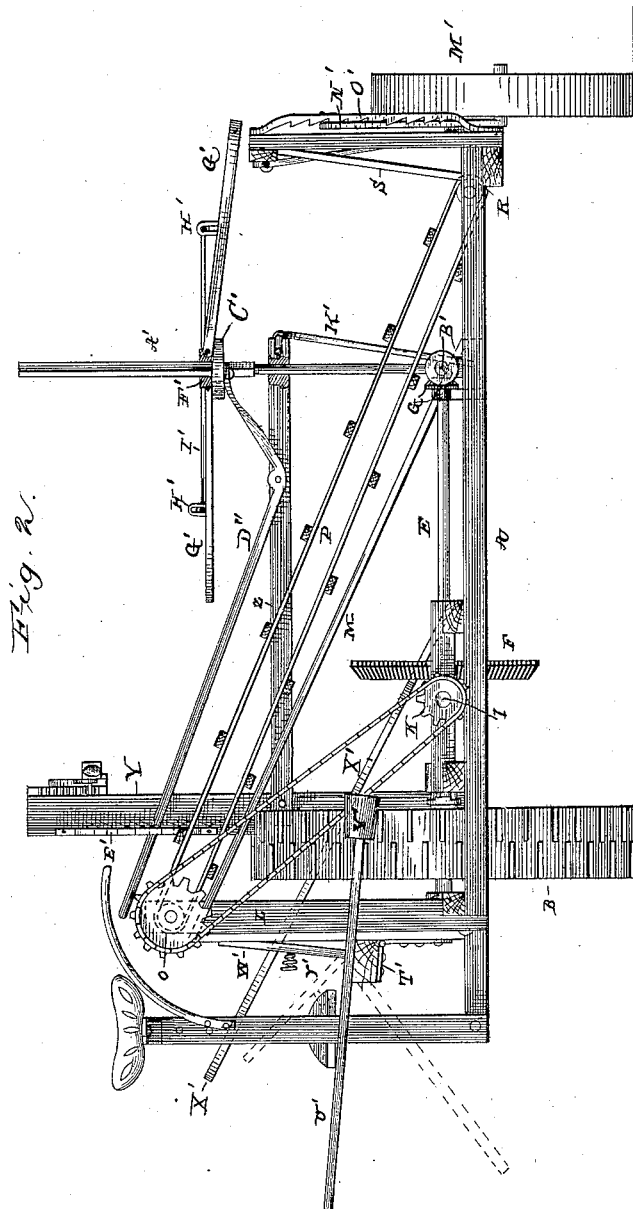
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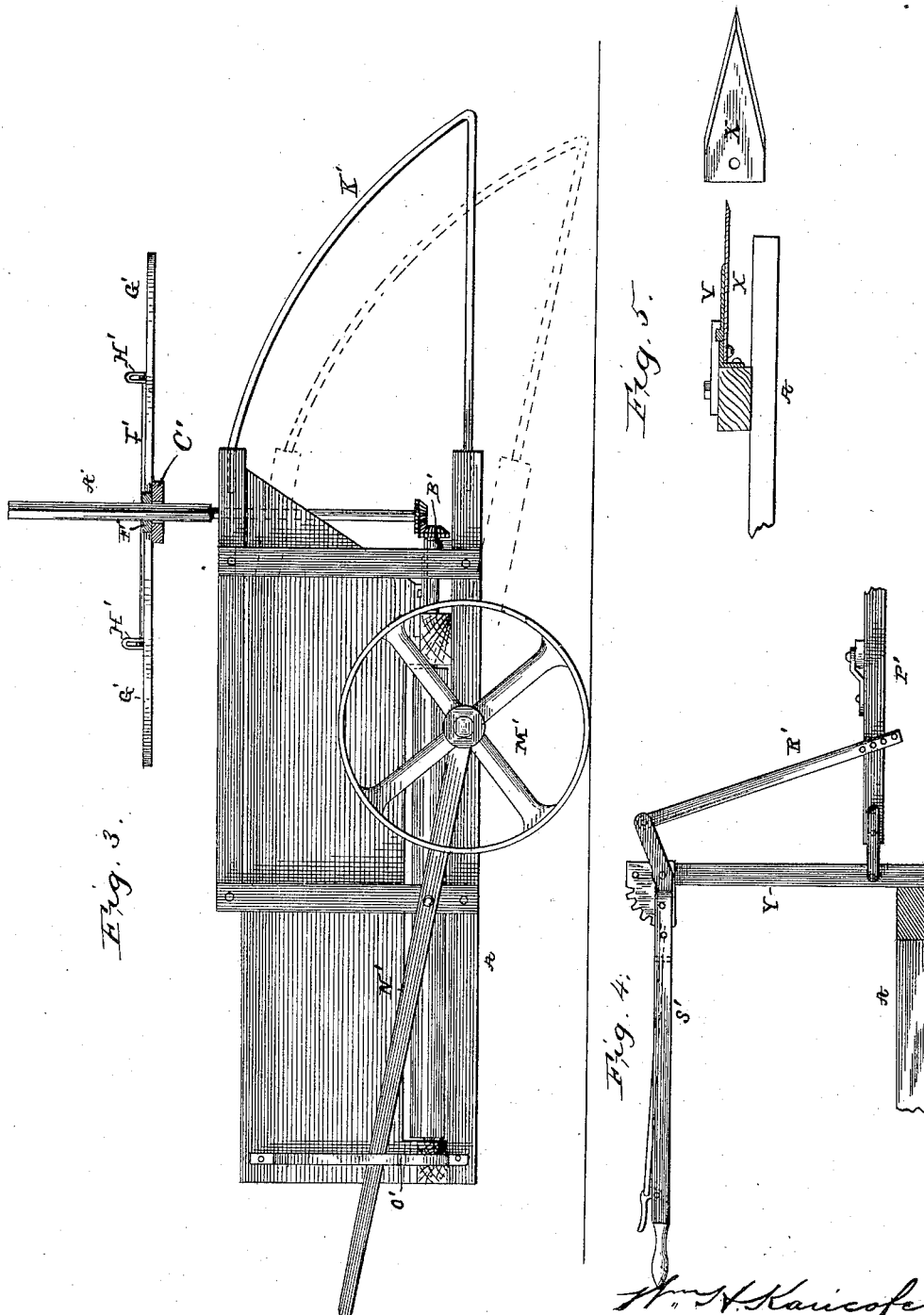
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UNITED STATES PATENT OFFICE.

WILLIAM H. KARICOFÉ, OF LEETOWN, WEST VIRGINIA.

CORN-HARVESTER.

SPECIFICATION forming part of Letters Patent No. 343,768, dated June 15, 1886.

Application filed August 18, 1885. Serial No. 174,678. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. KARICOFÉ, a citizen of the United States, residing at Leetown, in the county of Jefferson and State of West Virginia, have invented certain new and useful Improvements in Corn-Harvesters, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in corn-harvesters, and is designed to produce a machine that will harvest standing corn and deposit it in quantities sufficient to make shocks.

The improvement consists, essentially, in the mechanism and combinations thereof herein-after described, and pointed out in the claims.

In describing the device reference is had to the annexed drawings, in which Figure 1 represents a plan view of the machine with the carrier removed, but indicated in dotted lines, and the drive-wheel partially sectioned; Fig. 2, a rear elevation; Fig. 3, a side elevation showing the supporting-wheel, guide-frame, and reel, the latter being sectioned; Fig. 4, a detail elevation of the tongue adjustment, and Fig. 5 details of the cutters.

A suitable frame, A, has mounted in it a main drive-wheel, B, provided with an internal gear, C, which intermeshes with a pinion, D, on one end of a shaft, E, extending transversely partially across the frame and carrying about midway a bevel-gear, F, and at the other end a pinion, G. By means of a lever, H, and a grooved collar, D', on the pinion D, with which collar the lever engages, the said pinion may be moved out of engagement with the gear C, as would be desirable should the machine be moved from place to place. The bevel-gear F engages with a pinion on a shaft, I, extending to the rear of the machine, where it carries a sprocket-wheel, K.

On posts L, braced by inclines M, is supported a roller, N, carrying a sprocket-wheel, O, which, by means of a drive-chain, receives motion from the sprocket K. This roll imparts motion to the inclined carrier P, the lower end passing around a roller, R, properly journaled in the frame and parallel to an inclined guard, S, Figs. 1 and 2. The bevel-gear F also intermeshes with a pinion on a shaft, T, extending toward the front of the frame, at which point it carries a disk, U, with a wrist-pin. From

the wrist-pin to the reciprocating series of knives V extends a pitman, W.

In place of the fingers usually employed in machines for harvesting grain I use sharp edges and sharp-pointed stationary cutters X, which I prefer to locate below and to extend considerably in front of the reciprocating cutters V. The stationary cutters are intended to perform some of the functions of guard-fingers in properly presenting the material to the reciprocating cutters; but I construct them in such form and place them in such relation to the reciprocating cutters that they will do the principal part of the cutting before the stalks reach the same. The points of these stationary cutters are intended to penetrate the stalk and cut each way, so that the reciprocating cutters will have but a small part of the cutting to do, for even when the point of a stationary cutter does not come in contact with a stalk so as to penetrate it, yet the angle of the cutting-edge and the stiffness of the stalk cause the cutting to commence as soon as the stalk and edge come in contact. This construction, so far as I am aware, is new, and it enables me to cut successfully stalks of a size and hardness that I have failed to cut with any other form of cutters.

The reciprocating cutter can only act on the principle of a saw and with the ordinary forward motion of a team. To cut a large stiff stalk, the reciprocations would have to be too rapid for safety to the machinery or economy in the construction.

In front of the drive-wheel is a post, Y, supporting a beam, Z, which reaches nearly to the front of the knives and forms a bearing at the end for a reel-shaft, A', standing upright and rotated by gearing on a shaft, B', which receives its motion from the pinion G on the counter-shaft E. The reel-shaft A' carries a collar, C', beveled for about one-half the circumference on the upper side and fixed to a lever, D'', pivoted to the beam Z and retained by a rack, E', so as to move longitudinally on said reel-shaft, but not rotate therewith.

Rotating with the reel-shaft A', and capable of vertical adjustment by means of the collar C' and lever D'' is a collar, F', carrying pivotally a series of laterally-curved arms, G', each provided with a staple, H', through all of which passes a ring, I'. To prevent the arms G' from

sliding upon the ring I', small collars *a* are secured upon the same on each side of the staples H'. The collar, arms, and ring form a reel. The bevel on the collar C' is so placed that the arms fall somewhat as they approach to and recede from the knives.

Converging guide arms K', one on each side of the knives, receive and direct the course of the corn. The reel-arms carry it to the cutters, massing it between the ring I' and the outer frame, K', thus preventing its entanglement in the reel-operating mechanism and directing its course to an even delivery to the elevating-carrier. The rearward-extending end, L', of the inner frame, K', also prevents the scattering of the cut stalks and directs their delivery.

The outer supporting-wheel, M', is journaled on the shorter end of a pivoted lever, N', the longer end resting within a notched keeper, O', the said lever being pivoted to the grain side of the machine. The cutters may thus be elevated or depressed.

The pole P' is pivoted to the frame, and is supported by a link, R', and lever S'. By lowering the rear end of the pole the entire front of the machine is depressed, and the guide-frames K' will pick up fallen corn, while raising the pole will give the reverse effect, the front end thereof always retaining its normal position relative to the horses. On each side of the pole is secured a brace-rod, R², extending in a diagonal direction to the front beam of the frame A, and is there pivotally connected to the said beam. By means of these brace-rods the diagonal rod or rods extending entirely across the main frame in a diagonal direction are done away with, as the strain of the draft is distributed over a large portion of the front of the frame. However, no claim is made to this feature, as I am aware that it is not new.

Under the elevated end of the carrier is hinged a receiving and dumping frame consisting of a longitudinal bar, T', with project-

ing fingers U', one of which extends inward relative to the bar T', and carries a counterbalancing-weight, V'. The front of the bar carries an upright, W', over which engages the notched end of a spring-strip, X', and a spring, Y', extends from said upright to the seat-standard Z'. When the receiving-frame has on it a sufficient amount of corn, the driver with his foot pushes the strip X' out of engagement with the upright W', and thus enables the weight of the corn to cause the free end of the frame to fall and deposit said corn, the spring and weight returning it to its position.

I claim—

1. A corn-harvester having a delivery-reel consisting of radial arms pivoted to an adjustable rotative collar, a ring supported by said radial arms and held thereon by staples, a shaft carrying said collar, a supporting non-rotating beveled collar having a sliding movement on said shaft, and a lever for adjusting said collars, substantially as specified.

2. In a corn-harvester, a cutting apparatus consisting of a reciprocating cutter bar and a series of longer fixed cutters extending in front of the reciprocating cutters, substantially as described.

3. A corn-harvester consisting of a frame, a reciprocating cutter bar, and fixed cutters projecting in front of the reciprocating cutters, converging guiding-arms, a vertically-adjustable delivery-reel, an adjustable pole pivoted to the frame, an endless-apron elevator, a weighted dumping-tray, and intermediate driving mechanism between the drive-wheel and above-named parts, substantially as specified.

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

WM. H. KARICOFF.

Witnesses:

CHAS. D. DAVIS,
WM. H. A. KARICOFF.