(No Model.) 3 Sheets—Sheet 1.

H. E. REEVES.

CORN HARVESTER.

No. 388,150. Patented Aug. 21, 1888.

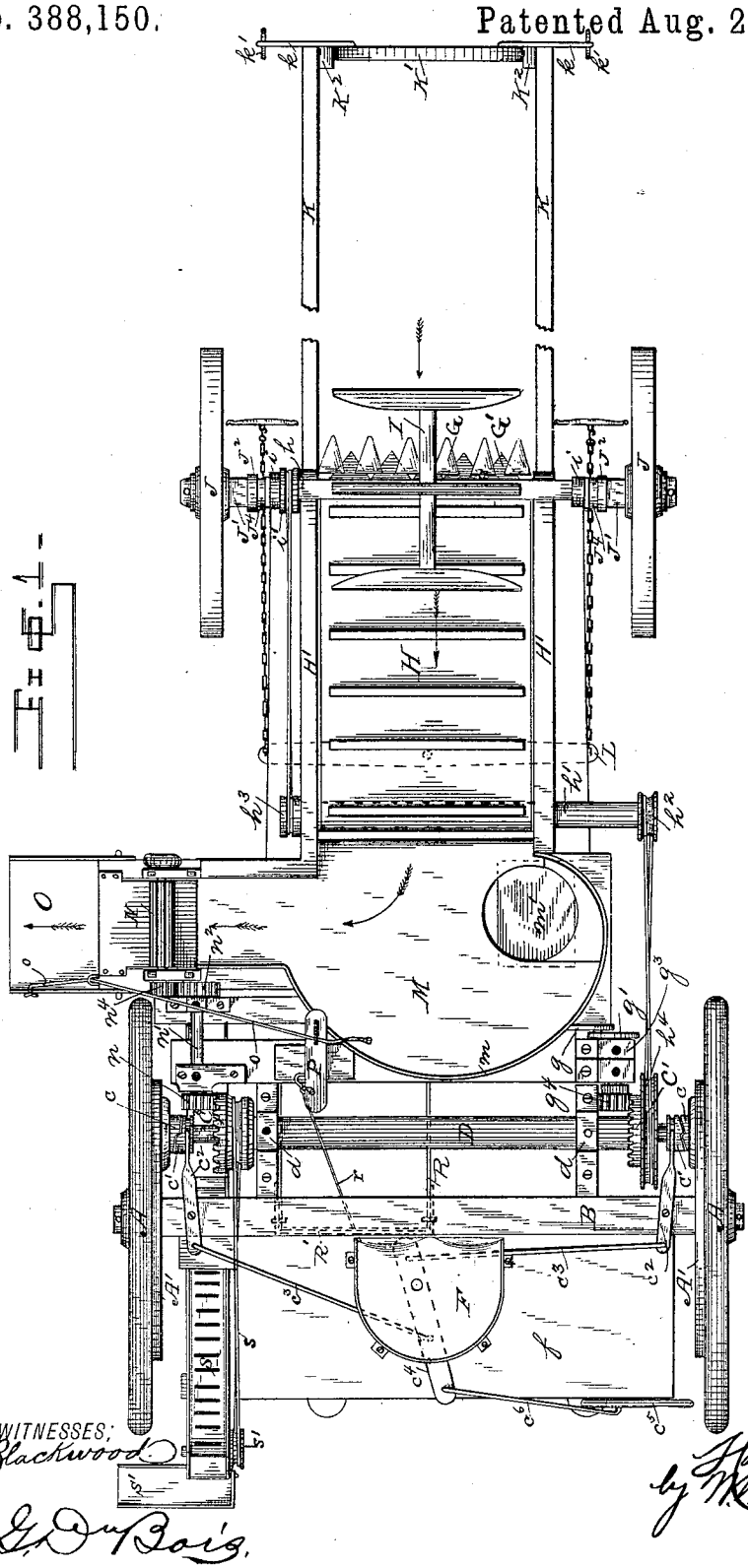


Fig. 1.

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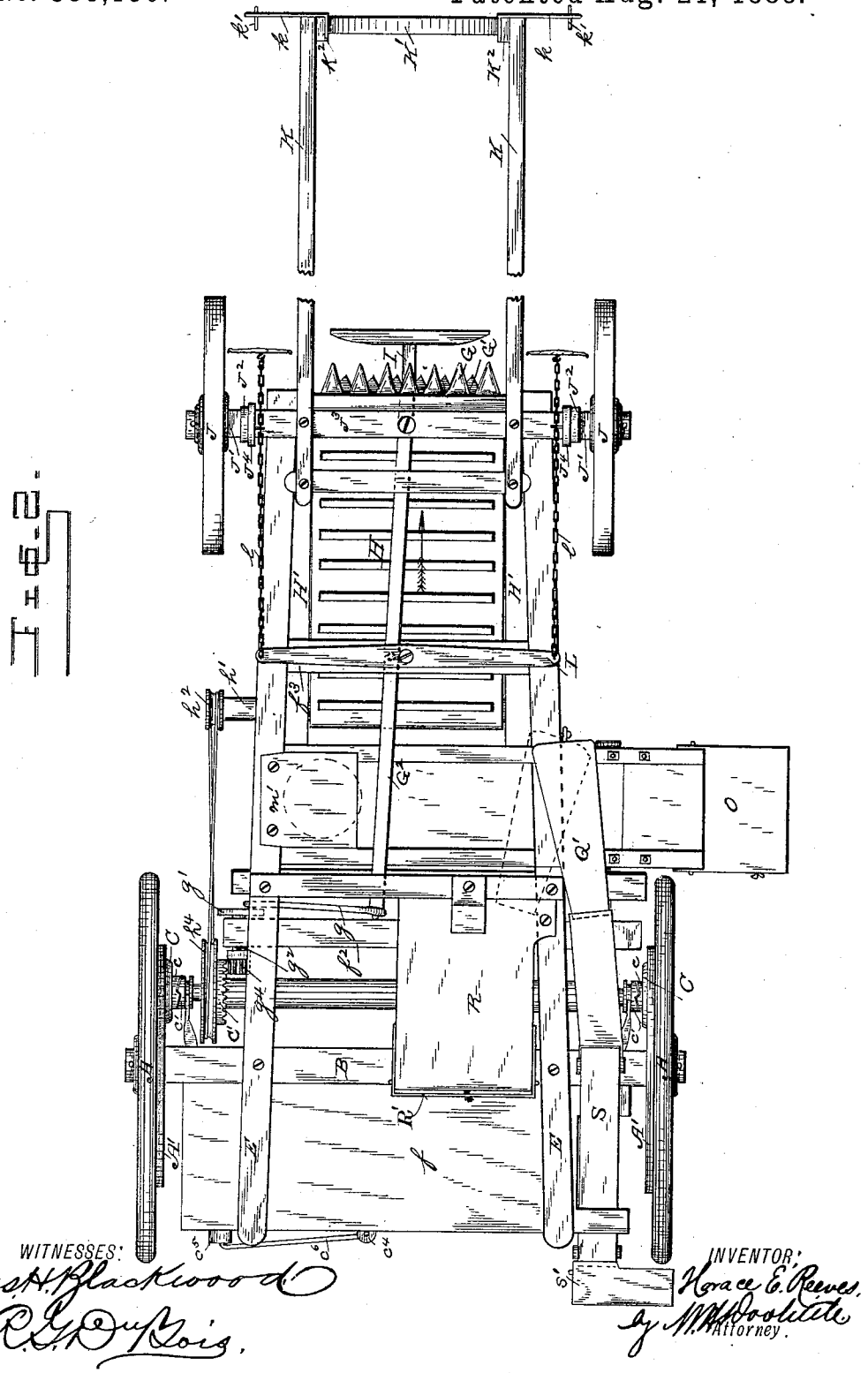
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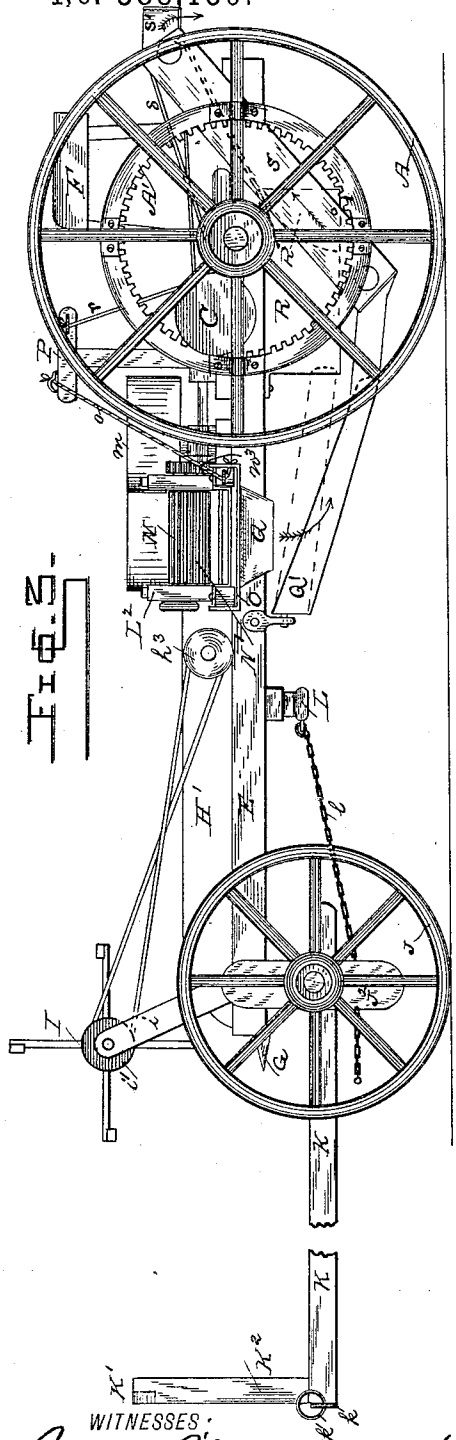
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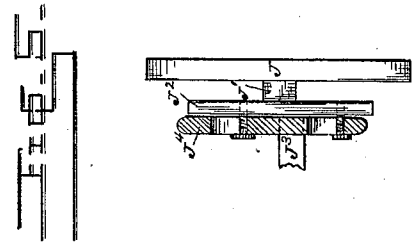
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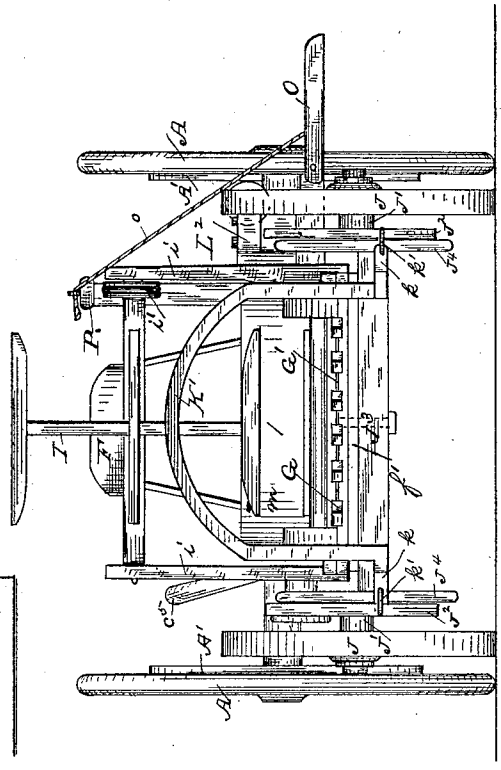
H. E. REEVES.

CORN HARVESTER.

No. 388,150. Patented Aug. 21, 1888.







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UNITED STATES PATENT OFFICE.

HORACE E. REEVES, OF SANBORN, IOWA.

CORN-HARVESTER.

SPECIFICATION forming part of Letters Patent No. 388,150, dated August 21, 1888.

Application filed May 22, 1886. Serial No. 202,970. (No model.)

To all whom it may concern:

Be it known that I, HORACE E. REEVES, a citizen of the United States, residing at Sanborn, in the county of O'Brien and State of Iowa, have invented certain new and useful Improvements in Corn-Harvesters; and I do hereby 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.

My invention relates to that class of corn-harvesters in which the stalks, after they are cut, are delivered between rollers to separate the ears from the stalks.

The object of the invention is to provide mechanism for cutting standing corn, stripping the ears from the stalks, directing the latter out of the way of the machine, and depositing the husked corn in piles on the ground or delivering it to the bed of a wagon, which shall be simple in construction and speedy and effective in operation.

The invention consists in the novel construction and arrangement of parts, as will be fully explained in the following description, and clearly defined in the claims.

In the accompanying drawings, Figure 1 is a top plan view of the machine. Fig. 2 is a plan view of the under side of the machine. Fig. 3 is a side elevation. Fig. 4 is a front end view. Fig. 5 is a detail view illustrating means by which the front end of the machine, on which the cutting mechanism is located, may be raised or lowered.

Referring to the drawings, A A are the main wheels of the machine, mounted on rear axle, B, which is secured to two beams, E, extending the whole length of the machine.

To the inner side of each of the wheels A is attached an interiorly-toothed driving-wheel, A', with which gear pinions C, loosely mounted on each end of the driving-shaft D, journaled in bearings *d* on beams E directly in front of axle B. The hubs *c* of these pinions are shaped to engage with clutches c', splined on the driving-shaft, these clutches being thrown into and out of engagement with the hubs of the pinions by arms c^2, pivoted on axle B, to the outer ends of which arms are attached rods c^3, connected also to a lever, c^4, pivoted to a cross-piece, *f*, attached to the rear ends of beams E, on which cross-piece is mounted the driver's seat F, lever c^4 being operated by means of a hand-lever, c^5, connected with lever c^4 by a rod, c^6.

G G' represent the cutter mechanism, located at the front end of the machine. The cutter-bar G' is reciprocated in the finger-bar G by means of a lever, G^2, pivoted to the upper side of a cross-piece, f^3, secured to the under side of beams E. This lever is operated through a link, *g*, connecting it with a crank-disk, *g'*, secured to one end of a short shaft, g^2, journaled in a bearing, g^3, mounted on cross-piece f^2, secured to the upper side of beams E. This shaft g^2 carries at its other end a bevel-wheel, g^4, which meshes with another bevel-wheel, C', rigidly secured to the driving-shaft.

H represents an elevator working on rollers *h h'*, journaled in a suitable frame-work, H', secured to beams E. One of these rollers, *h'*, has at each end a grooved pulley, h^2 h^3, and motion is imparted to this roller through a cord connecting pulley h^2 with another pulley, h^4, on driving-shaft D.

I is the reel, the shaft of which is mounted in standards *i*, rising from beams E. On one end of this shaft is a grooved pulley, *i'*, connected by a cord with pulley h^3 on elevator-roller *h'*.

The front wheels J of the machine are mounted on short spindles J', rigidly fixed to vertical posts J^2, the axle J^3 being pivoted to a cross-piece, *f'*, on the under side of beams E, and carrying at each end a slotted vertical standard, J^4, adjustably secured to posts J^2 by screw-bolts, as shown in detail view, Fig. 5, by which arrangement the cutting mechanism can be raised or lowered, as desired.

K K are two tongues attached to the front axle, to the outer end of each of which is fixed a metallic arm, *k*, bearing a ring, *k'*, in which to fasten the neck-yoke strap. These tongues are braced at their outer ends by an arched brace, K', supported on standards K^2 K^2, which are of sufficient height to raise the brace above the standing corn.

L is a doubletree swiveled to a cross-piece, f^5, on the under side of the machine, to which doubletree are attached chains *l*, provided at their outer ends with hooks, for attachment of the singletrees.

Just in rear of elevator H is a platform, M,

having a raised rim, *m*. As it is intended that the operator shall sit on this platform and feed the cut stalks to the husking mechanism, there is a hole cut through the platform on one side of a size to permit the passage of the operator's legs, a step, *m'*, being secured underneath on which to rest his feet.

N N' are the husking-rollers, mounted in a suitable frame-work, L^2, on the left-hand side of the machine, which rollers are operated by the driving-shaft D through bevel-gears C^2 *n*, shaft *n'*, and gear-wheels n^2 n^3 n^4.

To the side of frame-work L^2 there is pivoted an apron, O, to which one end of a cord, *o*, is attached, the other end of the cord being secured to the top of a standard, P, in convenient reach of the driver.

Beneath the husking-rollers and secured to the frame-work L^2 there is a downwardly-inclined chute, Q, leading into a trough, Q', swiveled to beam E, in order that it may be so swung as to deliver either into a box, R, secured to the under side of the machine, or to an elevator, S, rising above the top of the machine at the rear, and provided with a lateral spout, S', the apron in said elevator being driven by a cord, *s*, passed over a pulley, *s'*, on the upper roller, and also over the driving-shaft D.

Box R is provided with a falling end-gate, R', from which a cord, *r*, leads to standard P.

The operation of my machine is as follows: As the machine is drawn along a row of standing corn, the cutter-bar will sever the stalks, which will then be drawn back by the reel onto the elevator, which will deliver them onto the operator's platform. As the stalks reach this platform, they are directed by hand to the husking-rollers, which strip the ears from the stalks, the corn falling down chute Q and the stalks passing out onto apron O, where they remain until it is full, when the driver loosens cord *o* and allows the apron to fall, thus delivering the stalks in bunches. If it is intended to deposit the ears in quantities on the ground, trough Q' is connected with the box R, and when that box is filled the driver draws on cord *r*, thus raising the end-gate and allowing the corn to fall out; but if it is desired to load the corn directly into a wagon driven alongside the machine, trough Q' is connected with the elevator, up which the ears of corn will be carried by the elevator-apron and delivered into the lateral downwardly-inclined spout S', down which they will fall into the wagon-bed. The cutting and husking mechanisms are thrown out of operative position by moving hand-lever e^5 so as to throw clutches *e'* out of engagement with the hubs of the driving-wheels.

In the above description it has been assumed that two persons are necessary to operate the machine, one on the platform to direct the stalks to the husking mechanism and another to drive the team and to operate the husker-apron and the dumping-box; but, however, one person can readily do the work of both when once he gets accustomed to the machine.

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

1. The combination, with the cutting mechanism at the front of the machine and an elevator in close contact therewith, of a horizontal platform provided with a raised rim and having an aperture, as described, a step secured to the frame-work beneath said aperture, husking mechanism at the side of the platform and machine, a falling apron in front of the husking mechanism, and a cord secured to the apron, all as described, and for the purpose set forth.

2. The combination, with the husking mechanism and a downwardly-inclined chute arranged in the rear thereof, of a box secured to the under side of the machine, an elevator rising above the top of the machine at the rear, and a swivelled trough for communication at will with either the box or the elevator, substantially as described.

3. The combination, with the husking mechanism and a downwardly-inclined chute arranged in rear thereof, of a box provided with a falling end-gate secured to the under side of the machine, an operating-cord secured to the end-gate, an elevator rising above the top of the machine at the rear, a lateral downwardly-inclined trough attached to the upper end of the elevator, and a swiveled trough beneath the husking mechanism for communication at will with either the box or the elevator, substantially as described, and for the purpose set forth.

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

HORACE E. REEVES.

Witnesses:
J. L. REEVES,
FRANK A. TURNER,