

L. PELTON.
Corn-Harvester.

No. 215,391.

Patented May 13, 1879.

Fig. 1

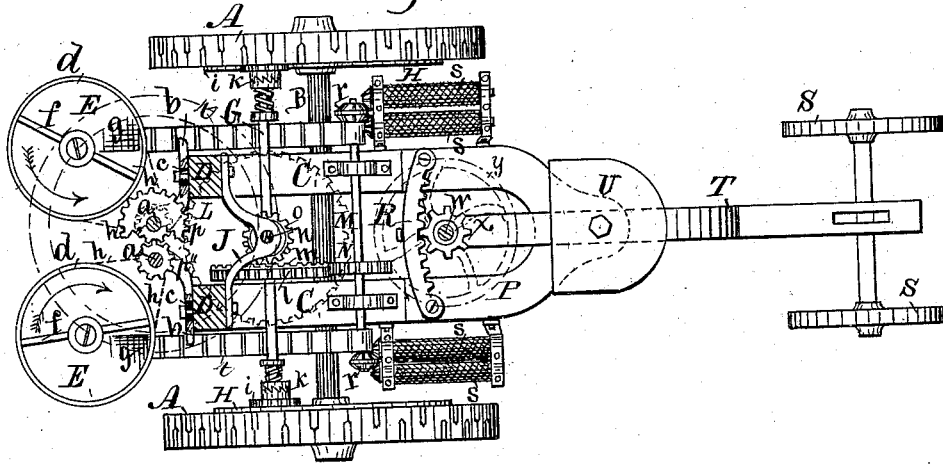


Fig. 2

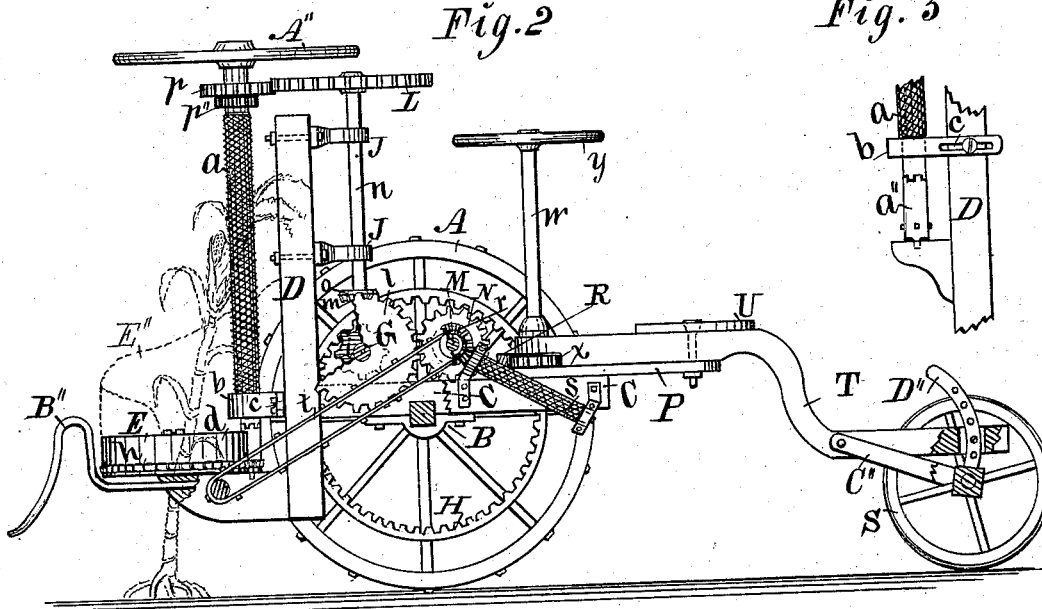
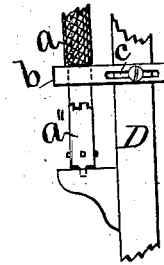


Fig. 3



Witnesses:
Erastus W. Smith.
Frank W. Heers

Inventor:
Leander Pelton,
By Thomas G. Orwig,
Attorney.

UNITED STATES PATENT OFFICE.

LEANDER PELTON, OF PERRY, IOWA.

IMPROVEMENT IN CORN-HARVESTERS.

Specification forming part of Letters Patent No. **215,391**, dated May 13, 1879; application filed February 14, 1876.

To all whom it may concern:

Be it known that I, LEANDER PELTON, of Perry, in the county of Dallas and State of Iowa, have invented an Improved Corn-Harvester, of which the following is a specification.

The object of my invention is to save time and labor on the farm by gathering and husking corn in the field by means of machinery mounted and operated upon a traction-carriage.

It consists in arranging and combining upright and jointed picking and husking rollers, rotating hoppers, inclined elevators and husking-rollers, and elevating and steering devices, all as hereinafter fully set forth.

Figure 1 of my drawings is a top-plan view, illustrating the construction and operation of my invention.

A A are the carriage-wheels, of common form. B is a rigid axle, upon which the wheels A are mounted. C C are parallel beams rigidly and centrally fixed upon the axle B, at right angles, to form a carriage frame and base, upon which to mount the operating mechanism. D D are uprights, corresponding in size with the horizontal beams C, and framed and rigidly fixed to the front ends of those beams, to extend upward and downward therefrom.

a a are my upright jointed and adjustable picking and husking rollers. They may vary in length and diameter, as desired, and can be made of any suitable material, so as to present a hard, grooved, and rasping surface that will take hold of the husks and pull them from the corn upon which they are closely folded.

b b are adjustable bearings at the lower portion of the rollers a, designed to move the rollers to and from each other, as required to suit the size and condition of the corn. They have slots c, through which set-screws are passed to clamp the bearings to the uprights D.

E E are my rotating hoppers, mounted in suitable bearings projecting forward from the lower ends of the uprights D. They consist of short cylinders d, open at the top and bottom, and divided centrally by a vertical division, f, which partition is enlarged at its center to form a pivotal bearing. These partitions f also serve as scrapers when the hoppers are rotating, to push the corn through the openings g

in the fixed and stationary bottoms of the hoppers.

h h represent chains or belts, by means of which power is transmitted from the rotating upright picking-rollers a to rotate the hoppers E, and to direct and carry the stalks to the rollers a.

G is a horizontal shaft mounted transversely upon bearings attached to the parallel carriage-frame beams C. i i are loose pinions on the ends of the shaft G.

H H are driving-wheels rigidly fixed to the carriage tread-wheels A to engage and actuate the pinions i.

k k are ratchets operated by a spring, to engage the ratchet-faces of the pinions i when the machine moves forward, and thereby lock the loose pinions rigidly to the shaft G and rotate it.

l is a gear-wheel rigidly fixed upon the shaft G. m is a crown-wheel, also rigidly fixed upon the shaft G contiguous to the wheel l. These wheels l and m may be formed in one piece.

n is a vertical shaft, suspended over the horizontal shaft by means of brackets and bearers J, secured to the uprights D.

o is a pinion rigidly fixed to the lower end of the vertical shaft n to engage the crown-wheel m.

L is a gear-wheel rigidly fixed at the top end of the vertical shaft n, to engage a pinion, p, rigidly fixed at the top end of one of the upright picking-rollers a. A second pinion on the same roller a engages a corresponding pinion on the corresponding roller to communicate motion, and the two parallel upright rollers a a are thus actuated to rotate in opposite directions, as required, to seize the stalks and pinch off and strip the ears of corn. A balance-wheel, indicated by broken lines, is rigidly fixed at the top of the same upright roller a that has the pinion p.

M is a horizontal shaft mounted in bearings attached to the parallel beams C. N is a pinion rigidly fixed on the shaft M in such position as to engage the gear-wheel l on the shaft G. r r are duplex bevel-gear wheels on the ends of the shaft M, to engage and rotate, in reverse directions, the inclined husking-rollers s s. These parallel rollers s s are support-

ed by bearings projecting laterally from the beams C.

t t represent endless carriers and elevators running from suitable pulleys beneath the hoppers E to the inclined husking-rollers *s s*, to carry the corn from the hoppers to the inclined rollers, to be there stripped of any husks that may be adhering, and to be moved rearward thereon and dropped into a suitable receptacle attached to the carriage.

The carriers *t t* and also the inclined rollers *s s* may have suitable boxing to protect them and to prevent the corn from dropping off in its rearward passage over their inclined planes.

P is a cast frame, of triangular shape, rigidly attached to the rear ends of the parallel beams C. It has a segmental rack, R, formed in or attached to its front side.

S S are caster-wheels, connected with the carriage by means of the reach T, that is pivoted to the rear end of the frame P, and extends forward to meet the rack R. *w* is a vertical shaft supported in a bearing formed in or attached to the front end of the reach T. *x* is a pinion rigidly fixed on the lower end of the shaft *w*. *y* is a hand-wheel rigidly fixed at the top end of the shaft *w*. U is a platform rigidly fixed on top of the pivotal center of the reach T, upon which the operator is mounted in position to lay his hands on the hand-wheel *y* and turn it right and left alternately, as required, to steer and govern the direction of the complete machine.

Fig. 2 is a longitudinal sectional view of my machine.

A'' is the balance-wheel on the top of the upright picking-roller *a*. B'' represents bent tines standing forward from the base of the rotating hoppers E, to catch and lift lodged and leaning corn-stalks and direct them toward the rollers *a*. C'' represents a yoke rigidly fixed to the axle of the casters S, and pivoted at its front end to the reach T. D'' is a bent rack rigidly fixed to the rear end and center of the pivoted yoke, to project upward through a vertical slot in the rear end of the reach T.

By adjusting the rack D'' in the reach T the rear end of the reach is raised and lowered. When the rear end of the reach is thus raised the front end of my machine will be lowered accordingly, and vice versa.

Shields, in the form of bent and elastic plates, may be attached at their rear ends to

the uprights D, as indicated by broken lines E'', to stand partially around and over the rotating hoppers, to prevent the corn from falling out over the hoppers as it drops away from the upright rollers *a a*.

Fig. 3 is a detail view, illustrating the construction and operation of the joints in the upright picking and husking rollers *a*.

a'' is an extension of a roller, *a*, below the adjustable bearing *b*, clamped to the upright D. It rotates in a suitable bearing projecting from the lower end of the upright D, and is connected with the roller *a* by means of a suitable joint and device that will allow the complete rollers *a a''* to be bent and adjusted relatively to each other and the uprights D by the moving of the adjustable bearings *b* on the posts D. By this means the upright rollers can be readily adjusted and gaged, as required, to seize, pick, and husk the corn, and let the stalks pass through and retain the ears, so as to drop them into the rotating hoppers.

From the detailed description of the various parts and their functions it is obvious how they co-operate in doing the work contemplated when the complete machine is made to follow a row of corn in such a manner that the stalks will be gathered and passed between the rotating hoppers E and upright rollers *a*.

Horses may be attached to the front or rear by means of any suitable hitching devices to propel my complete carriage and operate my corn-harvesting machine.

I claim as my invention—

1. In a corn-harvester, the rotating hoppers E, having the partitions *f* and openings *g*, in combination with upright husking-rollers, substantially as and for the purposes shown and described.

2. The rotary hoppers E, the upright and adjustable picking and husking rollers *a a*, each having a joint and extension, *a''*, and the chains or belts *h h*, arranged and combined substantially as and for the purposes shown and described.

3. The upright picking and husking rollers *a a*, the rotating hoppers E, and the inclined elevators *t t*, all arranged and combined substantially as and for the purposes shown and described.

LEANDER PELTON.

Witnesses:

H. A. CHAPPELEAR,
E. D. LUNT.