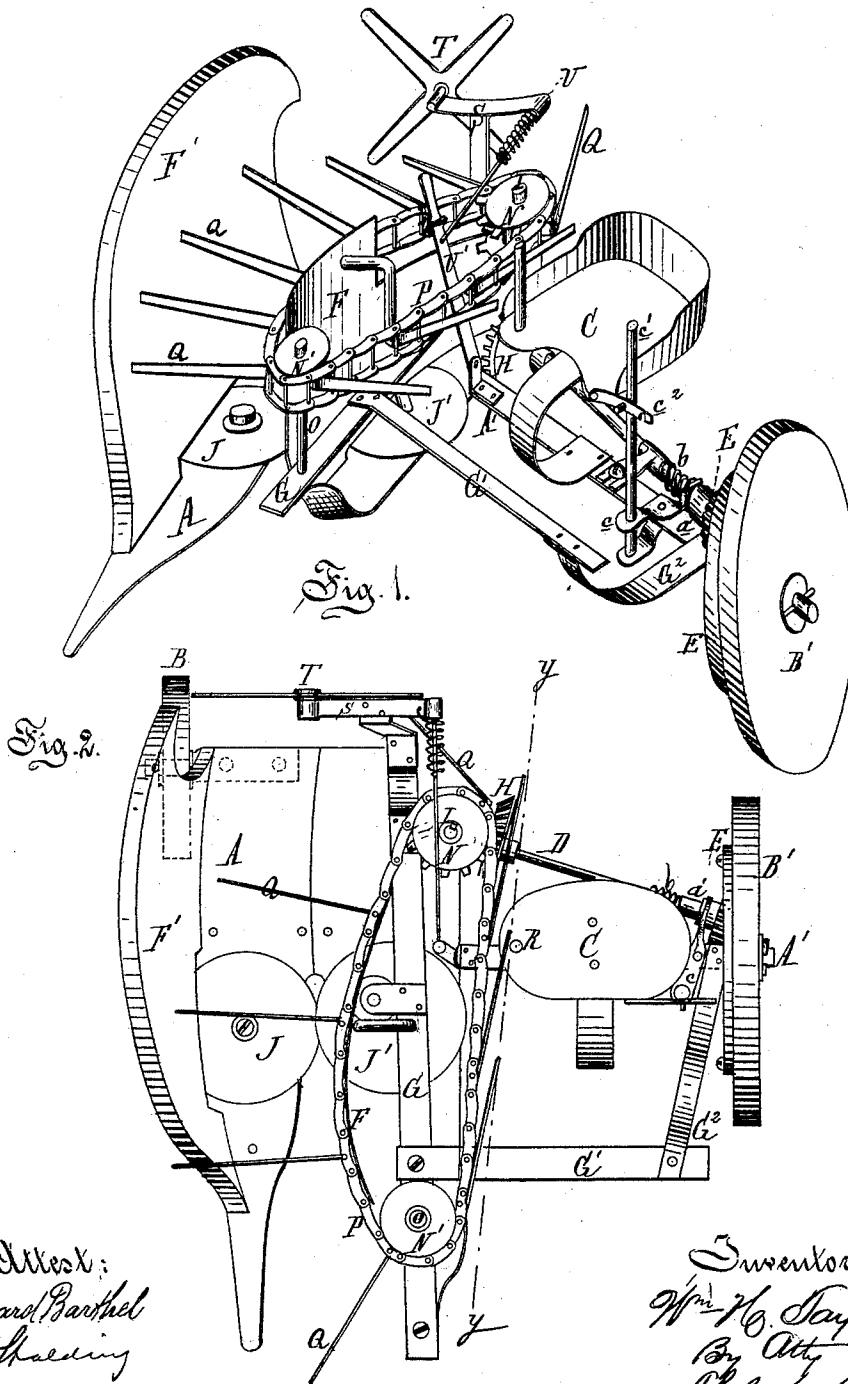


W. H. TAYLOR.
CORN-HARVESTER.

No. 176,095.

Patented April 11, 1876.



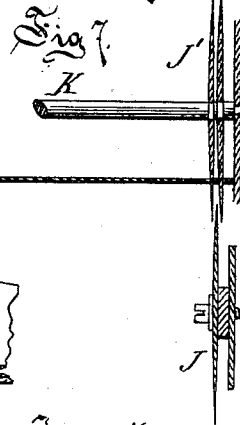
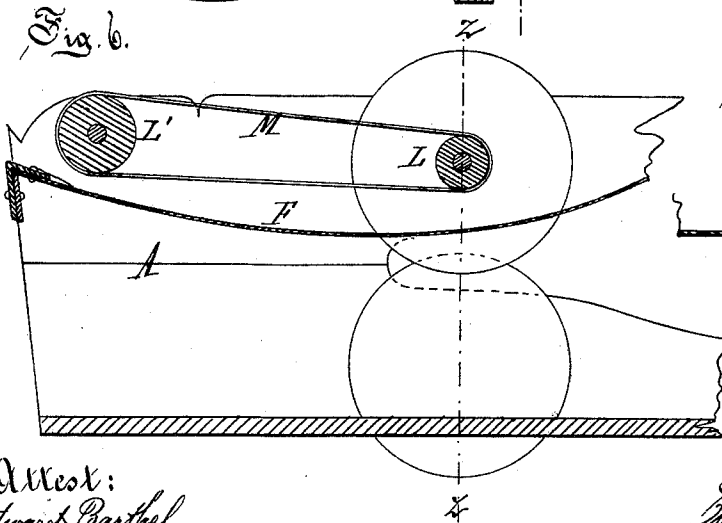
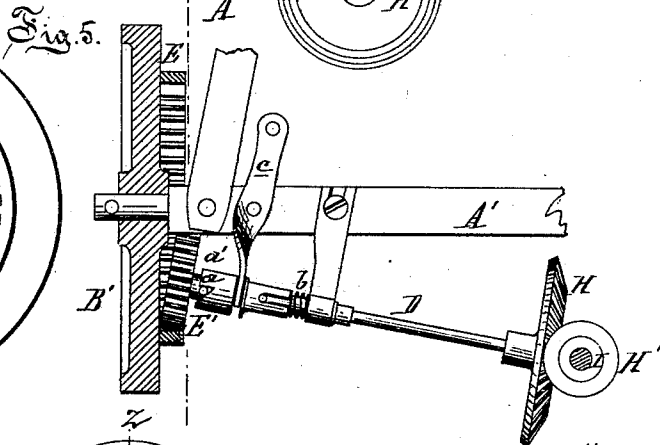
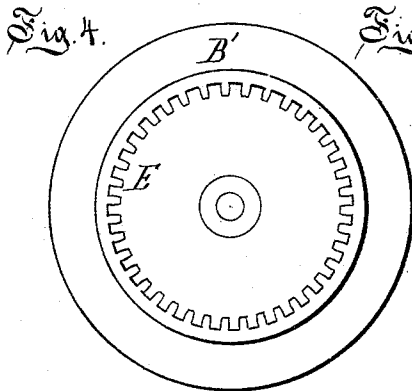
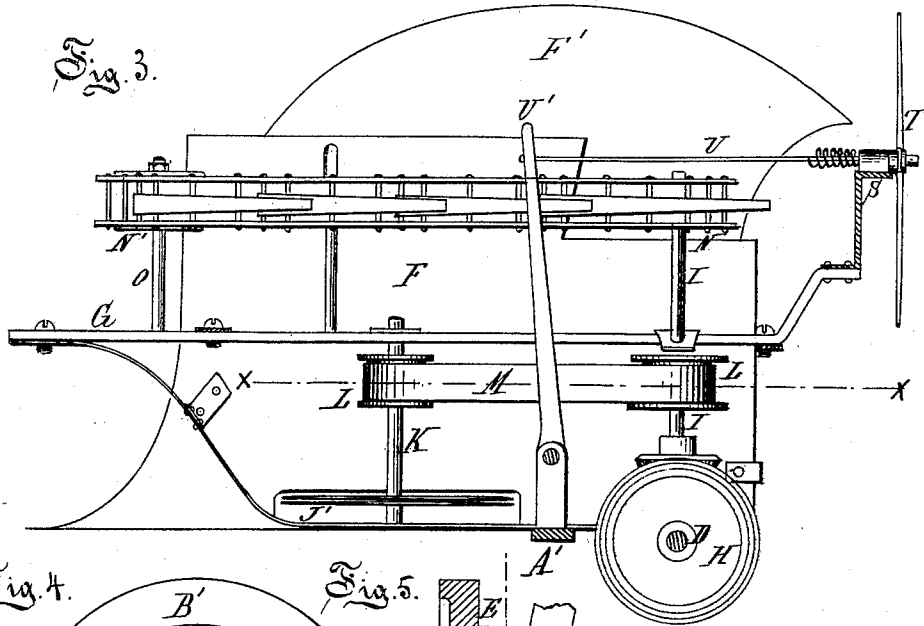
Attest:
Edward Barthel
W. T. Shering

Inventor:
Wm. H. Taylor
By Atty.
Thos. S. Sprague

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UNITED STATES PATENT OFFICE.

WILLIAM H. TAYLOR, OF TOLEDO, OHIO, ASSIGNOR OF ONE-FOURTH HIS
RIGHT TO ZACK TAYLOR, OF DETROIT, MICHIGAN.

IMPROVEMENT IN CORN-HARVESTERS.

Specification forming part of Letters Patent No. **176,095**, dated April 11, 1876; application filed
June 17, 1875.

To all whom it may concern:

Be it known that I, WILLIAM H. TAYLOR, of Toledo, in the county of Lucas and State of Ohio, have invented an Improved Corn-Harvester, of which the following is a specification:

The nature of my invention relates to an improvement in corn-harvesters of that class wherein the cutting of the stalks is effected by revolving disk-knives; and it consists in the various combinations, all as more fully hereinafter set forth.

Figure 1, Sheet 1, is a perspective view of the harvester. Fig. 2 is a plan of the same. Fig. 3, Sheet 2, is a sectional elevation taken on *yy* in Fig. 2. Fig. 4 is an elevation of the gear on the inner side of the driving-wheel. Fig. 5 is a plan of the driving-shaft and its gearing, and a horizontal section in the same plane of the drive-wheel. Fig. 6 is a horizontal section at *xx* in Fig. 3. Fig. 7 is a transverse vertical section through the stalk-cutters at *zz* in the last figure.

In the drawing, A represents a platform, having at its right rear corner a projecting arm, upon which is mounted a traction-wheel, B. From the left side of the platform a long axle A' projects, with a traction driving-wheel B' mounted on its extremity. C is a driver's seat mounted on this axle. D is the driving-shaft, obliquely journaled through a bracket projecting to the rear from the axle A', and in a bearing at the inner rear corner of the platform. E is an internally-toothed spur-gear on the inner face of the driving-wheel, and gives motion to a pinion, E' sleeved on the outer end of the driving-shaft, which is put in motion by a pin, *a*, on the hub of the pinion engaging with a clutch, *a'*, feathered on said shaft, and which is thrown into gear by a spring, *b*, behind it. The shaft is unclutched and thrown out of gear by a lever, *c*, actuated by another lever, *c'*, at the side of the driver's seat, to which is pivoted a latch, *c''*, for locking it.

The platform is longitudinally divided into two parts set close together, each half being tapered on the inner edge, making an acute angular throat. The right end of the platform slopes downward like the shoe of a har-

vester, while the left front end is curved upward. The machine is drawn so that the row of standing corn will be embraced in the throat referred to.

F is a vertical metal guide-plate extending along the left edge of the throat in the platform, curving thence to the left rear corner thereof. F' is a side-board extending along the right edge of the platform. G is a chord-bar about mid-height of the plate F, projecting horizontally beyond it in front, and has the left front end of the platform secured to it. Its rear end extends through a horizontal slot in said plate, and turns up behind it. G¹ is a bar extending from the bar G horizontally to the left parallel with the axle in front thereof, and is connected thereto by a curved bar, G², to constitute the main frame of the machine, the draft-tongue of which is secured to the bar G¹. H is a bevel pinion on the inner end of the driving-shaft, which meshes with a similar pinion, H', to give motion to a vertical shaft, I, on which it is keyed, the said shaft being stepped on the adjacent corner of the platform, and journaled up through a bracket projecting from the chord-bar G. J is a disk-cutter, sleeved on a stud on the right side of the platform in such a position as to reach over to the left of the center of the back part of the throat in said platform. J' is a cutting-wheel composed of two superposed disks, which receive the edge of the single-cutter disk between them. The double-disk cutter J' is mounted on a vertical shaft, K, stepped on the platform outside of the guide-plate F, and is fitted with a flanged pulley, L, near the upper end, which receives a belt, M, from a flanged pulley, L', on the shaft I, whereby the double-disk cutter is rotated, so as to cut the stalks of standing corn coming in contact therewith. N is a chain-wheel at the top of the shaft I. N' is a flanged wheel at the top of a vertical shaft, O, stepped on the front end of the chord-bar G. P is an endless chain running around the flanged wheels N N', and around the inner face of the guide plate F. The chain is made up of two sets of parallel links pivoted at the ends of the links by transverse bolts. Every third pair of link-bars has a bell-crank arm, Q, pivoted at its angle to the

center of the link-bars, the shorter arm lying behind the next link-pivot bolt following it.

By this arrangement the arms can be folded back on the side of the chain next the driver; but as soon as the short arms come against the face of the chain-wheel N' they are thrown around so as to bring the longer arms on a radius, following the radius of the inner face of the guide-plate as the chain moves back, thereby sweeping the standing corn-stalks to the cutters, and carrying them along after they are cut.

A post, R, at the side of the driver's seat folds back the arms as they sweep by him.

At the up-turned rear end of the chord-bar G there is a horizontal T-rest, S, having pivoted to its right end a pair of crossed arms, T. Through its left end passes a latch-bolt, U, shot back by a spring. The front end of this bolt is pivoted to a lever, U', to the right of the driver's seat. The bolt normally projects into the plane of the arms T, and prevents them from turning toward the right. The corn-stalks fall on the right horizontal arm, and when a gavel accumulates thereon the driver discharges it by withdrawing the latch-bolt and allowing the arms T to make a quarter revolution.

What I claim as my invention is—

1. In a corn-harvester, substantially as described, the combination with the shafts, I O, carrying the flanged wheels N N' of the endless chain P, having the bell-crank arms pivoted between its links, and the guide-plate F,

situated on one side of the path of the endless chain, and next to the cutters, leaving the opposite side free, whereby the said bell-crank can be folded in against the chain on that side, substantially as described and shown.

2. In a corn-harvester, substantially as described, the combination of the endless chain P, having the bell-crank arms pivoted between its links, the guide-plate F', and the post R, when the several parts operate substantially as described and shown.

3. In a corn-harvester, substantially as described, the combination of the angular throat, having projecting sides, the revolving cutting-disks situated in the rear of the mouth of the said angular throat, the endless chain, having the pivoted bell-crank arms, and the guide-plate situated on one side of the angular throat and on one side of the path of the said endless chain, leaving the opposite side free, when the several parts are constructed and arranged to operate substantially as described and shown.

4. In a corn-harvester, substantially as described, the combination of the support S, crossed arms T, latch-bolt V, projected by a spring and lever, V', when the several parts are constructed and arranged with relation to the cutting-disks and carrying-arms, as described and shown.

WILLIAM H. TAYLOR.

Witnesses:

C. I. SCOTT,

ISAIAH SCOTT.