

W. F. OLIN. Harvesting-Machine.

No. 211,862.

Patented Feb. 4, 1879.

Fig. 1.

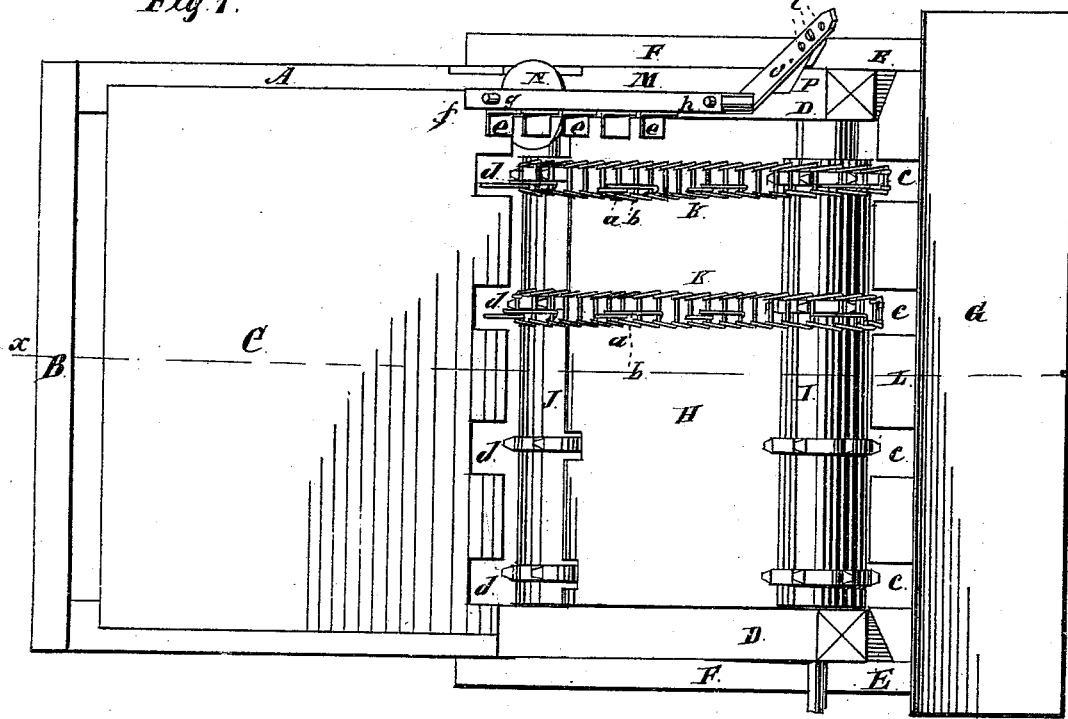
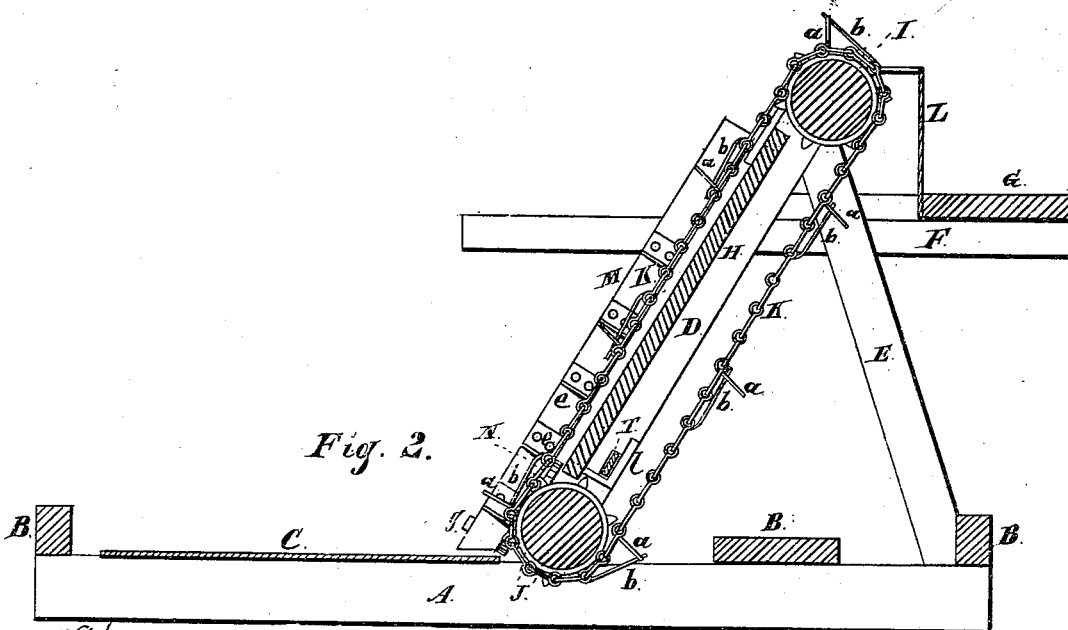


Fig. 2.



Witnesses:
Oliver Bond
H. L. Brown

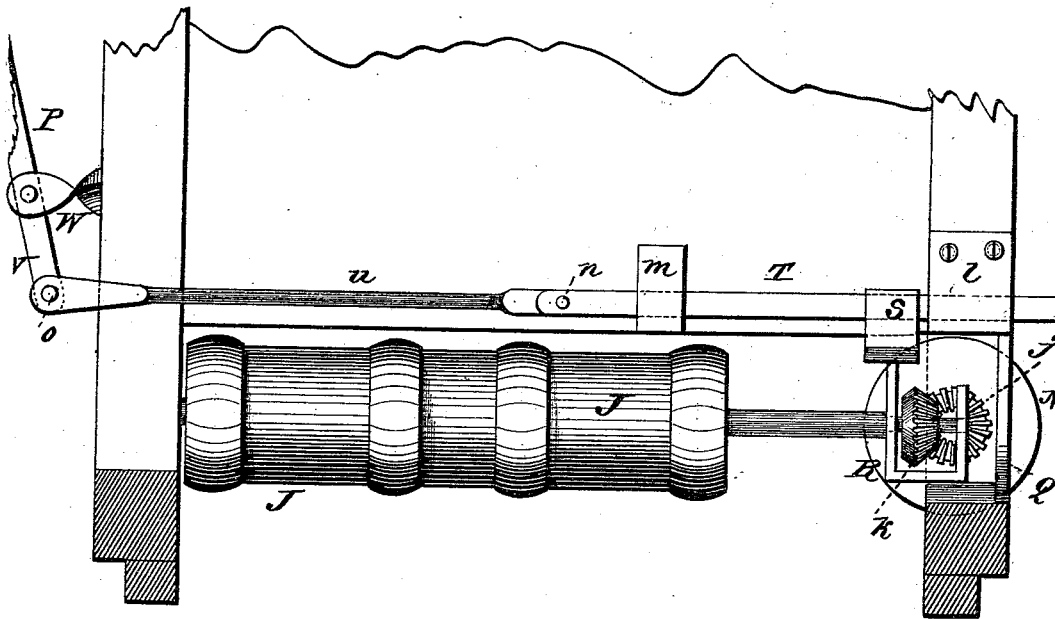
Inventor:
William F. Olin

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Fig. 3.



Witnesses:

Oliver Bond
H. F. Bruns

Inventor

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UNITED STATES PATENT OFFICE.

WILLIAM F. OLIN, OF CHICAGO, ILLINOIS, ASSIGNOR TO HIMSELF AND
WILLIAM DEERING, OF SAME PLACE.

IMPROVEMENT IN HARVESTING-MACHINES.

Specification forming part of Letters Patent No. **211,862**, dated February 4, 1879; application filed
July 2, 1878.

To all whom it may concern:

Be it known that I, WILLIAM F. OLIN, of the city of Chicago, Cook county, State of Illinois, have invented a new and useful Improvement in Harvesting-Machines, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a top or plan view; Fig. 2, a longitudinal section on line *xx* of Fig. 1; Fig. 3, a detail of the devices for shifting the butt-elevator.

The objects of this invention are to improve the operation of the chains or belts which elevate the grain and deliver it to the receptacle or binder, and to insure the delivery of grain of different lengths to the binder in proper position for binding at or near the middle of the bundle; and its nature consists in providing a butt-elevator supported and operated by means of a disk or wheel driven from the lower elevator shaft or roller, and a crank or arm, with devices for adjusting the same by shifting the position, horizontally, of the disk or wheel on the shaft of the roller, in arranging the butt-elevator so that its lower end will act to clear the grain from the butt of the sickle, and in the several parts and combination of parts hereinafter set forth as new.

In the drawings, A represents the main frame; B, the cross-pieces of the main frame; C, the lower or carrier platform; DE, the elevator-frame; F, the cross-pieces of the elevator-frame; G, the binding or receiving table; H, the back-board; I, the upper elevator-roller; J, the lower elevator-roller; K, the elevating chain or belt; L, the back or guide plate for the table G; M, the butt-elevator; N, the operating wheel or disk; O, the arm or crank; P, the support for O; Q, the connecting-piece between the main frame and elevator-frame; R, the supporting-frame; S, the head for moving the frame R; T, the sliding bar; U, the connecting link or rod; V, the operating-lever; *a*, the elevator or rake teeth; *b*, the strippers; *c*, the openings in the plates L; *d*, the openings in the lower platform; *e*, the butt-elevator teeth; *f*, the lower end of the butt-elevator; *g h*, the pivots of the butt-elevator; *i*, the adjusting-holes; *jk*, the miter-wheels; *lm*, the guides for the sliding bar T; *n*, the pivot

connecting the sliding bar T and link U; *o*, the pivot or bolt for attaching the link to the lever; *p*, the pivot for the lever.

The parts represented by the letters A, B, C, D, E, F, G, H, I, and J may be of any of the ordinary and well-known forms of construction and arrangement for that class of harvesting-machines in which the grain is elevated over the main or drive wheel and delivered in position for binding purposes and the ordinary appliances necessary for making a complete machine of this description are to be provided; but as such parts may be of any of the well-known forms, located and operating in the usual manner, they are neither shown nor described. The ordinary driver's platform and seat are to be provided, located on the cross-pieces F, as usual.

The chains or belts K, which elevate and deliver the grain, are located and operate in the elevator-frame DE, as usual, the chains or belts being provided with teeth *a*, secured thereto in the usual manner, which take the grain from the lower or carrier platform, C, the chains or belts being driven by sprocket-wheels or other devices located on the rollers I J, and the rollers being driven by means of pulley-wheels or other gearing, as usual.

The elevator-chains (K) shown, are of the ordinary construction for such chains, being provided with strippers or cleaners *b*, each stripper being secured at one end to the cross-bar of a link, as shown, and having its free end engaging with a tooth, *a*.

The grain is taken from the carrier-platform by the teeth *a*, and as the grain passes over the upper roller the strippers *b* act and clear it from the teeth, and allow it to fall on the top of the guide-plate, which directs it to the receptacle G.

The butt-elevator M is made of wood or other suitable material, and is located on the butt side of the grain, with its edge parallel with the elevator, and its inner face is provided with teeth *e*, of a suitable construction, to catch and elevate the butts of the grain. The upper end of this elevator M is attached by the pivot or bolt *h* to the outer end of the crank or arm O, which is pivoted to the support P, secured in any suitable manner at or near the upper end

of the elevator-frame, and the arm or crank O is provided with a series of holes, *i*, by means of which the position of the upper end of the butt-elevator M can be adjusted. The lower end of M is attached to the pin *g* on the upper face of the disk or wheel N, by the revolving of which the elevator is operated, the disk being driven by the miter-wheel *j*, secured thereto, and the miter-wheel *k* on the shaft of the lower elevator-roller, J.

The shaft or arbor of the wheel *j* has its bearing in the outer arm of the frame or yoke R, between the arms of which the wheel *k* is located, which frame or yoke is formed from a single piece of metal, and the side or arms of which are provided with suitable openings, through which the shaft of the lower elevator-roller passes, its form being shown in Fig. 6. The inner arm of this frame or yoke is longer than the outer, and its upper end passes into a suitable opening therefor in the block or head S, which is permanently secured to the bar T, so that the arm is free to have a slight vertical movement, but no side movement, except with the head S.

The bar T slides back and forth in suitable plates or bearings *l m*, and to its inner end is attached, by the pivot or bolt *n*, one end of the link or rod U, the other end of which is connected, by the pivot or bolt *o*, to the lower end of the lever V, which projects below the bracket or support W, to which the lever is pivoted by the bolt or pivot *p*, the upper end of the lever V extending up so as to be within easy reach of the driver.

This construction enables the disk N to be slid back and forth, so as to change the position of the lower end of the butt-elevator, the disk being connected with the frame or yoke R by the shaft of the wheel *j*, and the frame or yoke being connected with the lever V, as described, so that the movement of the lever will move the disk. A sufficient space is to be left between the end of the roller J and the framework to allow the frame or yoke R to slide on the shaft of the roller, and, as shown, the bear-

ing for this shaft is located in a metal plate, Q, which plate forms the connection between the main frame A and the elevator-frame, and is for the purpose of giving more room for the outward movement of the sliding frame or yoke R. Other forms of construction may be used, if desired.

The lower end, *f*, of the butt-elevator is made to project some distance below the disk N, and is so arranged as to remove any grain which may be caught in the heel of the sickle, so as to keep the heel clear and prevent clogging.

In use the position of the butt-elevator can be changed, to adapt its movement to the length of the grain, by means of the adjusting-holes *i* and the sliding of the disk N. For long grain the position of the elevator will be close to the frame-piece D, for medium grain its position will be farther over the back-board, and for short grain it is to be carried still farther in over the back-board, the several changes being made by pivoting the arm or crank O in the required hole *i* in its support P, and changing the position of the disk N to correspond.

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

1. The butt-elevator M, provided with the teeth *e*, in combination with the arm O, provided with holes *i*, the disk N, movable on the shaft of the lower elevator-roller, and a suitable mechanism for changing the position of the disk N, for adjusting the butt-elevator to deliver grain of different lengths in proper position for binding, substantially as specified.

2. The butt-elevator M, provided with teeth *e*, for engaging the butts of the grain, and having its lower end, *f*, projecting down in proximity to the carrier-platform, in combination with the disk N and support O, whereby the action of the part *f* will keep the heel of the sickle clear, substantially as specified.

WILLIAM F. OLIN.

Witnesses:

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HEINR. F. BRUNS.