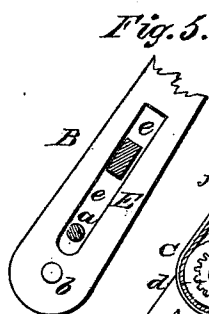
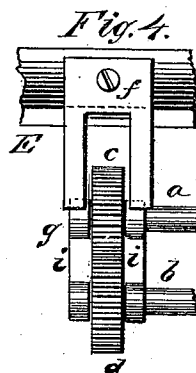
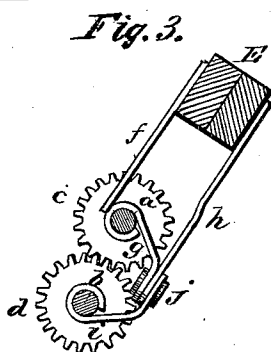
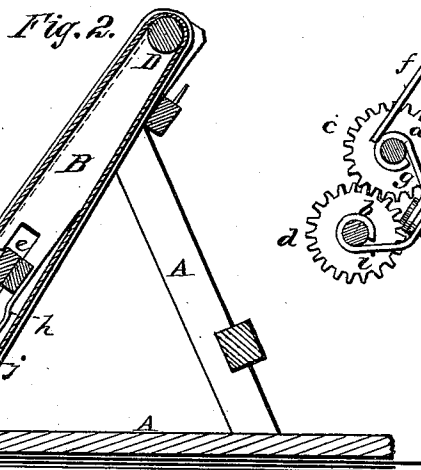
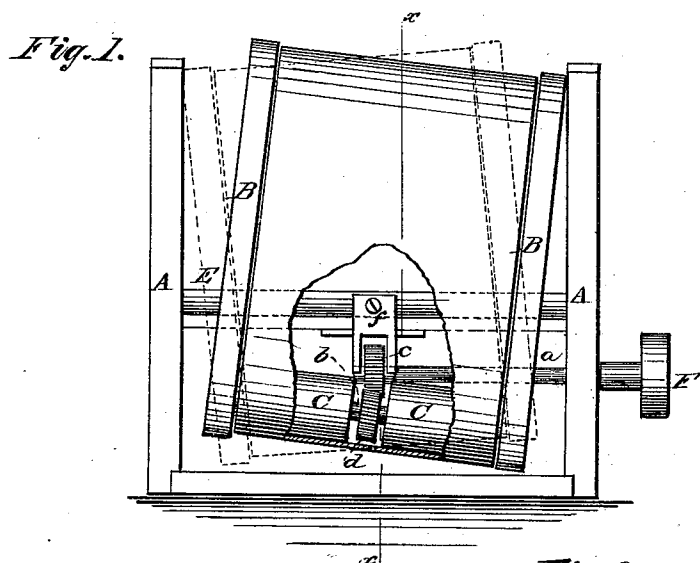


E. H. GAMMON.
HARVESTER.

No. 179,104.

Patented June 27, 1876.



Witnesses:
L. L. Bond
O. V. Bond.

Inventor: Elijah H. Gammon

UNITED STATES PATENT OFFICE.

ELIJAH H. GAMMON, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. **179,104**, dated June 27, 1876; application filed March 17, 1876.

To all whom it may concern:

Be it known that I, ELIJAH H. GAMMON, of the city of Chicago, Cook county, State of Illinois, have invented a new and useful Improvement in Harvesters, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation; Fig. 2, a section on line *xx* of Fig. 1; Figs. 3 and 4, details of the driving mechanism and support; Fig. 5, a detail.

The object of this invention is to provide a grain-harvesting machine with an elevator, which will guide and carry the grain to an automatic binder or binding attachment, so that the varying lengths of the grain will be brought to the binder, so that the band will encircle the bundle or gavel in the proper place; and its nature consists in pivoting the elevating apparatus so as to change the direction of the passing grain either to the right or left, according as the grain is long or short.

In the drawings, A represents the elevator-frame; B, the pivoted or shifting elevating belt-frame; C, the lower, and D the upper, rollers of the elevator; E, the cross-bar of the frame A; F, the driving-pulley; *a*, the shaft of the driving-pulley; *b*, the shaft of the lower roller D; *c d*, the gear-wheels; *e*, the slots in the side bars of the frame B; *f g h*, the frame for supporting the journal-bearings at the inner end of the shaft *a*; *i*, the pivoted extension of said frame for giving the shaft *b* an additional support, and upon which, through the shaft *b*, the frame B is supported, and by which it is pivoted to the frame A or cross-bar E thereof; *j*, the pivot.

In applying this invention the ordinary cutting apparatus and carrier will be used, and the frame A will be inclined according to the binding attachment used with the machine.

If it is desirable to elevate the grain to any considerable height, the frame A will be placed as shown, but it is obvious that it may be placed nearly horizontal.

The frame B is pivoted to this main frame

A, and is supported upon it by means of the bar E passing through the slots *e*, or by other suitable means.

At the middle of the bar E a suitable frame-work is attached, as shown, to which the frame B is pivoted at a single point, *j*, so that the frame B, with its elevating devices, may be inclined either way, as indicated by the defined and dotted lines of Fig. 1. The grain as it passes up the elevating device, will follow the line of travel, and by shifting the device, as shown, the delivery of the grain to the binder may be varied according to the shifting, the extremes only of which are shown, so as to bring the band around the bundle or gavel at the proper place for binding it most securely.

By using this arrangement the binding attachment may be firmly attached to the machine, in which case its operations are more certain, and the machine less liable to get out of order, than when the binder itself is shifted.

The devices shown for operating the elevating devices are the gear-wheels *c d*, driven by the wheel F. The gear-wheels *c d* are located in the middle of the frame B, so that the movement of the frame will not throw them out of gear, or interfere with their proper operation; but it is obvious that other devices may be used for this purpose, and that the pivot for shifting, and also the driving mechanism, may be located at the upper as well as at the lower end.

The elevating device shown is a simple canvas, which is partly broken away in Fig. 1, to show the gearing; but, instead of the canvas, the ordinary bands of rakes, or toothed bands, passing through slots in a fixed platform or bars, may be used.

This arrangement of an elevator will be convenient for carrying short grain to the receiver in hand-binding machines; and also to prevent grain from falling over in front, as it carries short grain backward when it is inclined, as shown by the defined lines in Fig. 1.

For shifting, this elevator will be connected with a lever, or other device, under the

control of the driver or an attendant, for changing this position at will. There is no device shown for this purpose, as a variety of devices may be used.

What I claim as new, and desire to secure Letters Patent, is as follows:

The frame A, in combination with the shifting elevating belt-frame B, for changing

the point of delivery of the grain to the receiver, substantially as and for the purpose set forth.

ELIJAH H. GAMMON.

Witnesses:

L. L. BOND,
O. W. BOND.