

(Model.)

4 Sheets—Sheet 1.

W. N. WHITELEY.

HARVESTER.

No. 347,677.

Patented Aug. 17, 1886.

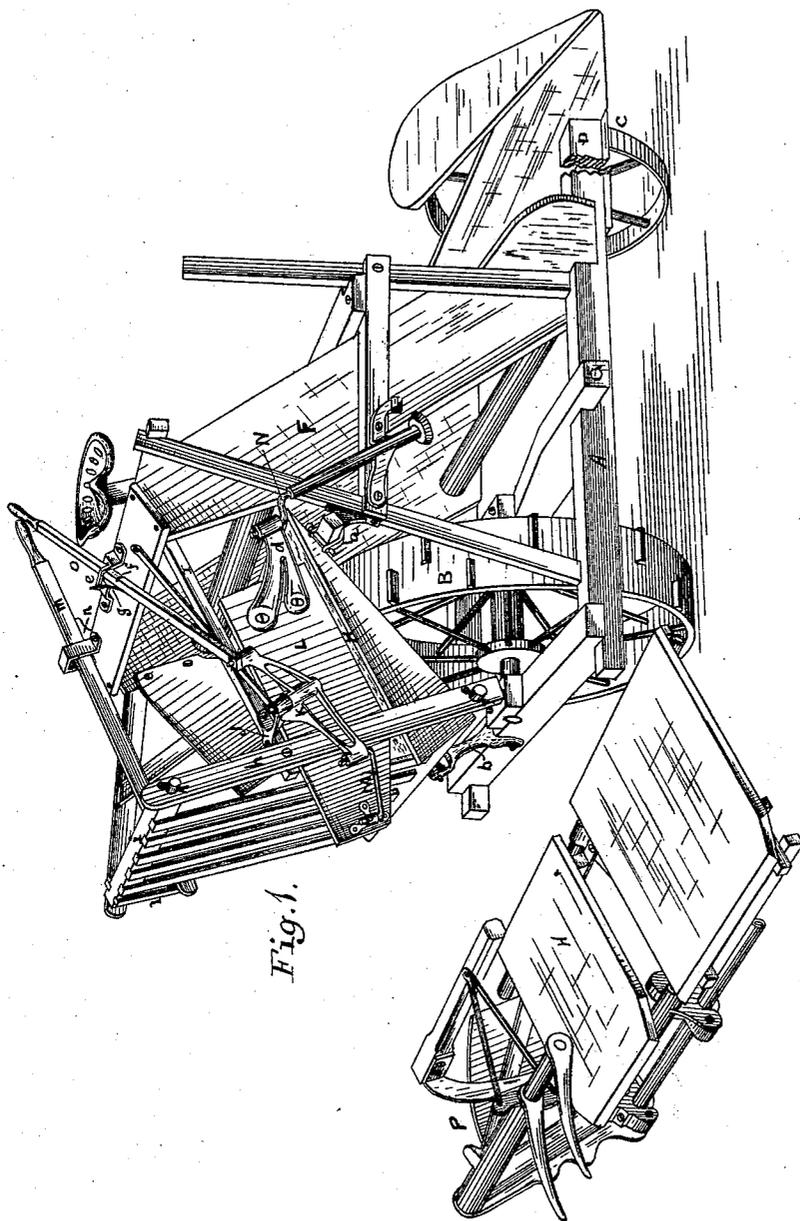


Fig. 1.

Attest.
N. B. Smith
D. P. Turner

Inventor:
Wm N. Whiteley
By his atty
R. D. Smith

(Model.)

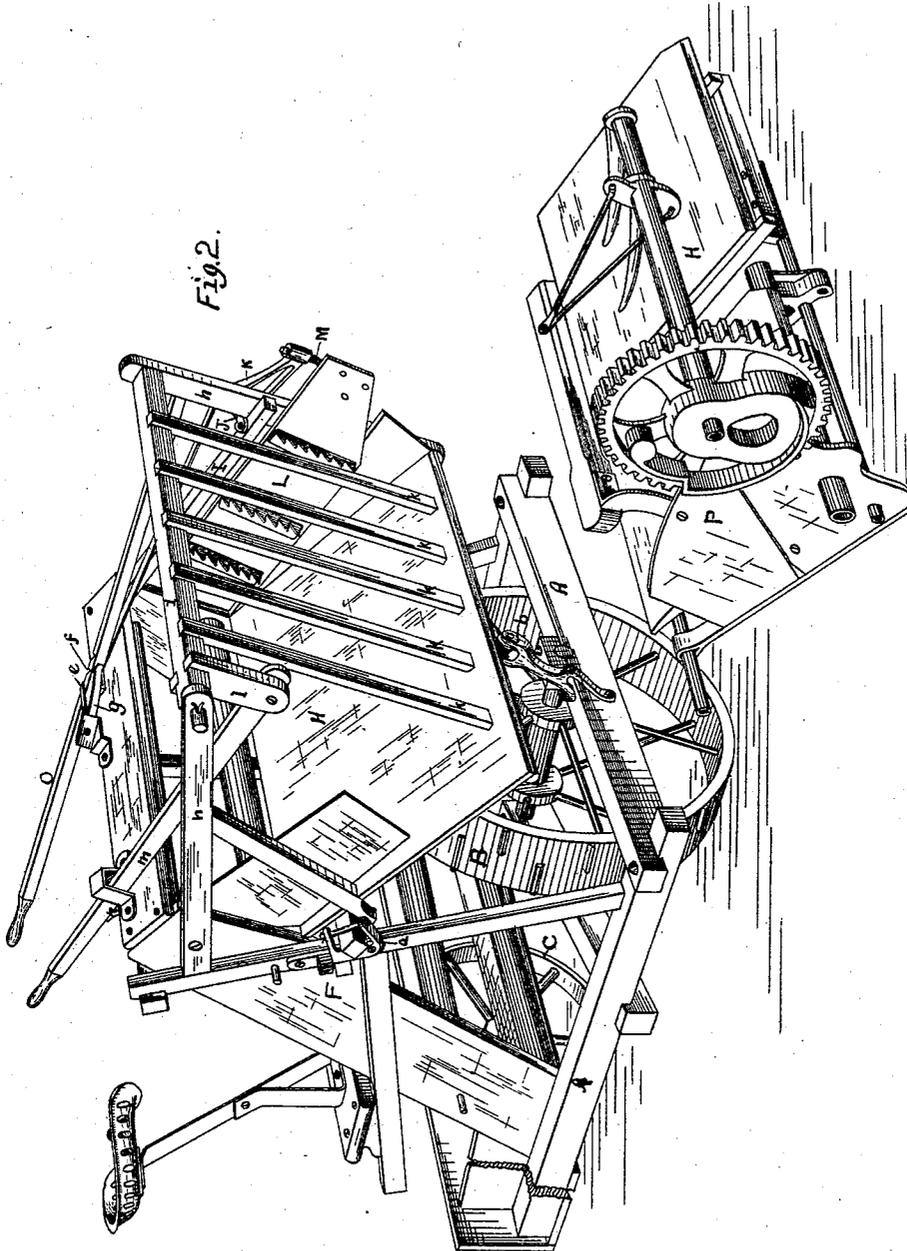
4 Sheets—Sheet 2.

W. N. WHITELEY.

HARVESTER.

No. 347,677.

Patented Aug. 17, 1886.



Attest.
N. B. Smith
B. Turner

Inventor
W. N. Whiteley
By his atty R. D. Smith

(Model.)

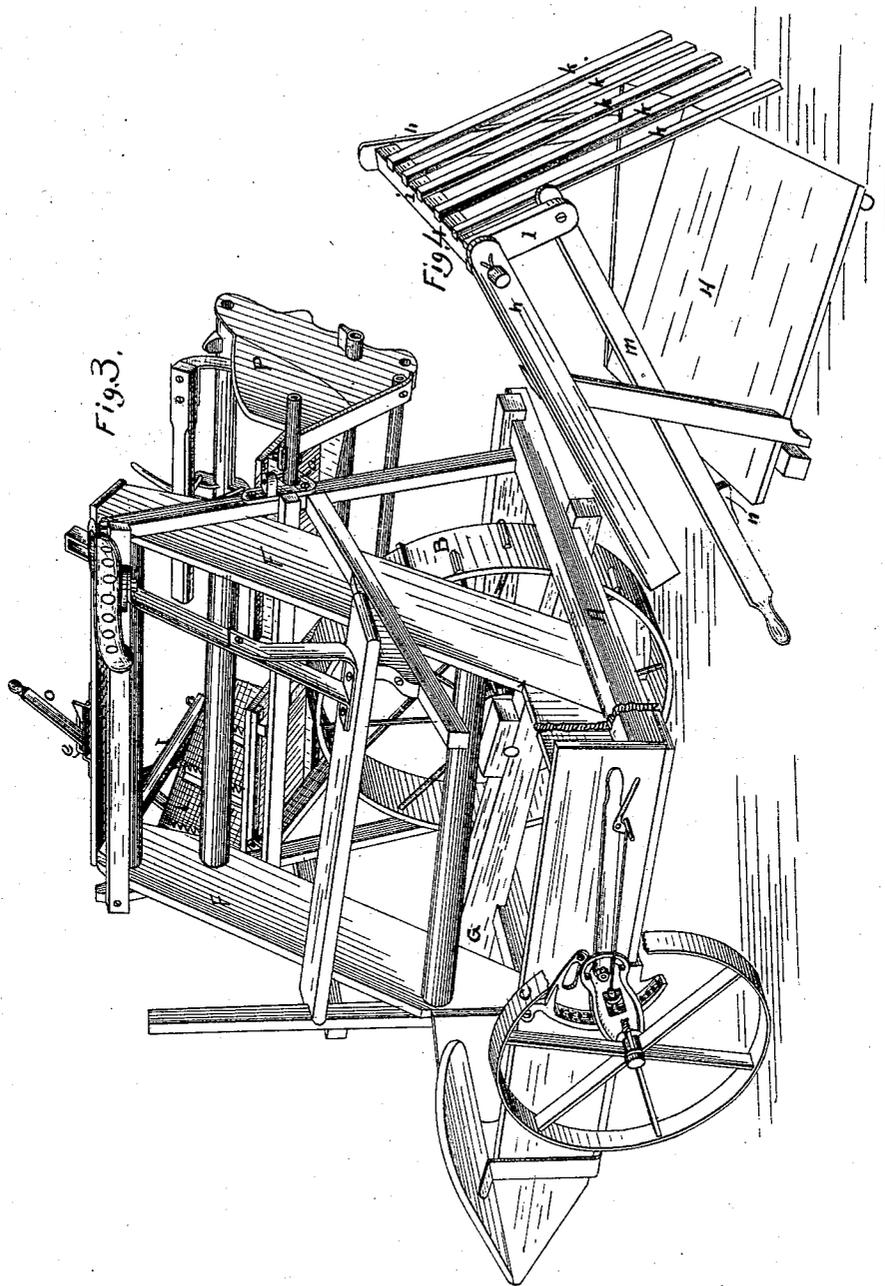
4 Sheets—Sheet 3.

W. N. WHITELEY.

HARVESTER.

No. 347,677.

Patented Aug. 17, 1886.



Witnesses
A. B. Smith
P. J. Turner

By

Inventor
W. N. Whiteley
Attorney
By his atty
R. D. Smith

W. N. WHITELEY.

HARVESTER.

No. 347,677.

Patented Aug. 17, 1886.

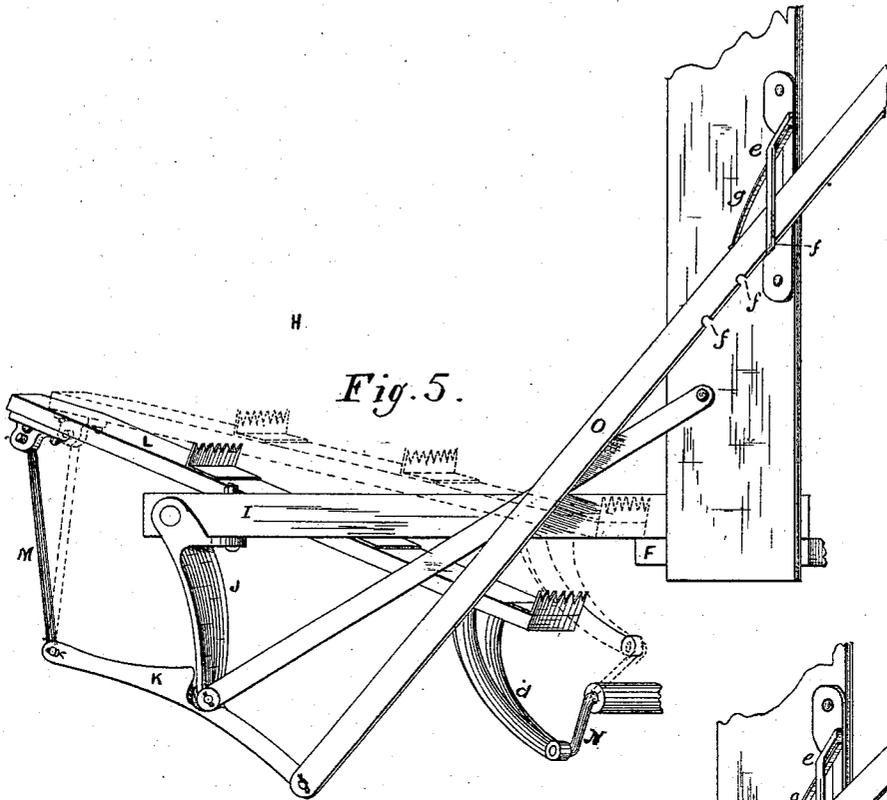


Fig. 5.

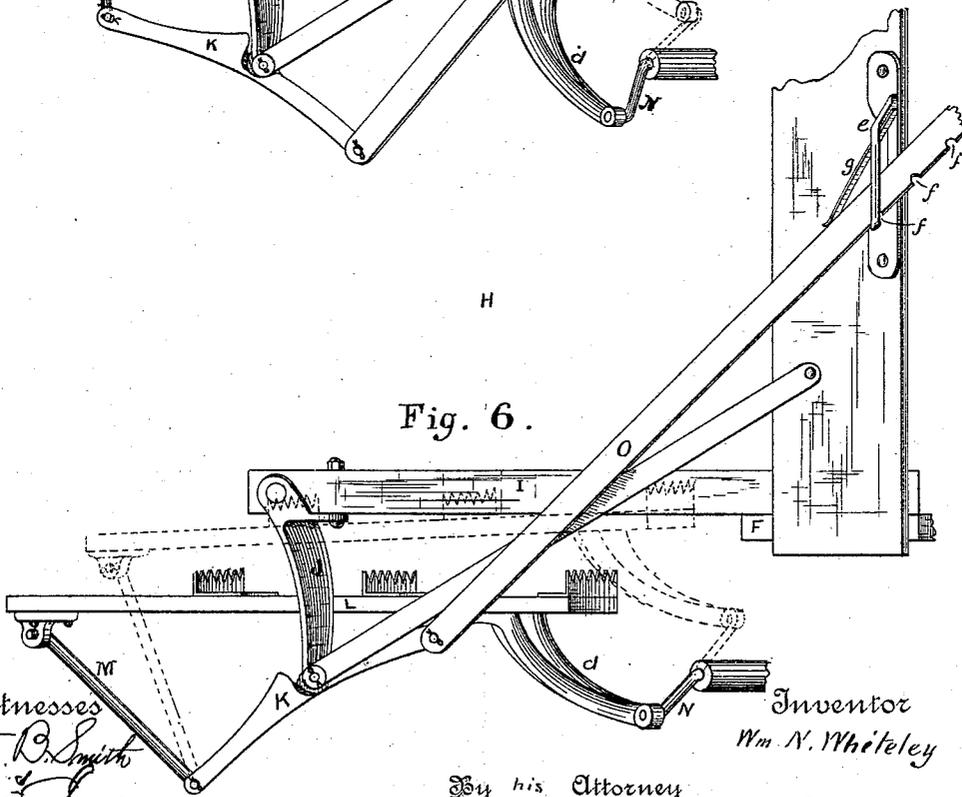


Fig. 6.

Witnesses
N. B. Smith
Aug. Jordan

Inventor
Wm. N. Whiteley

By his Attorney

R. D. Quirk

UNITED STATES PATENT OFFICE.

WILLIAM N. WHITELEY, OF SPRINGFIELD, OHIO.

HARVESTER.

SPECIFICATION forming part of Letters Patent No. 347,677, dated August 17, 1886.

Application filed September 19, 1885. Serial No. 177,532. (Model.)

To all whom it may concern:

Be it known that I, WILLIAM N. WHITELEY, of Springfield, in the county of Clark and State of Ohio, have invented new and useful Improvements in Harvesters; and I do hereby declare that the following is a full and accurate description of the same, reference being had to the accompanying drawings, wherein—

Figure 1 is a perspective view of my machine from the front, with the binder detached. Fig. 2 is a perspective view of the same from the rear, with the binder detached. Fig. 3 is a perspective view of the same from the rear, with the clover-bundler attached. Fig. 4 is a perspective view of the clover-bundler detached. Figs. 5 and 6 are plan views showing the butter and fulcrum in different positions.

It is frequently desirable to employ the harvesting-machine for cutting oats, clover, flax, &c., and bundling the same without binding, and for these purposes it is not desirable to employ the machinery of the automatic binder. Therefore I construct a clover attachment and adapted to be attached to the harvester in the same place occupied by the automatic binding attachment, and to receive the cut crop in substantially the same manner as received in the receptacle or on the table of the automatic-binder attachment. It may be hung in the same supports as those used to support the automatic binding attachment, so that at any time said binder may be removed and the clover attachment substituted, or vice versa, making, as it does, two separate and distinct machines in operation—that is, to combine with the harvester a proper automatic-binder delivery or a clover-attachment delivery.

A is the main frame, which is supported on the main wheel B at one end and the grain-wheel C at the other end, and carries a cutting apparatus at D, the usual canvas carrying-belt, and the elevator F.

G is the tongue, and H is the receptacle-platform, on which the grain is discharged by the elevator. In relative arrangement these parts are similar to the harvester-binder as usually constructed.

This harvesting-machine is adapted to be used with an automatic binder, and also with a clover or bundling attachment, as desired, by simply removing one and putting the other

in its place, the same elevator and belting attachment being employed with both, it being necessary in both cases to draw down the cut grass and stalks from the belts. The butting attachment is even more important upon the hand-delivery clover attachment than with the automatic binder, there being nothing except the butter to clear the belt at the front corner at the side delivery end of the harvester.

Heretofore a variety of butting devices have been employed; but I prefer the butter herein shown, having a positive action in striking and forcibly moving the grain or grass from the belts downward on the platform, with means for changing at will the angular position and range of action of the butter.

The automatic binder preferred and best adapted is that known as the "Appleby" type, and is designated by the letter P. Both the binder and clover or flax bundler have platforms H alike, and also similar head and foot rails, the former running in loops a, attached to the binder-frame, and the latter supported in the forked standard b, so that they are completely interchangeable so far as attachment to the machine is concerned. The elevator-frame F is provided with a lateral arm, I, extending outward and downward from its upper front corner. The extremity of this arm supports a joint-stud, J, to support the fulcrum-plate and frame K of the butt-board L, which is supported at its outer end upon said frame K by means of a connecting joint-rod, M, which, while the fulcrum-plate K remains stationary, permits the butt-board to vibrate longitudinally. The inner end of the butt-board L is attached by a joint-bearing, N, to the crank, by which the inner end of said board is carried around in a circular direction and has imparted to it a circulatory reciprocation, which acts upon the butts of the grain at the point of discharge from the elevator-belt to forcibly move the grain backward and downward with directory force over the platform H toward the binder. The position of the joint-rod M will determine the position of the field of and direction in which this motion will act, and by swinging the fulcrum-plate K on its joint on the stud J said joint-rod and

the outer end of the butt-board will be thrust farther rearward or drawn farther forward. This change of positions is shown in Figs. 5 and 6. When thrust rearward, the butt-board will stand oblique to the forward course of the grain, and acts throughout its extent to impart a lateral motion to the grain. When it is drawn forward, the butt-board will stand approximately parallel with the course of the grain, and only its inner end, carried by the crank N, will act upon the grain. Between these two positions there may be any number of intermediate positions of adjustment, according to the angular position of the fulcrum-plate K. A hand-rod, O, is jointed to the fulcrum-plate K, and extends therefrom to a position convenient to the hand of the attendant, so that he may change the angular position of the butt-board at any moment. For convenience said rod is passed through a loop, e, on the elevator-frame, and said rod is provided with a series of stop-notches, f, to engage the loop e, and a spring, g, to maintain said notches and loop in engagement.

25 The clover or flax bundler (shown detached in Fig. 4 and in working position in Figs. 1 and 2) consists of the side rails adapted to rest in the loops a on the elevator-frame F and the standard b on the frame A, with a platform, H, mounted thereon, and uprights h, to support the pivoted head i, to which the slats or fingers k are attached. The fingers k are sufficiently long to reach the platform H and prevent the escape of the clover or flax.

35 The head i is also provided with a stud, l, projecting downward from the axis, and to its extremity a hand-rod, m, is attached, so that said head and fingers can at any time be caused to swing outward to release and dump the clover or flax accumulated on the platform H; but to hold the rod m and the fingers k in position without the constant attention of the attendant a stop-catch, n, is attached to said rod to catch over the edge of the upper plank of the elevator-frame F.

45 By attaching the hand-rod m below the axis of the swinging fingers the weight of grain or grass resting upon said fingers causes the latch to remain in place, and when released causes the fingers to swing outward to discharge, and the attendant is only required to exert sufficient strength in the first place to release the latch, and in the second place to pull the fingers back in place. This is a material improvement over those bundle-carriers which were dumped by forcibly pulling the support from under the bundles, or those which, being unlatched, were expected to be self-closing.

In practice the weight of the clover or flax on the platform H, and resting against the fingers k, will always keep the stop n in engage-

ment with said plank, and to discharge the accumulated bundle it is only necessary to raise the end of the rod m, when the bundle will be discharged by gravity. By the structure above described all the strains upon the hand-rod are tensile, and its liability to be broken as well as the labor of the attendant are reduced.

Having described my invention, I claim—

1. In combination, in a grain-harvesting machine, an elevator-frame and two endless elevator-belts, a butting device for forcibly moving the grain downward and inward from said elevator-belts, and a detachable clover or flax bundling attachment provided with a receiving-platform and retaining-fingers, as set forth.

2. In combination, in a grain-harvesting machine, the elevator-frame and elevator-belts, the rollers whereof are mounted on said frame, loops a, and forked standard b, and a clover or flax bundling attachment provided with retaining-fingers, and adapted to be attached by said loops and standard, and a reciprocating butting-board to forcibly remove the cut grain or grass from the elevator downward and inward on the platform, as set forth.

3. A clover-bundling attachment for a harvesting-machine, having bearings whereby it is adapted to seat in the same supports which hold the automatic binder, provided with retaining-fingers depending from a shaft which is journaled on the frame above the incoming grass, combined with an operating hand-rod attached to said shaft at a point below its axis, and a suitable latch on said rod to retain the parts in operative position, whereby all the strains upon said hand-rod are tensile.

4. The elevator and receptacle platform of a harvester and binder, a butter whereof one end is carried by a crank in a circular path, combined with a swinging fulcrum-plate, K, a joint-rod to connect one end of the same with the free end of the butter, and an endwise-moving controlling hand-rod, O, whereby the angular position of said butter and its field of motion may be changed at will, and whereby the cut grass is forcibly removed from the elevator-belts, as set forth.

5. The butter I, carried at one end by the crank N, and at the other end by the swinging joint-rod M, combined with the pivoted fulcrum-plate K, jointed to the permanent standard J, and the endwise-moving controlling hand-rod O, whereby the angular position of the butter may be changed by the attendant at will.

WILLIAM N. WHITELEY.

Witnesses:

W. T. BEVITT,
LEWIS PHILLIPS.