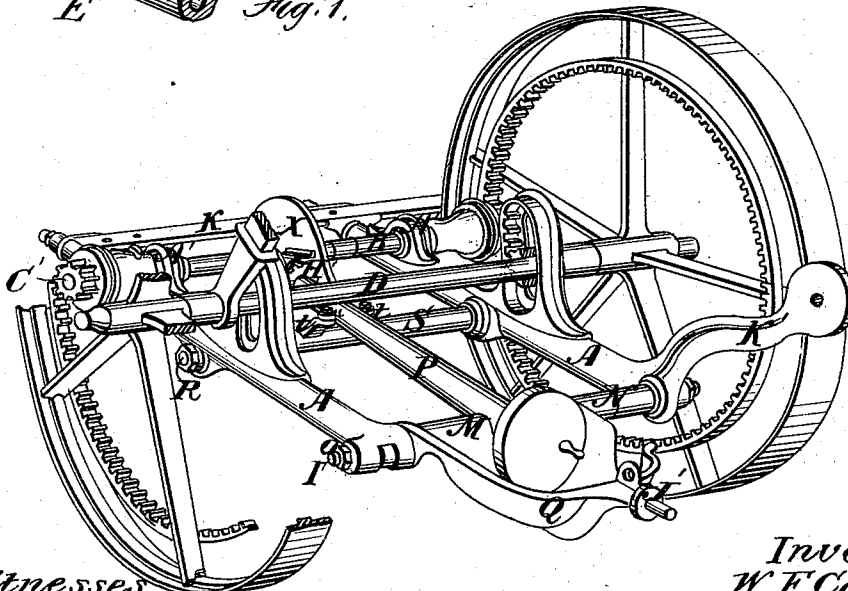
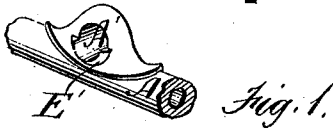
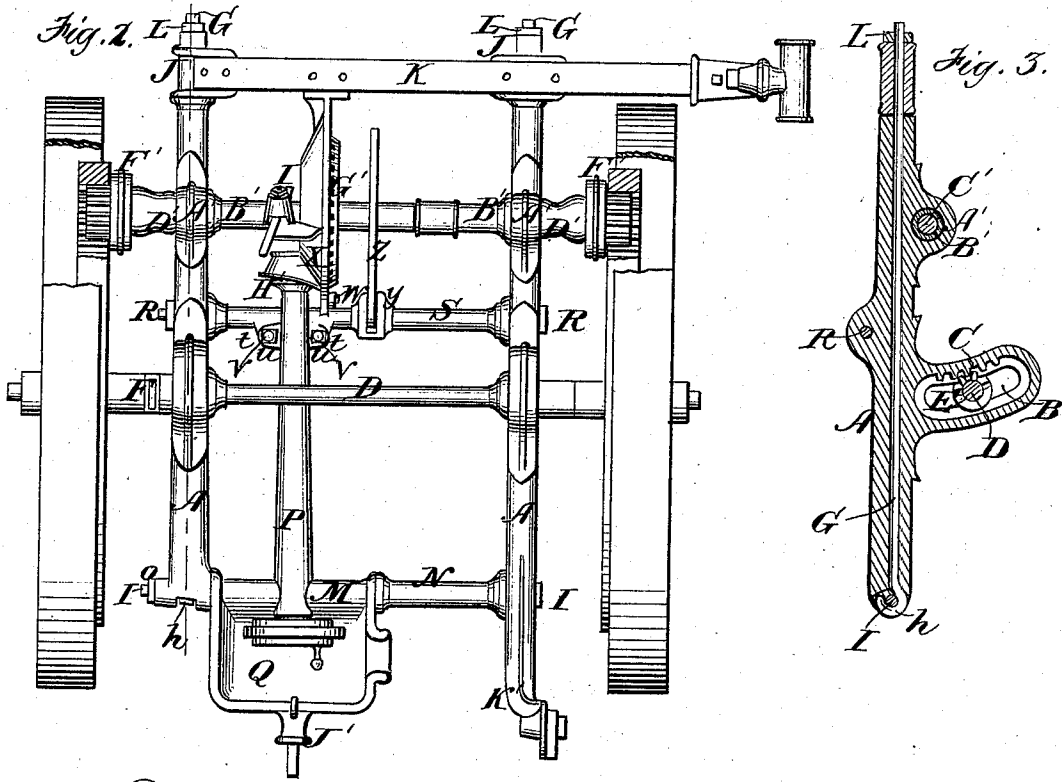


W. F. COCHRANE.

HARVESTER.

No. 173,902.

Patented Feb. 22, 1876.



Witnesses.

J. F. Brown.

Melville Church

Inventor
W. F. Cochrane.
by his Attys.

Nice & Colesworth

UNITED STATES PATENT OFFICE

WILLIAM F. COCHRANE, OF LA FAYETTE, INDIANA.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. **173,902**, dated February 22, 1876; application filed April 20, 1874.

To all whom it may concern:

Be it known that I, WILLIAM F. COCHRANE, of La Fayette, in the county of Tippecanoe and State of Indiana, have invented certain new and useful Improvements in the Construction of Harvester-Frames; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, forming part this specification, in which—

Figure 1 is a perspective view of a harvester-frame constructed in accordance with my invention. Fig. 2 is a plan view; and Fig. 3 is a longitudinal section of one of the side pieces.

Similar letters of reference in the accompanying drawings denote the same parts.

My invention relates to the manufacture of harvester-frames; and consists in the method of constructing and fitting the various parts together, as I will now proceed to describe.

In the accompanying drawings, A A are the side pieces of the harvester-frame, cast hollow, in the general form shown, with central vertical projections, forming the segmental slots B and the segmental racks C therein. The main axle D of the machine passes through these slots to receive the driving-wheels, and is provided with guide-pinions E to engage the segmental racks, for the purpose of raising and lowering the frame when the axle is rocked by its hand-lever F. G G are long wrought-iron bolts, formed with eyes h at one end, and inserted longitudinally in the hollow side pieces, so that the eyes shall enter recesses cast in the rear ends of the latter, where they receive the rear girder or bolt I. Their front ends project through the side pieces to receive the sockets of the flanged or recessed cross-plates J, to which the flat wrought-iron front girder K is riveted or bolted. By setting up the nuts L on the front ends of these bolts the front and rear girders are locked firmly to the side pieces. The rear ends of the side pieces are braced apart by the flanged sleeves M N on the rear cross-bolt abutting against each other between the side pieces, as shown. By setting up the nut o on the end of the bolt the rear end of the frame is securely clamped together. The sleeve M, the pitman-shaft pipe-

box P, and the crank-wheel shield Q are all cast in one piece, for economy of construction and to afford stronger connections for this part of the frame. R is the central wrought-iron cross-bolt of the frame, also provided with a head at one end and a tightening and holding nut at the opposite end, as shown. This bolt carries a long cast-iron sleeve, S, between the side pieces of the frame, which sleeve is cast with two upright ears, t t, to support corresponding ears u u cast at the upper end of the pipe-box P. The two sets of ears are firmly fastened together to hold the pipe-box in place by means of the bolts and nuts V. The sleeve S is further cast with a front projection, W, to which the inner end of the gear-wheel shield X is bolted, the front end of such shield being bolted to the front girder of the frame, as shown. A recess, y, cast in the top of the sleeve at the center receives the lower end of the pivoted traction latch-bar Z, by which the frame is suspended from the foot-board or tongue-bracket of the machine. A' A' are conical sockets cast upon the side pieces opposite each other to receive the journal-boxes B' of the counter-shaft C'. The conical form of the sockets allows the journal-boxes to center or align the shaft properly, and facilitates the setting up or putting the frame together.

To prevent the journal-boxes from turning in their sockets, they are cast with a gib, D', to rest upon a corresponding gib, E', cast on the outer face of each side piece of the frame, and to exclude the dirt from the pawl-plates of the driving-pinions, which are mounted upon the counter-shaft, the journal-boxes are further cast with an overhanging outer end, F', to form sand-washers for such pawl-plates.

I do not claim herein the self-alignment of the counter-shaft nor the construction of the journal-boxes, as I have already claimed them in a former application for Letters Patent; but they form a necessary part of my frame, and are, therefore, included in this description.

The counter-shaft carries the gear-wheel G' to engage with the beveled pinion H' on the pitman-shaft for driving the cutting mechanism, and is also provided with the sliding-clutch I in the usual manner.

The flat front girder of the frame projects beyond the inner driving-wheel of the machine to receive the forward end of the drag-bar, the shoe of which is connected by a radius-bar to the projection J' of the fly-wheel shield Q, as described in some of my former applications. The inner side piece of the frame is also provided or cast with a bracket, K', projecting to the rear over the radius-bar, to which it is connected by a chain or other suitable means, for the purpose of suspending the cutting mechanism from the main frame.

Having thus described my invention, what I claim as new is—

1. The combination of the side pieces of the frame, the eye-bolts G, the recessed cross-

plates J, and front girder K, substantially as described.

2. The harvester-frame, consisting essentially of the combination of the tubular cast-iron side pieces A A, the wrought-iron eye-bolts G, the rear wrought-iron girder I, the sleeves M N, the intermediate cross-bolt and sleeve R S, the flat wrought-iron front girder K, and the recessed cross-plates J, all constructed and secured together substantially as described, for the purposes specified.

WM. F. COCHRANE.

Witnesses:

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