(Model.)

J. M. WISHART.

Harvesters.

No. 228,154. Patented May 25, 1880.

Fig. 1.

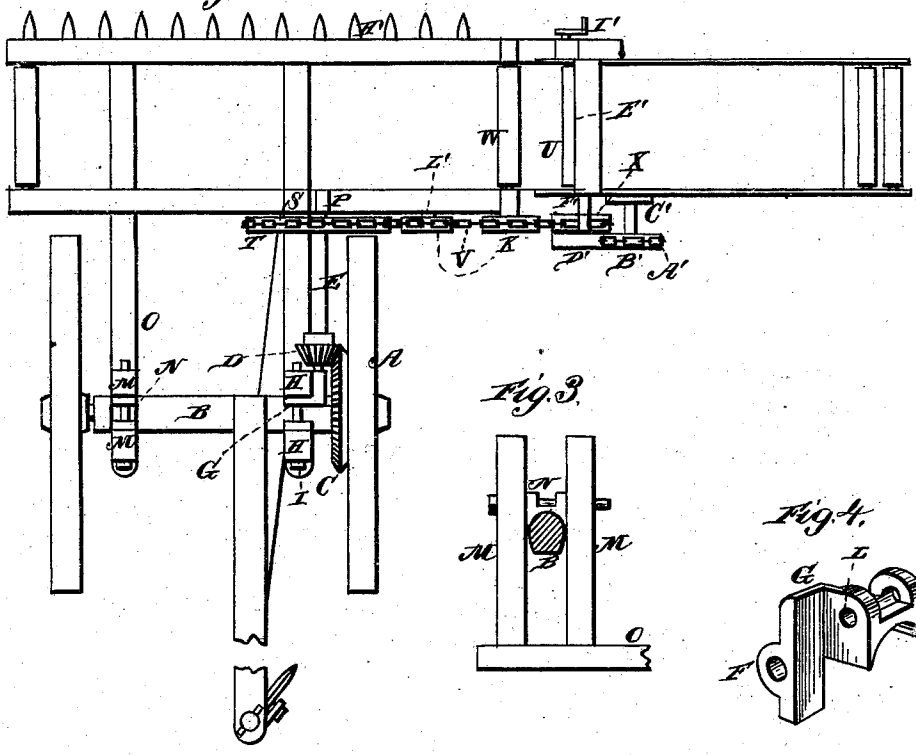


Fig. 3.

Fig. 4.

Fig. 2.

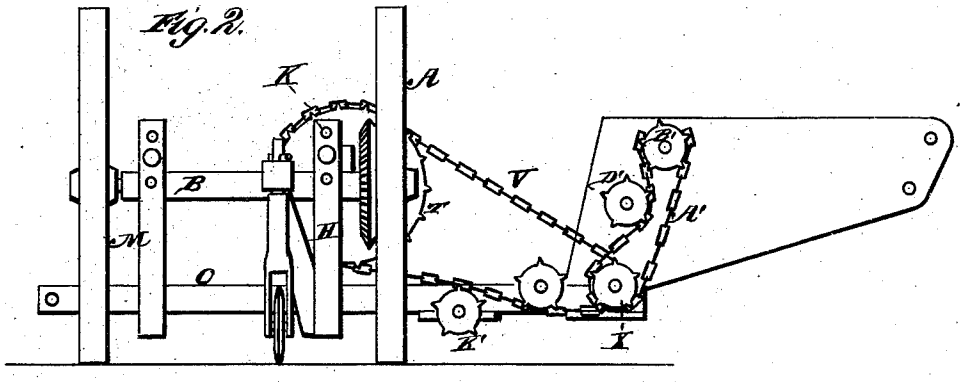
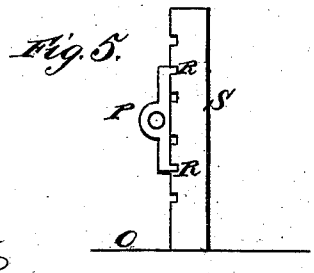


Fig. 5.



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UNITED STATES PATENT OFFICE.

JAMES M. WISHART, OF GRINNELL, IOWA.

HARVESTER.

SPECIFICATION forming part of Letters Patent No. 228,154, dated May 25, 1880.

Application filed March 3, 1880. (Model.)

To all whom it may concern:

Be it known that I, JAMES M. WISHART, of Grinnell, in the county of Poweshiek and State of Iowa, have invented certain new and useful Improvements in Harvester-Headers, and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

This invention relates to certain improvements in harvester-headers; and the objects of my improvements are, first, to provide a more convenient arrangement of the main driving-shaft and the mechanism connected therewith for imparting power to the operating portions of the apparatus, in relation to the axle of the apparatus and the frame thereof; and, second, to provide a means for elevating or lowering the parts of the apparatus carrying the operating portions. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a top view of the entire machine; Fig. 2, a rear elevation thereof, and Figs. 3, 4, and 5, detached views of portions of the machine.

The letter A indicates the main driving-wheel of the apparatus, mounted on the axle B, and carrying a beveled-gear wheel, C, which is so arranged as to engage a pinion, D, on one end of the main driving-shaft E. The said shaft is journaled at its rear end in a box, F, secured to or forming part of an adjustable block, G, which is secured between the uprights H H by means of removable pins I, which may be passed through apertures K in said uprights and an aperture, L, in the ap- block.

The letters M M indicate two uprights, similar in all respects to the uprights H H, and N an adjustable block, similar to the block G, except that it carries no journal-box. These blocks rest respectively upon opposite ends of the axle, and serve to render the frame O, which carries the operative parts of the apparatus, adjustable vertically.

The forward end of the shaft E is journaled in a box, P, which is provided with flanges R, adapted to engage a series of recesses in an upright, S, so that said box may be adjusted vertically thereon, to correspond with the vertical adjustment of box supporting the rear end of the shaft.

The shaft E, it will be perceived, extends forward from the axle and at right angles thereto, and is provided with a sprocket-wheel, T, from which extends an endless chain, V, which engages a smaller double sprocket-wheel, X, mounted on the shaft of a roller, U, journaled in the frame which carries the operative parts of the apparatus. The said chain V also engages a single sprocket-wheel mounted on the shaft of the roller W, also journaled in the frame.

From the double sprocket-wheel X extends a chain, A′, over a sprocket-wheel, B′, journaled in bearings C′ in the frame of the machine, the said chain passing on its way and engaging the sprocket-wheel D′, mounted on the shaft of the roller E′, which is journaled in bearings F′ in the frame of the apparatus, the said chain in its movement serving to impart motion in opposite directions to the sprocket-wheels B′ and D′ respectively. The sprocket-wheels T and D′ serve to impart motion to the elevator-belts, which carry the material, as it is harvested, from the apparatus.

The letter H′ indicates the finger-bar of the apparatus and its blades. The said finger-bar is mounted in front of the frame O, and is connected to a crank, I′, mounted on the forward end of the shaft of the roller U, and receives motion from the same.

In order to hold the chain V in engagement with the sprocket-wheel X, an additional sprocket-wheel, K′, may be employed, which is mounted on a short shaft, L′, secured to the frame O of the machine.

As thus constructed, it will be perceived that the driving-shaft is located forward of and at right angles to the axle of the apparatus, and all of the working parts of the same are thus located at the front of the same, where they may be readily reached for adjustment or repairs, and that the whole of the frame carrying the working parts of the machine can be readily and conveniently adjusted vertically with respect to the axle and main

frame of the machine, to adapt the machine to harvesting at different heights, which is an important advantage.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a harvester-header, the combination of the elevator provided with sprocket-wheels B′ D′ and double sprocket-wheel X, mounted as shown, and connected by the chain A′ with the sprocket-wheel on the end of the shaft W, the sprocket-wheel K′, and the large sprocket-wheel T on the forward end of the shaft E, connected to the double sprocket-wheel X by the chain V, and the vertically-adjustable frame O, substantially as and for the purposes set forth.

2. In a harvester-header, the frame O, provided with the uprights M M, H H, and S, in combination with the boxes G, N, and P, and the driving-shaft E, with gearing C D, and sprocket-wheel T, substantially as and for the purposes set forth.

3. In a harvester-header, the combination, with the axle B, of the vertical standards M and H, secured to the frame O, the adjustable block G, provided with a box, F, to form a bearing for the rear end of the main driving-shaft E, and the adjustable block N, constructed and operating substantially as and for the purposes set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JAS. M. WISHART.

Witnesses:

S. H. HERRICK,

CHAS. F. CRAVEN.