J. S. Williams.

Corn Harvester.

No 51505 Patented Dec. 12, 1865

Fig: 1.

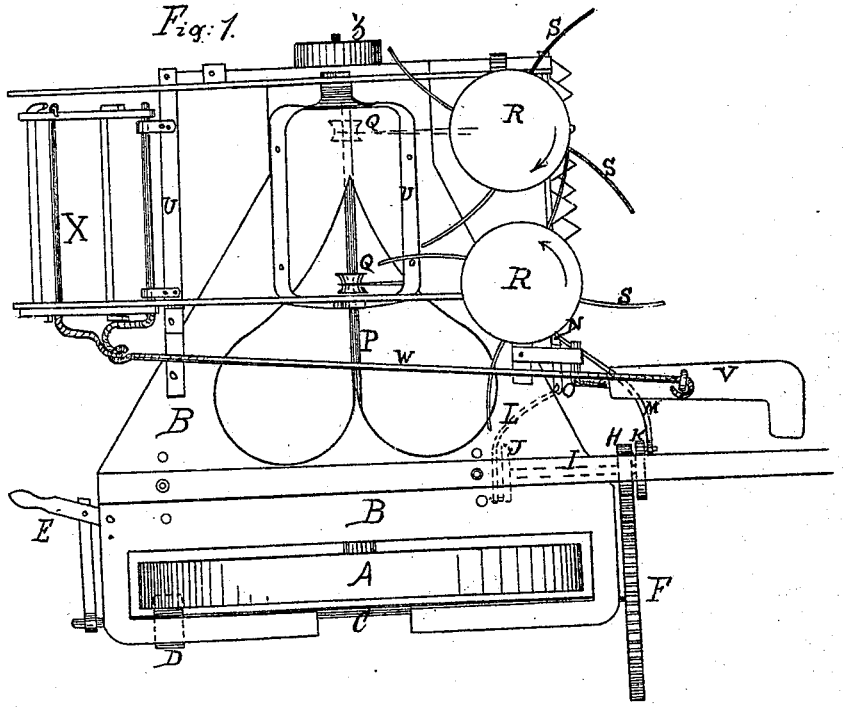
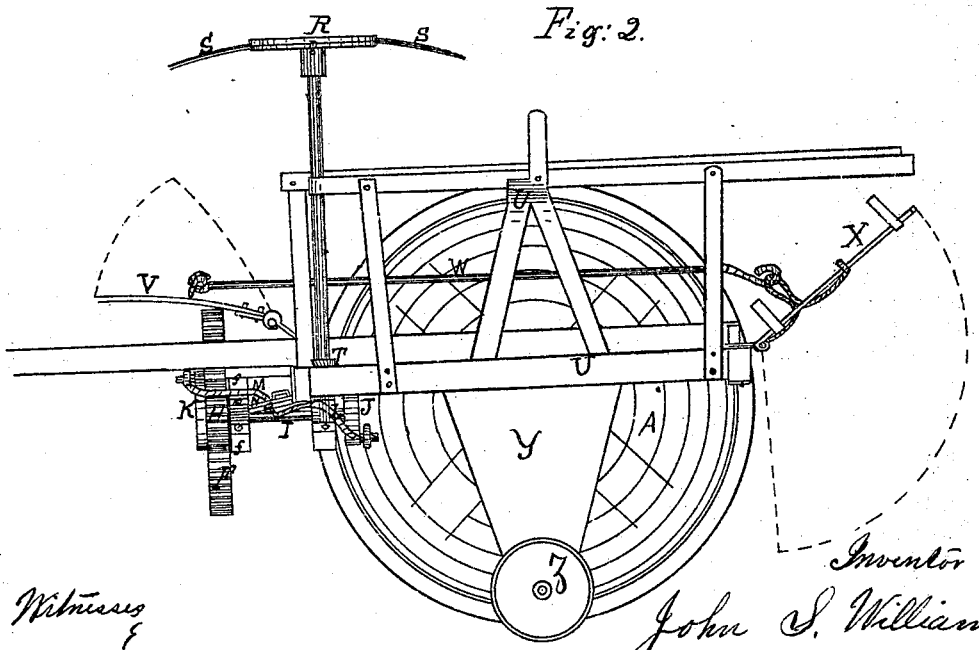


Fig: 2.



Witnesses

Inventor

John S. Williams

by Coburn & Mann Attys

UNITED STATES PATENT OFFICE.

JOHN S. WILLIAMS, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN CORN-HARVESTERS.

Specification forming part of Letters Patent No. **51,505**, dated December 12, 1865.

To all whom it may concern:

Be it known that I, JOHN S. WILLIAMS, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Cornstalk-Harvesters; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings and letters and figures marked thereon, which form a part of this specification, and in which—

Figure 1 represents a top or plan view of my improved machine; Fig. 2, a side elevation of the same.

The nature of my invention consists in a novel arrangement whereby the cornstalks, after being cut by the advancing machine and retained in a suitable receptacle until enough have accumulated to form a shock, may be readily and easily dropped from the machine upon the ground, and the machine be readjusted for another shock.

To enable those skilled in the art to manufacture and use my invention, I will proceed to describe the same with particularity.

The same letters of reference refer to the corresponding parts in the different figures.

A represents the large drive-wheel, and B a plate which constitutes the frame of the machine. On the outside of the wheel A there is a circular rack, and the shaft C is turned by means of the pinion D, which is geared in said rack and is thrown in and out of gear by means of the lever E.

F is a cog-wheel firmly attached to the end of the shaft C, and drives the shaft I by means of H. To this shaft I there are two balance-wheels or cranks, J and K, rigidly attached, to which the pitman-rods L and M are so connected that they drive their respective sickle-bars O and N always in opposite directions—that is, when one bar is going one way the other bar is going the other way, and so on alternately.

P is the shaft of the drive-wheel A, and revolves with the wheel. There are two pulleys, Q Q, on said shaft, and bands running on these pulleys drive the reels R R, there being pulleys T on the shafts of the reels. These reel-shafts have bearings on the frame U, and there are wheels attached to the tops of them with bent arms S, as plainly shown in Fig. 1. The bands that drive the reels are so crossed as to cause them to revolve, as indicated by the arrows in Fig. 1, and the reel-shafts being placed at the sides of the frame U, the arms S, as the reels revolve, bring the cornstalks toward the center of the sickles and into the box U. The box or frame U is so constructed that when the cornstalks are thrown into it by the reels R R they rest principally on the hinged end frame X. The frame X is so connected with a foot-board, V, by means of the rod W, that when the operator, sitting on the ordinary seat at the front of the machine, sees that there are stalks enough cut for a shock deposits them on the ground by raising his foot, and thereby allowing the frame X to swing down, and then by pressing down on said foot-board he raises the frame to its position again.

I can manufacture the wheels A and F whole without shafts, then take the shafts P and C and cast to their ends that come against the wheels two or more flanges, *f*. I then fasten the shafts to the wheels by bolting the flanges to the side of the wheels, as shown in Fig. 2. This is a very cheap way of manufacturing the wheels with wrought-iron shafts. This method of manufacture can be applied only where the shaft does not extend through the wheel.

The tongue *t* is bolted to the plate B, and then it is regulated so as to give a center draft by having different bolt-holes through said plate and moving the tongue sidewise thereon. The left side of the machine is supported on the wheel Z by means of the upright Y.

It will be observed that the main part of my cornstalk-harvester—that is, the drive-wheel and its gearing and the frame B—is constructed the same as my reaper and mower, which I have already patented.

Having thus fully described the construction and operation of my cornstalk-harvester, what I claim as my invention, and desire to secure by Letters Patent, is—

The combination and arrangement of the box U, the hinged tail-piece X, the arm W, and foot-lever V, substantially as and for the purposes specified and described.

JOHN S. WILLIAMS.

Witnesses:

L. L. COBURN,

W. E. MARRS.