W. COGSWELL.

Harvester.

No. 49,607. Patented Aug. 29, 1865.

Fig. 1.

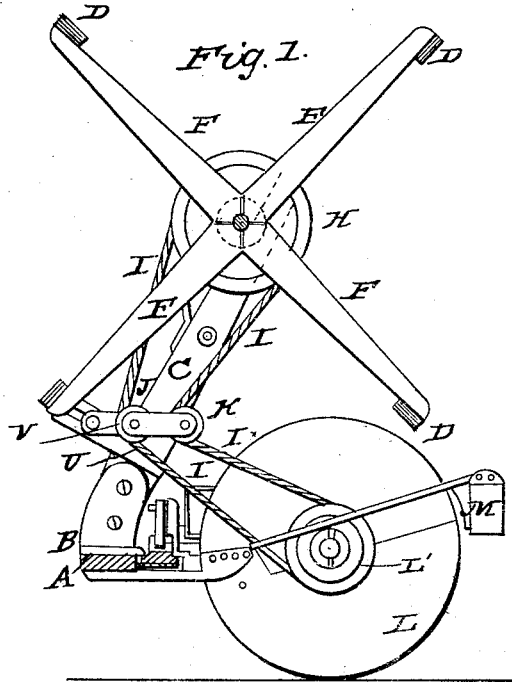
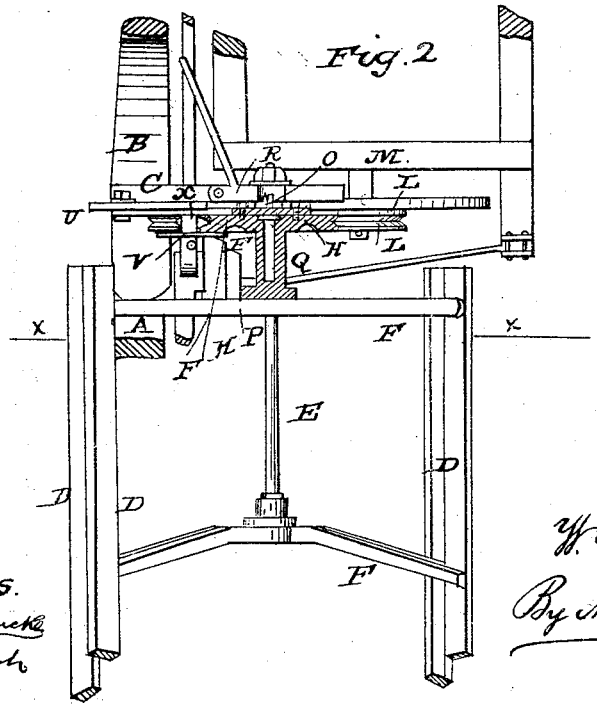


Fig. 2.



WITNESSES.
Atty's of A Krauch
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Attorneys

UNITED STATES PATENT OFFICE.

WM. COGSWELL, OF OTTAWA, ILLINOIS.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. **49,607**, dated August 29, 1865.

To all whom it may concern:

Be it known that I, WILLIAM COGSWELL, of Ottawa, in the county of La Salle and State of Illinois, have made new and useful Improvements in Harvesters; and I do hereby declare the following to be a full, clear, and exact description of the nature, construction, and operation of the same, reference being had to the annexed drawings, which are made part of this specification, and in which—

Figure 1 is a vertical section on the line *x x*, Fig. 2. Fig. 2 is a plan, the reel attachment or gudgeon being in horizontal section.

The same letters indicate corresponding parts in the different figures.

This invention consists in an improved journal-bearing or method of suspending the reel from the post.

To enable a person skilled in the art to which my invention refers to construct and use the same, I will proceed to describe it.

B is the bridge, and A the finger-bar, of the machine. C is the reel post or standard, rising from or near the junction of the finger-bar and bridge so as to partake of the motions of the finger-bar and preserve the parallelism of the ribs D of the reel with the fingers of the finger-bar, so that the reel may be run very close without contact. This near motion is especially desirable in cutting "down" or "straw-fallen" grain, or even some kinds of grass which might be named were it necessary to a due understanding of the invention.

E is the axis, and F the arms, of the reel, and the sleeve G and pulley H are secured to the axis so as to revolve with it, or, rather, they form the means of rotating it by means of the band I, which is passed around the reel-pulley past the two friction-pulleys J K and over the pulley on the inner or reel-driving wheel, L, which supports the inner side of the frame M of the machine.

The post C is suitably stayed to the bridge-piece, and supports the reel by means of the gudgeon or flanged bearing N O P Q, of which the portion N passes through the strap-holder R or slot in the reel-post, and is sustained by means of the projection O and the nut S, between which the post is clamped. The flange P occupies a circular recess in the side of the pulley H, and the pulley is held in the shaft by the divided washer T, which is screwed to the pulley and revolves with it, occupying the space on the gudgeon between the projecting flanges O and P. The gudgeon is further prolonged at Q, so as to form an extended bearing inside of the sleeve and give greater security and steadiness to the reel.

The portion by which the vertical adjustment is effected is capable of a simple clamp attachment, while the bearing is made more extensive than the width of the box which would be included by the holder-strap or slot R.

The tensional device consists of a slotted arm, U, which projects from the reel-post C, and a gravitating holder, V, which is pivoted to U, and contains two friction-pulleys, J K, on which the reel-strap I runs as it is revolved by the motion of the reel-driving wheel L. The holder V has a free motion upon its pivoted point in the slotted arm U, to allow for the rising and falling of either of the wheels of the machine independently of the others—in fact any motion which changes the relative distance of the reel-pulleys H and L′.

To adjust the holder in the slotted arm when the height of the cutter-bar from the ground is adapted to the height of cut required, the holder is moved in or out in the slot; but after being thus adjusted and secured in position the motion due to the inequalities of the ground is met by the gravitating holder, which is supported by the friction-pulleys in the bend of the band and, falling as the band is loosened by bringing the pulleys nearer together, keeps an even strain upon the band. For instance, as the outer end of the cutter-bar is raised it vibrates upon its pivotal point, and as the post or standard of the reel is attached to the cutter-bar or its bridge the rising of the cutter-bar causes the upper pulley of the reel to recede from the lower pulley and tighten the cord, band, or chain. This is met by the rising of the holder under the increased strain. The motion of the middle or reel wheel upward as it rolls over a hillock brings the reel-wheels toward each other more or less suddenly and is met by the dropping of the holder. When the reel-wheel drops into a furrow the reverse action takes place and is met by the rising of the holder. The rising of the main driving-wheel is equivalent to the falling of the middle or reel wheel.

Having thus described my invention, what

I claim therein as new, and desire to secure by Letters Patent, is—

The flanged gudgeon, which is adjustably supported on the reel-post and sustains the reel with an extended bearing longitudinally, substantially as described.

To the above specification of my improvement in harvesters I have signed my hand this 28th of March, 1865.

WM. COGSWELL.

Witnesses:
CHARLES D. SMITH,
EDWARD H. KNIGHT.