W. COGSWELL.

Harvester.

No. 49,608. Patented Aug. 29, 1865.

Fig. 1

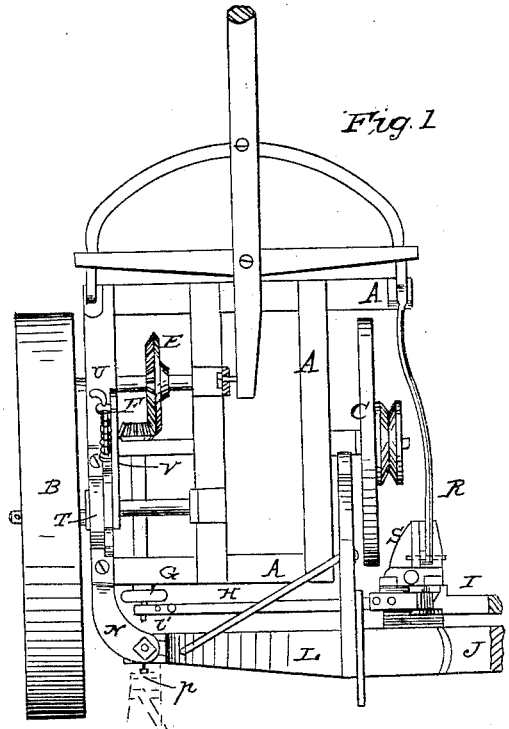
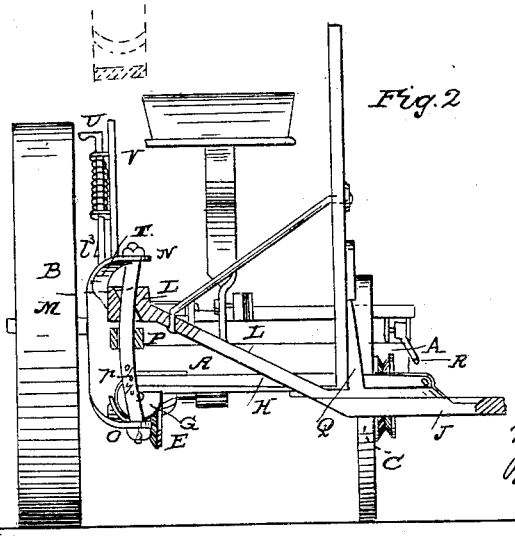


Fig. 2



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UNITED STATES PATENT OFFICE.

WILLIAM COGSWELL, OF OTTAWA, ILLINOIS.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. **49,608**, 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 invented certain 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 accompanying drawings, which are made part of this specification, and in which—

Figure 1 is a plan view of the frame of the machine. Fig. 2 is a rear elevation, the point of attachment of the bridge-piece to the frame being shown in section so as to exhibit it more perfectly.

Similar letters of reference indicate corresponding parts in the two figures.

This invention consists, first, in the method of attaching the platform and cutter-bar to the frame, by which a certain degree and direction of independent motion is allowed to said attached parts; secondly, in the construction of parts involved in the said pivotal attachment; thirdly, in the piece which forms the upper portion of the journal-bearing of the main axle, the circle with notches for the detention of the shifting-lever, and the upper support for the post to which the cutter-bar bridge is pivoted and upon which it swings to the rear when the forward draft-rod is disconnected.

To enable one skilled in the branch of manufacture to which my invention is allied to fully understand and use the same, I will proceed to describe its construction and operation in connection with the accompanying drawings.

A is the frame of the machine, which is supported upon two wheels, B and C.

B is the main driving-wheel, containing the two driving-gears, which, when thrown into engagement with the pinion, operate the gearing E F and the crank G of the pitman H, which is connected to the knife-bar I, which reciprocates in the usual manner in connection with the cutter-bar J and open fingers or guards.

L is a bridge by which the cutter-bar is connected to the frame by a rocking joint, which admits of the vertical motion of the platform as its outer end is raised relatively to the frame or the latter to it as the machine moves over the irregularities of the ground. This joint consists of a box, l', with a V-edge, l^2, which bears against the inner curve of the arc-shaped pillar M, which is supported by the projecting piece N O from the upper and under sides, respectively, of the frame A. The box is retained at the required height by means of a follower, P, and set-screw p, the point of the latter entering depressions p' on the side of the pillar M. The block l^3 holds the box l' in position laterally. The reel-post rises from the bridge-piece, to which it is connected by the bracket Q; but as this application for patent does not refer to the reel-connection, I desist from further description in that direction.

The platform, with the cutting apparatus, is attached to the frame by means of the bridge-piece L, before mentioned, and by the rod R, which connects to the inner shoe, S, and to the point A′ of the frame. In the vertical vibratory motion of the platform which has been referred to it rocks upon both these points—that is to say, upon the end of the bridge-piece and the draft pivotal attachment at A′; but in order to allow for letting down the cutter-bar, so as to leave a shorter stubble, the follower P is lowered upon the pillar M, and thus the end of the bridge-piece is depressed. The requisite adjustment is then made to the wheels which support the outer and rear portions of the platform, which, not being involved in this invention, I do not particularly describe.

It will be manifest that when the platform is lowered for the above purpose a change must be made in the length of the draft-rod R or in the distance of its points of attachment; otherwise the parallelism of the cutter-bar and the frame would be destroyed. To meet this difficulty a number of holes are bored through the inner shoe, S, into either of which the pin which is attached to the rear end of the rod R to the said shoe may be placed.

The mode of attachment of the platform to the frame gives the former a certain amount of independent vertical motion, which does not affect the frame, which, in turn, does not communicate any of its saltatory motions to the frame, each passing over the irregularities of the ground without needlessly affecting the stability of the motions of the other. My object is to render their motions in this respect as independent as possible, and my means for accomplishing this result—namely, the pivotal

and draft attachment, as described—form one point of my invention.

The pillar M is pivoted at its upper and lower ends to the pieces N O, respectively, in such a manner that by disconnecting the draft-rod R from the shoe S and throwing off the belt the platform, with the weight which is imposed upon it, may swing to the rear, with the pillar M as an axis, the supporting-wheels at the outer end and rear of the platform traveling in an arc of a circle. This enables the machine to be drawn through a gateway which it could not otherwise pass. In case of breakage of the rod R the platform vibrates horizontally to the rear in the pivotal post M. The red lines in Fig. 1 show the position when swung to the rear.

The piece T, which is most clearly shown in Fig. 1, performs three offices. It forms the upper portion of the boxing or journal-bearing of the axis of the driving-wheel. An arc-shaped ridge on its upper edge is indented so as to form points of detention for the spring-bolt U of the lever V, by whose agency the driving-wheel is shifted forward or backward, so as to throw its cog-wheels in or out of gear with the pinion through which motion is communicated to the pitman, and it forms the upper holder for the pillar M.

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

1. Attaching the cutter-bar, and through it the platform, to the frame by the pivotal connection and draft-rod at diagonally opposite corners of the frame, as represented, so that by the breaking or detaching of the latter the platform wheels round and tows behind.

2. The method of connecting the bridge-piece L to the frame by means of a pillar pivoted in holders N O, and the box *l'*, which is adjustable vertically on said pillar, substantially as and for the purpose described.

3. The cap-piece T in its threefold character, as a portion of the journal-bearing, the circle for the lever, and the holder for the upper end of the pillar M, substantially as herein set forth.

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

WM. COGSWELL.

Witnesses:
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