

H. H. FOYE.
Mowing Machine.

No. 30,135.

Patented Sept. 25, 1860.

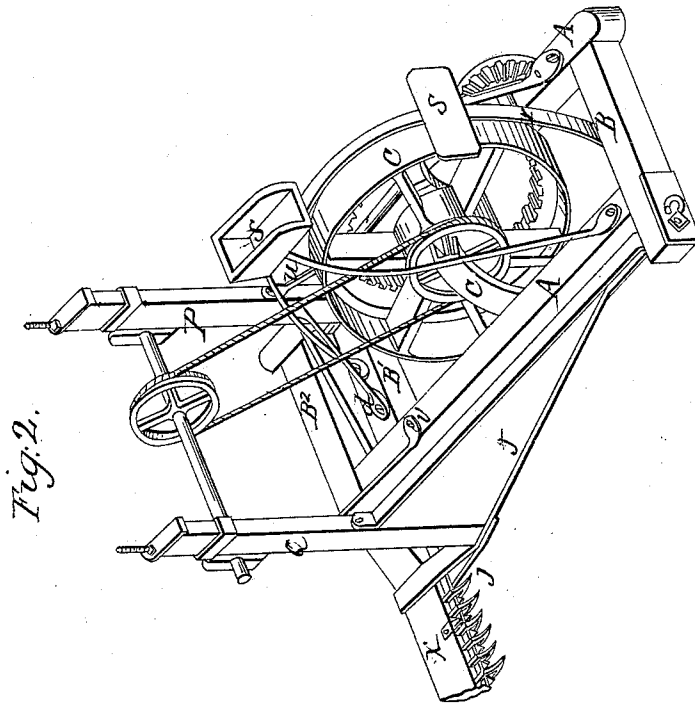


Fig. 2.

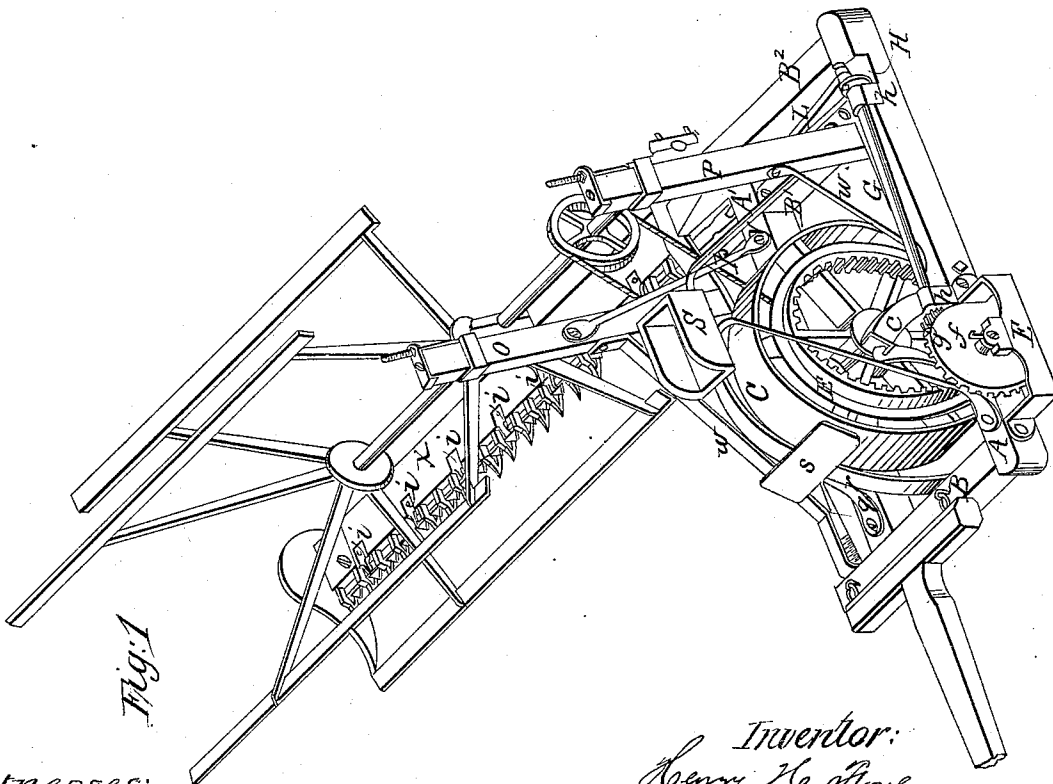


Fig. 1.

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UNITED STATES PATENT OFFICE.

HENRY H. FOYE, OF OTTAWA, ILLINOIS.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 30,135, dated September 25, 1860.

To all whom it may concern:

Be it known that I, HENRY H. FOYE, of Ottawa, in the county of La Salle and State of Illinois, have invented certain new and useful Improvements in the Harvesting-Machine; and I do hereby declare that the following is a true and exact description of the same, reference being had to the accompanying drawings, which are a part of this specification, in which—

Figure 1 is a perspective view of the same from the front stubble side thereof, and Fig. 2 is a view of the inside of the gearing-frame and gearing with a part of the reel-shaft and part of the cutter-bar and cutting apparatus.

My invention relates to an improved position for the reel-posts for an overhung reel with respect to the main frame, draft-bar, and cutting apparatus, whereby to secure greater steadiness and regularity in its revolutions and to improve the efficiency of the whole machine when in use.

That others skilled in the art may construct and use my invention, I now proceed to state its manner of construction and principle of operation.

I construct the frame in the form represented in Fig. 1, with two side rails, A and A', connected together by the cross-pieces B, B', and B². The cross-bars B and B² extend inwardly beyond the inner edge of the rail A', as shown in the drawings. This frame should be firmly fastened by bolts or otherwise. I fasten to the rail A and A' two metal segments, c c, to sustain the boxes of the driving-wheel C. These segments are constructed, as represented, with curved slots in them concentric with the pinion D, which is not shown in the drawings, so that in whatever part of the slots the boxes which are not shown in the drawings may be placed they will always support the axle of the driving-wheel at the same distance from the pinion D. The boxes are constructed to slide in the slots of the segments c c, and may be fastened therein in any required position by bolts or otherwise, as may be most convenient.

The driving-wheel C is fastened to a shaft, whose journals are fitted to and run in the bearings of the boxes, so that by changing the position of the boxes in the segments the frame before described may be lowered or raised to the desired distance from the earth, as it is obvious that it is by these means suspended on the axis of the driving-wheel.

A gear-wheel, E, is fastened to the arms of the wheel C, and turns pinion D upon a shaft, e, which shaft turns in boxes on rail A, and on a metal bracket, F, fastened on the rail A, as represented in the drawings, Fig. 1, and carries a bevel-wheel, f, which drives a bevel-pinion, g, on a shaft, G, which latter shaft turns in boxes h h on the rail A of the frame, and carries on its rear end a disk, H, with a stud or wrist-pin, which disk and stud, being turned by the shaft G, form the crank which vibrates the sickle, which is connected to it by the link-rod L, as represented.

The finger-beam X, or the supporter of the cutting apparatus, is fastened to the lower side of the cross-piece B², which is beveled off on its top from the piece A' to its inner end. These parts are secured by screw-bolts, and the finger-beam is sustained in a rigid manner by means of the metallic brace J, which extends from near the inner end of the front cross-piece, B, back to and around the finger-beam, and it serves as well also for a runner for the outer end of the finger-beam, which runner is marked j, and, as the cross-piece B is more elevated in position than the finger-beam, it is obvious that the runner has an upward inclination from the finger-beam, which permits it to pass smoothly over the ground. The grain end of the finger-beam has a shoe, as represented in Fig. 1, (marked K.) The sickle-bar L is vibrated at a fixed distance from the front edge of the finger-beam, which distance is preserved by metallic braces i i i. (Represented in Fig. 1.) These braces have shoulders upon them extending from an inch and a half to two inches from the finger-beam, and against which the back edge of the sickle-bar plays, and they also project over the sickle-bar and keep the sickles in a certain horizontal position in the slots of the guard-fingers, in which they vibrate. The guard-fingers are made fast to the finger-bar, and have an open slot in their rear part and below the line of vibration of the sickle-bar, the object and result of which arrangement of the cutting apparatus are to provide a means by which to escape the accumulation of any clogging matter by which many machines are clogged and stopped. That which might otherwise accumulate would naturally fall through the apertures thus provided.

This machine is provided with a driver's seat, which is supported by the metallic braces

o p q r, as shown in the drawings. The seat is marked *S*, and the front brace is of a piece of flat iron with a rest, *s*, across it for the feet of the driver. It is also provided with a reel, as shown in Fig. 1, which is projected or overhangs the cutting apparatus in movable boxes on the reel-post *P* and *Q*, which, by my improved devices, are placed so wide apart as to give the overhung reel improved steadiness in its revolutions in the motion of the machine. The outer reel-post, *P*, is made fast to the inner side of rail *A* of the machine, just in advance of the cross-piece *B*², and is supported in position by metallic brace *t* from cross-piece *B*¹ and *u* from piece *A*, and the post *Q* is placed on the metallic brace *J*, in front of the finger-beam, at the point at which the part of said brace which passes over and around the finger-beam and which serves as its runner, is brought up to the brace, and is made fast there by a screw from and through said brace and runner into the foot of said post, and it is supported in its position by the metallic braces *v* from the piece *A*¹ of the main frame and the like brace *w* from near the inner end of the cross-piece *B* up toward its upper end; and between the braces *J* and *w* there is a piece of sheet

metal, which serves to strengthen them respectively, and also with the brace *J* to compress the uncut grain toward the cutting apparatus.

On the inner end of the shaft of the driving wheel is a pulley, which is connected with a pulley on the reel-shaft, and as the driving wheel revolves motion is communicated as well to the cutting apparatus as to the reel. The machine has a tongue also, which may be fastened to the frame, as represented, or in any convenient manner which is represented in the drawings.

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

The arrangement of the reel-posts *P* and *Q* with respect to the main frame, draft-bar *J*, and the cutting apparatus, substantially in the manner described, and for the purpose specified.

In testimony of which invention I hereunto set my hand.

HENRY H. FOYE.

Witnesses:

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