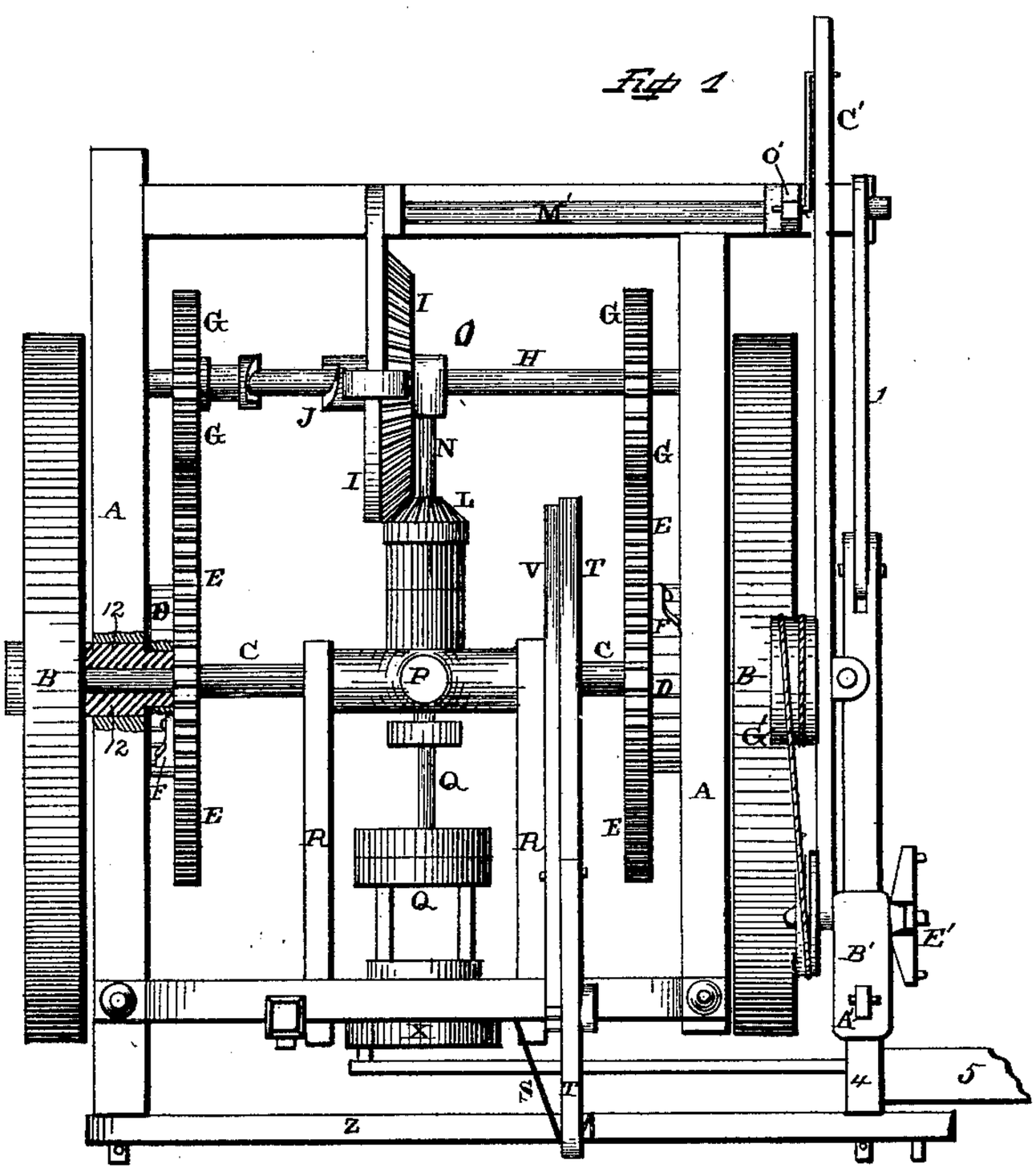
(No Model.) 2 Sheets—Sheet 1.

F. J. LAMPTON.

Reaper.

No. 233,259. **Patented Oct. 12, 1880.**

Fig 1



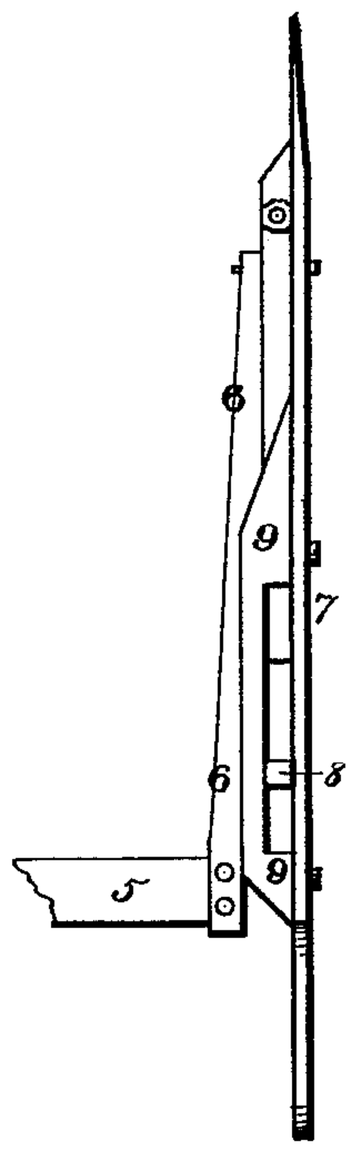
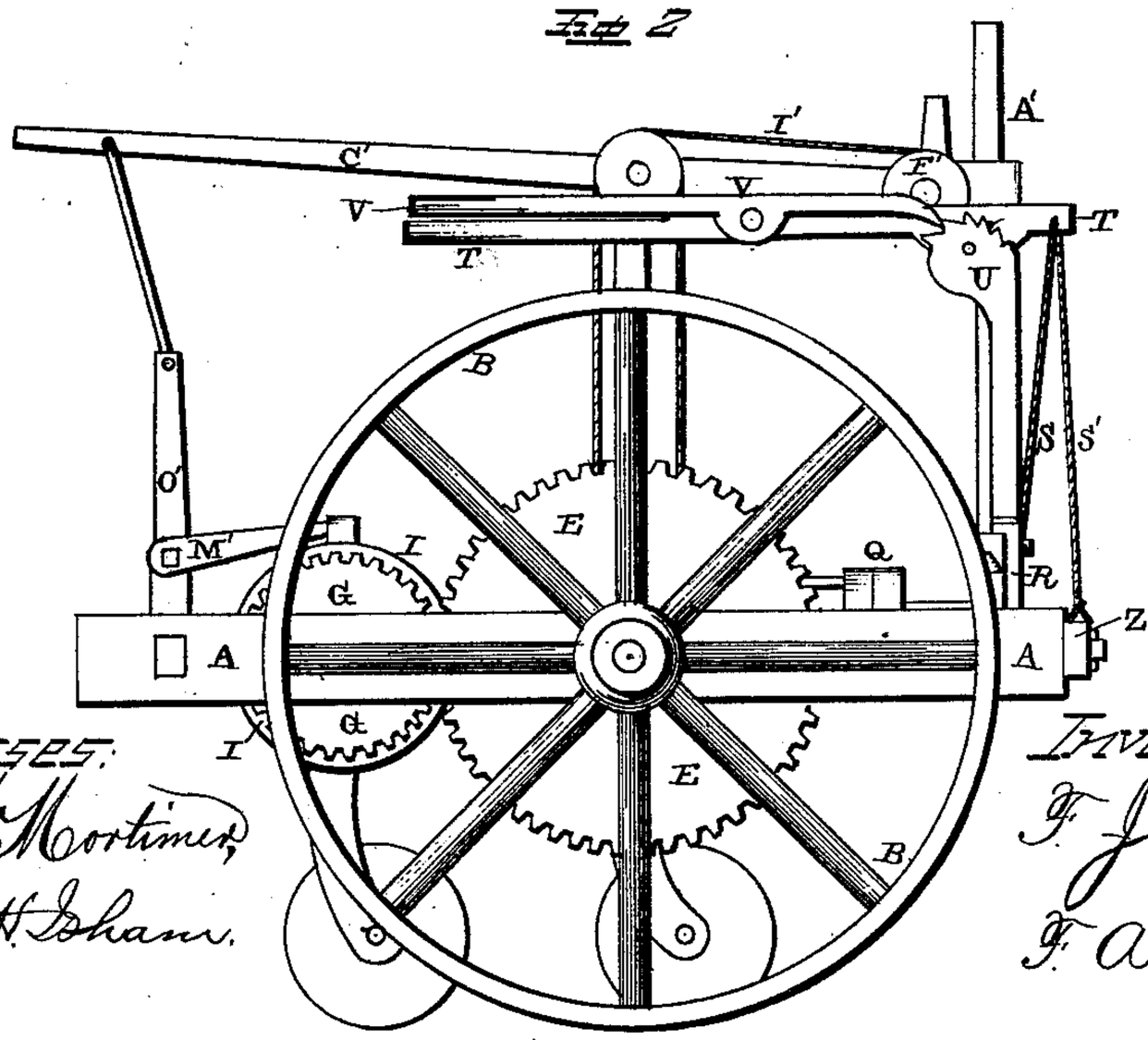


Fig 2



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

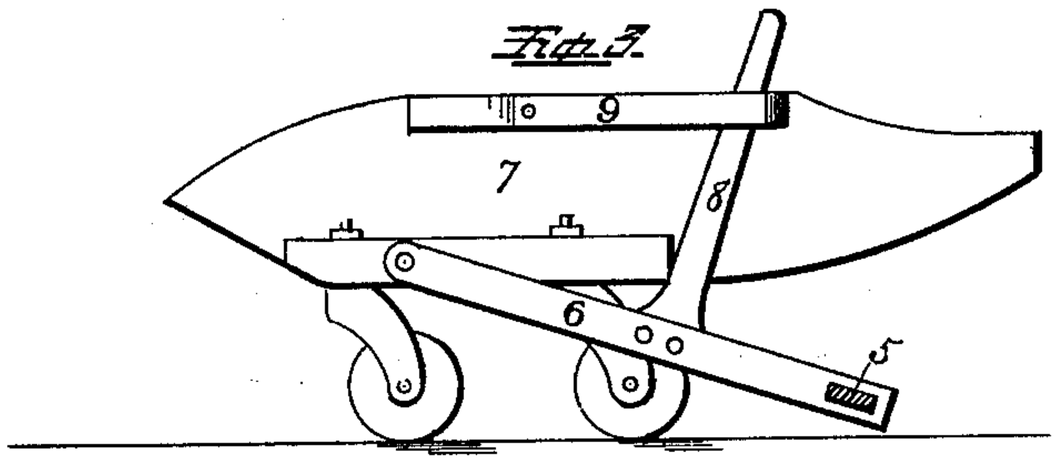


Fig. 4.

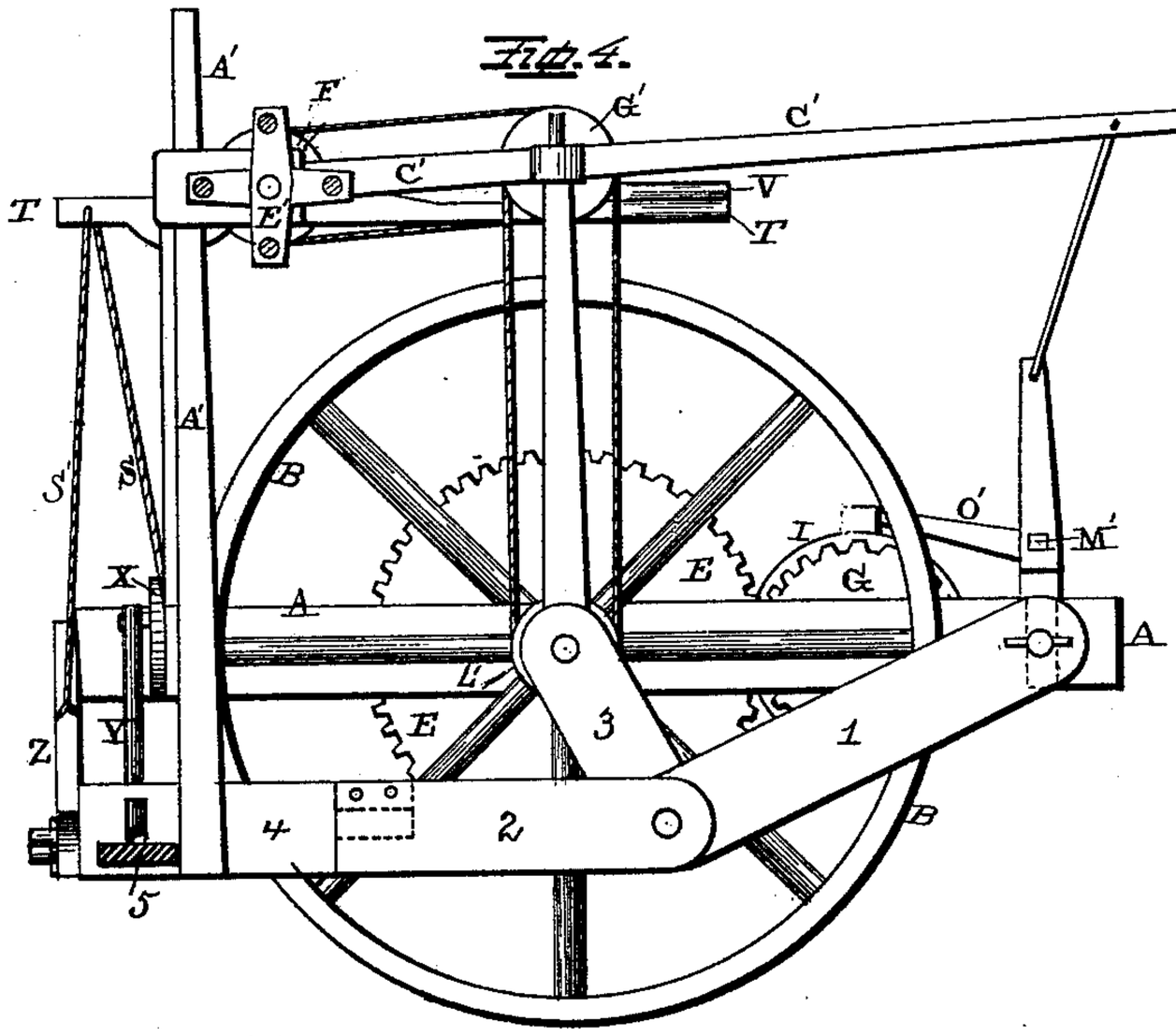


Fig. 5.

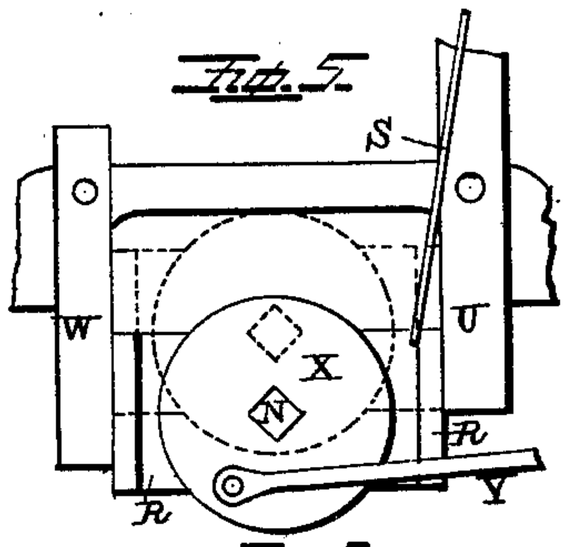
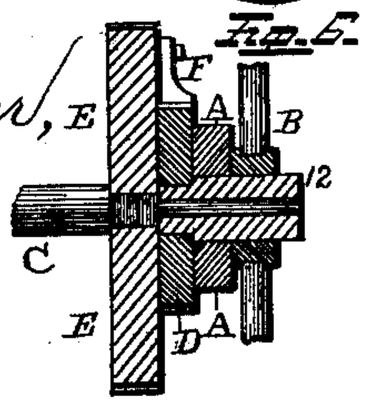


Fig. 6.



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UNITED STATES PATENT OFFICE.

FLAVIUS J. LAMPTON, OF HAMMONVILLE, KENTUCKY.

REAPER.

SPECIFICATION forming part of Letters Patent No. 233,259, dated October 12, 1880.

Application filed August 14, 1880. (No model.)

To all whom it may concern:

Be it known that I, FLAVIUS J. LAMPTON, of Hammonville, in the county of Hart and State of Kentucky, have invented certain new and useful Improvements in Reapers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in reapers; and it consists in providing the outer end of the sickle-bar with an arm which projects forward and is pivoted at its front end to the inner side of the guard, and attaching to this arm an upright which passes up through a guide that is secured to the top edge of the guard, whereby the cutter-bar can be raised and lowered upon the guard.

It further consists in a pivoted frame which is supported at its front end upon the axle and at its rear end by means of a chain and lever, and in which the jointed shaft which drives the pitman is journaled, whereby the shaft which drives the sickle can be raised and lowered with the cutter-bar.

It further consists in the arrangement and combination of parts, which will be more fully described hereinafter, whereby a cheap, simple, and efficient reaper is produced.

Figure 1 is a plan view of my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a detached view taken from the inner side of the guard. Fig. 4 is a side elevation of the machine, taken through the cutter-bar. Figs. 5 6 are detail views.

A represents a rectangular frame; B, the driving-wheels, and C the axle. On the inner side of each wheel B is the square hub 12, which passes through the frame A into the ratchet-wheel D, and as the wheels B are not secured to the axle the wheels and ratchets turn freely on the axle without affecting it when turned backward; and placed upon the shaft just inside of the ratchet-wheels are the two large driving-wheels E, which are provided with the dogs F on their outer sides, and which engage with the teeth of the ratchet. As long as the machine moves forward these dogs force the driving-wheels E and axle around; but as soon as the machine is backed the dogs slip idly over the ratchet-teeth, and hence the cutter-bar is not operated. These two driving-wheels mesh with the pinions G, which are secured to the shaft H, which extends parallel across the frame with the axle. Near the center of this shaft H is placed a beveled-gear wheel, I, which can be made to revolve with the shaft H, or be disconnected therefrom by means of the clutch J. This wheel I meshes with a pinion, L, on the shaft N, which shaft has its bearing in a block, O, on the shaft H, and a second block, P, on the axle C. The rear end of this driving-shaft is provided with the two couplings or joints Q, either of the construction here shown or any other which may be preferred, and by means of which the rear end of this shaft can be raised or lowered at will without interfering in any manner with its revolutions.

Pivoted upon the axle C is the v adjustable frame R, in which the pivoted portion of the shaft N is journaled, and this frame R is supported in position at its rear end by means of a chain, S, which connects it to the rear end of the lever T. This lever T is pivoted in the upper end of a suitable standard, U, and is provided with a dog, V, which catches in the ratchets made in the upper end of the standard for the purpose of holding the lever in any desired position. This pivoted frame is guided vertically in its movement by the standard, in which the lever is pivoted on one side and the guide W on the other, so as to prevent it from moving laterally while the machine is at work.

On the rear end of the shaft N is secured a wheel, X, which is provided with a wrist-pin, to which the pitman-rod Y is connected. Also, connected to the lever T by means of a rod or chain, S′, is the bar Z, which has one end secured upon a tenon on the rear end of the frame A, while the other end forms a bearing for the block or part to which the cutter-bar is secured. While the machine is used for reaping this rod or bar Z is turned so that the projection upon its inner end is turned to the rear; but when the machine is used for mowing the rod is turned over, so that the projection extends toward the front.

Pivoted upon the front corner of the frame

A is the link 1, which has its rear end connected to the supporting-block 2. Also, placed upon the same pivot which unites these two parts 1 and 2 together is a supporting-link, 3, which has its upper end attached to the inner end of the axle C. This supporting-link 3 serves to hold the parts 1 and 2 a certain distance above the ground when the cutter-bar is at work.

Pivoted between the rear end of the supporting-block 2 and the inner end of the rod or bar Z is the block 4, to which the cutter-bar is secured, and which acts as a hinge, by means of which the cutter-bar can be raised vertically upward in the usual manner. The outer end of the cutter-bar 5 has secured to it an arm, 6, which projects forward a suitable distance, and has its front end pivoted to the inner side of the guard 7. Projecting upward from this arm near its rear end is the upright 8, which passes through a guide, 9, that is formed on the inner side of the guard. The guard being pivoted to the arm 6 and also attached to it by means of the upright, the cutter-bar can be raised vertically by means of the lever T, so as to run any desired distance above the ground. The guard being supported upon its two casters, the upward movement of the cutter-bar does not affect the guard in any manner, and thus while the guard runs along at the same elevation the cutter-bar can be adjusted so as to run at any desired distance above the ground, so as to accommodate either tall or short grain.

As above described, the machine is used for mowing only; but when it is desired to use it for reaping a reel will be added to it, as shown.

Secured to the hinged block is a standard, A′, upon which the block B′ is moved up and down and by means of the lever C′.

The block B′ has the reel E′ journaled upon it, and by making the block adjustable up and down by means of the lever the reel is adapted for tall or short grain. The shaft or pivot of the reel passes through the block B′, and through the rear end of the lever which moves the block up and down, and has a pulley, F′, upon its inner end. Passing over this pulley F′, over the pulley G′, which is placed on the same pivot upon which the lever moves, is the chain or belt I′, and passing down from this second pulley, G′, is the operating cord or chain, which passes around the pulley L′ on the end of the axle C. As the machine is moved forward when used for reaping the reel is kept constantly in motion.

In order to operate the reel either by foot or by the lever, a shaft, M′, having a treadle, O′, secured to one end, is journaled upon a front of the machine, and this shaft is connected at its inner end, by means of a connecting-rod, with the reel-lever. When it is desired to operate this lever by hand the connecting-rod of the treadle is removed, but when it is desired to operate it by foot the connecting-rod is attached. While this reel is in use the standard A′, being secured to the pivoted block 4, prevents the block from turning upon its pivots, and hence the block does not form a pivot upon which the cutter-bar is raised upward, as it does when the machine is used for mowing only. As this block cannot turn upon its pivot while the reel is being used, and as the block can be raised vertically by the bar Z, when the front end of the lever T is depressed the cutter and cutter-bar are raised horizontally their whole length, so as to cut near to or high above the ground.

Where the reel is not used any suitable device may be used in its stead to prevent the block 4 from turning upon its pivots.

Having thus described my invention, I claim—

1. In a reaper, the combination of the driving-shaft which operates the cutter, the vertically-adjustable frame R, in which the rear end of the shaft is journaled, the guides U W, between which the frame moves, the lever T, chains S S′, bar Z, the block 4, having a vertical movement, a means for preventing the block from turning on its pivots, and a guard to which the outer end of the cutter-bar is loosely attached, whereby the cutter can be adjusted to cut close to or high above the ground, substantially as shown.

2. The combination of the driving-wheels B, hubs 12, passing through the frame into the ratchet-wheels D, spur-wheels E, rigidly secured to the axle C and provided with dogs F, the outer ends of the axle being made to pass through the hubs, but entirely disconnected therefrom, substantially as set forth.

3. The combination of the cutter-bar provided with an arm and a guard to which the arm is pivoted, whereby the cutter-bar can be raised upward without affecting the guard, substantially as specified.

4. The combination of the cutter-bar with the block to which it is secured at one end, and which block is made vertically adjustable with the arm that is attached to the outer end of the cutter-bar, and the guard to which the arm is pivoted, substantially as shown.

5. The combination of the cutter-bar having an arm secured to its outer end, the guard to which the arm is pivoted, an upright secured to the arm, and a guide on the guard, through which the upright passes, substantially as described.

6. The combination of the link 1, block 2, supporting-link 3, and a block, 4, to which the cutter-bar is secured, the rod Z, and a lever to which both the pitman and the bar are secured, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 19th day of July, 1880.

F. J. LAMPTON.

Witnesses:
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J. M. STITH.