

G. Murphy Mower

No. 50206

Patented Sep. 26, 1865.

Fig. 1.

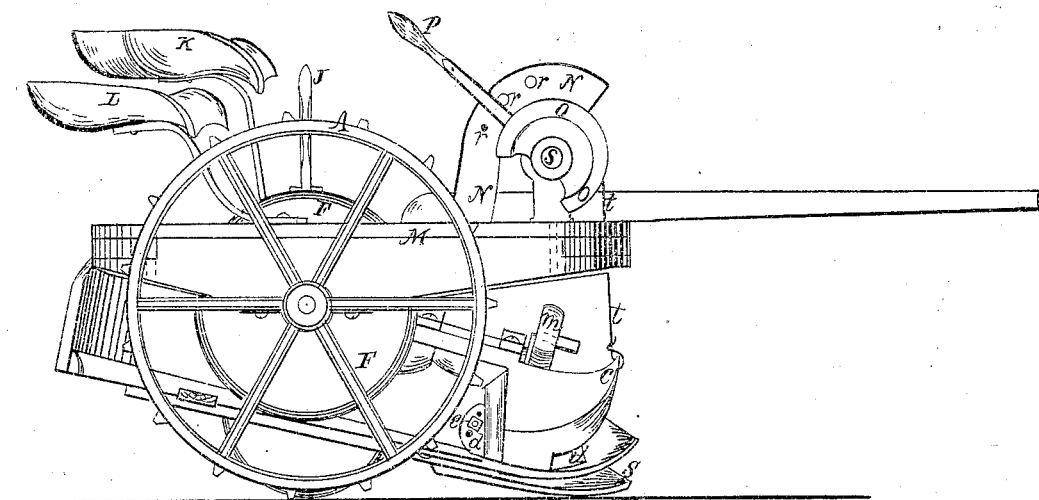
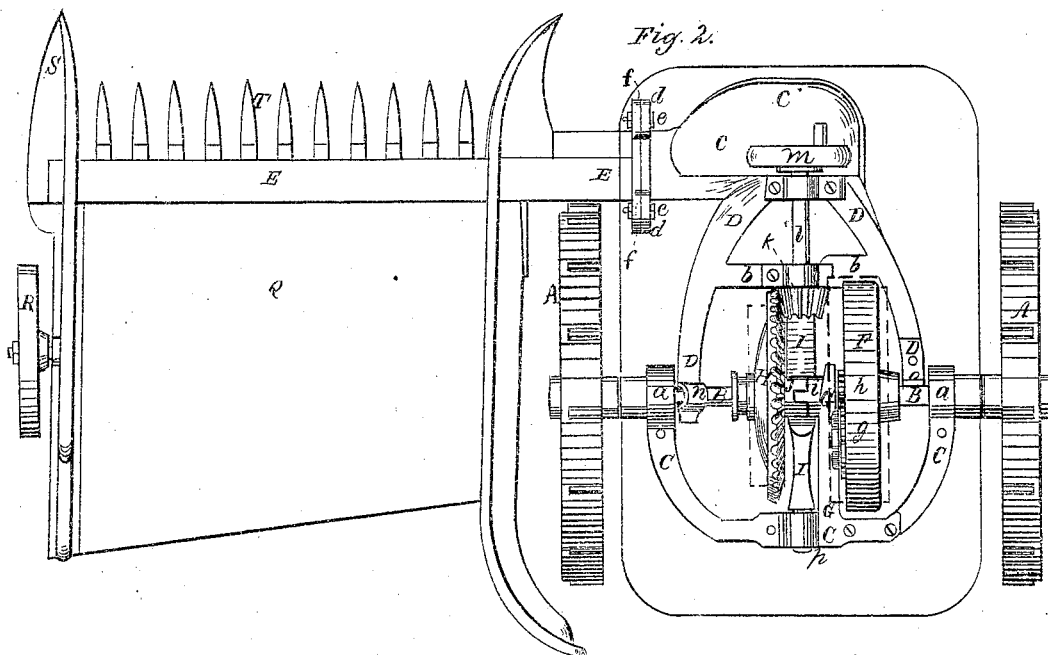


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

GRIFFITH MURPHY, OF LEWISBURG, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND WM. D. SLACK, OF SAME PLACE.

IMPROVEMENT IN HARVESTING-MACHINES.

Specification forming part of Letters Patent No. 50,206, dated September 26, 1865.

To all whom it may concern:

Be it known that I, GRIFFITH MURPHY, of Lewisburg, in the county of Union and State of Pennsylvania, have invented certain new and useful Improvements in Grain and Grass Harvesters; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents an end elevation of the machine. Fig. 2 represents a top plan, with the platform on the main frame over the gearing removed, to better show the parts underneath it.

Similar letters of reference, where they occur in the separate figures, denote like parts of the machine in both of the drawings.

My invention relates to the manner in which I construct and arrange the main frame with regard to the axle and driving-gear to allow the cutter-bar to rise and fall vertically or to rock or roll in the line of its length as the undulations of the ground may require without being thrown out of or cramping the gear, which may not have these corresponding motions.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

A A represent the main driving and carrying wheels, mounted upon an axle, B, which turns with said axle, and from which the sickle-bar is driven.

The main frame is composed of two sections—viz., a rear section, C, and a front section, D, both of which are so united to or with the axle and to or with each other as that they may have motion with and independent of the axle, and with and independent of each other, as follows: The rear section, C, is of a bow-shaped form, the ends *a* whereof are hinged to the axle B so as to swing thereon. The front section, D, is of a V-shaped form, and has cast upon it a supporting-bar, *b*, and a shield or shoe, *c*, to protect the crank-wheel that drives the sickles, and arms *d d*, to which the finger-bar E is attached, and whereon it may be adjusted by set-screws *e*, passing through adjusting-holes in said arms *d*, and in corresponding ones, *f*, on the finger-bar.

On the shaft B there is a wheel, F, that has

an internal gear upon it that works into and turns an intermediate pinion, *g*, supported upon an arm, G, extending from and fastened to the rear section, D, of the main frame. The intermediate gear or pinion, *g*, meshes with and turns the gear *h*, which is fastened to a sleeve, *i*, that turns freely upon the shaft B, and on one end of this sleeve *i* is made a semi-clutch, which unites with another semi-clutch on the adjacent end of a sleeve, *j*, also turning freely on and independent of the main axle B. The sleeve *j* has secured to it a bevel-gear, H, that, when moved up and clutched with the sleeve *i*, has a rotary motion given to it, which it in turn imparts to the bevel-pinion *k* on the end of a shaft, *l*, on the opposite end of which shaft the crank-wheel *m* for driving the sickles is placed.

I have stated that the rear section, C, of the main frame was hinged at *a* to the axle B, but the front section, D, is not so hinged to the axle, though it is controlled somewhat by the axle—as, for instance, one end or arm of said front section may have a loop, *n*, extending over the axle, and the other arm may have a brace, *o*, bracing against it, neither of which connections in anywise influence the motion of the section D as it rises and falls with the finger or cutter bar or rocks or rolls with it. The frame D, however, has cast upon it an arm-shaft or axis, I, which has a journal, *p*, upon its extreme end that has a bearing in the rear of the rear section, C, so that the front section can rock or roll laterally on this arm or axis I in addition to its motion with or independent of the rear section, C.

The sleeve *j*, with its gear H and semi-clutch, can be moved back and forth on the axle B by means of a lever, J, which straddles the neck *q* on the sleeve, and extends up in close proximity to the conductor's seat K, so that he may put the machine in cutting motion or throw it out of gear at will. The other seat, L, is designed for the raker to sit upon.

On the platform M, that sits over the main frame, there is arranged an arm, N, having studs or stops *r* upon it. To this arm is pivoted, at *s*, a segment-wheel, O, having a spring-lever, P, attached, by which said segment may be freely turned and then held at any desired position by the lever taking against one of the

stops *r*. To the perimeter of the segment-wheel is fastened a chain or rope, *t*, by one of its ends, the other end being fastened to the shoe or shield *c*, so that the operator from his seat may raise up, cause to be held up, or let down the finger-bar and cutting apparatus at will.

I have shown a grain-table, *Q*, outside supporting-wheel, *R*, outside shoe, *S*, fingers or guards *T*, all of which, as well as other parts not particularly described, may be of any of the known kinds or forms in common use.

The adjustments at *d e f* are for setting the points of the guards up or down, as the character of the ground may require.

Having thus fully described the construction

of my improved grain and grass harvester, what I claim therein as new, and desire to secure by Letters Patent, is—

1. In combination with the axle of the machine, the main frame, composed of the two sections, and united or connected therewith, substantially as and for the purpose described.

2. In combination with the axle and the two sectional frames connected therewith, as herein represented, the arrangement of the driving-gear, as herein described and set forth.

GRIFFITH MURPHY.

Witnesses:

J. A. MERTZ,

GEORGE SCHOCK.