J. P. Manny,

Mower.

No. 112,942. Patented. Mar. 21. 1871

Fig. 3.

Fig. 1.

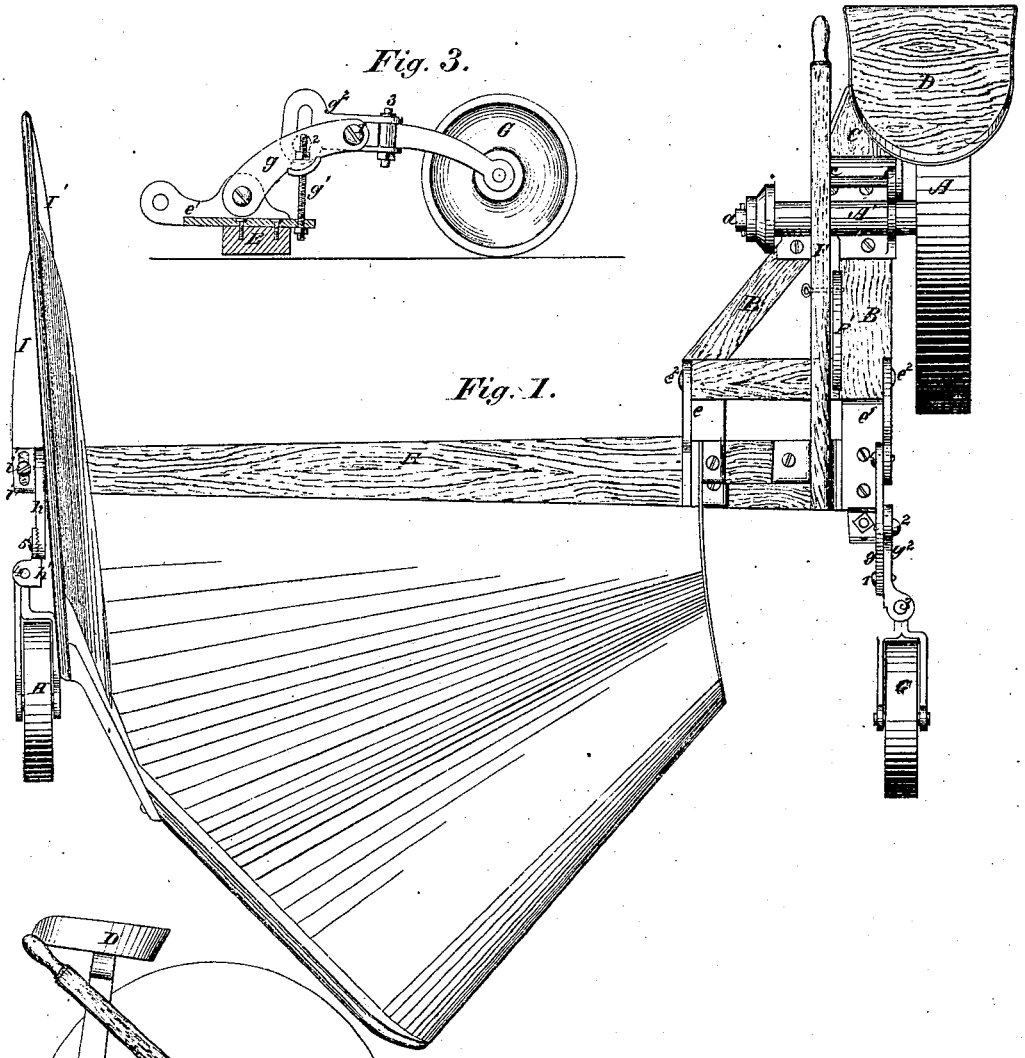
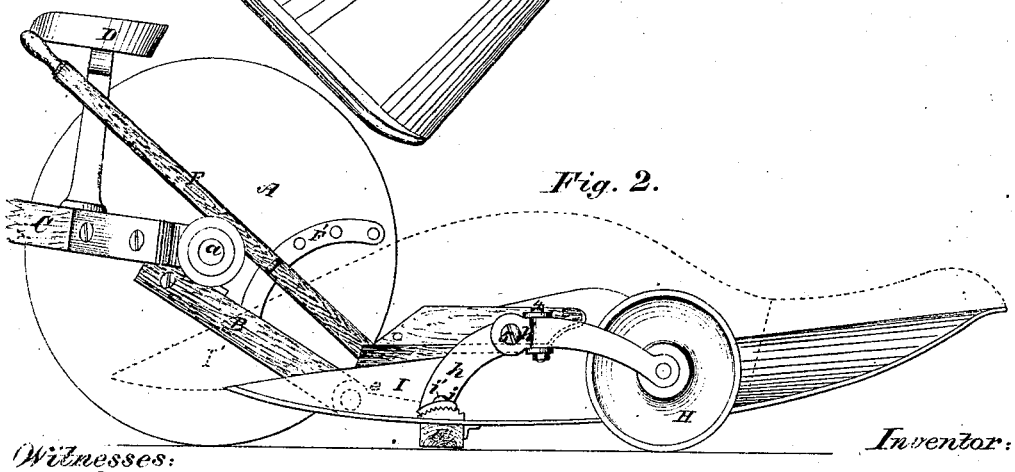


Fig. 2.



Witnesses:

F. C. Brecht.

Wm. H. Rowe.

Inventor:

John P. Manny
by his Atty
Wm. D. Balcomb

UNITED STATES PATENT OFFICE.

JOHN P. MANNY, OF ROCKFORD, ILLINOIS.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. **112,942**, dated March 21, 1871.

To all whom it may concern:

Be it known that I, JOHN P. MANNY, of Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Harvesters, of which the following is a specification:

The improvements herein claimed relate to devices for adjusting the height of the cutting apparatus and the inclination of the guard-fingers.

In the accompanying drawing the improvements herein claimed are shown as embodied in a harvesting-machine similar in its general features to that shown and described in sundry Letters Patent of the United States heretofore granted to me, more especially those dated March 25, 1862, and June 15, 1869.

Figure 1 represents a plan view of so much of my improved harvester as is necessary to illustrate the invention herein claimed. Fig. 2 represents an elevation of the same as seen from the divider side of the machine, with the divider shown in dotted lines; Fig. 3, a side elevation of the caster-wheel and its appurtenances on the gearing side of the machine.

In this instance a driving-wheel, A, is shown as fixed on a shaft, *a*, turning in a long pipe-box or bearing, A′, on a triangular-shaped gearing-frame, B. A tongue, C, is pivoted to lugs *c* on the pipe-box A′, so that the tongue freely may rise and fall. A seat, D, for the driver, is mounted on this tongue.

The rear end of the gear-frame B is pivoted to brackets e e^1 projecting from the finger-beam E, so as to form a joint at e^2. A lever, F, fixed to the finger-beam, extends forward across the joint to the driver's seat, to enable the driver, from his seat, to raise or lower the cutting apparatus. A bar, F′, on the gear-frame, has holes in it, through which pins may be inserted to hold the lever F in any desired position; or the same result may be attained by any of the usual well-known forms of detents.

In order to sustain the heel end of the finger-beam, I employ a caster-wheel, G, of well-known construction, and I render the finger-beam adjustable up or down in the following manner: I pivot the arm *g* of the caster-wheel to a lug on the bracket e^1, so that the arm may be free to rise and fall, and suspend the finger-beam from this arm by a screwed spindle, g^1, and a nut. The yoke of the caster-wheel is pivoted to another arm, g^2, overlapping the arm *g*, to which it is pivoted by a bolt, 1. The front end of this arm g^2 is slotted to enable it to work on a set-screw, 2.

Without this device, if the finger-beam were set up high, the guards would be tilted upward too much to cut well. The pivot 3 of the caster would also be so much inclined backward that when the machine was backed to turn it the finger-beam would drop upon the ground.

By the use of this device I am able not only to keep the guards horizontal when cutting at any height required in practice, but also to adjust the caster-pivot 3 into a vertical position, and thus prevent the dropping of the finger-beam when the machine is backed or turned. The divider end of the finger-beam is also sustained by a grain-wheel, H, having adjustments somewhat similar to those just described, but modified to adapt the grain-wheel to meet other demands imposed upon it by the nature of its work.

I, by preference, employ, when mowing, a small metal divider, I, strongly secured to the finger-beam. The upper rear end of this divider is rounded and corrugated transversely to receive the socket *i* of an arm, *h*. This socket is concave, slotted, and provided with a set-screw, *i*′, which clamps the socket and divider together, and thus holds the arm *h* at any desired elevation.

The yoke of the caster-wheel is pivoted by a bolt, 4, to an arm, *h*′, clamped by a screw, 5, to the arm *h*. The inner sides of these arms are corrugated radially from the bolt, so that they may hold without slipping in any position in which they may be clamped.

In reaping, a large caster-wheel is used, also a supplementary divider, I′.

By means of the devices above described the divider end of the finger-beam can be kept level, and prevented from dropping upon the ground when turning backward, in the same manner as the stubble end.

When mowing I remove the supplementary divider and grain-wheel, set the arm *h* nearly horizontal, and attach a smaller caster-wheel to the arm *h*′. The large divider and grain-wheel work well in straight grass and on soft

or boggy lands; but the small divider and wheel work better in lodged and tangled grasses.

The heel end of the finger-beam may be supported by a caster-wheel and its appurtenances, such as I have just described; and the divider end may likewise be sustained by an arrangement of devices like that shown at the heel end of the finger-beam, and still do good work.

As the other parts of the machine are fully described in other applications for Letters Patent, of which this is a division, it is deemed unnecessary to describe them in detail here, it being deemed sufficient to state that my improvements are to be embodied in a fully-organized working machine.

I claim as my invention—

1. The combination, with the finger-beam, of the caster-wheel and its arms g g^2 and screwed spindle, for supporting and adjusting the heel end of the finger-beam, these parts being constructed, as set forth, for joint operation.

2. The combination, with the divider, of the doubly-adjustable arm, constructed as described, and adapted to receive caster-wheels of different sizes, and still to keep the guards horizontal, as set forth.

3. The combination, as described, of the driving-wheel, hinged gear-frame, finger-beam, lifting-lever, the caster-wheels G H, and their adjustable arms, all constructed, as set forth, for joint operation.

In testimony whereof I have hereunto subscribed my name.

JOHN P. MANNY.

Witnesses:

WILLIAM C. BLINN,

LEWIS A. WEYBURN.