J. P. Manny,
Mower.

No 17779 Patented July. 14. 1857

Fig. 1

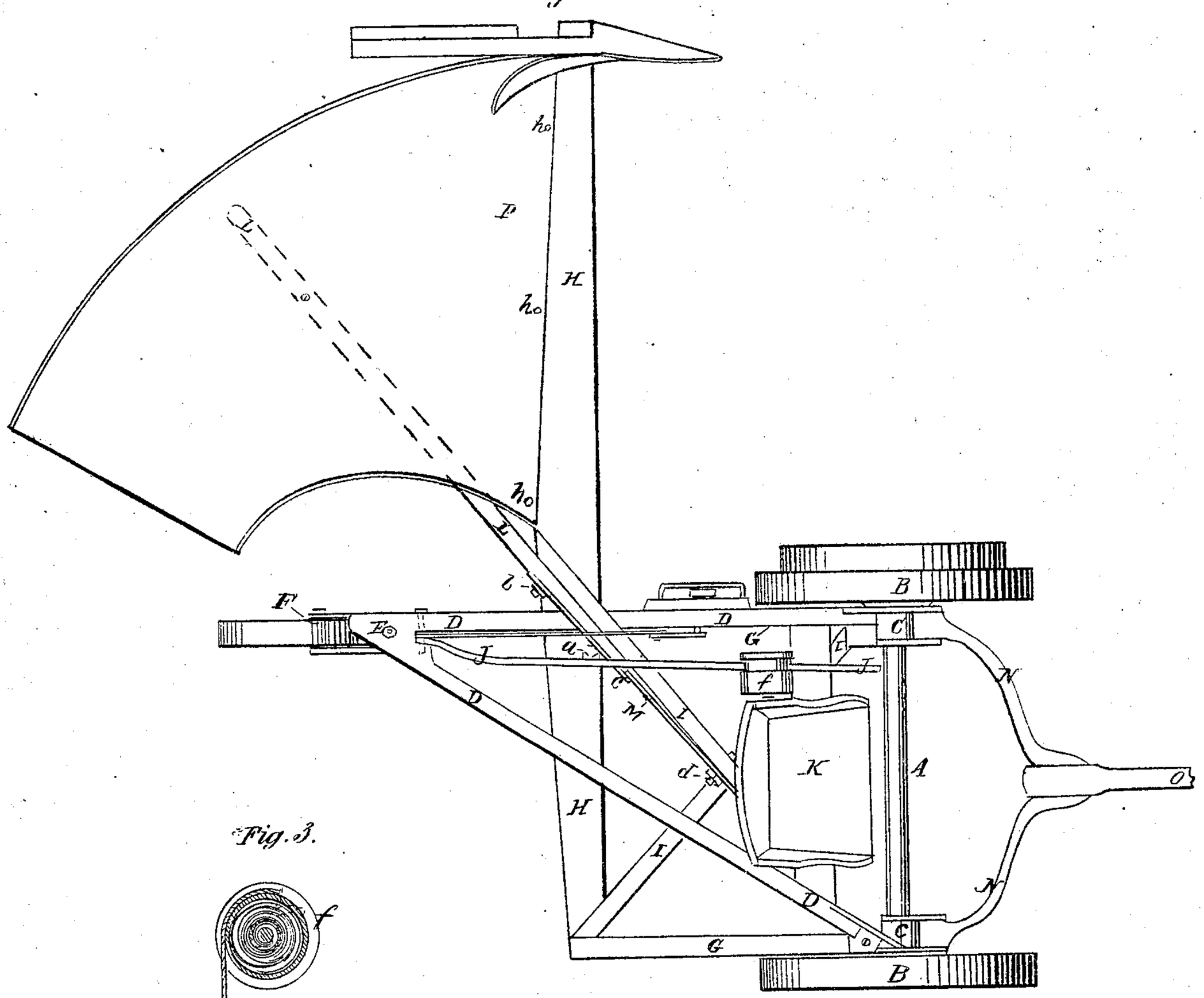
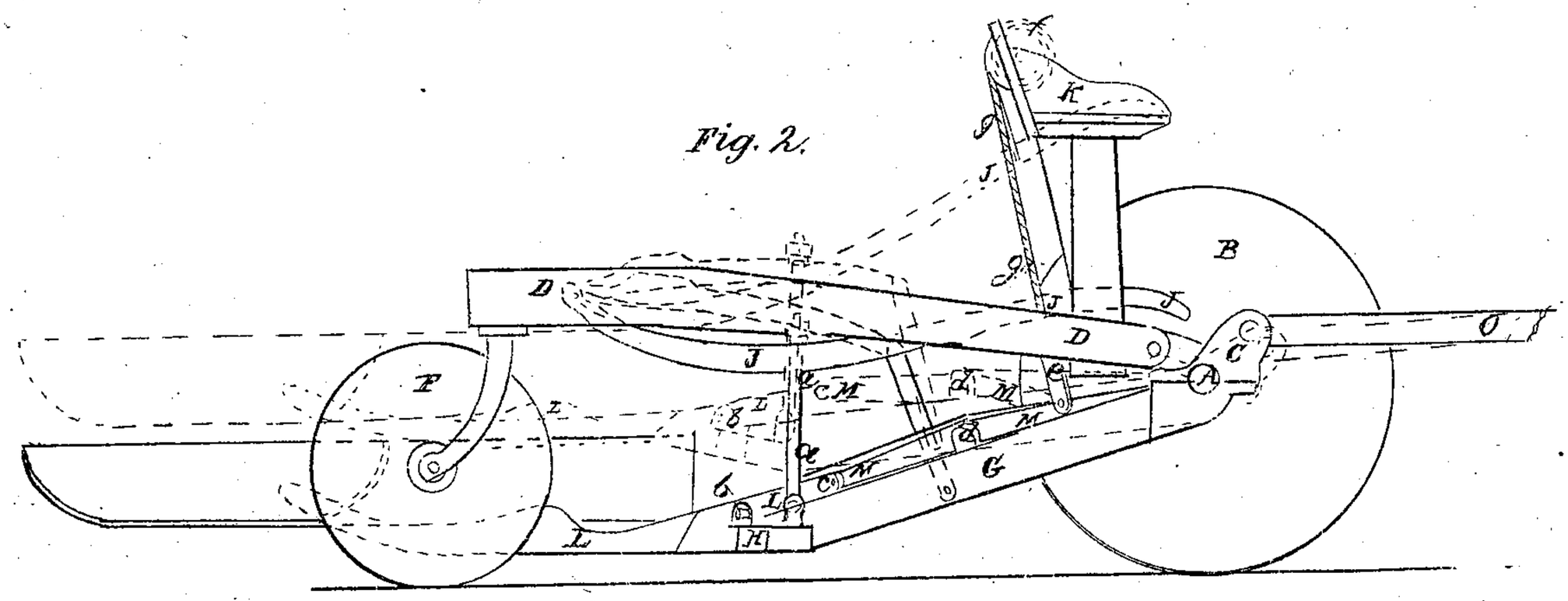


Fig. 3.

Fig. 2.



UNITED STATES PATENT OFFICE.

JOHN P. MANNY, OF ROCKFORD, ILLINOIS.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. **17,779**, dated July 14, 1857.

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 Harvesting-Machines; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a top plan of the machine. Fig. 2 represents a side elevation, with the several parts shown in black lines and also in a different position in red lines. Fig. 3 represents a section through a spring-drum, which is used for taking up a portion of the weight of the finger-bar to prevent it from dragging too heavily on the ground.

Similar letters of reference, where they occur in the several figures, denote like parts of the machine in all of them.

The nature of my invention relates to the manner of raising and lowering the platform, so that in any and all of its positions it shall hold and maintain its horizontality in front and rear.

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.

To an axle, A, supported on wheels B B, are affixed, in such manner as that the axle can freely turn in them, two boxes or bearings, C C. To these boxes are secured one end of the pieces D D, which unite at E, and are supported at that point by a caster-wheel, F. So much of the frame of the machine as is supported upon the wheels B B and caster-wheel F may be said to be "rigid" or "non-adjustable;" but to the lower rear parts of the boxes C are connected side pieces, G, the rear ends of which side pieces are permanently secured to the finger bar or or beam H, and transverse braces I I pass from corner to corner of this quadrangular frame to strengthen the whole together, and thus the several pieces G, H, and I constitute a frame which is also supported on the axle A, but which is adjustable in a manner to be hereinafter described.

A lever, J, is hung to the rigid frame D and extends to near the conductor's seat K, so that the conductor can readily grasp or operate it. To this lever J is suspended the finger-bar H, by a suspension-rod, *a*, so that the conductor can raise or lower the platform at pleasure; but in raising and lowering this platform I desire it to retain always the same horizontal position, or, in other words, to be raised or lowered in parallel lines, front and rear. This it would not do if the devices used were simply those above described. To effect this object I use a long supporting-piece, L, which extends far under the platform, as shown by dotted lines in Fig. 1. This supporting-piece L is hinged to the finger bar or beam at *b*, and its end is also pivoted at *c* to one end of a lever, M, which has its fulcra at *d*, and the other end of this lever M is attached to an arm, *e*, that is fixed to the piece D of the rigid frame. The outer end of this lever L is fastened to the outer portion of the platform P, and the front part of the platform P in turn is hinged to the bar H at the points *h*. The effect of this arrangement is to cause the supporting-piece L to depress the platform at its after portion every time the finger-beam is raised by the lever J, the connections between the rigid frame D and said supporting-piece L acting as a compound lever to effect this purpose, and thus both the front and rear of the platform are kept in a horizontal position, while they are raised or lowered to any desired cutting-height.

The red lines in Fig. 2 show the position which the several parts assume when the platform is raised up, the platform itself still maintaining a plane parallel to its lower position as shown by the black lines in Fig. 2. The finger-beam extends under the rigid frame D about midway between the supporting-wheels of said frame, and the beam H is supported by the rigid frame, as heretofore described.

When these machines are used for mowing the platform and raking apparatus are removed, and the cutter-bar is dropped on the ground and moves over it and in contact with it. It is desirable to cut grass low down, but the dragging of the cutter-bar is detrimental. This is avoided as follows: On a standard is arranged a drum, *f*, having a coiled spring within it, one end of which is fastened to the drum and the other to the axis of the drum. A ratchet and pawl are also connected to this spring-drum, so that the spring may be wound up and then held at any desired strain by the rack and pawl. To this drum is connected a cord or chain, *g*, the other end being fastened to the lever J, and the amount of strain upon

the spring in the drum regulates the lifting-power applied to the lever J, and instead of allowing the cutter-bar to drag with its whole weight over the ground, but still touch the ground, I take off so much of the dead weight of the cutter-bar by tightening up the spring as will just allow the said bar to touch the ground with a proper degree of friction to cut close, without, however, the heavy drag that the whole weight of the cutter-bar would cause without such an arrangement.

N N are the hounds, hinged to the boxes C, and to these hounds the tongue O is connected. The red lines in Fig. 2 show the positions into which the several parts are thrown when the platform is raised up from its position as shown in black lines to that shown in red lines.

Having thus fully described the nature and object of my invention, what I claim therein as new, and desire to secure by Letters Patent, is—

The combination of two frames, one of which is adjustable and can be raised or lowered at pleasure, with the lifting-piece L and platform P, hinged to said adjustable frame, when said parts are constructed and arranged to operate in relation to each other in the manner and for the purpose set forth.

JOHN P. MANNY.

Witnesses:
J. G. MANLOVE,
HOBART H. HATCH.