M. G. HUBBARD.

MOWING-MACHINE.

No. 188,367. Patented March 13, 1877.

Fig 1.

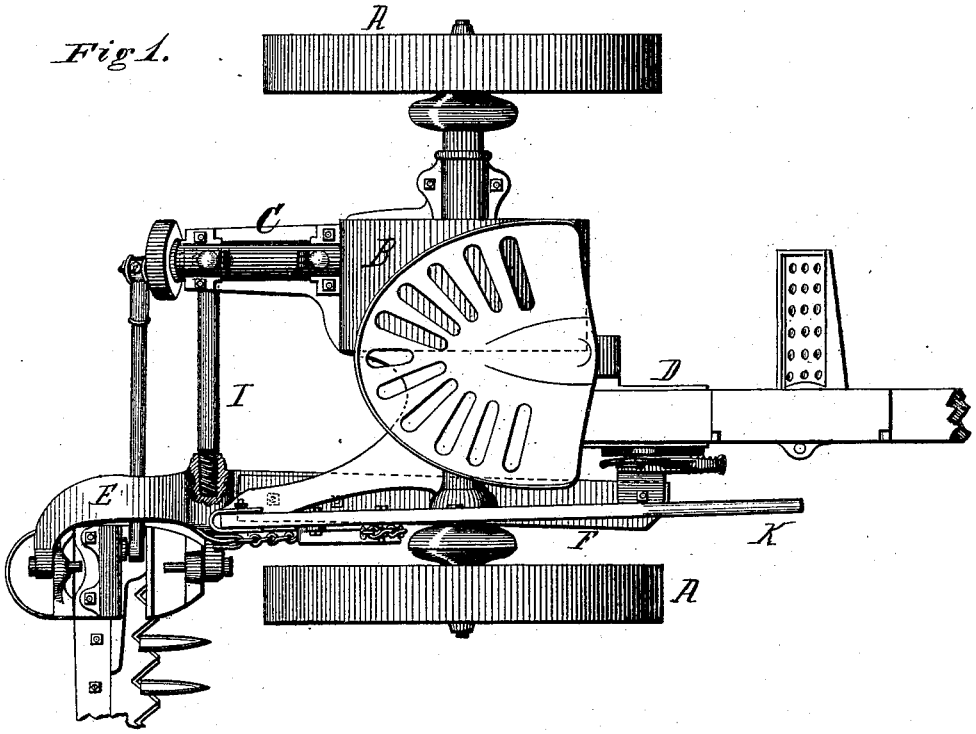
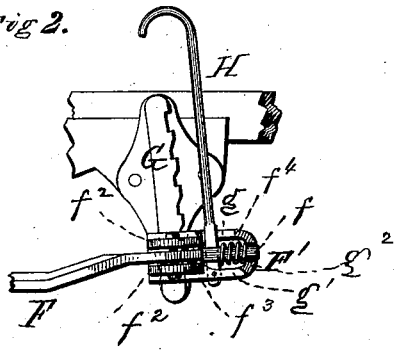


Fig 2.



WITNESSES

Harry King

Alexander Mahon

INVENTOR

Moses G. Hubbard

By his Attorney — A. M. Smith,

UNITED STATES PATENT OFFICE.

MOSES G. HUBBARD, OF MINNEAPOLIS, MINNESOTA.

IMPROVEMENT IN MOWING-MACHINES.

Specification forming part of Letters Patent No. **188,367**, dated March 13, 1877; application filed June 7, 1876.

To all whom it may concern:

Be it known that I, MOSES G. HUBBARD, of the city of Minneapolis, in the county of Hennepin and State of Minnesota, have invented a new and useful Improvement in Harvesters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a plan or top view of my improved mower, with the cutting apparatus broken away; and Fig. 2 is a side elevation of the tilting-post, tilting-jaw, and lever.

Similar letters of reference denote corresponding parts wherever used.

My invention consists in a novel manner of connecting the surface-spring, to which the wear-plate which supports the cutting apparatus is connected, to the forward end of the main frame, whereby the points of the cutting apparatus can be elevated or depressed without raising or lowering the cutting apparatus, and to certain details of construction, all as hereinafter explained.

In the accompanying drawing, A A represent the drive-wheels; B, the case or frame, in which the gearing is mounted, and with which case or frame the crank-shaft box C and tongue-socket piece D are cast. These parts, being similar to those shown in former patents granted to me, need not be further described here.

E is the wear-plate, to which the cutting apparatus is connected by its inner shoe, and to the forward end of this wear-plate E is connected the surface-spring F, which extends forward, and is connected to the tilting-jaw F′, which is, in turn, connected to a ratcheted tilting-post, G, mounted upon the forward end of the main frame, or upon the tongue-socket piece D.

The tilting-jaw F′ has connected with it a spring-pawl, *f*, which engages with the ratchet-teeth in the tilting-post G, for holding said tilting-jaw at any desired position on said post G.

The tilting-jaw F′ has cast upon its outer face lugs or ears f^2, between which the forward end of the surface-spring is secured by means of a bolt, the space between these lugs or ears f^2 being of such width as to permit the insertion of a circular convex washer, f^3, between the lower face of the surface-spring and the lower lug or ear f^2, by which means the surface-spring is permitted to rock or roll, the washer f^3 forming a bearing therefor.

The forward end of the tilting-jaw F′ has also cast with it a loop, f^4, in which bearings are formed for the reciprocating pawl *f*. The arms of this loop are provided with elongated slots *g* g^1, through which the rod H passes, as also through the pawl *f*, and has its pivot or fulcrum in the slot g^1.

Between the front face of the rod H and the forward end of the loop, and surrounding the pawl *f*, is a coil-spring, g^2, which holds the pawl engaged with the ratchet-teeth on the tilting-post G, except when held out by the rod H in rocking the cutters.

The rod H extends up to within convenient reach of the driver in his seat on the machine, where it is bent into the form of a handle, by means of which the driver is enabled to release the pawl *f* from engagement with the ratchet-teeth of the tilting-post G, and to pull up or push down the front end of the surface-spring, and thereby elevate or depress the points of the cutters, as desired.

The crank-shaft box has cast upon its rear lower side lugs or ears, (not shown in the drawings,) in which one end of a round extension-iron, I, is pivoted, the outer end of this iron being secured loosely in a socket in the wear-plate, for permitting said wear-plate, when the cutters are raised or depressed, to turn or roll thereon.

K is a lifting-lever, mounted upon the rear end or an extension of the main frame, and provided with the usual lifting sheave or segment, to which the chain for raising the cutting apparatus is connected.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the ratcheted tilting-post G, of the tilting-jaw F′, handle H, and spring-pawl *f*, for the purpose and substantially as described.

2. The wear-plate and surface-spring E F, to which the cutting apparatus is hinged, pivoted to, and vibrating upon, the hinged extension iron or brace I, substantially as described.

In testimony whereof I have hereunto set my hand this 20th day of April, A. D. 1876.

Witnesses: M. G. HUBBARD.

ALEXANDER MAHON,

J. H. MYERS.