

H. FISHER.  
Mowing Machine.

No. 19,083.

Patented Jan. 12, 1858.

Fig. 2,

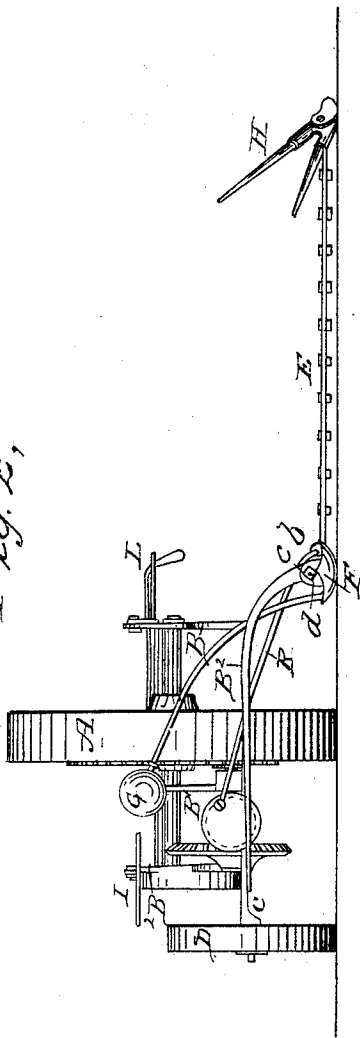
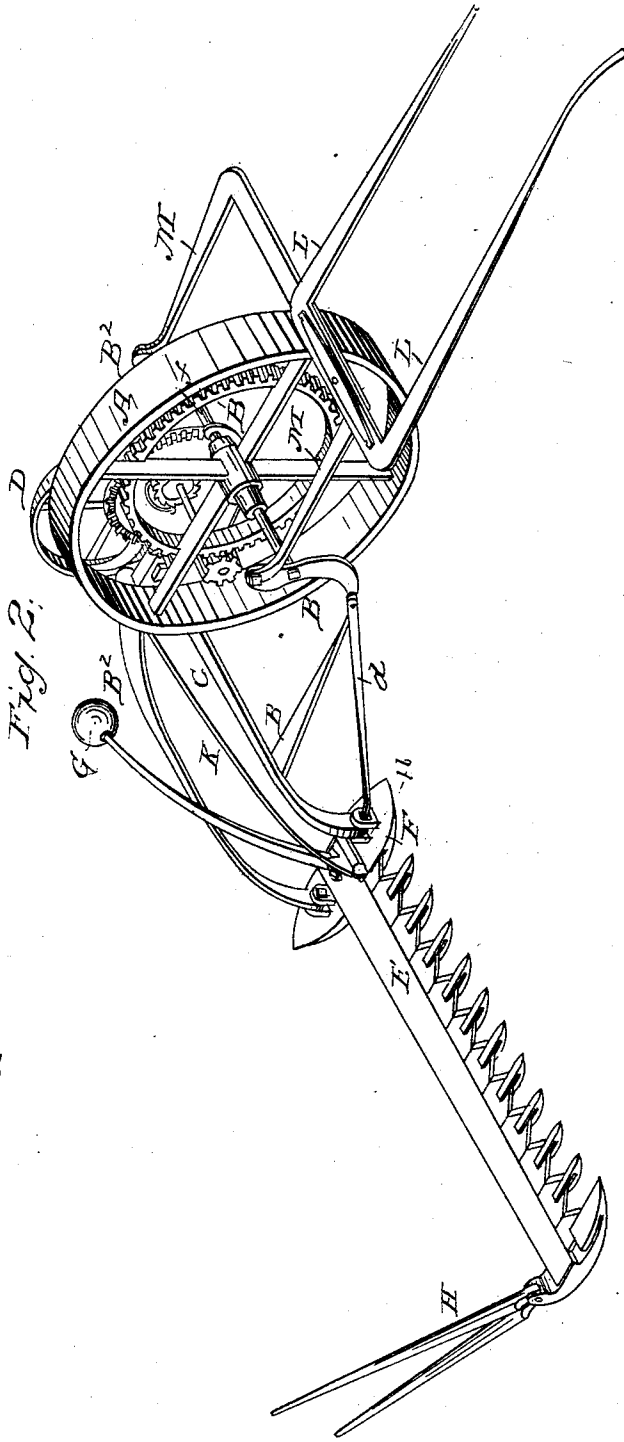


Fig. 1,



# UNITED STATES PATENT OFFICE.

HENRY FISHER, OF CANTON, OHIO.

## IMPROVEMENT IN MOWING-MACHINES.

Specification forming part of Letters Patent No. **19,083**, dated January 12, 1858.

*To all whom it may concern:*

Be it known that I, HENRY FISHER, of Canton, in the county of Stark and State of Ohio, have invented a new and useful Improvement in Mowing-Machines, 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 represents a view in perspective of a mowing-machine with my improvement applied thereto, and Fig. 2 a rear elevation of the same.

My improvement consists in the arrangement on the inner end of a finger-bar pivoted to the frame of the machine of a weighted lever, by means of which the heft of the outer end of the finger-bar is counterbalanced, thereby removing the friction in a great measure of the dividing-shoe, which otherwise has a tendency to cause the machine to turn on it as a pivot, thereby as well straining the horses as the machine in attempting to keep the latter in a right line, and by means of which, inasmuch as it is arranged in close proximity to the driver's seat, the outer end of the finger-bar can be easily raised, so as to surmount stumps and stones or other inequalities of the ground, by simply depressing the end of the lever.

To enable others skilled in the art to make, construct, and use my invention, I will now proceed to describe it in detail.

In the accompanying drawings the main frame is represented as being secured to the axle of the driving-wheel in such manner as to be free to turn on it as on an axis, the driving-wheel for this purpose being mounted loosely on the axle, as on a journal. The frame consists of three beams,  $B B' B^2$ , running in a parallel line with each other, and connected together at their rear end by a cross-bar,  $C$ , on the outer end of which is formed the journal of a subsidiary wheel,  $D$ , for the support of the rear end of the frame and for equalizing and centralizing the draft of the machine, inasmuch as it is arranged to run in a line parallel, or nearly so, with the track of the driving-wheel  $A$ , but at a sufficient distance on its outer side to counterbalance the drag of the finger-bar  $E$  on its other side, the tongue being so arranged and secured to the frame of the machine as to assist in effecting this object—that is to say, arranged so that the draft shall fall more

in a line on the side of the driving-wheel next the finger-bar than on the side next the subsidiary wheel, thereby removing the necessity of extending the journal of that wheel farther than is consistent with compactness and the requisite strength of the machine. The outside rail,  $B^2$ , extends back of the cross-bar  $C$ , curving round, thence running in a line parallel with the latter as far as the inner rail,  $B$ , whence both (the outer rail and cross-bar) are deflected in such manner as to form bearings for the inner end of the finger-bar, they for this purpose having mortises formed on their lower extremity, through which the pivot-bolts  $a$  pass, by means of which they are secured to the lugs or ears  $b$ , formed on the upper side of the inner shoe,  $F$ , to which the inner end of the finger-bar is secured, the pivot-bolts  $a$  being kept in place by a screw-nut,  $c$ . By means of this arrangement the finger-bar is free to turn on the pivot-bolts as on an axis.

On the inner end of the finger-bar is formed or otherwise secured a weighted lever,  $G$ , projecting in a line diametrically opposite to that of the finger-bar, for the purpose of counterbalancing, or nearly so, the weight of the latter by throwing it on the pivot-bolts, thus diminishing the friction of the outer shoe on the ground, which would otherwise have a tendency to strain both the machine and horses in the endeavor to keep the former in a straight line. Another advantage which it possesses by reason of its arrangement in close proximity to the driver's seat is that it enables the driver easily to raise the outer end of the finger-bar for the purpose of surmounting obstacles which the machine may encounter in the field, and to lower it again when passed. The weight of the finger-bar being counterbalanced, or nearly so, by the weight of the lever renders it a much easier task than it would otherwise be.

To the side of the inner rail,  $B$ , is secured one end of a brace,  $d$ , whose other end forms in this instance one of the pivot-bolts, thus acting as a brace to prevent rearward deflection of the finger-bar.

To the outer end of the finger-bar is attached a loose track-clearer,  $H$ , for the purpose of throwing the grass out of the track of the horses on the return swath.

On the outer and middle rails,  $B$  and  $B'$ , and connecting-bar  $C$  are secured the driver's seat

I and driving-gear of the machine, motion being communicated from the latter to the knife by means of the pitman-rod K. The forward end of the outer and inner rails, B and B<sup>2</sup>, are bent upward and have a series of holes formed in them, in the lower of which is secured the axle *f* of the driving-wheel A, leaving their upper ends to project above the latter, thus forming a lever, to which the frame M of the tongue L is secured, so that as the draft is applied to the machine its tendency is to raise the rear end of the frame by causing it to turn on the wheel as a fulcrum, thus throwing the weight of the machine on the latter, thereby increasing its hold on the ground, preventing it from slipping, and increasing the certainty of its action in communicating motion to the cutting apparatus, which heretofore has been a great drawback to this class of machines, compelling builders to construct them of such a mass of metal as to render them at once cum-

brous and unwieldy. Another great advantage in attaching the tongue to the frame in this manner is that it relieves in a great measure the friction of the inner shoe, F, on the ground, thus rendering the machine much easier of draft than it would otherwise be. In the levers to which the frame of the tongue is attached there are formed two or more holes, by means of which the leverage on the frame can be increased or diminished at pleasure.

Having thus described my improvement, I claim—

The arrangement and combination of a weighted lever, G, with a finger-bar pivoted to the frame of the machine, substantially as and for the purposes set forth.

In witness whereof I hereunto set my hand.

HENRY FISHER.

Witnesses:

P. HANNAY,

EDWD. A. DICKINS.