L. G. KNIFFEN.

Mower.

No. 26,437. Patented Dec. 13, 1859.

Fig: 1.

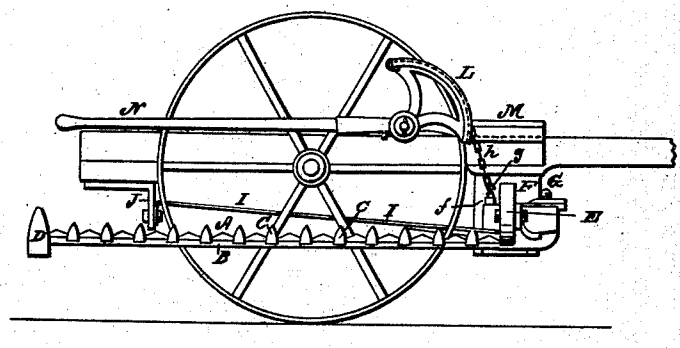


Fig: 4.

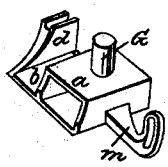


Fig: 3.

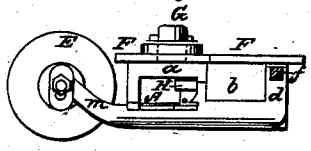
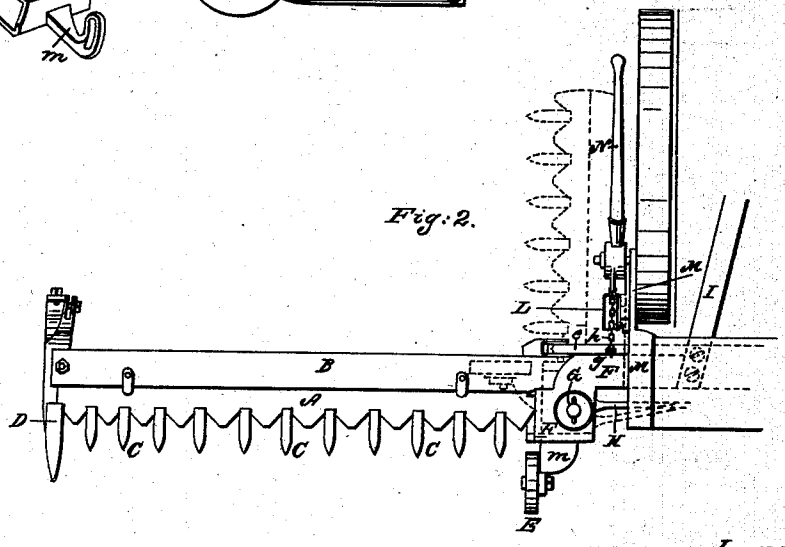


Fig: 2.



Witnesses:

C. W. Hughes

M. M. Livingston.

Inventor:

L. G. Kniffen.

N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

L. G. KNIFFEN, OF NORTH SALEM, NEW YORK.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. **26,437**, dated December 13, 1859.

To all whom it may concern:

Be it known that I, L. G. KNIFFEN, of North Salem, in the county of Westchester and State of New York, have invented a new and useful Improvement in Mowing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents an end elevation of my machine, showing the finger and cutter bar when placed in a horizontal position and confined to the side of the machine for transportation. Fig. 2 is a plan view of the finger and cutter bar shown in an open and closed state. Fig. 3 is a view of the vertical pin, in detail, for uniting the finger and cutter bar to the machine, so as to permit of a horizontal motion closing up the finger and cutter bar parallel with the side of the machine. Fig. 4 is a view of the shoe for holding the finger-bar.

Similar letters of reference in each of the several figures indicate corresponding parts.

My invention relates to harvesters which have the cutting apparatus arranged so as to be adjusted in the path of a horizontal circle to a position parallel with the side of the machine.

The nature of my invention consists in constructing, as a whole, the shoe on which the cutter and finger bars are supported and adjusted in one piece, combining the guide-box for the cutter-bar, the recess for the finger-bar, the slotted bracket for the caster-wheel to be attached to, the vertical locking portion or its equivalent, and the vertical pivot or gudgeon for the whole to be suspended and adjusted on horizontally, to a position parallel with the inner side of the main frame, as set forth.

By my invention a simple, cheap, and convenient shoe for harvesters which have their cutter-bar adjustable horizontally, as well as up and down, is provided.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

By reference to the plan view, Fig. 2, in the drawings, A represents the cutter-bar; B, the finger-bar; C, the fingers; D, the divider, and E a small adjustable wheel upon which the finger-bar rests, so that the cutters may be raised or depressed according to the height desired to cut.

F is a brace, which, being attached to a bracket hung from the under side and front end of the frame of the machine, proceeds down a suitable distance parallel with the front of the machine, and serves to carry the cutting arrangement above described, which is attached to this brace F by a vertical pivot, G. This pivot or gudgeon G is cast with a shoe, which is represented by Figs. 3 and 4. Said shoe consists of a box, *a*, recess *b*, a vertical slotted locking portion, *d*, and a curved slotted bearing, *m*. The caster-wheel is hung in the adjusting-slot of the bearing *m*, and the finger-bar C is bolted to the shoe in the recess *b*, while the cutter-bar works in the box *a*, and is operated by an eccentric (not shown) through the medium of pointed connecting-rods H.

I is a brace, which is attached to a bracket, J, by means of a swivel-joint, and proceeds to the front of the machine and is bolted to the inclined hinged brace F, so as to strengthen the parts against lateral strain. The cutting device above described has a free vertical as well as a horizontal play, so that it can be elevated over stones or other substances, during the operation of cutting, without stopping the onward motion of the machine, and so that it may be turned to a position parallel with the side of the machine, as represented clearly by Figs. 1 and 2, and be fixed in this position for transportation.

When the machine is in the field the cutter-bar, with its appendages, is placed in the position indicated by black lines in Fig. 2, when it must be rigidly locked and secured against the longitudinal pressure. This object is accomplished by the following means:

e is a strong spring-latch, with a piece, *f*, on its end, which, when the cutter-box assumes its proper position for cutting, fits into a slot in the vertical portion *d*, and is held there by the downward action of the spring *e*. This spring has a hook, *g*, attached to it, on which is looped a chain, *h*, which passes up and over a quadrant, L, which has ratchet-teeth on its inner surface. This quadrant is pivoted to a plate, M, and has a socket into which is fitted a lever, N, which is in a convenient position to be operated by the driver. The chain which connects with the spring *e* also connects with the brace F, and in such a manner that the driver, by depressing the lever N, can elevate the finger-bar and cutters without disengaging the

latch *e*. This description exhibits only one method of locking the finger-bar to the brace F; but a better locking arrangement may be devised in putting my invention into practice, and therefore I lay no claim to the manner of locking the finger-bar.

What I claim as my invention, and desire to secure by Letters Patent, is—

Constructing, as a whole, the shoe on which the cutter and finger bars are supported and adjusted in one piece, combining the guide-box *a* for the cutter-bar, the recess *b* for the finger-bar, the slotted bracket *m* for the caster-wheel to be attached to, the vertical locking portion *d*, or its equivalent, the vertical pivot or gudgeon G, for the whole to be suspended or adjusted on horizontally to a position parallel with the inner side of the main frame, as set forth.

L. G. KNIFFEN.

Witnesses:
CHAS. M. HUGHES,
M. M. LIVINGSTON.