J. B. Smith,
Mower.

No. 45,186 Patented, Nov. 22, 1864.

Fig. 1

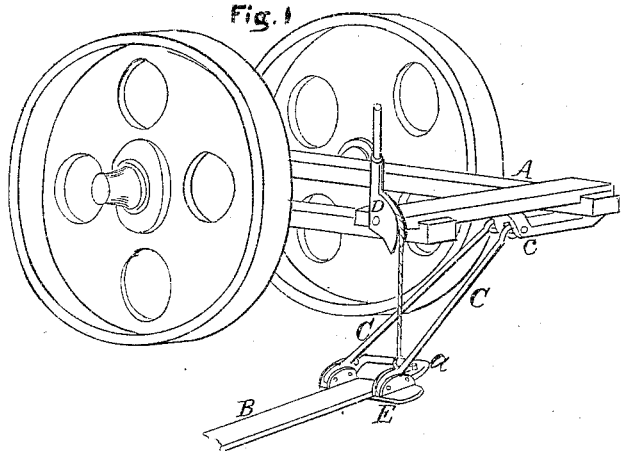


Fig. 2

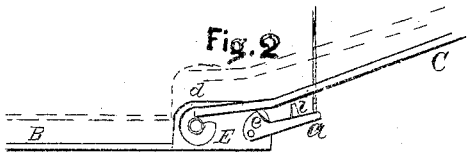
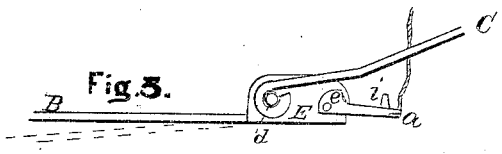


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

JONATHAN B. SMITH, OF WINFIELD, NEW YORK.

IMPROVEMENT IN HARVESTING-MACHINES.

Specification forming part of Letters Patent No. **45,186**, dated November 22, 1864.

To all whom it may concern:

Be it known that I, JONATHAN B. SMITH, of Winfield, Herkimer county, and State of New York, have invented certain new and useful Improvements in Reaping and 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, making part of this specification, in which—

Figure 1 is a perspective view, and Figs. 2 and 3 are longitudinal vertical sections of a portion of the same.

Similar letters indicate corresponding parts wherever they occur on the drawings.

The nature of my invention consists in a device for rendering a jointed finger-bar rigid.

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

In the drawings, A represents the frame, which may be of the ordinary style.

B represents a finger-bar, which is connected to the frame by the rods C, the upper ends of which are pivoted at one end to the frame at *c* and at their opposite ends to the finger-bar B or shoe E at *d*, which latter point is near one edge of the flange projecting upward from E. Near the outer or opposite edge of said flange is pivoted a loop-shaped lever, *a*, the ends of which are provided with a cam, *e*, as shown in Figs. 1 and 2. A stop, *i*, is attached to the lever *a* near its outer extremity, as clearly shown. A cord or chain is attached to the extremity of lever *a*, its opposite end being connected to a cam or eccentric lever, D, for raising and lowering the finger-bar B.

It will be observed that the location of the cams *e* and stops *i* is such as to bring them directly in line underneath the rods C, so that whenever the lever *a* is operated by means of the cord and lever D the point of the cams *e* will be brought up in contact with rods C, and at the same time the points *i* will also be brought in contact with rods C, as clearly shown in Fig. 2. By this means the point between the rods C and the finger-bar B will be rendered perfectly rigid, in which case a further movement of lever D will raise the finger-bar bodily from the ground, as indicated in red lines in Fig. 2.

When the machine is in operation the cord is loosened, so as to permit the lever *a* to drop down, and thereby remove the cam *e* and stop *i* from contact with rods C, as clearly shown in Fig. 3. In this condition the finger-bar B, being left to play freely on the pivot *d*, adjusts itself perfectly to the undulations or inequalities of the ground over which it moves, a shoe being attached to both its inner and outer ends in the usual manner. In such case the outer end of the bar can drop down into a hollow or over a knoll, as indicated in red in Fig. 3.

When it is desired to elevate the finger-bar and sickle it is only necessary to operate the lever D, the first result of which will be to bring the cam *e* and stop *i* against the rod C, thus rendering rigid the joint connecting the bar B and rods C, when a further movement of the lever will raise the cutting apparatus bodily from the ground.

The object of the stop *i* is to prevent the cam *e* from being turned too far over, as it would be when the lever *a* is drawn up by the cord, if there was nothing to prevent it. If the point of the cam *e* were turned past a point directly over the pivot on which it works, it would lock against the rod C when the shoe was lowered to the ground, and thus render the joint rigid when it should be loose. By applying the stop *i*, as shown, this is entirely prevented.

The lever *a* serves the additional purpose of holding the cutter-bar in its place and preventing it from dropping or sliding out or downward when the cutting apparatus is elevated to a perpendicular position for the purpose of being transported to and from the field.

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

1. The cam-lever *a*, when constructed and arranged to operate in combination with the rods C and finger-bar B, in the manner and for the purpose set forth.

2. The stop *i*, applied to the cam-lever *a*, substantially as and for the purpose set forth.

JONATHAN BARTLETT SMITH.

Witnesses:
SAMUEL MCKEE,
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