2 Sheets—Sheet 1.

A. BOLANDER.

Cutter for Harvesters.

No. 112,892. Patented Mar. 21, 1871.

Fig. 1.

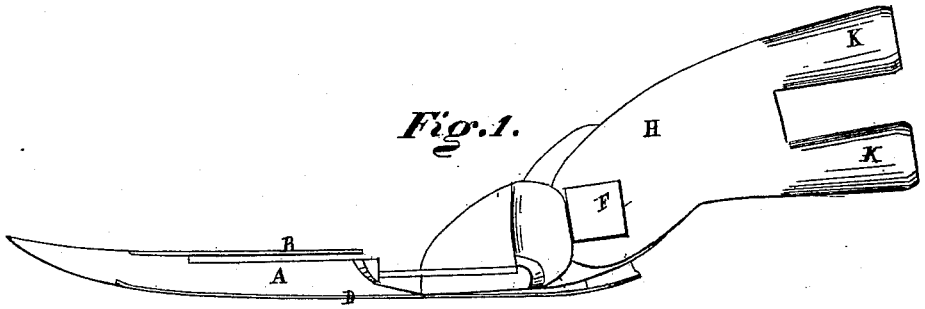


Fig. 2.

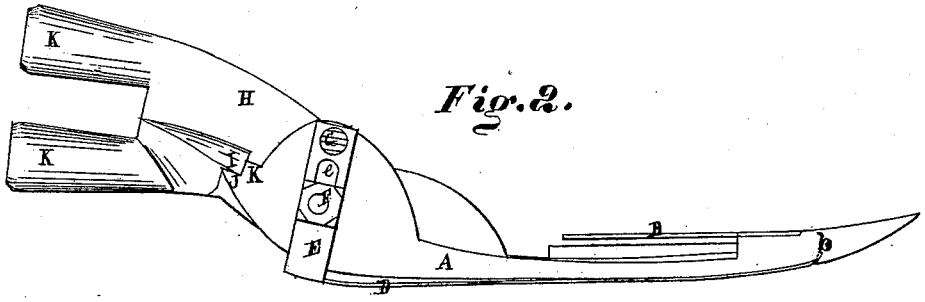
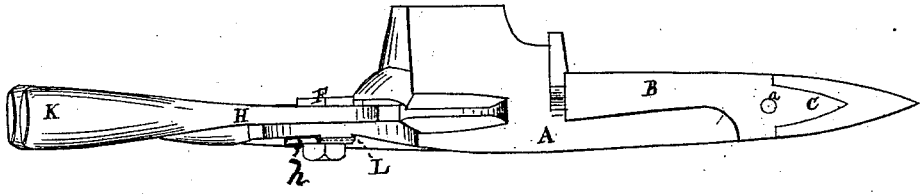


Fig. 3.



Witnesses.
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2 Sheets—Sheet 2.

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No. 112,892. Patented Mar. 21, 1871.

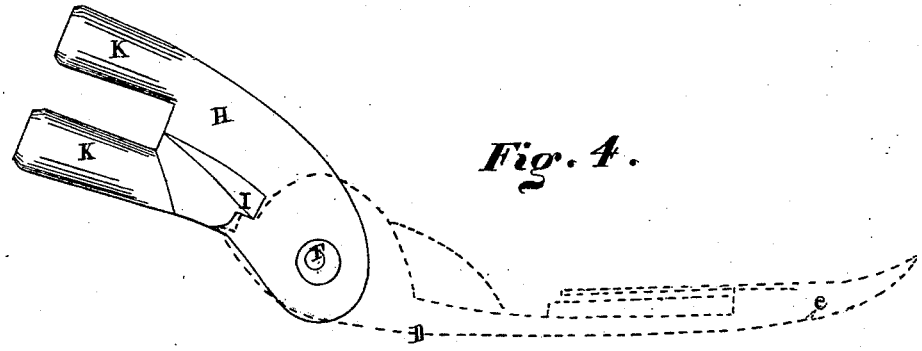


Fig. 4.

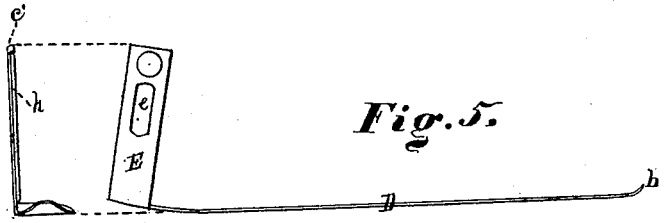
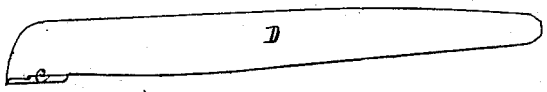


Fig. 5.

Fig. 6.



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UNITED STATES PATENT OFFICE.

AARON BOLANDER, OF AKRON, OHIO.

IMPROVEMENT IN MOWING-MACHINES.

Specification forming part of Letters Patent No. **112,892**, dated March 21, 1871.

To all whom it may concern:

Be it known that I, AARON BOLANDER, of Akron, in the county of Summit and State of Ohio, have invented certain new and useful Improvements in Mowing-Machines, of which the following is a description, reference being had to the accompanying drawing, making part of this specification.

Figure 1 is a side view of the divider. Fig. 2 is a view of the opposite side of Fig. 1. Fig. 3 is a plan view. Figs. 4, 5, and 6 are detached sections.

Like letters of reference refer to like parts in the different views.

The nature of this invention relates to a divider and track-clearer, hereinafter described.

In the drawing, Fig. 1, A represents the divider, of which B is the cap. Said cap extends back over the body of the guard, and underneath which the knives operate when cutting. The cap is attached to the guard by means of a tongue, C, Fig. 3, which is dovetailed into a corresponding recess sunk in the face of the guard, the tongue being retained therein by a single rivet, *a*, whereas in the ordinary way of attaching the finger to the guard two rivets are required, for the reason that the tongue is not dovetailed into the recess in which it is lodged.

To the under side of the divider is attached a spring, D, a detached view of which is shown in Fig. 5. The front end of said spring is connected to the guard by a nib, *b*, which is inserted in a corresponding notch or dent sunk in the divider, as indicated by the dotted line *c*, Fig. 4, whereas the wider part of the end of the spring immediately back of the nib is secured by being inserted under a notch, the edge of which projects back over and upon the spring, as shown in Figs. 1 and 2. By this means the end of the spring is connected to the guard in a secure and reliable manner without the use of rivets, bolts, or screws. The rear end of the spring is secured to the guard by means of an arm or brace, E, provided with a slot, *e*, through which passes the bolt F. By means of the slot the spring or the rear end thereof can be adjusted close to or away from the guard, more or less, as may be required.

To assist the bolt in holding the brace or arm in place, and from slipping, the upper end thereof is bent slightly forward at a right angle, forming a lip, *c'*, Fig. 6, which is made to engage in corresponding notches cut in the side of the guard seen through the hole G above the slot *e*.

In order to make the attachment of the brace E more secure to the side of the shoe, the edge of the said brace is turned inward, forming a flange, *h*, Fig. 5, which, when the brace is in position, said flange laps onto the projection or boss L, Fig. 3, standing out from the side of the shoe, and on which boss are notches cut to receive the lip *c'*, as before mentioned. The brace covers the projection and notches therein when secured in position. By means of this attachment of the spring to the guard and shoe it is rendered strong and durable, and easy to be adjusted when required.

By means of the flange *h* at the side of the brace lapping onto the boss L, additional strength and security is obtained, which is of importance when the machine is being turned around or backing when working, as otherwise the spring is liable to be broken off, bent, or twisted out of place.

The guard above described is the outer one or shoe-guard on the extreme end of the guard or finger-bar, and to which is attached the swath-board or grass-divider, by means of the section H, Fig. 1, which section is pivoted to the shoe-guard by means of the bolt F referred to.

It will be seen, on examination of Fig. 4, that the bolt F is in the form of an eccentric, so that on turning the bolt around in either direction from that shown the section H will be caused to recede from the guard more or less, according to the distance that the bolt may be turned.

The position of the section H in its relation to the guard, as shown in Fig. 2, is such as to bring it and the grass-divider as near the ground as may be desired, and which is retained thus by the shoulder I of the section resting upon the lip or notch J of the guard. To accommodate this position of the section to the guard the eccentric swell of the bolt is reversed from that shown in Fig. 3, and whereby the two parts are fastened together.

In order to elevate the grass-divider, and which is attached to the section by means of

the sockets *k*, the bolt is loosened and turned around to the position shown in Fig. 4, in which it will be seen that the swell of the eccentric is toward the lower end of the section. This movement of the bolt will draw the section toward the guard, so that on raising the section the shoulder I will be drawn down upon the shoulder or rest K above the lip or rest J, and upon which it will lodge, thereby sustaining the section and the grass-divider thereto attached in a more elevated position than that shown in Fig. 1, and which more elevated position is shown in Fig. 4.

By this simple device the grass-divider may be easily and readily adjusted to suit the height of the grass or other circumstances requiring a change in its position.

Claims.

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

1. The spring D, when constructed with the slotted brace or arm E, and having a flange, *h*, substantially as and for the purpose set forth.

2. The eccentric bolt E, in combination with the section H of the grass-divider and guard-shoe A, in the manner substantially as described, and for the purpose set forth.

AARON BOLANDER.

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