(No Model.)

E. J. BLOOD.

REAPING AND MOWING MACHINE.

No. 273,341. Patented Mar. 6, 1883.

Fig. 1

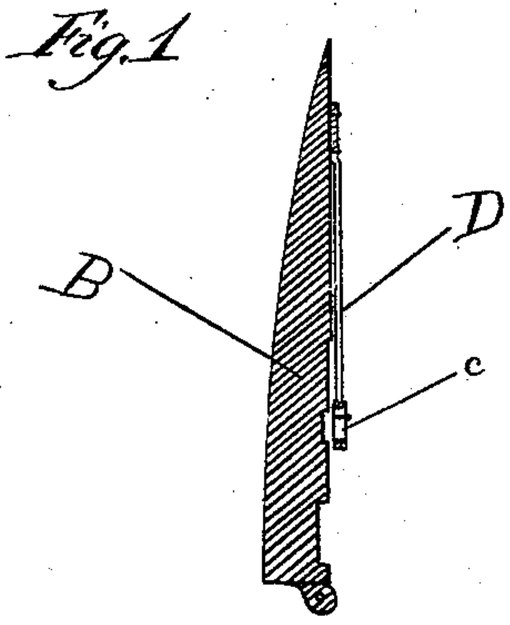


Fig. 2.

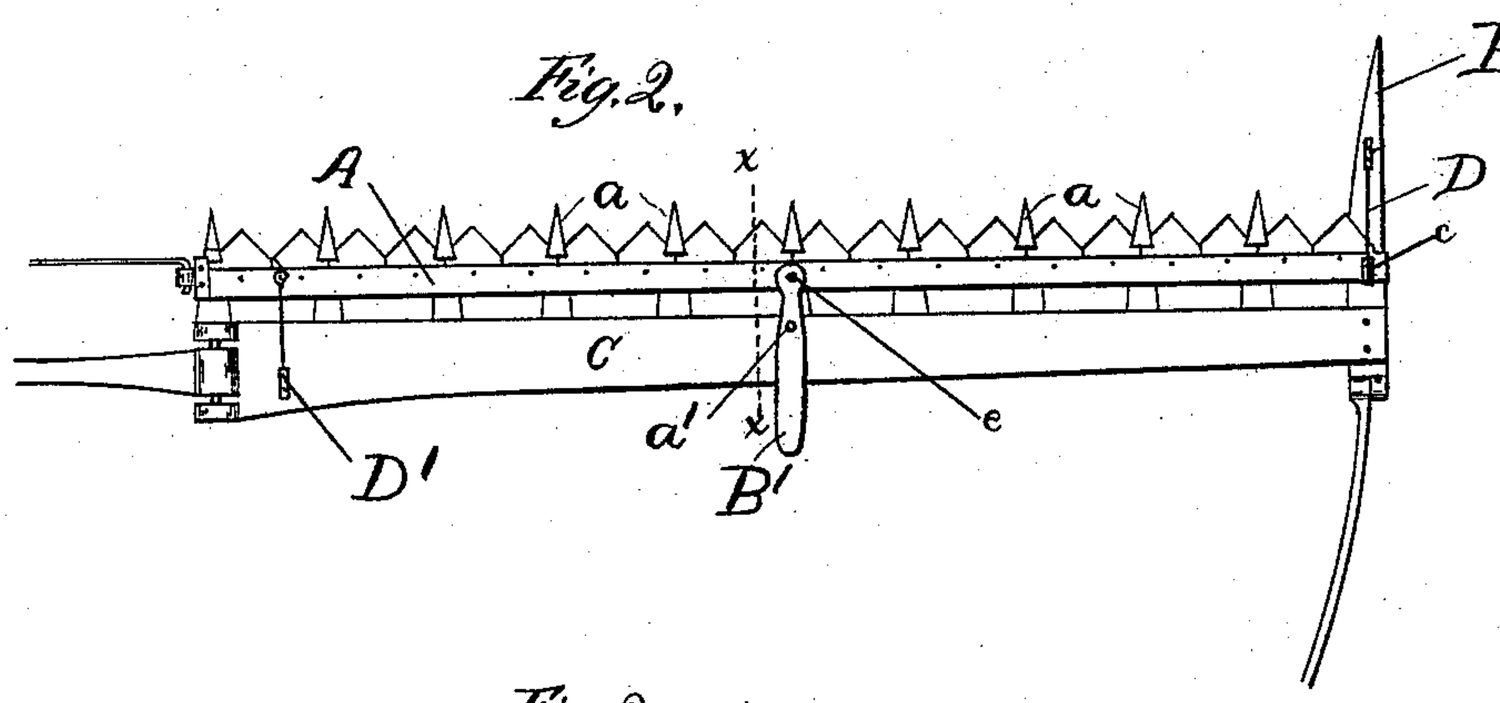
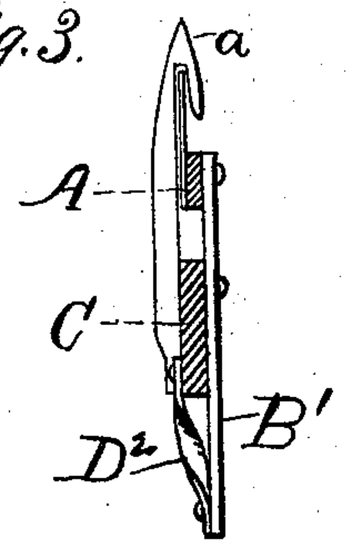


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

EDWIN J. BLOOD, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-THIRD TO WILSON H. STUBBINGS, OF SAME PLACE.

REAPING AND MOWING MACHINE.

SPECIFICATION forming part of Letters Patent No. 273,341, dated March 6, 1883.

Application filed January 24, 1882. (No model.)

To all whom it may concern:

Be it known that I, EDWIN J. BLOOD, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Reaping and Mowing Machines; and I do hereby declare the following to be a full, clear, and exact description thereof, that will enable others to make use of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming a part of this specification.

The object of this invention is to provide an improved attachment for the cutting mechanism of reaping and mowing machines, which consists in the application of a number of springs to the cutter-bar, finger-bar, and shoe so arranged as to lessen the concussion of these parts, all as will be hereinafter more fully set forth in detail, and pointed out in the claims.

Figure 1 is a longitudinal section of the shoe embodying my improvement; Fig. 2, a top view of the cutting mechanism, and Fig. 3 a transverse section in the plane *x x*, Fig. 2.

Referring to the drawings, A represents the cutter-bar; B, the shoe; C, finger-bar, and *a*, the finger-guards through which the cutting-knives reciprocate.

The ends of the spring D are flattened, the front end being rigidly attached to the shoe, while the rear end is provided with the slot *c* and adjustably connected to the outer end of the cutter-bar by means of a large-headed bolt inserted through the slot *c*, which allows this end of the spring D to have a slightly yielding longitudinal movement in order to conform more readily to the vibration of these parts and lessen the danger of rupturing the spring.

At a point near the inner end of the cutting mechanism I place the spring D′, the rear end of which is rigidly attached to the finger-bar, while the front end is adjustably connected to the cutter-bar by a slot similar to that shown in the yielding end of the spring D.

Near the longitudinal center of the cutting mechanism I place the vibrating lever-arm B′, the front end of which is pivoted to the cutter bar and provided with the fulcrum-bearing *a′* in the finger-bar, the rear end projecting a short distance beyond the finger-bar, as shown in Fig. 2 of the drawings.

To the under side of the rear end of the lever-arm B′ is yieldingly secured one end of the spring D^2, while the opposite end is rigidly attached to the finger-bar, as shown in Fig. 3 of the drawings. The spring D^2 is given a half-twist, which form of construction may be applied to the other springs, or all may be made straight, as will seem best in practical working. By this arrangement of the springs the jar and concussion of the cutting mechanism is greatly lessened, if not entirely obviated, and the result is a smooth and easy movement of these parts.

I am aware that cutter-bars have been provided with springs and moved upon a straight line; but the springs were attached at one end, and the tendency of said springs would be to throw the bar out of line. This defect, as before stated, is cured by attaching a spring to each end, as shown.

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

1. In combination with the cutter-bar, the finger-bar, and the shoe, the spring D, secured to the shoe and extending rearwardly to the cutter-bar, and the spring D′, secured to the finger-bar and extending forward to the cutter-bar, each spring being provided with a slot at one of its points of attachment to permit of a slight longitudinal movement, for the purpose set forth.

2. In combination with the cutter-bar, the finger-bar, and the shoe, the spring D, secured to the shoe and extending rearwardly to the cutter-bar, the spring D′, secured to the finger-bar and extending forward to the cutter-bar, the lever B′, fulcrumed to the finger-bar midway of the length of the latter and pivoted at its front end to the cutter-bar, and the spring D^2, having its ends secured respectively to the finger-bar and to the rear end of said lever, substantially as described, and for the purpose set forth.

EDWIN J. BLOOD.

Witnesses:
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