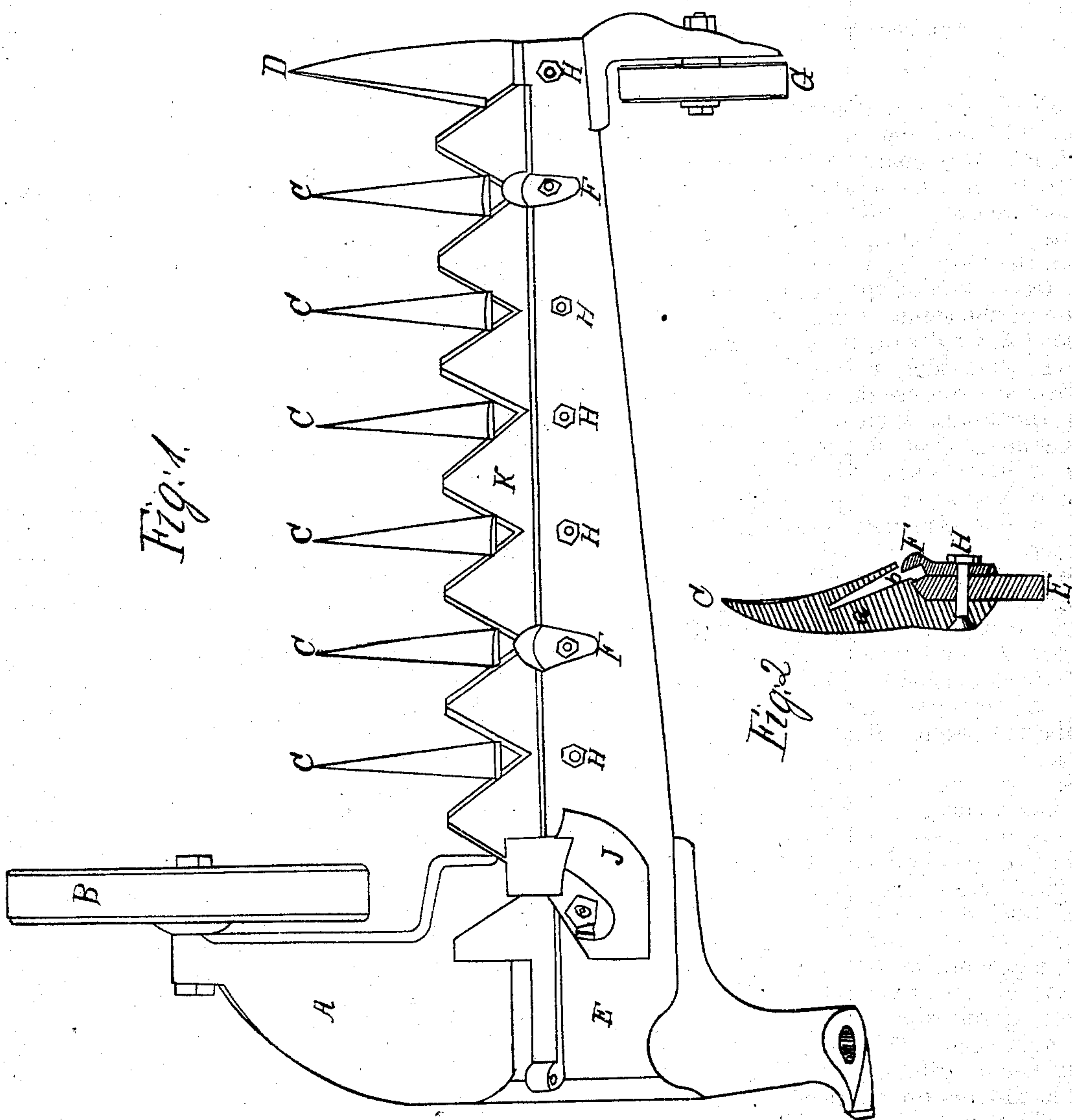


W. A. Wood.

Finger-Bars for Harvester.

N<sup>o</sup> 72149

Patented Dec. 10, 1867



Witnesses

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# UNITED STATES PATENT OFFICE

WALTER A. WOOD, OF HOOSICK FALLS, NEW YORK.

## IMPROVEMENT IN FINGER-BARS FOR HARVESTERS.

Specification forming part of Letters Patent No. 72,149, dated December 10, 1867.

### *To all whom it may concern:*

Be it known that I, WALTER A. WOOD, of Hoosick Falls, county of Rensselaer, and State of New York, have invented certain new and useful Improvements in the Cutting Apparatus of Harvesting-Machines; and I do declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a top view of the finger-bar, the guard-fingers, and their method of attachment to the finger-bar, the cutters, outer and inner shoe. Fig. 2 represents a section of the guard-finger, finger-bar, sickle-holder, and the bolt which unites them together.

My invention relates to the manner of arranging these several parts in such a manner as to cut a stubble shorter than the cutting apparatus heretofore in use.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same, with reference to the drawings.

A is the main shoe or runner, which holds the finger-bar, and through which it and the cutters are connected to the main frame in any of the well-known ways. This shoe is provided at its forward end with a wheel, B, commonly called a "leading-wheel," which serves the purpose of relieving the bar from friction on the ground, as well as to roll down the cut grass which may lie in its path, and prevents the cut grass from being pushed forward of the main shoe. This wheel is susceptible of being set at different heights by means of a slot in the forward part of the shoe, or a series of holes, as the case may be. D is the outer or dividing shoe, also furnished with a roller, G, at its rear end, which can be graduated. It is plain that with these two rollers the cutters can be set at any required height. These shoes I make of malleable iron, in order that they may be as light as possible, and preserve the requisite amount of strength.

C C are the guard-fingers; H H, the bolts and nuts that hold them to the finger-bar. E is the finger-bar, and K the scythe. F is the

small cap or button which holds the scythe in place. J is a large washer, which forms a back and top bearing to the scythe, and the bolt L holds the finger-bar and shoe securely together, a recess being provided in the shoe A for the reception of the finger-bar.

The scythe or sickle bar rests and runs upon the finger-bar, the top of the finger-bar being beveled off on its upper front corner to receive the sickle-bar, as shown at b, Fig. 2. The lower front corner of the finger-bar is also beveled off so as to receive the angle of the guard-finger, and the guard-finger projects above the front outer corner of the finger-bar sufficiently to cover the front edge of the scythe or sickle bar, and then projections are made long enough on each side of the guard-fingers to afford a continuous protection to the edge of the sickle-bar, in order to prevent loose grass or other material from working under the sickle-bar.

In mowing-machines heretofore made the plane of the cutters, as well as the plane of the surface of the guard-fingers over which the cutters vibrate, has been constructed nearly on the same plane as the plane of the finger-bar, or in a plane parallel thereto, a construction which has answered all purposes for ordinary mowing; but when it is required to mow very close to the ground, as in some South American countries, it is desirable to cut below the first joint, to avoid an unnatural growth, which takes place whenever the crop is cut too high.

I construct the guard-fingers with the planes over which the cutters vibrate inclining forward and downward, and, the front upper corner of the finger-bar being beveled off correspondingly, the cutters take a corresponding downward inclination; and as it is well known that with a quick motion of the scythe or sickle the point of the cutters, or the front part of their edges, cut nearly all the grass, so, when these points are inclined downward, as shown in the drawings, the stubble left must be necessarily low. At the same time it leaves an opportunity for material enough in the guard-finger near the finger-bar to afford sufficient strength to prevent it from hacking.

A similar result may be attained by inserting wedges under the sickle-bar for it to run on, instead of beveling off the front upper corner of the finger-bar; but the latter I deem preferable, as it gives less vertical thickness through the guard-finger, finger-bar, and scythe-bar.

Having thus fully described the nature and object of my improvement, what I claim therein as new, and desire to secure by Letters Patent, is—

Beveling off the front upper corner of the finger-bar to afford a seat for the sickle or scythe bar to vibrate upon, in combination with beveling off the lower side of the finger-bar for the reception of the guard-finger.

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Witnesses:

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