M^cC. Young.
Mower.

No 30999 Patented Dec 18. 1860

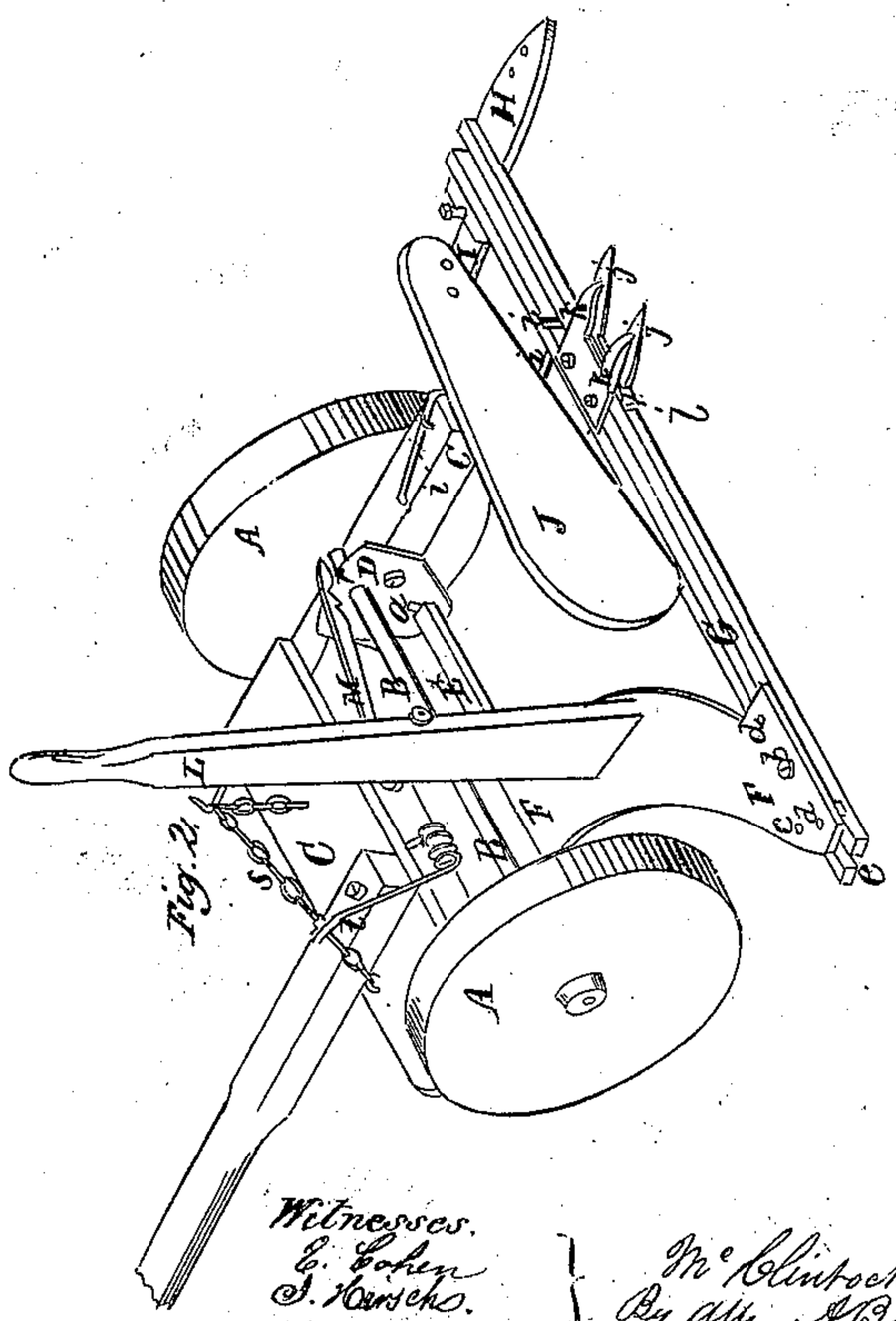

Fig. 2.

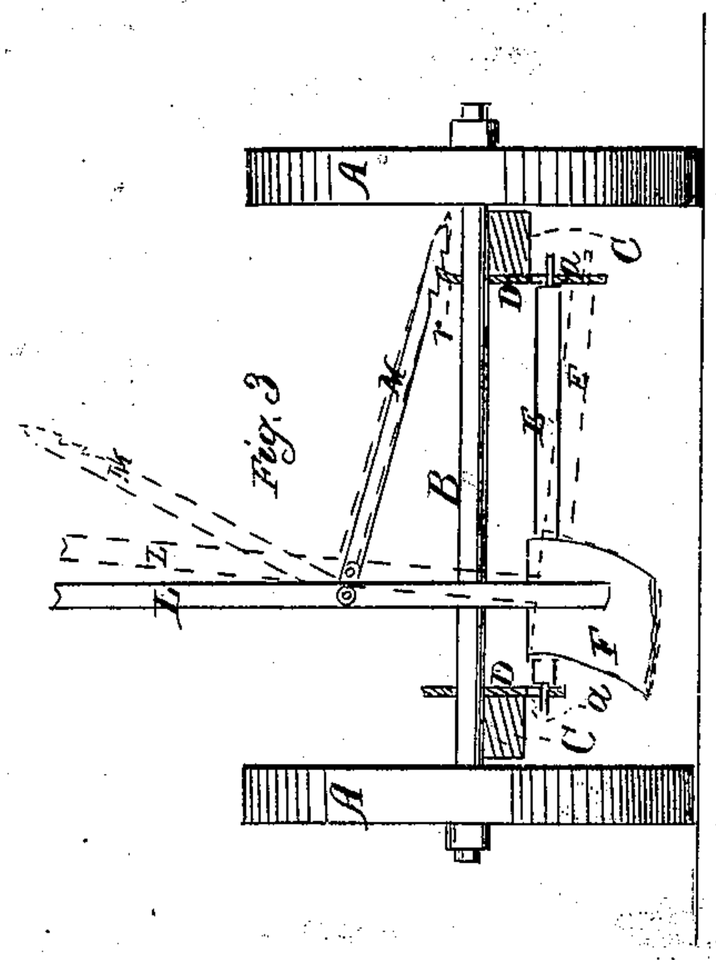

Fig. 3

Witnesses.
E. Cohen
J. Karsch.

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By atty A B Stoughton

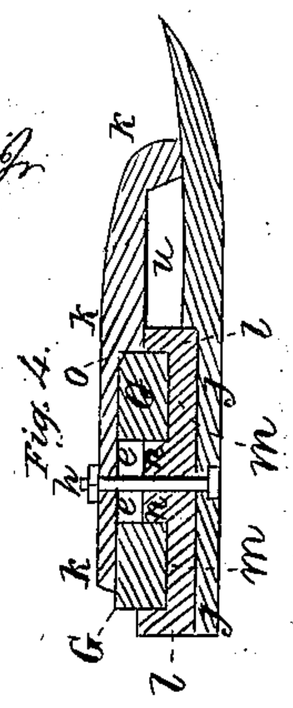

Fig. 4.

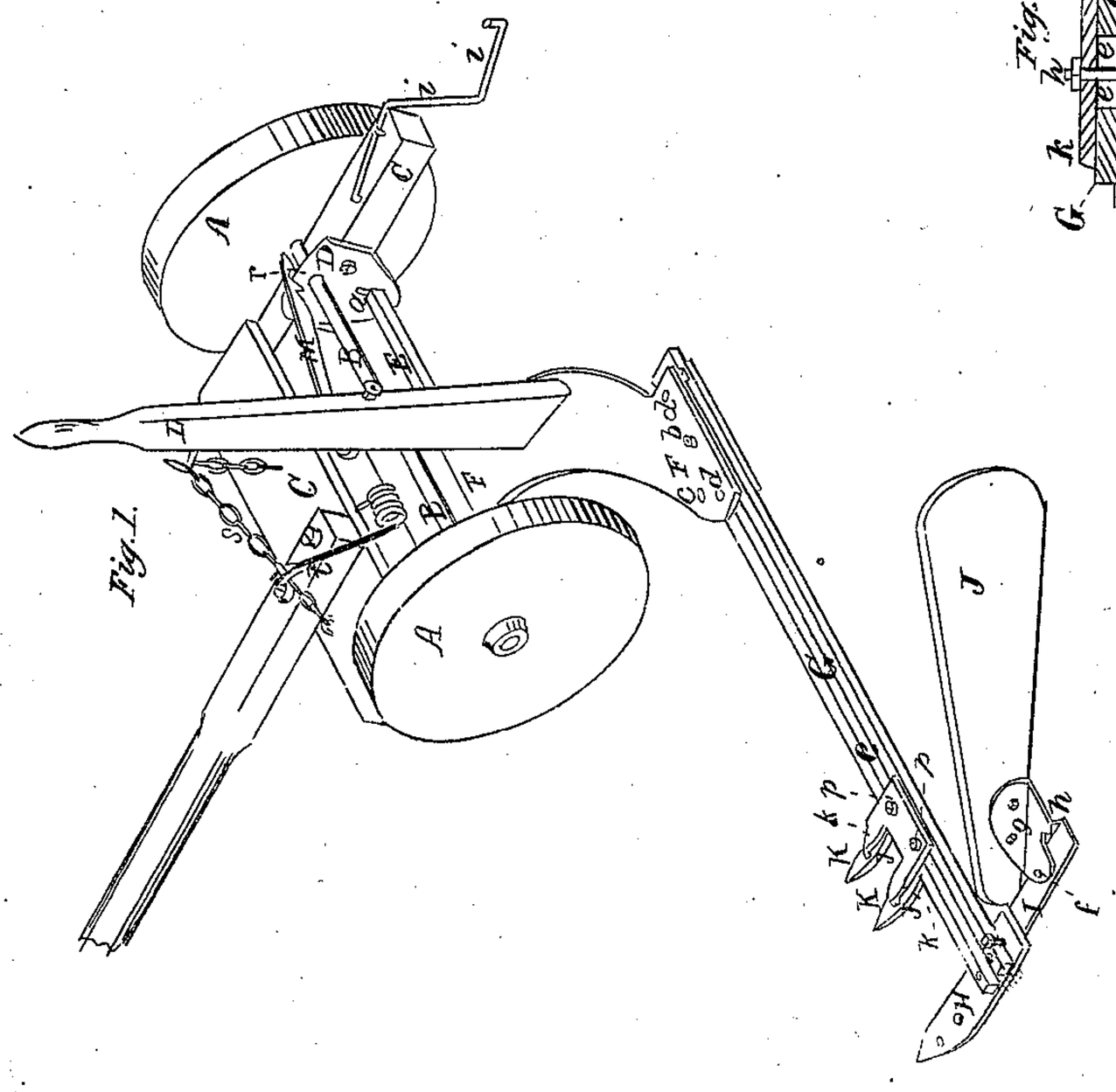

Fig. 1.

UNITED STATES PATENT OFFICE.

McCLINTOCK YOUNG, JR., OF FREDERICK, MARYLAND.

IMPROVEMENT IN HARVESTING-MACHINES.

Specification forming part of Letters Patent No. **30,999**, dated December 18, 1860.

To all whom it may concern:

Be it known that I, McCLINTOCK YOUNG, Jr., of the city and county of Frederick and State of Maryland, have invented certain new and useful Improvements in Harvesting-Machines; and I do hereby 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 in perspective so much of a harvesting-machine as will illustrate my invention, and with the finger-bar turned out into its working position. Fig. 2 represents a similar perspective view, showing the finger-bar as folded up for transportation. Fig. 3 represents a rear elevation of a portion of the machine, and Fig. 4 represents, on an enlarged scale, a section through one of the guards and finger-bar.

Similar letters of reference, where they occur in the separate figures, denote like parts of the machine in all the drawings.

My invention consists, first, in the construction of the finger-bar; second, in the combination of the yielding plate, hinged finger-bar, and hinged track-clearer, so as to fold up or swing one upon the other; third, the combination of the yielding-plate, lever, and brace for holding the finger-bar in a horizontal position, or allowing it to rise or fall at either end; fourth, in the method of uniting the guards to the finger-bar.

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 A represent a pair of carrying-wheels, one or both of which may also be drivers, to give motion to the cutter-bar and cutters. These wheels are hung on an axle, B, and to this axle the frame C is connected by plates D, or otherwise.

A shaft, E, is supported by its two ends in vertical slots *a*, cut or formed in the plates D, so that, unless otherwise controlled, it may rise and fall in said slots freely. To this shaft E is fastened a curved plate, F, which extends rearward and toward that side of the machine where the cutting apparatus is to be placed. To the rear end of this curved plate F is pivoted, as at *b*, the finger-bar G, so that the latter may freely swing around on said pivoted point. When the finger-bar is swung out into working position, as shown in Fig. 1, it comes against a stop, *c*, which may be a pin or stud projecting through and a little beyond the under side of the curved plate F, where it is caught and held. Two pins or bolts are then inserted through the holes *d d*, which rigidly hold the bar in place, and, if deemed advisable, the pins that pass through said holes *d d* may be of wood, so as to break whenever any undue resistance is brought upon or against the finger-bar, outside divider, or cutting apparatus, and allow the said finger-bar to swing around out of the way, and thus possibly prevent the breaking of the machine, new pins being easily substituted.

I make the finger-bar out of two light bars, placed at a short distance apart, and fastened to plates to keep them in place. By this construction of finger-bar I avoid all necessity of drilling bolt-holes to fasten the fingers or guards thereto, as I pass the bolts through the space *e* between the two bars.

H may represent the outside shoe or divider, which is secured to the outer ends of the two bars that form the finger-bar G. A spring-plate, I, is fastened to this shoe-piece H, and extending in rear of it, and to this spring-plate I is pivoted, as at *f*, the track-clearer J, by means of a metal piece, *g*, having a stop, *h*, on it to prevent the track-clearer from swinging outward beyond a certain distance, while it is free to swing inward.

When the machine is folded up for transportation, as shown in Fig. 2, the track-clearer moves into a position nearly parallel with the finger-bar G, and a supporting-piece, *i*, there receives the finger-bar and holds it nicely balanced on the main frame in rear of the machine.

The guards K, I make and attach to the finger-bar, as follows: *j* is the under part of the guard, and *k* the cap. A plate, *l*, (that sets in a recess made in the top of the sole-piece *j*,) has two recesses, *m m*, in it, into which the two bars that form the finger-bar fit. It has also a center flush piece, *n*, which passes into the space *e* between said two bars, so that it serves as a brace and support for said two bars also. The cap *k* has a recess, *o*, on its under side, which fits down over the two bars that form the finger-bar, and by means of a single bolt, *p*, passing, respectively, through *j*, *l*, *e*, and *k*, secures and braces the whole firmly together

and to the finger-bar. These guards may be single or in sections of two, three, or more, and are easily removed and others substituted, there being no bored holes in the finger-bar to match or fit to, so that this construction of finger-bar not only cheapens the cost of the bar, but also facilitates the attachment of the guards thereto.

To the plate F there is fastened a lever, L, that projects upward and forward into convenient position for the operator, who rides on the machine, to seize and use for raising up or letting down the finger-bar. To this lever is pivoted a hooked brace, M, that will catch over a flange, *r*, on one of the plates D, so that the hook, though holding onto the flange, may, notwithstanding, move over it, as the finger-bar rises and falls by the undulations of the ground. When this hooked brace is over the flange the finger-bar will rise and fall in horizontal planes only; but if the hook M be raised up, as shown by dotted lines in Fig. 3, then the finger-bar can rise at either end without rising at its opposite end or both ends together.

To raise and hold up the finger-bar at any fixed distance above the ground, the chain *s* may be hooked to the lever L, to hold it after it has raised up the finger-bar; or the chain, instead of being rigid by holding from the frame C, may be hooked to a spring-catch, *t*, which will allow the finger-bar to ride easy, connected as it then would be to a spring. *o* is the pole to which the team is hitched. The rising and falling of the finger-bar is accomplished by the traverse of the shaft E through its slots *a a*, it having sufficient play at it end most remote from the plate F to effect th object, while the movement at its other en need not have so much range. The cutter-ba and cutters vibrate through the space *u* in th guards.

Having thus fully described the nature an object of my invention, what I claim therei as new is—

1. Making a finger-bar for a harvesting-ma chine out of two bars of about the same siz and strength, and placed at sufficient distanc apart to allow the bolts that fasten the finger thereto to pass through the space between them, and thus save the boring, drilling, and fitting of bolt-holes, substantially as described.

2. The combination of the yielding plate F, hinged finger-bar G, and hinged track-clearer J, for the purpose of allowing the finger-bar and track-clearer to be swung around, folded up, and carried upon the machine, substantially as described.

3. The combination of the bar E, plate F, lever L, and brace M, for holding the finger-bar in a horizontal position, or allowing it to rise at either end independently of the other end, substantially as described.

4. A guard composed of the pieces *j k l*, made and united to a finger-beam such as described by a single bolt passing through the space between the two bars of which said finger-bar is composed, as set forth and described.

McCLINTOCK YOUNG, JR.

Witnesses:

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