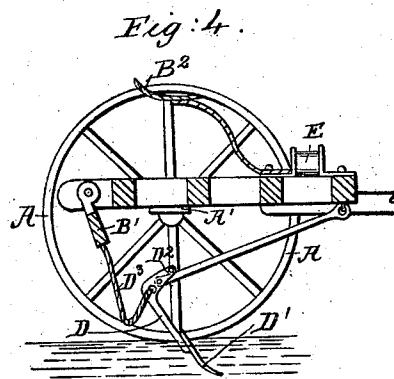
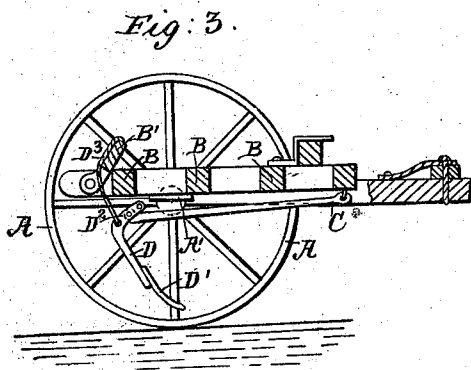
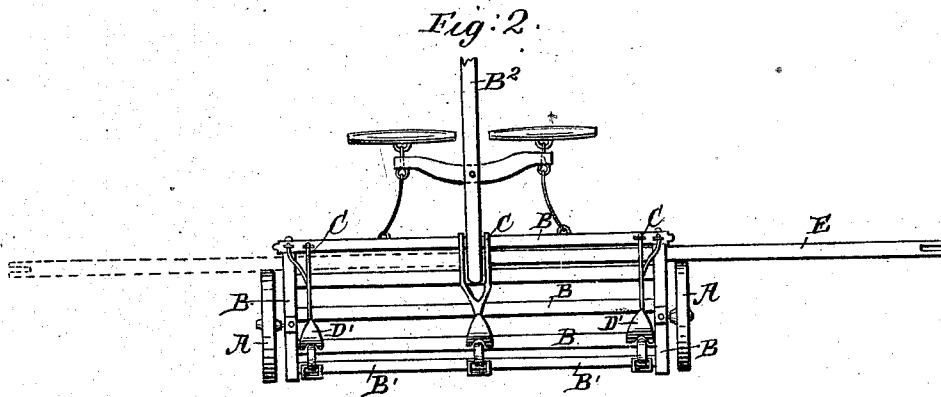
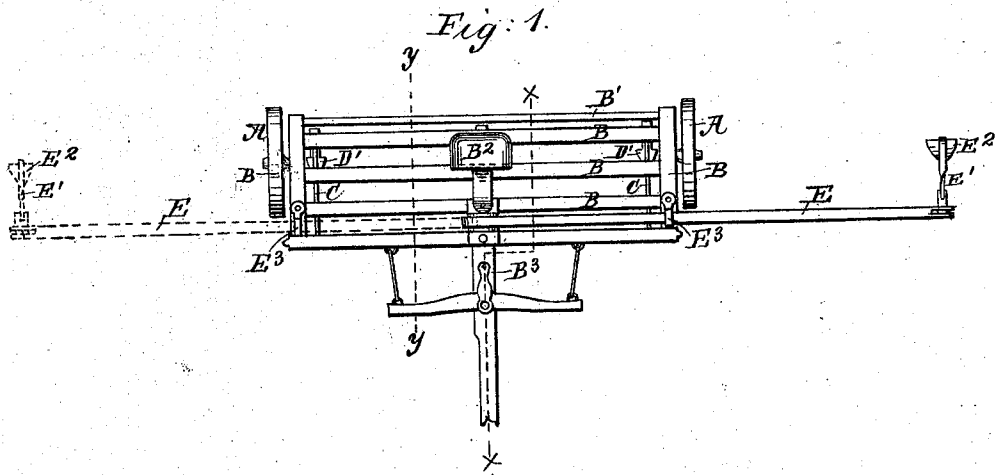


J. B. THOMAS.
Land Marker.

No. 105,865.

Patented July 26, 1870.



Witness.
C. F. Clausen

Inventor
J. B. Thomas
D. P. Holloway & Co.
Attys

UNITED STATES PATENT OFFICE.

JESSE B. THOMAS, OF CENTREVILLE, INDIANA.

IMPROVEMENT IN CORN-MARKERS.

Specification forming part of Letters Patent No. **105,865**, dated July 26, 1870.

To all whom it may concern:

Be it known that I, JESSE B. THOMAS, of Centreville, in the county of Wayne and State of Indiana, have invented certain Improvements in Corn-Row Markers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawing, making part of this specification, in which—

Figure 1 is a plan or top view of my improved marker, showing the wheels, the frame-work, the driver's seat, the guide-arm, and the tongue and whiffletree. Fig. 2 is a bottom view, showing the shovels or markers and their arrangement upon the frame of the machine. Fig. 3 is a vertical sectional elevation on line *x x* of Fig. 1, showing the method of attaching the shovels or markers to the frame-work. Fig. 4 is a similar elevation on line *z z* of Fig. 1.

Corresponding letters refer to corresponding parts in the several figures.

This invention relates to that class of machines which is used for determining distances between rows of corn, and for marking the lines therefor at equal distances apart from each other, so that they shall be parallel; and it consists in the construction, combination, and arrangement of the parts, as will be more fully explained hereinafter.

A A in the drawing refer to the wheels upon which the carriage is mounted. These wheels may be of any form of construction, and of such a diameter as to leave room to operate the shovels underneath the frame of the machine.

The axle of the machine, in the example shown, consists of arms A' A', bolted to the end pieces of the frame; but, if preferred, it may consist of an axle extending across the machine, and secured to the frame thereof.

B B refer to the frame-work, which is rectangular in form, and consists of two end pieces, to which the axles or arms on which the wheels rotate are secured, and two or more longitudinal beams, to one of which the shovels or markers are attached.

B¹ refers to a bar which extends across the machine, or from inside to inside of the end beams of the frame B, it being hinged to said beams in such a manner that it may be turned up into the position shown in Fig. 3 when

the shovels or markers are not in use, and down into the position shown in Fig. 4 when in operation. B² refers to the seat upon which the operator sits when the machine is being moved, and B³ to the pole or tongue to which the horses are hitched, it being provided with a whiffletree for that purpose.

C C refer to rods, which are hinged to the front beam of the frame, and constitute the draw-bars for the shovels or markers. There are three of these rods or draw-bars, one at or near each end of the frame and the other midway between them.

D D refer to arms or levers, which are hinged to the outer ends of the draw-bars C, they being bent at a right angle, or nearly so, and having their upper and shorter arm bifurcated to receive the outer end of said draw bar or rod, while their lower and larger arm extends downward at an angle, as shown in Figs. 3 and 4, and carries the shovels or markers D¹.

Beyond or above the point where these arms are pivoted to the draw bars or rods there is formed a hole, which is to be filled with a wooden pin, which, when the machine is in use, rests upon the upper surface of the draw bar or rod, so that, in the event of the marker or shovel upon the lower end of the arm coming in contact with any obstruction, said wooden pin will break and allow the arm to swing backward and pass such obstruction without breaking any other part of the machine, the breaking of said pin being facilitated by the fact that the long arm of the bar is the one which encounters the resistance, and consequently a long leverage is given with which to break the pin.

D³ refers to a chain, which is attached to the swinging beam B¹ and to the arm D, in such a manner that as the beam is turned upward the shovels will be raised, as above described.

E refers to an arm, which is pivoted to the center of that portion of the frame which is forward of the wheels, from which point it extends outward beyond the machine, as shown in Figs. 1 and 2, for a distance sufficient to enable the marker upon its outer end to make a small guide-mark in the earth so that, by causing the center marker or shovel to follow said mark upon its return trip, the rows will be all parallel with each other, and at equal

distances apart. It will be perceived that in consequence of this lever being hinged in the center of the machine it may be swung or turned upon its pivoted point, and thus be used upon either side of the machine or upon each side alternately.

E¹ refers to a link, which is hinged to the outer end of the arm E, and carries upon its lower end a shovel or marker, E², so arranged as to rest lightly upon the ground, in order that it may make a guide-mark for the center shovel to follow upon the return trip of the machine, as above described.

To prevent the liability of being broken, the outer marker is hinged to the arm in such a manner that it has two motions with reference thereto, one in line with the arm and one at right angles thereto, so that, in the event of its coming in contact with any obstruction, it may move both horizontally and vertically, and thus pass over or at the side of such obstruction.

E³ E³ refer to dogs or keepers, which are bolted to the end pieces of the frame B, from which they are made to rise in a vertical direction for a distance sufficient to permit their horizontal portion to pass over the arm E when it is in position, and thus hold it in such position, their vertical portions forming an abutment for said arm to rest against, and by which

its outer end is kept from being carried too far toward the rear end of the machine.

When it is desirable to move the machine from one place to another, and not have the marker E² touch the ground, the arm is raised up, and the dog or keeper E³ is turned into the same position shown in Fig. 1, or as when holding the arm in position for use, and the arm is allowed to rest upon the upper surface of said keeper, which will cause its outer end to be so much elevated as to keep it free from the earth.

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

1. The combination of the rod or bar C, the arm or lever D, and shovel or marker D¹, substantially as and for the purpose set forth.

2. The swinging arm E, in combination with the frame of the machine, when its outer end is provided with a marker which is capable of moving in both a horizontal and a vertical direction, so as to pass obstructions, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JESSE B. THOMAS.

Witnesses:

J. R. WHITACRE,

WILLIAM H. LYNDE.