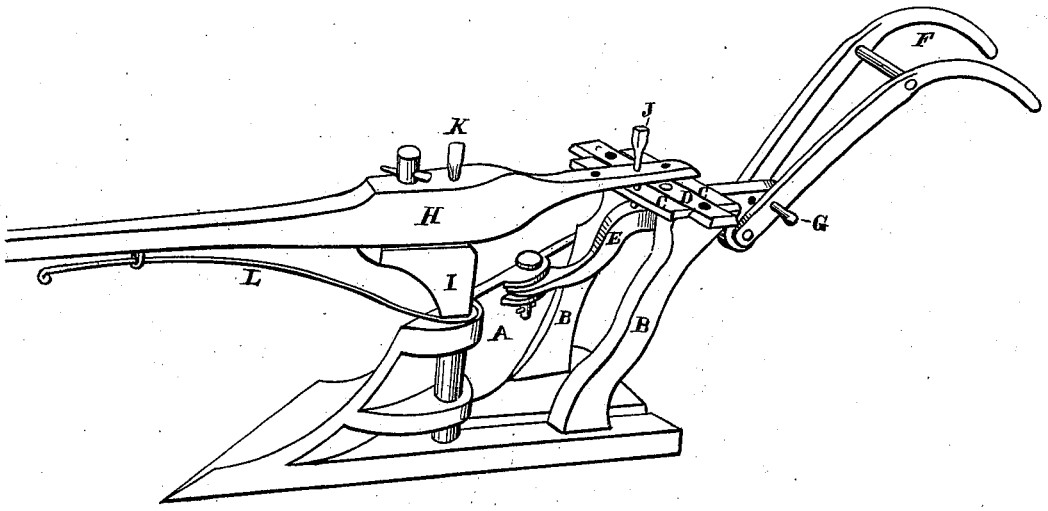
M. ROSS.
Vineyard-Plow.

No. 204,998. Patented June 18, 1878.



Witnesses

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UNITED STATES PATENT OFFICE.

MILTON ROSS, OF SAN JOSÉ, CALIFORNIA.

IMPROVEMENT IN VINEYARD-PLOWS.

Specification forming part of Letters Patent No. **204,998**, dated June 18, 1878; application filed April 10, 1878.

To all whom it may concern:

Be it known that I, MILTON ROSS, of San José, county of Santa Clara, and State of California, have invented an Improved Vineyard-Plow; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing.

My invention relates to that class of vineyard-plows in which the rear end of the plow-beam is adjustable, so as to throw the forward end of the beam either to or from the land-side, for the purpose of clearing the double-trees from the vines or other growing stalks near which it is desired to plow, and it is especially applicable to my vineyard-plow patented July 6, 1875.

It consists of a novel application of adjustable handles swiveled to a movable bar, in combination with an adjustable beam mounted on a crank pin or pivot, and in combination with a draft-bar.

It also consists of a method of locking and holding the various parts in proper position for ordinary or vineyard plowing, and wherever it is desired to plow close to the growing vines, trees, or plants, &c.

Referring to the accompanying drawing for a more complete explanation of my invention, the figure is a perspective view.

A is the mold-board of the ordinary construction, having a land-side, near the rear end of which is fixed the standard B for supporting the handles, the other standard B being bolted to the rear end of the mold-board on the opposite side from the land-side. The standards are curved inward, so as not to interfere with vines or standing stalks. On top of these standards B are two plates or bars, C, placed a short distance apart, with their inner edges beveled, as shown, and a corresponding bar, D, with the edges beveled in an opsite direction, so as to form a dovetail, slides laterally between the two bars C. The movable bar D is longer than the plates or bars C, and through its center passes a bolt, to which is pivoted the curved beam E supporting the handles F. This curved beam is pivoted to the rear part of the mold-board, so as to admit of a lateral motion to the beam. To the rear end of the beam E are fastened the handles F, which are pivoted so as to admit of a vertical motion.

A key or pin, G, passes through slots in the sides of the lower ends of the handles into the sides of the rear end of the beam E, so as to secure the handles in position. This construction admits of the plow-handles being moved up or down by means of the pivot in the beam E to suit the convenience of the plowman, and the handles may than be secured at the right height or inclination by means of the pin G passing through the slots in the handles into the beam. This beam E being pivoted to the laterally-sliding bar D on top of the standards, and being pivoted at its front end to the rear part of the mold-board, as stated, and also having the handles attached to its rear end, the handles may be slid or moved to one side or the other of the standards, so that the plowman may be out of the way of the vines or standing stalks. The beam E, passing between the upright standards B, and being pivoted to the sliding bar D, prevents the bar or the handles from going too far either way, and a pin or bolt through the rear end of the floor-beam, and through a slot in either end of the sliding bar D, holds it in the required position.

In order that the draft on the plow may be direct in either position of the handles, the floor-beam H is also arranged so as to be moved laterally over the mold-board. In order to accomplish this, at the inner forward edge of the mold-board A, I form two legs, on which are mounted a crank, I, so arranged as to act as a swivel, and in the upper forward end of this crank I is a bolt which secures the beam H, but which allows the beam to swing laterally. The rear end of the plow-beam is crooked toward the mold-board side of the plow, so as to bring the draft of the beam out of the central line of the furrow, thus permitting the animal attached to the plow to walk between the trees or vines without scraping them.

The same floor-beam H is mounted on the crank I as in my former patent, so that the middle and forward end of the beam can be shifted to or from the point of the floor, as described.

The rear end of the beam has several holes

to correspond with holes on the ends of the sliding bar D, and one in the center of the forward of the two stationary plates or bars C, through which a pin, J, is dropped, to secure the beam in any required position. When it is desired, for instance, to plow close to vines or standing stalks on the land-side of the plow, the handles are slid to the opposite sides by means of the curved beam to which the handle is attached, being also attached to the sliding plate or bar D. Then the plow-beam H is pushed laterally to the same side as the handles, the pivoted crank I admitting of this action. The pin or bolt J is then dropped through the hole in the rear end of the plow-beam and the corresponding hole in the outer end of the sliding bar D, which keeps the beam D and handles F in position on the mold-board side of the plow. By removing the pin J the handles and beam may be turned to the other side of the plow, and there secured in the same manner. Although by this peculiar construction the beam H has a forward-back motion, as well as a lateral one, the position of the draft-bar is not altered thereby, and the team remains at the same distance from the plow-point.

When it is desired to use this plow for work in the fields where there are no vines or stalks liable to injury, the beam and handles may be secured in the center by dropping the pin J through the rear end of the floor-beam, when it will fall through the hole in the forward plate C, and also engage in a hole in the center of the curved beam E, thus holding the floor-beam, curved beam, and handles on the center portion. They are still more securely locked in this position by dropping the locking-pin K through the plow-beam into a hole on the crank I, on which it rests, which prevents any lateral motion of the plow-beam. A rod or draft-bar, L, is attached to the upper part of the mold-board of the lower part of the crank-pin I, and passes loosely through an eyebolt on the forward part of the under side of the plow-beam H, the horses being attached to the other end of the rod. By this means, no matter which side of the plow the beam may be, the draft is maintained in the center, and the strain is taken from the crank on which the beam is mounted.

From the construction described it will be seen that my plow is materially improved, and that, while answering as an ordinary plow, it may also be used in vineyards, where it is necessary to work close to the vines without troubling them. By the peculiar movement of the plow-beam the horses are enabled to walk far enough from the vines so as not to touch them, while at the same time they have a center draft; and, as the handles are also capable of being shifted to either side, the plowman can also walk clear of the vines or standing stalks, while he is also always directly behind the horses and in a position to guide the plow. The handles, being adjustable vertically, can be arranged in different position, so as to suit the height of the plowman, or may be lowered, so as to pass under projecting limbs, if thought necessary. The plow is thus useful for work in vineyards, orchards, cotton-fields, or wherever it is desired to plow close to the growing vines, trees, plants, or shrubs, and in an open field as an ordinary plow.

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

1. The transverse guide-bars C, having the bar D moving between them, in combination with the curved beam E, pivoted at its front end, and having the handles F secured to its rear end, substantially as shown, and for the purpose herein described.

2. The beam E, pivoted at its front end, united to the laterally-sliding bar D, as shown, and having the handles F attached to its rear end, in combination with the plow-beams H and crank I and locking-pins J and K, or equivalent device, substantially as shown, and for the purpose herein described.

In witness whereof I have hereunto set my hand and seal.

MILTON ROSS. [L. S.]

Witnesses:

FRANK A. BROOKS,

WALTER C. BEATIE.