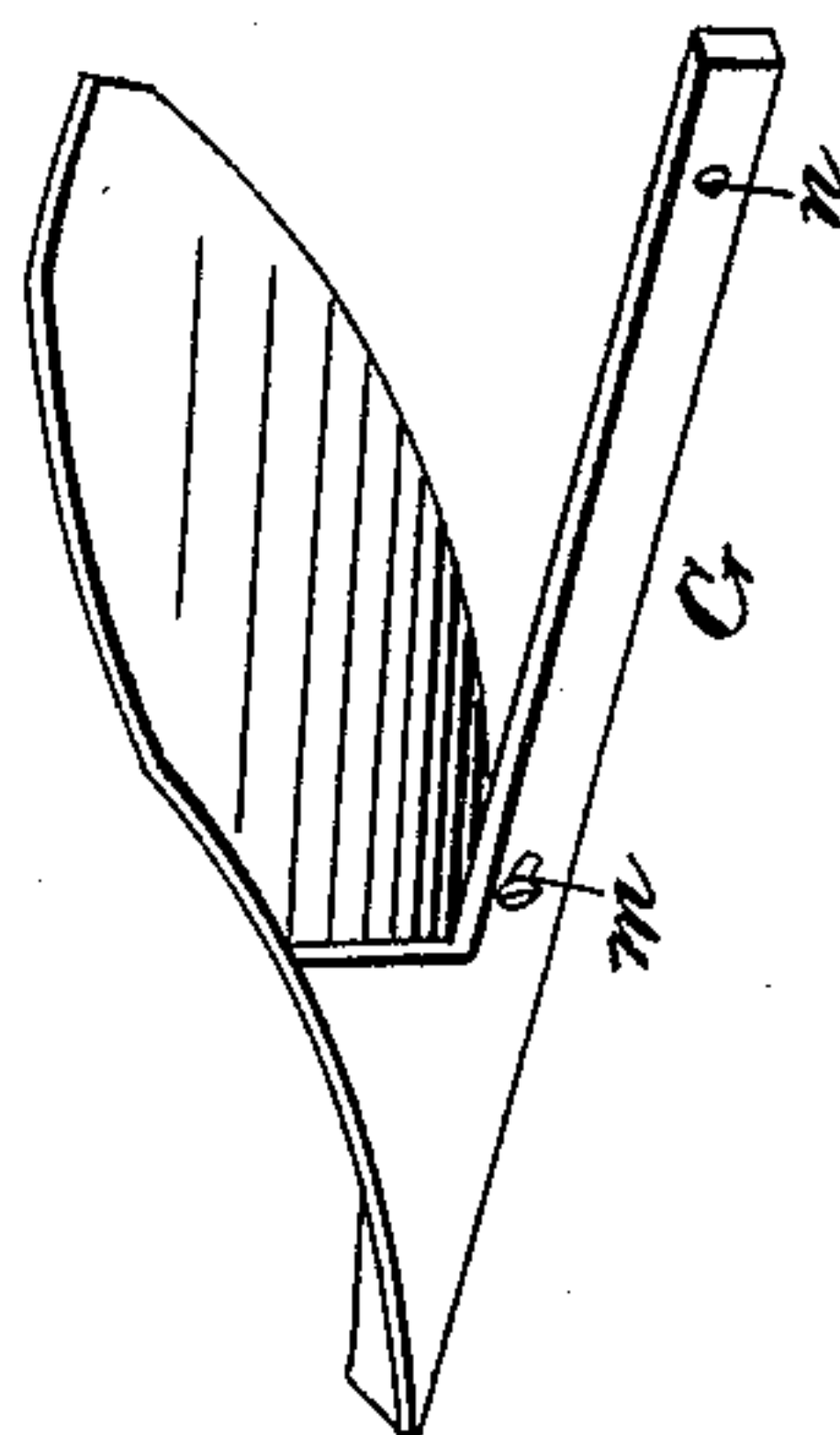
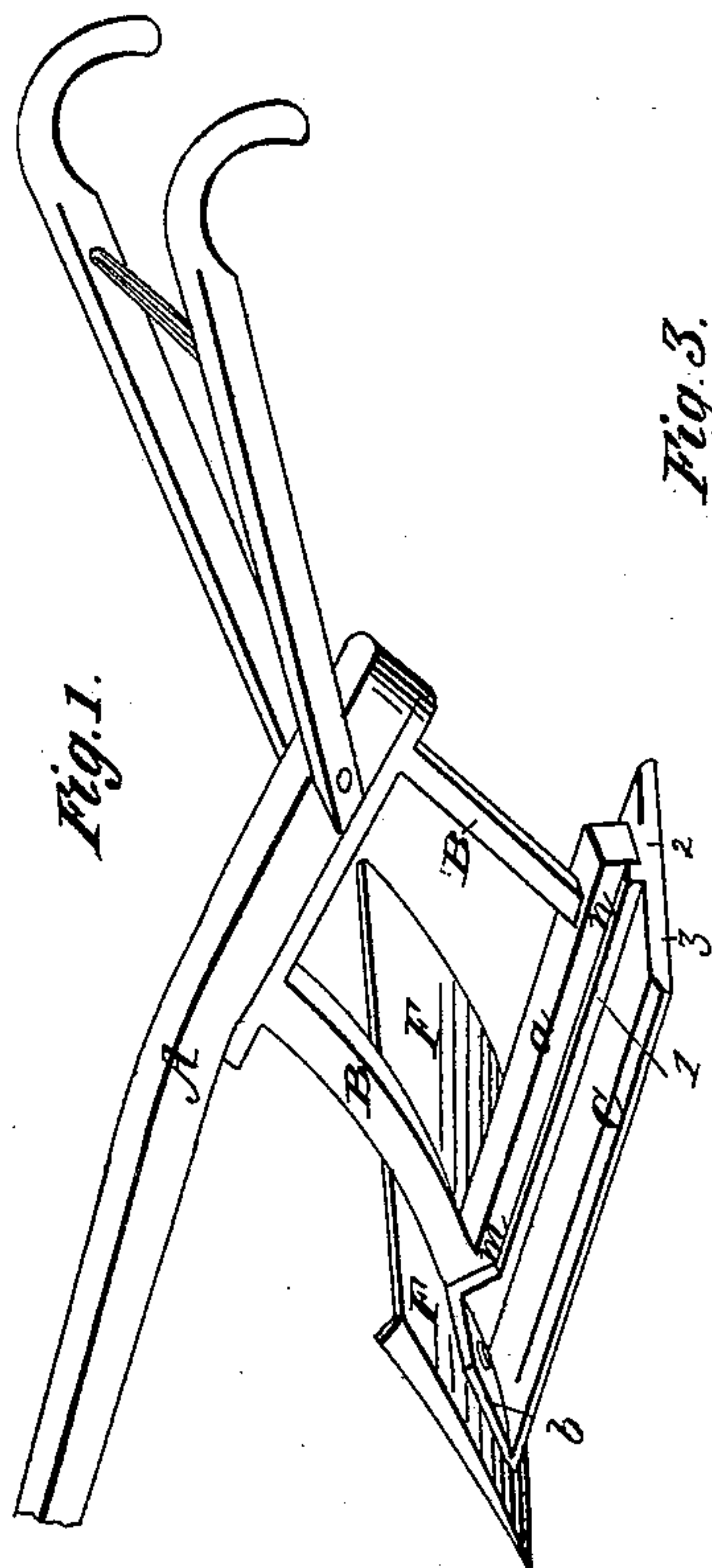
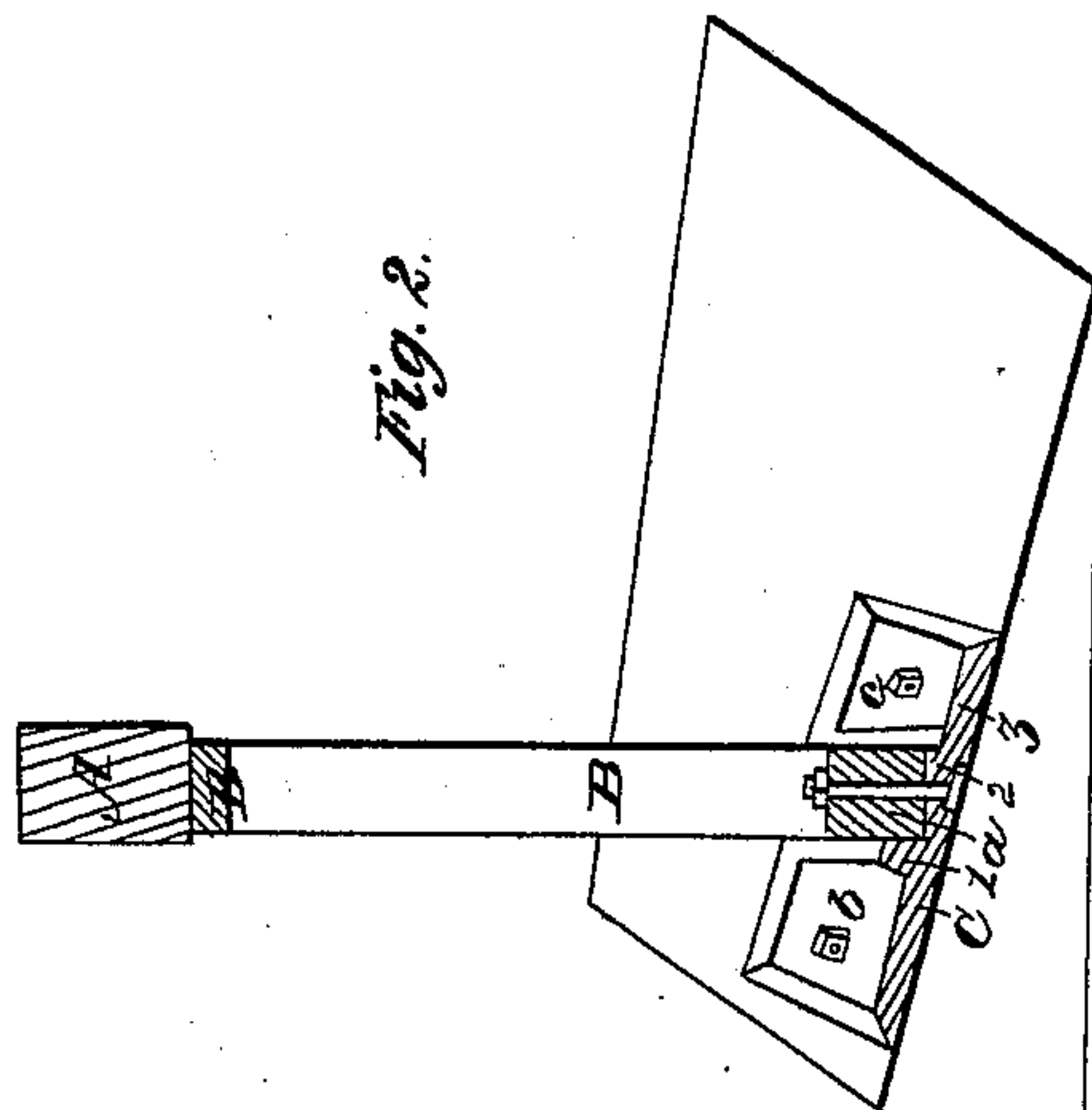


E. WELLS.
Shovel Plow.

No. 29,836.

Patented Aug. 28, 1860.



Witnesses.
E. Cohen
J. Hirsch.

Inventor.
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By attorney
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UNITED STATES PATENT OFFICE.

EPHRAIM WELLS, OF AUBURN, MISSISSIPPI.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 29,836, dated August 28, 1860.

To all whom it may concern:

Be it known that I, EPHRAIM WELLS, of Auburn, in the county of Hinds and State of Mississippi, have invented certain new and useful Improvements in Cultivating-Plows; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, in which—

Figure 1 represents a perspective view of said plow. Fig. 2 represents a vertical cross-section through the same. Fig. 3 represents a perspective view of the mold-board.

My invention relates to that class of cultivators which are used for cultivating billed-up rows of plants; and it consists in so shaping the sole of the plow that it shall assume an inclined position when secured to its vertical standard, and thus relieve the operator from the laborious task of holding and managing a plow that is inclined over to one side while it passes over the slopes or sides of the rows or ridges.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents the beam of the plow. B B represent the standards.

C is the sole, which is secured to brace *a* of the standards by means of screw-bolts or otherwise. It is fitted against said brace by means of the flanges 1 and 2, the bottom line, 3, of the sole C forming an obtuse angle with the vertical standard of the plow.

The mold-board F may be bolted to the flanges *b* and *c* of the sole-piece *a*; or, when the latter has no such flanges, a mold-board, as represented in Fig. 3, may be used, in which the bar G is fitted to the side of the brace *a*, and is then secured to it by screw-bolts, which are inserted into the holes *m n*.

The sole-piece can be so shaped as that its inclination will correspond nearly to that of the sides of the ridges, the lower line of the mold-board or scraper being parallel to said inclination, and the sole-piece itself being of sufficient width to support the plow in its vertical position.

The operation of cultivating the oblique sides of the ridges by means of this plow is not more laborious than the work of cultivating on level ground, as the plow is held in its vertical position by its broad and inclined sole, and thus relieves the operator from the task of holding up the plow to prevent it from running out of the ground while he guides and directs the same along the ridges.

Instead of inclining the whole plow to accommodate it to the inclination of the sides of the ridges or rows, I incline the sole of the plow only, and thus leave the plow perpendicular, though running on inclined ground. This prevents the plow from "running out," as it is termed, as it will do when turned over out of a perpendicular line.

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

So connecting and arranging the sole-piece of a plow in regard to the frame, beam, and handles as that its lower side shall assume an oblique position when the sole is secured to the vertical standard of the plow, for the purpose of retaining the plow in a vertical position when it is passed over the inclined sides of ridges, substantially in the manner and for the purpose herein described.

EPH. WELLS.

Witnesses:

A. B. STOUGHTON,
E. COHEN.