A. J. Borland, Cultivator.

117734

PATENTED AUG 8 1871

Fig. 1.

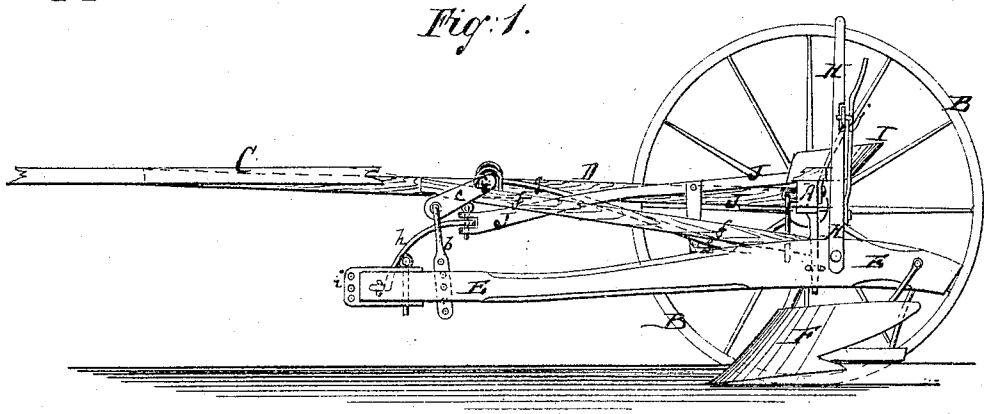


Fig. 2.

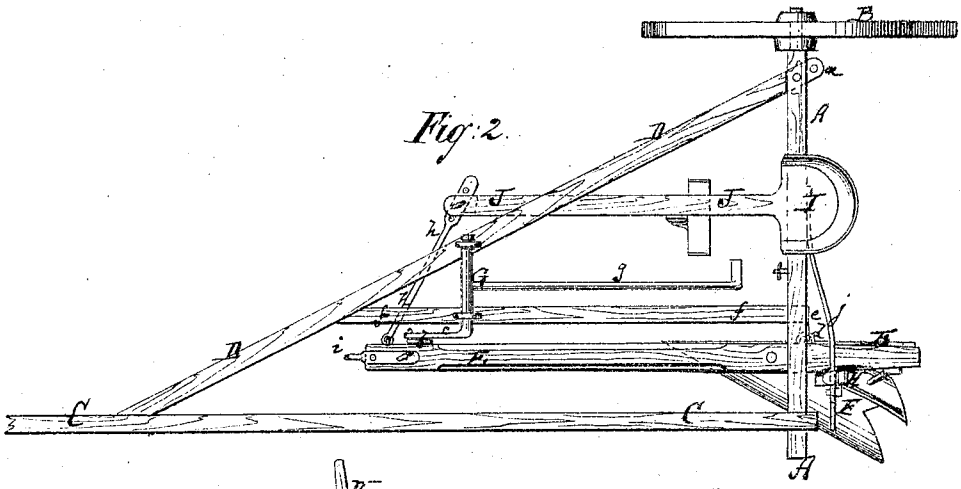
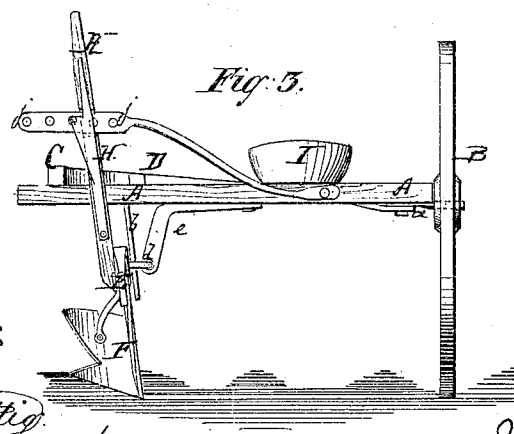


Fig. 3.



Witnesses:

C. Raetig

Alex F. Roberts

Inventor:

A. J. Borland

PER Munn & Co

Attorneys.

UNITED STATES PATENT OFFICE.

ANDREW J. BORLAND, OF CHARLESTOWN, IOWA.

IMPROVEMENT IN WHEEL-PLOWS.

Specification forming part of Letters Patent No. 117,734, dated August 8, 1871.

To all whom it may concern:

Be it known that I, ANDREW J. BORLAND, of Charlestown, in the county of Lee and State of Iowa, have invented a new and Improved One-Wheel Plow; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

Figure 1 represents a side elevation of my improved cultivator. Fig. 2 is a plan or top view of the same. Fig. 3 is a rear elevation of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to construct a cultivator that can be completely controlled by the driver, so that the plow will run at a suitable depth and desired angle. The invention consists in a new arrangement of levers and connecting-rods, whereby the position of the plow can be fully regulated in accordance with the nature of the soil to be worked and with the objects for which it is to be prepared.

A in the drawing represents the axle or cross-beam of my cultivator. It is at one end supported by a wheel, B. C is the tongue, projecting from that end of the axle which is not supported by the wheel. A diagonal brace, D, extends from the front part of the tongue to the supported end of the axle, and is secured to the latter by a strap, *a*, or other suitable means. E is the plow-beam. Its front end is, by a strap, *b*, suspended from the crank *c* of a rock-shaft, G, which is hung in the front part of the frame-work. The rear part of the plow-beam is, by a link, *d*, hinged to the end of a pendant, *e*, which projects from the axle, the said pendant being strengthened by a longitudinal brace, *f*, as shown. The plowshare is of suitable construction, and is secured to the beam E in a suitable manner. H is a lever projecting from the rear part of the plow-beam. By its means the beam can be swung laterally to allow the balancing of the same to the right or left, enabling the plow to be kept level even if the wheel should run in a depression. *g* is an arm projecting backward from the rock-shaft G. Its rear end forms a step for the driver's foot, whereby the rock-shaft can be swung to raise or lower the front part of the plow-beam. I is the driver's seat. It is secured to the axle near to the wheel B. J is a bar extending forward from the seat, and connected at its front end by a rod, *h*, with the front part of the plow-beam. The rod *h* can be lengthened or shortened in such manner that it will set the plow-beam to give the plow more or less land, as may be desired. A clevis, *i*, is secured to the front end of the plow-beam in the ordinary manner. *j* is a perforated plate or bar projecting from the axle. The lever H can, by a projecting prong or tooth, be secured to said plate *j* in any suitable position to retain the plow-beam at a desired degree of inclination.

The drawing represents a left-handed plow. Any other may, however, be used. The near horse walks in the furrow, the other one or two on the land-side of the plowing. The driver can with his feet control the depth of the plow, and with his hand, by means of the lever H, the inclination of the same. The working depth of the plow can also be regulated by lengthening or shortening the strap *b*. The driver is thus given complete control over the plow. His weight, by being near the wheel, tends rather to ease the plow than to add to the weight of the same.

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

1. The slotted bar *h* and bar J, combined, as described, with the beam E, to adjust the plow laterally at the point for taking more or less land.

2. The combination of the axle A, wheel B, tongue C, and brace D, forming one part, with the rock-shaft G, seat I, and rod *h*, forming the second part, and with the plow-beam E and lever H of the third part, all arranged substantially as herein shown and described.

Witnesses: ANDREW J. BORLAND.
JOHN S. STEWART,
WILLIAM R. DONNELL.