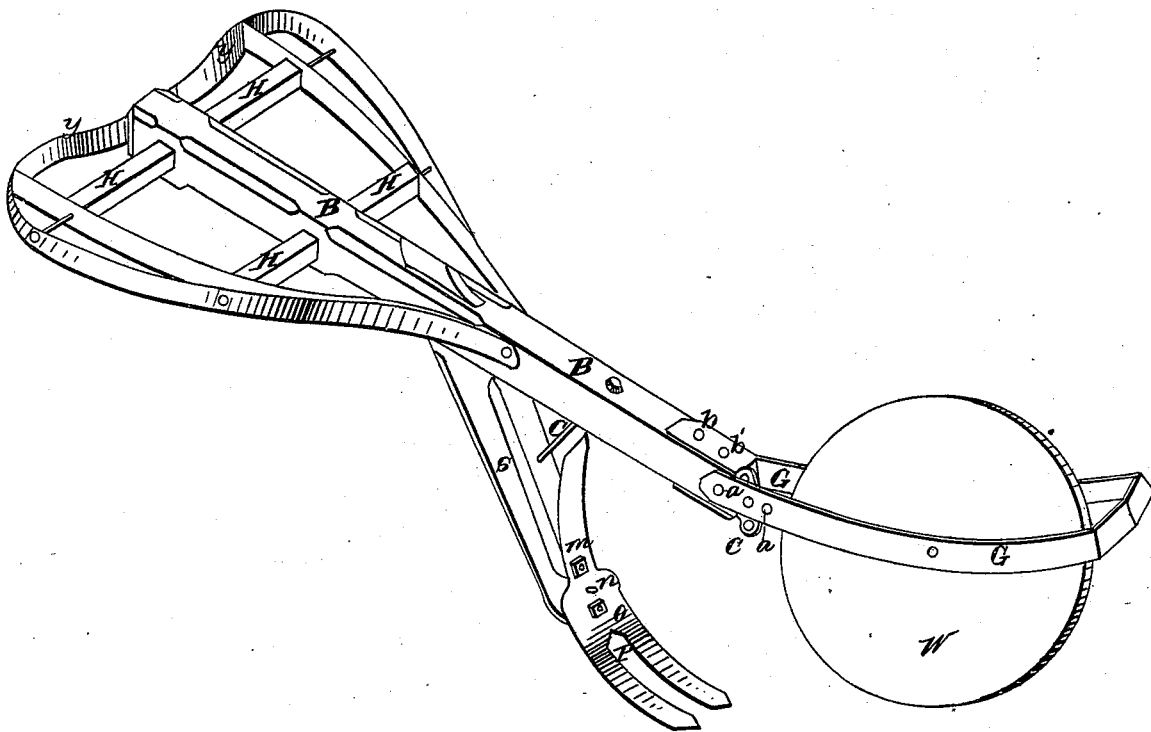


J. VON ACHEN.

Hand Plow.

No. 53,061.

Patented Mar. 6, 1866.



Witnesses.
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UNITED STATES PATENT OFFICE.

JOSEPH VON ACHEN, OF BLOOMFIELD, IOWA.

IMPROVEMENT IN HAND GARDEN - PLOWS.

Specification forming part of Letters Patent No. 53,061, dated March 6, 1866.

To all whom it may concern:

Be it known that I, JOSEPH VON ACHEN, of Bloomfield, in the county of Davis and State of Iowa, have invented certain new and useful Improvements in Garden-Plows; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing.

This invention relates to the particular construction and arrangement of garden-plows, or plows which are pushed by the operator instead of being drawn by horses, and has for its object, first, the adjustability in relation to a guide-wheel of the plowshare or shovel, whereby they are caused to run more or less deep and produce a furrow deep or shallow, according to requirements; second, the ability to run at one operation, with the same plow, and without the employment of any auxiliary device or piece, one or two furrows, according to requirements; third, greater convenience and ease in operating the plows.

My invention consists, first, in the combination, in a garden-plow of otherwise ordinary or suitable construction, of a stationary clevis on the forward end of the plow-beam with a guide-wheel hung in a swinging frame vertically adjustable in relation to the said clevis, substantially as hereinafter described; second, in the combination, in a garden-plow, with a plow-stock fixed to the beam under the arrangement described, of a reversible shovel, constructed and adjusted in the manner and for the purposes hereinafter set forth; third, in the arrangement of the cross-handles on either side of the plow-beam, in combination with the arched yoke on the rear end of the beam, substantially as hereinafter set forth.

To enable others to make and use my invention, I shall now proceed to describe the same by referring to the drawing, which represents, in isometrical perspective view, a garden-plow constructed in accordance with these my improvements.

B is the plow-beam, having at its forward end, and secured thereto by vertical bolts *b b'*, a clevis, C, pierced with a number of holes, which are arranged according to an arc of a circle of which the bolt *a*, traversing the beam laterally, is the center. Upon this bolt *a* is hung the frame G, carrying the guide-wheel W, whose office it is to elevate or depress the

forward end of the plow-beam, whereby the plowshare or shovel itself is more or less penetrated into the soil. This is effected by the angular adjustment of the frame in relation to the plow-beam. To this end the frame is provided with a hole, *d*, at a distance from its point of suspension equal to the radius of the circle which determines the location of the holes in the clevis. The frame may be adjusted to any of the holes of the clevis by means of a pin.

The plow-stock S is secured into the beam by an oblique tenon-and-mortise joint in such manner as to give the stock the requisite inclinations forward and downward, and a bolt, *e*, traversing both the beam and the plow-stock, is used to give the structure the necessary strength and rigidity. To the lower end and upper face of the stock is attached, by means of bolts, as hereinafter described, a shovel, P, of a peculiar construction, combining in one instrument a single and double or forked shovel.

The shovel, which may be made of cast-iron or of any other suitable material, is composed of an elongated concavo-convex plate, one end of which is shaped into a single-pointed shovel, while the opposite end is formed so as to present two points or constitute a double shovel. Three holes, *m n o*, arranged in one row, are provided for the attachment of this shovel to the stock. Through the central hole a pin is passed, whereby the shovel is permanently attached to the stock. Upon this pin the shovel is capable of rotation, so that it may be adjusted with either end toward the ground. To maintain the shovel in either adjustment bolts are passed through the holes *m* and *o* and corresponding holes in the stock. In this manner the same plow may be used in two ways without even requiring a single separate and supplementary piece.

The beam B in this plow is somewhat longer than the beam of ordinary plows, and is provided with cross-handles H and a yoke, Y.

I have found that the exertion of pushing the plow by handles such as are made for horse-plows is very laborious and fatiguing. To more equally and advantageously distribute the force to be exerted by the body, I have arranged the yoke Y transversely on the rear end of the beam in such manner that the operator may be able to lean or press against it

with his body while his hands rest on the cross-pieces H.

Having thus described my invention and the manner in which the same is or may be carried into effect, I claim—

1. The combination, in a garden-plow of otherwise ordinary or suitable construction, of a stationary clevis in the forward end of the plow-beam with a guide-wheel hung in a swinging frame vertically adjustable in relation to the said clevis, substantially as described.

2. The combination, in a garden-plow, with

a plow-stock fixed to the beam under the arrangement described, of a reversible shovel, constructed and adjusted in the manner and for the purposes herein set forth.

3. The arrangement of the cross-handles on either side of the plow-beam, in combination with the arched yoke on the rear end of the beam, substantially as set forth.

JOSEPH VON ACHEN.

Witnesses:

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