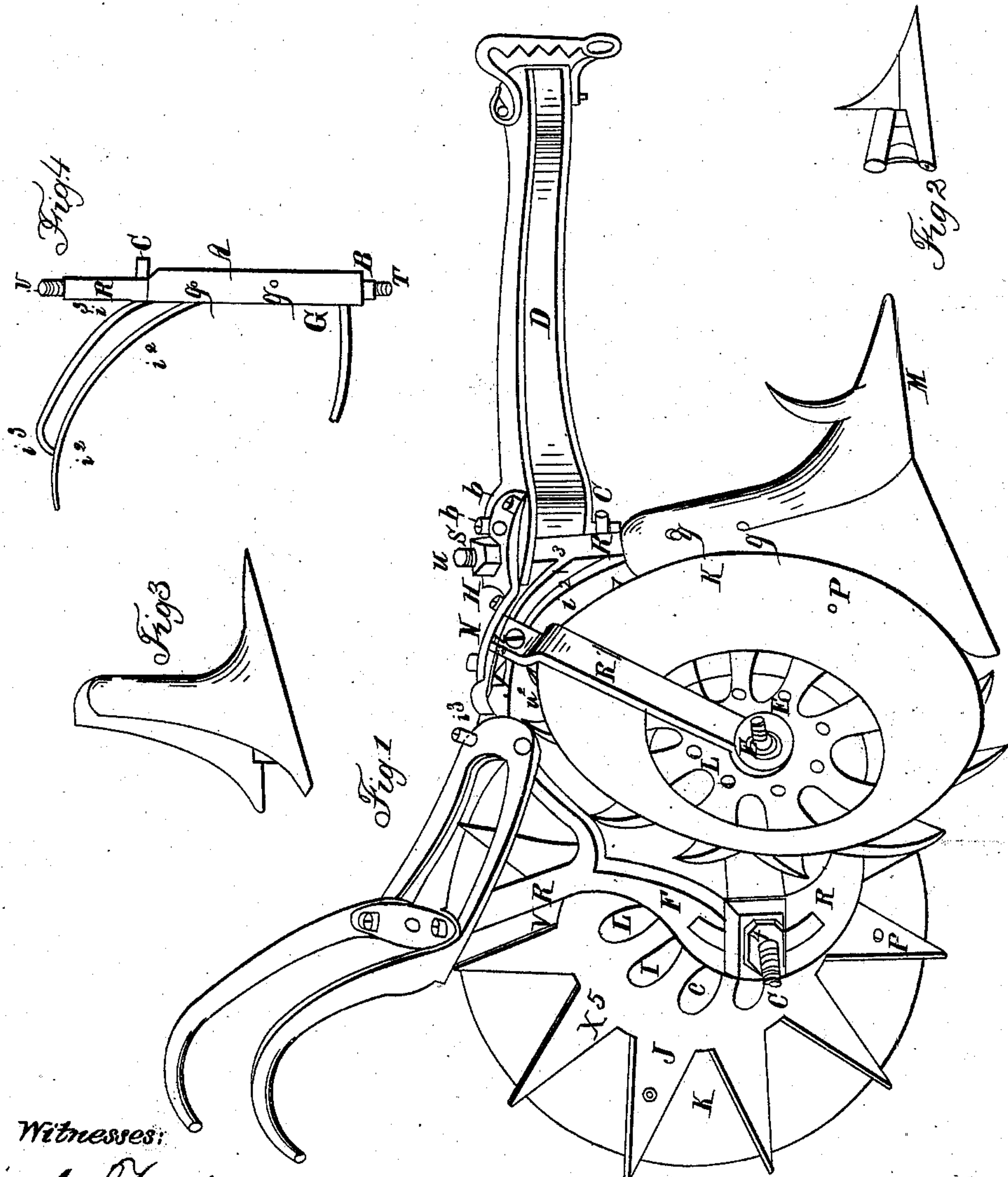


B. C. HOYT  
Revolving-Moldboard.

No. 15,654.

Patented Sept. 2, 1856



Witnesses:  
J. Seed  
Henry Seed

Inventor:  
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# UNITED STATES PATENT OFFICE.

BENAI AH C. HOYT, OF PORT WASHINGTON, WISCONSIN.

## IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. 15,654, dated September 2, 1856.

*To all whom it may concern:*

Be it known that I, BENAI AH C. HOYT, of Port Washington, in the county of Ozaukee, and in the State of Wisconsin, have invented a new and useful Improvement on the Rotary Cultivator-Plow; and I do hereby declare that the following is a full and exact description thereof, as shown in the accompanying drawings. (See Figures 1, 2, 3, 4.)

The nature of my invention consists, first, in the construction of a plow so as to enable the plowman to turn one or two furrows with it at the same time; second, the construction of a plow so that it may be arranged into a rotary cultivator without difficulty; and, thirdly, to enable the plowman to increase or diminish the width of his work at pleasure.

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

I commence with the frame R. I make a straight standard, A, the front edge of which has a V form. Near the bottom of this standard is a square bearing, B, which enters a corresponding hole in the points, Figs. 2 and 3. These points are made fast to the standard by screw and nut, at T, and side bolts, g g. Above the V form, and about two-thirds the length of the standard A from the bottom up, is a projecting piece of iron, C, with a hole through it, which receives a bearing or hook on the lower side and back end of the beam D. At the top end of the standard is a round bearing, U, which receives a plate of iron that is made fast to the top of the beam, together with the cap H.

At a point opposite the projecting piece C, I start two branches,  $i^2$   $i^3$ , from the standard A, which I carry up in a curve-line about half-way from the standard A to the slot F, where I bring the upper branch,  $i^3$ , down and connect it to the lower branch,  $i^2$ , forming a slot, Y, for the bolt Z to work through. From thence I carry the single branch  $i^2$  still on and down about half-way from the slot Y to the slot F in the back part of the frame R, where another branch, V, starts up and back, forming a place for the location of the handles. At the bottom of branch V the frame R starts out in a sharp curve, through which is slot F. From thence I extend the same around in a curve and connect it to the standard A at G. The beam D is constructed of wood, with a

strap of iron on the top and bottom. The strap on the bottom terminates in a hook, which enters the projecting piece C on the standard A. The strap of iron on the top of beam D terminates in a wide plate,  $a$   $a$ . It has three holes through it, two of which are to receive screw-bolts  $b$   $b$ , and the third, which is between the two, is larger, and is made to work on the bearing U under the cap H. Thus the beam is hinged to the standard, as described, and put into a position corresponding with the handles and point and made fast by the use of bolts  $b$   $b$ , passing through the cap H into the plate  $a$   $a$  on the beam. The cap H is bolted to the top branch,  $i^3$ , of the frame R. The cap H and the beam D are made secure to the top end of the standard A by the use of screw and nut S.

I construct my mold-boards in the following manner: Each cultivator-plow has two mold-boards, made nearly alike. They revolve upon a central pivot or axle. The frames that contain the mold-boards are made of cast-iron. Around the hub, or near the center of those frames, start out eight flat pieces of iron, something like the spokes of a wagon-wheel, leaving an open space between them, as seen at I. The ends of these short spokes are connected to a band, J. From this band radiate prongs  $X^5$ , the ends of which work in the earth, taking a firm hold on the same, and secures their motion. These frames described are concavo-convex in form. The mold-boards K K are constructed of thin wrought iron or steel, corresponding in shape to the mold-board frames, into which frames they are placed, and made fast to them by bolts P P, passing through them into the prongs  $X^5$ .

The axles E, upon which the mold-boards revolve, are inclined forward to that degree that when the mold-board frames are hung upon them the convex sides come near together, and are made to work together by means of studs on the back sides of the right-hand mold-board frame, passing through the open spaces in the left-hand mold-board frame, as seen at L. At the center of the axle is an arm, extending back, passing through slot F, and is made secure to the frame R by screw and nut  $c^4$ . At the end of the axle E, I make fast the lower end of braces R<sup>7</sup> N, extending them up to slot Y, where I make the top ends fast by the use



of bolt Z. To increase or diminish the width of earth that the plow will turn, raise or lower the arm  $O^4$ , that is connected to the center of the axle that passes through slot F in frame R.

The operation of this plow is as follows: To turn but one furrow, put onto the standard A point M. Make it fast to the standard, as above described. Swing the beam to the right and the handles to the left until the left handle and beam is on a line with the landside of the point M. To turn two furrows at the same time, put onto the standard point, Fig. 3. Make the beam and handles fast on a line between the two mold-boards.

To make a cultivator of the plow, put onto the standard point, Fig. 2. Remove the mold-boards K K by withdrawing the bolt Z at the

top end of braces  $R^7$  N, and also withdraw the short bolts P P, that pass through the mold-boards K K into the prongs X.

Having described the construction and operation of my rotary cultivator plow, what I claim as my invention, and desire to secure by Letters Patent, is—

The adjustable rotary mold-boards K K, combined with beam D and frame R, the whole being arranged in the manner and for the purpose set forth.

Port Washington, August the 11th, 1856.

B. C. HOYT.

Witnesses:

JOHN B. KENDALL,  
NOAH P. REYNOLDS.