J. W. CHASE.

CULTIVATORS.

No. 181,041. Patented Aug. 15, 1876.

Fig. 1.

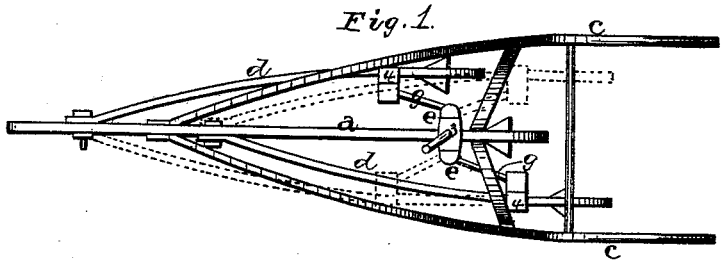


Fig. 2.

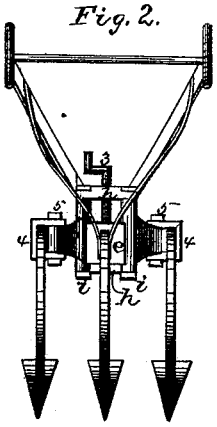


Fig. 5

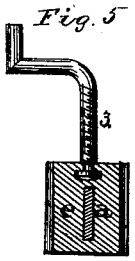


Fig. 4

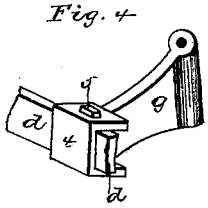
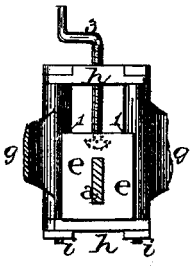


Fig. 3.



WITNESSES.

J. Wm. Garner.

F. M. Burnham.

INVENTOR.

Jos. W. Chase

per

F. A. Lehmann, Atty

UNITED STATES PATENT OFFICE.

JOSEPH W. CHASE, OF MIDDLEPORT, OHIO.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. **181,041**, dated August 15, 1876; application filed March 8, 1876.

To all whom it may concern:

Be it known that I, JOSEPH W. CHASE, of Middleport, in the county of Meigs and State of Ohio, have invented certain new and useful Improvements in Cultivators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in cultivators; and it consists in the arrangement and combination of parts that will be more fully described hereinafter, whereby the side beams can be lowered and raised, and adjusted laterally in relation to the central beam.

The accompanying drawings represent my invention.

a represents the central beam, to which the handles *c* are firmly secured and braced in the usual manner. Bolted to opposite sides of this beam, and at different points, are the two side beams *d*, which have their front ends curved outward, so as to allow their rear ends a free swinging motion to and from the central beam *a*. When the side beams are attached at different points the three shovels are successively presented. When both side beams are secured by the same bolt at the rear hole, the two side shovels follow the central one, and, when both beams are secured by the same bolt at the front hole, the two side shovels precede the central one. By removing either side beam a double, and both side beams a single, plow is formed. Placed upon the central beam, just in front of where the handle braces are fastened, is the guide *e*, which has a suitably-shaped groove, 1, formed in each end, in which grooves move up and down the ends of the connecting hinge-links *g*, that bind the side beams to the central one. Passing through the ends of these links are the screw-bolts *i*, which are connected together at both their upper and lower ends by the plates *h*, which plates cause both beams to move equally and act as stops to check their up-and-down motion. Passing through the top plate, and bearing down upon or swiveled to the guide, is a hand set-screw, 3, by means of which the beams can be adjusted up and down at will. The outer ends of the connecting-links are attached to the side beams by means of the clevises 4 and bolts 5. By turning the set-screw 3, the two side beams *d* can be raised or lowered in relation to the central beam without moving the beam *a*, which remains always stationary. When it is desired to expand or contract either one or both of the side beams *d* with relation to the central beam the bolts 5 of the clips 4 are loosened, so that the clips can be made to slide along the beam. By moving the clips so that they are made to approach nearer to a straight line with the elevating devices just described, the connecting-links *g* force the beams *d* outward, and when the clips are moved so as to stand as shown in Fig. 1, the beams are drawn inward.

Having thus described my invention, I claim—

The combination of the beams *a d*, handles *c*, guide *e* 1, links *g*, bolts *i*, plates *h*, set-screw 3, and a fastening device for connecting the end of the links to the beams *d*, substantially as specified.

In testimony that I claim the foregoing I have hereunto set my hand this 26th day of February, 1876.

JOSEPH WARREN CHASE.

Witnesses:
M. J. HAMILTON,
J. B. SMITH.