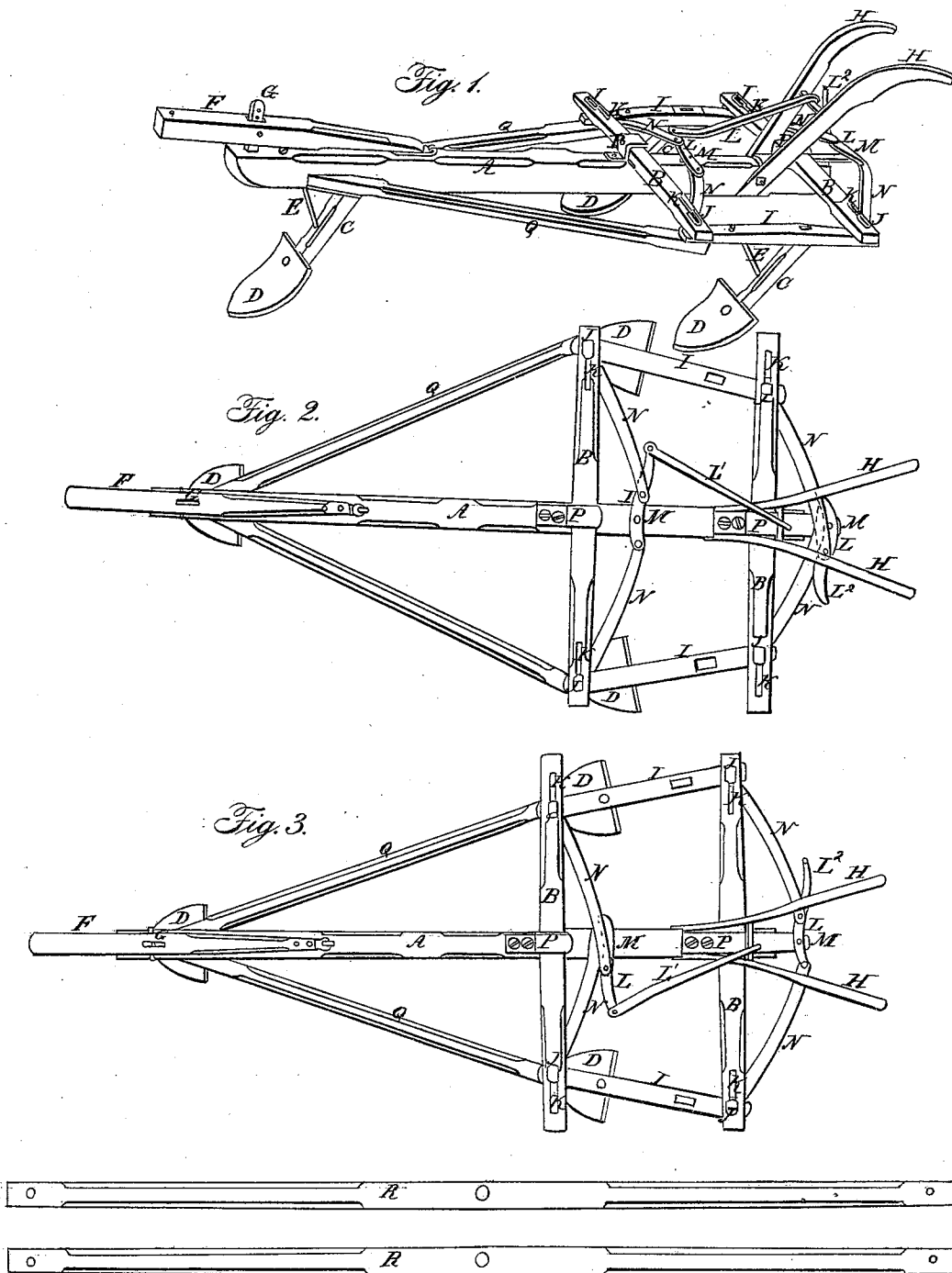


G. W. BROWN.

Cultivator.

No. 6.511.

Patented June 5, 1849.



UNITED STATES PATENT OFFICE.

GEO. W. BROWN, OF TYLERVILLE, ILLINOIS.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 6,511, dated June 5, 1849.

To all whom it may concern:

Be it known that I, GEORGE W. BROWN, of Tylerville, in the county of Warren and State of Illinois, have invented a new and useful Improvement in Cultivators, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1 is a perspective view of the cultivator. Fig. 2 is a bird's-eye view of the cultivator, showing the shovels adjusted for throwing the earth toward the rows of corn. Fig. 3 is a bird's-eye view of the cultivator, showing the shovels adjusted for throwing the earth from the rows of corn.

Similar letters in the several figures refer to corresponding parts.

The nature of my invention and improvement consists in so arranging the several parts of the cultivator that the shovels can be extended or closed for the purpose of plowing between wide and narrow rows, or adjusted in regard to their angle of inclination, so as to throw the earth toward or from the rows at pleasure by simply moving two short side adjustable beams, to which the shovels are affixed, which is effected by means of a combination of levers and connecting-links.

The main beam A, cross-beams B B, helves C C C, shovels D D D, braces E, adjusting draft-block F, and segment gage-bar G and handles H are made, arranged, and operated in the manner and for the purpose of other cultivators in use, and therefore need not be particularly described.

I I are two short adjustable beams, into which the two rear helves C C are secured.

J J J J are connecting-bolts, that connect the short adjustable beams to the parallel transverse slotted beams.

K K K K are the oblong mortises made in the parallel transverse beams, near their extremities, for the bolts J to move in while adjusting the position of the shovels.

L L are levers for moving the ends of the adjustable beams toward or from the main beam in adjusting the same to the required positions of the shovels. M M are the fulcra of said levers.

N N N N are the links that connect the ends of the adjustable beams I I to the ends of the

levers, the connection being effected by means of the connecting-bolts J.

L' is a jointed arm of the forward lever, to be laid hold of by the operator in order to move the forward ends of the adjustable beams.

L² is a handle or turned-up end of the rear lever, for operating the rear ends of the adjustable bars.

P P are hasps for keeping the transverse slotted bars from rising from the beam while moving lengthwise of the beam, said bars being notched on the under side, where they are fitted to the beam. In closing and expanding the adjustable side bars the transverse slotted bars must necessarily have some movement on the beam to prevent binding of the parts.

Q Q are two oblique braces hinged to the forward part of the beam, and united to the extremities of the transverse and adjustable bars by the vertical connecting-bolts J J. The transverse bars B are prevented from moving laterally by the shoulders next the notches in the under sides thereof.

The operation of this cultivator is as follows: When it is desired to extend the shovels to their fullest extent and to bring the adjustable bars parallel with the beams the levers must be moved on their fulcra till the connecting links and bars are in the positions represented in Fig. 1. Should the farmer desire to throw the earth from the rows of corn and toward the center of the space between them, as will be necessary when the plants are young, he must bring the forward or jointed lever round to the position represented in Fig. 3; but should he desire to throw the earth toward the corn, (when the plants become stronger,) he must restore the jointed lever to its former position and bring the lever nearest to him round to the position represented in Fig. 2. In order to lay off the land into three parallel rows at each drive across the field for planting corn or other grain, the slotted bars B B must be removed and the two long bars R R put across the beam at right angles and bolted thereto and braced by oblique braces extended from the draft end of the beam to near the extremities of the said transverse bars and nearly parallel with the oblique braces Q Q. The short bars I, to which the helves and shovels are secured, are then to be bolted to the ends

of said extended bars. A gage is affixed to one of the bars for gaging the width of the rows. The cultivator being properly adjusted, the team, which is attached to an extended tongue affixed to the beam, is driven across the field back and forth till it is laid out into parallel rows. The cultivator is then restored to the position represented in Fig. 1, and used as a cultivator for operating between the rows of corn.

What I claim as my invention, and desire to secure by Letters Patent, is—

The mode of adjusting the position of the

shovels D so as to throw the earth from or toward the rows of corn, or to the right and left, at pleasure by means of the before-described combination of the levers L, links N, and adjustable bars I with the parallel slotted bars B and oblique hinged bars Q, as described.

In testimony whereof I have hereunto signed my name before two subscribing witnesses this 25th day of July, 1848.

GEORGE W. BROWN.

Witnesses:

L. WASHINGTON, Sr.,

WM. P. ELLIOT.