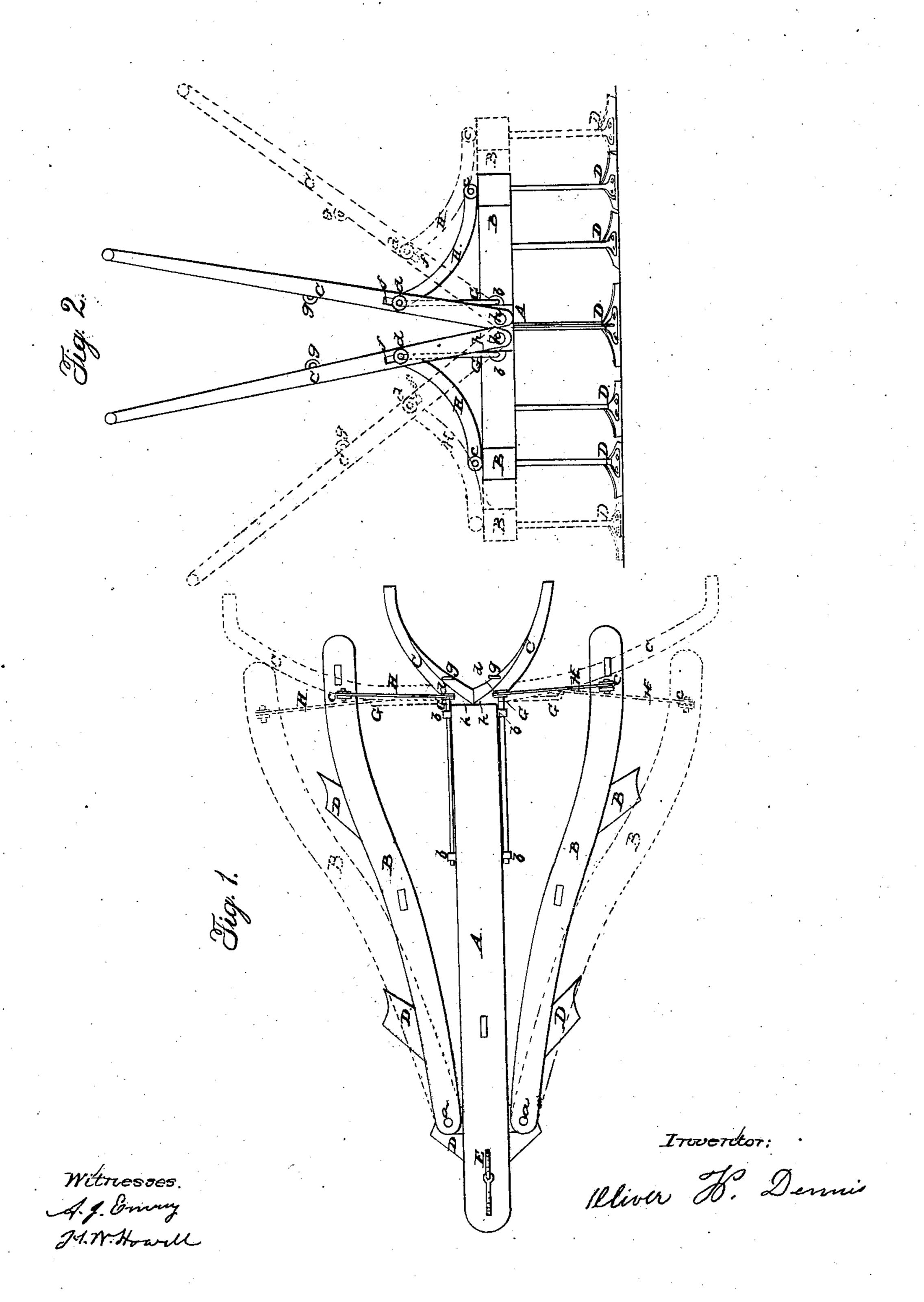
## O. H. DENNIS.

Cultivator.

No. 24,013.

Patented May 17, 1859.



## United States Patent Office.

OLIVER H. DENNIS, OF ALTONA, ILLINOIS.

## IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 24,013, dated May 17, 1859.

To all whom it may concern:

Be it known that I, OLIVER H. DENNIS, of the town of Altona, in the county of Knox and State of Illinois, have invented a new and Improved Cultivator; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Figure 1 is a plan of my improved cultivator, and Fig. 2 a rear elevation thereof.

Like letters designate corresponding parts in both figures.

The cultivator has a central beam, A, to which two side beams, B B, are hinged, respectively on each side thereof, at a a, near the front end of the implement. The beam A is provided with a suitable clevis, E, of proper construction to enable the draft to be adjusted for varying the depth at which the cultivator should run. Both the central beam and side beams are provided with teeth D D, &c., of any desired construction.

My improvement consists in so connecting the side beams, B B, with the handles C C, and arranging both the handles and side beams in connection with the central beam, A, that the position of the side beams and the consequent breadth of cultivation shall be directly under the control of the holder of the implement, to be instantaneously varied by him at pleasure. I accomplish this by the following arrangement, or substantially the equivalent thereof:

The handles C C are pivoted at their lower ends to the rear end of the central beam, A, as seen at h h, so that their upper ends may be brought closely together or separated to any required distance within a practicable limit.

Connecting - bars H H are respectively jointed to the side beams, B B, at c c, and also at their inner ends to the handles C C at points

d d, sufficiently far above the pivots h h of said handles to allow the desired extent of varying movement to be given to the side beams, but not so high as to render the handles difficult to hold and control.

The limit of movement may be determined by other means of connecting rods or bars, G G, pivoted to the handles at d d, and to the sides of the central beam, A, at points b b, eccentric from the pivots h h of the handles, and by employing short slots ff in said handles for the pivots d d to slide in, the length of said slots being such, in relation to the eccentricity of the connecting-rods G G, as to allow only the desired extent of movement of the handles and side beams, and by extending the hinges or pivot-bearings of the rods GG along the sides of the central beam, A, as shown in the drawings, greater strength and firmness are given to the handles CC; but instead of the connecting-rods GG, any equivalent arrangement may be employed—such, for instance, as a chain or rope of the proper length extending between staples or rings g g on the handles. By connecting the handles at these staples, or otherwise, with a rigid rod, the handles may be firmly held in one position, thus rendering the cultivator unadjustable if desired.

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

The arrangement and combination of the hinged handles C C, hinged side beams, B B, and connecting-bars H H, in relation to the central beam, A, substantially in the manner and for the purpose herein specified.

In witness whereof I have hereunto set my hand this 25th day of December, A. D. 1858.

OLIVER H. DENNIS.

In presence of—S. J. WELTON, D. S. MAIN.