

W. H. MOSHER.
CULTIVATOR.

No. 173,324.

Patented Feb. 8, 1876.

Fig 1

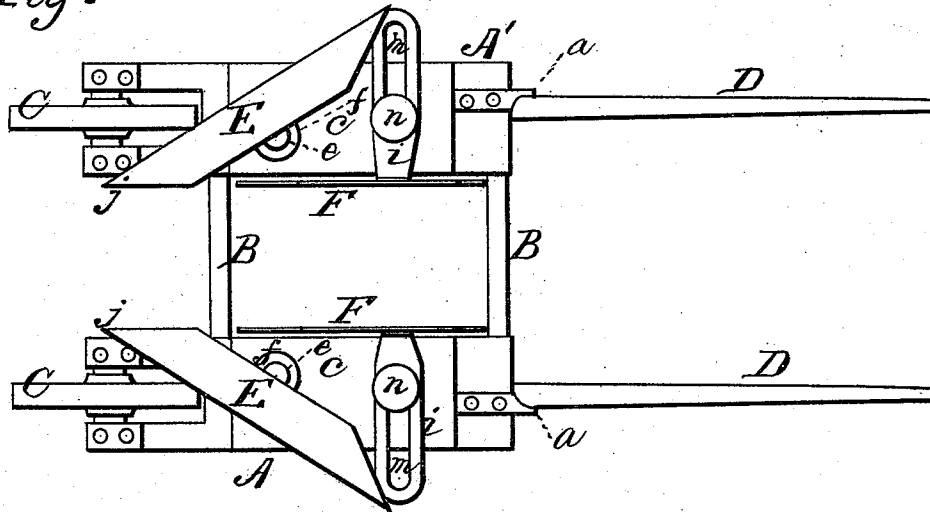
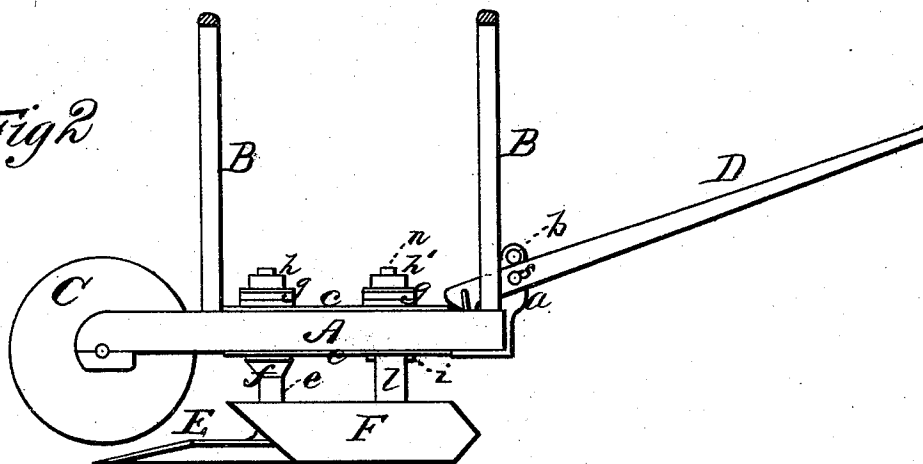


Fig 2



WITNESSES

Robert Everett
E. H. Bates

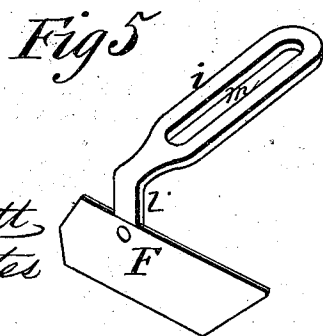
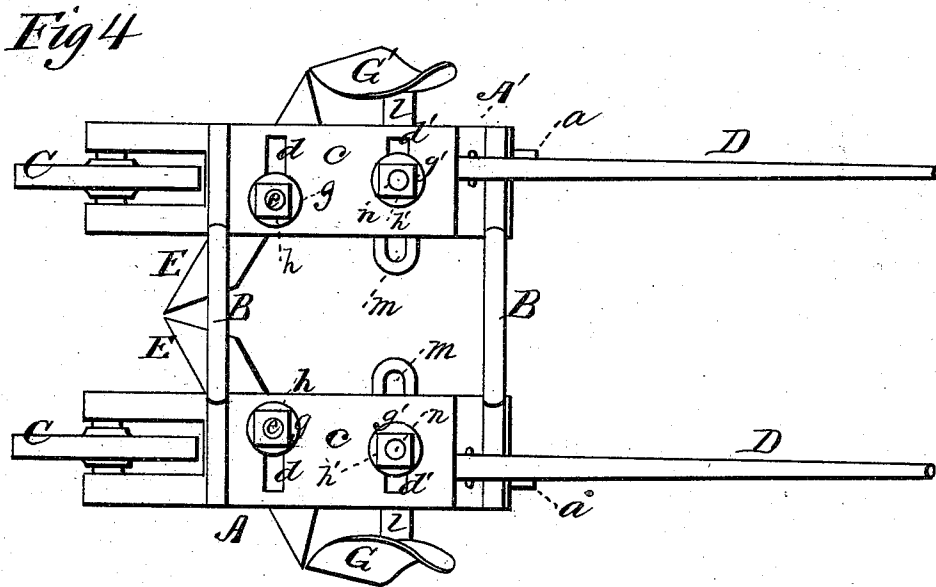
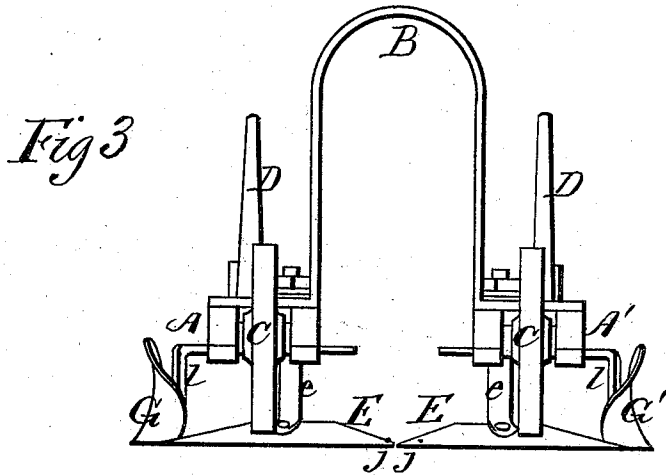
INVENTOR

W. H. Mosher,
Chipman & Fournier, Co.,
ATTORNEYS

W. H. MOSHER.
CULTIVATOR.

No. 173,324.

Patented Feb. 8, 1876.



WITNESSES

Robert Everett
E. H. Bates

INVENTOR

W. H. Mosher
Chipman and Fosmire, to
ATTORNEYS

UNITED STATES PATENT OFFICE.

WILLIAM H. MOSHER, OF OWOSSO, MICHIGAN.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. **173,324**, dated February 8, 1876; application filed November 6, 1875.

To all whom it may concern:

Be it known that I, WILLIAM HENRY MOSHER, of Owosso, in the county of Shiawassee and State of Michigan, have invented a new and valuable Improvement in Cultivators and Weeders; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a bottom view of my cultivator and weeder. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is a front view. Fig. 4 is a plan view. Fig. 5 is a detail view.

This invention has for its object the improvement of implements for cultivating and weeding the soil; and it consists in certain novel means and devices, substantially as herein set forth, whereby the weed-cutter blades and the cultivating-shovels are made respectively adjustable to or from each other, according to the distance between the rows of plants, as will be hereinafter more fully explained.

In the annexed drawings, the letters A A' represent strong rectangular boards of suitable length and width, which constitute the beams of my improved weeder and cultivator. These sections are arranged at a suitable distance apart, and are connected by raised metallic braces B of the form of an inverted letter U. They are also provided with wheels C, arranged in bearings upon their front ends, which support that portion of the frame, and with handles D, the front ends of which are pivoted or hinged to the said boards, and are adjustably secured to metallic arms *a*, projecting upward therefrom, by means of a set or clamp screw, *s*. These arms are provided with a number of spaced perforations, *b*, and the handles D with a single one; consequently the latter are made adjustable to suit a tall or short man. Sections A A' are provided upon their upper and lower surfaces with metallic plates *c*, through which are cut, at a suitable distance apart, and at right angles to the length of the machine, slots *d d'*, which register with similar slots made in the boards A

A', and are in the same vertical plane in both sections. The front slots *d* are designed to receive from below the shanks *e* of cutter-blades E, which shanks are provided each with a collar, *f*, which will prevent the shanks or standards *e* from undue upward penetration. Weed-cutters E are secured to beam-sections A A' by means of a washer or washers, *g*, and a clamp-nut, *h*, applied upon the projecting screw-threaded upper end of the said shanks. By this means blades E are adjustable to or from each other. They are capable also of being angled in relation to each other, so as to weed only a very narrow strip, as when the rows of plants are very close together, and the machine is run between the said rows, or a very broad strip, as when the rows are very far apart. They are also capable of being arranged, as shown in Fig. 1, so as to leave a space between the front ends of the cutter-blades.

In this arrangement the weeder will straddle the row, and the plants will pass between the front edges of the blades and under the bridge-braces B B, the weeds being cut down on both sides of the said row.

In order to prevent earth, stones, or other objects from falling upon and crushing young plants, I employ vertical guard-plates F F. These plates are arranged in rear of the front ends of the weed-cutters, and are provided with angular shanks *l*, having a slot, *m*, cut in their horizontal parts *i*, and they are secured to the beam-sections A A' by means of a bolt, *n*, passing up through slots *m* and *d'*, respectively, in the shank of the guard-plates and sections A A, and a nut, *h'*, applied upon the screw-threaded upper ends of the said bolts, as shown in Fig. 2. By this means these plates are adjustable to or from each other, as the weeder-plates are angled in relation to the sections, for the purpose of approximating or separating their front ends *j j*, so as to weed nearer to or farther from the roots of the plants. These plates, being of suitable height and length, and being arranged just in rear of the weeders E E, will prevent the undermining action of the latter from rolling heavy objects upon and crushing or bruising the plants. Plates E E are removable from the beam-sections, and, when a sim-

ple weeder is required, may be dispensed with altogether—that is, where it is only intended to cut down weeds preparatory to plowing them under.

The implement above described may be converted at any time into a “between-row” cultivator and weeder by detaching the guard-plates, and substituting in lieu thereof mold-boards G G', which, like the said plates, are secured to an angular metallic shank, *l*, having a slot, *m*, cut in the horizontal part of the shanks, by means of the bolt *n*, washer or washers *g'*, and clamp-nut *h'*. The penetration into the soil, both of the weeder-plates and mold-boards, may be increased by removing the washers from the upper ends of bolts *n e*, replacing them thereon next the heads and collars *n f*, and reapplying the said bolts

or standards, as above described, to the beam-sections.

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

In a weeder, the combination of the beam-sections A A', connected by arched braces B, and provided with spaced transverse slots *d d'*, the horizontally-vibratory and laterally-adjustable weed-cutting blades E, and the plow G, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM HENRY MOSHER.

Witnesses:

GEO. R. MOSES,
C. E. HERSHEY.