

D. EDDLEMAN'S CULTIVATOR.

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PATENTED AUG 1 1871

Fig. 1.

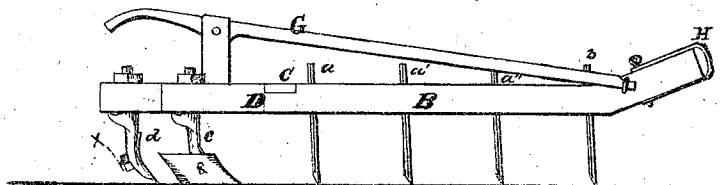


Fig. 2.

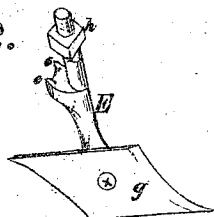


Fig. 3.

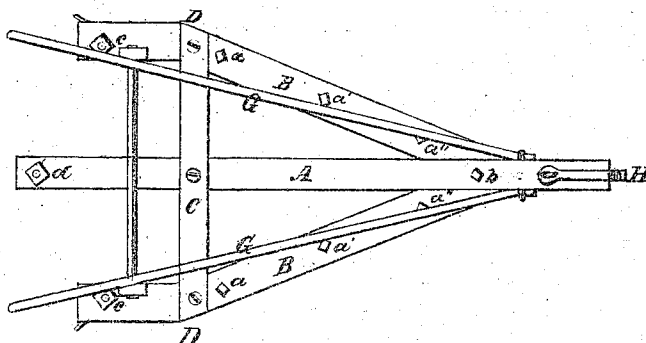
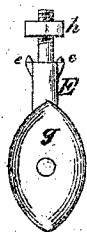


Fig. 4.



Attest.

Samuel Johnson
Wm. C. Street & Co.

Inventor.

D. Edelman
By his atty
M. J. Smith & Co.

UNITED STATES PATENT OFFICE.

DANIEL EDELMAN, OF MADISON, INDIANA.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 117,524, dated August 1, 1871.

To all whom it may concern:

Be it known that I, DANIEL EDELMAN, of Madison, in the county of Jefferson and State of Indiana, have invented certain Improvements in Cultivators, of which the following is a specification:

My invention consists in the construction and arrangement of the parts of a cultivator, more fully hereinafter set forth.

Figure 1 is a side elevation of my machine. Fig. 2 is an enlarged view of one of the side hoes. Fig. 3 is a plan of my machine. Fig. 4 is an enlarged view of the central hoe.

Let A represent the central, and B B side bars of the main frame. These are tied together by the cross-bar C. The side bars B B are not straight, like the central bar, but have angles formed in them, as shown at D D. This angle is such that the rear portions of the bars are parallel with the center bar, and the forward portions converge, so as to form a junction with said bar, as shown. The oblique portions of the side bars are provided with harrow-teeth *a a' a''*, and the central bar has also a tooth, *b*. The parallel portions of the side bars are each furnished with a hoe, *c*, (see Fig. 2,) and a hoe, *d*, of different construction, (see Fig. 4,) is also attached to the rear end of the central bar A.

Although I do not claim the hoes separately as my invention, they form an important part of my combination, and I will describe them. The blade *g* of the hoe is secured to the lower end of the standard E by means of a nut and bolt, which allows the blade to be reversed when the lower edge becomes dull, the blade being exactly alike above and below. The shank of the standard is provided with a thread and nut, *h*, for securing

it to the bar of the machine, and has, also, projecting points or teats *e e*, which bite into the under side of the bar when the nut is screwed tight down, and prevent the standard from turning. This arrangement allows the operator to set the side hoes at any desired angle with the line of draft, so as to throw up a large or small quantity of earth, at pleasure. The harrow-teeth break up the crust on the surface and prevent the hoes from throwing up clods. The object in forming angles in the side bars is to compel the side hoes *c c* to follow in the track of the rear harrow-teeth *a a*, which they would not do if the bars were straight. This can readily be seen by inspecting the plan, Fig. 3. The central hoe *d* follows in the track of the tooth *b*. By interchanging the side hoes the earth may be thrown inward, which is sometimes desirable. G G are the handles, and H the clevis. Further description of these is unnecessary. The side hoes *c c* are attached to the standards or shanks E E by a single bolt, *x*, so that the hoes may be reversed to use the upper edge when the lower one shall have become worn.

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

The interchangeable side hoes *c c*, provided with teats or projections, as described, for adjusting the angle of their position, and with reversible blades or shears, when arranged in combination with the harrow-teeth *a a' a''*, in the manner and for the purpose herein specified.

DANIEL EDELMAN.

Witnesses:

M. T. Fox,
SMITH L. ROSSITER.