2 Sheets--Sheet 1.

# W. WEAVER.
## Cultivator.

No. 166,044. Patented July 27, 1875.

Fig. 1

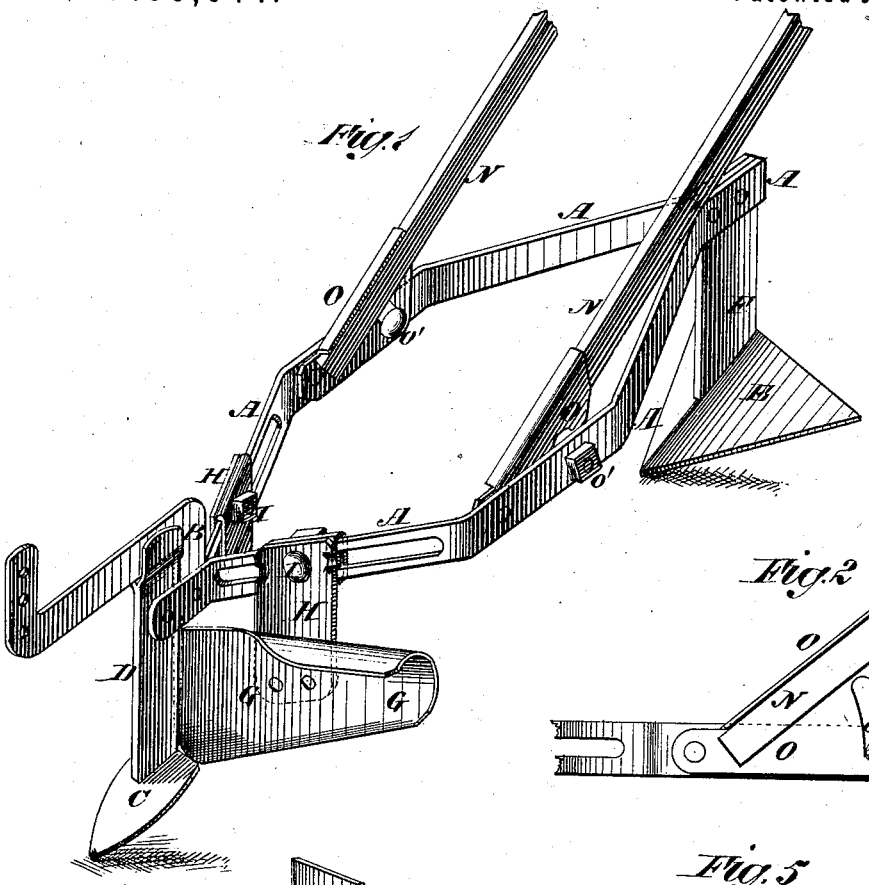



Fig. 2

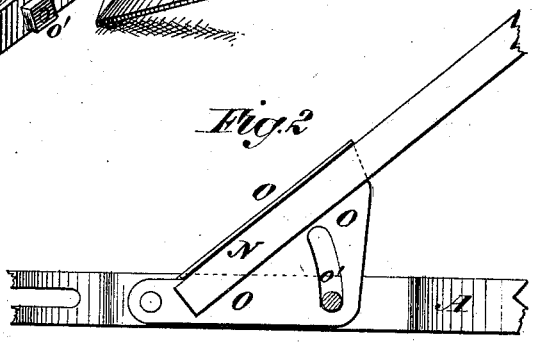



Fig. 3

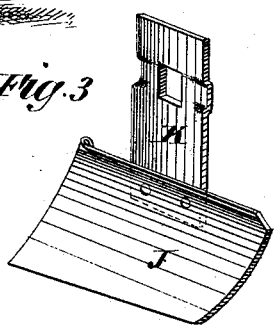



Fig. 5

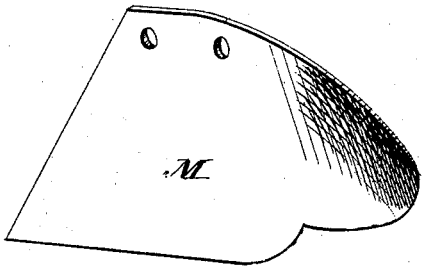
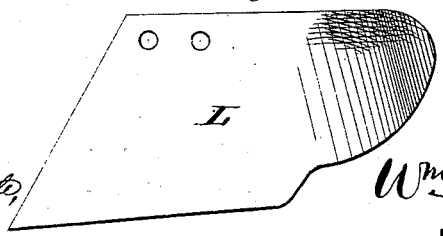



Fig. 4




WITNESSES:
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INVENTOR:
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W. WEAVER.

Cultivator.

2 Sheets--Sheet 2.

No. 166,044.

Patented July 27, 1875.

Fig. 6

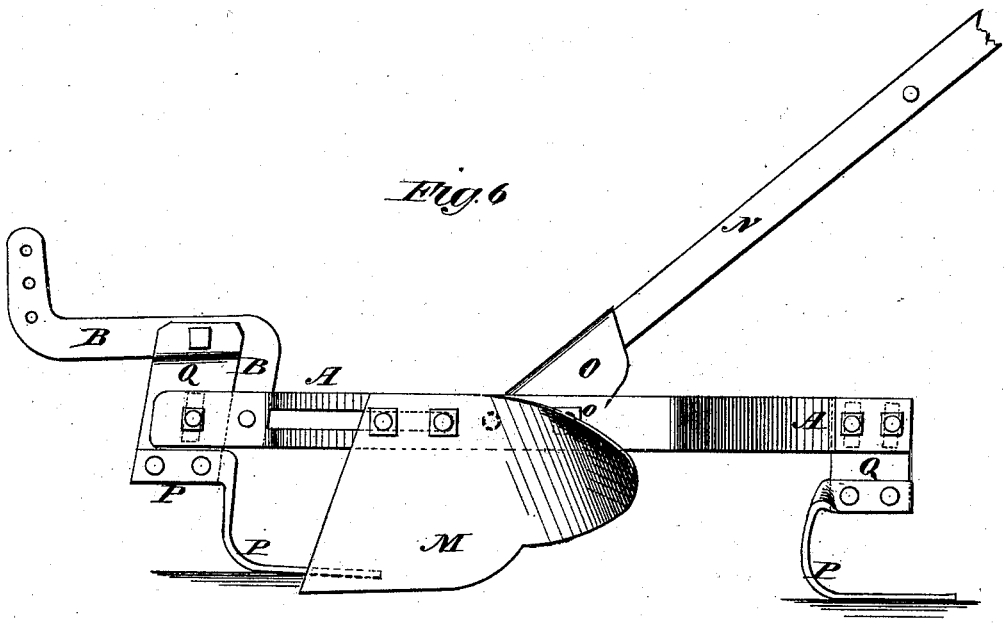


Fig. 7.


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# UNITED STATES PATENT OFFICE.

WILLIAM WEAVER, OF GREENWICH, NEW YORK.

## IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. **166,044**, dated July 27, 1875; application filed May 15, 1875.

*To all whom it may concern:*

Be it known that I, WILLIAM WEAVER, of Greenwich, in the county of Washington and State of New York, have invented a new and useful Improvement in Cultivator, &c., of which the following is a specification:

Figure 1, Sheet 1, is a perspective view of my improved machine arranged as a potato-digger. Fig. 2, Sheet 1, is a detail view of the device for securing the handle. Fig. 3, Sheet 1, is a detail view of one of the weeding-hoes. Fig. 4, Sheet 1, is a detail view of one of the hilling-hoes. Fig. 5, Sheet 1, is a detail view of one of the covering-hoes. Fig. 6, Sheet 2, is a side view of my improved machine arranged for covering seed. Fig. 7, Sheet 2, is a front view of one of the shoes.

Similar letters of reference indicate corresponding parts.

The invention will first be fully described in connection with drawing, and then pointed out in the claims.

A are the side bars of the frame, the middle parts of which are made straight and parallel with each other for a short distance. The end parts of the bars A then incline toward each other, and their ends are bent outward parallel with each other, and are bolted together. The frame A is thus diamond-shaped, with its side or obtuse angle cut off. To and between the forward ends of the bars A is bolted the lower end of a draft-bar, B, which projects upward, forward, and again upward, and has a number of holes formed in its upwardly-projecting forward end to receive the draft, so that the point of draft attachment may be adjusted higher or lower, as may be required. C is the forward or opening plow, the standard D of which is bolted to and between the forward ends of the bars A, and to the horizontal part of the draft-bar B. E is the rear plow, the standard F of which is bolted to and between the rear ends of the bars A. G are the hoes or mold-boards, which are used for digging potatoes, and which are so formed as to turn the furrow-slice bottom side up, leaving the potatoes upon the top of the soil. The hoes G are attached to the lower ends of the standards H, the upper ends of which are secured to the forward inclined parts of the bars A by bolts I, which pass through longitudinal slots in said parts. The standards H have ribs or projections formed upon the rear side of their upper parts to enter the slots in the bars A, to prevent the said standards from turning upon their bolts I. With this arrangement the forward plow C D will open the hill, the hoes G H will turn the soil over, leaving the potatoes upon the top of the ground, and the rear plow E F, running a little deeper than the plow C D, will raise any potatoes that may be left by said plow C D. For the first hoeing the hoes J are used, which are attached to the standards K, and the said standards are secured to the slotted bars A by bolts I, in the same manner as the standard H. The lower edges of the hoes J are slightly curved forward, so that they may skim or shave off the weeds without throwing much soil around the young plants. For the second hoeing or hilling the hoes L are used, which are made with their outer ends curved or somewhat mold-board-shaped, to throw soil around the plants. The hoes L are made wide, and have two holes formed in their upper parts to receive bolts for securing them to the slotted side bars A. This construction enables them to be adjusted wider apart or closer together, according to the distance apart of the rows to be operated upon. For covering potatoes and other seeds the hoes M are used, which are secured adjustably to the frame A in the same way as the hilling-hoes L, and are made similar to said hoes, except that they should have a greater curve, so as to throw the soil over and cover the seed. N are the handles, the forward ends of which are inserted and secured in sockets formed along the inclined upper edges of the triangular plates O, or are secured to said plates O without sockets. In the latter case the edges of the plates O should be bent down to overlap the upper edges of the said handles, and thus make the connection firmer. The plates O are pivoted at their forward angles to the straight middle parts of the side bars A. The rear parts of the plates O have curved slots formed in them to receive the bolts *o'*, by which they are secured to the said side bars A, so that the handles N can be conveniently raised and lowered to adjust them to the height of the person using the machine.

When the machine is to be used for covering seed the forward and rear plows C D and E F may be detached and replaced by the shoes P, the standards Q of which have short slots formed in them for the passage of the fastening-bolts, so that the said shoes may be raised and lowered to adjust the covering-hoes M to work deeper or shallower in the ground, according as it may be necessary to cover the seed deeper or shallower.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The angular bars A A, slotted in their front sections, in combination with the angular draft-bar B and standard D, forming a cultivator of nearly diamond shape, and adapted to receive alternate cultivating devices, as shown and described.

2. The combination of angular slotted frame A A, draft-bar B, slotted handle-sockets O, standards D F H, and plows C G E, all arranged substantially as and for the purpose specified.

WILLIAM WEAVER.

Witnesses:
W. L. COZZENS,
S. L. STILLMAN.