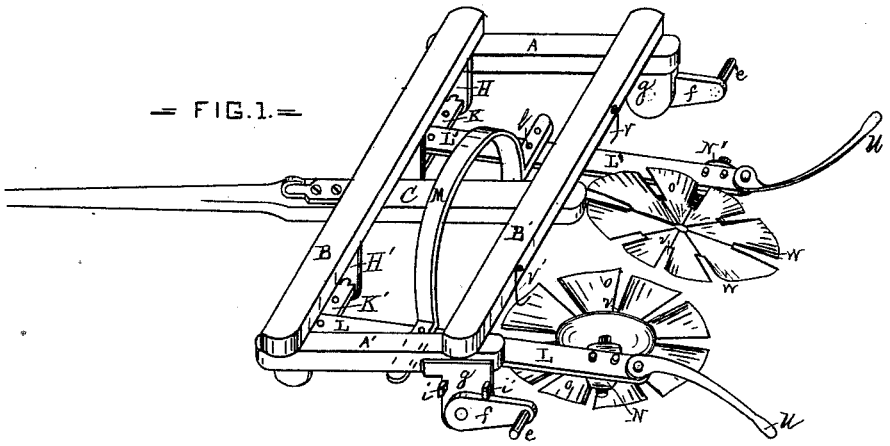
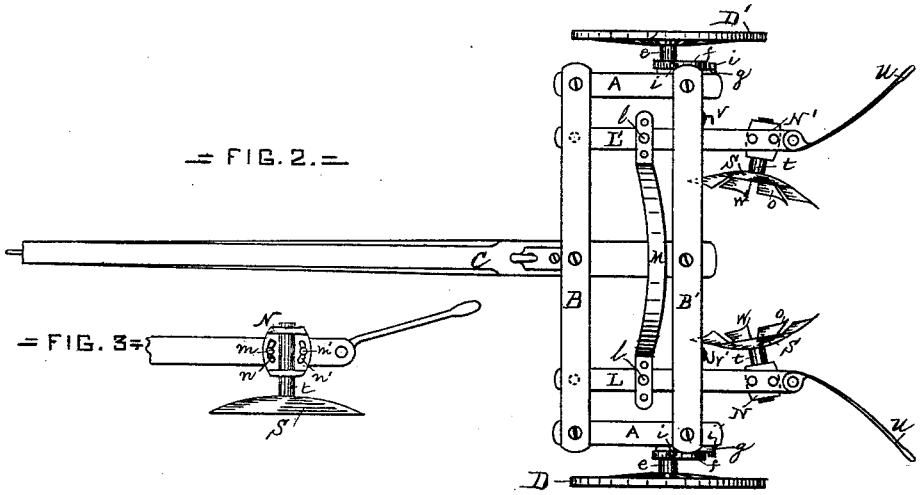
J. MALLON.
Cultivator.

No. 206,185. Patented July 23, 1878.

= FIG. 1. =



= FIG. 2. =



= FIG. 3. =

WITNESSES.

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JAMES MALLON, OF BATON ROUGE, LOUISIANA.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. **206,185**, dated July 23, 1878; application filed December 22, 1877.

To all whom it may concern:

Be it known that I, JAMES MALLON, a resident of the city of Baton Rouge, parish of East Baton Rouge, and State of Louisiana, have invented a certain new and useful Improvement in Cultivators; and I do hereby declare the following to be a full, clear, and correct description of the same, reference being had to the annexed drawing, making a part of this specification.

This invention relates to an improved machine which is designed to supersede the use of ordinary hoes, its object being to cover the roots of young plants or seed-cane, &c., with loose earth.

The nature of the invention is clearly shown in the accompanying drawing, whereon Figure 1 represents a perspective view of the same with supporting-wheels omitted, in order more fully to exhibit its working parts. Fig. 2 is a plan or top view of the machine. Fig. 3 is a view from the under side of one of the cutter-shaft journal-boxes, showing the manner in which it is adjustably secured to its beam.

The frame of this machine is composed of two longitudinal strips of timber, A A′, which are connected, at certain distances apart, by cross-strips B B′, the latter having secured at their centers a projecting pole, C, to which it is designed draft-animals shall be attached in the usual manner.

The above frame is mounted on a pair of wheels, D D′, the latter operating on pins *e*, that are secured near the outer extremity of the arms *f*. These are pivoted to the side plates *g*, that are bolted near the rear of the frame in a manner which will admit of the axis of the wheels being thrown under the frame, or to the rear thereof, the lugs *i i* on the sides of the plate forming bearings for the arms when thrown in either of the above-indicated directions, and holding the same in nearly, if not quite, a horizontal position.

To the lower edge of the front cross-strip B is secured, at certain distances apart, two pairs of brackets, H H′, the lower ends of which are perforated to receive the rounded ends of the rocking pieces K K′, which are each provided with a series of perforations for adjustably connecting the forward ends of the beams L L′. The latter are connected by an arch-piece, M, which operates between the cross-pieces of the frame, straddling that portion of the pole which is secured thereto.

The lower ends of the above-mentioned arch-piece are bent in a horizontal position, and each of the said ends furnished with a series of holes for the reception of bolts *l*, by which the said beams are secured thereto, thus affording a means for changing the angle of the beams whenever the nature of the work may so require.

On the under side of the aforesaid beams, and near the ends thereof, are secured, by means of bolts *m m′*, the journal-bearings N N′, the bolt-holes of which are elongated, as at *n n′*, so that the angle of the cutter-shafts may be changed at will, thus enabling the operator to adjust the cutters, as hereinafter described, to suit the work to be accomplished.

The cutter-blades *o* are formed of sheet or hammered metal, with sides running to an acute angle, and with offsets in each side, as at *r*, which permits of eight blades (more or less) being secured, so as to leave spaces between the portions that project beyond their concave centers *s*, the latter keyed or otherwise rigidly secured to the inner end of the shaft *t*, as shown.

The outer edges of the above-mentioned blades are cut to a circle, with sharpened edges, and with their rear corners curved slightly inward, as at *w*, so as to throw the loose earth, which is brought up clear of the level of the ground, toward the center of the machine, the distance to which the earth is thrown being lessened as the axis is brought nearer to a right angle with the course traversed by the machine.

From the above it is evident that with two sets of cutters operating inward, as described, the loose earth will mingle midway between the two and fall lightly over the young plants or seeds, as the case may be.

The rear of each beam is provided with a handle, U, which is made to project to one side of the same, in order that the operator may follow on one side of the row.

Hooks *r r′* are suspended from the rear cross-

piece for holding the beams and cutters clear of the ground when the machine is not in operation.

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

The improved cultivator herein described, provided with adjustable beams L L′, each furnished with revolving cutters, the blades of which are curved, substantially as described, and operated on an adjustable bearing, for the purpose set forth.

In testimony whereof I have hereunto signed my name.

JAMES MALLON.

In presence of—
J. N. MÜLLER,
J. C. HUBBELL.