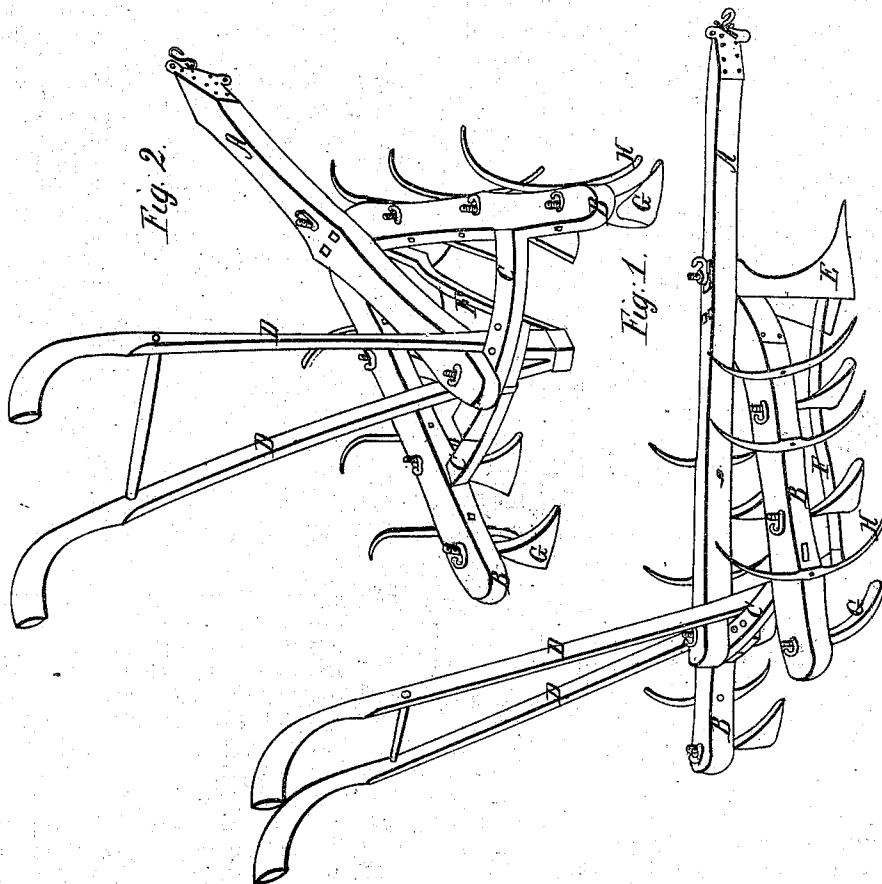
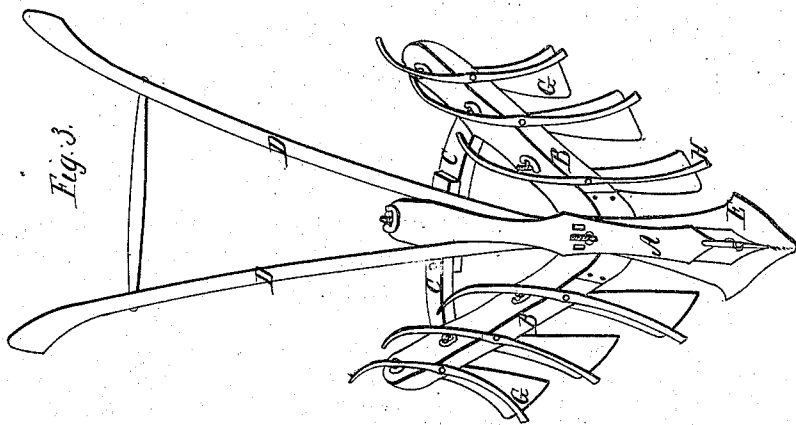


J. Mason.

Cultivator.

N^o 2,650.

Patented May 28, 1842.



UNITED STATES PATENT OFFICE.

JOHN MASON, OF HADDONFIELD, NEW JERSEY.

IMPROVEMENT IN CULTIVATORS FOR VINES, &c.

Specification forming part of Letters Patent No. 2,650, dated May 28, 1842.

To all whom it may concern:

Be it known that I, JOHN MASON, of Haddonfield, in the county of Gloucester and State of New Jersey, have invented a new and useful improvement on all cultivators before in use in all its parts, with the addition of hands or vine-lifters attached thereto; 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 part of this specification, in which—

Figure 1 is a perspective view. Fig. 2 is a transverse view. Fig. 3 is a front view.

Letter A is the beam (wood) four feet long, three inches wide at the widest place, and two and one-half inches thick, goes off to a taper, perpendicular at the forward end, to which is attached a permanent clevis having four holes, by which I graduate the single-tree up or down.

Letter B are the wings, into and on which are inserted the hoes and hands. They are sharp at the forward end, which is covered with an iron plate about six inches, fastened by rivets passing through them and the end of the wings, which secures the end from splitting. They are two and one-half feet long, two inches thick, and two and one-half inches wide. They are made fast to the beam on the under side by two screw-bolts passing through the beam opposite each other, through the forward ends of the wings, and through a coupling-plate of iron under the end of the wings, and made permanent by nuts on the end of the screws; so the wings play off and on between the beam and coupling-plate, like a hinge. They are graduated wide and narrow by two circular bars of wood, letter C, which are half as thick as the wings, into which they are inserted by tenons, the shoulder of one being flush with the top side of one wing and the shoulder of the other being flush with the under side of the other wing. They exactly match and play on each other and under the end of the beam, letter A, behind the handles, and are made fast by a screw passing through them and the end of the beam, and screwed on the top of the beam by a hand-nut. There are holes through these bars to correspond with that in the end of the beam, so as to give the wings three different widths—viz., two, two and one-half, and three feet.

Letter D are the handles. They stand on an

angle with the beam of about forty-five degrees, and are made fast to it by a strong iron rivet passing through them and the beam. They then pass down to the ground through a socket in the after part of the main iron E, which is principally cast-iron, and is about nine inches deep from the beam, to which it is made fast, down to the ground on the two shares which enter the ground on a parallel with the nose. Both shares and nose operate something like a small plow. From the end of the nose the iron commences to rise very gradually at first, and continues to do so, with a little increase of rise, until it gets three and one-half inches above where it enters the ground, when it rises abruptly, and so continues until about two inches of the beam, where it takes a turn forward, which brings it to the beam. It is sharp from the end of the nose about three inches up, where it begins to round, and is a perfect smooth front all the way up to the beam, where it is about two inches wide, and so continues to widen down to the part that enters the earth, and there with an increase to the shares, and they project on each side about one and one-half inch, so that the bottom of the shares are seven inches wide from right to left and nine inches from the end of the nose to the back part of each share. It is hollow on the inside. The back part runs up from the shares nearly straight, so that each side operates like two small mold-boards. This front part is cast into a piece of wrought-iron three-fourths of an inch wide and one inch thick. The wrought-iron enters the casting about two inches above a parallel with the nose and shares, and continues so nearly to the socket, into which the handles are inserted, where it falls on a parallel with the nose and shares.

Between where the wrought enters the cast iron and the handle-socket is about sixteen inches. Close to where the wrought enters the cast iron there is a hole punched through the wrought large enough to receive a five-eighths-inch square iron bolt. This bolt passes up through the concave of the cast-iron, and so up through the beam, where it is made permanent by a screw and nut on the end.

Letter G are the hoes, which may be made of cast or wrought iron, according to the soil to which they are to be applied. They are about three inches wide at the bottom. In the forward part of the inside is a little colter or

supporter about one-half inch wide, from which proceeds a wing outward and concave, so that the bottom turns out nearly parallel with the ground, about as near as a man standing would hold a hoe, while their side is something like a mold-board. The hoes stand in the two wings B, so that when the two wings are spread three feet the inside of the forward hoe is parallel with the outside of the main iron. The second hoe, the inside of which is parallel with the outside of the forward hoe, and so on to the last. There may be three or four on a side, according to the bigness of the dresser. The hoes are inserted into the wings by a square shank about three-fourths of an inch square, which passes up to within about a half an inch of the top of the wings, then furnished by screws, which come through the top of the wings, and made fast by a nut on the screw.

Letter H are the hands or vine-lifters. They are of wrought-iron, and are made fast to the wings on the outside by a screw passing through them and the wings horizontally, and screwed by a nut on the inside of the wings. The wings are beveled on the outside, which throw the lower part of the hands outward. From the top of the wings downward the hands are three-fourths of an inch wide and one-fourth of an inch thick. They are let into the wood about their thickness to give them stability. From the wings down to the point they have a gradual turn, so that the point enters the ground as though inserted square with the beam. They stand so that on a straight line from the bottom to where they are made fast

to the wood makes an angle of about forty-five degrees forward and outward. The space from where they are made fast to the lower point is described by a half spiral curve. They are round above the wing and turn gradually outward to prevent the vines from coming into or on the dresser. The outside that comes in contact with the vines is oval and smooth all the way. Each band is set so as to precede the hoe about four inches.

The operations of my invention are as follows: The main iron enters the ground from three to five inches deep, according to pleasure, above which it is so smooth as not to cut the vines that may lie across the way. This gives the vines a raise up. The first pair of hands then takes them, the second, third, &c. At the same time the hands have the vines up the hoes are cultivating the ground, and are constantly giving the earth a tendency toward the hill. The greatest benefit to be derived from this instrument is in cultivating sweet and round potatoes.

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

The hands: They are entirely a new invention, and their operation is as described in this specification, and forasmuch as they may be usefully applied to other instruments I wish all secured.

JOHN MASON.

Witnesses:

SAMUEL W. MASON,
NEHEMIAH MORRISON.