J. S. LESTER.

Farm and Garden Hoe

No. 205,879. Patented July 9, 1878.

Fig. 1.

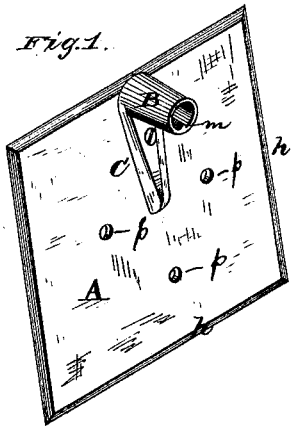


Fig. 2.

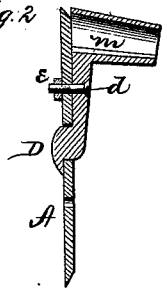


Fig. 3.

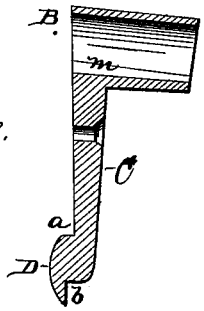


Fig. 4.

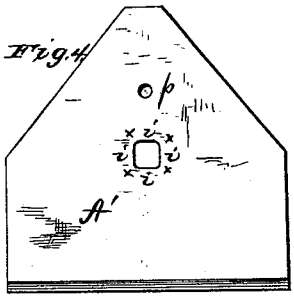
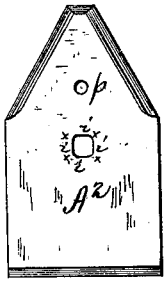


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

JAMES S. LESTER, OF ATLANTA, GEORGIA.

IMPROVEMENT IN FARM AND GARDEN HOES.

Specification forming part of Letters Patent No. **205,879**, dated July 9, 1878; application filed April 8, 1878.

To all whom it may concern:

Be it known that I, JAMES S. LESTER, of Atlanta, in the county of Fulton, and in the State of Georgia, have invented certain new and useful Improvements in Farm and Garden Hoes; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

My present invention consists in an improvement upon Letters Patent No. 190,878, dated May 15, 1877, granted to me; and it consists in the defined construction of parts, hereinafter set forth and claimed.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a perspective view of the hoe-blade, with eye attached thereto. Fig. 2 is a transverse vertical section of the same. Fig. 3 is a section through the eye and its shank. Figs. 4 and 5 show different forms of hoe-blades.

A represents a square hoe-blade, and A^1 and A^2 show other forms of blades. B represents the eye or socket for the insertion of the handle, said eye being provided with an arm, C, having at its lower end, on the under side, a downwardly-projecting lip, D, forming two shoulders, *a* and *b*, as shown particularly in Fig. 3.

The lip D is passed through a hole in the center of the hoe-blade A, in the manner shown in Fig. 2, and the arm C then fastened by a bolt, *d*, and nut *e*.

The hole in the blade is made in the form shown in Figs. 4 and 5, having straight sides *i*, with rounded corners *x*, which rounded corners do not weaken the blade, as a square corner would, yet the square or straight sides *i* of the hole prevent the eye or socket from changing to the right or left when the lip D has been passed through said hole; also, preventing the wear and strain that would be on the bolt *d* if the hole were made round.

The blade is provided with four holes, *p*, at equal distances from the central orifice, so as to change the arm C in any direction desired.

By making these parts of the same size on all four sides, the eye may be changed from one position to any other position desired, so as to give four cutting-edges in the same blade.

The blade A is made sharp by grinding or filing the same to a chisel-bevel edge on the front side of the blade when attached for use, as shown at H H. This bevel is directly the opposite to that which the blade will wear by use; and when the hoe has become dull by use the bevel is worn on the back or under side. The eye can then be changed from the front to the rear side of the blade, and the bolt passed through the same hole, which reverses the bevel, thus making the hoe a self-sharpener.

The same operation will change a rounded corner from right to left, or vice versa, which is of considerable service to the farmer, as a right-handed man will wear off one corner rounded, while a left-handed man will wear the opposite corner.

The top of the blade is nearly on a line with the upper part of the eye or socket, which gives the operator the chance of turning the hoe over, giving him a square cut on grass, weeds, &c., that may be directly behind the hill or stalk he is working, instead of striking backward with the lower edge, which would pass back over them without cutting, on account of the angle the lower edge would set at for a back lick or a stroke directly between the plant and the operator.

To the same eye may also be attached either of the blades A^1 or A^2, to be used for planting garden-seeds, working tobacco, or similar large spread plants, and also as hoes. A rake or other farm or garden implement may also be attached to the same eye and handle.

The eye B is provided on the inside with one or more raised ribs, beads, or keys, *m*, running lengthwise; and when the handle is driven in the eye these keys become embedded in the handle, and thus prevent the eye from turning around on the handle, and also brace or strengthen the eye.

The eye B is larger at the rear than the front, which makes it easy to adjust the hoe

at any desired angle to the handle by the insertion of wedges above or below, so as to set it more digging or scraping. To drive a wedge in the center of the handle expands it equally in both directions, and will give it a different or intermediate set.

In my former patent referred to I used a bent hoe having two enlarged slots, and a metallic head having two projecting lugs, and a metallic strap connecting the blade to the head by passing through the top lug and by a screw.

I disclaim what is shown in such patent. With my present invention I dispense with the top-projecting lug on the head and the metallic securing-strap. I also dispense with enlarged slots in the blade, and am enabled to use a flat hoe-blade, and to rigidly clamp it to the head.

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

The combination of the reversible hoe-blade, provided with a central orifice having straight sides and rounded corners and four equidistant bolt-holes, *p*, the arm C, connected to the socket B, and having at its extremity the lip D, which forms a projection, *b*, and shoulder *a*, said arm being secured to the blade by a single screw or bolt, *d*, through holes *p*, and capable of being adjusted in the central orifice to allow any edge of the blade to act upon the earth, as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 18th day of March, 1878.

JAMES S. LESTER.

Witnesses:
JOHN HALLOREM,
I. J. ASHBROOK.