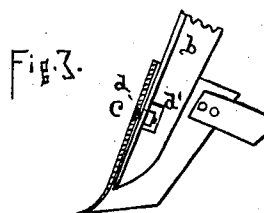
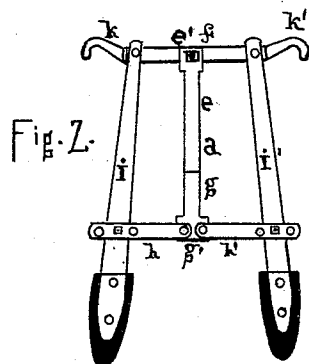
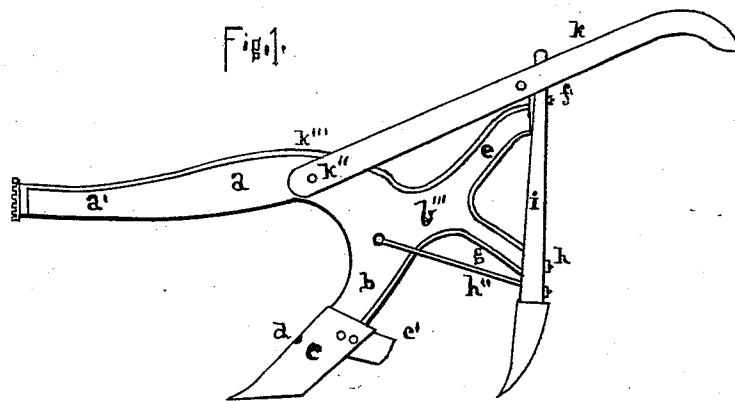


H. D. GREEN.
CULTIVATOR.

No. 170,549.

Patented Nov. 30, 1875.



G. J. Parker,
A. M. Lucas

Witnesses.

Herman D. Green
Inventor.

UNITED STATES PATENT OFFICE.

HERMAN D. GREEN, OF ITHACA, NEW YORK, ASSIGNOR TO FREEMAN,
VALENTINE & GREEN, OF SAME PLACE.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. **170,549**, dated November 30, 1875; application filed
May 27, 1875.

To all whom it may concern:

Be it known that I, HERMAN D. GREEN, of Ithaca, Tompkins county, New York, have invented an Improved Corn-Cultivator, which is set forth in the following specification, reference being had to the accompanying drawings.

My object is to simplify, give stability and usefulness to this implement; and the nature of my invention will be apparent as I describe it.

Figure 1 is a side elevation of my corn-cultivator; Fig. 2, a rear view of the mode of supporting the hand-handles and hoes, and Fig. 3 a view of the mode of holding the shovel-hoe to the arm which supports it.

In Fig. 1, *a* is my cast-iron beam, which, for the purpose of explaining it, I shall consider as divided into several parts or divisions, of which *a'* is the front or draft division, and *b* the shovel-hoe division, having the shovel-hoe *c* attached to its lower part. At *k''*, the highest part of the curve connecting *a'* and *b*, the hand-handles *k k'* are fast to the beam, and project backward and upward; and near their middle part these hand-handles are connected by the metallic cross-bar *f*, to which bar *f*, between its middle and the handles, the standards *i i'* are secured by bolts, and which standards have on their lower ends the rear hoes. A little below the place where the hand-handles *k k'* are fast, as seen at *k''*, to the cast-iron beam, a rear arm or projection, *b'''*, extends backward, nearly horizontally, a short distance, when it divides into two parts, *e* and *g*. The upper division *e* extends to the bar *f*, to the middle of which it is bolted, and thus, by this bar *f*, this arm *e* holds fast, first, the standards *i i'*, and, second, farther off on each side of it, at the ends of the bar *f*, the hand-handles *k*. The lower arm *g* extends from the middle arm *b'''* downward and backward to a place midway between the standards *i i'*, whence either one or two bars, *h h'*, extend on each side of the end of the arm *g* to the standards *i i'*. Brace-rods *b' b''* extend from the arm *b* to the standards.

It will be noticed that the arm *e*, the bar *h*, and the braces *h''* and standards *i i* make a triangular hollow pyramidal or conical shaped device, that with or without the arm *g* makes a stout support for the standards *i i*, although the bar *f* separates the standards, so that their tops do not meet in the top or apex of the triangular cone or pyramid thus made. This arrangement, with the use of the arm *g*, makes a useful and serviceable corn-cultivator; and without the arm *g* it also makes a very useful and serviceable corn-cultivator; and, hence, it is apparent that my invention is not confined to the arm *g*, as that can be easily dispensed with, and yet my invention be not invalidated, as it is for the rigid, stout structure of a corn-cultivator that I have made my arm *e*.

The whole cast beam *a* is made in one piece, and consists of the draft-arm *a'*, the shovel-arm *b*, and the rear arm *b'''*, and its divisions *e* and *g*, and is cast in one part or piece or casting for the sake of the peculiar rigidity, ease of handling, and freedom from complex parts.

It is apparent that the rear division *g* may be omitted, and a corn-cultivator of much utility is thus made, yet the full benefit cannot be had except by the use of both *e* and *g*. Hence, while I consider it best to use both divisions or arms *e* and *g*, the advantages of my invention are not confined to the use of both arms in one and the same implement.

The shovel hoe *c* is fast to the division or arm *b* by the bolt *d*. Wings *c'* are secured to the shovel-hoe *c*.

In Fig. 2, the plate *e'*, cast as a part of, and on the end of, the arm *e*, is seen with bolt, fastening the bar *f* to the arm *e*.

The other advantages and uses of my invention are apparent to those skilled in the art to which it appertains.

I claim—

1. The beam *a*, cast in one piece, and consisting of the extensions or parts *a'*, *b*, *e*, and *g*, as shown and described.

2. The beam *a*, constructed as shown and

described, in combination with the cross bars *f* and *h*, standards *i i*, and handles *k k'*, arranged substantially as and for the purpose set forth.

3. In a shovel-cultivator, the beam *a' b* and arm *e*, cast in one structure, in combination with the front shovel-plow, and the two rear

hoes and their standards *i*, the arm *e* supporting said rear standards near their top, as set forth.

HERMAN D. GREEN.

Witnesses:

S. J. PARKER,
A. M. LUCAS.