I. B. Arthur.

Corn-Plow & Cultivator.

No. 74032 Patented Feb. 4, 1868.

Fig. 1

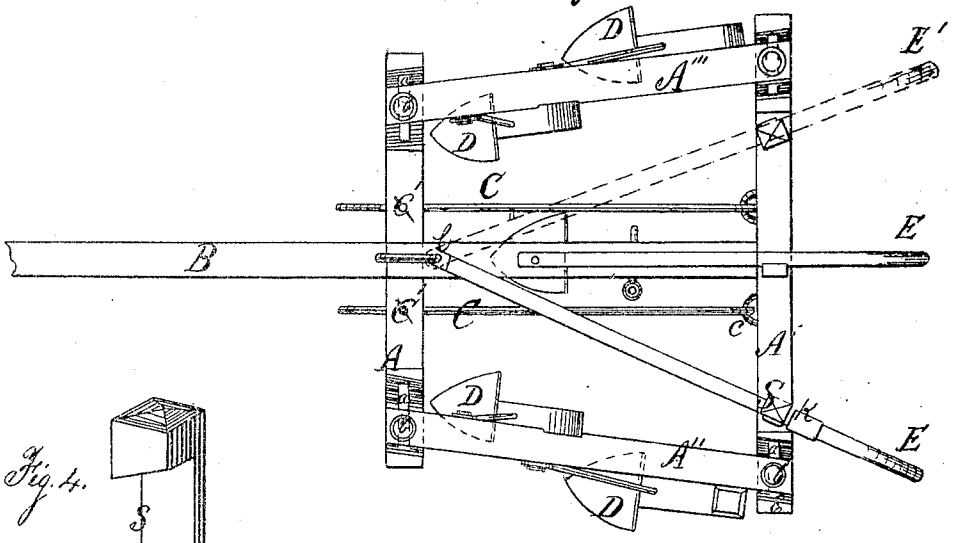


Fig. 4.

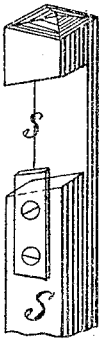


Fig. 2.

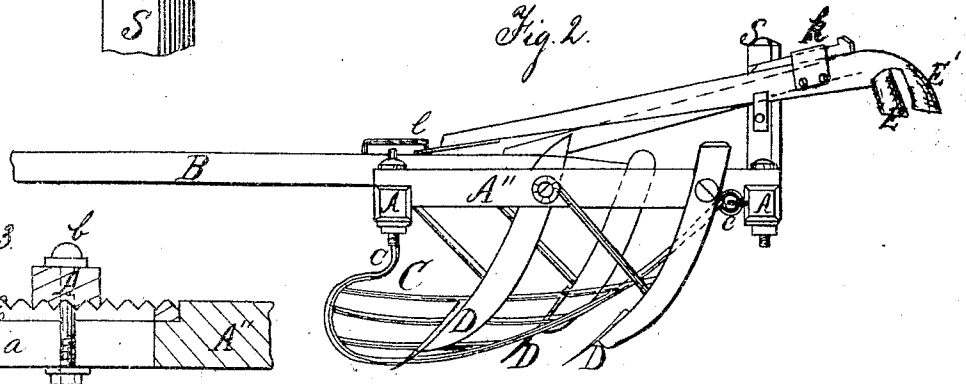
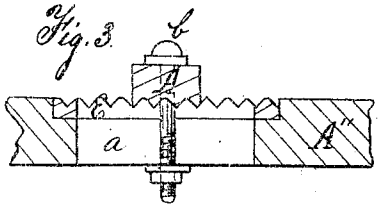


Fig. 3.



Witnesses.

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ISAIAH B. ARTHUR, OF SIDONSBURG, PENNSYLVANIA.

Letters Patent No. 74,032, *dated February* 4, 1868.

IMPROVEMENT IN CORN-PLOUGH AND CULTIVATOR.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, ISAIAH B. ARTHUR, of Sidonsburg, in the county of York, and State of Pennsylvania, have invented a new and improved Corn-Plough and Cultivator; and I do hereby declare the following to be a full, clear, and exact description of the same, sufficient to enable those skilled in the art to which my invention appertains to make use of it, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a top view,

Figure 2 a side elevation, and

Figure 3 a detached view of the plate upon which the side pieces are adjusted.

Figure 4 is the supporting-post S.

This cultivator is made with one fixed handle, and one which can be removed from side to side, so that the handles may be adapted to the position of the operator, and the instrument may be more easily held and regulated. In connection with these handles, it has a new form of guards, to protect the young corn from injury, and a new device for adjusting the instrument in width.

In the drawings, A A^1 A^2 A^3 represent the frame of the instrument, B the draught-beam, D the teeth, and E E′ the handles. One of these, E, is fixed at the centre of the instrument; the other, E′, is used at the side of the cultivator, and can be adjusted on either side, and shifted from one side to the other, by means of a pivot-link, *l*, at its lower or forward end, and a key and socket, *k*, operating where it passes through a gain, *s*, in the side of the supporting-standards S S. One of these standards is fixed near either end of the rear cross-beam, and, by removing the key, *k*, the handle can be taken out of the gain *s*, in one post, and transferred to that of the opposite post, as shown in black and red lines in fig. 1. This method of construction is adopted in order that the operator may walk on the side of the instrument nearest to the corn when cultivating between the rows, and may lift the instrument towards the corn, instead of being obliged to push it up the inclined side-hill. When the corn is hilled high, a cultivator always has a tendency to sag away from it, and has to be held near it by the hand. This operation is rendered much easier with this improved instrument than in the old ones provided with only two handles. In connection with this device, two wire guards, C C, are provided, one running on each side of the corn, and protecting it from injury by the dirt falling upon it. These guards are of the form shown clearly in fig. 2, and are hinged at their rear end at *c*, and are held stiffly in position by rods *c′ c′* at their forward end, running up through the forward beam A of the frame. In all the guides hitherto employed, either a flat plate or screen has been used, working on each side of the hill; or if a wire one has been employed, it has been hinged at the forward end, and is liable to close together and run over the corn, more effectually destroying it in that manner than if the dirt had been allowed to fall upon it. In this, however, the vertical rods *c′ c′* hold the sides of the guard apart, and absolutely prevent their even coming upon the corn, if the instrument is properly managed in the field. With these two improvements I combine one which relates to the expanding or contracting of the instrument in width. I form, at the ends of the cross-beams A A^1 of the frame, vertical slots *a a*, through which pass bolts *b b*, secured by nuts, that hold the side pieces A″ A‴ of the frame in place. The side pieces can be secured at any point in the slots, thus making the instrument wider or narrower, at pleasure. As so far described, the device for adjusting the width is old. My improvement consists in corrugating the under side of the side beams A^2 A^3 longitudinally at their ends, and fastening upon the upper side of the cross-beams A A^1, at their ends, corrugated slotted plates *e e*, which support the side beams. The corrugations of the side beams fit into those of the plates, and, when the nut is screwed tight, hold the side beams firmly in place, not allowing them the slightest lateral movement.

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

1. I claim the combination of the fixed central handle E with the shifting adjustable handle E′, when used in a corn-plough and cultivator, substantially as and for the purpose specified.

2. I claim the wire guard C, when constructed in the form shown, hinged at its rear end, and allowed to rise and fall at its forward end, and, when held in position by rods *c′ c′* at its forward end, preventing the two guards from changing their parallel position to each other, substantially in the manner and for the purposes set forth.

3. I claim the corrugated plates *e e*, when used in combination with the side beams A^2 A^3, having corrugated ends, substantially as and for the purposes indicated.

ISAIAH B. ARTHUR.

Witnesses:

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