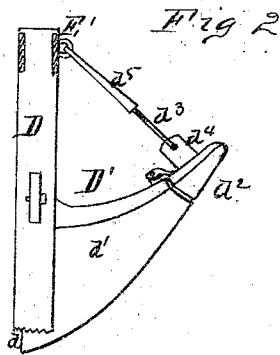
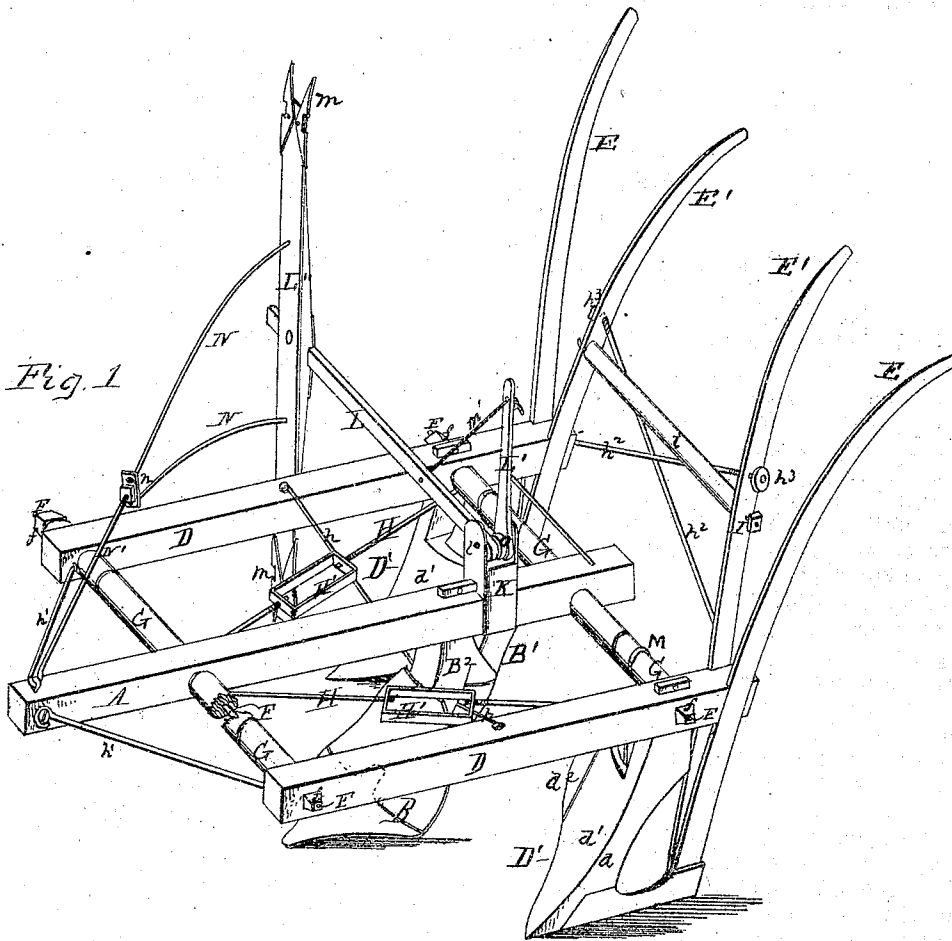


A. C. SMITH.
Cultivator.

No. 120,113.

Patented Oct. 17, 1871.



Witnesses

Respectfully,
D. D. Kane,

Treasurer
 A. C. Smith
 Chipman & Son. - C
 Atty.

UNITED STATES PATENT OFFICE.

ARTHUR C. SMITH, OF FAYETTEVILLE, NORTH CAROLINA.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 120,113, dated October 17, 1871.

To all whom it may concern:

Be it known that I, ARTHUR C. SMITH, of Fayetteville, in the county of Cumberland and State of North Carolina, have invented a new and valuable Improvement in Combining Ridge-Plows, Cotton-Plows, and Cultivators, together or separate; 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 drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a perspective view of my cotton-plow. Fig. 2 is a detailed view.

This invention has relation to a combination implement which embraces the elements of a cotton-plow and of two cultivator or ridge-plows; and the novelty consists, first, in the combination of said plows; second, in the construction and arrangement of an adjustable furrow-marker adapted for use in connection with said plows; third, in the construction and arrangement of the different parts of the frame-work and braces, essential to the lateral adjustability of the draft-beams, plows, &c., and to the strength of the implement.

In the accompanying drawing illustrating this invention, A represents the draft-beam of a cotton-plow, provided with the shovel B, which is of the same character as that shown and described in my application for a patent for improvement in cotton-plows, the point and breast being constructed separately, and being furnished respectively with corresponding projection and slot. The plow described in said application is constructed so as to be adaptable to this combination and others of a similar nature, and hence is subject to certain changes involving the removal of the handles, the wings in the rear of the shovel, and the rear section of the standard, or that part designed to support the wings. When the cotton-plow with the above-mentioned parts removed is employed in the combination which I am now describing, a brace, B', is substituted for the rear section of the plow-standard, and is secured by bolts to the under side of the beam A, and to the base and upper part of the standard marked B². D D represent the draft-beams of the ridge-plows. D' D' represent the plows, the land-sides of which are marked *d*, and the mold-boards *d'*. E E' represent

the handles, secured to the rear ends of the beams D D, and to the base part of the land-sides *d*. The three beams A D D are coupled together chiefly by means of two transverse and parallel rods, F F, formed with screw-threads on their ends and furnished with nuts *ff* turned thereon, on the outer sides of the beams D D. G G represent sleeves or tubes placed over the rods F F, between the beams. They are designed for the purpose of regulating the width apart of the beams, and their length and number are adapted to the use to which they are applied accordingly. H H designate braces, arranged diagonally within the spaces between the middle beam A and outer beams D, and coupling the rods F in front with those (F) behind. Each of these braces is in two sections, which are coupled together by means of a shackle, H', which is swiveled to one of them and screwed onto the other. These braces are, by this means, rendered adjustable to suit the width of the implement. *h h* indicate bracing-rods, reaching from the cotton-plow standard obliquely to the beams D D. *h¹ h¹* indicate bracing-rods reaching from the forward end of the beam A to the beams DD. *h² h²* indicate bracing-rods reaching from the rear ends of the beams D D through the inner handles attached to the latter and marked E', and formed with screw-threads to receive adjusting-nuts *h³ h³*. The braces *h²* cross each other in oblique directions, as shown in Fig. 1. I represents a rod, coupling together the handles E', and furnished with a tube or sleeve, *i*, adapted in length to the distance apart of these handles. By means of the adjustable rods and braces, as described, the beams D D may be adjusted to different angles with reference to the position of the beam A. K designates a stirrup, secured to the beam A, and supporting the inner end of the marker-arm L, which is pivoted to a shaft or pin, *l*. L' represents the marker, designed to mark out the position of the ridges which are afterward formed. It is located to the outer end of the arm L, which passes through a slot or mortise in said arm, and allows the latter to be moved for adjustment. N represents two arms, secured to the face of the marker, and thence to a plate, *m*, to which, also, is secured a rod, N', reaching from the forward end of the beam A, to which it is hinged. The marker is armed at each end with a pair of marking-teeth, *m*, and is capable of being thrown from

side to side of the implement. A cord, m' , attached to the arm L, passes through a handle, L' , arranged as shown, within the stirrup K. By drawing on the cord m' , the marker is raised up out of the way, and, by a forcible swing, it may be thrown over from one side to the other of the implement. O represents a washer, placed on the pin supporting the arm L and handle L' , keeping these two apart. The ridge-plows have hinged to each mold-board a wing, d^2 , which may be thrown forward or backward to suit the nature of the ridge being formed, or other circumstances. A rod, d^3 , is hooked to an ear, d^4 , projecting from the back part of each wing, and thence coupled to the handle E' nearest it by means of a shackle, d^5 . This rod and shackle enable the wing to be held at any position to

which it may be adjusted. M designates rods hung on the rods F and designed to aid in supporting and keeping rigid the plows D' .

Having thus fully described the nature of my invention, what I desire to claim and secure by Letters Patent, is—

The combination of the land-marker L'' adapted to slide along the pivoted arm L, and rendered adjustable by means of the arms N N N and adjusting-plate n , with the stirrup K, cord m , and post L' , all arranged and operating as described.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

Witnesses: ARTHUR C. SMITH.

J. R. JENKINS,

W. D. SMITH.

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