

# UNITED STATES PATENT OFFICE.

ELLIS PATTERSON, OF CARTERSVILLE, GEORGIA.

## CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 353,707, dated December 7, 1886.

Application filed August 23, 1886. Serial No. 211,654. (No model.)

*To all whom it may concern:*

Be it known that I, ELLIS PATTERSON, a citizen of the United States, residing at Cartersville, in the county of Bartow and State of Georgia, have invented new and useful Improvements in Cultivators, of which the following is a specification.

My invention relates to improvements in cultivators; and it consists of the peculiar combination and novel construction and arrangement of the various parts for service, substantially as hereinafter fully set forth, and particularly pointed out in the claim.

In the accompanying drawings, which illustrate a cultivator embodying my invention, Figure 1 is a plan view. Fig. 2 is a side view. Fig. 3 is a central vertical sectional view taken longitudinally through the tongue. Fig. 4 is a central longitudinal section taken through the plow-standard.

Referring to the drawings, in which like letters of reference denote corresponding parts in all the figures, A designates the central beam of the machine, forming the tongue to which the draft is applied, and which carries an inclined vertically-disposed standard, B, at its rear end, to which is secured a transverse brace bar or rod, C, which is secured at its extremities to inclined handles D, the lower ends of which are secured to the beam A on opposite sides thereof.

E E' designate horizontal bars, which are arranged transversely across the beam, and are pivotally connected thereto at their middle by means of transverse bolts e, which pass through the bars and beam and have suitable securing-nuts upon the threaded ends thereof. The transverse bars are arranged parallel with each other, and they are provided with longitudinal slots f in their extremities, as shown.

G G' designate the standards, which are arranged on opposite sides of the beam A, and which connect the front and rear transverse bars, E E', together. These standards G G' carry shovels or blades g at their lower ends, of any approved pattern, and they are preferably curved longitudinally, as shown, and each of the said standards has horizontal bars H formed integral therewith, the bar H and the standard being divided into two side pieces by a continuous longitudinal slot or opening,

h. The standards and bars are formed or made of a single piece of metal, and they are provided with a connecting block or bar, h', that lies between the parallel sides h of the bar and standard.

The bars H are arranged beneath the outer extremities of the transverse bars E E' and the front ends of the bars H, and the ends of the bar E are pivotally and adjustably connected together by a through-bolt, J, that passes through the slots in the said bars, and has a nut, j, on its threaded end. The bars H and the transverse bar E' are adjustably and pivotally connected together by means of a through-bolt, K, which passes through the block h' and the slot f of the rear transverse bar, E', the said bolt having a nut, k, on its threaded end and a washer, k', interposed between the nut and the bar E', as shown in Fig. 3.

It will thus be seen that the front ends of the bars H can be adjusted laterally of the beam A and independently of each other by merely loosening the nut k and then moving the pivot-bolt in the slot f of the bar E, and the rear end of the bar H can be likewise adjusted with relation to the beam A. The bars H can thus be arranged parallel with the beam A, or with their front ends nearer to the beam and their rear ends farther away from the same, and vice versa, thus adapting the bars H and the standards to lie or be arranged at an angle to the beam and the line of draft of the cultivator.

L designates washers which are interposed between the nuts of the pivot-bolts J and the bar E, and these washers have integral hooks l, to which are connected the rear ends of stop chains or ropes M, the opposite front ends of which are connected to rearwardly-extending hooks m, that are affixed to the under side of the beam A, as is obvious.

By means of the adjustable standards the shovels can be adapted for cultivating cotton and other plants in rows of different widths, and the said shovels can also be adjusted to work upon the sides of the hills or rows, or in the furrow between the hills, as may be necessary or desirable, according to the nature and size of the plant to which it is adapted for cultivating.

By adjusting the bars H nearer to the beams



at the front ends the shovels will throw the soil away from the plants, and by adjusting the front ends away from the beam and the rear ends of the bars closer to the beam the  
5 shovels will throw the dirt onto the roots of the plants.

By my improved cultivator the plants can be worked at one operation and without requiring the device to be drawn through the  
10 field more than once.

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

In a cultivator, the combination of central  
15 beam, the transverse parallel beams E, pivotally connected at their middle to the central beam and having the slots in their ends, the slotted beams H, arranged on opposite sides of

the central beam and having the standards at their rear ends for carrying the shovels or  
20 blades, the bolts passing through the slots of the transverse and side beams, E H, for adjustably connecting them together, and the independent diverging check chains or ropes connected at their front ends to the central  
25 beam and to the outer ends of one of the transverse beams, E, substantially as described, for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in  
30 presence of two witnesses.

ELLIS PATTERSON.

Witnesses:

JOSHUA KINNETT,  
FRANK P. DURHAM.