

UNITED STATES PATENT OFFICE.

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ATTACHMENT FOR CULTIVATORS.

SPECIFICATION forming part of Letters Patent No. 789,871, dated May 16, 1905.

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To all whom it may concern:

Be it known that I, LOUIS J. NORTHERN, a citizen of the United States, residing at Robinson, in the county of Brown and State of Kansas, have invented certain new and useful Improvements in Attachments for Cultivators; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in cultivators.

The object of the invention is to provide an attachment for cultivators whereby the same may be quickly transformed from a single-row to a double-row cultivator.

A further object is to provide an attachment of this character which will be simple in construction, efficient in operation, and which may be quickly attached and detached to and from the cultivator.

With these and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side view of a cultivator having the attachment applied thereto. Fig. 2 is a top plan view; and Fig. 3 is a rear elevation of the same, showing the attachment on one side of the cultivator partially detached and swung to one side.

Referring more particularly to the drawings, 1 denotes a cultivator-frame in which is secured an arched axle 2, provided on its lower ends with laterally-projecting wheel-spindles 3, on which are mounted supporting-wheels 3' and which are provided with extended ends 4.

On the spindles 3, between the wheels and the arched portion of the axle, are mounted couplings 5, to which are pivotally connected the regular cultivator-beams 6, having on their lower ends shovels 7. To the beams 6 are connected the lower end of upwardly-projecting curved supporting-bars 8, the upper ends of which are pivotally connected to upwardly-projecting standards 9, secured to the frame of the cultivator.

Mounted upon the extended ends 4 of the

axle-spindles are sleeves 10, to which are secured couplings 11, to which are pivotally connected supplemental cultivator-beams 12, in the lower ends of which are secured shovels 13. To the sleeves 10 are secured the inner ends of brace-bars 14, the outer ends of which are pivotally connected to the ends of a cross-bar 15, secured to the frame of the cultivator in advance of the axle 2. To the inner sides of the supplemental beams 12 are secured the ends of laterally-projecting apertured connecting-bars 16, similar bars 17 being secured to the outer sides of the regular cultivator-beams 6. The bars 16 and 17 are adapted to be brought into engagement with each other, and through the alined apertures in the same are passed bolts 18, by which means the supplemental cultivator-beams may be adjustably connected with the regular beams 6, thus permitting the space between the shovels on said beams to be varied in width.

By the use of an attachment of this character an ordinary single-row cultivator may be quickly transformed into a double-row cultivator and to the same may be hitched either two or four horses. When it is desired to change from a double to a single row cultivator, the brace 14 is disconnected from the cross-bar 15 and the sleeve 10 is slipped off the spindle 4.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

In a cultivator, the combination with the supporting-axle having extended spindles, of couplings having sleeves adapted to engage said extended ends of the spindles, a cross-bar secured to the frame of the cultivator, brace-rods connecting said sleeves with the ends of said cross-bar, supplemental shovel-beams

pivotaly connected to said couplings, apertured brace-bars connected to said supplemental beams and to the regular beams of the cultivator, and means whereby said brace-bars
5 are adjustably secured together thereby regulating the space between said regular and supplemental beams, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

LOUIS J. NORTHERN.

Witnesses:

N. F. LESLIE,
KATE MCGAHAN.