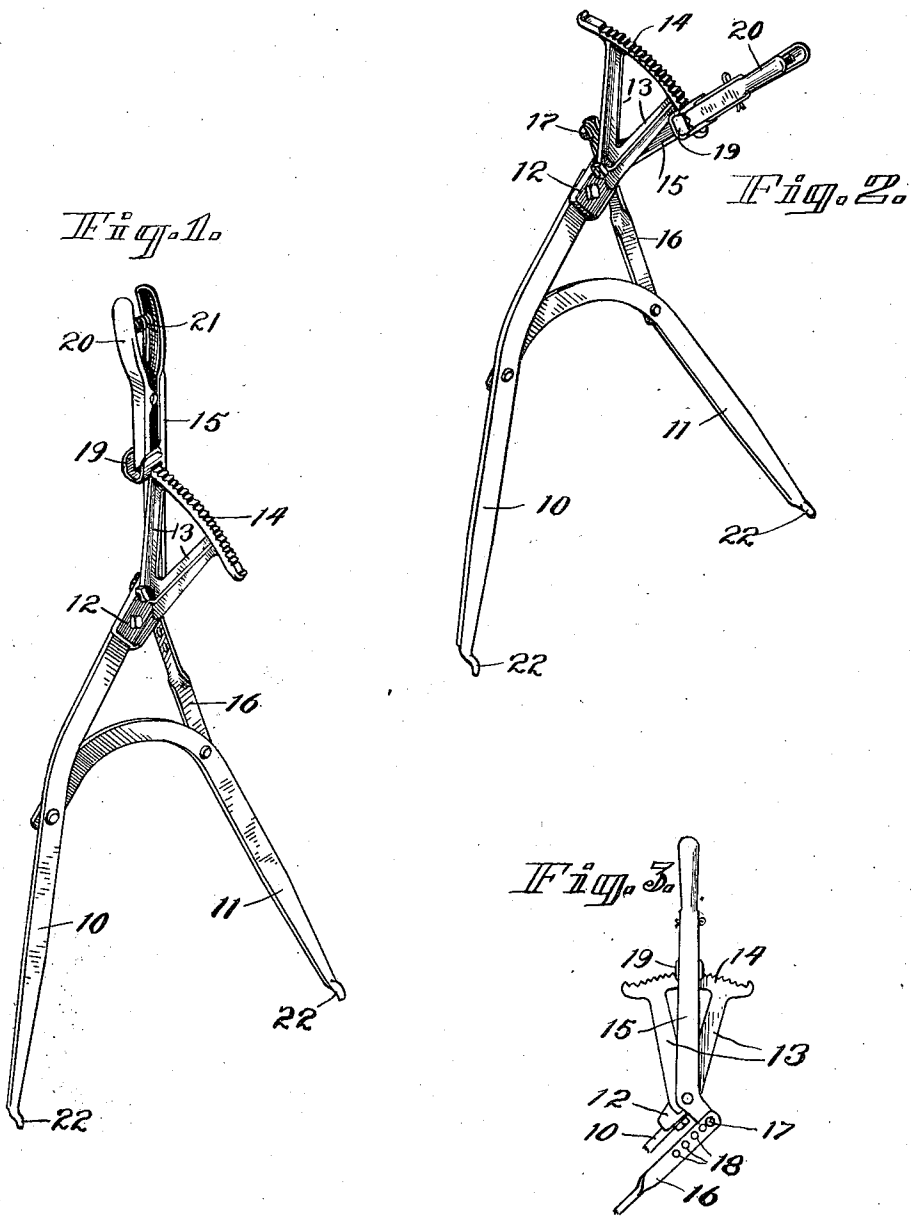


W. S. GRAHAM.
 SPREADER ARCH FOR CULTIVATORS.
 APPLICATION FILED MAR. 6, 1911.

1,000,511.

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WITNESSES:
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SPREADER-ARCH FOR CULTIVATORS.

1,000,511.

Specification of Letters Patent. Patented Aug. 15, 1911.

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To all whom it may concern:

Be it known that I, WILLIAM S. GRAHAM, a citizen of the United States, residing at Canton, in the county of Fulton and State of Illinois, have invented certain new and useful Improvements in Spreader-Arches for Cultivators, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to spreader arches for cultivators of the type made in two sections pivotally mounted relative to each other, and it has for its object to provide a new and improved construction whereby the gangs may be held rigidly a distance apart and by which this distance may be more readily varied by the operator from his position on the cultivator. The means by which I have accomplished this result are illustrated in the drawings and hereinafter specifically described.

That which I believe to be new is set forth in the claims.

In the drawings:—Figure 1 is a perspective view of my improved arch, with the lever at one limit of its motion. Fig. 2 is a similar view with the lever at the opposite limit of its motion. Fig. 3 is a fragmentary view, showing the opposite side of the lever from that shown in the other figures, and showing the manner of mounting said lever.

Referring to the several figures of the drawings in which corresponding parts are indicated by the same reference characters,—10 indicates one of the arms of my improved spreader arch, pivoted to an intermediate point of which is a second arm 11 curved at its upper end into approximately a right angle.

12 indicates a bracket secured to the upper end of the arm 10, connected to which by arms 13 is a toothed rack 14 positioned at right angles to the plane of the arms 10—11, in the construction shown the bracket 12, the arms 13 and the rack 14 being formed integral with each other.

15 indicates a lever pivotally mounted at the base of the arms 13, the lower end of which lever is pivotally connected to a link 16 by means of a pin 17 passing through one of the openings 18 in the upper end of said link. The lower end of the link 16 is pivotally connected to the arm 11.

19 indicates a lug carried by the lever 15

extending over and partly around the rack 14 serving to steady the lever 15 in its movement relative to said rack.

20 indicates a hand-latch pivotally mounted on said lever 15, its upper end being held yieldingly pressed away from said lever by means of the spring 21. As shown in Fig. 2, the lower end of the hand-latch 20 is toothed to correspond to the teeth on the rack 14, so that when the hand-latch is held in normal position with the lower end adjacent to the lever 15 the teeth of the latch 20 engage the teeth of the rack 14, thus holding the lever 15 against turning relative to the rack. When, however, the hand-latch is pressed toward the lever at its upper end against the action of the spring 21, the lower toothed end of the latch 20 is swung free of the rack 14, leaving the lever 15 free to swing relative to the rack.

22 indicates hooks of any appropriate type on the lower ends of the arms 10—11 adapted to be suitably connected to the beams of the cultivator gangs.

With the spreader arch in position upon a cultivator, with the hooks 22 in engagement with the shovel gang beams, the hand-latch 20 being disengaged from the rack 14, a movement of the lever 15 directly backward toward the operator and directly in the line of the draft will through the link 16 cause an upward pull on the arm 11 relative to the upper end of the arm 10, or, in other words, cause a downward pull on the upper end of the arm 10 relative to the arm 11, forcing the lower ends of the arms 10—11 farther apart, carrying with them of course the cultivator gangs. A movement of the lever then in the opposite direction will return the arch and the gangs to their original positions. The movement of the lever 15 may of course be limited as desired more or less nearly approaching the limit of the movement as shown in Figs. 1 and 2, the movement of the lever 15 in either direction being limited by the engagement of the lug 19 with the turned end of the rack 14.

If it is desired that the normal distance between the gangs, from which variation may be made in either direction, shall be greater than that shown in the drawings, to accommodate different widths between rows or for any other reason, this can be accomplished by withdrawing the pin 17 and inserting it in any other one of the openings 18.

What I claim as my invention and desire to secure by Letters Patent is,—

1. In a spreader arch for cultivators, the combination of an arm, a second arm pivotally connected therewith intermediately of the ends of said first-named arm, and a lever connected with the upper end of said first-named arm and with an intermediate point of said second-named arm and adapted to be swung at right angles to the plane of said arms to vary the distance between the points of connection of said lever to said arms.

2. In a spreader arch for cultivators, the combination of an arm, a second arm pivotally connected therewith intermediately of the ends of said first-named arm, a lever pivotally mounted on the upper end of said first-named arm, and a link pivotally connected to said lever and to an intermediate point of said second-named arm.

3. In a spreader arch for cultivators, the combination of an arm, a second arm pivotally connected therewith intermediately of the ends of said first-named arm, a lever piv-

otally mounted on the upper end of said first-named arm and adapted to be swung at right angles to the plane of said arms, and a link pivotally connected to the said lever and to an intermediate point of said second-named arm.

4. In a spreader arch for cultivators, the combination of an arm, a second arm pivotally connected therewith intermediately of the ends of said first-named arm, a rack fixedly secured to the upper end of said first-named arm at right angles to the plane of said arms, a lever pivotally mounted relative to said rack and adapted to be swung along said rack, a link pivotally connected to said lever and to an intermediate point of said second-named arm, and a hand-latch adapted to lock said lever against movement relative to said rack.

WILLIAM S. GRAHAM.

Witnesses:

W. M. CAVES,
W. B. BARNEY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."