

(No Model.)

M. MILES.  
CULTIVATOR.

No. 358,287.

Patented Feb. 22, 1887.

Fig. 1.

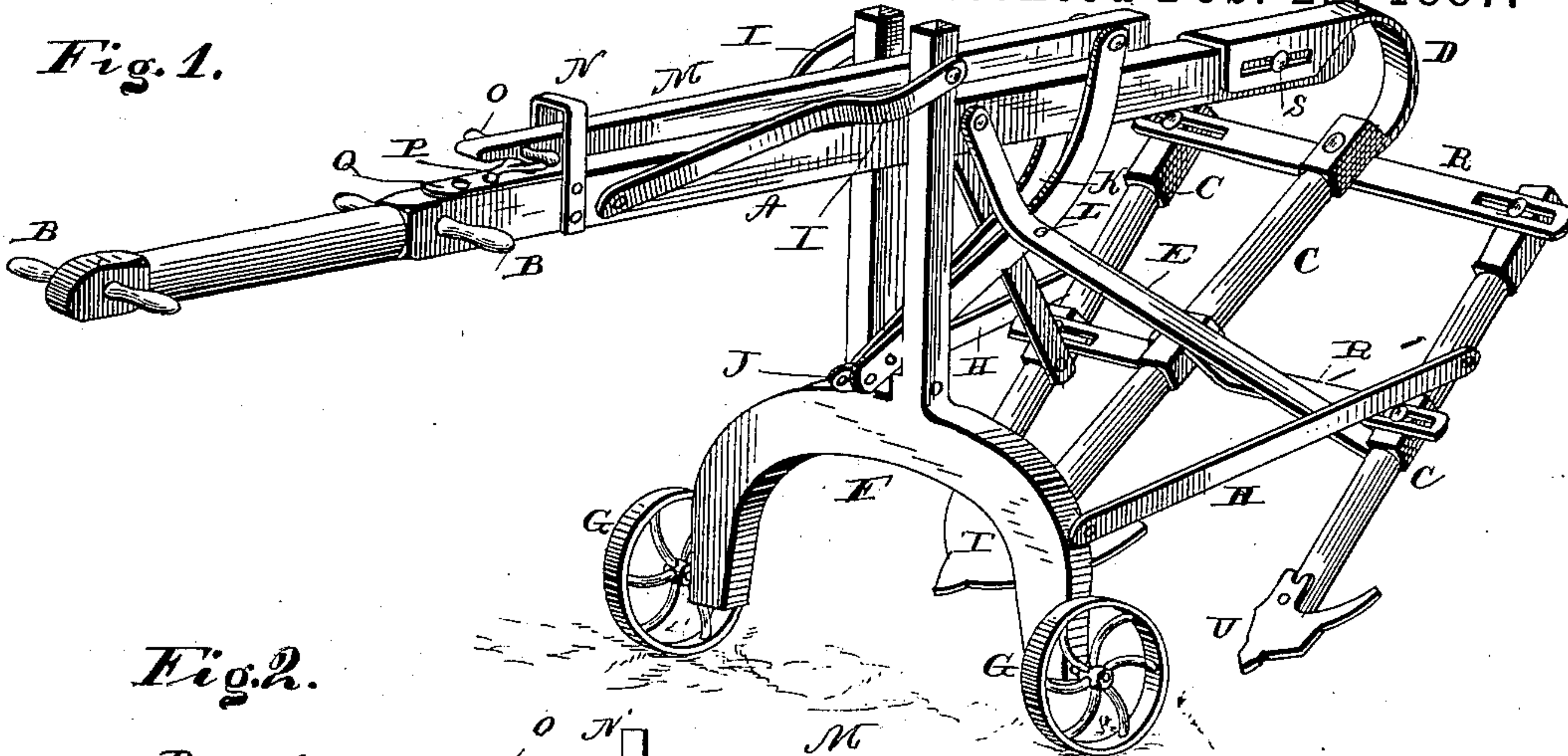


Fig. 2.

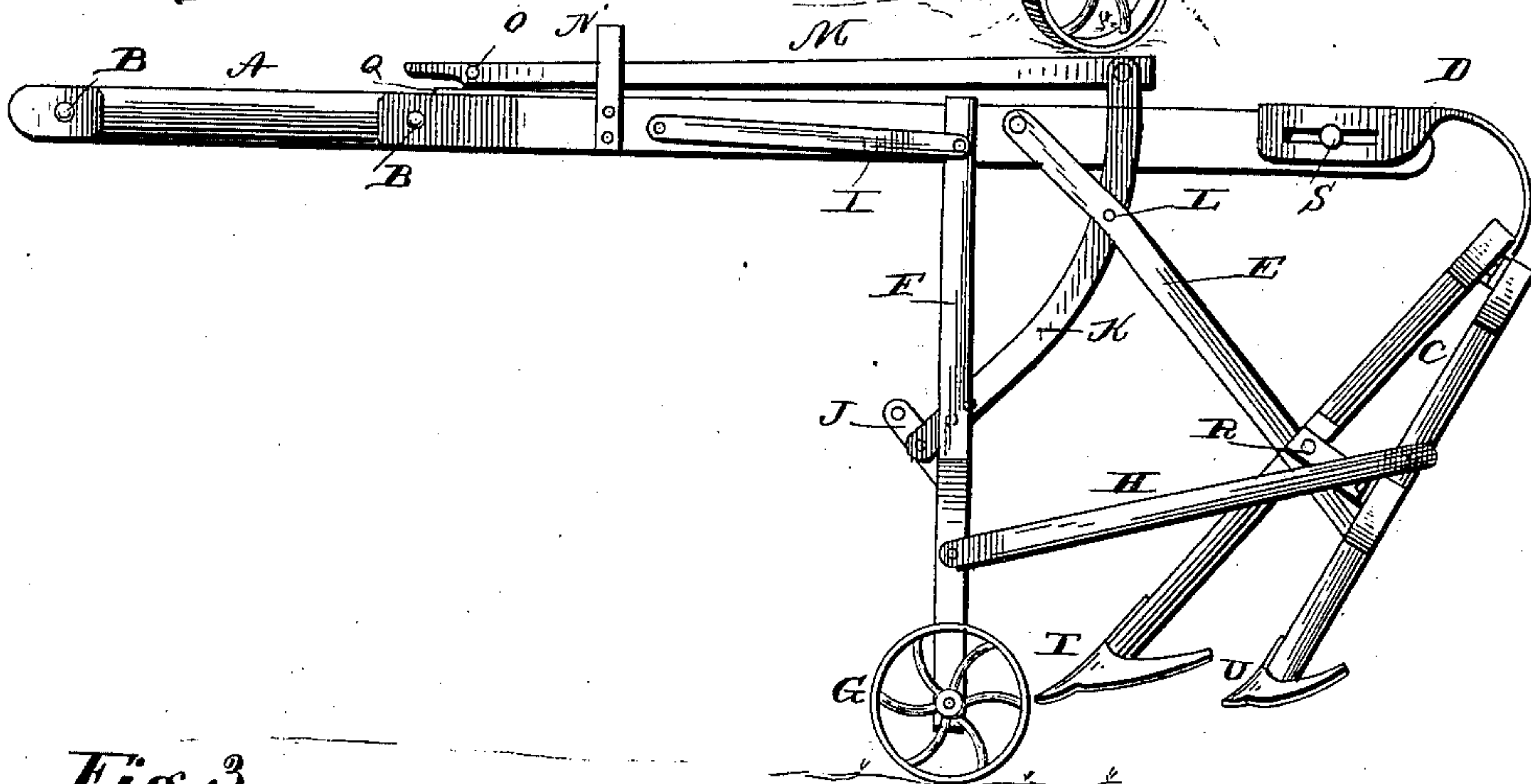


Fig. 3.

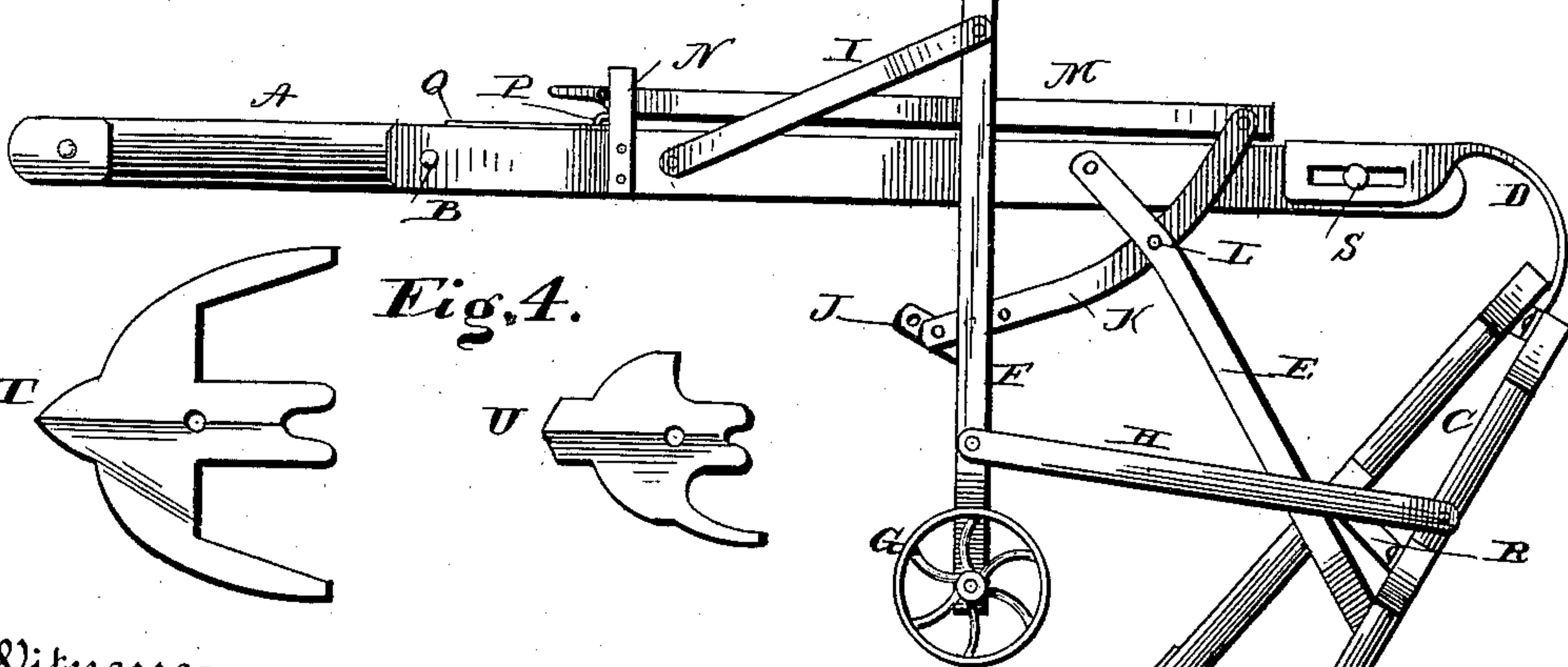
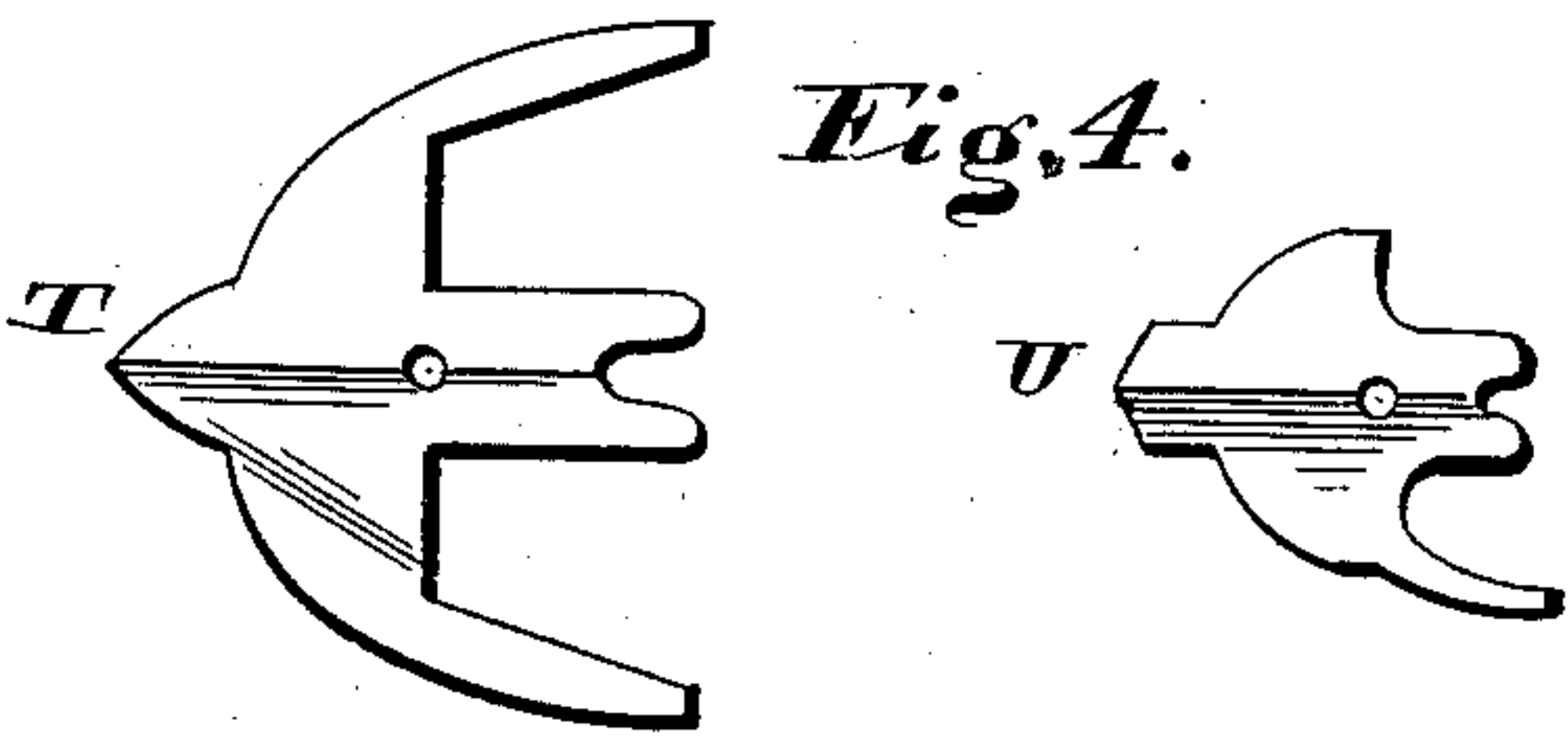


Fig. 4.



Witnesses

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# UNITED STATES PATENT OFFICE.

MYRON MILES, OF OXFORD, MICHIGAN.

## CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 358,287, dated February 22, 1887

Application filed November 20, 1886. Serial No. 219,484. (No model.)

*To all whom it may concern:*

Be it known that I, MYRON MILES, a citizen of the United States, and a resident of Oxford, in the county of Oakland and State of Michigan, have invented certain new and useful Improvements in Cultivators; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved cultivator. Fig. 2 is a side elevation of the same adjusted for moving from place to place. Fig. 3 is a similar view of the same as adjusted for cultivating, and Fig. 4 represents a plan of the middle tooth and of one of the outside teeth.

Like letters of reference indicate corresponding parts in all the figures.

My invention has relation to cultivators, and more especially to hand-cultivators, such as are used for gardening; and it consists in the improved construction and combination of parts constituting the same, as will be hereinafter fully set forth.

Referring to the accompanying drawings by letters, A represents the pole of the cultivator, in the forward end of which are secured handles B, and to the rear end of which are secured the cultivator-standards C, by means of the downwardly-curved slotted strip D and the braces E, which are pivotally secured to the pole and to the standards. In advance of the standards is a vertical frame, F, to the lower outer corners of which are attached the wheels G. To the frame above said wheels and to the outside standards are pivotally secured the connecting-rods H. At the upper end of the frame are two parallel posts, between which the pole passes, and to the upper ends of which are pivotally connected the links I, which are in like manner connected to either side of said pole in front of the posts. Between the lower ends of said posts is pivoted a link, J, provided with adjustment-holes at its outer end, to which end of said link is adjustably connected the curved levers K, which are provided with series of holes at their

lower ends. These levers are fulcrumed near their middles between the braces E upon the bolt L. The upper ends of said levers pass up on either side of the pole, and are pivotally secured to the rear end of the adjustment-bar M, which extends forwardly above the pole, its front end passing under the yoke N. Said end is provided with laterally-extending handles O, and with a pin, P, projecting downwardly therefrom. Upon the pole under the forward end of said bar is secured a plate, Q, provided with a series of perforations, into which said pin is adapted to fit for the purpose of holding the bar in any desired position.

Cross-stays R, with slotted ends, are rigidly secured to the back of the middle standard and adjustably secured to the outside standards, thus providing for changing the width of the cultivator, the lower cross-stay being curved forwardly at its center to throw the lower end of the middle standard in advance of the outside ones.

The slots in the bar D are formed in the downwardly-extending lateral flanges of said bar, and through these slots and the end of the pole passes a bolt, S. By means of this strip and bolt the inclination of the standards may be changed as desired.

The cultivator is made ready to be moved to or from the garden by raising the forward end of the adjustment-bar and drawing it forward, then lowering it so that the pin P will enter the foremost perforation in the plate Q. (See Fig. 2.) When the place for using the cultivator is reached, the adjustment-bar is raised and moved backward till the pin can be set into such a perforation as will allow the teeth of the cultivator to project the desired distance below the wheels, said wheels serving as well in operating the cultivator as in moving it about.

The means of adjustment between the link J and the levers K provides for regulating the vertical distance through which the standards may be adjusted.

The middle tooth, T, Fig. 3, has a simple point, while the outside teeth, U, have the regular subsoil-point. Said middle tooth has also a long share or blade on each side, which rests in nearly a horizontal plane to permit the



loosened soil to pass over them and fall through the spaces V, thereby leaving a nearly level surface behind the point as it advances. The outside teeth, U, have one side only constructed with a blade similar to those on the middle tooth.

When it is desired to work the soil toward the plants, the outside teeth are placed on the standards with the blade at the outside of the cultivator, and when it is desired to work the dirt away from the plants each outside tooth is changed to the opposite outside standard, thus placing the blades of said teeth at the insides of the standards.

Having thus fully described my invention, I claim—

1. A hand-cultivator consisting in the combination of the pole provided with handles at its forward end, a downwardly-curved bar, D, provided with slotted flanges extending downwardly at its sides, a bolt adapted to pass through the slots of said flanges and the pole, a set of cultivator-standards secured to the lower end of said strip, and braces pivotally secured to the standards and to the pole, as and for the purpose set forth.

2. In a cultivator provided with standards secured to the rear end of the pole and braces extending from the standards to said pole, the combination of a vertical wheeled frame, F, connecting-rods H, pivoted thereto and to the standards, links I, similarly connected thereto and to the pole, levers K, connected to the

frame and fulcrumed to said braces, and an adjustment-bar, M, pivoted to said levers and provided with means, substantially as described, for securing it to the tongue, as set forth.

3. In the within-described cultivator, the combination, with the curved levers K, provided with adjustment-holes at their lower ends, and the wheeled frame, of the link J, pivoted between the upwardly-projecting posts of said frame and provided with adjustment-holes, as and for the purpose set forth.

4. In the within-described cultivator, the combination, with the adjustment-bar and the pole, of the yoke through which said bar passes, the handles projecting laterally from said bar, the downwardly-projecting pin at the forward ends of said bar, and the perforated plate, as and for the purpose specified.

5. In a hand-cultivator, the combination of the pole A, handles B, standards C, curved and slotted strip or hanger D, braces E H, vertical wheeled frame F, adjusting-link J, curved levers K, adjustment-bar M, and locking devices, substantially as and for the purposes set forth.

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

MYRON MILES.

Witnesses:

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WILLIAM J. SMITH.