G. W. PARISH.

RICE CULTIVATOR.

No. 184,658. Patented Nov. 21, 1876.

Fig. 1.

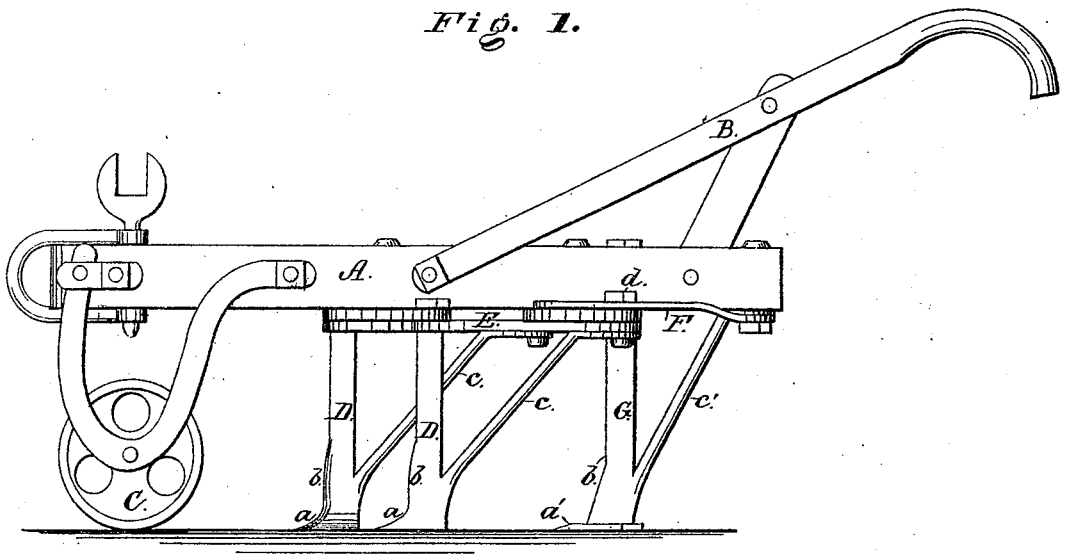
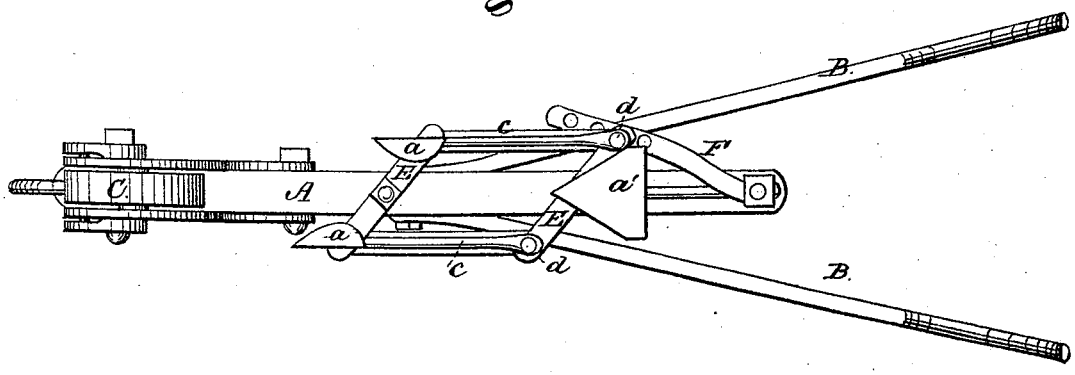


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE W. PARISH, OF SAVANNAH, GEORGIA.

IMPROVEMENT IN RICE-CULTIVATORS.

Specification forming part of Letters Patent No. **184,658**, dated November 21, 1876; application filed August 19, 1876.

To all whom it may concern:

Be it known that I, GEORGE W. PARISH, of Savannah, in the county of Chatham and State of Georgia, have invented a new and Improved Rice-Cultivator; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 is a side elevation; Fig. 2, an inverted plan view.

The object of my invention is to provide a cultivator for rice in the early stages of its growth, which will not "sod" the rice, and which may be readily adjusted to the width of the rows. To this end it consists, mainly, in the construction of the cultivator-teeth, and the combination of the same with a pivoted metallic frame, consisting of four loosely-pivoted bars, forming a variable parallelogram, which may be adjusted to bring the teeth closer together in oblique lines, or farther apart, as hereinafter more fully described.

In the accompanying drawing, A represents the beam of the cultivator, B the handles, and C the colter-wheel, all of ordinary construction. D D represent the front cultivator-teeth, which are provided with horizontal semicircular in-turned blades *a* at the bottom, with front vertical cutting-edges *b* just above the blades *a*. These teeth are rounded at their upper ends, screw-threaded, and fastened by means of nuts to the joint of frame E, and provided also with rearwardly-extending braces *c* formed therewith, which are bolted to the rear joints of the same frame. Said frame E is composed of four metallic bars, which are loosely pivoted at their four corners, the rounded shanks of the teeth forming the pivots for the front corners, while separate bolts *d* are employed for the rear corners, and for holding the braces *c*, which extend to and are fastened at this point. The frame, as composed of the four loosely-pivoted bars forms a variable parallelogram, the cross or end bars of which are pivoted upon bolts to the bottom of the beam. This forms a frame for the teeth, which may be lengthened out to bring the cultivator-teeth closer into the central line of the beam for narrow rows, or may be pushed up to cause them to set farther apart for wider rows.

This adjustment of the frame E is determined and fixed by means of an adjusting-bar, F, which is pivoted to the rear end of the beam, and is provided at its front end with a series of holes, in either of which the rear bolt of the jointed frame may be fixed to hold the frame and its teeth to any desired adjustment.

This arrangement of frame not only gives a nice adjustment to the teeth, but it gives them an oblique or diagonal arrangement, which is desirable, in order to facilitate the disengagement of clods, sod, and other obstructions.

G is a rear cultivator-tooth, which is of the same general construction as those already described, having a vertical cutting-edge, *b'*, and a rear brace, *c'*. This tooth, however, is provided with a horizontal blade, *a'*, which extends to both sides of the shank, and, instead of being connected with the frame, is centrally located with a fixed connection to the beam.

In operating the cultivator, as thus described, it is drawn by the team between the rows of rice, (which ordinarily are from seven to eight inches apart,) with the frame nicely adjusted to the proper width to scrape off the grass without injuring the plants. The in-turned horizontal blades *a* of the front teeth scrape the soil close to the plants, while the vertical cutting-edge serves to sever or loosen the sod from its connection with the rows of rice, the rear double scraper-blade *a'* removing the grass and cutting up the sod from the space left between the two front teeth.

The advantages of the cultivator consist in its simple, practical, and durable construction, its nicety of adjustment, and efficiency of operation, for the purpose described.

Cultivators of the ordinary construction are of but little practical value for the cultivation of rice, by reason of their imperfect operation, and the "sodding" of the rice, which defect has necessitated the cultivation of this crop almost exclusively with hoes, which is very expensive.

My cultivator is constructed with special adaptation to the requirements of the crop,

and fulfils its object in a practical and useful manner.

I am aware of the fact that the loosely-jointed parallel bars are not, broadly, new, and I therefore make no broad claim to the same, but limit my invention to the cultivator-teeth, and the combination of the same with the frame, as described.

Having thus described my invention, what I claim as new is—

1. The cultivator-teeth D, having horizontal blades *a*, vertical cutting-edges *b*, brace *c*, and shanks rounded and adapted to form the pivot for their carrying-frame, substantially as and for the purpose described.

2. The combination, with the frame E, composed of loosely-jointed parallel bars, of the cultivator-teeth D, having shanks rounded at the top, and provided with nuts to form the front pivots of said frame, and having a rearwardly-inclined brace, *c*, extending to the rear pivots of the frame, and secured thereto by the same bolt *d* that forms the pivot for the frame, and secures the adjusting-bar, substantially as described.

The above specification of my invention signed by me this 17th day of August, 1876.

GEO. W. PARISH.

Witnesses:

CHAS. A. PETTIT,

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