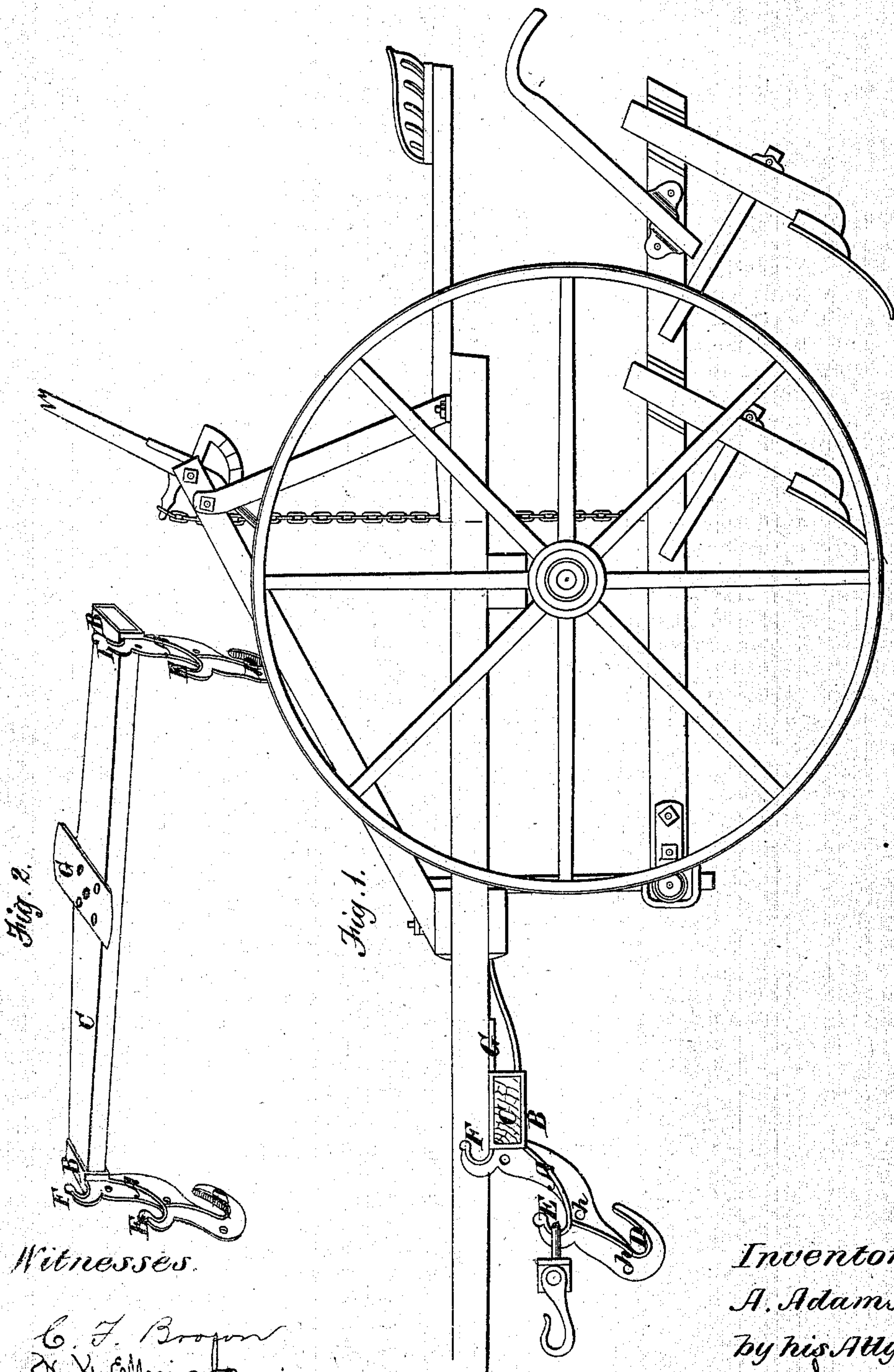


**A. ADAMS.**  
**Draft-Hooks for Cultivators.**

No. 139,752.

Patented June 10, 1873.



Witnesses.

*C. F. Brown*  
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# UNITED STATES PATENT OFFICE.

AUGUSTUS ADAMS, OF SANDWICH, ILLINOIS.

## IMPROVEMENT IN DRAFT-HOOKS FOR CULTIVATORS.

Specification forming part of Letters Patent No. **139,752**, dated June 10, 1873; application filed January 4, 1873.

*To all whom it may concern:*

Be it known that I, AUGUSTUS ADAMS, of Sandwich, in the county of DeKalb, and State of Illinois, have invented a new and Improved Draft-Hook for Cultivators; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings forming part of this specification, in which--

Figure 1 is a side elevation of a cultivator with my improvement attached. Fig. 2 is a perspective view of a double-tree, showing the application of the draft-hooks and plate.

Similar letters of reference in the accompanying drawings denote the same parts.

My invention has for its object to provide means for adjusting the line of draft in cultivators for the purpose of balancing the varying weight of drivers in riding-cultivators, and to lift the weight from the necks of the team in a walking-cultivator. To this end the invention consists in a metal arm adapted for attachment to the end of the double-tree, and cast with draft-hooks, one or more above and one or more below the eveners.

In the accompanying drawings, A is the metal arm formed upon or attached to an eye, B, which is securely fitted over the end of the eveners so that the arm shall depend downward therefrom. The arms may be attached to the eveners by any other suitable means, though I prefer the eye B, as being economical and secure. In this example of my invention the points of attachment for the whiffletrees are composed of draft-hooks D E F, formed upon the metal arm at different heights, two below the eveners and one above it. The lower hook D may also be curved to the front instead of rear, as shown, this difference being merely one of choice.

When a cultivator is in use, with the driver riding, his weight tends to tip up the tongue and lift the neck-yoke against the throats of the horses. It is difficult, therefore, to hold the tongue down so that the machine shall run steadily. To prevent this difficulty the whiffletrees are hitched to the upper portion of each arm; the draft of the team then tends

to bear down the end of the tongue and counterbalance the driver's weight. When the cultivator is in operation with the driver walking and guiding the plows by the handles, the pressure of the ground upon the cultivator-shovels in resistance to the draft of the team tends to depress the end of the tongue so much as frequently to chafe the necks of the horses and render them very sore. To obviate this the whiffletrees are hitched to the lower portions of the arms; the draft of the team then tends to raise the tongue and relieve the pressure upon the necks of the horses. The intermediate points of attachment are employed to receive the whiffletrees for counterbalancing the weight of light and heavy drivers, or different degrees of downward pressure at the end of the tongue. By my invention the whiffletrees are adapted for adjustment to counterbalance the weight of riding drivers, and prevent the necks of the horses from being injured when the driver is walking.

G is a plate secured to the eveners at the middle so as to come between it and the tongue and project beyond the eveners either forward or backward, or both. By this provision a wide bearing is afforded on the tongue for the purpose of preventing the eveners from wringing or twisting when the draft is applied to the arms either above or below the eveners.

I am aware that a single draft-hook, pendent from the end of a double-tree, has heretofore been used, but such construction I do not claim.

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

A draft-hook for cultivators adapted for attachment directly to the end of the eveners or double-tree, and cast with a number of draft-hooks, one or more above and one or more below the eveners, substantially as described, for the purposes specified.

AUGUSTUS ADAMS.

Witnesses:

J. P. ADAMS,  
W. C. PHELPS.