T. R. WALLIS.

WHEEL-CULTIVATOR.

No. 182,138. Patented Sept. 12, 1876.

Fig. 1.

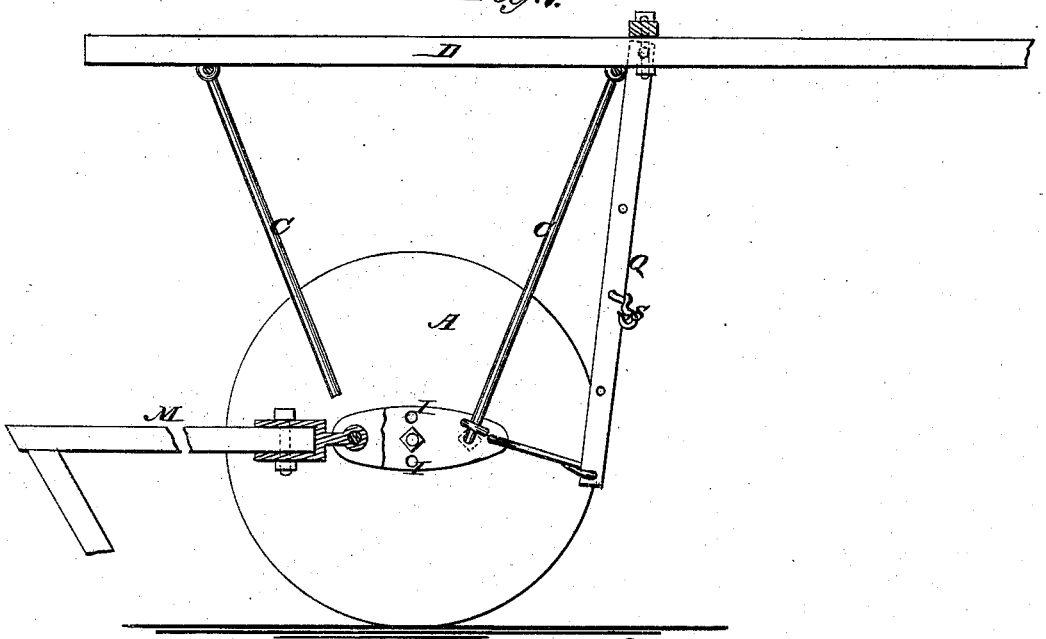
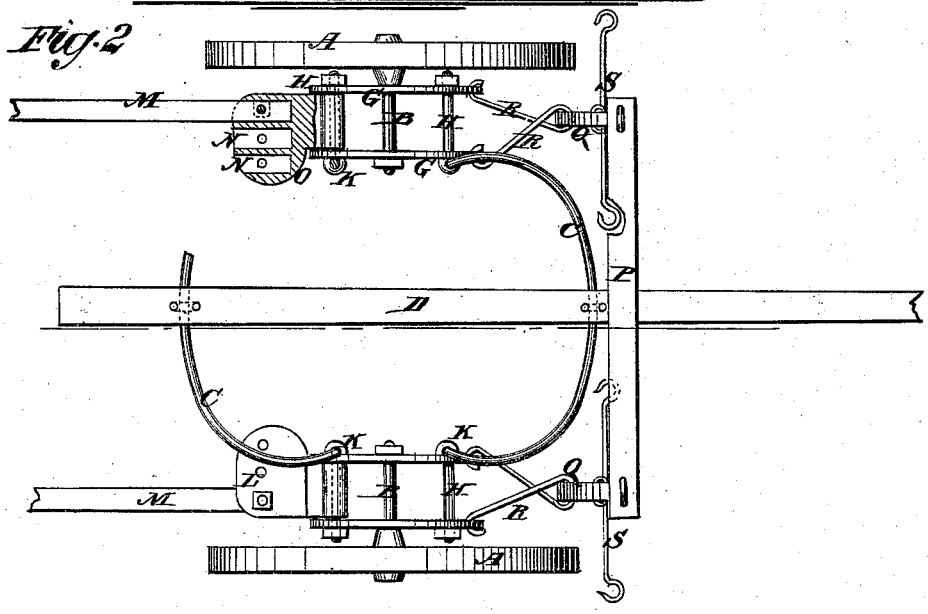


Fig. 2



WITNESSES:
Francis. DeArdle,
John Goethals

INVENTOR:
T. R. Wallis
BY
Munn & Co
ATTORNEYS.

UNITED STATES PATENT OFFICE.

THOMAS R. WALLIS, OF EGG'S POINT, MISSISSIPPI.

IMPROVEMENT IN WHEEL-CULTIVATORS.

Specification forming part of Letters Patent No. **182,138**, dated September 12, 1876; application filed May 22, 1876.

To all whom it may concern:

Be it known that I, THOMAS R. WALLIS, of Egg's Point, Washington county, State of Mississippi, have invented a new and Improved Wheel-Cultivator, of which the following is a specification:

My invention consists, mainly, of a novel contrivance of frames for coupling the body-frame of a wheel-cultivator to the short independent axles employed in machines for cultivating high plants.

In the accompanying drawing, Figure 1 is a longitudinal sectional elevation of my improved cultivator. Fig. 2 is a plan view.

In the drawing, A represents the wheels; B, the short axles; C, the arches, and D the pole of the frame to be mounted on said short axles, which I propose to do by means of the frames composed of the elliptic plates G and connecting-bolts H, the plates being fitted at the middle on the axles, so that they can be readily taken off and shifted higher or lower, for which a number of holes, I, are made in the plates G for the axle; and I connect the arch-standards C by making the lower ends to terminate in the bolts H, employed for coupling the plates G, which I effect by bending them at right angles as much above the lower ends as the required length of the bolts, and passing them through the plates. I also arrange them in an eye-stud, K, on the inner plate G, to keep the plate in contact with the upright part. L represents the coupling for the plow-beams M, which consist of a broad plate with an eye to fit on the rear bolt H, and two or more sockets, N, for the beam, to set it nearer to or farther from the row of plants, and with a lateral extension, O, at one side for increasing the range of lateral adjustment by reversing the couplings and placing said extension inside or outside, for which the bolt H will, in practice, be fitted, so as to be readily taken out and put in.

Over the top of the tongue is a draft-bar, P, from which a bar, Q, extends at each end down to the level of the axles, or thereabout, and connects with the supporting-frames by links R, so that the draft, which is applied to rods Q by whiffletrees S, is properly distributed on the arch-tops and the axle-frames, to draw steadily, and without straining the machine.

The elliptical form of the plates G affords the strength required with the smallest quantity of material. By the use of these plates, aside from the advantages already stated, the couplings are placed several inches in rear of the axle, and when cultivating uneven ground the plows are automatically adjusted to plow the same depth as when used on level surfaces. Much more space is given between the arch and wheels for lateral movements of the plow-beams.

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

1. The axle-frames, consisting of elliptical plates G and connecting-bolts H, combined with the short axles B and the arch-standards C, substantially as herein shown and described.

2. The bolts H, formed on the arch-standards C, and combined with plates G, substantially as herein shown and described.

THOMAS R. WALLIS.

Witnesses:

W. A. POLLOCK, Jr.,

M. KRETSCHMAR.