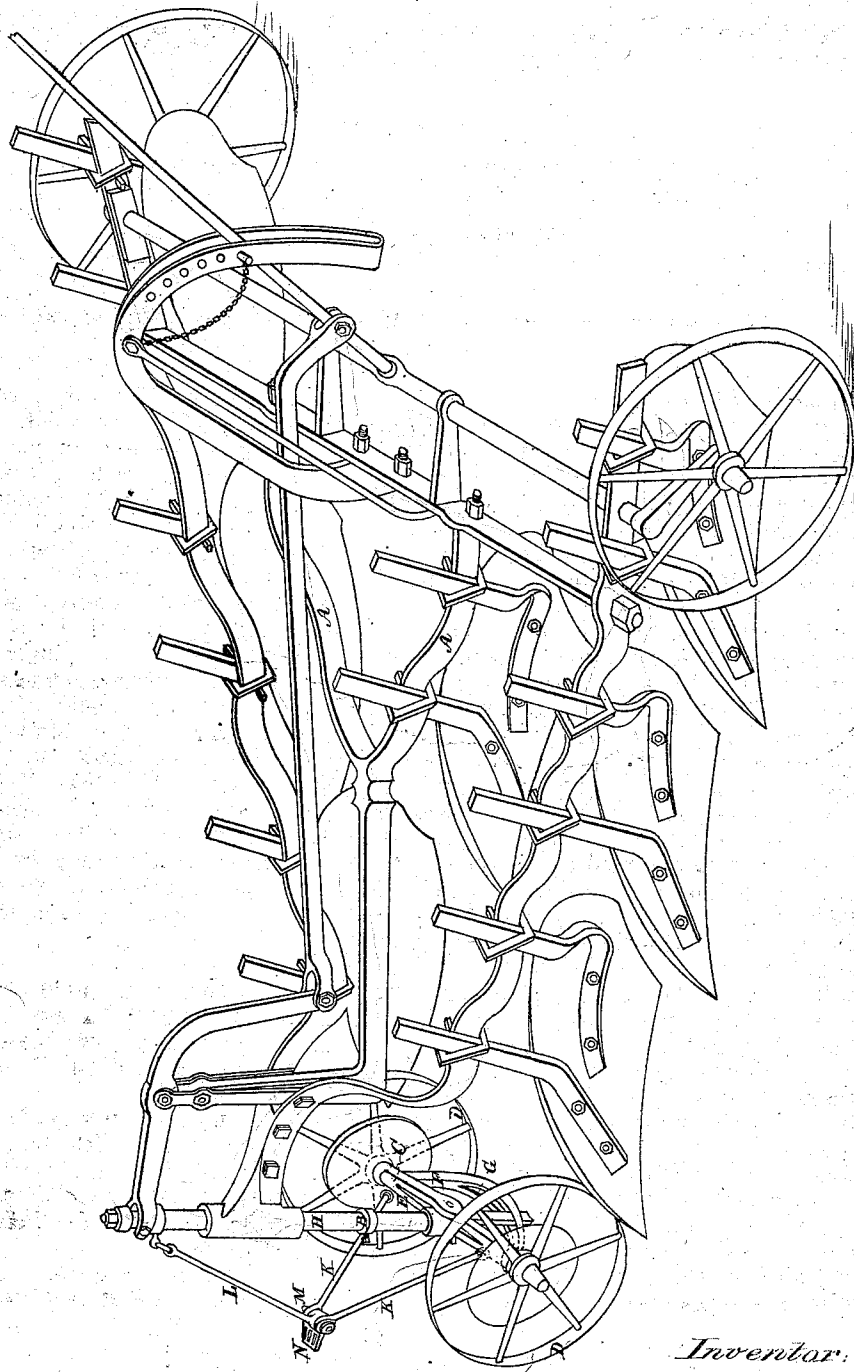


D. EDWARDS.
Cultivators.

No. 136,047.

Patented Feb. 18, 1873.



Witnesses:

D. H. Cowl
Jas. D. Patten

Inventor:

David Edwards,
by
James L. Norris,
Attorney.

UNITED STATES PATENT OFFICE.

DAVID EDWARDS, OF MELBOURNE, VICTORIA.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. **136,047**, dated February 18, 1873.

To all whom it may concern:

Be it known that I, DAVID EDWARDS, of Melbourne, in the Colony of Victoria, blacksmith, have invented an invention entitled "Improvements in the Construction of a certain Description of Land Scarifier or Cultivator, parts of which are applicable to other purposes," of which the following is a specification:

This invention consists of certain improvements upon another invention for which I have obtained Letters Patent in and for the United States of America, dated the 28th day of March, 1871, numbered 113,148, and entitled improvements in cultivators. My invention consists in providing the axle with a vertical slot in its center, and arranging beneath the same a semicircular bar, which is provided with a vertical slot coinciding with that in the axle, the said slot in the bar acting as a guide to the lower free end of the spindle, which passes through the said slots and is bolted to the axle, the bolt serving as a center on which the spindle works. The invention further consists of certain other improvements, which will be fully hereinafter described.

In the accompanying drawing, the figure represents a perspective view of a cultivator with my improvements applied thereto.

The letter C represents the axle of a wheel-cultivator, provided with a central vertical slot, E, and with suitable driving-wheels. Beneath the axle C is arranged a semicircular bar, F, which is provided with a vertical slot, G, coinciding with the slot in the axle. The vertical spindle H is supported at the end of the bar

A, and is provided with a collar, and passes down through the slots E G and rests on the axle, and is secured to the same by a bolt passing through the two, which bolt forms the center upon which the spindle works. The lower end of this spindle works in and is guided by the slot G on the semicircular bar F.

By this arrangement I am enabled to counteract the effect produced on the implement when one or more of the wheels are passing over ground having a rough and uneven surface, which sometimes causes one side of the implement to be raised up from the ground to such a height as to preclude its working.

In order to equalize the draft on the machine I attach two links, K K, to the axle, at equal distances apart, on either side of the center bolt, and connect them together, as well as a third rod, L, projecting from a collar on the spindle, and then secure to the ends thereof a suitable clevis, to which the motive power is attached.

I claim—

1. The spindle H, passing down through the longitudinal slot E in the axle C and pivoted therein, and having its free end guided in the semicircular slotted bar F, as and for the purpose set forth.

2. The inclined links K K, flap N, and link L, in combination with the spindle H, slotted axle C, and semicircular slotted bar F, all constructed and arranged as herein shown.

DAVID EDWARDS.

Witnesses:

EDWARD WATERS,
WALTER SMYTHE BAYSTON.