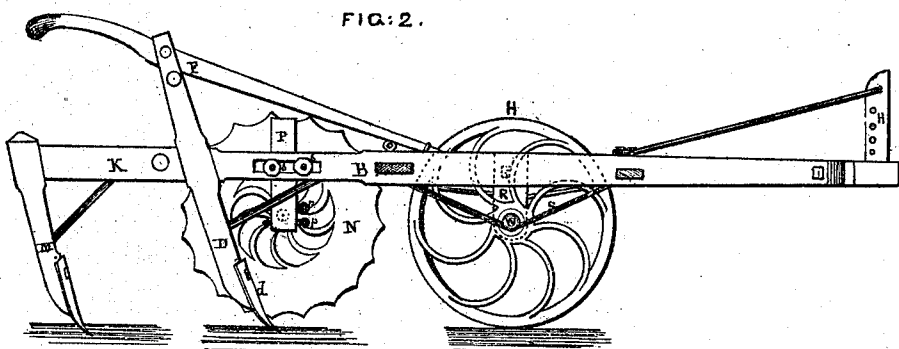
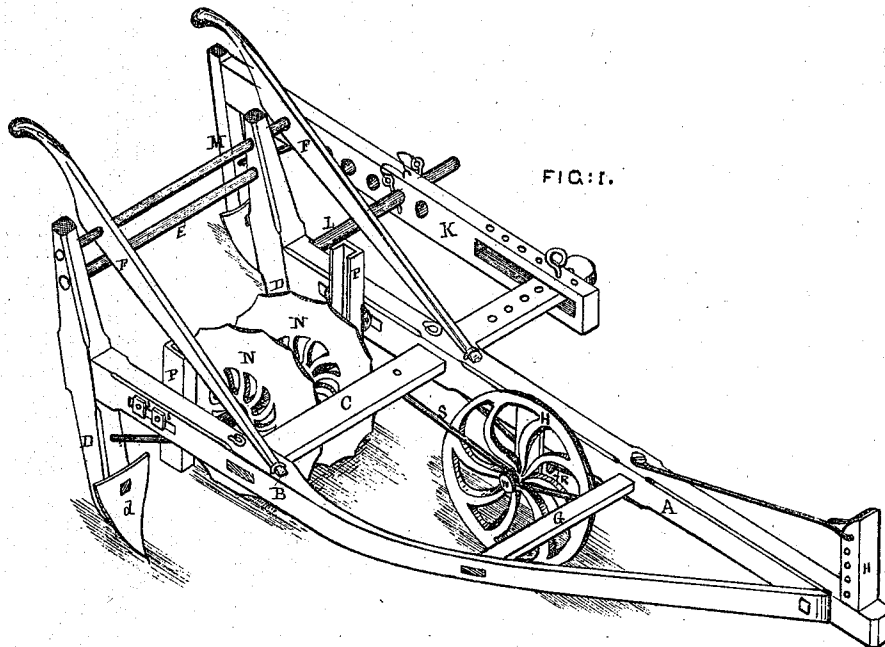


L. Howrighouse,

Cultivator.

No. 107,777.

Patented Sep. 27. 1870.



Witnesses:

E. H. Young
J. B. Burt

Louis Howrighouse, M. D.

By David A. Burr -
Atty.

UNITED STATES PATENT OFFICE.

LOUIS HOMRIGHOUSE, OF BALTIMORE, OHIO.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 107,777, dated September 27, 1870.

To all whom it may concern:

Be it known that I, LOUIS HOMRIGHOUSE, of Baltimore, in the county of Fairfield and State of Ohio, have invented an Improvement in Cultivators, of which the following is a specification:

My invention relates to the combination of a large bearing-wheel with the beam of a cultivator, about midway of its length, to furnish a means of readily transporting or wheeling the implement from place to place, and also to support and carry the weight of the beam, and steady the operation of the machine when at work.

Referring to the accompanying drawings, Figure 1 is a view in isometrical perspective of my improved cultivator; Fig. 2, a side elevation thereof.

I construct my improved cultivator substantially in the manner fully described in the Letters Patent issued to me on the 3d day of May, 1870, No. 102,543, omitting, however, the auxiliary right-hand shovel, working in front of the main shovels, as therein set forth.

In the drawing herewith filed, A is the draft-beam; B, the main side beam, whose front end is extended and bent inward to reach the draft-beam, and is secured thereto by a transverse bolt or other fastening, as shown in Fig. 1; C, the main cross-bar of the machine; G, a brace-bar, steadying and stiffening the draft and side beams; D D, shovel-bars, secured to the rear ends of the draft and main side beams in a right line with each other, at right angles to the draft, and with the usual forward inclination. *dd* are the shovels or shares, secured thereto in the usual manner. K is an auxiliary adjustable side beam, extending back of the main beams, so that its attached shovel, M, will work in the rear of the main shovels *dd*, upon one side thereof. F F are the handles of the implement. These are so inclined laterally as to bring the operator holding them nearly on a line with the main draft-beam A. N N are adjustable fender-wheels, arranged to work in suitable bearings by and between the main shovels *b b*. These wheels are scalloped along their circumferences, to present engaging-points *t t*, as shown in the drawing.

H is a large bearing or beam wheel, made, by preference, of cast-iron, which I combine

with the draft-beam A of the implement. It is constructed of any approved pattern, and of such an enlarged diameter as to carry with ease the weight of the machine when thrown thereon. I connect this beam-wheel to the beam A at a point about midway of its length, and in front of the cross-bar C, by means of a pendant, post, or bracket, R, secured to the under side of the beam to project therefrom, either by a mortise-and-tenon joint, or other secure fastening, and strengthened, if need be, by metallic straps or side plates, and by suitable diagonal braces.

One end of the bolt W, forming the axis upon which the wheel H revolves, passes through the lower end of the post R, the other end thereof being supported and secured by means of an eye in a bent bar or rod, S, secured at one end to the front brace-bar, G, and at the other to the cross-bar C of the machine, as clearly illustrated in the drawing. The axis-bolt W, passing through the post R and the eye in the bent rod S, is fastened by a tap or nut on its inner end, so that as the wheel H wears and gets loose in its bearings, it may be tightened by this nut.

I am enabled, by means of the supporting and carrying-wheel H, to transport my cultivator from place to place with the same facility as a wheelbarrow, by simply lifting it by its handles F F, throwing the weight well onto the wheel, and pushing it in the usual manner.

The wheel in no manner interferes with the successful operation of the machine, but, on the contrary, facilitates it by steadying its movement, by assisting in the regulation of the depth to which the plows must run, and by rendering it very easy to turn the machine. At the same time the ground or roadway is not disturbed by the machine when in transit from field to field or place to place.

I am aware that the cutter-wheels of plows, placed at or near the extreme end of the draft-beam, have been made to perform some of the offices to which my bearing-wheel is adapted; but by my improvement in cultivators, obtained by combining therewith an enlarged bearing-wheel, secured to the draft-beam at a point closely approximating the shares or points of the implement, and about midway of the length of said beam, in manner substan-

tially as herein described, I obtain advantages in the use and operation of a cultivator which are not to be found in other machines of the same class.

I claim as my invention—

An enlarged bearing-wheel, H, combined with the draft-beam A of a cultivator-plow, about midway of its length, to carry and sup-

port the machine, all substantially as herein described.

Witness my hand to this specification of my improvement in cultivators.

LOUIS HOMRIGHOUSE.

Witnesses:

J. F. CAMPBELL,
D. BEIGHLER.