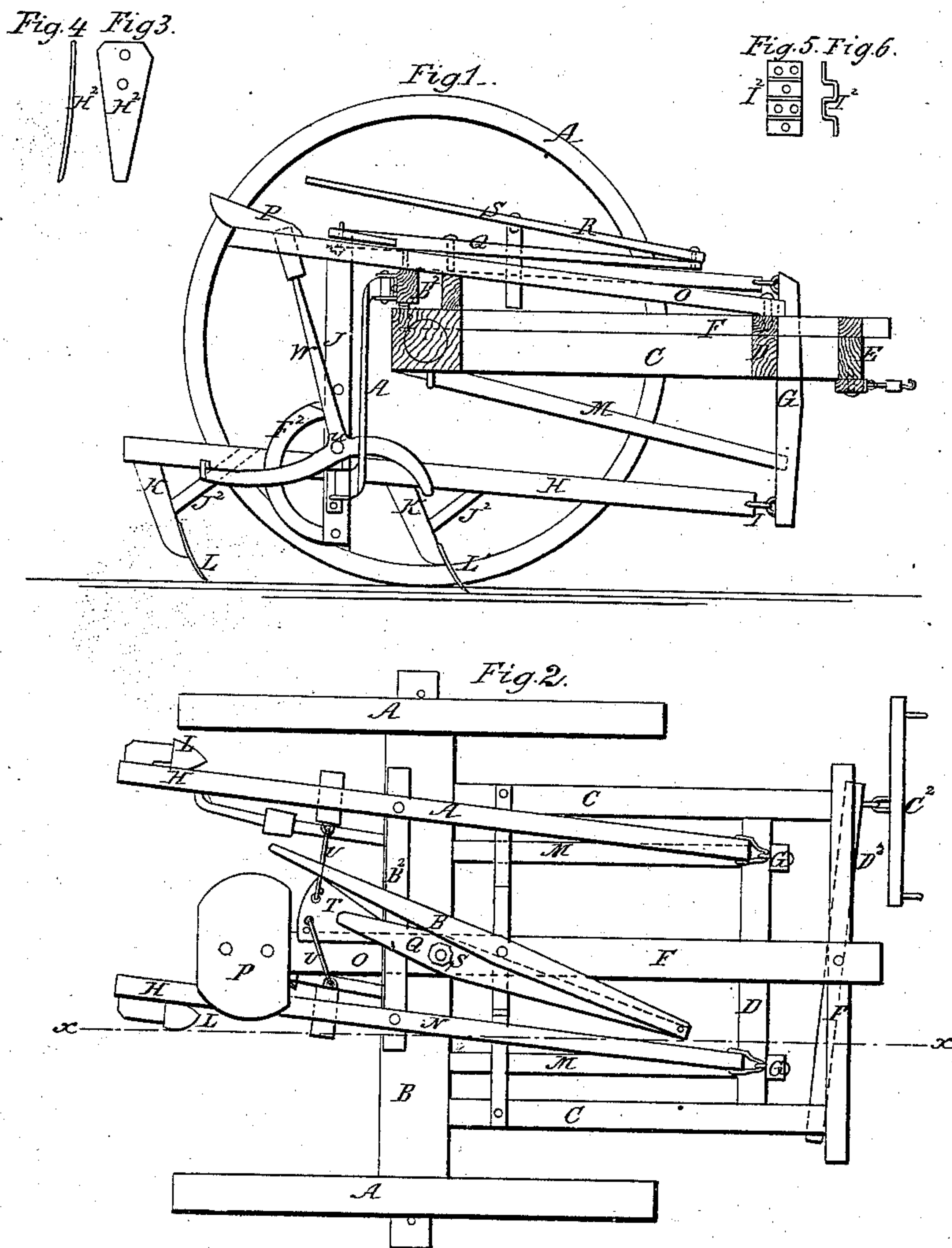


S. P. ETTER.
Wheel-Cultivator.

No 58,082.

Patented Sept. 18, 1866.



Witnesses.

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UNITED STATES PATENT OFFICE.

SAML. P. ETTER, OF SCOTLAND, PENNSYLVANIA.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 58,082, dated September 18, 1866.

To all whom it may concern:

Be it known that I, SAMUEL P. ETTER, of Scotland, in the county of Franklin and State of Pennsylvania, have invented a new and Improved Cultivator; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming part of this specification.

The nature of this invention consists in so constructing a cultivator that by means of compound levers the plows may be shifted from side to side between the wheels, and by means of other levers the plows may be elevated out of the ground, so that the cultivator may be conveyed from place to place without the teeth or plows coming in contact with the ground.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

Figure 1 is a longitudinal vertical sectional elevation from the line X X, and Fig. 2 is a top-plan view of the same. Fig. 3 is a front elevation of the narrow plowshare. Fig. 4 is a side elevation of the same. Fig. 5 is a front elevation of a plate to which the plows can be attached and turned to any desired angle. Fig. 6 is a side elevation of the same.

Letters of like name and kind refer to like parts in each of the figures.

A A represent two wheels, of ordinary construction, that run on the axle B.

C C are two timbers framed into the front side of the axle B, and extend forward and relieve the cross-pieces D and E.

F is also a piece that is secured to the axle, and extends forward and connects with the two pieces D and E.

G G are two pendants, attached to the cross-piece D by a pivot, and extending above and below the said cross-piece D. To the lower end of these pendants G are attached, by means of joints, the plow-beams H H, which extend back under the axle and pass through pendant-guides J. To these plow-beams H H are attached the plow-standards K, to which the plows L are secured. To the lower end of the pendants G are also connected braces M M, that extend back and connect to the axle.

N N are bars, connected by a joint to the upper ends of the pendants G, and extend back and connect with the pivoted pendant-guides J J.

O is a timber, the front end of which is secured to the cross-piece D, and extends back on an incline to the rear of the axle, and the driver's seat P is secured to the end of the said timber O. To this timber O is attached by a pivot-bolt the lever Q, at the front end of which is connected by a pivot-bolt another lever, R, that is also pivoted at S, and extends back to the driver's seat. At the rear end of the lever Q is an iron plate, T, secured to the said lever Q, in the rear end of which is a series of holes for the purpose of connecting it with the pendant-guides J by means of the rods U U.

W W are levers, connected by a pivot-bolt at a to the pendant-guides J. The rear end of the said lever W forms a treadle, while the front end is turned under the beam H, so that it can be raised by means of the said lever W.

A² are two braces, connected by a joint or hinge to the bolster B² and the pendant-guides J.

C² are the whiffletrees, that are attached to the evener or double-tree in the ordinary manner, for the purpose of drawing the machine.

F² F² are segments, secured to the pendants G, for the purpose of securing the levers W and beam H at any desired elevation.

H², Fig. 3, is a narrow plow tooth or share, that may be attached to the standard K in place of plow L when the nature of the work requires.

I² is a plate, that may also be attached to the standard L, for the purpose of turning the plows to any desired angle.

J² J² are braces, that are attached to the standards K and beams H, for the purpose of supporting the standards K.

This cultivator possesses many advantages over those of more common construction, from the fact that the driver has perfect control over the machine, and, by means of the levers, is able to guide the plow through all the sinuosities of the rows without in any way interfering with the hills. He is also enabled, while upon his seat, to elevate the plows from

the ground and pass over obstacles, or so that the machine can be conveyed from place to place.

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

1. The compound levers R and Q, connected to the plow-beams by the braces or rods U U, when constructed and operated for the purposes and substantially as described.

2. The compound levers R and Q, rods U U, and plow-beams H H, in combination with the pendants G G and pendant-guides J J, substantially as and for the purposes shown and described.

SAMUEL P. ETTER.

Witnesses:

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J. K. ETTER.