F. P. BEUCLER.

CULTIVATOR.

No. 182,988. Patented Oct. 10, 1876.

Fig. I.

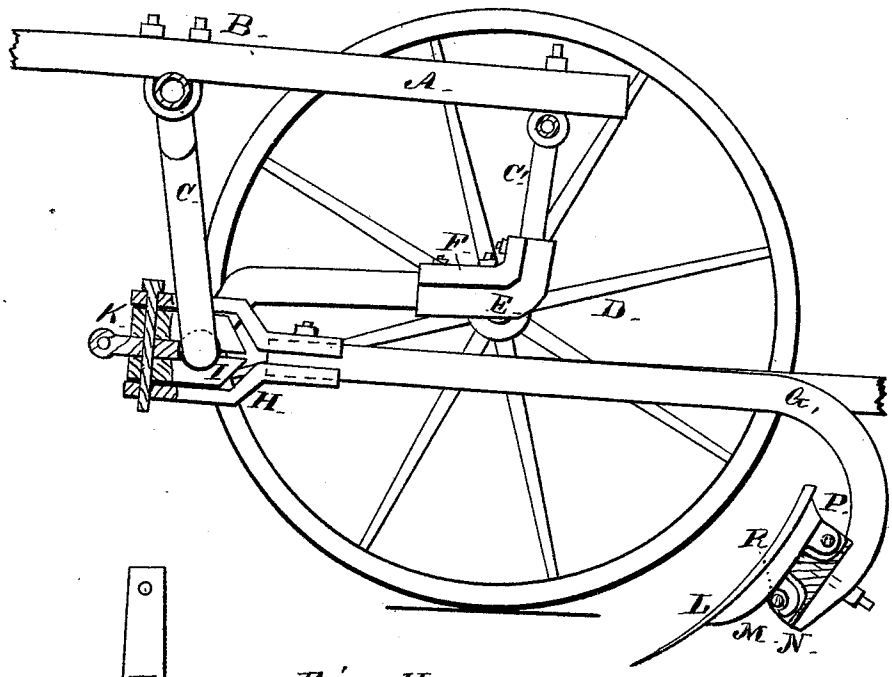
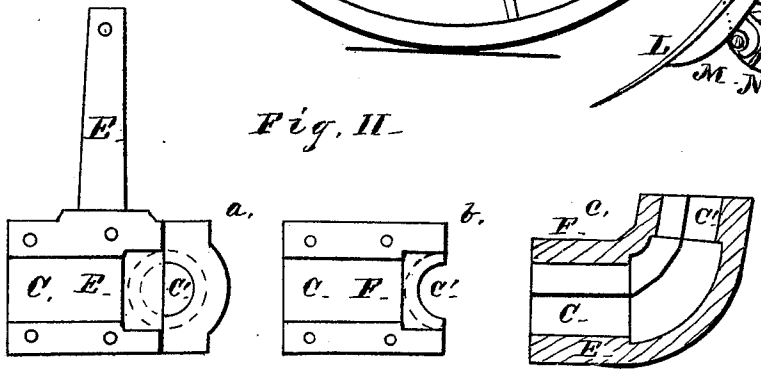


Fig. II.



Witness=
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FREDRIC P. BEUCLER, OF CHARLESTON, IOWA.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. **182,988**, dated October 10, 1876; application filed April 24, 1876.

To all whom it may concern:

Be it known that I, FREDRIC PETER BEUCLER, of Charleston, Lee county, Iowa, have invented a new and useful Improvement in Cultivators, of which the following is a specification:

This is made substantially as set forth hereinafter, referring to the accompanying drawings, in which—

Figure 1 is a vertical section of the cultivator. Fig. 2, Sheet 2, shows details of parts of the wheel-axle.

This invention consists in the construction and arrangement of various parts of a cultivator—especially designed for the class of straddle-row tongue-cultivators.

The tongue A bears the double-tree or evener B, and is borne by the wheel-frame C, to which it is rigidly connected. The wheel-frame C is formed of iron pipes, bent into shape, as shown. The front pipe is bent into an arch to pass over the row, has horizontal portions on each side to connect the plow-beams to, and then bends back on each side to receive the wheels D, and connects with the back pipe C′, which is smaller. This also is bent into an arch to pass over the row of plants. Both connect rigidly with the tongue on top.

The wheels D have axles E, which project inward and connect with frame C, along with parts F. The parts E F fit together, and are held by bolts and clamps. The pipes C C′ connect by an elbow-joint, which fits into a space between parts E F. This elbow prevents the axle turning on pipe C.

The plow-beams G connect with pipe C by a combination-joint. This consists of two portions, H I, each formed of two parts. The parts I are formed like journal-boxes, which fit around pipe C, and are held together by bolts, so as to turn freely on it, to allow the plows to be lifted. The parts H connect rigidly to the beams, and have a space between them in front, so as to pass over and below parts I. The parts are connected by a vertical pivot-bolt in front, on which they turn to allow the plows to be moved sidewise. The eye K projects forward for the draft, and is held between the parts by this bolt. The parts I have annular grooves around pipe C. In this a projection on pipe C fits to keep the parts at one place on the pipe while admitting vertical motion of the plows. The width of the plows apart is changed by changing the groove this projection fits into. This is done by lifting the plows so that this projection will pass between the parts I, at the joint left open therefor.

The beams are formed of pipes bent and connected with parts H and plows L. These beams are heated and "stove up" at the part where the bend is to be before bending, to make the bend stronger. Handles are put on the beams to guide the plows by, together with braces.

The plows L are set on blocks M. These blocks have projections on their backs fitting into blocks N, attached to the beams. The lower projection is a downwardly-bent hook, fitting over a horizontal bolt or cross-part in block N, as on an eye or pivot. The upper projection forms an eye, through which a breaking-pin, P, of wood or other material, is placed in block N, to hold the whole in position for plowing. When the plows strike immovable objects, &c., this pin P is broken, and the top of the plow flies forward, turning on the lower projection, and allowing the bottom of the plow to bend back and free itself. The plow is held then by the hook, and can be turned up again and fastened anew.

I do not claim the use of tubes as parts of cultivators, except substantially as hereinafter claimed.

I claim—

1. The cultivator-holder having a breaking-pin connection with a pin above arranged to break, combined with a hook below, which admits of removing the plow, substantially as set forth.

2. The combination of parts E F, having an elbow-shaped space between them, with the wheel-frame C C and wheel-axle E, substantially as set forth.

3. The combination of the tongue, the wheels, and the tubular pipes C C′, bent and connected, substantially as set forth, to form a cultivator-frame.

4. The cultivator-plow beams formed of tubes having the joint-connection in front, and curved down to receive the cultivators, and having the curved portion enlarged, substantially as set forth.

FREDRIC PETER BEUCLER.

Witnesses:

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