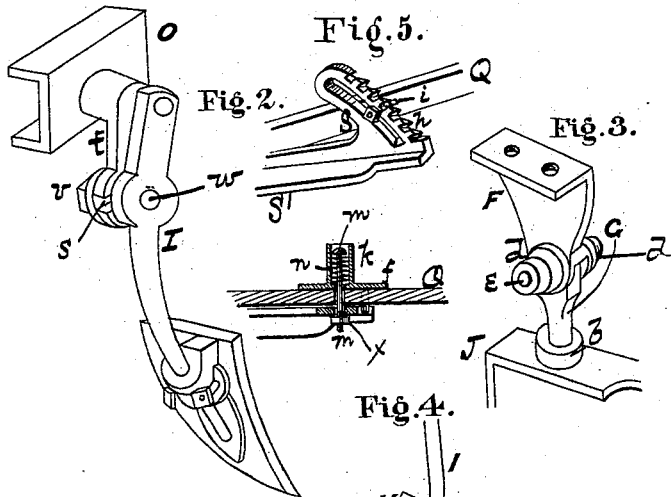
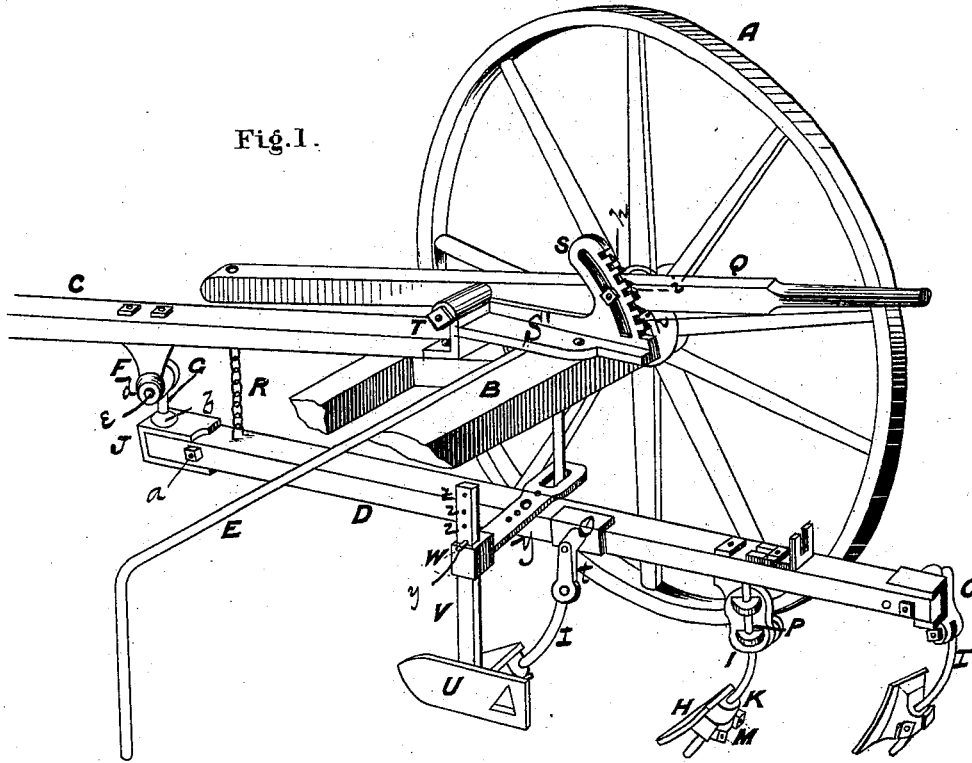


A. GEPPERT.
Wheel-Cultivator.

No. 209,118.

Patented Oct. 22, 1878.



Witnesses:
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UNITED STATES PATENT OFFICE.

ALBERT GEPPERT, OF SPRING PRAIRIE, WISCONSIN.

IMPROVEMENT IN WHEEL-CULTIVATORS.

Specification forming part of Letters Patent No. **209,118**, dated October 22, 1878; application filed March 23, 1878.

To all whom it may concern:

Be it known that I, ALBERT GEPPERT, of Spring Prairie, in the county of Walworth and State of Wisconsin, have invented certain new and useful Improvements in Wheel-Cultivators; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

The nature of my invention consists in the construction and arrangement of a wheel-cultivator, as will be hereinafter more fully set forth, and pointed out in the claim.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, which forms a part of this specification, and in which—

Figure 1 is a perspective view of my improved cultivator. Figs. 2, 3, and 4 are detailed views of certain parts and modifications thereof. Fig. 5 represents the ratchet device.

C represents the split tongue secured to the axle B, said axle being, at each end, provided with a driving-wheel, A.

D represents one of the cultivator-beams, provided at the forward end with a box-like casting, J, enveloping the same, and fastened by a bolt, *a*. The top and bottom of the casting or box J are provided with projecting hubs *b*, in which is swiveled a rod, G. The upper end of this rod forms a flattened head, which is pivoted by a bolt, *c*, between two jaws, *d d*, formed at the lower portion of an L-shaped casting, F, said casting being bolted or otherwise securely fastened to the under side of the tongue C. The rod or bolt *e* is horizontal, while the rod G is vertical; hence the beam becomes united to the tongue, as it were, by a universal joint, which admits of the beam being turned in any direction, up and down or to either side.

On the axle and tongue, at one side of the frame, is secured a casting, S', the forward end of which forms an elongated fulcrum, T, for the pivot-bolt of a lever, Q. The front end of this lever is by a chain, R, connected with the beam D a suitable distance in rear of the universal joint at the front end of said beam.

The rear portion of the casting S' forms an upwardly-extending slotted segment, S, the rear edge of which forms a series of inclined ratchet-teeth, *h h*, and inclined lug *i* on the side of the lever Q engages with said teeth to prevent the rear end of the lever from moving upward. On the outer side of the lever Q is secured a plate, *f*, with a hollow tube, *k*, projecting from the same. In this tube is placed a headed pin or bolt, *m*, with spiral spring *n* surrounding the same. The end of this pin or bolt projects through the lever and through the slot in the segment S, and a nut, *x*, is screwed on the end of said bolt. The tension of the spring *n* holds the lever in contact, so that the lug *i* engages with one of the ratchet-teeth *h*, while it allows the lever to be pressed outward, so as to be turned on its fulcrum to lower the beam.

For attaching the plows to the beam D, castings O are secured to said beam. These castings may be made to clasp the beam or be fastened under the same. In either case each casting has a downwardly-projecting arm, *t*, in the lower end of which is a notch or slot, *s*, opening from the rear edge.

I represents the plow foot or standard, which is pivoted at its upper end to the upper end of the arm *t*, and at a suitable point through the standard is passed a bolt, *w*, which, when the standard is in position, lies in the slot or notch *s* in said arm, and a nut, *v*, screwed on the end of said bolt holds the standard to the arm. This nut should be screwed up sufficiently tight to withstand the backward strain on the standard during the working of the machine; but if the plow should strike a stone or other obstruction the standard will at once turn on its pivot, the bolt *w* slipping out of the slot or notch in the arm *t*.

In some cases a plate, P, may be interposed between the plow-standard and arm, *t*, or, in other words, the standard be fastened to the plate P, and said plate pivoted and held to the arm *t* in the same or similar manner as above described. In this latter case I obtain the additional advantage that the plow-standard can be adjusted up and down, as may be required.

H represents the plow-shovel, formed on its back with a box, K, for the passage of the stem or standard I. This box is slotted, and

in the slot is inserted a block, L, between the shovel and the standard. A bolt, N, either passing through the parts or projecting from the block, has a nut, M, screwed upon its rear end, whereby the shovel becomes firmly held to the standard, and can be adjusted up or down and turned to either side, as desired.

U represents a shield, to keep the dirt from pressing back onto the forward shovel. This shield is provided with a vertical standard, V, which passes upward through a keeper, W, and is held by a pin, y, through either one of a series of perforations, z z, in the standard, so that the shield can be adjusted up and down, as required. The keeper W is formed on the end of a bar, Y, which is adjustably fastened on top of the beam D, and the outer end of said bar is provided with a slotted addition,

to receive the end of the bent sway-bar E. This sway-bar guides the beam when the shovels shall sway back and forth, to avoid stones and other obstructions.

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

The combination, with the tongue C and beam D, of the casting F, with jaws *d d*, the casting J, with hubs *b*, the swiveled pin G, having a flattened eye at its upper end, and the pivoting-bolt *e*, all constructed substantially as and for the purposes herein set forth.

ALBERT GEPPERT.

Witnesses:

G. F. MCLEOD,
A. B. HOYT.

1.250
words