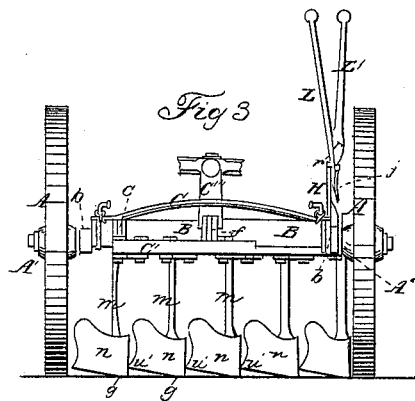
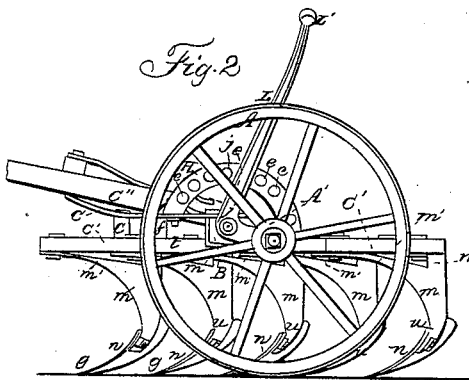
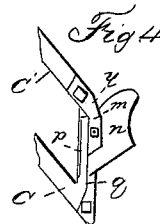
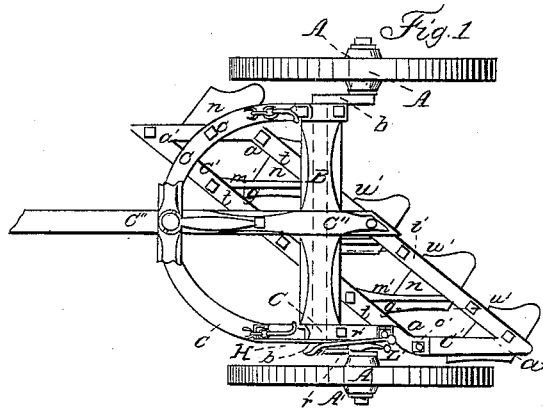


C. BELDEN.

Gang-Plow.

No. 51,790.

Patented Jan. 2, 1866.



Witnesses:

W. H. Burdick
H. M. Burdick

Inventor:

Charles Belden

UNITED STATES PATENT OFFICE.

CHARLES BELDEN, OF MIDDLEBURY, OHIO.

IMPROVEMENT IN GANG-CULTIVATORS.

Specification forming part of Letters Patent No. 51,790, dated January 2, 1866.

To all whom it may concern:

Be it known that I, C. BELDEN, of Middlebury, in the county of Summit and State of Ohio, have invented certain new and useful Improvements in Gang-Cultivators; and I do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a plan view of the machine. Fig. 2 is a side view. Fig. 3 is a front view. Fig. 4 is a sectional view.

My improvement relates to gang-cultivators, as hereinafter described.

A A are wheels on a double-crank axle, *b*, the ends of which pass through the hubs *A'*, and the axle on the inside of the hubs turns toward the front, and then extends through the axle-tree *B*, as indicated by the dotted lines in Fig. 1.

C is a curved brace extending from the ends of the axle-tree, where it is secured, round in front under the tongue, to which it is attached. Underneath the axle-tree, and firmly secured to it, is a frame, *C'*, placed diagonally across between the wheels. The opposite sides and ends of this frame are parallel, and the opposite obtuse angles, *a a*, are equal, and the acute angles *a' a'*, as shown in Fig. 1, forming a parallelogram. The tongue *C''* is fastened to the frame *C'* at the rear end, and also at *f* in front. The brace *C* is secured to one end of the frame at *c* in a similar manner. The end of the brace *C* extends back of the axle-tree, and is attached at *c'* to the frame. The cross-tree *B*, frame *C'*, and tongue are firmly fastened together and supported by the wheels on the axle-tree.

One of one of the wheels, attached to the axle-tree, is a curved rack, *H*, in which there are teeth.

To this rack is connected a spring-rod, *L'*, secured at the lower end to the axle-tree. The lever *L'* is hinged or jointed at the lower end to the axle-tree, at the lower end of which is a pin that fits into the holes in the rack, being a spring, *j*, whereby the pin can be sprung into the holes. The lever is kept in place, in connection with the rack,

by means of a lip, *r'*, that extends down on the inside. With this arrangement, by moving the lever *L'* up toward *L* the lever is released from the rack, so that it can be moved along as may be desired, to elevate or lower the blades. Then by removing the pressure from the lever the pin will spring into the rack, retaining the machine in that position.

The entire machine, all but the wheels, is elevated or lowered upon the wheels by means of the lever.

The mold boards or blades are represented at *n*, which are secured to standards *m*, that extend up and divide or branch off at the top, so that the end *m'* extends under the front part, *t*, of the frame and the end *n'*, the back part, *t'*, being firmly secured to each by bolts. The lower end of the standards is twisted or turned at *u*, and curved so that the flat side fits down close on the inside of the blades, as represented in Figs. 2 and 4, and is secured by a bolt and nut. The blades are a peculiar shape, as represented in the drawings, having self-sharpening steel points *g*, and from the points the edges of the plates of which the blades are made are doubled under, as shown at *p* in Fig. 4, which renders the blades very strong. The blades extend up in one lobe, curved inward and out at the top, forming a mold-board of such a shape as to cultivate the ground in the most perfect manner. The point *g* of one blade just overreaches the rear end, *u'*, of the next, as shown in Fig. 3, and indicated by the red lines in Fig. 1.

By means of the lever *L L'* the blades can be moved up or down, so as to cultivate the ground deep or shallow, as may be desired.

What I claim as my improvement, and desire to secure by Letters Patent, is—

The blades *n*, constructed as shown, with a rib, *p*, and arranged in relation to each other diagonally across the machine, in combination with the standards *m* and diagonal frame *C'*, substantially as and for the purpose set forth.

CHARLES BELDEN.

Witnesses:

W. H. BURRIDGE,
H. NEWBERRY.