

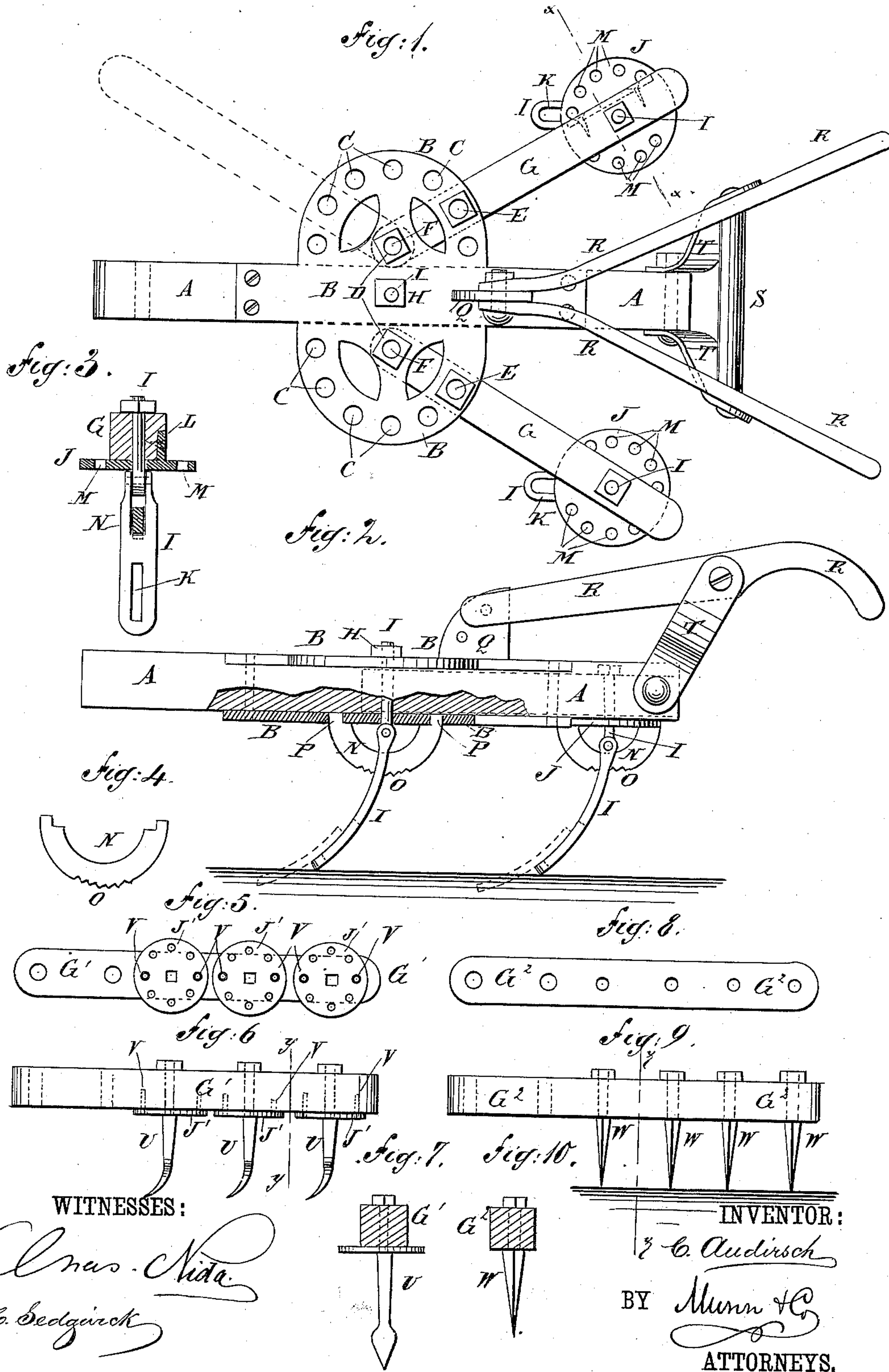
(No Model.)

C. AUDIRSCH.

COMBINED PLOW, CULTIVATOR, AND HARROW.

No. 335,008.

Patented Jan. 26, 1886.



UNITED STATES PATENT OFFICE.

CARL AUDIRSCH, OF GURDON, ARKANSAS, ASSIGNOR TO HIMSELF AND
WILLIAM W. STRICKLAND, OF SAME PLACE.

COMBINED PLOW, CULTIVATOR, AND HARROW.

SPECIFICATION forming part of Letters Patent No. 335,003, dated January 26, 1886.

Application filed July 11, 1885. Serial No. 171,403. (No model.)

To all whom it may concern:

Be it known that I, CARL AUDIRSCH, of Gurdon, in the county of Clark and State of Arkansas, have invented a new and useful
5 Improvement in a Combined Plow, Cultivator, and Harrow, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification,
10 in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my improvement, shown arranged as a three-shovel plow. Fig. 2 is a side elevation of the same, shown partly
15 in section and with the near side beam attached. Fig. 3 is a sectional front elevation of a part of the same, taken through the line *x x*, Fig. 1. Fig. 4 is a side elevation of the standard braces. Fig. 5 is a view of the under
20 side of one of the cultivator side beams, the cultivator-teeth being removed. Fig. 6 is a side elevation of the same, the teeth being shown in place. Fig. 7 is a sectional end elevation of the same, taken through the line *y y*,
25 Fig. 6. Fig. 8 is a view of the under side of one of the harrow side bars, the harrow-teeth being removed. Fig. 9 is a side elevation of the same, the teeth being shown in place. Fig.
30 10 is a sectional end elevation of the same, taken through the line *z z*, Fig. 9.

The object of this invention is to provide combined plows, cultivators, and harrows constructed in such a manner that they can be
35 readily adjusted for use as plows, as cultivators, or as harrows, as may be required, and which when adjusted will be firm, substantial, and effective in use.

A represents the central beam, to the upper and lower sides of the middle parts of which
40 are attached the middle parts of two plates, B. The middle parts of the plates B are extended in front and rear to serve as lugs to receive the bolts or screws, by means of which the said plates are secured to the beam A. The side
45 parts of the plates B are made in semicircular form, have a series of holes, C, formed in them near their edges, and holes D formed in them at the centers of the circles of which the said side parts are parts to receive the bolts E F,

by means of which the side beams, G, are se- 50
cured to and between the said plates B, so that by loosening the outer bolts, E, the side beams, G, can be swung upon the inner bolts, F, as
pivots, into any desired position, where they are secured in place by replacing the said 55
bolts E.

In the centers of the plates B, and through the beam A, is formed a hole, H, to receive the upper part of the center plow-standard, I, which is secured in place by a nut screwed 60
upon its upper end. The upper parts of the side standards, I, pass up through the circular plates J, secured to the lower sides of the outer ends of the side beams, G, and through the said beams, and are secured in place by nuts 65
screwed upon their upper ends.

The standards I are made in two parts, hinged to each other near the lower sides of the beams A G. The lower parts of the stand-
ards I are curved forward to bring them into 70
proper position to receive the plows, and in the lower ends of the said parts are formed slots K to receive the bolts, by means of which the said plows are secured to the said stand-
ards. 75

Upon the upper sides of the plates J are formed flanges L, which rest against and are let into the sides of the rear ends of the side beams, G, and are perforated to receive the bolts or screws that secure the said plates to 80
the said beams.

In the circular plates J, near their edges, are formed holes M, to receive the ends of the curved bars N, which pass through slots in the upper ends of the lower parts of the stand- 85
ards I.

In the middle parts of the convex edges of the bars N are formed teeth O, with which engage the said standards I, to support the lower parts of the said standards against the 90
resistance of the soil. With this construction the pitch of the lower parts of the standards I can be readily adjusted by loosening the nuts upon the upper ends of the upper parts of the said standards. The ends of the center bar, N, 95
are inserted in holes P in the lower plate, B, as shown in Fig. 2.

The bars N serve as brace or lock bars to

the standards I, and at the same time act as grass-rods to prevent grass, weeds, and other rubbish from lodging in the angles between the standards and beams.

5 Upon the rear middle part of the upper plate B is formed a lug, Q, to the opposite sides of which are bolted the forward ends of the handles R. The rear parts of the handles R are connected by a round, S, and are
10 supported by bars T, attached at their upper ends to the said handles R or to the round S, and attached at their upper ends to the opposite sides of the rear end of the beam A. Two or more holes are formed in the lug Q to re-
15 ceive the fastening bolt of the handles R, so that the forward ends of the said handles can be readily adjusted to raise or lower their rear ends, as the height of the plowman may require.

20 When the plow is to be used for listing or bedding land, it is adjusted in the position shown in Fig. 1.

When the plow is to be used as a gang-plow, one of the side beams, G, is swung forward, as indicated in dotted lines in Fig. 1, and the
25 bar N and the standard I are reversed.

When the plow is to be used for opening middles or throwing out cotton-stalks, both the side beams, G, are swung forward, and the bars
30 N and standards I are adjusted accordingly.

When the plow is to be used as a cultivator, the side beams, G, are detached and replaced with the side beams G', which are provided with two or more circular plates, J', secured
35 to the said beams by the shanks of the cultivator-teeth U passing through the said plates and beams. In this case the plates J' are held from turning by pins V, attached to the lower sides of the beams G', and which enter holes

in the said plates J', so that the said plates 40 and the cultivator-teeth U can be readily adjusted as the desired position of the said beams G' may require.

When the plow is to be used as a harrow, the beams G or G' are replaced by the beams 45 G², which are perforated, as shown in Fig. 8, to receive the harrow-teeth W, as shown in Fig. 9, the said harrow-teeth being secured in place by nuts screwed upon their upper ends.

Having thus described my invention, I claim 50 as new and desire to secure by Letters Patent—

1. The combination, with a plow-beam and a plate secured thereto having a central aperture and apertures outside thereof, of the
55 slotted standard I, having a bolt pivotally connected with its upper end and extending through the central aperture and the beam, and the curved bar N, notched on its under side, passed through the slotted standard, as
60 set forth, with its ends held by said standard in the outer apertures of said plate, whereby the standard and curved bar may be readily reversed or removed, substantially as set forth.

2. A combined plow, cultivator, and harrow, consisting of the main beam A, the plates 65 B, having central apertures, H, circular series of side apertures, C, and holes D, bolts E and F, the lug Q, formed on the upper plate B, and having upper and lower apertures, the removable side beams, the handles R, con-
70 nected to the lug Q by a bolt passed through one of its apertures, and the pivoted bars T, connecting the handles and beam A, substantially as set forth.

CARL AUDIRSCH.

Witnesses:

R. B. F. KEY,
W. D. GAGE.