

J. AYRES & M. F. HUNT.

Improvement in Cultivators.

No. 129,642.

Patented July 23, 1872.

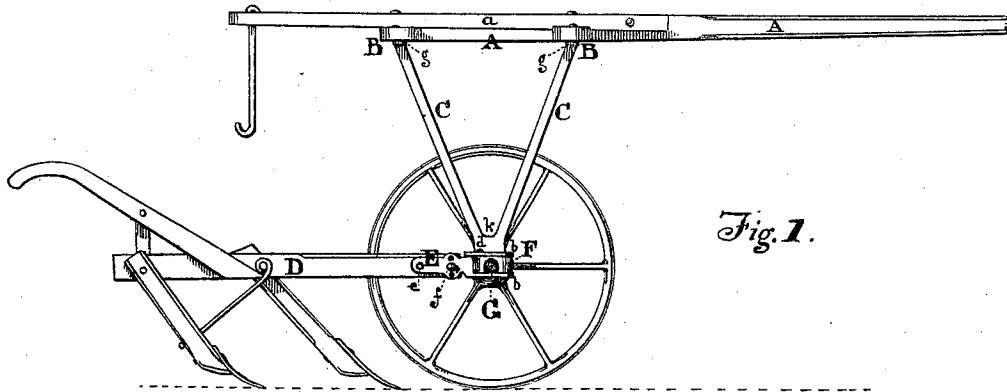


Fig. 1.

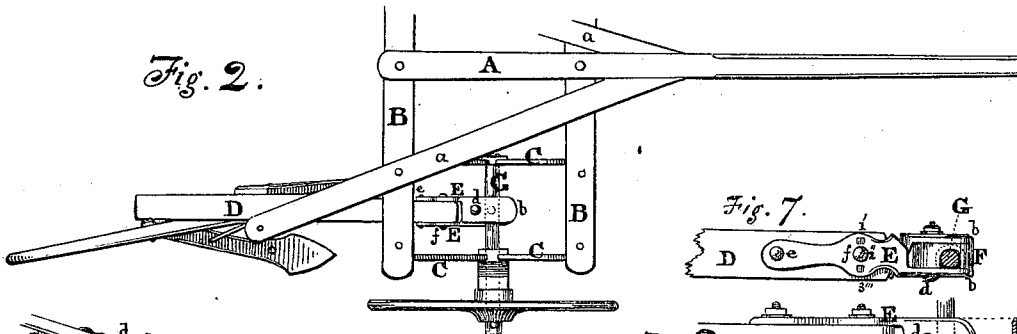


Fig. 2.

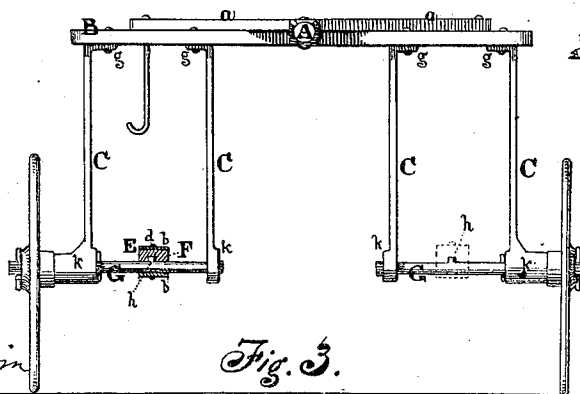
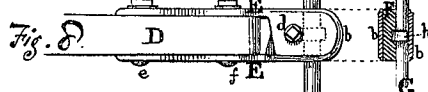
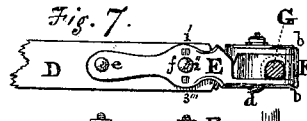
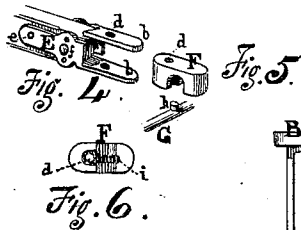


Fig. 3.

Fig. 10.

Witnesses.
 C. P. Woodwin
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James Ayres
 & M. F. Hunt
 By G. B. Fowler
 Attorney in fact

UNITED STATES PATENT OFFICE.

JAMES AYRES AND MANNING F. HUNT, OF BUSHNELL, ILLINOIS.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 129,642, dated July 23, 1872.

To all whom it may concern:

Be it known that we, JAMES AYRES and MANNING F. HUNT, of the city of Bushnell, in the county of McDonough and in the State of Illinois, have invented an Improvement in Corn-Cultivators; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawing making a part of this specification, in which like letters of reference refer to like parts, and in which—

Figure 1 represents a side elevation; Fig. 2, a plan view; Fig. 3, an end view; and Figs. 4, 5, 6, 7, 8, and 9, views in detail of coupling device.

Like letters in the different figures of the drawing indicate like parts.

This invention relates to the employment of V-shaped braces in cultivators, which support and hold the tongue and hounds above the top of the corn, said braces being simpler and stronger than the usual braces, and supersede the necessity of the connecting-braces between the axle and the tongue now in use; also, to the coupling of the cultivator-plows with the axle by a device in which the points of the shovels are regulated for deeper or shallow plowing.

A is the tongue, terminating at the heel at the two parallel horizontal transverse bars B B, the ends of which are supported on their respective V-shaped braces C C, C C, these, in turn, resting on their respective divided brace or stationary axles G G, so divided, as in other cultivators, to allow the machine to straddle a row of corn-plants. The braces C C, C C are stout V-shaped iron frames, placed in pairs, one next the wheel-hub and its fellow at the other extremity of the same axle; and the lower point of each V-brace embraces the stationary axle G at the point of each V, and the outer ones are cast onto the axle which carries the wheel. They are each attached to their respective cross-bars B B by means of bolts through the ears *g g*, placed against the under surface of said bars B. The axles for wheels are cast in the stationary axles. D, the shovel-beam; E, the coupling by which the latter is

united to the axle G. It consists of an upper and lower plate, *b b*, projecting from front end of beam, between which plates a box or block, F, is held, the latter resting on the axle G, and is confined to its place by means of a slot, *i*, (see Fig. 6,) which embraces the nipple *h* (or flange or similar equivalent) on the axle. The plates *b b* of coupling E are continued, one on each side of the beam D, far enough to form a good stay for coupling, and there secured to beam by bolt *e*; and nearer the end of beam, in a similar manner, by the bolt *f*, adjustable in either of the holes in a line with said bolt *f*, to regulate plowing. The box F is confined between plates *b b*, and pivoted therein by the bolt *d*, which passes vertically through all, behind the axle G.

The operation is as follows: To regulate the beam D of the plow for shallow plowing, the bolt *f* is inserted in one of the holes of the series cut in the middle portion of side arms of coupling E, at the same time raising the beam D until the bolt passes through the necessary hole in said beam. In like manner, for deeper cultivations, the end of beam is depressed and fastened in a similar manner. Each beam D is pivoted to the box F by the single bolt *d*, which permits the plows to be worked freely to right or left. The box F clasps the stationary or brace axle G, and is further kept from sliding along the axle by means of the nipple or ring *h*, which is embraced by the slot *i* in the box F.

Having thus fully described our invention, what we claim therein as new, and desire to secure by Letters Patent, is—

The combination of the adjustable plates E *b*, pivotal block F, beam D, nipple *h*, and shaft G, substantially as and for the purpose set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 18th day of September, A. D. 1871.

JAMES AYRES.
MANNING F. HUNT.

Witnesses:

D. R. HAMILTON,
JOHN H. STEPHENS.