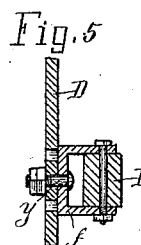
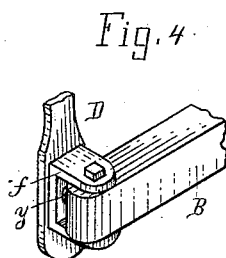
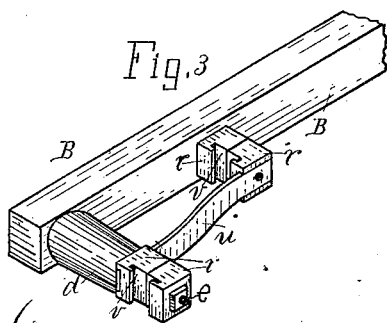
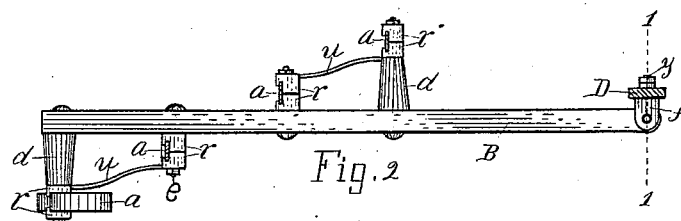
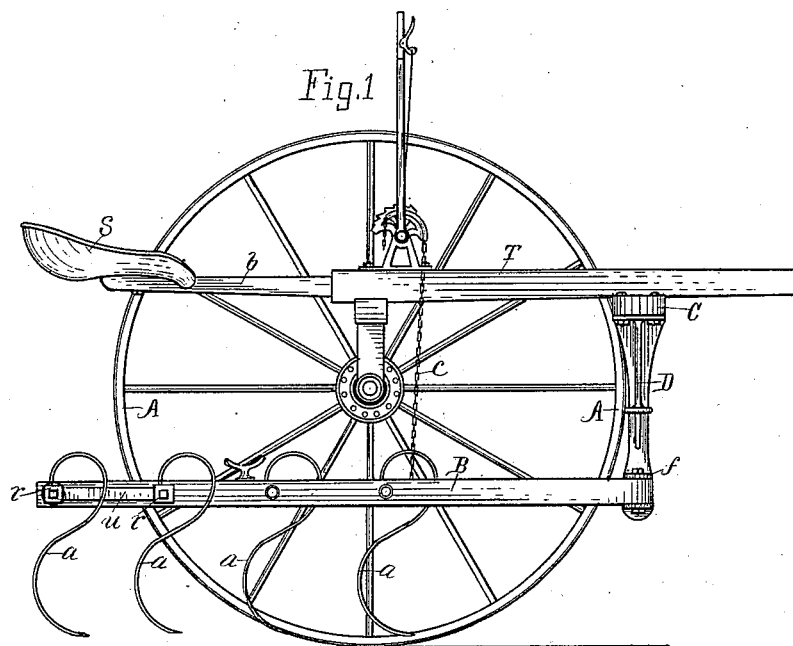


(No Model.)

I. J. HUNT.
WHEEL CULTIVATOR.

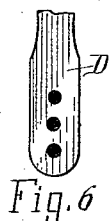
No. 347,806.

Patented Aug. 24, 1886.



Witnesses.

John C. Perkins.
J. E. Kellogg.



Inventor.

Ira J. Hunt.
By Lucius C. West
att'y.

UNITED STATES PATENT OFFICE.

IRA J. HUNT, OF KALAMAZOO, ASSIGNOR OF ONE-HALF TO D. O. EVEREST
& CO., OF PINE GROVE, MICHIGAN.

WHEEL-CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 347,806, dated August 24, 1886.

Application filed June 3, 1886. Serial No. 203,988. (No model.)

To all whom it may concern:

Be it known that I, IRA J. HUNT, a citizen of the United States, residing at Kalamazoo, county of Kalamazoo, State of Michigan, have
5 invented a new and useful Wheeled Cultivator, of which the following is a specification.

This invention relates to that class of cultivators, used in harrowing the field and cultivating corn, which employ horizontal share-
10 beams on a plane with the line of draft, said beams being pivotally attached at their forward end to pendent hangers attached to the forward portion of the wheel-frame.

The object of the invention is to construct an
15 improved share-holder especially designed for the above-named class of share-beams.

A further object consists in an improved construction for attaching the end of the share-beams to the hangers.

20 In the drawings, forming a part of this specification, Figure 1 is a side elevation; Fig. 2, a plan of details in Fig. 1; Fig. 3, an enlarged perspective of the left-hand end of Fig. 2; Fig. 4, an enlarged perspective of right-hand end of Fig. 2; Fig. 5, a section on line 1 1 in Fig. 2, and Fig. 6 is a back view of part D in Fig. 4.

Referring to the letters of reference marked on the drawings, the part B is the share-beam, attached in the below-described manner at its
30 forward end to the lower end of the pendent hanger D. The hanger D is bolted to the forward part of the frame T. The timber extending to the right of the hanger in Fig. 1 is one of the broken converging sides of the tongue, as ordinarily made in cultivators, and not here shown. The hanger and share-beam are of course duplicated on the opposite side of the machine, as in corn-cultivators in common use.

In Figs. 4 and 5 is plainly shown the device for attaching the beam to the hanger. The C-shaped coupling *f* receives the end of the beam B between its free ends, and is pivoted to the beam by a bolt, so that the coupling *f* may be swung around the end of the
40 beam to the opposite side. This is done by first removing the nut from the pivotal bolt *y* and detaching the coupling *f* from the hanger D. Then when the coupling *f* is swung to the

other side of the beam it is attached by bolt
50 *y* to the other side of the hanger D, for the purpose of locating the beams B farther apart, to attach between said beams B a center beam and its share, to convert the machine from a corn-cultivator to a field-cultivator or sulky-harrow. The center section is not here shown, 55 but being in common use will be understood. This coupling device has the function of a universal joint, allowing the beam B to swing laterally on its pivotal bolt and to tilt vertically with the coupling *f* on the pivotal bolt *y*. The 60 end of the hanger D has a series of adjusting-holes for bolt *y*, as in Figs. 5 and 6, so as to change the height of the coupling *f*.

The share-holder or tooth-holder is clearly shown in Fig. 3. Two metal blocks, *rr*, have 65 open grooves *v* in the edge of one side, so that when the blocks are bolted together by the bolt *e*, passing through them and the beam B, the grooves *v* register with each other, forming a complete groove to receive the end of the tooth or share and rigidly hold it by clamp- 70 ing the edges thereof. A lock groove is made in the side of one of the blocks *r*, at right angles to the share-grooves, to receive the end of the lock-bar *u*. The bolt *e* passes through the 75 end of this bar. Thus when the bolt *e* is tightened, the share and lock-bar, in their peculiar engagement with the blocks *rr*, brace against each other, preventing the blocks from turning and keeping the shares in proper position. 80

In the construction here shown each end of the lock-bar *u* is employed to lock the blocks of two holders, one holder being forward of the other.

To locate the shares in proper position in this 85 class of cultivators, the rear holder is thrown out farther from the beam by the intervention of the thimble *d*, through which thimble the bolt *e* also passes. Thus the bar *u* serves as a brace to both holders (in addition to locking 90 them) against the draft-strain on the bolt *e*. If only a single holder is used, the bar *u* may be anchored to the beam at one end, and attached with the holder at the other end. The holder may be employed on other styles of beams and 95 harrows.

At *a a* are shown the style of harrow or cultivator teeth I prefer to use; but they form no part of this invention, *per se*, as any style of share may be employed the upper end of which is adapted to fit the grooves of the holder.

Having thus described my improvements, what I claim is—

1. The combination, with a share-beam and a tooth or share, of a holder consisting of two blocks, each provided with registering share-grooves in the edges of one side, and one of the blocks having a lock-groove in one side at right angles to the share-groove, a rigidly-held lock-bar having one end in the lock-groove, and a clamping-bolt attaching the holder to the beam, substantially as set forth.

2. In a combined wheeled harrow and cultivator, the combination, with the pendent hanger and share-beam, of the reversible C-coupling detachably pivoted to the hanger, and pivoted to the end of the beam in a manner to swing around the end thereof to the opposite side, substantially as set forth.

In testimony of the foregoing I have hereunto subscribed my name in presence of two witnesses.

IRA J. HUNT.

Witnesses:

J. E. KELLOGG,
J. A. FRANKLIN.