F. M. CROPP.
Cultivator.

No. 208,073. Patented Sept. 17, 1878.

Fig. 1.

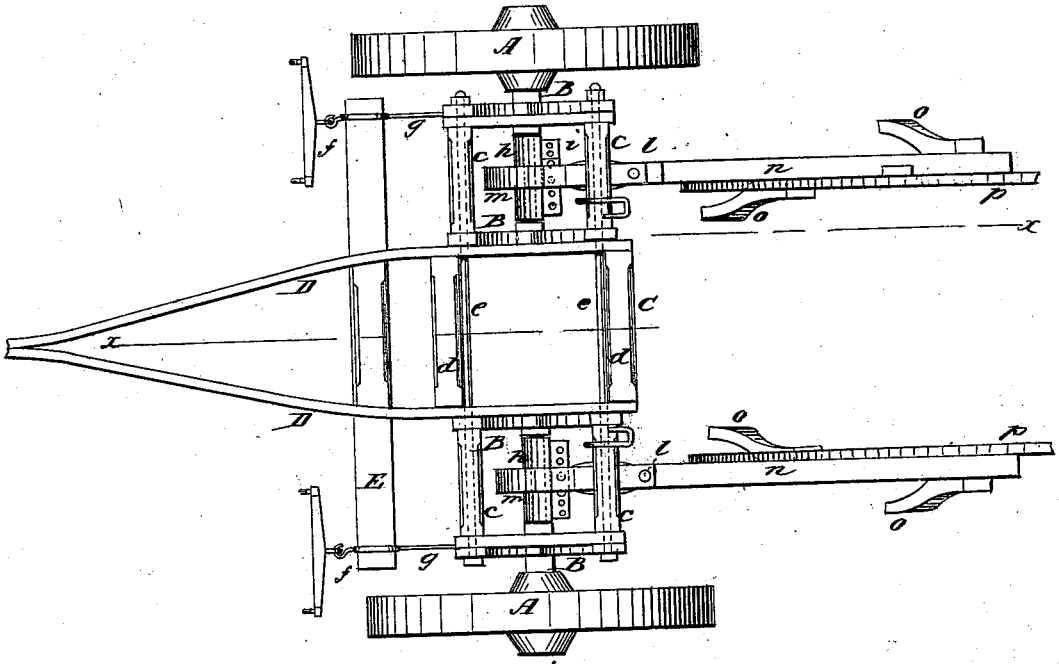
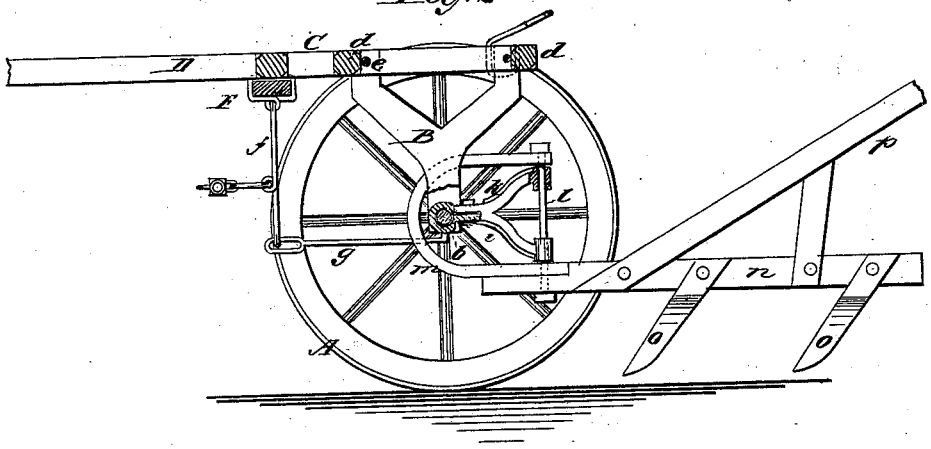


Fig. 2.



WITNESSES:
Francis McArdle.
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UNITED STATES PATENT OFFICE.

FRANCIS M. CROPP, OF PLATTE COUNTY, MISSOURI.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. **208,073**, dated September 17, 1878; application filed February 16, 1878.

To all whom it may concern:

Be it known that I, FRANCIS M. CROPP, of Arnoldsville P. O., (residence in Platte county,) in the county of Buchanan and State of Missouri, have invented a new and Improved Cultivator, of which the following is a specification:

Figure 1 is a plan view of my improved cultivator. Fig. 2 is a vertical section taken on line *x x* in Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention relates to the class of cultivators known as "wheel-cultivators;" and it consists in a coupling, of new and peculiar construction, for connecting the cultivator-plow beams with the axles.

Referring to the drawing, A A are supporting-wheels, whose axles *b* are received by clips at the bottom of the forked standards B. There are two of these standards at each side of the cultivator, one near the wheel and the other at the inner end of the axle. The two forked standards at each side of the cultivator are connected together by bars *c*. The two axles are placed in the same axial line, but are separated by a distance about equal to their length. The frames, composed of the forked standards B and the bars *c*, are secured to a central frame, C, which is composed of the bent tongue-pieces D and the bars *d*, by the long bolts *e*, which bind the several parts of the frame together. A transverse bar, E, is secured to the bent tongue-pieces D, and extends nearly to the wheels. From each end of this bar a rod, *f*, hangs, for supporting the whiffle-tree. The lower end of the rod *f* is connected with a rod, *g*, that is attached to the lower end of the outer forked standard, B. Upon each axle, between the standards B, a sleeve, *h*, is placed, which is provided with a longitudinal rib or flange, *i*, which is perforated to receive the bolts by which the forked arm *k* is secured to the sleeve. The two branches of the forked arm *k* are drilled to receive the vertical bolt *l*, which also passes through the U-shaped yoke *m* and through the cultivator-beam *n*, to the top of which the said yoke is attached. The beams are thus independently suspended from the axles, and are capable of swinging in a horizontal plane, but are prevented from twisting by the coupling described. The beams are provided with the usual plows *o* and with handles *p*. The forked arm *k* may be adjusted on the sleeve *h* by changing the bolts in the holes in the ribs *i*.

By the arrangement of the draw-rods *g* the power expended in drawing the cultivator forward is almost wholly applied to the axles, so that the frame of the cultivator is not strained when the implement is in use.

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

The coupling consisting of the sleeve *h*, having the perforated rib *i*, the forked arm *k*, U-shaped yoke *m*, and bolt *l*, combined and arranged substantially as specified.

FRANCIS MARION CROPP.

Witnesses:

JAMES L. JOHNSON,

WARREN S. MOORE.