(No Model.)

M. W. McCANN.

CULTIVATOR.

No. 283,910. Patented Aug. 28, 1883.

Fig. 1.

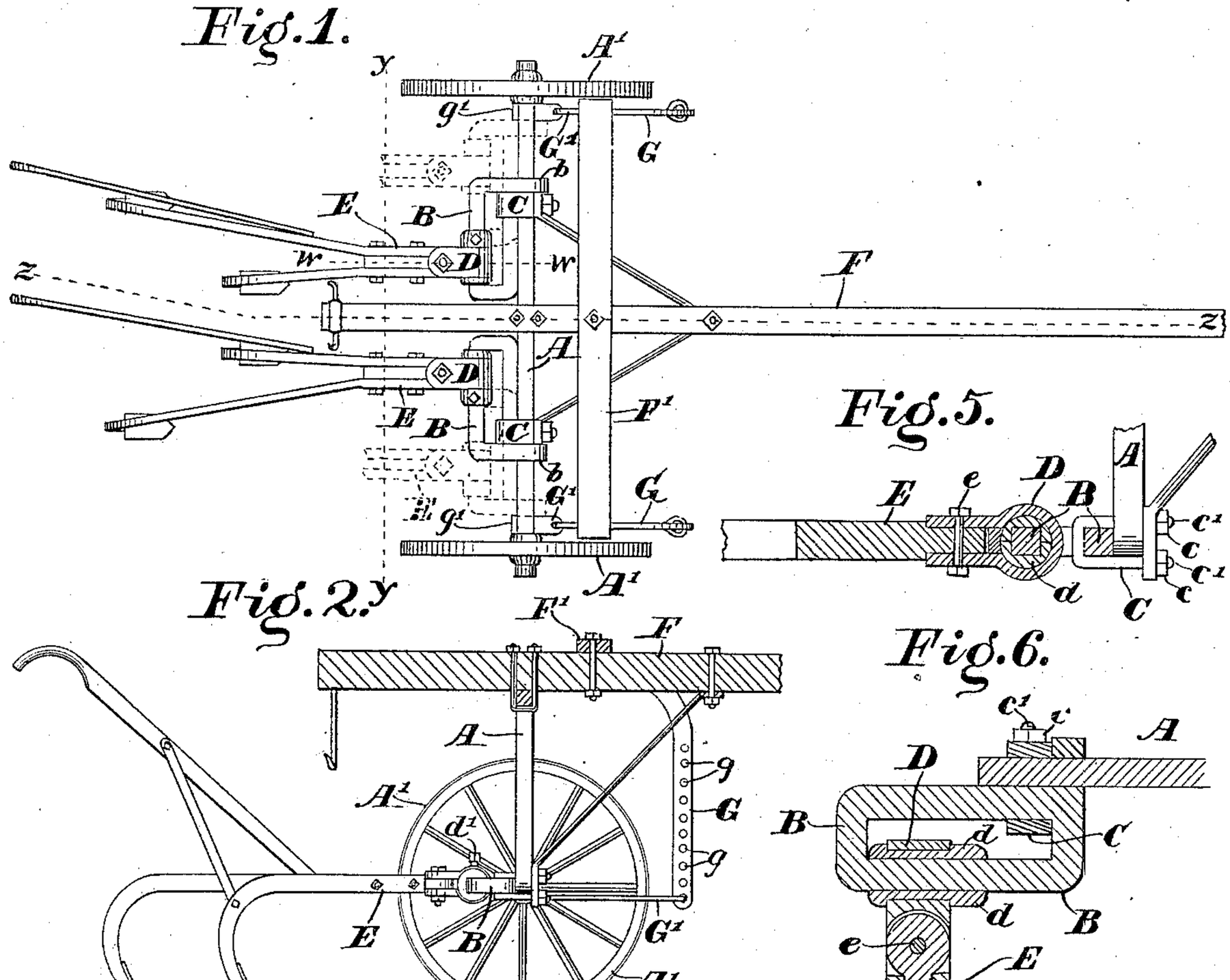


Fig. 2.

Fig. 5.

Fig. 6.

Fig. 3.

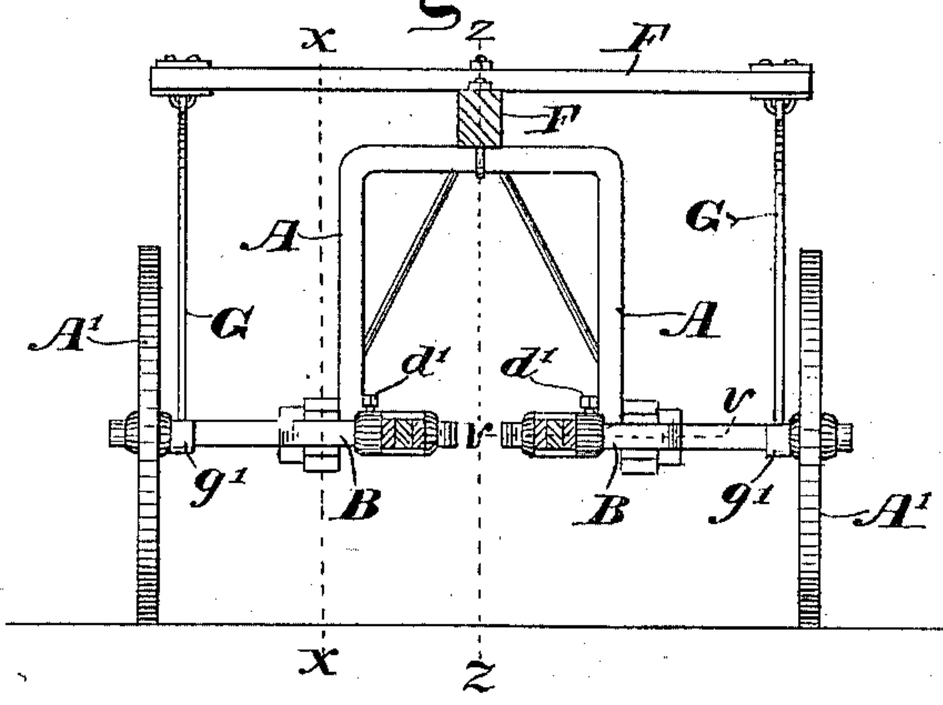
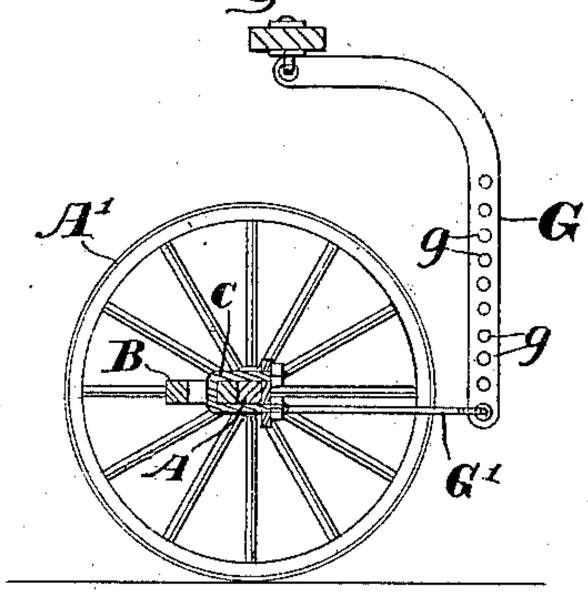


Fig. 4.



WITNESSES.

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CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 283,910, dated August 28, 1883.

Application filed May 1, 1883. (No model.)

To all whom it may concern:

Be it known that I, MARION W. McCANN, of Posey township, (Dublin, Wayne county, P. O.,) county of Fayette, and State of Indiana, have invented certain new and useful Improvements in Cultivators, of which the following is a specification.

My said invention principally consists in an improved means of attaching the plows of that class of cultivators having arched axles to said axles, whereby said plows are adapted to be moved nearer to each other than when only the ordinary means of attachment are provided, as will be hereinafter more particularly described.

It further consists in an improved means of attaching the animals to the plows.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a top or plan view of a cultivator embodying my said invention, a second position of the plows and the means of attaching the same to the axle being shown by dotted lines; Fig. 2, a central vertical section of the same on the dotted line *z z;* Fig. 3, a view looking to the right from the dotted line *y y;* Fig. 4, a view looking to the left from the dotted line *x x;* Fig. 5, a detail sectional view, looking upwardly from the dotted line *w w*, on an enlarged scale; and Fig. 6, a detail horizontal section on the dotted line *v v*.

In said drawings the portions marked A represent the arched axle; B, extension-pieces secured thereto, to which the plows are attached; C, clips by which said pieces are secured to the axle; D, the plow-clevises; E, the plow-beams; F, the pole, and G a curved bar, to which the single-trees may be attached.

The axle A is an ordinary arched axle, and is mounted on the usual wheels, A′.

The extension-pieces B are rectangular or link-shaped devices, upon one end of each of which is formed a collar, *b*, by means of which, in connection with the clips C, it is attached to and adapted to slide upon the horizontal portion of the axle between the arch and wheel. One side of this extension-piece serves as a bearing upon which the box for the plow-clevis slides, and the other as the means whereby the device is rigidly secured in any desired position on the axle.

The axle-clips C encircle the axle and those portions of the extension-pieces which are beside them. When it is desired to change the position of said extension-pieces, it is done by simply loosening the nuts *c* upon the bolts *c′*, thus releasing the hold of said clip upon said extension-pieces and permitting them to be moved along the axle to the desired position. After this is done, by turning the nuts in the opposite direction they are again rigidly secured to the axle.

The clevises D are ordinary clevises, which pass around the boxes *d*, and to which the plow-beams E are preferably fastened by means of the pivot-bolts *e*. The boxes, with clevises thereon, are secured in any desired position on the extension-pieces by means of set-screws *d′*.

The plows E are attached to and slide upon the extension-pieces B, and are adapted to be adjusted to any position between the two extremes shown by the full lines and the dotted lines in Fig. 1. As will be readily seen, this limit of adjustment is practically the same as if a straight instead of an arched axle were employed, and thus my invention combines the advantages of both forms of axle.

The tongue F bears the usual cross-bar or double-tree, F′. These parts are of the ordinary construction and need no special description.

The curved bar G is provided at convenient intervals with holes *g*, whereby the single-trees are secured at any desired height from the ground. These bars are secured at the top to the ends of the double-tree F′, preferably by means of staples *f*, and at the lower end they are connected to the axle by the rod G′ and clip *g′*.

My invention is operated as follows: The extension-pieces are moved to any desired position upon the axle A, and then are secured in that position by tightening the nuts on the bolts of the axle-clip C. The boxes *d*, with the plow-beams attached thereto by means of the clevises D, are then placed in position on the extension-pieces B and secured in place by the set-screws *d′*. Thus, as will be readily seen, the gangs of plows may be placed in any positions from side by side of each other in the center of the axle, as shown by the full lines in Fig. 1, to positions at the extreme ends of the axle, as indicated by the dotted lines. This

construction is very desirable, as while the plants are small and young the plows can be thereby brought near together and made to operate close to said plants without the manual labor on the part of the operator necessary when said plows have to be held toward each other by hand; and afterward, when the plants are grown to a considerable size, the plows can be separated to the usual distance apart, leaving the arch open, thus combining the advantages of a straight axle and those of an arched axle in a single implement.

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

1. In an arched-axle cultivator, the combination, with said axle, of the extension-pieces B, secured thereto by means of the collar-like ends *b*, provided on the ends next to the ends of the axle, whereby said extension-pieces are adapted to slide upon said axle and extend nearly their whole length beyond the upright part of the axle, thus practically forming a straight axle, substantially as set forth.

2. In a cultivator, the combination of the arched axle, the link-shaped extension-pieces B, and the plows, one side of said extension-pieces being secured to and adapted to slide upon the horizontal portions of said axle, and said plows being secured to and adapted to slide upon the other side of said extension-pieces, substantially as set forth.

3. The combination, in a cultivator, of the arched axle A, the sliding extension-pieces B, secured thereto by collar-like ends *b* and axle-clips C, and the plows E, secured to said extension-pieces by the clevises D and pivot-bolts *e*, substantially as set forth.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 26th day of April, A. D. 1883.

MARION W. McCANN. [L. S.]

In presence of—
C. BRADFORD,
E. W. BRADFORD.