

(No Model.)

2 Sheets—Sheet 1.

J. H. HOOBER.
CULTIVATOR.

No. 536,929.

Patented Apr. 2, 1895.

FIG. 6.

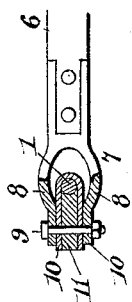
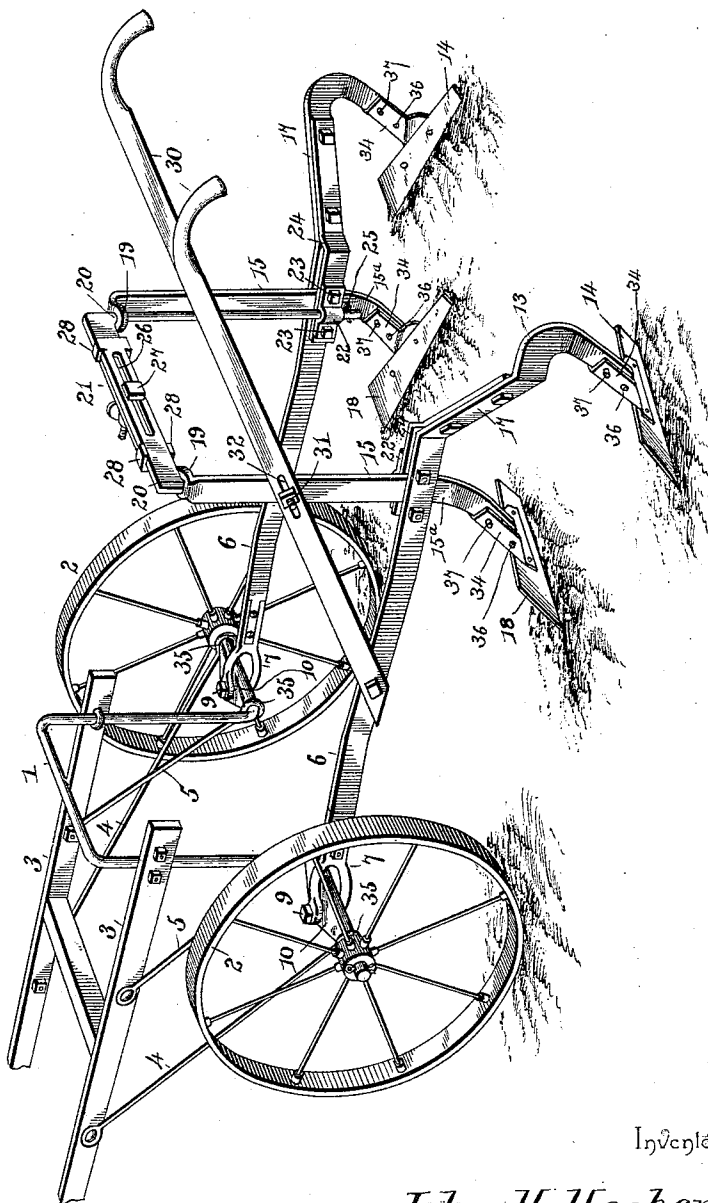


FIG. 1.



Inventor

John H. Hooper

Witnesses

Jas. H. McCutchan
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By his Attorneys.

C. A. Snow & Co.

(No Model.)

2 Sheets—Sheet 2.

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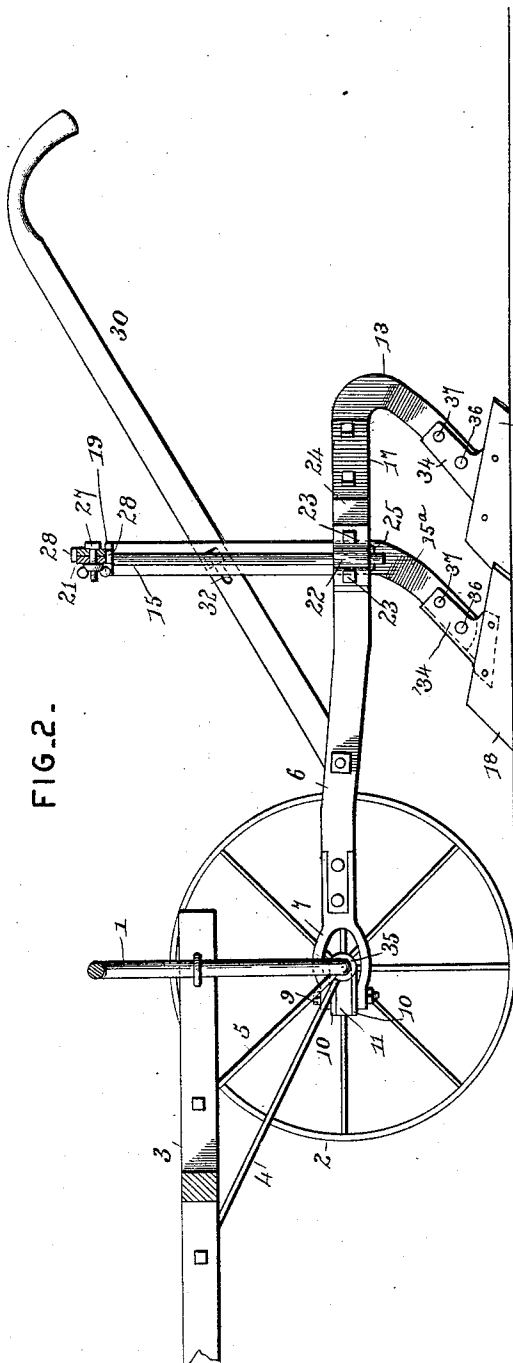


FIG. 2.

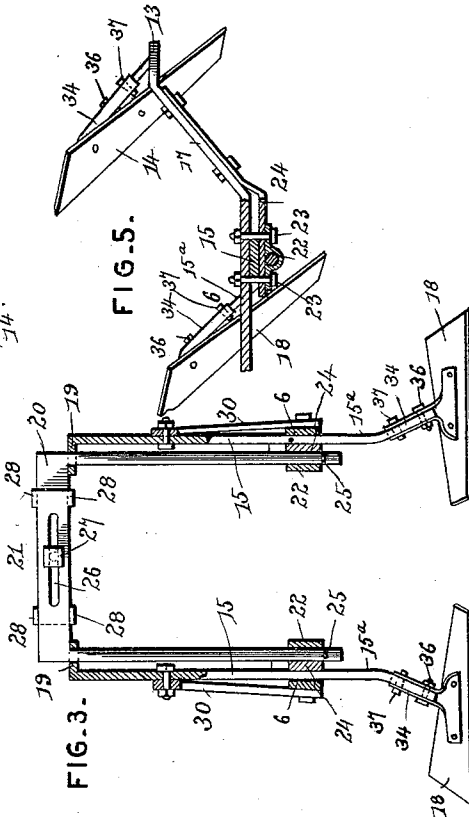
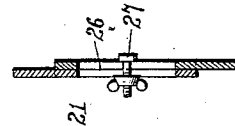


FIG. 3.

FIG. 4.



Inventor

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Witnesses

James H. McLaughlin
J. H. Wiley

UNITED STATES PATENT OFFICE

JOHN H. HOOBER, OF KENTLAND, INDIANA.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 536,929, dated April 2, 1895.

Application filed September 24, 1894. Serial No. 523,950. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. HOOBER, a citizen of the United States, residing at Kentland, in the county of Newton and State of Indiana, have invented a new and useful Cultivator, of which the following is a specification.

The invention relates to improvements in cultivators.

The object of the present invention is to improve the construction of parallel cultivators, and to provide an attachment, which may be readily applied to wheeled cultivators, after the shovels or blades are disconnected and detached from the same.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings: Figure 1 is a perspective view of a cultivator constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a transverse sectional view. Fig. 4 is a detail sectional view, illustrating the manner of securing the sections of the connecting bar of the standards in their adjustment. Fig. 5 is a detail sectional view, illustrating the construction of the lower bearing of the pivots of the transverse connecting bar. Fig. 6 is a detail sectional view, illustrating the manner of hinging the plow beams to the axle.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates an arched axle, having carrying wheels 2, journaled on its ends, and having the sides of its arched portion clipped to draft bars 3, which are supported by rearwardly inclined braces 4 and 5, extending from the draft bars to the horizontal end portions of the axle. A pair of substantially horizontally disposed plow beams 6 are hingedly connected with the axle, and are provided at their front ends with clevises 7, having upper and lower arms 8, terminating in eyes, and receiving pivot bolts 9, arranged vertically and located in advance of the horizontal portions of the axle. The pivot bolts pass through upper and lower sides of clips 10, which are bent around the axle, and extended forward; and blocks 11 are interposed between the project-

ing portion of the clips. These clips and blocks form bearings, which are journaled on the horizontal portions of the axles at the inner sides of the carrying wheels, and permit the plow beams to have a vertical movement, the pivot bolts enabling the beams to have a lateral swing.

The rear terminals of the plow beams diverge, and are bent downward to form short standards 13, which carry blades or scrapers 14; and vertically arranged standards are clipped to the inner faces of the plow beams, in advance of the diverging portions 17.

The vertically disposed standards 15 carry blades or scrapers 18 at their lower ends, and they are extended above the beams, and have their upper terminals bent inward horizontally and perforated to form bearing eyes 19, which receive vertical pivots 20 of adjustable sections 21 of a top bar, which connects the standards and the plow beams, and which form an arch in rear of the axle 1. The lower terminals of the vertical pivots 20 are arranged in eyes of bearing plates 22, secured by bolts 23 to clip plates 24, employed for clamping the standards to the inner faces of the plow beams. The clip plates 24 are extended rearward and bolted or similarly secured to the inner faces of the diverging portions of the plow beams.

The vertical pivots are retained in the bearings by keys 25, which pass through perforations of the lower ends of the pivots, and which are arranged beneath the bearings 22. The sections 21 of the adjustable connecting bar have their inner adjacent ends provided with longitudinal slots 26, through which passes a clamping bolt 27; and the inner terminals of the sections are provided with horizontally disposed lugs 28, engaging the side edges of the adjacent section. The clamping screw, which passes through the slots of the adjustable connecting bar, is provided with a thumb nut; and by this construction the plow beams may be readily arranged the desired distance apart to suit the character of the plants to be cultivated.

A pair of inclined plow handles 30 have their lower ends secured to the outer faces of the plow beams, and are attached by bolts 31 to the vertical standards 15, and are provided with slots 32, which receive the bolts 31 and

which permit the standards to be adjusted without interfering with the handles.

The short standards 13, and the lower portions or feet 15^a of the standards 15 are laterally offset, and are arranged at an angle to the beams 6, and are inclined; and the blades 14 and 18 are provided with sleeves 34 embracing the standards. The sleeves 34 are open at their rear sides, and are pivoted intermediate of their ends at 36, and are secured near their upper ends to the standards by frangible pins 37 constructed preferably of wood, and adapted, should a blade come in contact with an obstruction to break, to permit the blade to swing rearward on the pivot 36, to prevent injury to the same. The frangible pins 37 are arranged in perforations of the sleeves or sockets 34 and the standards.

The lower ends of the inclined braces 4 and 5, are provided with eyes 35, which receive the horizontal portions of the axle 1, and which are located at opposite ends of the bearings of the plow beam.

It will be apparent that the plow beams and the parts carried by them may be moved laterally on the vertical pivot bolts 9, and that they may be raised and lowered through the medium of the bearings. It will also be apparent that the plow beams may be readily arranged the desired distance apart to suit the plants to be cultivated, and that the attachment may be readily connected with the axle of an ordinary cultivator, after the cultivating devices thereof have been detached. Furthermore it will be seen that the blades are pivotally mounted on the standards, and are secured rigid with them by frangible pins, adapted to be broken should the blades come in contact with obstructions, to permit the blades to yield and swing rearward uninjured.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

What I claim is—

1. In a cultivator, the combination with an axle, of a pair of beams hingedly connected therewith, vertical standards rigidly secured to and rising from the beams and provided with bearings, an adjustable connecting bar arranged at the upper ends of the standards and provided with pivots arranged parallel with the standards and journaled in the bearings thereof, and blades carried by the standards, substantially as described.

2. In a cultivator the combination with an axle, of beams hingedly connected with the

axle, upward extending standards rigidly secured to and rising from the beams and provided with bearings, the connecting bar arranged at the top of the standards and provided with pivots arranged parallel with the standards and located in the bearings thereof, said connecting bar being composed of slotted sections provided at their inner terminals with lugs engaging the edges of the adjacent section, and a clamping bolt and nut adjustably connecting the sections, substantially as described.

3. In a cultivator, the combination with an axle, of beams hingedly connected therewith, upward extending standards arranged at the sides of the beams and having their upper terminals bent horizontally and perforated to form bearings, clip plates having extensions secured to the beams, bolts passing through the clip plates and the beams and securing the standards to the latter, bearing plates arranged on the clip plates and secured to the same by the bolts thereof, and the connecting bar arranged at the tops of the standards and provided with depending pivots journaled in said bearings, substantially as described.

4. In a cultivator, the combination of the beams provided with clevises and designed to be hingedly connected with an axle, said beams having diverging rear portions and depending terminals forming short standards, upward extending standards secured to the beams and provided with bearings, the adjustable connecting bar arranged at the top of the upward extending standards and provided with pivots journaled in the bearings thereof, the inclined handles secured to the beams and the upward extending standards, and the blades mounted on the said standards, substantially as described.

5. In a cultivator, the combination of a pair of beams provided with lower bearings 22, the opposite vertical standards 15 provided at their upper ends with bearings and secured intermediate of their ends to the beams, and having their lower portions forming feet for the reception of cultivator blades, the vertical pivots journaled in the bearings of the beams and the standards, and mechanism for connecting the upper ends of the pivots, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN H. HOOBER.

Witnesses:

EDITH M. HELMS,

J. D. FETTIG.