(No Model.) 2 Sheets—Sheet 1.

H. W. AUBREY.

CULTIVATOR.

No. 539,784. Patented May 28, 1895.

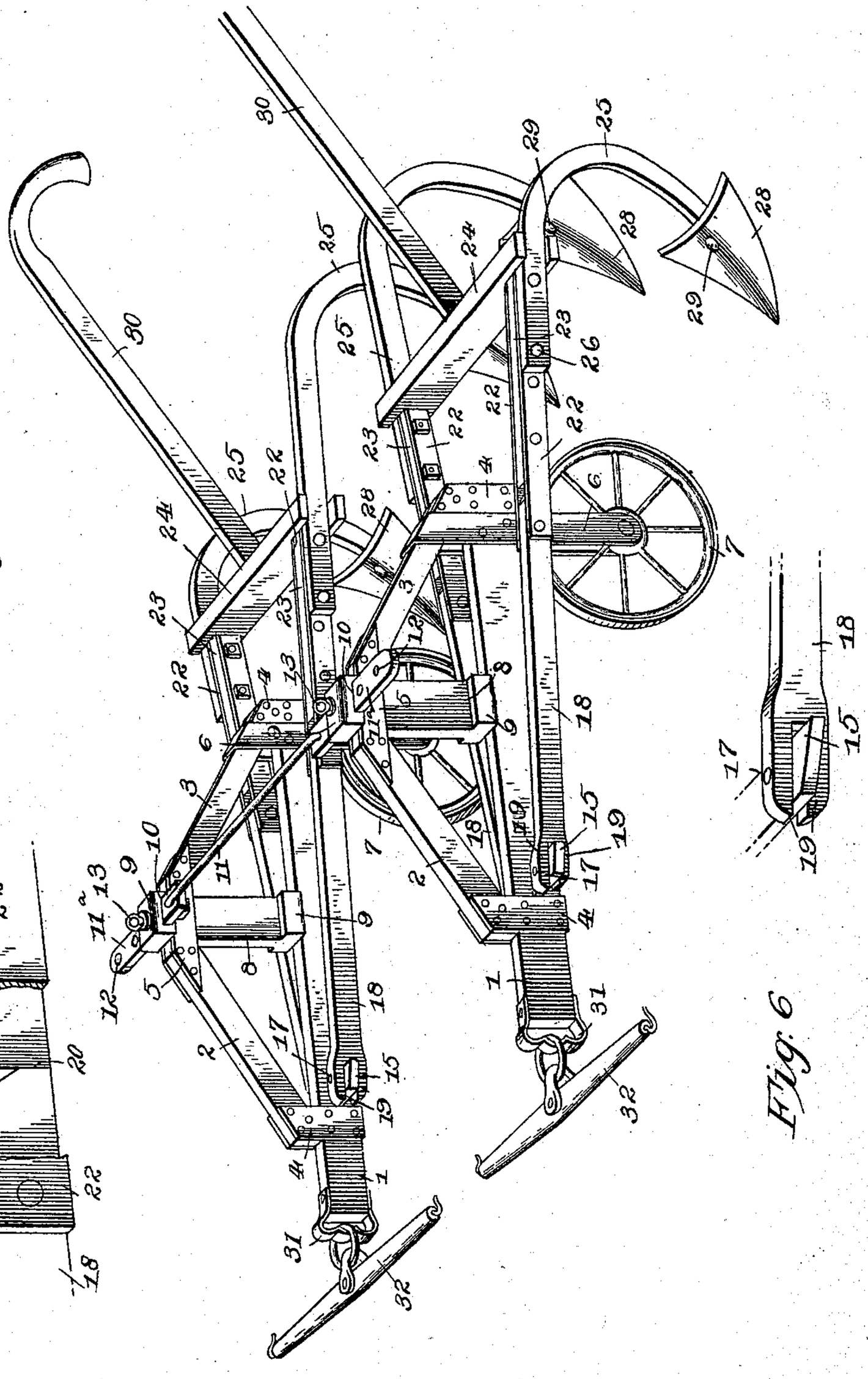

Fig. 1.

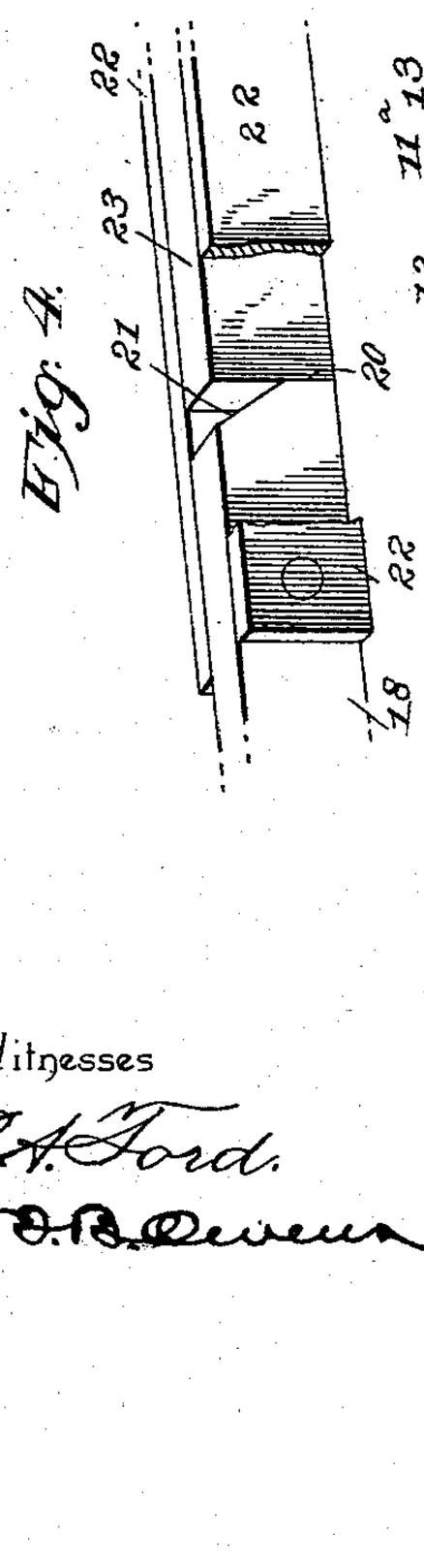

Fig. 4.

Fig. 6

Witnesses

C. A. Ford.

D. B. Brown

Inventor

Henry W. Aubrey

By his Attorneys.

C. A. Snow & Co.

(No Model.) 2 Sheets—Sheet 2.

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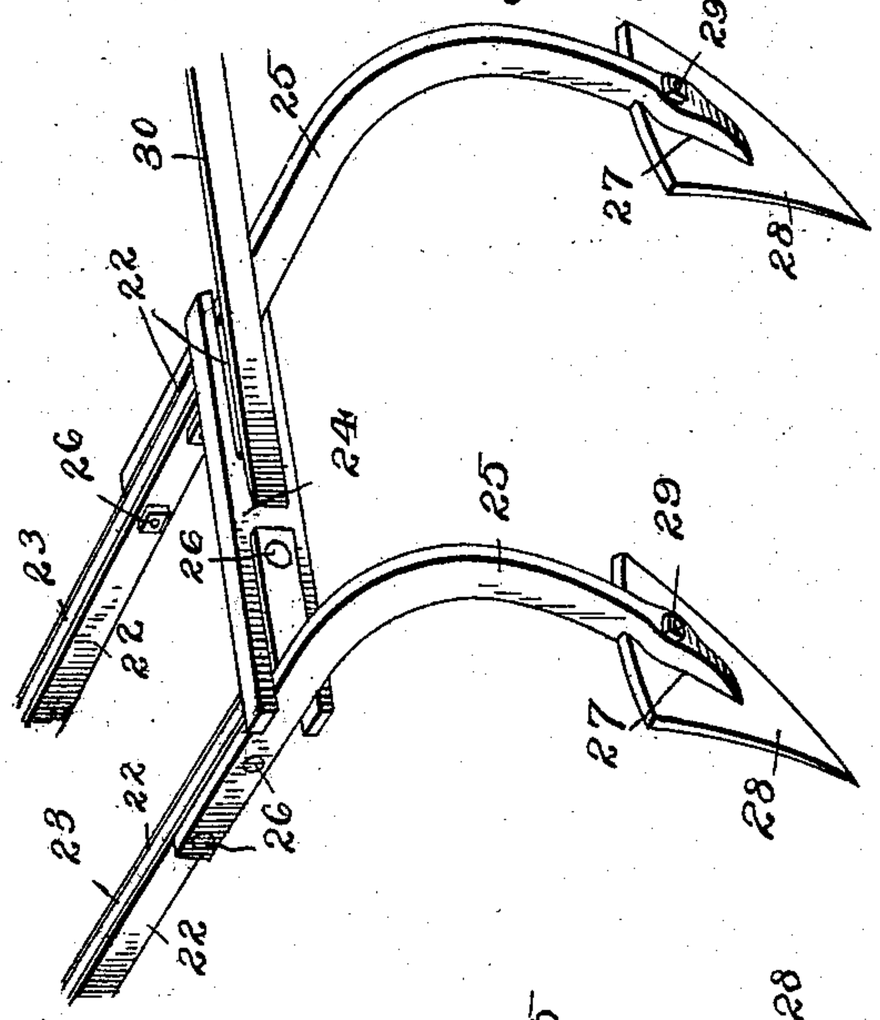

Fig. 5.

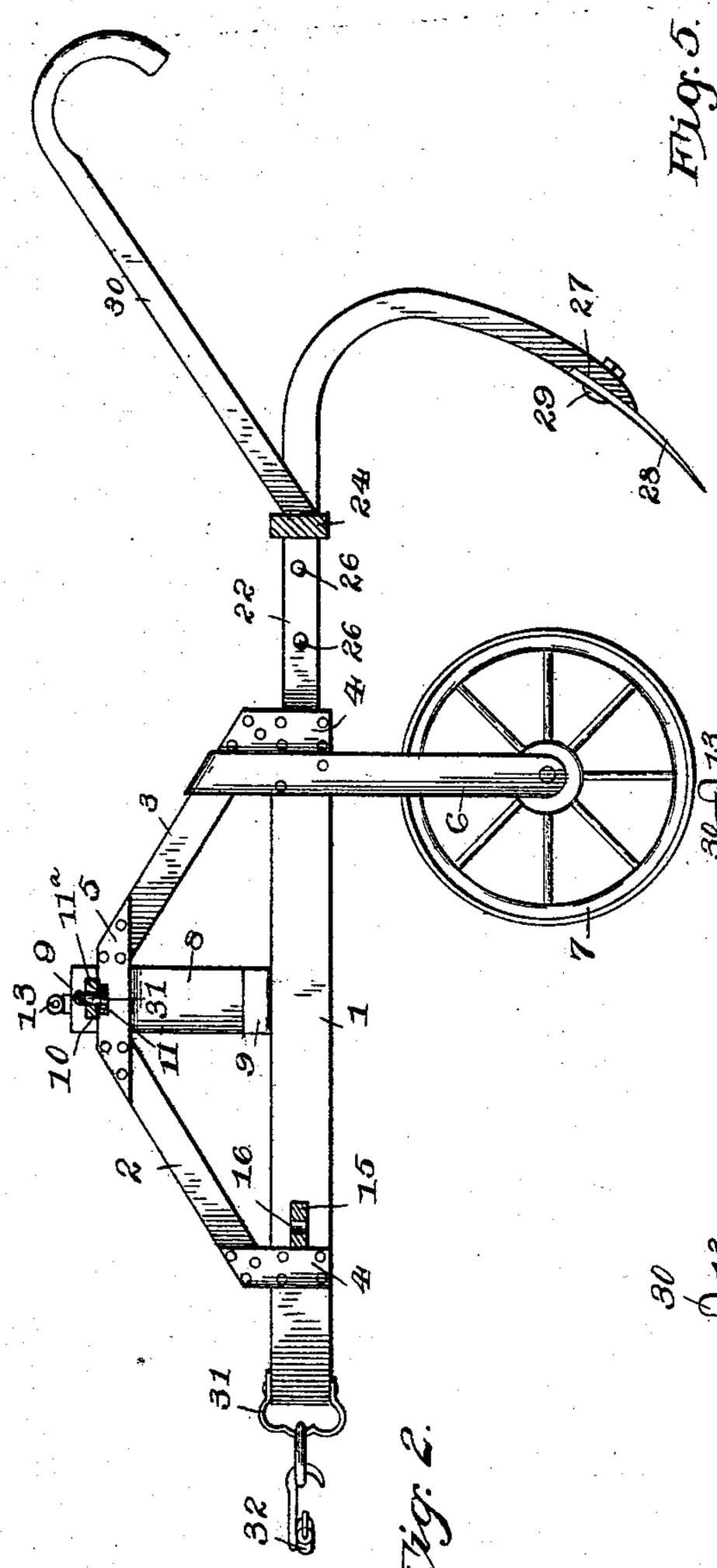

Fig. 2.

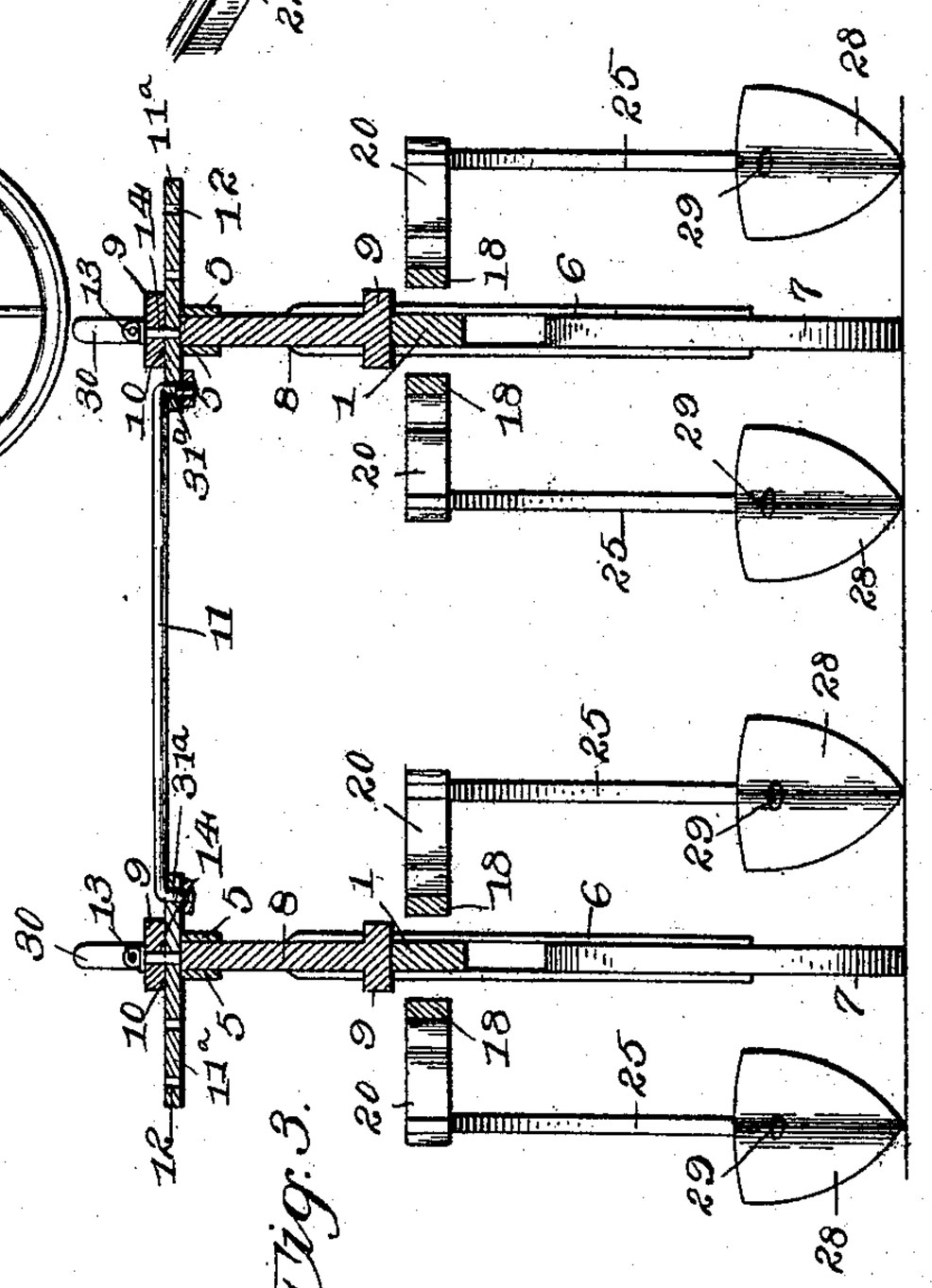

Fig. 3.

Inventor

Henry W. Aubrey.

Witnesses

C. A. Ford.

F. P. Emerson

By his Attorneys.

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

HENRY W. AUBREY, OF SUNSET, TEXAS.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 539,784, dated May 28, 1895.

Application filed June 16, 1894. Serial No. 514,782. (No model.)

To all whom it may concern:

Be it known that I, HENRY W. AUBREY, a citizen of the United States, residing at Sunset, in the county of Montague and State of Texas, have invented a new and useful Cultivator, of which the following is a specification.

My invention relates to that class of cultivators wherein the frame and its attachments are mounted upon carrying-wheels and the plows made to depend therefrom; and the principal feature of the invention consists of certain specific improvements in the construction of the frame, whereby it is made to operate with greater ease, and whereby its durability and cheapness are increased.

In the drawings, Figure 1 represents a perspective view of my complete invention; Fig. 2, a longitudinal section; Fig. 3, a cross-section taken through the coupling-beam; Fig. 4, a detail perspective of the joint whereby the plows are connected to the frame; Fig. 5, a detail perspective of the rear end of the cultivator; Fig. 6, a detail view showing the devices for securing the plow-beams to the main beams.

The reference numerals 1 indicate the two main or draft beams of my machine, and these extend longitudinally and parallel, and are each provided with the two upwardly and inwardly extending beams 2 and 3, which are secured to the upper side of the draft beams 1 by means of the metallic plates 4, bolted to the several parts, as shown. The upper ends of the beams 2 and 3 are located a short distance apart and rigidly secured to each other by means of the plates 5, secured one to each side of the beams, and extending from one to another.

Secured to the rear ends of the draft beams 1, and embracing the beams 3, which are just above it, and projecting downwardly from the beams, are the arms 6, which extend parallel with each other, and may be formed of an integral piece of metal, or of separate pieces, as preferred. Journaled in the lower and opposite ends of the plates 6 are the carrying-wheels 7.

Located in the space left between the ends of the beams 2 and 3, and between the two brace plates 5, are the sliding beams 8, which are adapted to fit snugly within their respective spaces. These beams 8 are capable of a vertical movement in their seats and this is limited, and the beams prevented from moving out of their places by means of the enlargements or heads 9, which are located one at each end of the beams, and which are of a size that will make them incapable of passing the spaces in which the beams 8 are seated.

Formed in the heads, which are at the upper ends of the beams 8 are the openings 10, which extend laterally and are so located that they will lie above the plates 5 when the arms 8 have moved as far down as the upper heads 9 will permit. In these openings 10, being one for each beam 8, the links 11^a of the cross or coupling rod 11, are respectively located, and these links are provided with a series of longitudinally-aligned openings 12, through which the pins 13 pass and by which the said links are securely fastened to the beams 8. The pins 13 are removably fitted in the vertical passages 14 of the upper heads of the beams 8. By means of the series of openings 12, the beams 8, and consequently the two sections of the cultivator, may be moved toward and from each other and held at any position within the scope of their movements.

The ends of the rod 11 are bent downwardly to form studs 31^a, which are passed through openings in the links 11^a, whereby the parts are pivotally connected. By this construction, the sections are connected so as to be capable of transverse adjustment, and of a limited independent movement longitudinally and vertically on the links 11^a and beams 8 respectively.

Rigidly secured to the forward ends of each of the draft beams 1, are the stout arms 15, which project out from both sides of their respective beams, and are provided with vertically disposed passages 16, through which the pins 17 pass. The pins 17 are provided to hold the beams 18 in place. This connection between the beams 18 and 1 is effected by bifurcating the forward ends of the beams 18, so as to form jaws 19 which are adapted to lie one on each side of the arms 15, and to receive the pins 17.

The beams 18 extend rearwardly to a point just forward of the rear ends of the beam 1, and, on each side thereof, and have their rear

ends formed with the vertical shoulders 20, communicating with the forwardly-inclined faces 21. Pivoted to the rear ends of the beams 18, and one on each side thereof, are the plates 22, which extend normally rearwardly and are rigidly secured to the beams 23. These beams 23 are one for each of the beams 18 and form continuations thereof, they being joined thereto as described, so that they will be capable of swinging upwardly on the beams 18, but will be incapable of downward movement owing to shoulders 20.

Those plates 22, which are arranged on the inner sides of the beams 23, extend to the rear extremities thereof, while the outer plates project beyond the rear ends of the beams and bend inwardly, parallel with the rear sides of the brace beams 24, to which rear sides they are securely fastened by bolting or otherwise. Braces 24 are formed with their ends bifurcated horizontally, through which bifurcations the outer plates 22 pass.

In addition to the plates 22 the standards 25 are passed through the bifurcations of the braces 24. The standards 25 curve downwardly, and thence forwardly from the beams 23, to which they are rigidly attached by means of the bolts 26.

The lower ends of the standards 25 are formed with seats 27 on which the cultivator blades 28 are secured by bolts 29 passing through them and through the beams.

Secured to the braces 24, and projecting rearwardly therefrom, are the arms 30, which extend upwardly and rearwardly to a point beyond the cultivator blades 28, and by which such blades may be raised or lowered. It will be seen that the blades of each beam 1 may be raised by swinging the beams 23 on the beams 18, and this is facilitated and rendered easy by the arms 30.

Secured to the forward ends of the beams 1 are the clevises 31, which are one for each beam and adapted to have the whiffletrees 32 secured thereto. By these means the machine is attached to the team for drawing it.

In the use of my invention, the team is attached to the machine, and the latter drawn through the field to be cultivated; the cultivator-blades 28 having been first lowered into engagement with the ground. This will result in the plowing of the ground, all of which is well understood.

By means of the vertically-movable beams 8, the two sections of the cultivator are connected so as to be capable of independent vertical movement, thereby allowing one of the sections to move, under the influence of any unevenness in the surface of the ground, irrespective of the remaining section, and taking the strain off rod 11, which strain would otherwise attend it.

Having described my invention, what I claim is—

1. The combination with two similarly-constructed cultivator sections, each section comprising a draft beam having a supporting wheel at its rear end, and oppositely-inclined braces formed with a vertical space between their opposing ends, a vertical beam resting upon the draft beam between its ends and operating in the said vertical space, of a transverse connection adjustably uniting the upper ends of the vertical beams of the two cultivator sections, and cultivator beams having suitable connection with the forward end portions of the aforesaid draft beams, substantially as described.

2. In a cultivator, the combination with a draft beam having a supporting wheel at its rear end, of cultivator beams pivotally attached to the forward portion of the said draft beam so as to swing laterally outward at their rear ends, and standards having pivotal connection with the rear ends of the cultivator beams so as to swing upward, and having a limited downward movement, and having cultivator shovels at their lower ends to operate in the rear of the said supporting wheel, substantially as set forth.

3. In a cultivator, the combination of a main beam 1 provided with suitable draft apparatus, two beams 18 pivoted one to each side thereof and capable of swinging horizontally thereon, plates 22 pivotally mounted one on each side of the beams 18, beams 23 securely fastened one to each pair of plates 22, whereby beams 23 are made capable of swinging vertically on the beams 18, a brace 24 rigidly secured to the rear ends of the beams 23 by securing two of the plates 22 to it, and curved standards 25 rigidly secured one to each of the beams 23 and projecting rearwardly therefrom, the standards 25 being adapted to carry plow-blades and being passed through notches or bifurcations in the respective ends of the brace 24, substantially as described.

4. The combination with two similarly-constructed cultivator sections, each section comprising a draft beam having a supporting wheel at its rear end, and oppositely-inclined braces formed with a vertical space between their opposing ends, and a vertical beam resting upon the draft beam between the ends of the latter and operating in the said vertical space, and having a transverse opening in its upper end, of links adjustably held in the said transverse openings of the vertical beams, and a rod having its ends bent and forming pivotal connection with the inner ends of the said links to connect them and the two cultivator sections, substantially in the manner set forth for the purpose specified.

5. The herein shown and described cultivator, formed of two similarly-constructed cultivator sections, each section comprising a draft beam having a supporting wheel at its rear end, oppositely-inclined braces extending upward from the top side of the draft beam, and having a vertical space between their opposing ends, a vertical beam resting upon the draft beam and operating in the said vertical space, and having a transverse opening in its upper end, cultivator beams pivot-

ally attached to the front end portion of the draft beam so as to swing laterally outward at their rear ends, standards having pivotal connection with the rear ends of the cultivator beams so as to swing upward and having a limited downward movement, and having shovels at their lower ends to operate in the rear of the said supporting wheel, a handle operatively connected with the standards to control their movements, links adjustably held in the transverse openings of the vertical beams of each cultivator section, and a rod having its ends bent and forming a pivotal connection with the inner ends of the said links to connect them and the two cultivator sections, substantially in the manner set forth for the purpose described.

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

HENRY W. AUBREY.

Witnesses:
W. C. DAY,
J. W. ROSE.