

(No Model.)

2 Sheets—Sheet 1.

A. CALDWELL.
CULTIVATOR.

No. 428,591.

Patented May 27, 1890.

Fig. 1.

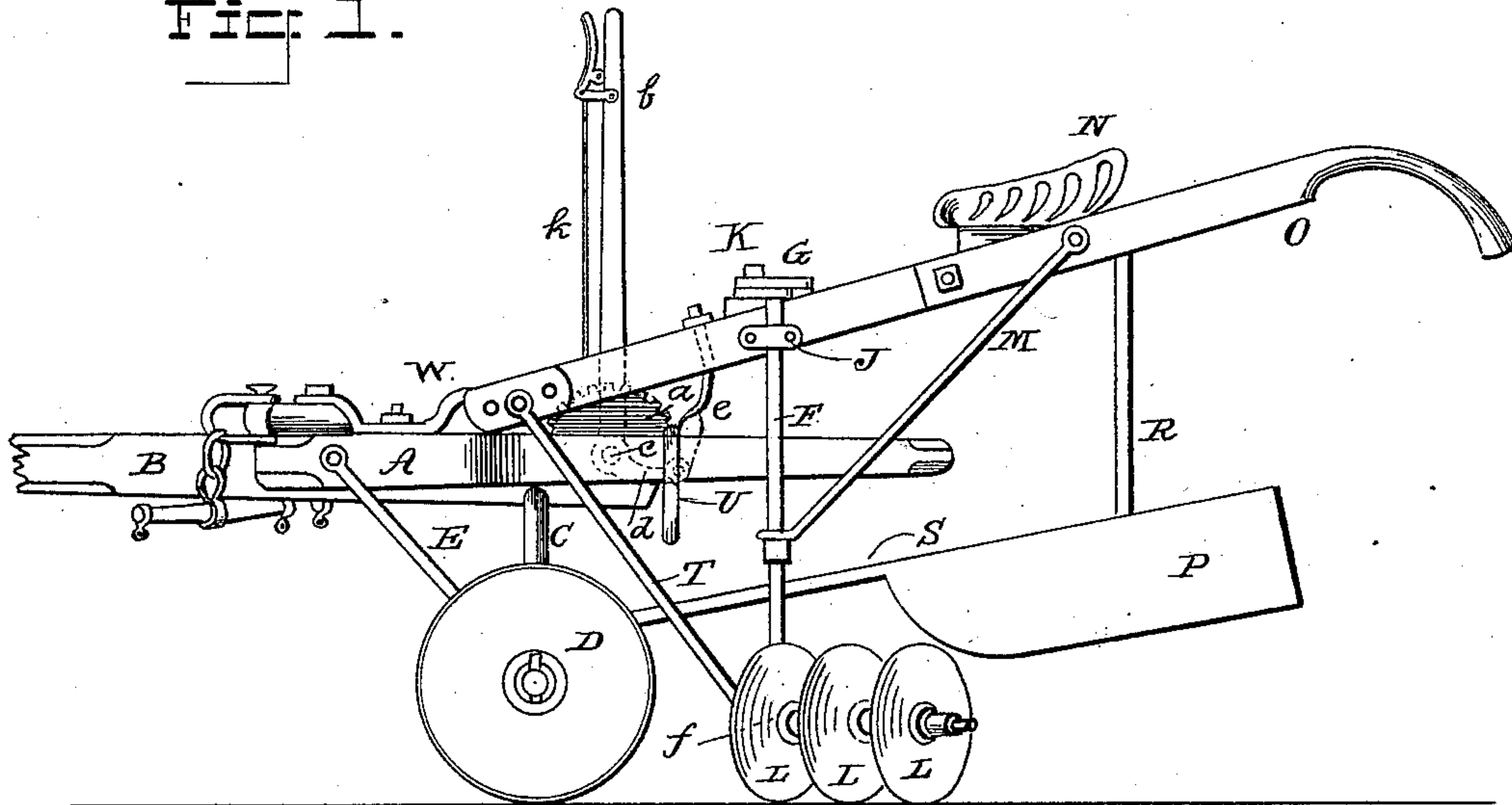
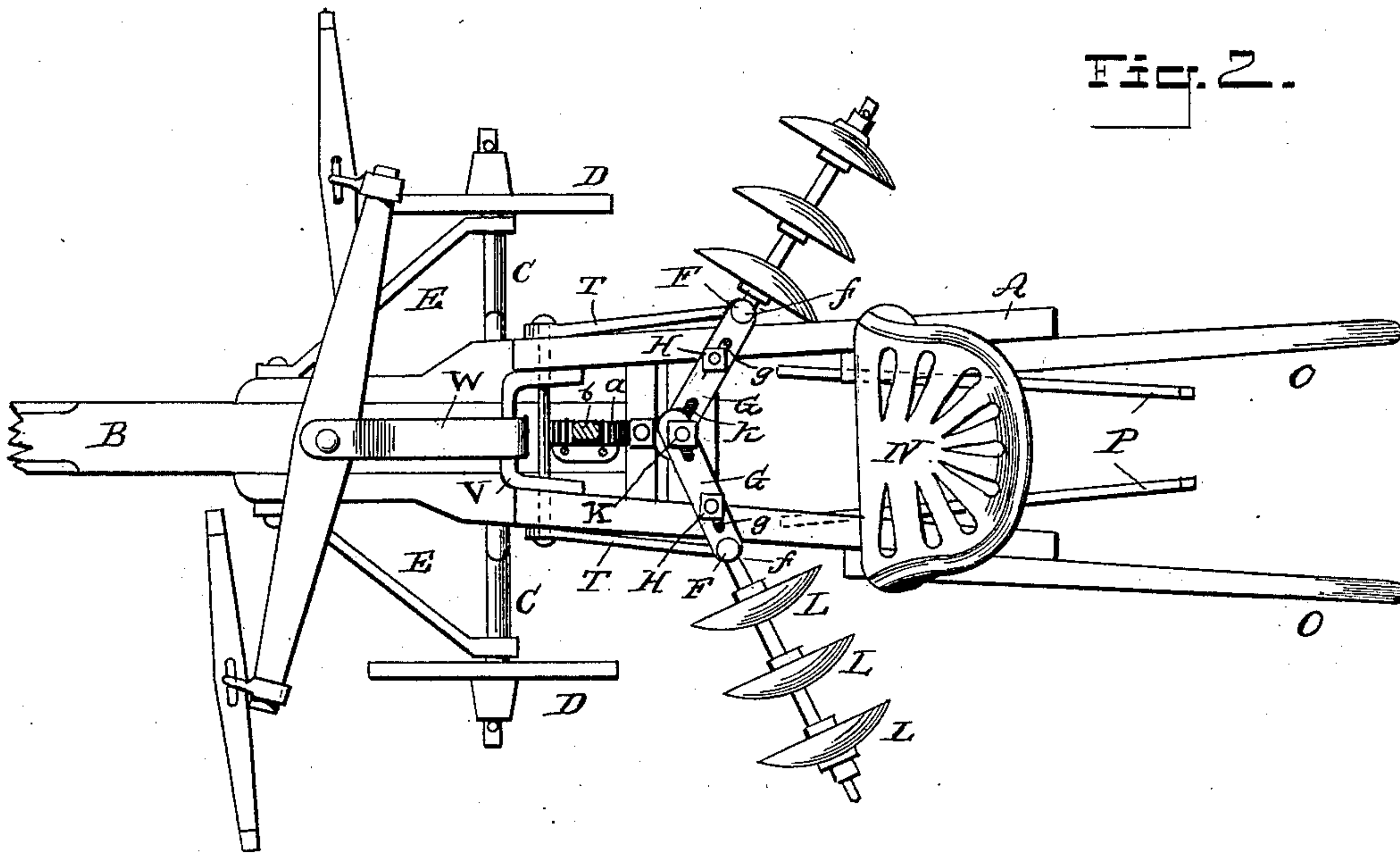


Fig. 2.



WITNESSES:

O. D. Mott
L. H. May

INVENTOR
BY *Alex Caldwell*
A. M. Pierce
ATTORNEY

(No Model.)

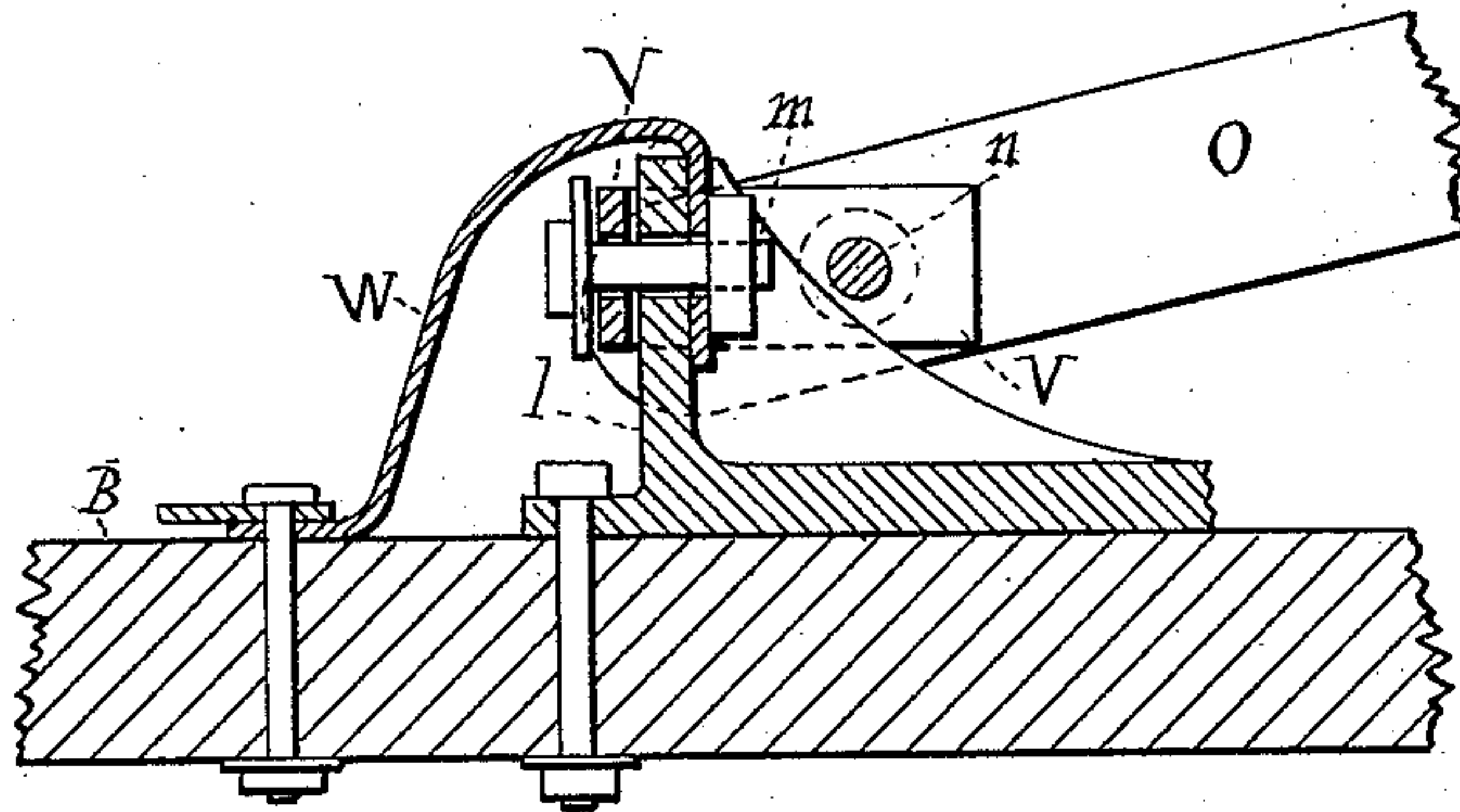
2 Sheets—Sheet 2.

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Fig. 3.



WITNESSES:

D. C. Reusch
Gertrude Ward

INVENTOR,

A. Caldwell

BY

A. M. Pierce

ATTORNEY.

UNITED STATES PATENT OFFICE.

ALEX CALDWELL, OF ESSEX, IOWA.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 428,591, dated May 27, 1890.

Application filed September 9, 1889. Serial No. 323,437. (No model.)

To all whom it may concern:

Be it known that I, ALEX CALDWELL, a citizen of the United States, and a resident of Essex, in the county of Page and State of Iowa, have invented certain new and useful Improvements in Cultivators, of which the following is a specification.

My invention relates especially to devices employed for cultivating growing crops, especially listed corn, and has for its object the provision of a cultivator cheap and simple to construct, easy to operate and control, and effective in operation.

To attain the desired end, my invention consists, essentially, in a main frame, to which the tongue is attached, said main frame carrying a handle-frame made adjustable and having a horizontal and side motion. This handle-frame carries adjustable cultivating disks and fenders. The main frame is carried upon an arch provided with thin supporting-wheels; and my invention also involves certain other novel and useful combinations or arrangements of parts and peculiarities of construction and operation, all of which will be hereinafter first fully described, and then pointed out in the claims.

In the drawings, Figure 1 is a side elevation of my improved cultivator. Fig. 2 is a plan view thereof. Fig. 3 is an enlarged sectional view through the connecting mechanism between the tongue and the handle-frame.

Like letters of reference, wherever they occur, indicate corresponding parts in all the figures.

A is the main frame, and B the tongue.

C is an arch forming the axle and provided with thin supporting-wheels D.

E are braces from the arch to the main frame.

By placing the supporting-wheels in the position indicated the weight of the cultivator is taken off of the horses' necks, and by making said wheels thin the cultivator is easily guided and controlled in all kinds of ground and in either level or sloping land.

F are standards extending downward from horizontal arms G, pivoted at H to a handle-frame I.

J are journals or staples through which the standards F pass. The pivots H pass through slots g in arms or plates G, and said plates

are also provided with slots h at their inner ends.

K is an adjusting-bolt passing through slots h. The standards F are bent at right angles at f and bear cultivating-disks L.

M are braces passing from standards F to the handle-frame.

N is a seat mounted upon the handle-frame, and O are the handles.

P are shields suspended from the handle-frame by rods R, and adjustably connected to the arch C by rods S.

T are stay-rods connecting the disk-axes with the handle-frame.

U are the foot-rests for the driver.

The handle-frame bearing the seat and the adjustable disk-arms is connected at its front end to the tongue by a horizontal stirrup V, a strap W, a bracket l, a bolt m, passing through the stirrup, straps, and bracket, and a cross-rod n, as particularly illustrated in Fig. 3. This method of connection permits both a vertical and sidewise movement of the handle-frame and the parts of the cultivator carried thereby, and also permits the various disks to accommodate themselves to any slope or inequalities of the ground.

a is a notched segment secured to the main frame.

b is a lever pivoted at the side of the segment at c, the lower extremity of lever b being provided with an arm d, engaging with a fixed extension e from the handle-frame. A spring-pawl engages with the rack-bar for holding the lever in position.

When constructed and arranged in accordance with the foregoing description, my improved cultivator will be found admirably adapted to the uses and purposes for which it is intended. It is of light draft and may be used either walking or riding, and it is capable of adjustment in all its parts in order to suit the ground or lay of the land.

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

1. A cultivator in which is comprised a main frame, of which the tongue forms a part, a handle-frame, to which the adjustable disks are attached, as set forth, a fixed bracket mounted upon the tongue, a horizontal stirrup pivoted to said bracket, and a crank con-

nected to the handle-frame and to a manipulating-bar mounted upon the tongue, the whole combined and arranged substantially as shown and described.

5 2. In a cultivator of the character herein specified, the combination, with the tongue or an extension thereof, and with the frame supporting the cultivating-disks, of the bracket mounted upon the tongue, the horizontal stir-
10 rup pivoted thereto, and the horizontal cross-rod passing through the stirrup and the inner ends of the handles, substantially as shown and described.

3. The combination, with the tongue and

main frame having an arch secured thereto, 15 whereon are the supporting-wheels, of the handle-frame horizontally and vertically pivoted thereto and bearing the adjustable disk-arms and shields, substantially as shown and described. 20

Signed at Shenandoah, in the county of Page and State of Iowa, this 30th day of August, A. D. 1889.

ALEX CALDWELL.

Witnesses:

H. G. HALL, Jr.,
C. HEMENOVER.