

(No Model.)

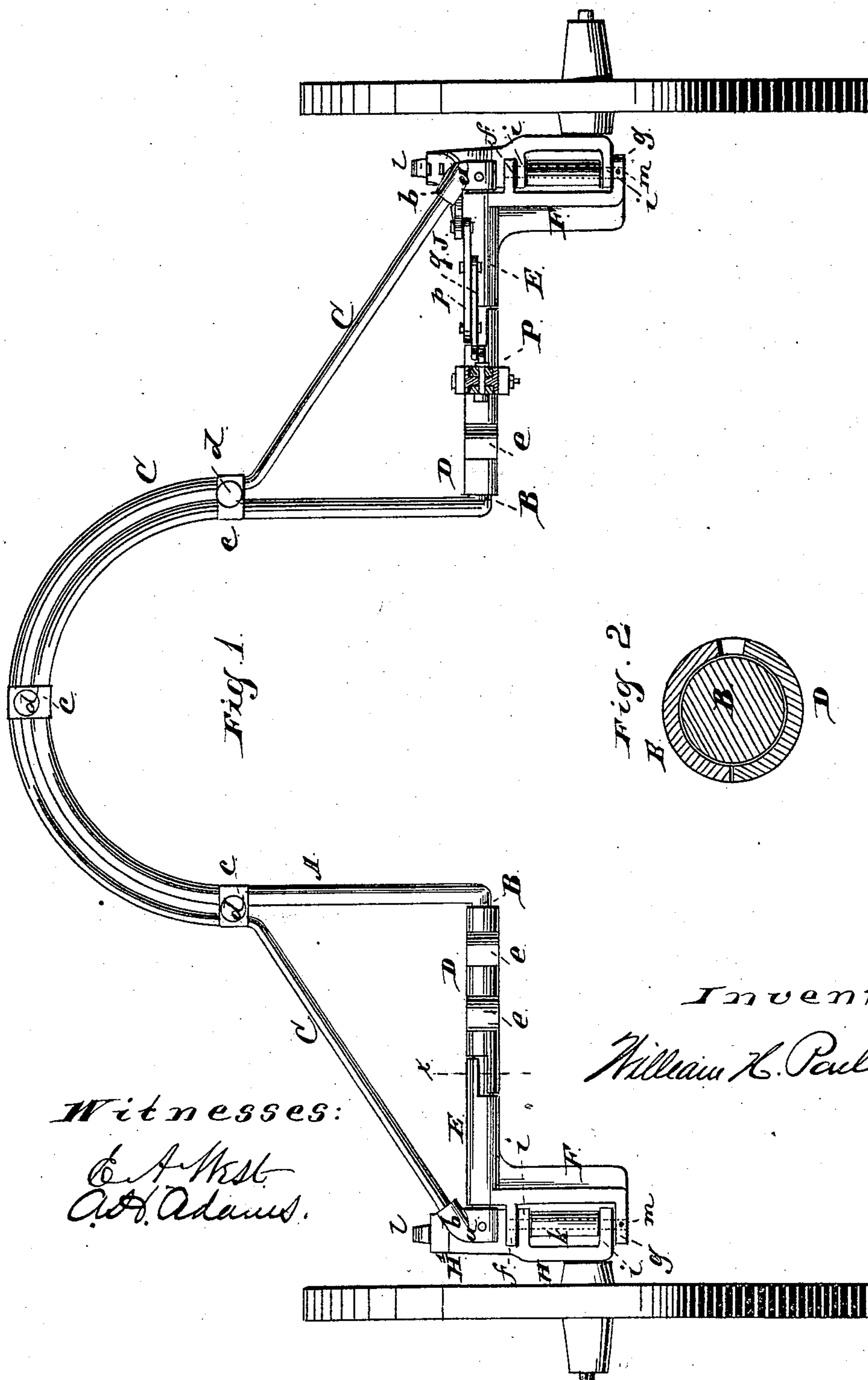
3 Sheets—Sheet 1.

W. H. PARLIN.

CULTIVATOR.

No. 291,930.

Patented Jan. 15, 1884.



Witnesses:

C. A. West
A. S. Adams.

Inventor:

William H. Paulin

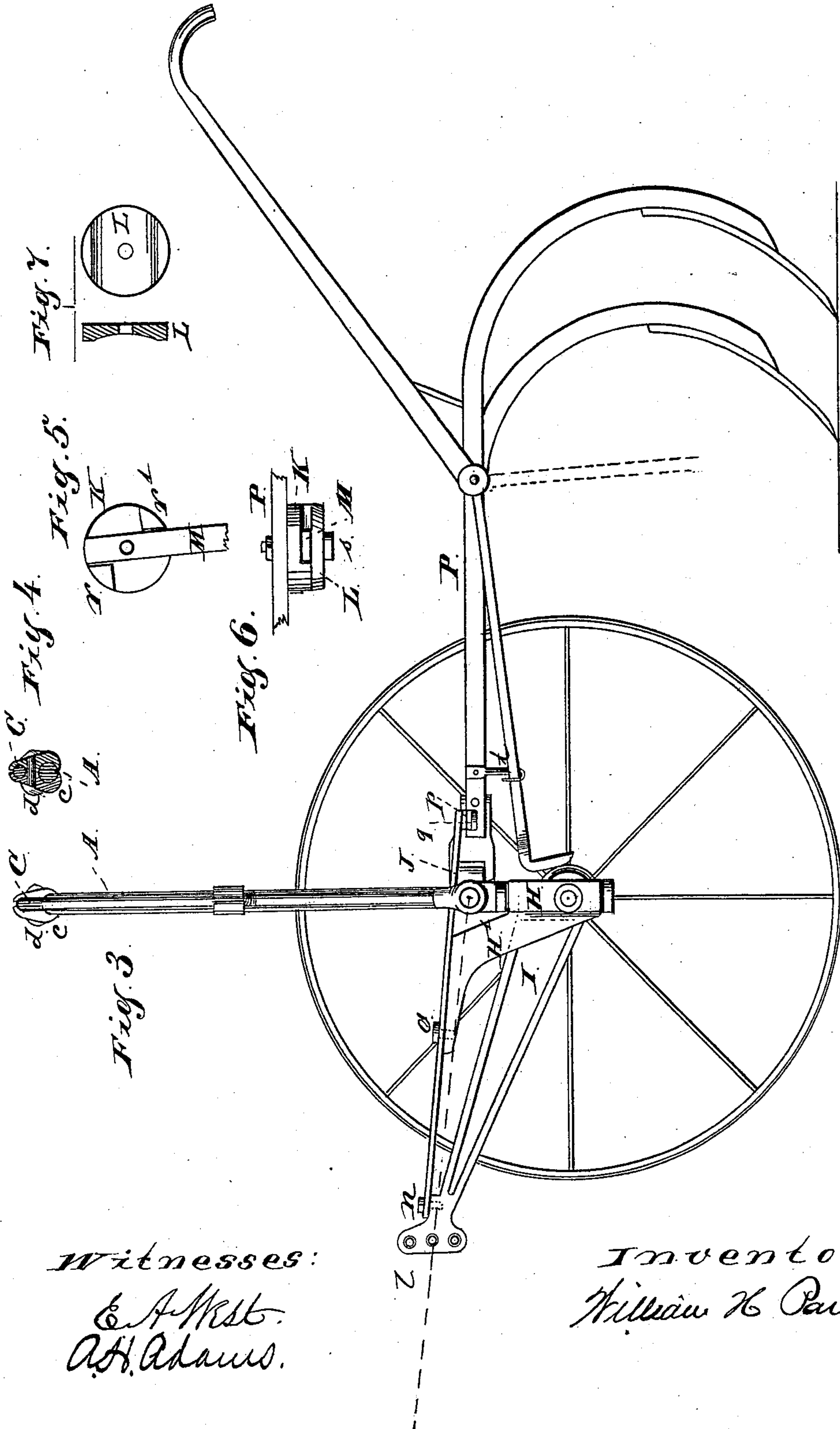
(No Model.)

3 Sheets—Sheet 2.

W. H. PARLIN.
CULTIVATOR

No. 291,930.

Patented Jan. 15, 1884.



(No Model.)

3 Sheets—Sheet 3.

W. H. PARLIN.

CULTIVATOR.

No. 291,930.

Patented Jan. 15, 1884.

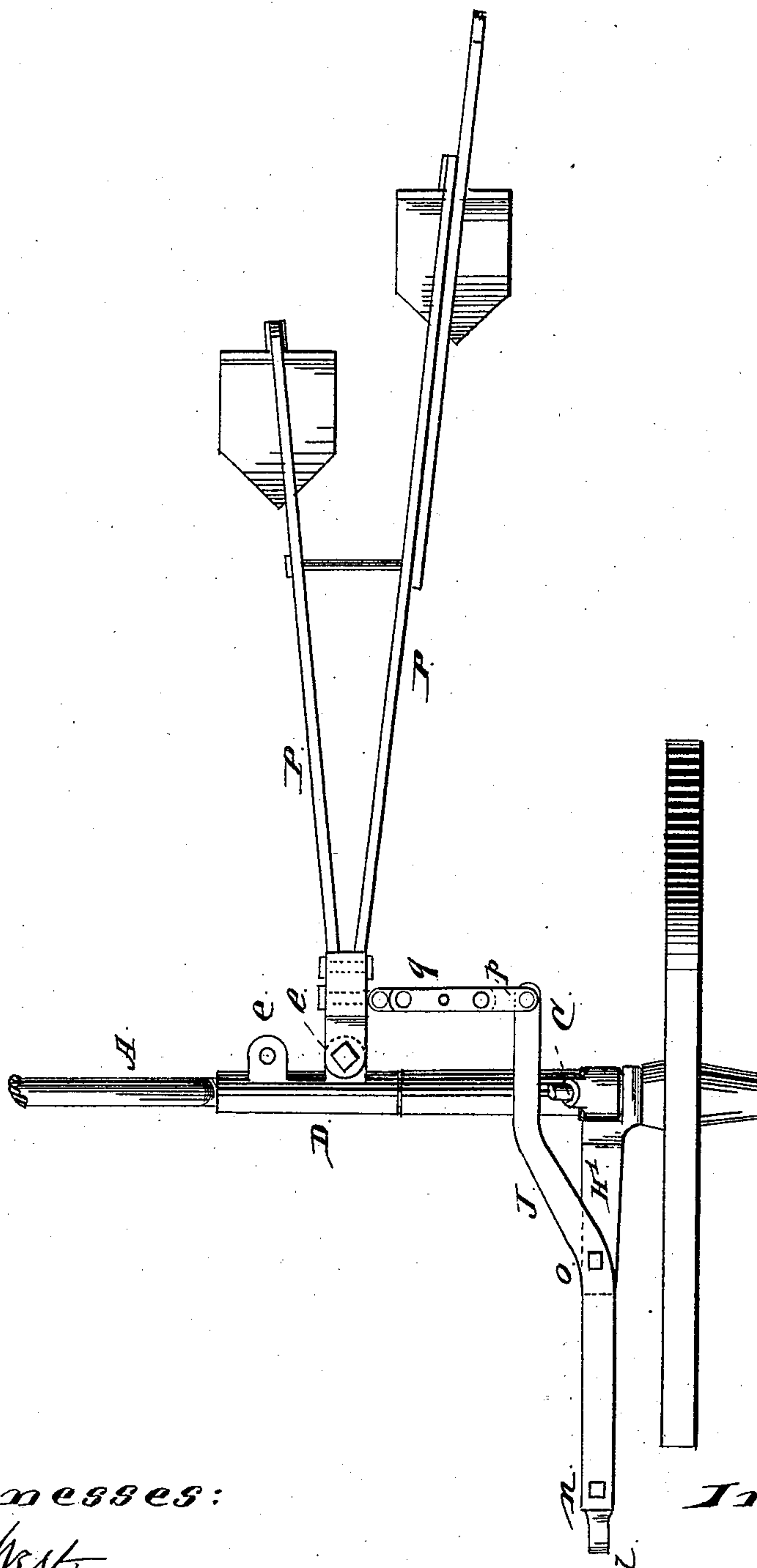


Fig. 8.

Witnesses:

E. H. Adams.

Inventor:

William L. Parlin

UNITED STATES PATENT OFFICE.

WILLIAM H. PARLIN, OF CANTON, ILLINOIS.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 291,930, dated January 15, 1884.

Application filed September 7, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. PARLIN, residing at Canton, in the county of Fulton and State of Illinois, and a citizen of the United States, have invented new and useful Improvements in Cultivators, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a rear elevation; Fig. 2, an enlarged section at line *x* of Fig. 1. Fig. 3 is a side elevation, one wheel being removed. Fig. 4 is a section through the top of the arched axle and brace-rod. Fig. 5 is an elevation of the drag-bar and plate K; Fig. 6, top view of the parts shown; Fig. 7, an inside view and elevation of the plate L. Figs. 5, 6, and 7 are enlarged. Fig. 8 is a plan of the parts represented.

My improvements are primarily designed to be used with tongueless cultivators.

The leading objects of my invention are to provide devices by means of which the running depth of the shovels can be regulated by changing the point of attachment of the animals to the draft-bars, at the same time leaving the shovel-beams free to be elevated at their rear ends without affecting the draft, which I accomplish by means of two sleeves located upon the horizontal part of an arched axle, one carrying a plow-beam, the other connected with a draft-bar, said sleeves being so constructed and arranged or connected that while one limits the movements of the other, either one can have a limited rotating movement without affecting the other; to provide improved means for connecting a strengthening-brace with the main arch, and to provide an improved drag-bar to hold the shovels out of the ground, when desired.

In the drawings, A represents the main part of an arched axle, having an arch and two horizontal parts, B. On each end of the horizontal part of the arched axle A is secured, by means of a bolt or pin, a casting, *a*, which is provided with a socket, *b*.

C is a second arch and brace-rod, the two ends of which are placed in the sockets *b*. This brace-rod is connected with the main arch A by means of clips *c* and bolts *d*, as shown in Fig. 1.

D are sleeves on the horizontal parts of the

arched axle, one upon each side of the main arch. This sleeve D is partly cut away at one end, as shown in Figs. 1 and 2.

e are ears upon the sleeve D, to receive the front end of the plow-beam P.

E is another sleeve on the horizontal part of the arched axle, the inner end of which is cut away, as shown in Figs. 1 and 2. Those portions of the two sleeves which are not cut away overlap each other, as shown in Fig. 1, and a little more than one-half of each sleeve is cut away, so that each can have a limited rotary movement, and the uncutaway part of each sleeve forms two stops, which limit the rotary movement of the other sleeve. Extending downward from the sleeve E, at right angles thereto, is an arm, F, provided with two ears, *f g*. E and F are made together.

H is an iron, provided with two ears, *i*. The spindles for the wheels are permanently secured to this iron H.

H' is a forward and upward extension from the iron H, H and H' being in fact one piece.

I is a draft-bar, the rear end of which is provided with a socket, *k*, while its forward end, *l*, is elongated vertically and provided with a number of holes. The parts F, H, and I are connected together by a single pin, which passes through the ears *f g i* and the socket *k*, the connecting-pin being shown in dotted lines, and being held in place, as shown, by a pin, *m*, which passes through the ear *g*. There is a little space between the castings *a* and the ears *f*, to permit some vertical movement of the front ends of the draft-irons, and prevent binding in case one animal pulls in a different line of draft from the other horizontally.

J is a bar secured to the forward end of the draft-bar I at *n*, and to the forward part of H' at *o*. The rear end of this bar extends a little way back of the axle, as shown in Fig. 8, and pivoted to it is an iron, *p*, which is secured to another iron, *q*, one end of which is pivoted to the head at the forward end of the shovel-beam. These two irons *p q* are provided with a series of holes, which permit their adjustment as may be required, in consequence of attaching the front end of the beam to different points of the sleeve D.

K is a casting having upon its face two projections, *r* and *r'*.

L is another casting, the inner face of which, as shown, is hollowed out a little along and upon each side of the transverse center.

M is a drag-bar. The castings K and L, with the upper end of the drag-bar between them, are all secured in place upon the side of the plow-beam by means of a single bolt, s.

t is a hook near the forward end of the plow-beam.

The operation is as follows: In Figs. 1 and 2 the sleeves D and E are shown in the position which they are supposed to occupy when the shovels are in the ground, there being a space between the uncutaway parts of the two sleeves at the rear of the axle, as clearly shown in Fig. 2. The rear end of the beams can be raised sufficiently to raise the shovels out of the ground without in any way affecting the draft.

As shown in Fig. 2, the uncutaway parts of the two sleeves touch in front of the axle, the line of draft being supposed to be along the dotted line in Fig. 3, the animals being attached at the centers of the parts l.

The shovels can be made to run a little deeper by hitching at a point lower down, the effect being to rotate the sleeve E, carrying the front portion of the uncutaway part a little distance from the sleeve D, which will allow the shovels to enter the ground deeper. By hitching above the center the opposite result will be produced.

By means of the bar J and the connections between it and the plow-beam, when the shovels of one gang are moved laterally the wheel will be correspondingly turned.

The drag-bar M can be hung up when not in use, as shown in Fig. 3, or can be let down, as indicated by dotted lines. The stops r r' limit its movement, and also furnish points with which the plate L comes in contact when bolted to its place, leaving a space between the plates K and L for the movement of the drag-bar. By hollowing out the plate L a little, as described, the drag-bar will be loose between the two plates when hung up, but it will fit tightly between them when down.

The shovel-beams can be attached to the sleeve D at either one of the ears e, as may be desired, to bring them nearer to or farther from each other, the parts p and q being at the same time properly adjusted.

The brace-rod C performs the important office of supporting and strengthening the arched axle, which can thereby be made somewhat lighter than would be safe if the brace-rod C were omitted, and the irons a, with their sockets b, hold the ends of the brace-rod securely in place.

I believe that I am the first to provide the axle of a cultivator with two sleeves, the plow-beam being connected with one and a draft-bar with the other, the two sleeves being so constructed and combined that while both can have a limited rotary movement, each limits the movement of the other; and therefore I do not limit myself to the exact means shown and described for accomplishing this result.

What I claim as new, and desire to secure by Letters Patent, is as follows:

1. In a cultivator, two sleeves, D E, upon the axle, one carrying a plow-beam, the other connected with a draft-bar and combined with each other, substantially as described, whereby either sleeve can have a limited rotary movement without affecting the other, for the purpose of providing for regulating the running depth of the shovels, and at the same time leaving the plow-beam free to be raised at its rear end without affecting the draft.

2. The irons a, provided with sockets b, in combination with the main arch A and secondary arch and brace-rod C, substantially as and for the purpose specified.

3. In a cultivator, a drag-bar, M, in combination with the plate K, provided with the projections and stops r r', the plate L, and a plow-beam, substantially as and for the purpose specified.

WILLIAM H. PARLIN.

Witnesses:

E. A. WEST,
A. H. ADAMS.