

A. & S. S. WOODWARD & T. MASON.

Cultivator.

No. 91,894.

Patented June 29, 1869.

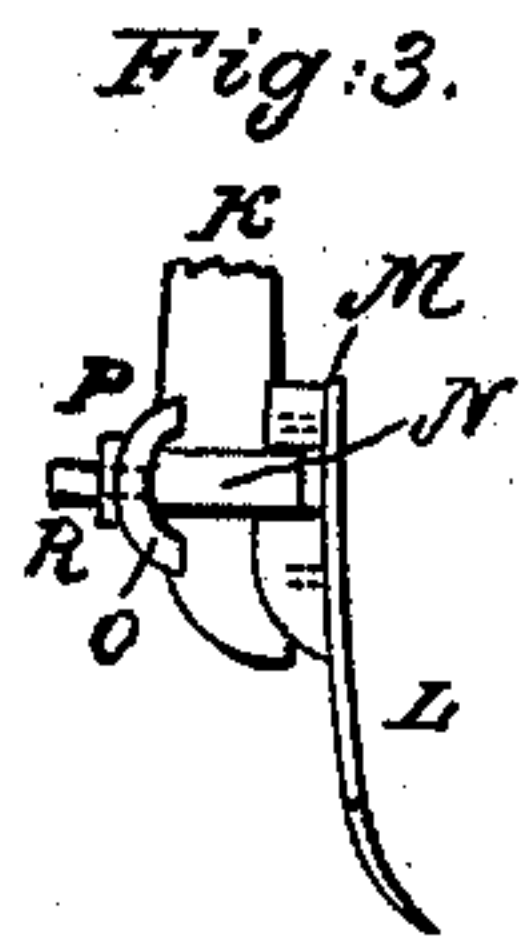
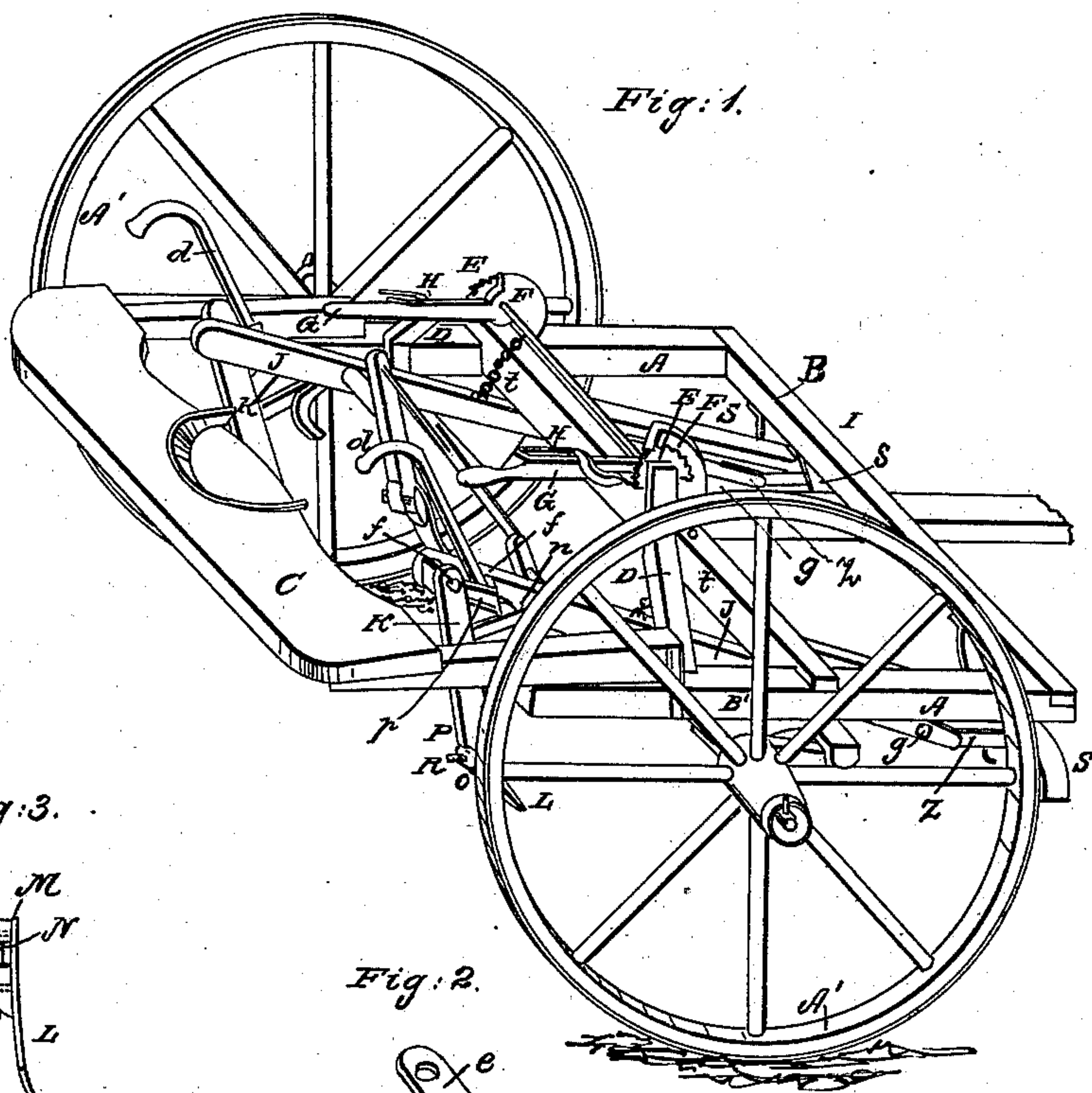


Fig. 2.

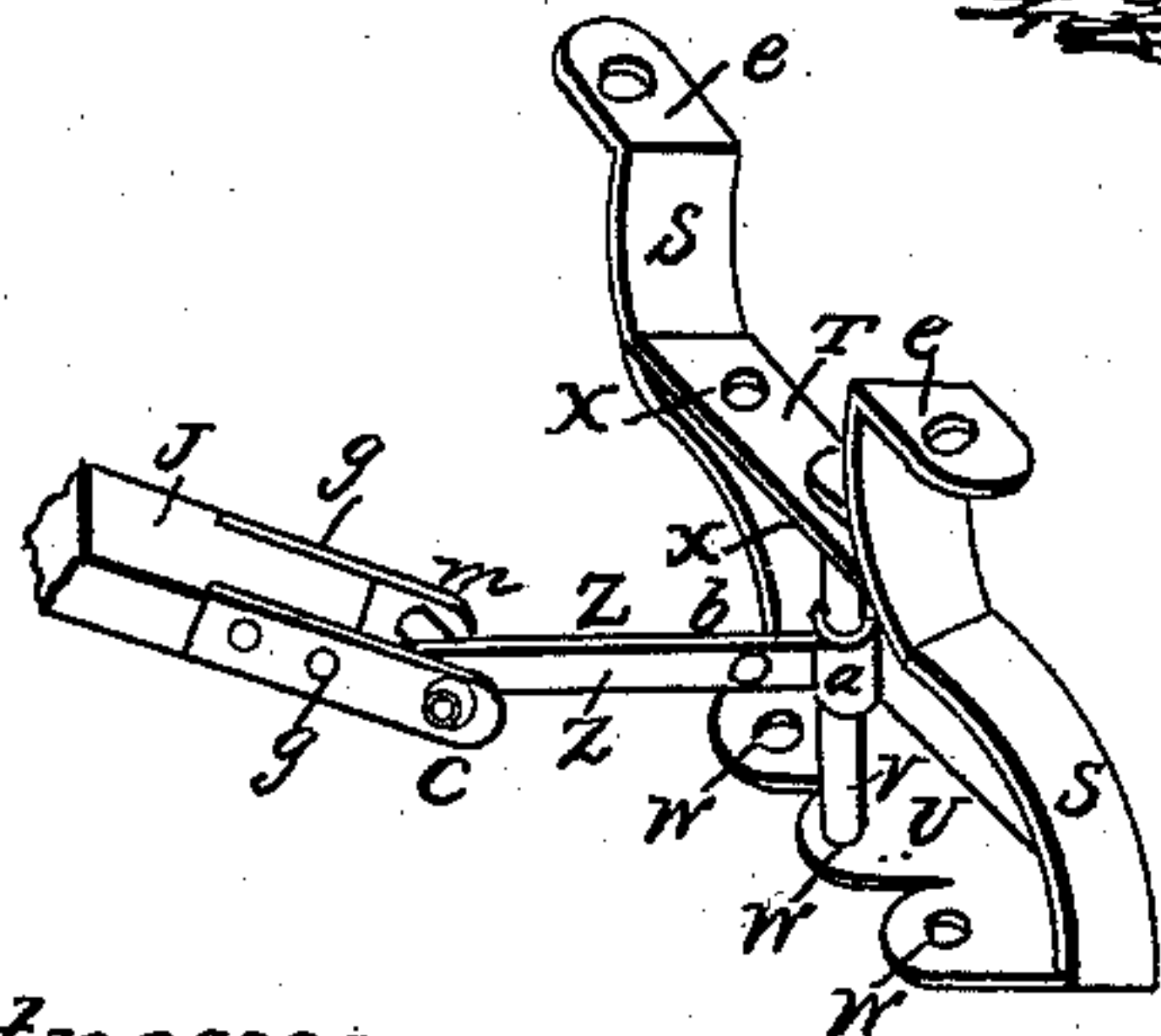


Fig. 4.



Witnesses:

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United States Patent Office.

J. A. WOODWARD, S. S. WOODWARD, AND THOMAS MASON, OF
SANDWICH, ILLINOIS.

Letters Patent No. 91,894, dated June 29, 1869.

IMPROVEMENT IN CULTIVATORS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, J. A. WOODWARD, S. S. WOODWARD, and THOMAS MASON, of Sandwich, in the county of De Kalb, and State of Illinois, have invented an Improved Cultivator; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, and letters marked thereon, making a part of this specification, in which—

Figure 1 is a perspective representation of our improved cultivator.

Figure 2, an enlarged perspective view of the attachment, for fastening the beams to the frame.

Figure 3, an enlarged view of the lower end of the standard, showing how the shovels are attached.

Figure 4, a view of the band used with the clamp, shown at fig. 3, to hold the shovel in place.

The object of the present invention is to improve the cultivator patented by us, September 15, 1868; and

The nature of the improvement consists—

First, in the novel construction of the parts used to form the compound joints, with which the beams are connected to the forward end of the cultivator-frame.

Second, the construction of the clamps, with which the detachable handles are fastened to the beams.

Third, the use of inclined standards, so arranged, that the segments over which the lifting-chains pass, are brought directly over the shovel-beams.

A represents a frame, mounted on wheels A', whose axle-arms B' are pivoted to the sides A of the frame, substantially in the same manner as the arms shown in our patent above referred to.

The hinged seat C is also the same as the seat used in said patent, and is, therefore, no part of the present invention.

S S represent the sides of the metal frames, which have lugs e, turned outward, and fastened to the under side of that part of the frame shown at B, and which are rigidly attached to horizontal plates U T, placed such distances apart, as to support bolts V, of such length as will allow friction-clutches Z Z to have a vertical adjustment, and thereby bring the forward ends of the beams J, to any required height above the surface of the ground, the plates U having two or more holes, W, and the plates T two or more holes, X, to receive the bolt V, when the beams J are to have a lateral adjustment.

The friction-clamps Z Z, are made in two parts each,

and provided with concave jaws a, which are made to clasp the bolt V firmly, by means of bolts and nuts b, put through the clamps Z Z, as shown at fig. 2, and with short pivots m at their opposite ends, which have bearings in plates g, attached to the forward ends of the beams J. Bolts, however, may be used to hold the clamp to the plates g, instead of the pivots m, if desirable.

By this construction and arrangement, any desired adjustment of the beams J can be made, by simply loosening the nut on the bolt b, and placing the jaws a further up or down on the bolt V, or by placing the bolt in the side holes W X.

The handles d d are held in place by means of cast or wrought-iron sockets f f, fig. 1, which are fastened to the sides of the beams J, and by plates p, which are fastened, at their rear ends, to the beams, and firmly clamped to the handles d, by means of bolts n, which pass through the plates, and into the beams, at the front sides of the sockets f f. By this means, the handles can be readily removed, when the operator is to ride, by loosening the bolts n.

Two standards, D, are supported by the frame-pieces A A, and they are so inclined inward, as to bring the pivoted segments F, fig. 1, directly over the beams J.

This is done, in order that the chains t, which support the beams, may hang in vertical positions when the shovels are moving in the middle of the rows.

Ratchets E, levers G, and spring H, having the ordinary construction, are used, in connection with the segments F and standards D, to raise and lower the beams J, in the usual manner.

Having thus described my invention,

What I claim, and desire to secure by Letters Patent of the United States, is—

1. The combination of the clamps Z Z, pins V, frame S T U, and beams J, as and for the purpose set forth.

2. The combination of the sockets f f, handles d, plates p, and beams J, said plates being arranged to clamp the handles to the beams, as set forth.

3. The inclined standards D, in combination with segments F, ratchets E, levers and springs G H, beams J, chains t, clamps Z, and frame S T U, as shown and specified.

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