

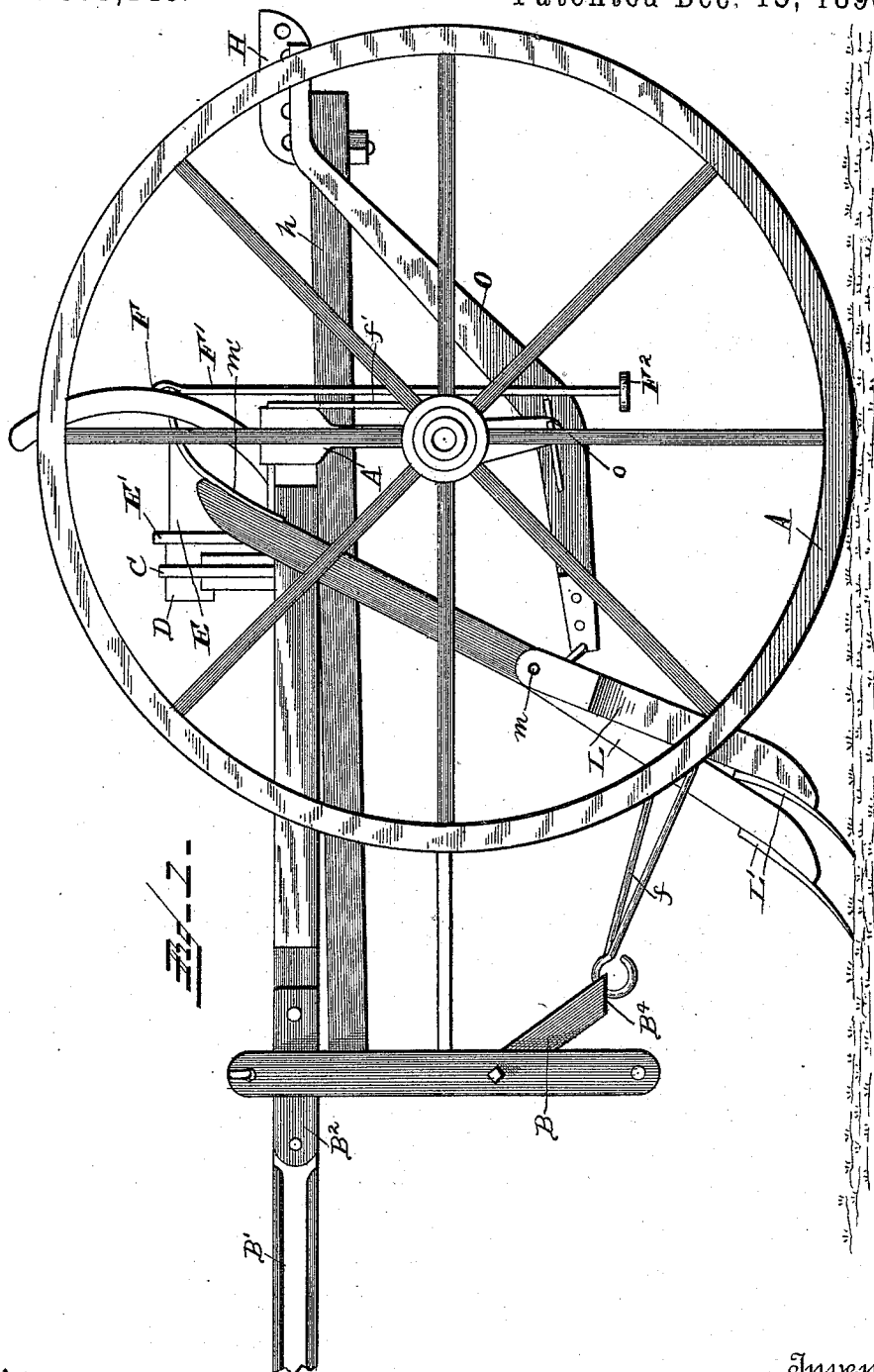
(No Model.)

3 Sheets—Sheet 1.

T. C. FLEMING.  
CULTIVATOR.

No. 573,143.

Patented Dec. 15, 1896.



Witnesses  
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*H. A. Nane*

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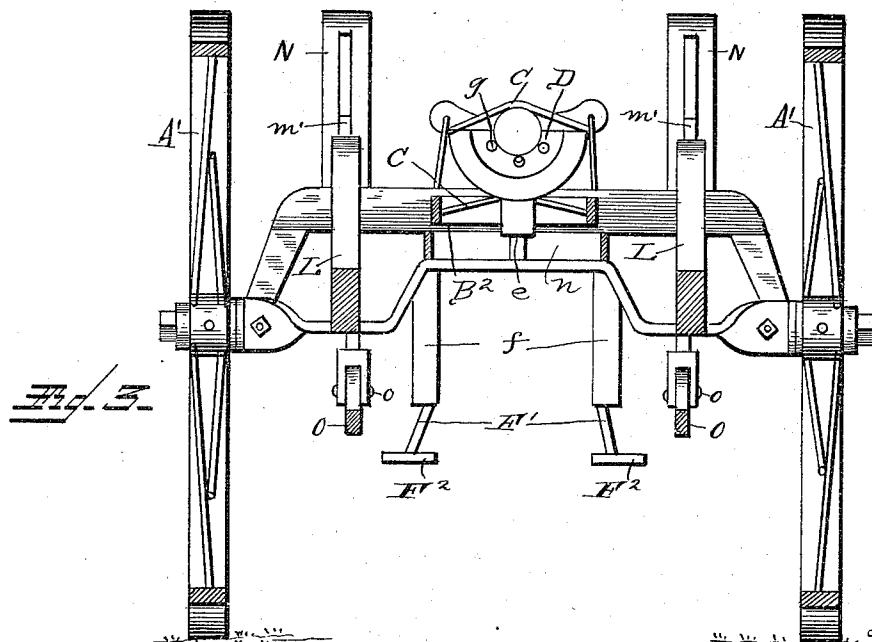
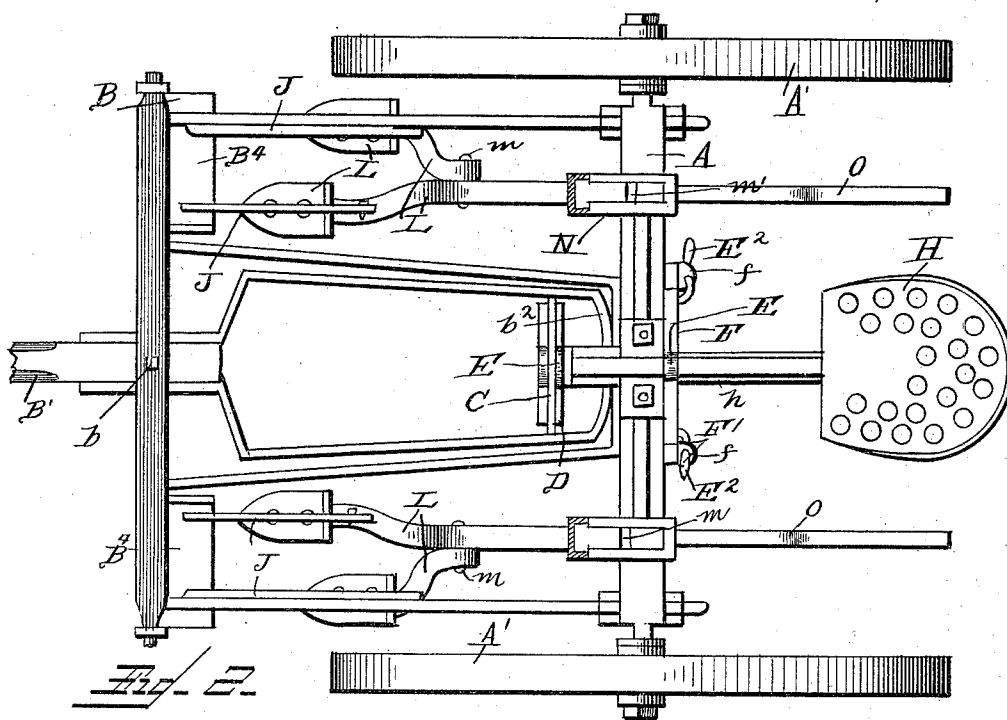
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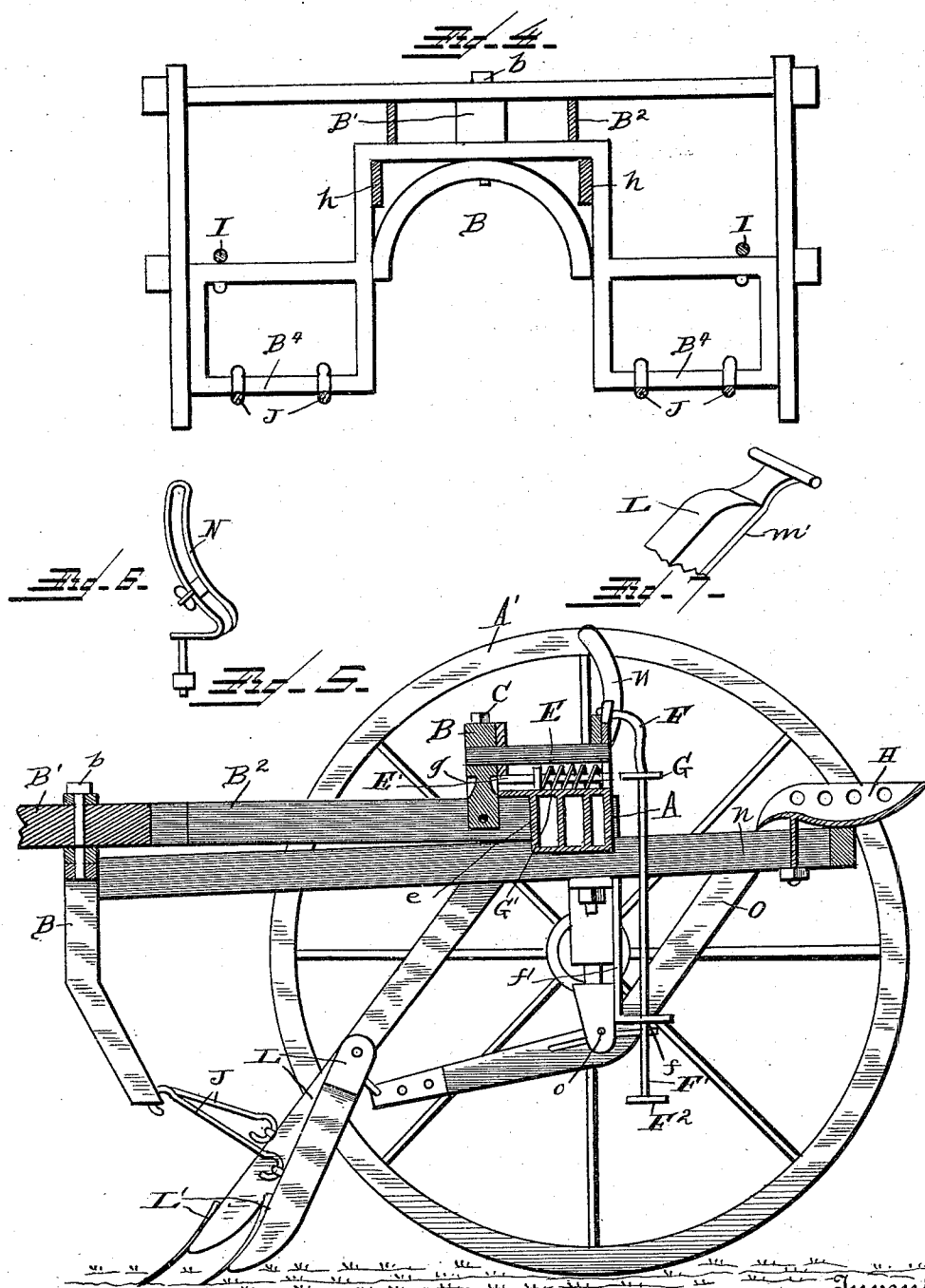
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# UNITED STATES PATENT OFFICE.

THOMAS C. FLEMING, OF AYR, NEBRASKA.

## CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 573,143, dated December 15, 1896.

Application filed February 6, 1896. Serial No. 578,263. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS C. FLEMING, a citizen of the United States, residing at Ayr, in the county of Adams and State of Nebraska, have invented certain new and useful Improvements in Cultivators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain new and useful improvements in cultivators; and it has for its object, among others, to provide a simple and cheap construction by which the work is all brought close to the team, the draft made equal, and more efficient and satisfactory results attained than by prior constructions.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a side elevation of my improved cultivator. Fig. 2 is a top plan. Fig. 3 is a vertical cross-section. Fig. 4 is a vertical cross-section through the front arch. Fig. 5 is a vertical longitudinal section. Figs. 6 and 7 are details.

Like letters of reference indicate like parts in the several views.

Referring now to the details of the drawings by letter, A designates the axle, which is arched, as shown, and which carries the wheels A' of any well-known or improved form of construction.

B is the front arch, which is constructed to extend down and receive the draft direct from the shovel-standards without the employment of a beam. This front arch has pivotally mounted thereon, upon a pivot *b*, the tongue B', to the rear end of which is secured the bar B<sup>2</sup>, of metal, which extends laterally from its point of connection with the rear end of the pole and hence rearwardly in substantially parallel planes, although they may be slightly convergent and the rear end *b*<sup>2</sup> or cross portion formed on a curve, as shown. To the side bars of this rectangular frame thus

formed are connected the ends of a chain or cord C, which chain or cord is passed up into the groove of the segment D, the said chain or cord extending across the upper face of said segment, as shown. This segment is carried by a rocking shaft E, mounted in suitable brackets or bearings E', secured to the arched axle, as shown, and the rear portion of the rectangular frame on the rear end of the pole or tongue moves in a guide *e*, depending from the bracket on which the said arms or lugs are carried in which the rocking shaft is journaled. The tongue is thus free to shift on its pivot from right to left without changing the course of the team. The rounding portion of this segment being in line with the pole or tongue keeps the change in line from one end of the shift to the other. To the rear end of this shaft which carries this segment is a cross-bar or arm F, and to each end of this cross-bar is pivotally connected in any suitable manner a vertical arm or rod F', which extends down through suitable guides *f*, formed in the horizontally-bent lower ends of the inverted-U-shaped plate *f'*, supported on the axle, and on the lower end of each of these vertical rods, which are connected to the cross-bar, is an adjustable foot-rest or stirrup F<sup>2</sup>, so that the operator by pushing down on one or the other of these stirrups can readily shift the course of the cultivator.

The segment has a plurality of openings *g*, and G is a shaft or pin mounted beneath the shaft on which the segment is carried and which is so constructed that by giving it a half-revolution the spring G', acting thereon, will shoot the spring-rod forward into one of the holes in the said segment and thus lock the shift, thereby making a stiff-tongue cultivator of it when desired. The seat H is adjustably mounted upon a bar *h*, secured to the arched axle, as shown.

The substantially vertical portions of the axle are connected by rods I with the front arch, as shown, while the lower cross portions B<sup>4</sup> of this front arch are provided with openings *b*<sup>4</sup>, into which are detachably and pivotally hinged the rods J, which are at their other ends pivotally connected with the plow-standards L, which carry the plow L', of any suitable character, the one standard being pivotally mounted upon the other, as upon a

pivot *m*. The rod *I* is omitted from Fig. 5. The longer standard is extended rearwardly and upwardly and has upon its upper end a T-shaped bar or casting *m'*, which works in guides in the curved bar *N*, secured adjustably to the rear axle, so as to be moved nearer to or farther from the wheels, as may be desired. It will be seen that the shovels are thus thrown forward of the wheels and are always under the control of the operator by means of the lever *O*, pivotally mounted between its ends, as at *o*, in a hanger depending from the axle and adjustable nearer to or farther from the axial line of the machine, the other end of the lever being pivotally connected with the longer of the two plow-standards. As the lever is operated to adjust the plows or shovels the T-bar at the upper end of the longer standard is guided in the guide-slot of the curved bar and the inclination of the shovels or plows is varied. This T-head working in the grooved guide serves to hold the shovels square to their work, while at the same time it is free to raise out of the ground or to rock sidewise, as may be desired. Each shovel-standard is attached directly to the arch, which is also square with the work. Thus it will be seen that in shifting the shovels or plows they are always square with the work.

The operator has full control of the machine, and with his feet he can keep the center of the cultivator plumb over the corn-row and with his hands he can guide the shovels along the hills of corn or pick out weeds anywhere in the row. From his position he can see the corn as he approaches it and as the shovels pass by it, and should he throw some dirt on the corn he can reach it with his foot as he passes by.

The numerous other advantages resulting from the construction herein described will be readily appreciated by those having occasion to use such devices.

Modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

Having thus described the invention, what is claimed as new is—

1. The combination with a pivotally-mounted tongue, of a segment carried by a rocking shaft, a frame secured to the rear end of the tongue and a chain having its ends attached to said frame and passed over said segment, substantially as described.

2. The combination with a pivotally-mounted tongue, of a segment carried by a rocking shaft, a frame secured to the rear end of the

tongue and a chain having its ends attached to said frame and passed over said segment, and means for locking said segment to form a stiff-tongue cultivator, substantially as described.

3. The combination with a pivotally-mounted tongue, of a segment carried by a rocking shaft, a frame secured to the rear end of the tongue and a chain having its ends attached to said frame and passed over said segment, and means for locking said segment to form a stiff-tongue cultivator, a cross-bar secured to said shaft and depending rods connected therewith and carrying foot-rests, substantially as described.

4. The combination with a pivotally-mounted tongue, of a segment carried by a rocking shaft, a frame secured to the rear end of the tongue and a chain having its ends attached to said frame and passed over said segment, and means for locking said segment to form a stiff-tongue cultivator, a cross-bar secured to said shaft and depending rods connected therewith and carrying foot-rests, which are adjustable on said rods, substantially as described.

5. The combination with a pivotally-mounted tongue, of a segment carried by a rocking shaft, a frame secured to the rear end of the tongue and a chain having its ends attached to said frame and passed over said segment, and means for locking said segment to form a stiff-tongue cultivator, a cross-bar secured to said shaft and depending rods connected therewith and carrying foot-rests, which are adjustable on said rods, and guides for the vertical rods, substantially as described.

6. In a cultivator, the combination with the axle and the curved guide thereon, of the shovel-standard having a T-head working in said guide and a pivoted lever having one end pivotally connected with said standard, substantially as described.

7. In a cultivator, the combination with the axle and the curved guide thereon, of the shovel-standard having a T-head working in said guide and a pivoted lever having one end pivotally connected with said standard, and means for adjusting said guide lengthwise of the axle, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

THOMAS C. FLEMING.

Witnesses:

C. G. LANE,  
W. S. DUER.