

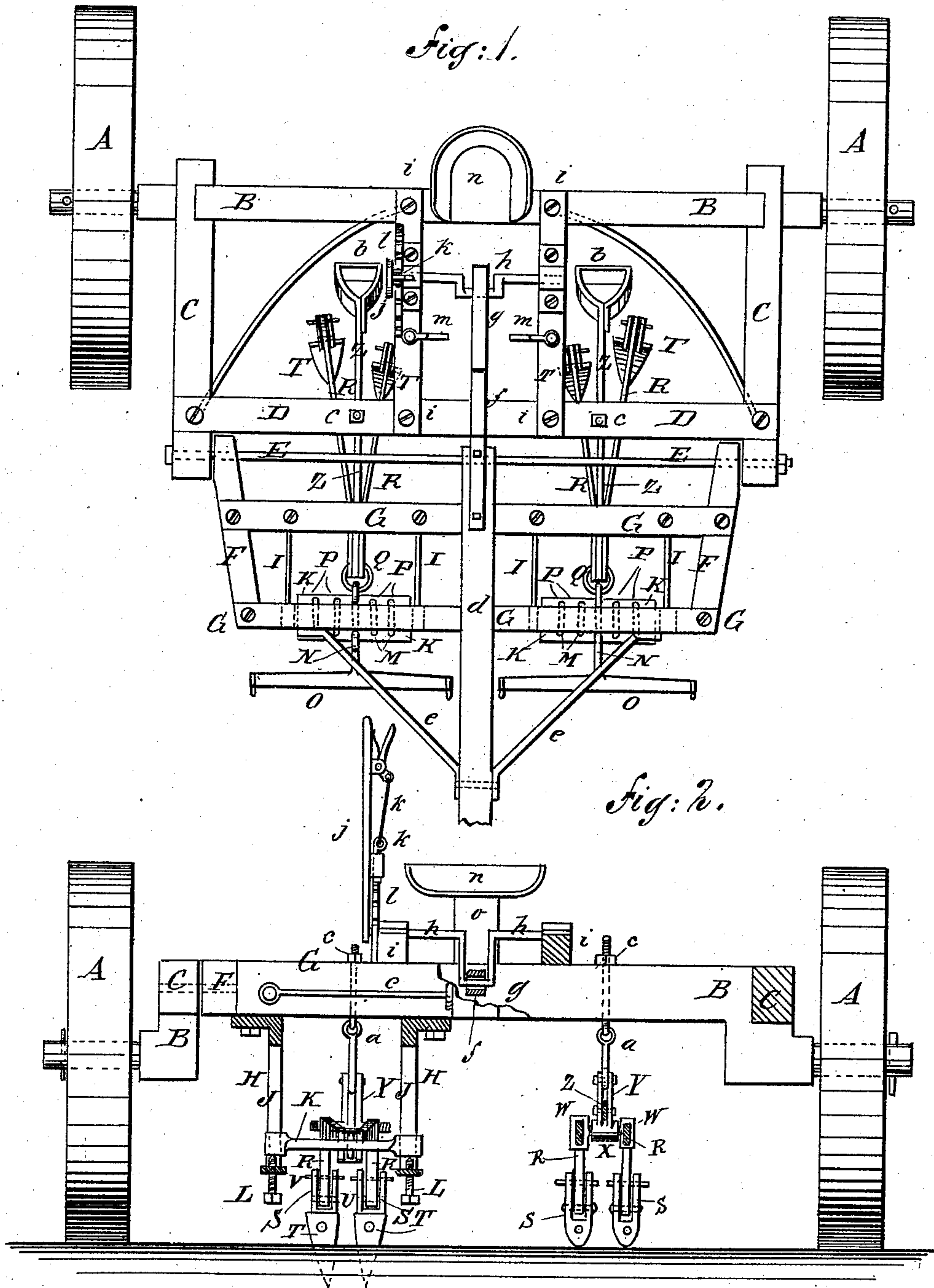
(No Model.)

2 Sheets—Sheet 1.

D. WISE.  
CULTIVATOR.

No. 286,983.

Patented Oct. 16, 1883.



WITNESSES:

*Chas. Nida*  
*C. Sedgwick*

INVENTOR:

*D. Wise*

BY

*Mum Co*

ATTORNEYS.

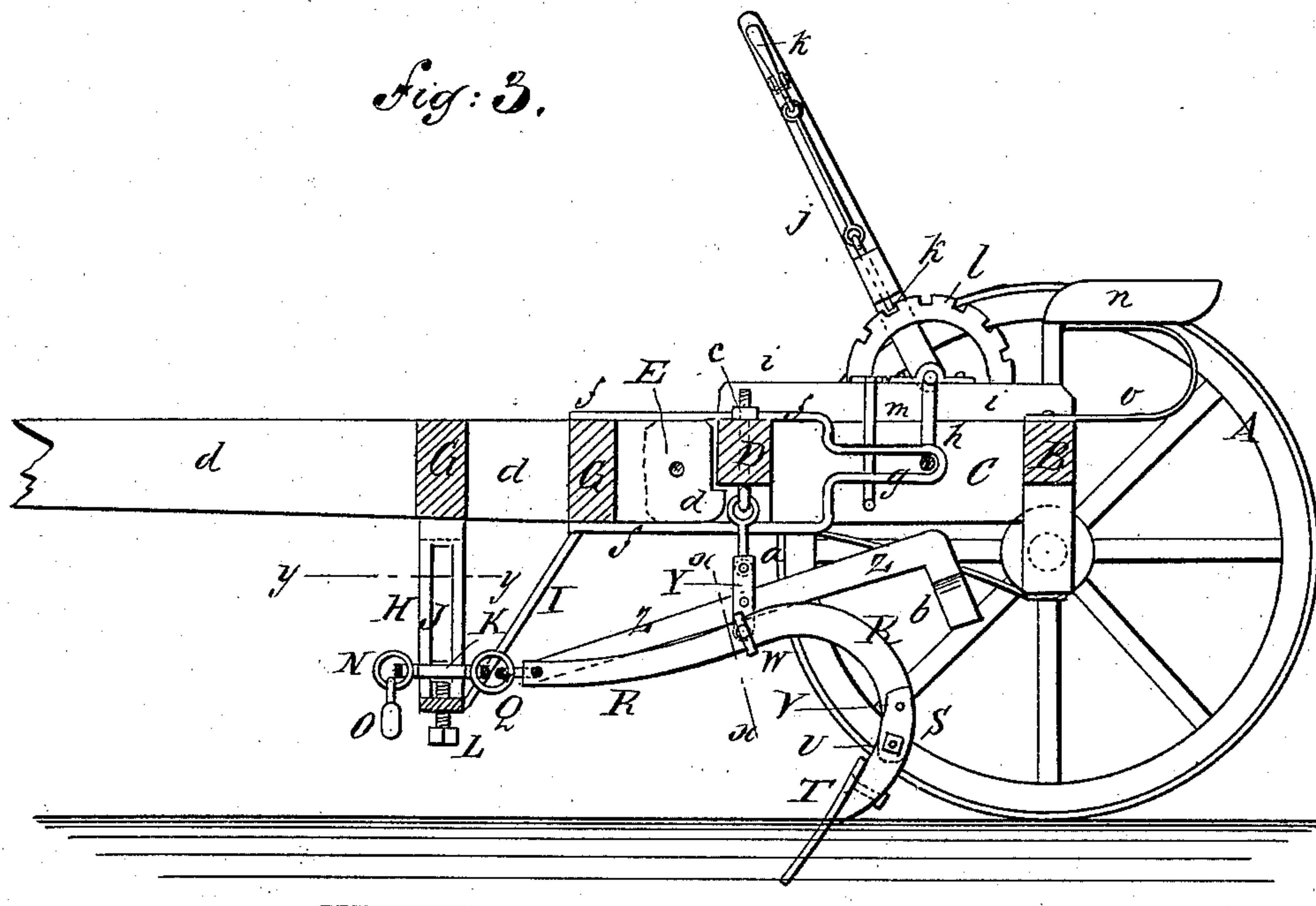
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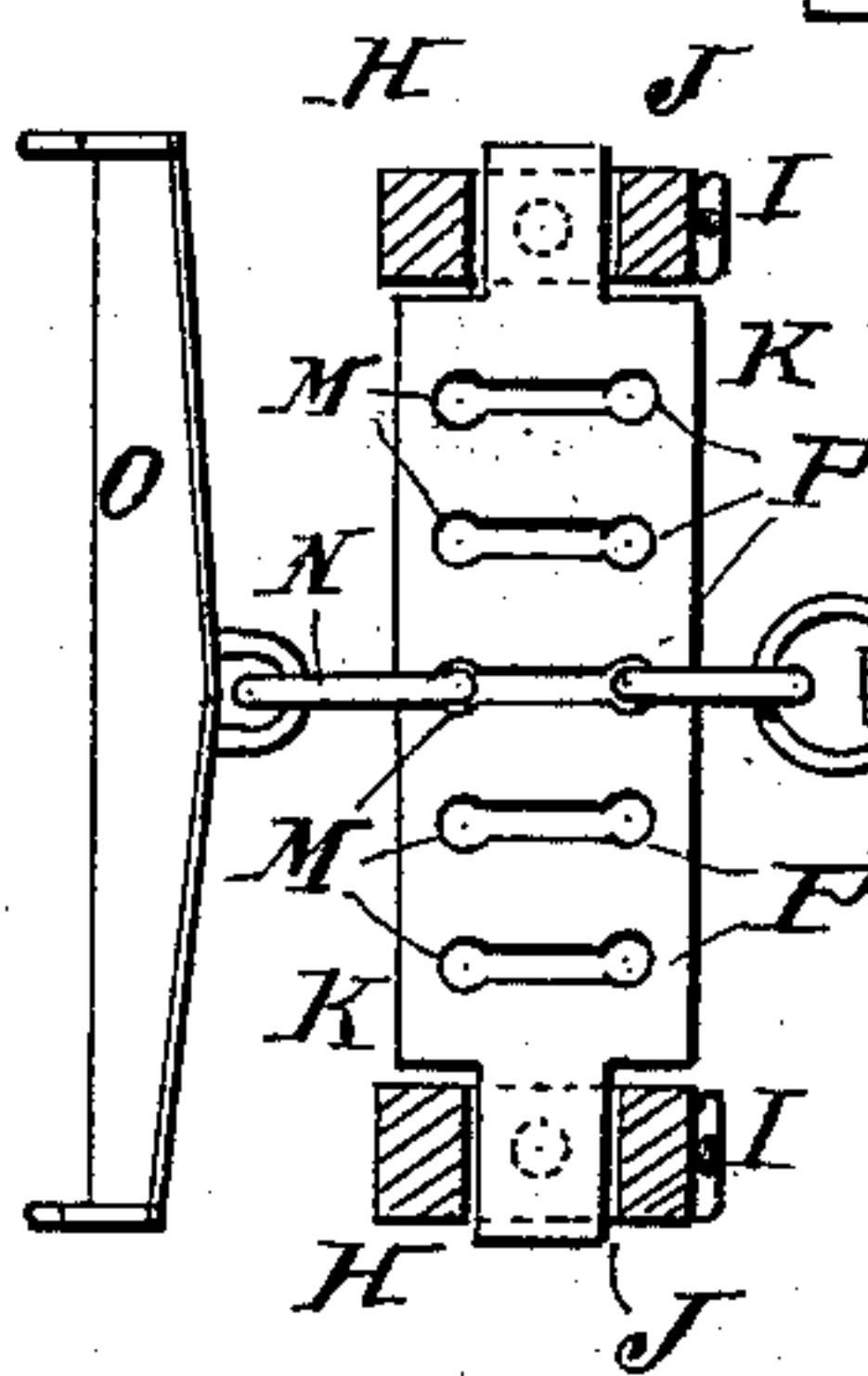
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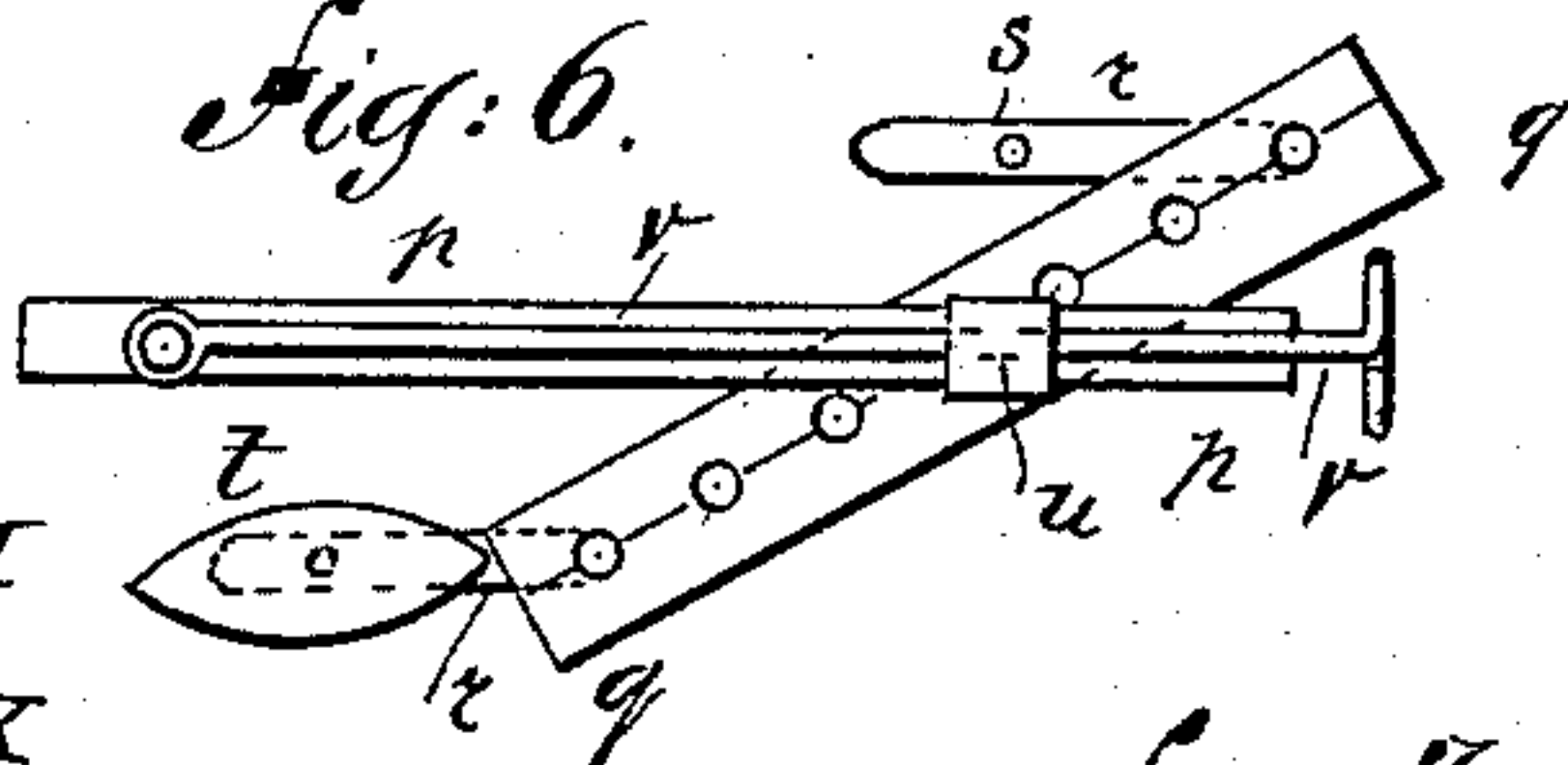
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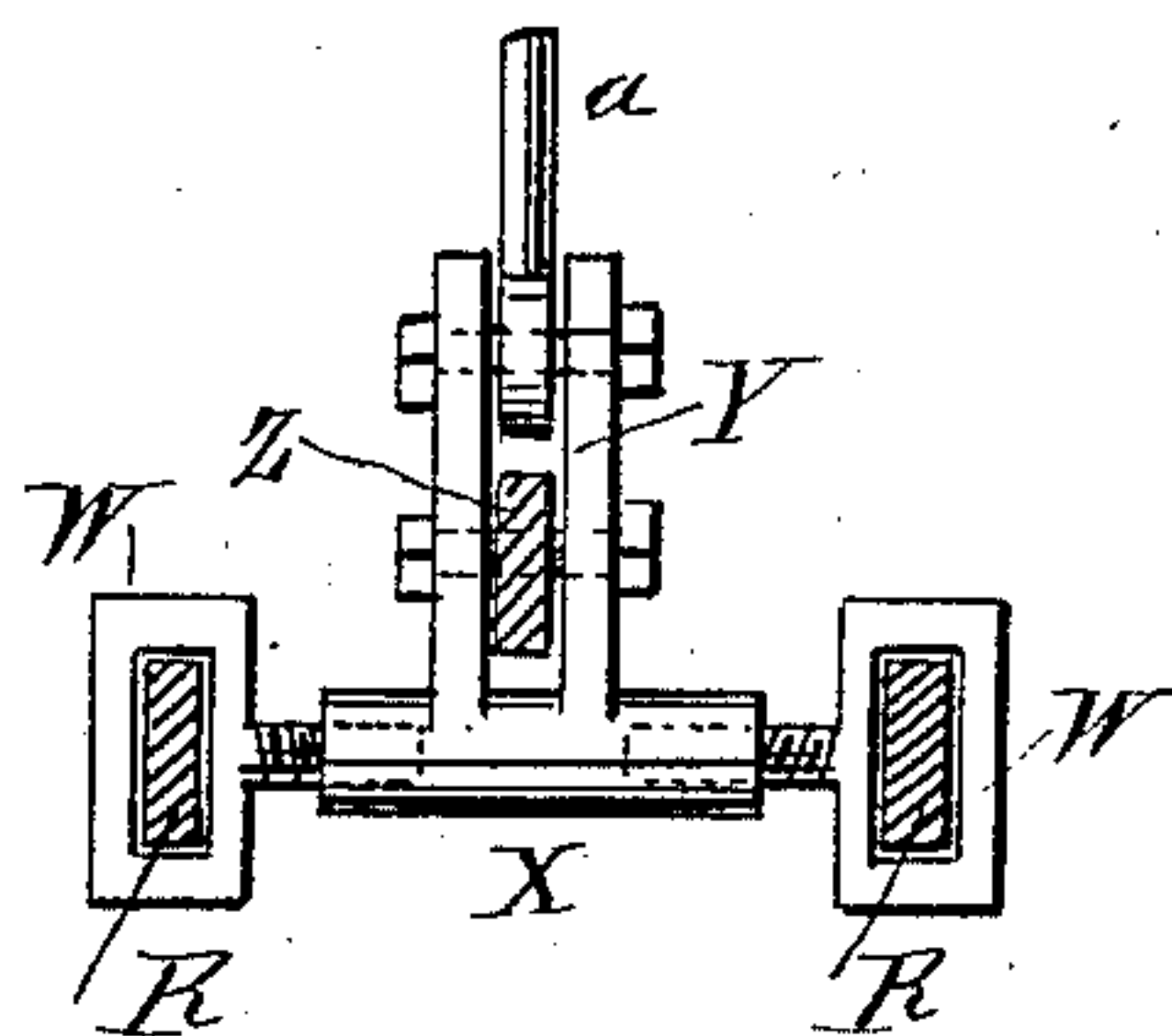
*Fig: 5.*



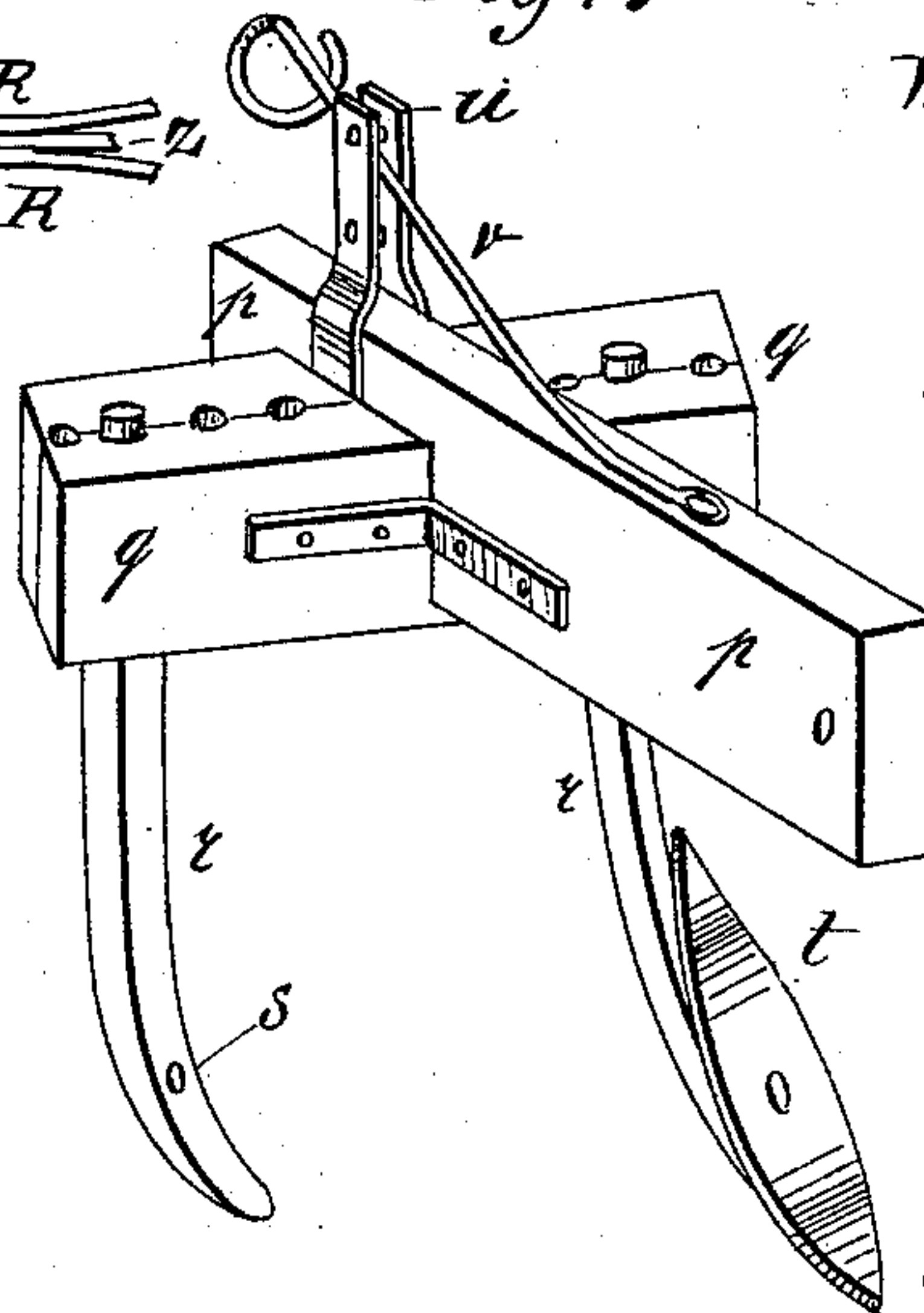
*Fig: 6.*



*Fig: 4.*



*Fig: 7.*



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# UNITED STATES PATENT OFFICE.

DAVID WISE, OF COTTONDALE, TEXAS.

## CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 286,983, dated October 16, 1883.

Application filed February 24, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID WISE, of Cottondale, in the county of Wise and State of Texas, have invented a new and useful Improvement in Cultivators, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1, Sheet 1, is a plan view of my improvement. Fig. 2, Sheet 1, is a front elevation of the same, partly in section. Fig. 3, Sheet 2, is a sectional side elevation of the same. Fig. 4, Sheet 2, is a sectional elevation of the plow beams and handle, taken through the line *x x*, Fig. 3. Fig. 5, Sheet 2, is a sectional plan view of a part of the same, taken through the line *y y*, Fig. 3. Fig. 6, Sheet 2, is a plan view of a side harrow to replace the plow-beams. Fig. 7, Sheet 2, is a perspective view of the same.

My invention relates to improvements in cultivators; and it consists in the peculiar construction and arrangement of the parts, as hereinafter more fully set forth, and pointed out in the claims.

A are the wheels, the axle B of which is made with an upward offset near each end.

To the axle B, at the upper angles of its offsets, are attached the rear ends of the side bars, C, which are connected near their forward ends by a cross-bar, D.

To the projecting forward ends of the side bars, C, are hinged by a rod, E, the rear ends of the side bars, F, which are connected at their middle and forward parts by two cross-bars, G, placed parallel with each other and with the cross-bar D and axle B.

To the lower side of the forward cross-bar G, are attached four hangers, H, which are equidistant from each other, and to their lower ends are attached the lower ends of braces I, to strengthen the said hangers in place. The upper ends of the braces I are attached to the rear cross-bar G. The hangers H have vertical slots J formed in them, in which are placed the ends of the draw-plates K, or tenons formed upon the said ends. The plates K are supported at any desired elevation by set-screws

L, passing in through the said hangers H, so that the point of draft attachment can be readily adjusted vertically, as may be required. In the forward part of each plate K are formed a number of holes, M, to receive the lap-ring N or other coupling by which the single-tree O is connected with the said plate, so that the point of draft attachment can be readily adjusted laterally. In the rear part of each plate K are formed a number of holes, P, to receive the lap-ring Q or other coupling by which the forward end of the plow-beam R is connected with the said plate K, so that the point of plow attachment can be readily adjusted to correspond with the point of draft attachment. The plow-beams R are arranged in pairs, and their rear ends are curved downward, and to them are attached the slotted upper ends of the standards S, to the lower ends of which are attached plows T, of any desired size or style, as the character of the work to be done may require. The standards S are secured to the beams R by bolts U and break-pins V, so that, should the plows T strike an obstruction, the pins V will break and allow the standards S and plows T to swing back, to prevent the plows from being broken.

W are bolts, the heads of which have slots formed through them at right angles with the length of the said bolts, to receive the plow-beams R. One of the bolts W has a right screw-thread and the other has a left thread formed upon it, to fit into the right and left screw-threads formed in the inner surface of the end parts of the tubular bar X, interposed between the plow-beams R, so that the said plow-beams will be drawn toward each other by turning the said tubular bar X in one direction, and will be pushed apart by turning the bar X in the other direction.

Upon the center of the tubular bar X is formed an arm, Y, which is slotted longitudinally, to receive the handle or foot-lever Z and the lower end of the suspension-rod *a*, and has holes formed through it, to receive the bolts for securing the said handle and rod in place. The forward end of the handle Z is secured to and between the forward ends of the plow-beams R, and upon its rear end is formed a stirrup, *b*, to receive the driver's feet, for controlling



the course of the plows. The upper end of the suspension-rod *a* passes through the cross-bar D, and is secured in place by a nut, *c*, or other suitable means that will allow the said rod to be readily adjusted to raise and lower the plow-beams and plows.

*d* is the tongue, which is rigidly attached to the centers of the cross-bars G, and is strengthened in place by the braces *e* attached to it and to the forward cross-bar G. The rear end of the tongue *d* projects into such a position that the hinging-rod E will pass through it.

To the upper side of the rear part of the tongue *d* is attached the end part of a bar, *f*, which extends back above the cross-bar D, is bent to form a slot, *g*, in the rear of the cross-bar D, and is attached to the lower side of the rear part of the tongue *d*, sufficient space being left between the lower side of the cross-bar D and the lower arm of the bar *f* to allow the adjacent hinged edges of the frames C D and F G to be raised so high as to raise the plows from the ground.

Through the slot *g* of the bar *f* passes a crank, *h*, the journals of which rock in bearings attached to longitudinal bars *i*, attached at their ends to the axle B and cross-bar D.

To one of the journals of the crank *h* is rigidly attached a lever, *j*, which projects into such a position that it can be readily reached and operated to raise and lower the plows by the driver from his seat. The lever *j*, and with it the plows, are held in any position into which they may be adjusted by the lever-pawl *k*, connected with the said lever *j* and engaging with the teeth of the arched bar *l*, the ends of which are attached to the bar *i*, and along which the lever *j* moves.

To the bars *i* are attached hooks *m*, for the plow-beams R to be hung upon when passing from place to place.

*n* is the driver's seat, which is attached to the upper end of a spring-support, *o*, the lower end of which is attached to the axle B.

If desired, the plow-beams and plows can

be replaced by the side harrows shown in Figs. 6 and 7, and which are formed with a beam, *p*, having an inclined cross-bar, *q*, attached to it, and provided with harrow-teeth *r*. The harrow-teeth *r* are provided with bolt-holes *s*, so that plows *t* of any desired size can be attached to them.

To the beam *p* is attached a slotted bar or a keeper, *u*, to receive the foot-lever *v*, so that the side harrows can be guided by the driver with his feet.

The suspension-rods *a* can also be attached to the keeper *u*, for regulating the depth to which the harrow-teeth or plows enter the ground.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. In a cultivator, the combination, with the axle B, the rigid tongue *d*, the two frames C D and F G, and the hinging-rod E, of the plow-beams R, slotted hangers H, coupling-plate K, provided with holes M, set-screws L, and lap-ring Q, substantially as described, and for the purpose set forth.

2. In a cultivator, the combination, with the axle B, the rigid tongue *d*, the two frames C D and F G, and the hinging-rod E, of the plow-beams R, slotted hangers H, coupling-plate K, provided with holes M, set-screws L, stationary right and left bolts W, tubular connecting-bar X, and foot-levers Z, provided with stirrups *b*, substantially as described, and for the purpose set forth.

3. In a cultivator, the combination, with the rigid tongue *d*, and the hinged frames F G and C D, of the bar *f*, having slot *g*, the crank *h*, and the lever *j*, substantially as herein shown and described, whereby the plow-beams and plows can be raised and lowered, as set forth.

DAVID WISE.

Witnesses:

W. J. N. WELBORN,  
JOHN W. CULWELL.