

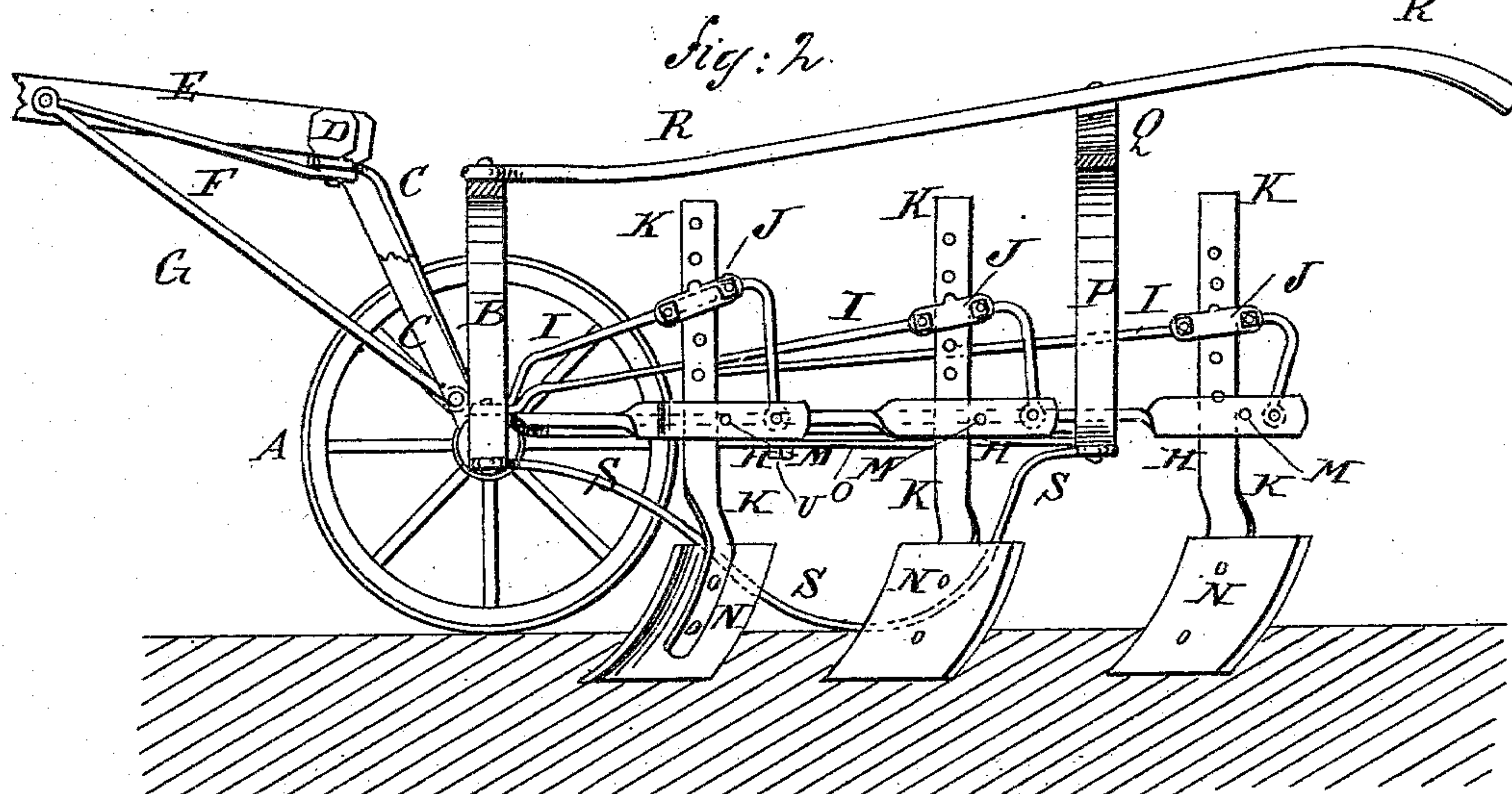
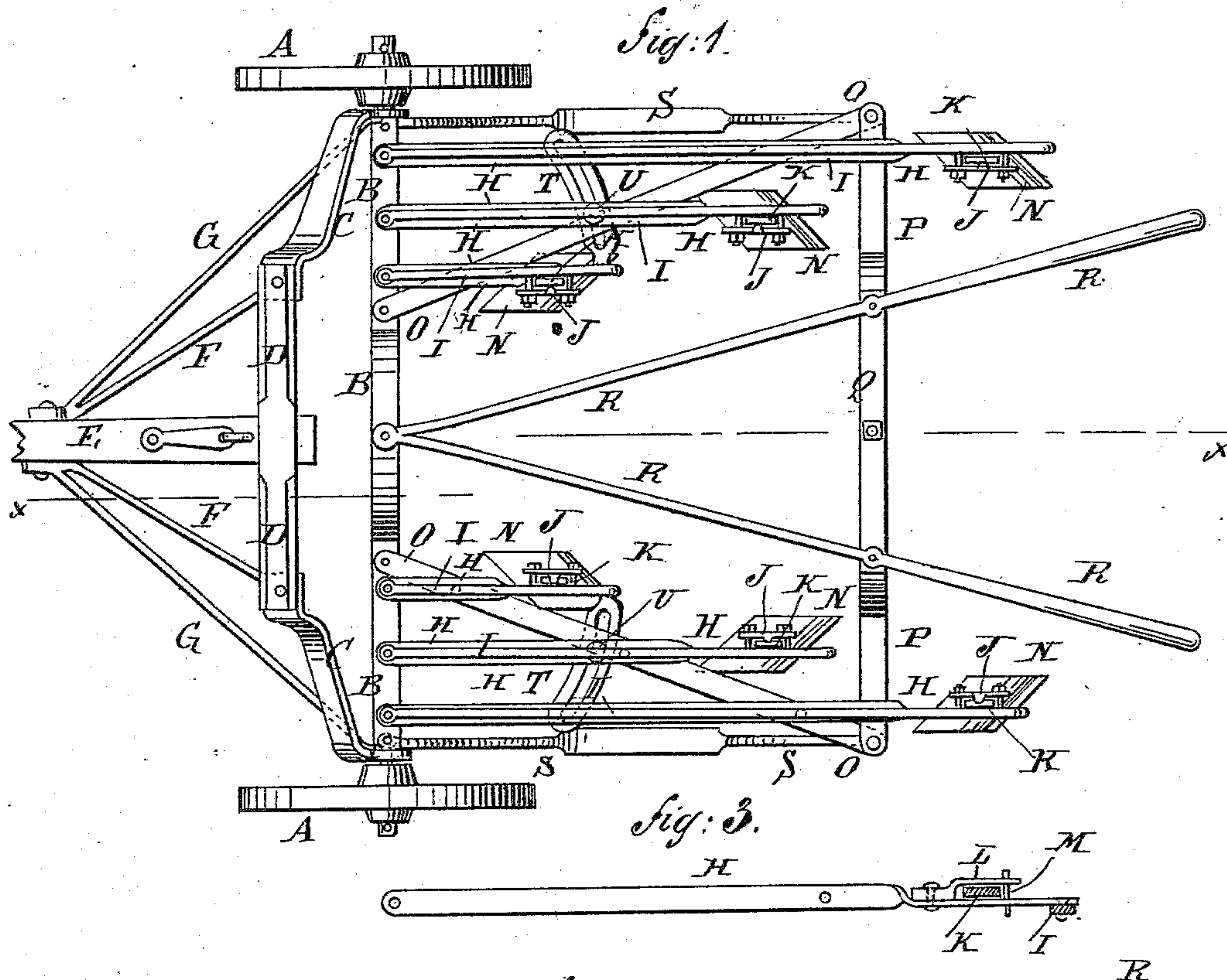
(No Model.)

S. D. B. KISE.

CULTIVATOR.

No. 274,616.

Patented Mar. 27, 1883.



WITNESSES :

Chas. Nida.
C. Sedgwick

INVENTOR:

BY *S. D. P. Kise*
Mum Ho
ATTORNEYS.

UNITED STATES PATENT OFFICE.

SAMUEL D. B. KISE, OF KINGWOOD, NEW JERSEY.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 274,616, dated March 27, 1883.

Application filed November 15, 1882. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL D. B. KISE, of Kingwood, in the county of Hunterdon and State of New Jersey, have invented certain
5 new and useful Improvements 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,
10 in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my improvement. Fig. 2 is a sectional side elevation of the same, taken through the line *x-x*, Fig. 1. Fig. 3 is
15 a plan view of one of the plow-beams.

The object of this invention is to provide cultivators constructed in such a manner that the plows can be readily adjusted to work at any desired depth in the soil and to throw the
20 soil toward or from the plants. To the arched axle are attached the forward ends of inclined connecting-bars and curved supporting-bars, the rear ends of which are attached to the ends of an arched bar connected with the arched
25 axle by the handles of the cultivator, whereby all the plows can be raised from the ground at a time and the depth to which the plows enter the ground will be limited. To the rear ends of the inner beams are attached curved and
30 slotted bars, which are secured by bolts to the inclined supporting-bars, so that the said inner beams can be adjusted toward or from each other, as will be hereinafter fully described.

A represents the wheels, the axle B of which
35 is arched in its middle part, leaving a horizontal part between the said arch and the inner end of each of the wheel-hubs. The axle B, at the inner ends of its journals, works in bearings in the lower ends of the bars C, which
40 incline inward and forward, and at their upper ends are attached to the ends of the cross-bar D of the tongue E, the said cross-bar being strengthened in position by the braces F, attached to it and to the said tongue. The
45 tongue E is further strengthened by the inclined braces G, the upper ends of which are attached to the said tongue E, and their lower ends are attached to the lower parts of the bars C.

50 To each horizontal part of the axle B are attached the forward ends of three plow-beams,

H, of unequal length, the inner beam being the shortest and the outer beam being the longest.

To the axle B, by the same bolts that fasten
55 the beams H to the said axle, are secured the forward ends of the brace-bars I, which rise above the said beams and are bent downward, and their ends are secured by bolts or rivets to the rear parts of the beams H. 60

To the rear part of each brace I is bolted a short bar, J, between which and the said brace is secured, by a clamping-bolt or thumb-screw, the upper part of a plow-standard, K. The standards K pass down through keepers L,
65 attached at their forward ends to the beams H, and left open at their rear ends. The draft-strain upon the standards K is sustained by wooden break-pins M, attached to the keepers L and the plow-beams H, and against which
70 the rear edges of the said standards rest.

To the lower ends of the standards K are attached plows N, which may be made diamond-shaped, as shown in the drawings, or of any other desired shape, as the character of the
75 work to be done may require. With this construction the plows can be adjusted to work deeper or shallower in the ground by loosening the clamping-bars J.

To the axle B, at the ends of its arch, are
80 attached the forward ends of the bars O, which incline outward, pass between the plow-beams H, and are attached at their rear ends to the ends of the bar P. The end parts of the bar P are horizontal and pass beneath the rear
85 ends of the outer plow-beams H. The middle part of the bar P is arched, and to it, or to a bar, Q, attached to its center, are secured the handles R, the forward ends of which are attached to the arch of the axle B. 90

To the end parts of the axle B, and to the ends of the arched bar P, are attached the ends of two bars, S, the middle parts of which are made wide, and are curved downward to rest and slide upon the ground to limit the depth to
95 which the plows N can enter the ground, and to support the bars O and P.

To the rear ends of the short inner plow-beams H are attached, or upon them are formed, the inner ends of bars T, which are
100 curved upon the arcs of circles having their centers at the bolts that secure the forward

ends of the said plow-beams H to the axle B. The bars T are slotted longitudinally to receive the bolts U, that fasten the said curved bars T to the inclined bars O, or to the inclined bars O and the intermediate plow-beams H. By this construction, by loosening the bolts U the inner plow-beams H can be readily moved inward or outward to adjust them to work at such a distance from the rows of plants as the work to be done may require.

The plows can be supported above the ground, when passing from place to place, by connecting the arched axle B with the cross-bar D of the tongue E by hooks or other suitable means.

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

1. A cultivator constructed substantially as herein shown and described, and consisting of the arched axle B, with the end parts of which the forward ends of the beams and braces H I, that carry the plow-standards K, are con-

nected, and the arched bar P, connected with the axle B by the inclined bars O, the curved bars or runners S, and the handles R, as set forth.

2. In a cultivator, the combination, with the arched axle B, the plow-beams H, and the plow-standards K, of the braces I, the clamp-bars J, the keepers L, and the break-pins M, substantially as herein shown and described.

3. In a cultivator, the combination, with the arched axle B and the plow-beams H, of the inclined bars O, the arched bar P, the handles R, and the curved bars or runners S, substantially as herein shown and described.

4. The combination, with the axle and beams, of the bars or braces I, the clamps J, and the keepers L on the beams, whereby the standard K may be held adjustably, as described.

SAMUEL D. B. KISE.

Witnesses:

R. W. BLOOM,

C. C. WEBSTER.