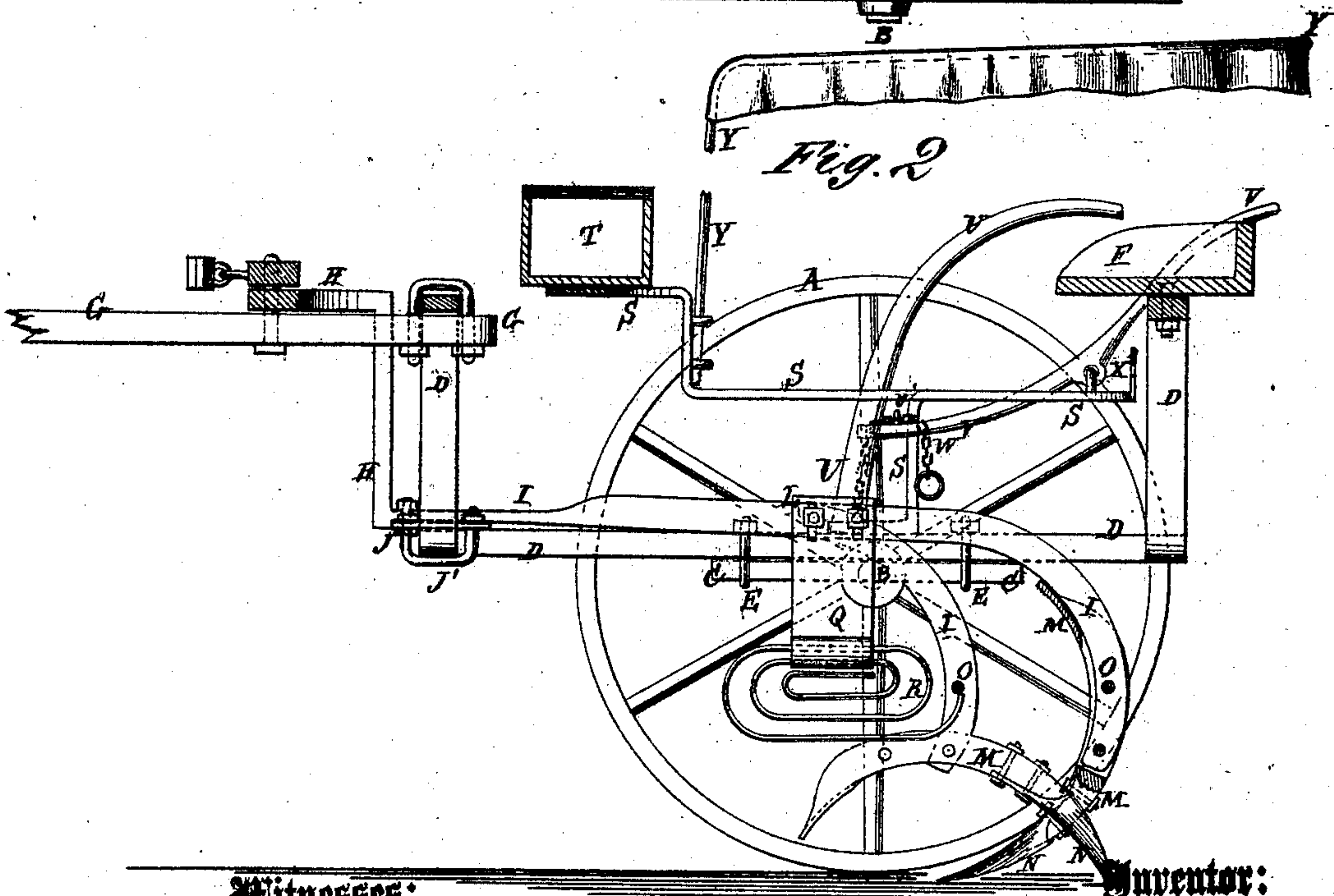
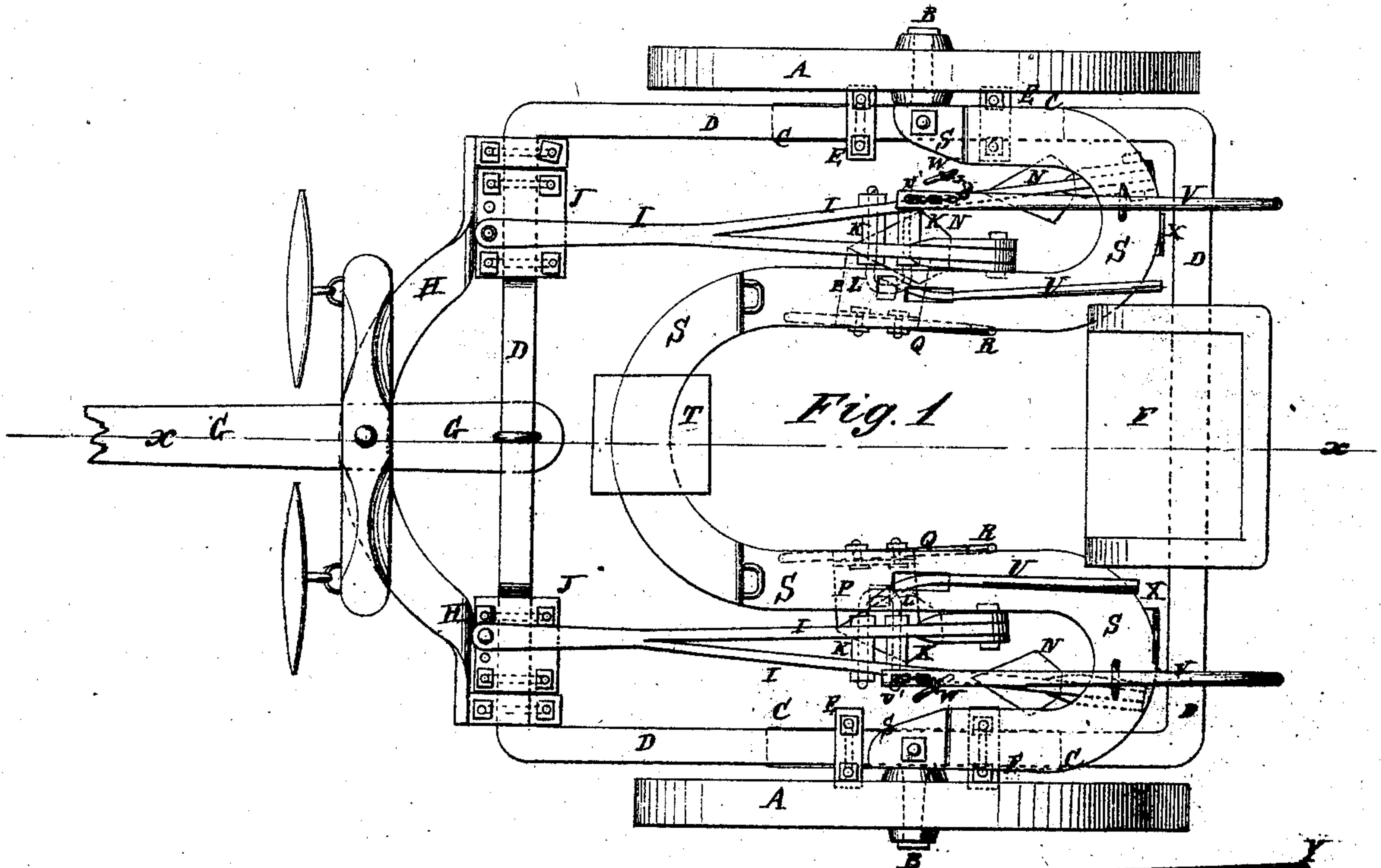


PHILIP HEWITT. Sulky Cultivator.

No. 120,435.

Patented Oct. 31, 1871.



Witnesses:

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UNITED STATES PATENT OFFICE.

PHILIP HEWITT, OF FARMLAND, INDIANA.

IMPROVEMENT IN SULKY-CULTIVATORS.

Specification forming part of Letters Patent No. 120,435, dated October 31, 1871.

To all whom it may concern:

Be it known that I, PHILIP HEWITT, of Farmland, in the county of Randolph and State of Indiana, have invented a new and useful Improvement in Sulky-Cultivator; and I 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 drawing forming part of this specification.

Figure 1 is a top view of my improved machine, the cover being removed. Fig. 2 is a detail vertical longitudinal section of the same taken through the line *x x*, Fig. 1.

My invention has for its object to furnish an improved sulky-cultivator, strong, durable, simple in construction, convenient in use, and effective in operation; and it consists in the construction and combination of various parts of the machine, as hereinafter more fully described.

A are the sulky-wheels, which revolve upon the short axles B. Upon the inner ends of the axles B are formed cross-bars C, which extend along the under sides of the side-bars of the frame D, to which they are secured by clips E, as shown in Figs. 1 and 2, so that the said axles can be conveniently moved forward or backward, to enable the machine to be accurately balanced. D is the frame, the front and rear cross-bars of which are each bent four times at right angles or into U-shape to form an offset or space to enable the machine to pass over tall corn without breaking or injuring it. To the upper horizontal part of the front cross-bar of the frame D is attached the rear end of the tongue G, which is further supported and strengthened by the curved cross-bar H, the end parts of which are bent downward and securely bolted to the front corners of the frame D. I are the plow-beams, which are made in pairs, the forward ends of each pair being formed solid with, or rigidly attached to, each other. The forward end of each pair of beams I is pivoted to a horizontal plate, J, several holes being formed in the said plate to receive the pivoting bolt, so that the rear parts of the beams I may have a free lateral movement. The plates J are secured to the front horizontal parts of the frame D by clips, as shown in Figs. 1 and 2, so that the said plates J may rack, to give a free vertical movement to the rear ends of the plow-beams. The rear parts of the beams of each pair

incline from each other, and are held in their proper relative position by tubular washers or blocks K placed upon the arms of the staples L, which pass through said beams and are secured in place by nuts screwed upon their ends. The beams I of each pair are made of unequal length, and the rear ends of all the beams are curved downward, as shown in Fig. 2. To the rear end of each of the beams I is pivoted a shoe, M, which is curved to correspond with the curvature of the rear ends of the said beams I. The lower ends of the shoes M are made solid, to form a seat for the plows N, and their middle and upper parts are deeply grooved upon their rear sides to receive and fit upon the rear parts of the beams I, said groove being extended entirely through in the middle parts of the said shoe M to allow the shoe M to turn back, as shown in Fig. 2. Through the upper part of the shoe M, and through the beam I, is formed a hole, in which is inserted a wooden pin, O, which should be made of such strength as to support the draft strain upon the shoe M, under ordinary circumstances, but should be sufficiently weak to break, should the plow strike an obstruction, before any other part of the machine may break, thus preserving the machine from injurious breakages. To the inner side of the inner beam I of each pair is attached a foot-rest, P, to receive the driver's feet, so that he may guide the plows with his feet when desired. To the outer flange of the foot-rests P are bolted the upper parts of the plates Q, which have slots formed in them to receive the said bolts, so that the said plates Q can be conveniently raised and lowered, as required. To the lower ends of the plates Q are attached wires or rods R, coiled into elongated or flattened spirals, and which serve as fenders to prevent the clods thrown up by the plows from being thrown against the plants and covering, breaking, or injuring them. To the side bars of the frame D, nearly over the axles B, are bolted the ends of the bar or narrow plate S, which is bent and curved, as shown in Fig. 1 and 2, and to the forward or central horizontal part of which may be attached a box, T, for containing the tools that may be necessary to use in adjusting the machine. U are levers, the lower ends of which are pivoted to the beams I by means of the staples L, or other convenient means. The levers U project through slots in the bar or plate S, which thus serves as a fulcrum to said levers.

The upper ends of the levers U project into such a position that they may be conveniently reached and operated by the driver from his seat for guiding the plows. V are bent levers, which are pivoted at their angles or bends to the rear parts of the bar or plate S. The rear ends of the levers V project up into such a position that they can be conveniently reached and operated by the driver from his seat to raise the plows from the ground for convenience in turning or passing from place to place. To the forward ends of the levers V are attached pins *v'*, to receive a link of the chain W, the end of which is attached to a beam, I, so that by adjusting the length of the chains W the plows may be raised to a greater or less distance from the ground, as may be required. X are catches, which are attached to the rear parts of the bar or plate S in such positions as to receive the rear parts of the levers V, when depressed, to raise the plows, and thus hold the plows raised from the ground. Y is a wire or rod, the ends of which are inserted in keepers or

sockets attached to the forward vertical parts of the plate or bar S. After the rods Y have extended up to a convenient height they are bent to the rearward to form a frame to receive canvas or other suitable material to form a cover for the driver's seat.

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

1. Fenders, formed of spiral-wire coils R, and attached to plates Q, on the inside of the cultivator plows, as and for the purpose specified.

2. The combination of frame S provided with levers V V and having slots thereon, the beams I I provided with levers U U passing through said slots, and the frame D having seat F on the rear thereof, all constructed and arranged as and for the purpose specified.

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