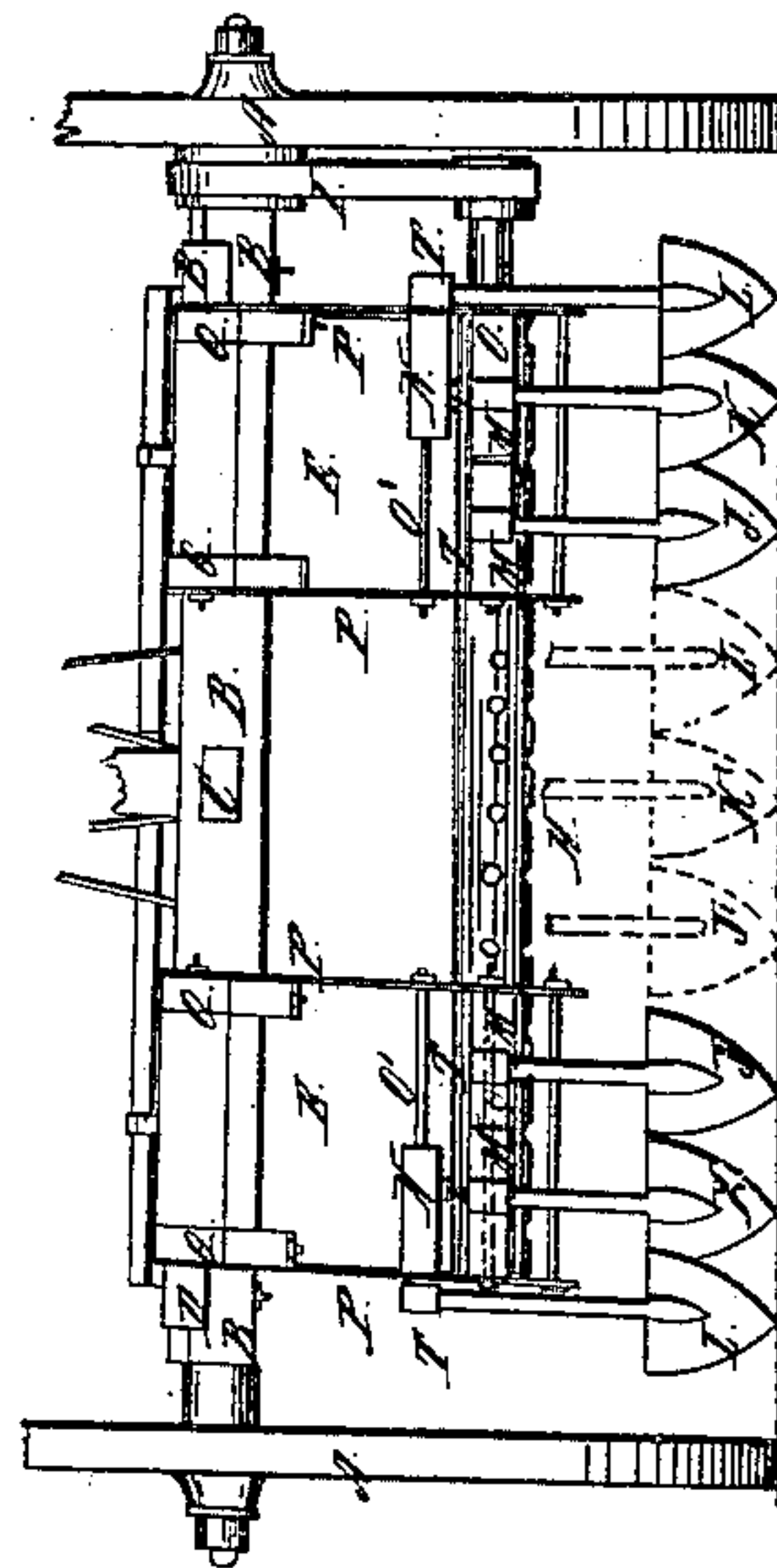
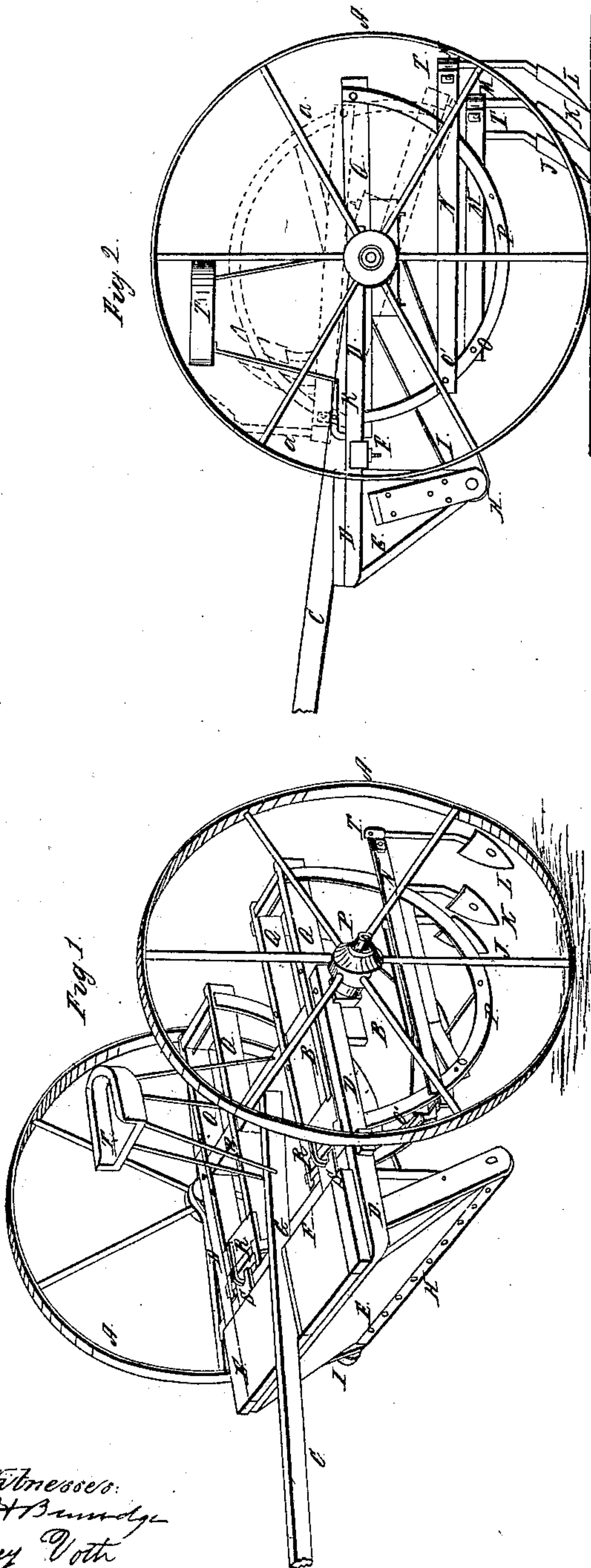


W. H. & L. SEYMOUR.
CULTIVATOR.

No. 30,000.

Patented Sept. 11, 1860.



Witnesses:
W. H. Seymour
Henry Voth

Inventor:
W. H. Seymour
Luther Seymour

UNITED STATES PATENT OFFICE.

WM. H. SEYMOUR AND LOTHROP SEYMOUR, OF WEYMOUTH, OHIO.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 30,000, dated September 11, 1860.

To all whom it may concern:

Be it known that we, W. H. SEYMOUR and L. SEYMOUR, of Weymouth, in the county of Medina and State of Ohio, have invented new and useful Improvements in Cultivators; and we do hereby declare that the following is a full, clear, and complete description of the construction and operation of the same, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a perspective view; Fig. 2, a side elevation; Fig. 3, a rear end view.

Like letters denote like parts in the drawings.

The nature of our invention relates to the special arrangement of the swing or adjustable frames, in combination with the hinged arms and adjustable teeth, when these parts are constructed and operated as hereinafter described.

The wheels A turn upon the axle-tree B, connected with the frame-work, to the middle of which is attached the tongue C.

D D represent two side pieces, which extend from the ends of the axle-tree forward and support the seed-box or hopper E. (Seen in Figs. 1 and 2.) The pieces D D form a part of the frame-work. The cross-piece F is secured to the pieces D D about the distances of the radius of the wheels forward of the axle-tree. To this the tongue is bolted, as seen at G, Fig. 1. The seeding-roller H is placed below and in connection with the hopper, so as to receive the seed, and which in construction and operation is like others in use. The seed-roller is revolved by means of a band, I, which passes around one pulley on the end of the roller and another on the inner end of the hub of the wheel.

The cultivator-teeth for ordinary use may be six in number, three upon each side, as seen at J K L, Fig. 3. These are attached by shanks or handles to sockets in the ends of the horizontal arms M N, which arms articulate upon rods O O'. The rods pass through and connect with the semicircular braces P, the ends of which are secured to the sides of the radial or adjustable frames Q Q, which are so connected with end pieces as to form an oblong frame, and this frame is so hung to the axle-tree B in bearing or boxes as to allow the

frame, with the cultivators and arms, to swing or turn upon the axle-tree, by which means the frames, arms, and cultivators, &c., may be turned up from below above the axle-tree, as indicated by the dotted lines *a a*, Fig. 2. The two frames are alike, and their appendages of arms, teeth, &c., and the frames are hinged to the axle-tree in similar manner to each other.

When the frames, &c., are turned up, as seen at *a a*, Fig. 2, it may be used as a seeding-machine independent of the cultivators, and in this position the machine may readily be transported from one place to another without the cultivators dragging on the ground, and by detaching the belt I and turning the cultivators down, as seen in Fig. 1, it may be used as a cultivator, and by extending the rods O' from one side to the other and hanging a set of arms and cultivators to the rods corresponding to those before described will fill up the space between the two sets of arms and teeth, as indicated at J' K' L', Fig. 3, which will then allow the machine to be used for a drag or harrow.

To the front end of the frames is attached a spring, R, which catches into the plate S, Fig. 1, when the cultivators are at work. By means of the springs each frame is held so as not to turn upon the axle-tree; but the driver, as he is seated at T, can by placing his foot upon the spring release it from the plate or catch, and then by pressing down the foot the front of the frames will be lowered and the cultivators raised up correspondingly. Thus the cultivators may be raised so as to pass over obstructions in the way, or for other purposes.

It will be noted that the arms of the cultivators are of graduated different lengths, which will cause the teeth with the longest arm to press into the ground more than the short-arm cultivator, owing to the additional weight of the long arm. By this means the earth is cultivated more upon one side than on the other, as may be required in uprooting rank grass or weeds from the center or edge of the rows. In throwing the earth to or from the rows the teeth or cultivators are set at the desired angle by turning the shanks in the sockets T, so as to convey the earth as it is broken up in the desired direction. The angular position of the teeth will in all cases

direct the earth to or from the rows, as the teeth, when placed in the desired position, will consecutively convey the earth in the desired direction.

By changing the respective positions of the long and short arms the edge or center of the rows may be broken up more or less, as the nature of the case may require, in weeding the rows.

The shanks of the teeth are secured in the sockets T by a screw-bolt.

What we claim as our improvement, and desire to secure by Letters Patent, is—

The special arrangement of the swing or adjustable frames Q, in combination with the hinged arms M N and adjustable teeth, when constructed and operating as described.

WM. H. SEYMOUR.

LOTHROP SEYMOUR.

Witnesses:

ANN HOBBS,

ZACHARY DEANE.