MINER & HEAVENRIDGE.

Wheel-Cultivator.

No. 53,322. Patented Mar. 20. 1866.

Fig. 1.

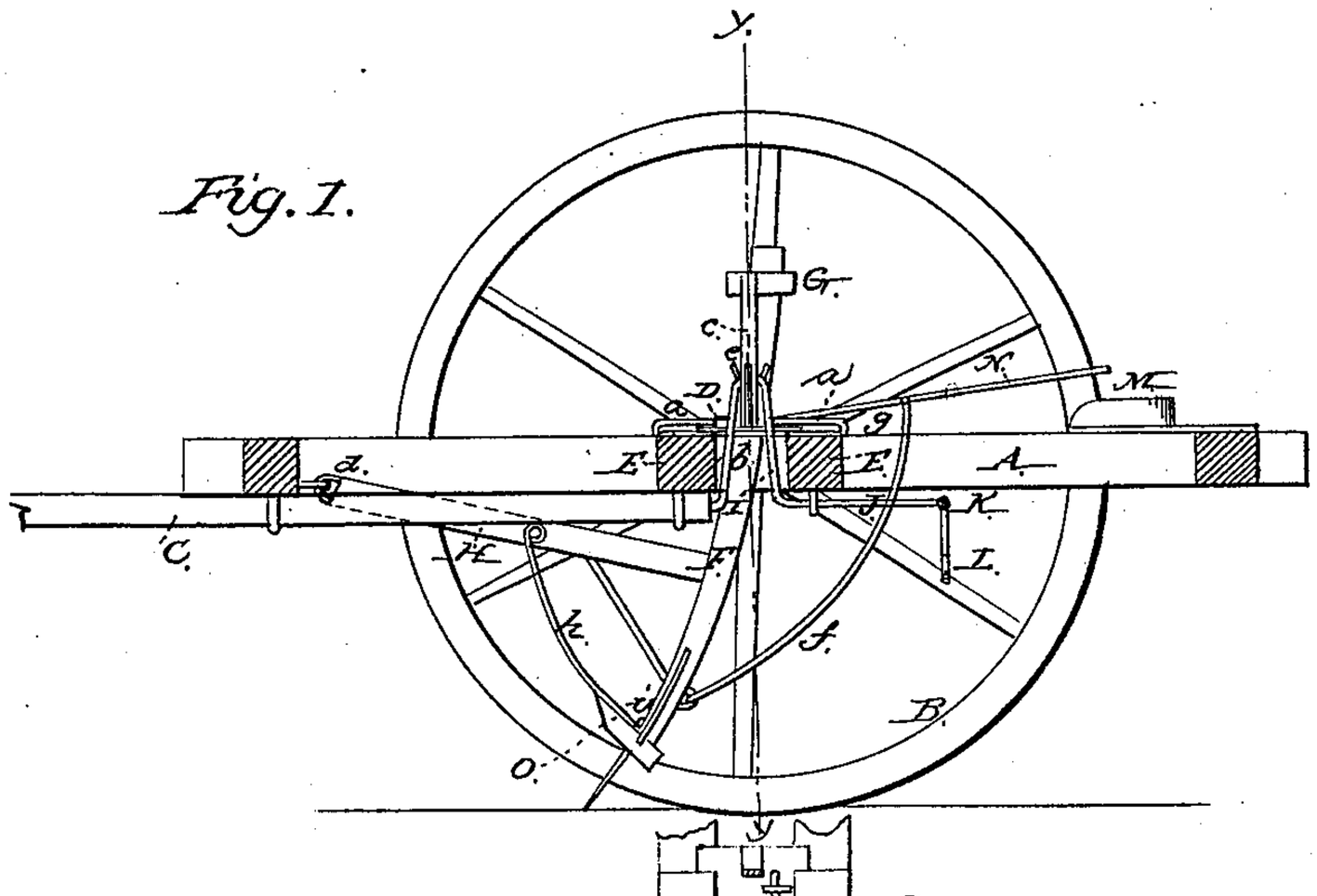


Fig. 3.

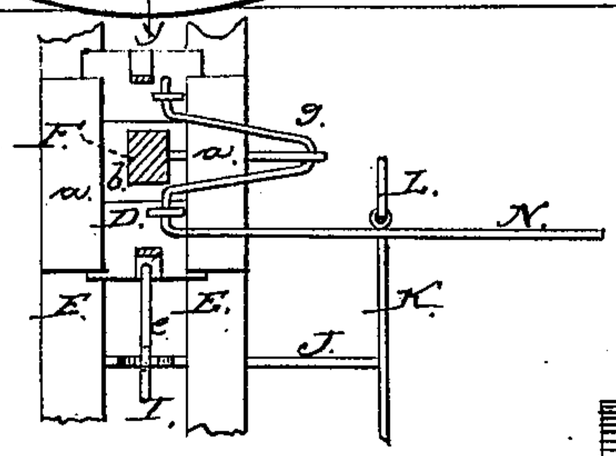


Fig. 2.

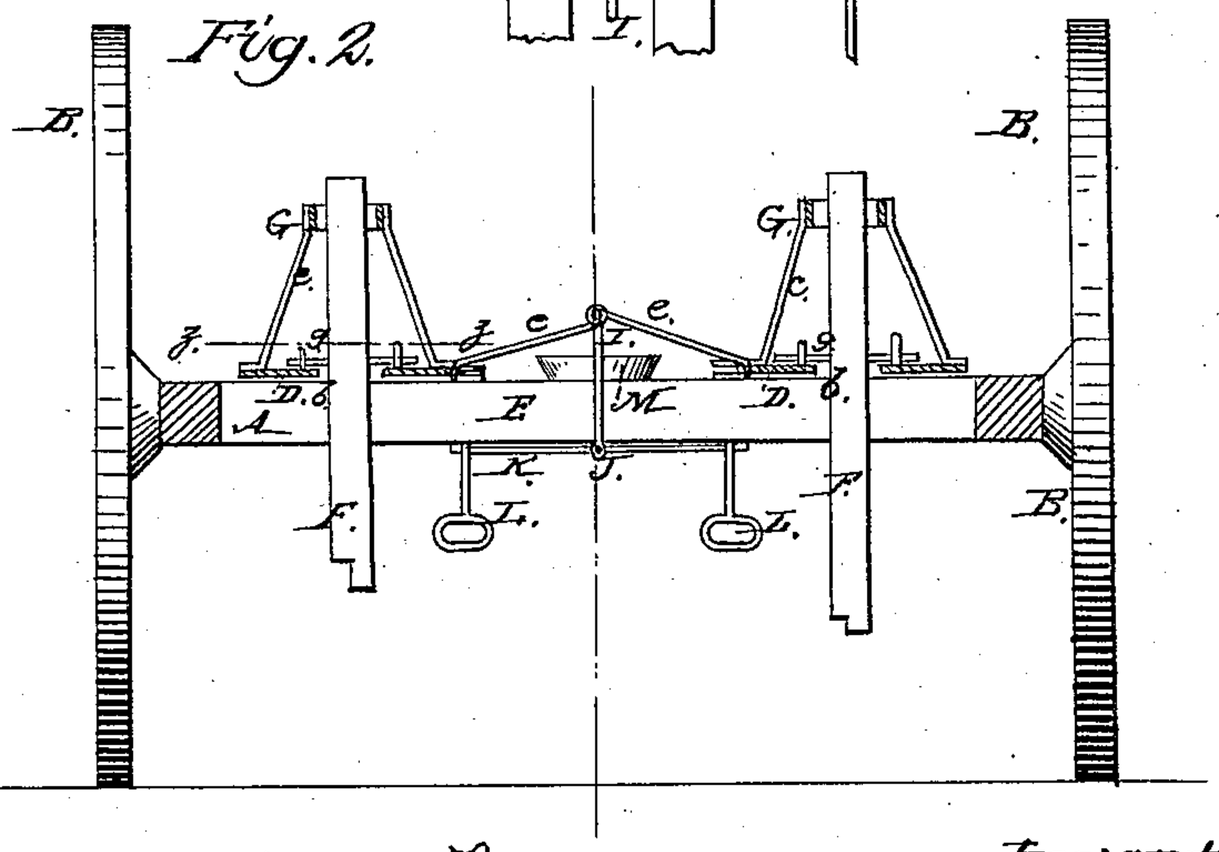
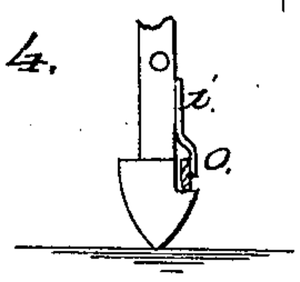


Fig. 4.



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UNITED STATES PATENT OFFICE.

THOMAS H. MINER AND SAMUEL HEAVENRIDGE, OF GREENFIELD, IND.

IMPROVEMENT IN CULTIVATOR-PLOWS.

Specification forming part of Letters Patent No. **53,322**, dated March 20, 1866.

To all whom it may concern:

Be it known that we, THOMAS H. MINER and SAMUEL HEAVENRIDGE, of Greenfield, in the county of Hancock and State of Indiana, have invented a new and Improved Cultivator-Plow; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side sectional view of our invention, taken in the line *x x*, Fig. 2; Fig. 2, a transverse vertical section of the same, taken in the line *y y*, Fig. 1; Fig. 3, a horizontal section of a portion of the same, taken in the line *z z*, Fig. 2; Fig. 4, a detached front view of one of the plows and the lower part of the standard to which it is attached.

Similar letters of reference indicate corresponding parts.

This invention relates to a new and improved plow, designed for the cultivation of crops and the turning of the sod or earth for the receiving of seed; and it consists in a novel arrangement of the plows and the manner of operating them, whereby the same may be adjusted with the greatest facility, either laterally or vertically, and the driver enabled to have complete control over the implement.

A represents a rectangular frame, which is mounted on two wheels, B B, and has a draft-pole, C, attached to it, and D D are two sliding plates, which are placed on the bars E E, fitted transversely and centrally in the frame A, the plates D being allowed to work freely between guides *a a*, attached to the bars E E.

F F represent plow-standards, which are of curved form and pass up through slots *b* in the plates D, and also through guides G, attached to the plates D by standards *c*. The plow-standards F F have each an arm, H, attached to them, and the front ends of these arms are connected by eyebolts *d* to the front cross-piece of the frame A, said eyebolts forming universal joints to admit of the standards having an up-and-down and lateral movement.

The sliding plates are connected by rods *e* to a crank, I, on a shaft, J, the latter having a longitudinal position in frame A, and having at its rear end a cross-bar, K, with a stirrup, L, suspended from each end. By this arrangement the driver, from his seat M, may, with his feet, give a lateral motion to the plows.

An upward motion is given the plows in order to raise them out of the earth by having the standards F F connected by rods *f* to cranks *g g* on the slides D D, said cranks having levers N attached, which extend back of the seat M within convenient reach of the driver.

Each plow-standard F at its lower part has a guard, O, attached to it. These guards are provided with stems or shanks *h*, the upper ends of which are pivoted to the arms H H, and the lower ends at the rear of the guards are held in position by hooks *i* on the standards. (See Figs. 1 and 4.) These guards prevent the plows from throwing clods of earth on the growing plants. They may be raised up out of the way when not required for use.

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

1. The sliding plates D D, with the plow-standards F passing through them, and the plates connected to the crank I of a shaft, J, by rods *e e*, said shaft having a cross-bar, K, at its rear end, provided with stirrups L, and all arranged to operate in the manner substantially as shown to give a lateral movement to the plows.

2. The connecting of the plow-standards F to cranks *g* on the plates D D by rods *f*, the cranks having levers N attached, and all arranged substantially as shown to admit of the raising of the plows.

THOMAS H. MINER.
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Witnesses:
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