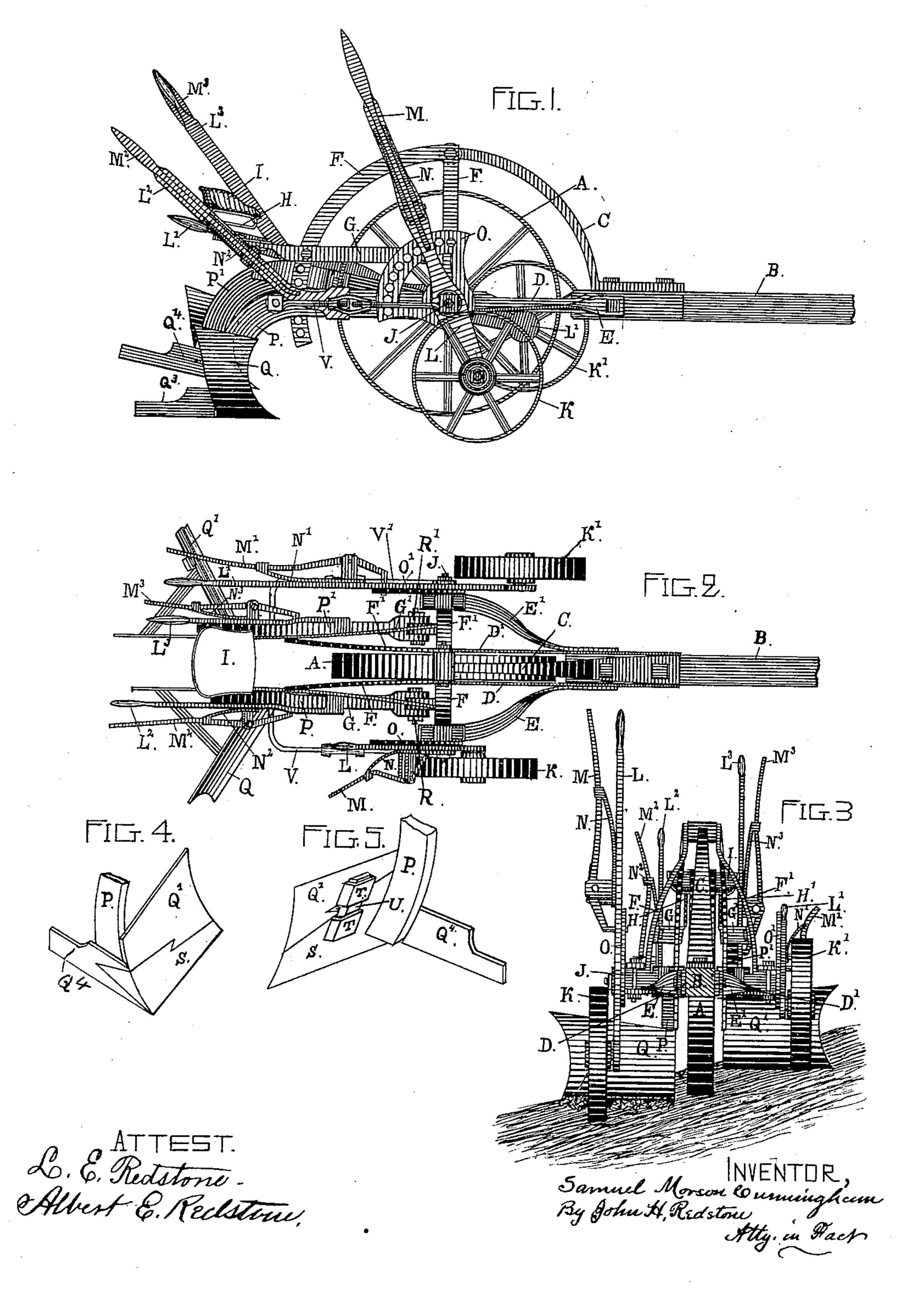
## S. M. CUNNINGHAM.

SIDE HILL GANG PLOW.

No. 372,403.

Patented Nov. 1, 1887.



## United States Patent Office.

SAMUEL MORSON CUNNINGHAM, OF COYOTE, CALIFORNIA, ASSIGNOR TO HIMSELF AND JOHN B. PEPPIN, OF SAME PLACE.

## SIDE-HILL GANG-PLOW.

SPECIFICATION forming part of Letters Patent No. 372,403, dated November 1, 1887.

Application filed May 19, 1887. Social No. 238,740. (No mode!.)

To all whom it may concern:

Be it known that I, Samuel Morson Cun-NINGHAM, a citizen of the United States, residing in Coyote, in the county of Santa Clara 5 and State of California, have invented a new and useful Side-Hill Gang-Plow, of which the following is a specification.

My invention relates to improvements in side-hill plows, which will be readily under-10 stood by reference to the accompanying draw-

ings and the letters referring thereto.

Figure 1 is a side perspective view; Fig. 2, a top plan view; Fig. 3, a front elevation, and Figs. 4 and 5 perspective views showing 15 broken detached parts of my side hill gangplows.

A represents the central or main bearing-

wheel; B, the draft-tongue.

C, D, and D', E and E', F F and F' F' form 20 the frame of the machine, being joined to the plow-beam and axle; G and G', the seat-supports; H, the seat-springs; I, the seat; J, the axle; K and K', the adjusting guide-wheels.

L and L' are the raising-levers for the ad-25 justing guide-wheels; M and M', the catchlevers for the adjustment of the levers L and L', by means of the springs N and N'; L2 and L<sup>3</sup>, the raising-levers for the plows; M<sup>2</sup> and M<sup>3</sup>, the catch-levers for adjusting the levers 3c L<sup>2</sup> and L<sup>3</sup>, and N<sup>2</sup> and N<sup>3</sup> the springs for the catch levers M<sup>2</sup> and M<sup>3</sup> to set the same when adjusted.

O and O' represent the adjusting-segments; P and P', the plow-beams; Q and Q', the mold-35 boards; Q³ and Q⁴, the landsides; R and R', the attaching-joints for the plow-beams; S, the plowshare, (shown in Figs. 4 and 5;) T and T, the sockets for locking the share and point to the mold-board by means of the key U.

The through-brace screw-rods are marked V and V', and are designed for the bracing of the machine and holding the plows steady.

The following is the construction of my im-45 bearing-wheel, A, to support the principal weight of the machine. Upon the axle of this wheel A, I attach the tongue B by means of the connecting-bars D and D' and E and E'. I connect the same with the bars F F and F' 50 F' by means of the bar C. I attach the seat-

supports G and G' to the bars F F and F' F', so as to form a connecting-brace. To the seatsupports G and G', I attach the seat by means of the spring H. To the outer ends of the main axles I connect the adjusting guide- 55 wheels K and K' by means of the levers L and L'. To these levers I attach the catch-levers M and M' to catch in the segment O, into the holes of which they are forced and held by the springs N and N'. I attach the plow-lift- 60 ing levers L<sup>2</sup> and L<sup>3</sup> to the plow-beams P and P' above the plows. The catch-levers M<sup>2</sup> and M<sup>3</sup> catch in the perforations in the back part of the curved bars F and F', and are set fast and held by means of the springs  $N^2$  and  $N^3$ . 65

I form the mold-board and the landside in one piece and fit the share with a beveled edge to pass under the corresponding beveled. edge of the mold-board and landside, and when the key U is passed through the sockets 70 T and T it thoroughly locks them together.

The following is the operation of my improved side-hill plow. The guide-wheels K and K' are adjusted to the general grade of the hill by the driver, who operates the same 75 from his seat by means of the levers L and L', which are adjusted in the segment O by means of the catch-levers M and M' and the springs N and N', and as the plow is turned to cut the next furrow the plow which has just com- 80 pleted its furrow is raised and the other plow let down by means of the plow-levers L<sup>2</sup> and L<sup>3</sup>, the catch-levers M<sup>3</sup> and M<sup>4</sup>, and the springs N<sup>2</sup> and N<sup>3</sup>. The central bearing-wheel, A, supports the weight of the machine so bal- 85 anced as to be adjusted with but little effort, and the frame can be adjusted by the driver to any variation of the surface of the ground as the machine passes along.

The adjusting swivel-rods V and V' are em- 90 ployed to tighten the bracing of the machine and prevent any lateral motion of the plow.

Having thus described my invention, what proved side-hill plow. I employ a central I claim, and desire to secure by Letters Patent, is—

> 1. A sulky frame and axle, in combination with the adjusting guide-wheels K and K', the adjusting levers L and L', for the purpose of adjusting the bearings of the machine or gangplow and maintaining the same in a vertical 100

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position upon a side-hill or irregular surface, constructed and operated substantially as and for the purposes set forth.

2. The frame composed of the bars C D D' 5 E E' F F' G G' and the segment O and swivel through brace rods V and V', in combination with the axle J, for the purpose of attaching

the plows, the adjusting-levers, the seat, and the draft-tongue, constructed and operated substantially as and for the purposes set forth. 10 SAM. MORSON CUNNINGHAM.

Witnesses:

A. STEWART, J. B. PEPPIN.