

United States Patent Office.

JAMES H. ANDREWS, OF BENICIA, CALIFORNIA.

Letters Patent No. 106,982, dated September 6, 1870.

IMPROVEMENT IN GANG-PLOWS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JAMES H. ANDREWS, of Benicia, county of Solano, State of California, have invented an Improved Gang-Plow; and I do hereby declare the following description and accompanying drawing are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvements without further invention or experiment.

My invention relates to an improved mechanism to be employed on gang-plows, to elevate and depress the frame of the plows, so that they shall leave the earth or enter it as may be desired; and

It consists of two sets of levers, one set being connected to the front of the plow-frame, and pinned to the seat-standards, which point serves as a fulcrum. At their front ends they support a foot-board.

The other set of levers are pinned to the sides of the hounds, and stand more nearly vertical, so that, as they move forward and back, they act upon the first-mentioned levers by means of friction-rollers, and through them elevate or depress the plow-frame.

The second set of levers also have a foot-board, by which to operate them, and they are held at any desired point by a short movable rack or notched lever.

Referring to the accompanying drawing for a more complete description of my invention—

A is a plow-frame, constructed in a suitable manner for a gang of two or more plows, as may be desired.

Near the front end the side timbers of the frame pass, one each side of the rear end of the pole B, to which they are pinned by a single bolt, about which they have some motion.

Still further to the front these timbers are made somewhat lighter, and extend beneath the axle C of the machine.

The hounds D are made fast to the axle, and are also bolted to the pole at a by a single bolt.

Two levers, E, which serve as arms or rails for the foot-board F, are pinned to the seat-standard at b, and move about that point as a fulcrum.

Connecting-links G unite the rear ends of these levers to the plow-frame, as shown.

Two other levers, H, are pinned to the hounds, and rise so as to cross the first-mentioned levers, upon which they act by means of friction-rollers c c, above and below the levers E, and fastened to the levers H.

A foot-board, I, is placed across the levers H, and by this they are operated.

A rack-lever, J, is pinned to the front end of one of the levers E, and extends back within easy reach of the driver.

By means of a lug on the side of one of the levers H they are held at any point by the rack.

The operation of my plow is as follows:

The levers H being drawn back, as shown in Figure 2, will be held by the rack J, so that the foot-board will be under the seat and out of the way.

The foot-board F will then be used by the driver. When he desires to elevate the plows, the lever J is raised, and by pushing the foot-board I with the foot, the levers H will be forced forward and downward.

By means of the upper pair of friction-rollers c, they act on the levers E, and press them down, thus raising their rear ends, and lifting the forward end of the plow-frame, so that the plows, being inclined upward, will readily come out of the ground.

The plows are entered again by reversing the operation described, and bringing the levers H back to their first position. (Figure 1.)

Having thus described my invention,

What I claim, and desire to secure by Letters Patent, is—

The combination, with the levers E, connected to the plow-frame by links G, of the levers H, provided with friction-rollers c. and held by a rack, J, or other equivalent device, substantially as and for the purpose herein set forth.

In witness that the above-described invention is claimed by me, I have hereunto set my hand and seal.

JAMES H. ANDREWS. [L. s.]

Witnesses:

J. L. BOONE,

GEO. H. STRONG.