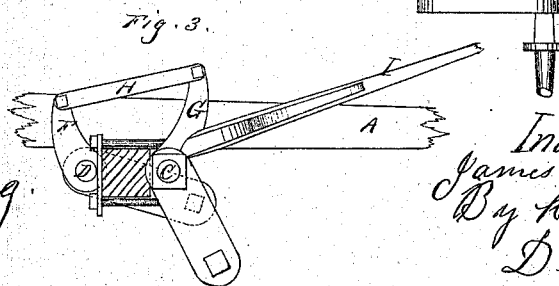
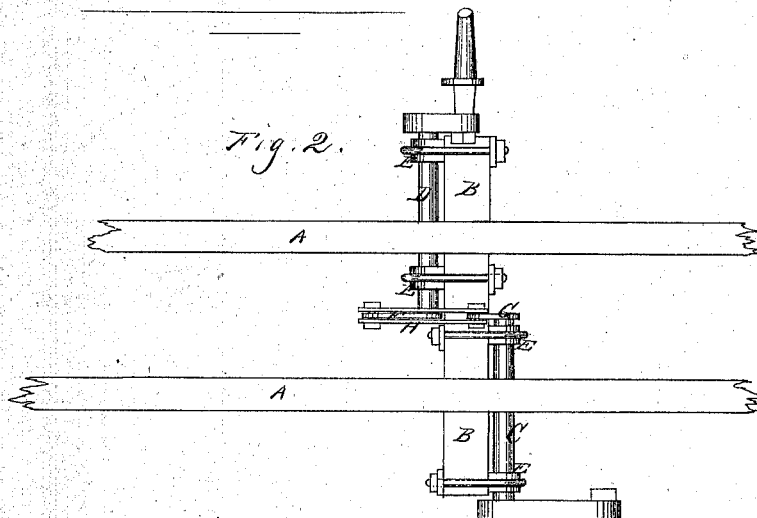
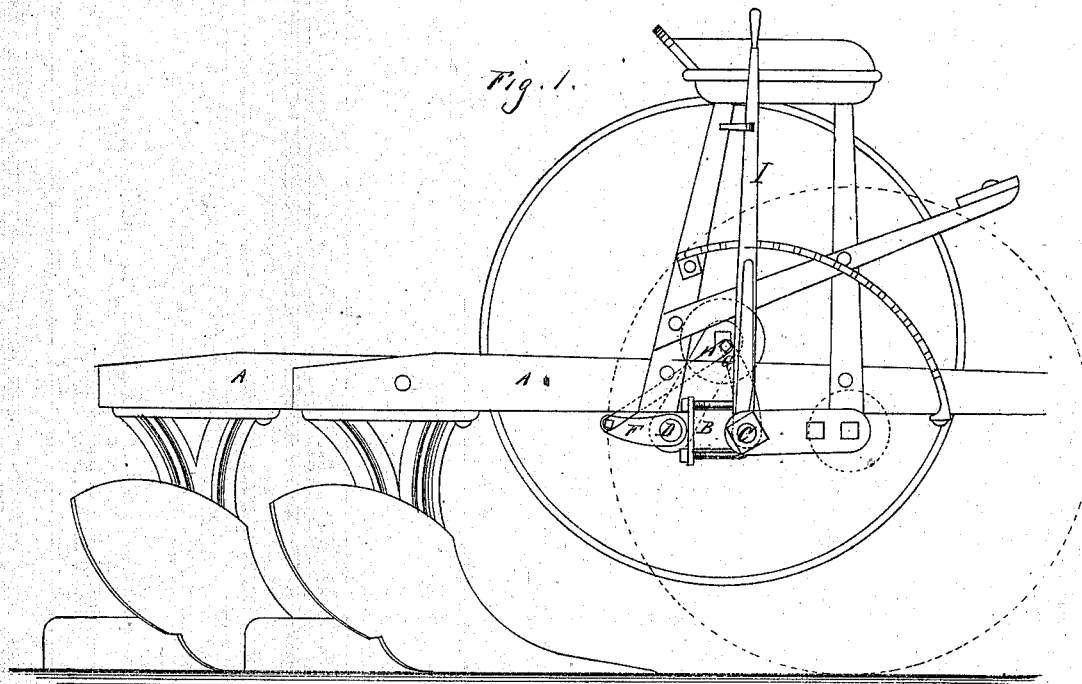


J. W. Sarsa,
Wheel Flour.

No. 112,394.

Patented Mar. 17. 1871.



Witnesses.
Geo. H. Strong.
J. L. Bond.

Inventor
James W. Sarsa
By his atty's
Dewey & Co.

UNITED STATES PATENT OFFICE.

JAMES W. SURSA, OF SAN LEANDRO, CALIFORNIA.

IMPROVEMENT IN GANG-PLOWS.

Specification forming part of Letters Patent No. **112,394**, dated March 7, 1871.

To all whom it may concern:

Be it known that I, JAMES W. SURSA, of San Leandro, county of Alameda, 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.

The object of my present invention is to provide an improvement in gang-plows, in which, by a peculiar arrangement of the axles of the bearing-wheels and their connecting-link, I am enabled to maintain the plow-frame in a horizontal position at all times when one wheel runs in the furrow and the other on the land, or with both wheels on a level, and this by the use of the single lever, which raises and depresses the plows without altering a bolt or other part of the device.

Referring to the accompanying drawing for a more complete explanation of my invention, Figure 1 is a side elevation of my plow, and Fig. 2 is a plan view, showing the relative position of the axles and link.

A A are the timbers of the plow-frame, resting upon a bed-piece, B, which extends across for convenience beneath the frame. The two axles C and D are made with cranks, as shown, and each extends from its side to near the center between the timbers of the frame. They are made to turn in boxes E, which may be secured by clips or otherwise to the bed-piece B, the axle of the furrow-wheel lying in front and that of the land-side wheel behind the bed-piece. The axle of the land-side wheel is forged with a short arm, F, on its inner end, and the axle of the furrow-wheel is made with a similar arm, G, but somewhat longer than the arm F. These two arms are connected together by a link, H, and are formed at such an angle with each other, and also with the cranks of their respective axles, that, when

the lever I (by which they are operated) is thrown forward and the plows raised from the ground, the plow-frame will lie horizontally if on level ground.

When the lever is moved back so as to depress the plows the motion of the arms is such as to maintain the cranks and their wheels in nearly the same relative position until the plows commence to enter the ground. At this point the arm G will be nearly vertical, while the shorter arm, F, will have been thrown so much farther back that a small motion of the former will move the arm F over a considerable space, and thus elevate the land-side wheel with much greater rapidity than the furrow-wheel.

When the lever is thrown forward the land-side wheel has a tendency to be more rapidly depressed during the first part of the movement, thus elevating the plows quickly.

By this arrangement I am enabled to plow deeper or more shallow by simply moving the lever backward or forward without ever adjusting either of the wheels, and the plow-frame will always continue level, whatever the depth or elevation of the plows.

The whole device is simple, with few joints, and not likely to get out of repair.

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

The axles C and D, arms F and G, and link H, in combination with a single lever, I, when constructed to regulate the depth of the furrow without leaving the seat, substantially as described.

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

JAMES W. SURSA. [L. S.]

Witnesses:

GEO. H. STRONG,
J. L. BOONE.