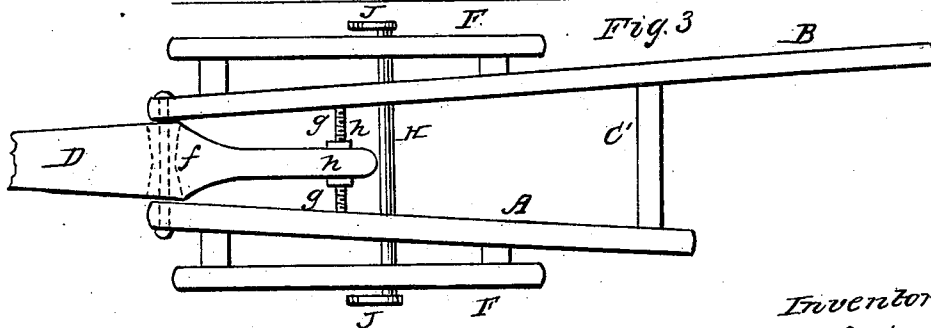
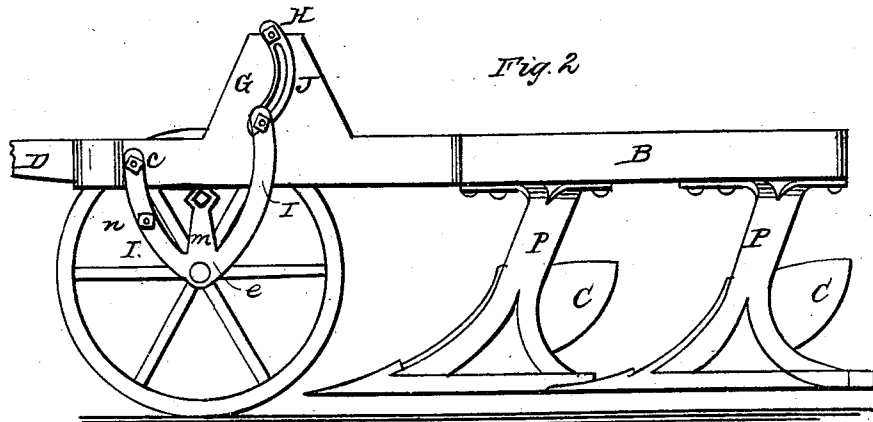
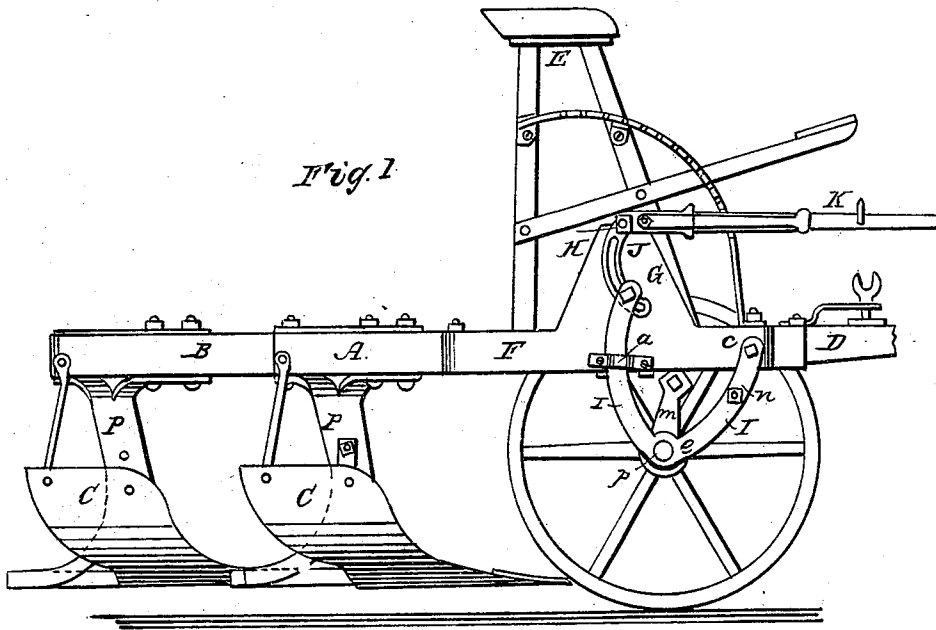


A. ELLISON.  
Wheel Plow.

No. 106,799.

Patented Aug. 30, 1870.



Witnesses  
Geo. H. & Sons  
W. R. Davis

Inventor  
Abram Ellison  
By his Atty's  
Dewey & Co.

# UNITED STATES PATENT OFFICE.

ABRAM ELLISON, OF MARYSVILLE, CALIFORNIA.

## IMPROVEMENT IN GANG-PLOWS.

Specification forming part of Letters Patent No. **106,799**, dated August 30, 1870.

*To all whom it may concern:*

Be it known that I, ABRAM ELLISON, of Marysville, county of Yuba, State of California, have invented Improvements in Gang-Plows; 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 improvements which I have made in gang-plows relate, first, to those working parts by which the frame is raised and lowered, so as to throw the plows in or out of the ground, as desired; and, secondly, in the manner of constructing the standard which connects the plows with the carriage. By the first-mentioned device I accomplish the raising and lowering of the plow-frame, and consequently the plows, without the use of the ordinary crank-axle, and that at a much less expenditure of power than is required in gang-plows as ordinarily constructed.

In order to explain my invention so that others can make and use the same, reference is had to the accompanying drawing, forming a part of this specification, in which—

A and B represent the two frame-timbers, to the rear end of which the plows C are secured. These timbers are connected together near the rear end of the shorter one, A, by a cross-timber, C', and are separated at the front end by the pole D, as hereinafter described.

To the outside of the timbers A B are secured the upright bars or rods which support the seat E. Short timbers F F are secured so as to be parallel with and a short distance outside the timbers A B, near the front of the machine, and upon these are placed standards G. The shaft H extends across the machine, supported by these standards, and has a short slotted lever or link, J, firmly fastened to each end and curving toward the front. The operating-lever or sweep K is also attached to the shaft H at one end, and may be forged with one of the links J, if convenient.

Upon each side of the machine is a peculiarly-curved arm, I, one end of which is bolted to the front part of the timbers F at *c*, so as to move about that joint. The other end

clasps the link J, and is connected to it by a bolt passing through the slot in the link, and the bolt may have a friction-roller to insure its working easily.

The curve of the arm I is such that its central part, *e*, is considerably below the frame-timbers, and at this point the short axle, *p*, of one wheel of the machine is firmly attached to each of the arms I. The arms pass through guides *a* on the sides of the timbers, and may be united by strengthening-rods, if desired, as at *n*.

The operation will be as follows: The plows being entirely out of the ground, the sweep will be forward and the link J will stand nearly in a line with the back part of the curved arm I, which is attached to it. To lower the plows and frame, the sweep is drawn back, which carries the link J forward and upward. The back end of the arm I is carried with it, sliding along the link and moving about the point *c*. By this movement the plow-frame and plows are lowered, moving about the axles as a fulcrum, and can be retained at any point by means of the rack, which holds the sweep by any of the ordinary devices.

On the land side of the machine a bar, *m*, is formed, so as to rise between the back and front curves of the arm I, commencing at the point where the axle is bolted. This bar is pierced with one or more holes, and by changing the axle to either of them the wheel will be elevated, so as to run on the land, the other wheel running lower in the furrow.

The pole D, as before mentioned, has its rear end placed between the front ends of the two timbers A and B, and a bolt, *f*, passing through the timbers and pole. The pole is slotted where the bolt passes through, so as to permit of its being turned from one side to the other. The extreme rear end of the pole extends a short distance back between the two timbers, and is made narrow, and a rod, *g*, which is cut with screw-threads, passes from the timbers on each side through the rear end of the pole. Nuts *h* are placed upon this screw-rod *g* on each side of the pole, so that by loosening one end and screwing up the other the pole can be set at any desired angle to give land to the plows; and when the nuts are screwed

firmly against the pole upon both sides there will be no possibility of its shifting or working loose.

The standard P, which connects the plows with the frame above, is divided at its lower end, and the two pieces spread in opposite directions, as shown, so as to be united to the land-side at or near each end, thus rendering the plows steady and substantial.

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

The combination, with the bent arms or bars

I, pivoted at one end and holding the axles *p*, of the lever K, provided with the curved slotted arm or link J, and held by a rack or equivalent device, substantially as and for the purpose specified.

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

ABRAM ELLISON. [L. S.]

Witnesses:

JOHN H. TENNANT,  
GEORGE MERRITT.