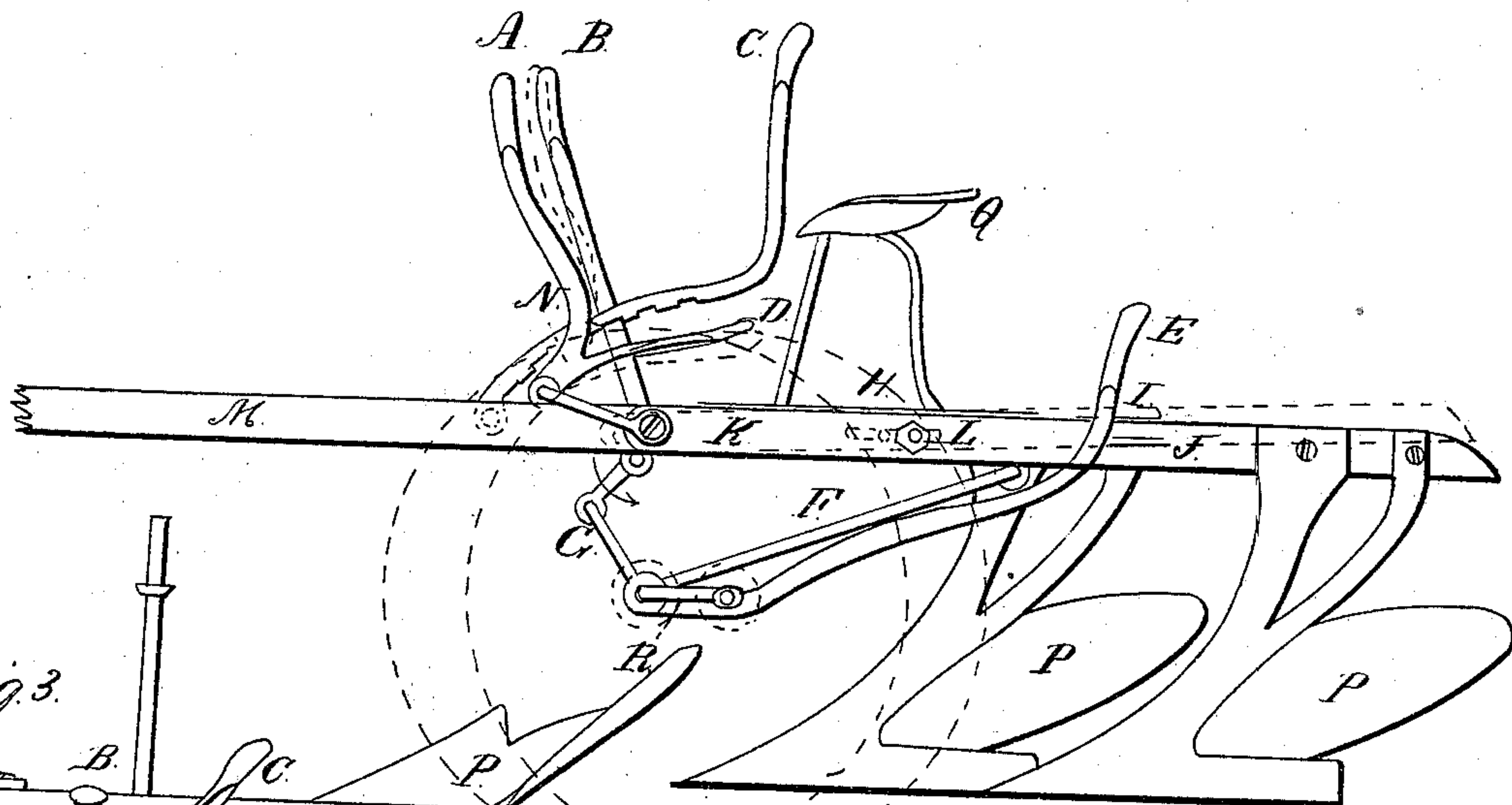


*J. Justin.*  
*Gang Plow.*

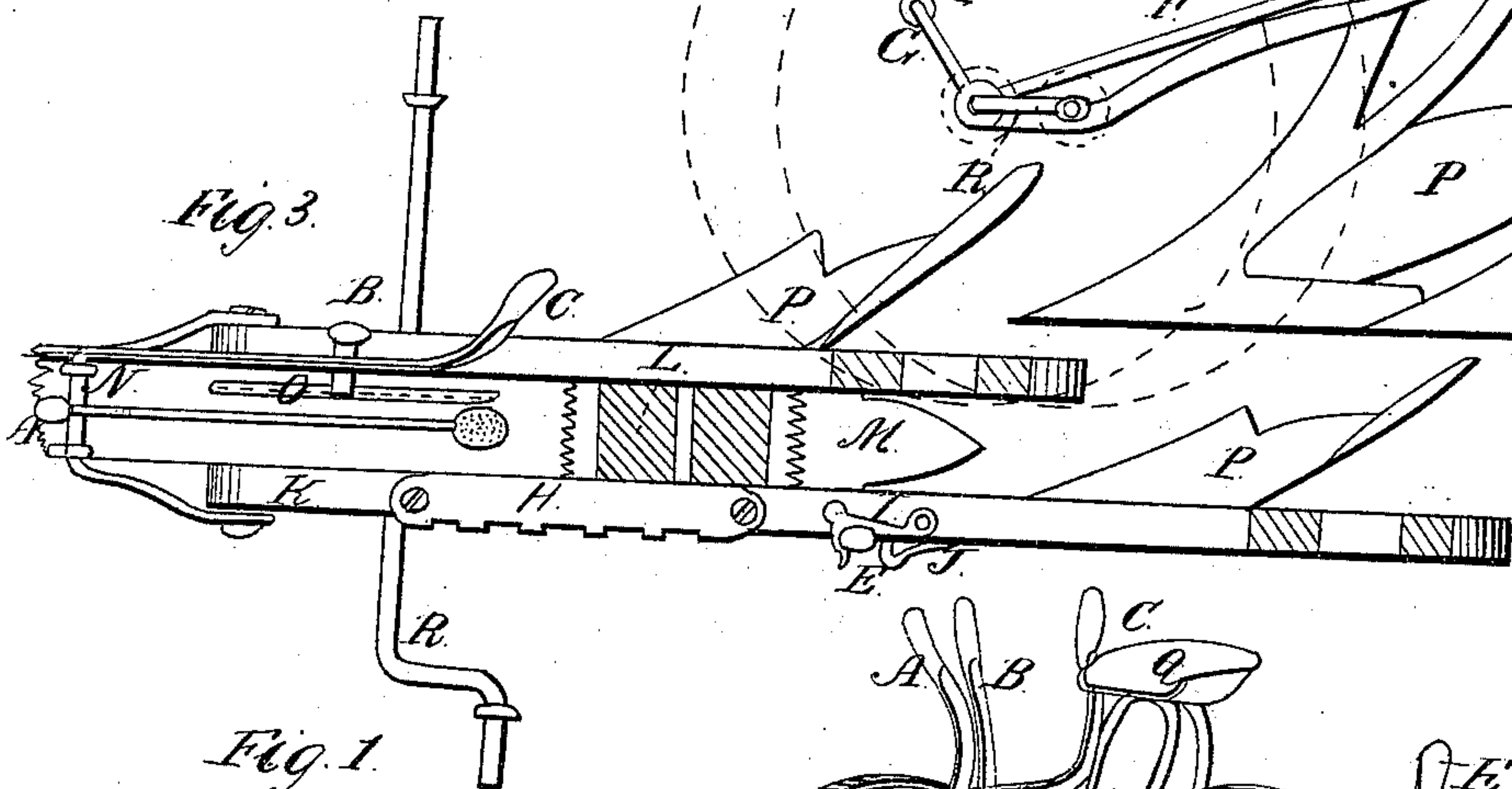
*N<sup>o</sup> 86,608.*

*Patented Feb 2, 1869.*

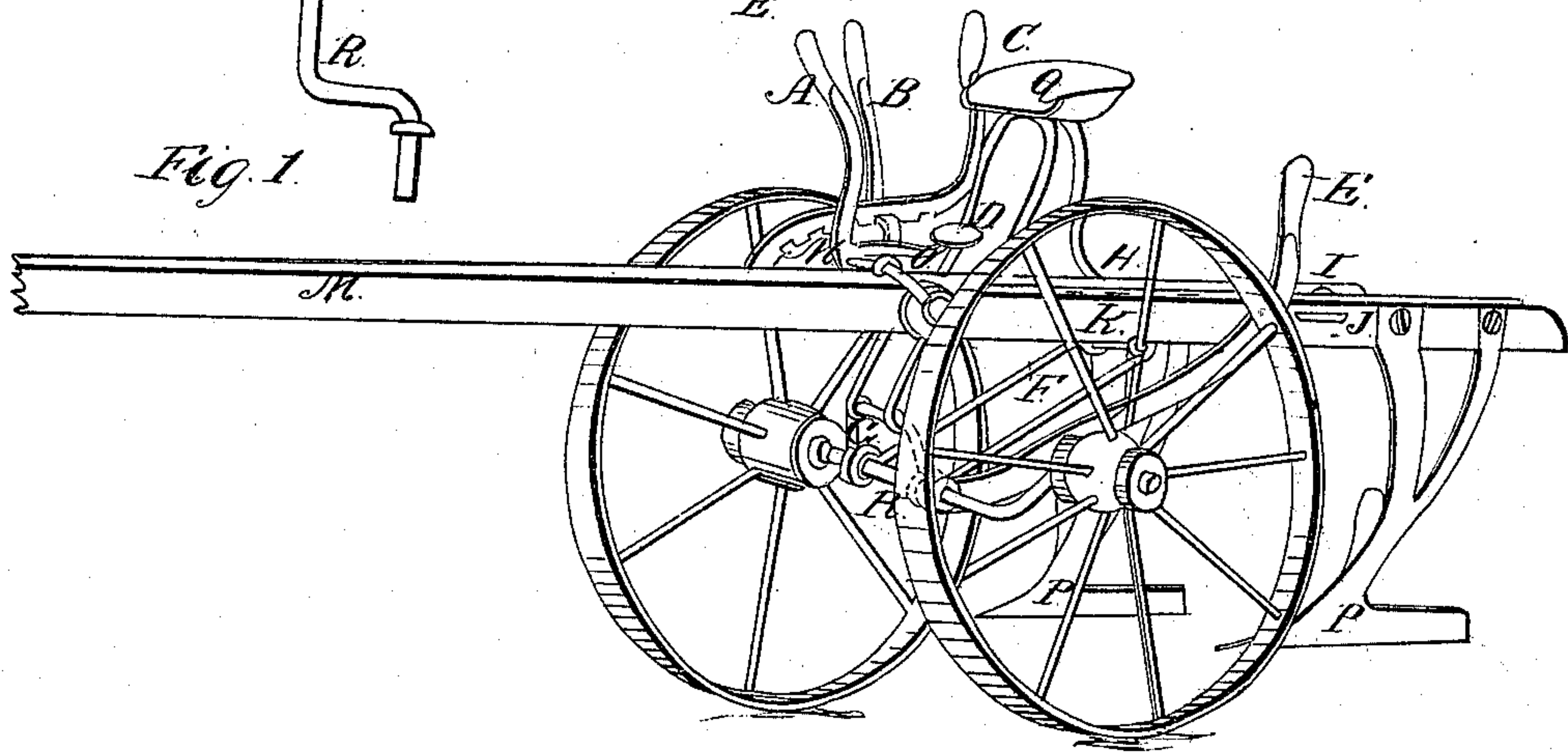
*Fig 2.*



*Fig 3.*



*Fig 1.*



*Witnesses:*

*H. L. Darr*

*Wm. F. Fick*

*Inventor*

*J. Justin*

# United States Patent Office.

J. TUSTIN, OF PORTLAND, OREGON.

Letters Patent No. 86,608, dated February 2, 1869.

## 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, J. TUSTIN, of Portland, in the county of Multnomah, in the State of Oregon, have invented an Improved Gang-Plow; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 is a perspective view;  
Figure 2, a side elevation; and  
Figure 3, a plan.

In figs. 2 and 3, the wheels are removed from the axle, in order to show the mechanism more perfectly.

The peculiarity of my invention consists in raising and lowering the plows of a common gang-plow, in the manner described below, by means of foot and hand-levers, in the manner described, in connection with certain "toggle"-shaped links, embracing the bent axle and the foot of a certain lever conjointly; also, of a rotary motion given to the axle of the supporting-wheels, produced by another lever, E, which is firmly secured to the same, thereby gauging the plows to any depth required.

The operation of the device is as follows:

When the plows are low in the ground, and it being required to raise them out, the handle C, fig. 2, is raised up, thereby disengaging the teeth on its lower edge from the bent lever B. The lever B is now pushed toward the team, which, by a short arm on the under side, brings the link G almost perpendicular over the axle, thereby raising the plows out of the ground.

In order to lower the plows into the ground, exactly the reverse has to be done, viz, pull the lever B toward you as you sit on the seat Q; and it will be seen that the axle is held in place by the two links F and G, in conjunction with the lever B.

The axle R is bent at one end, in order to eccentricate the left or "near wheel."

The plows are still further lowered by grasping the lever E, after unhooking the latch I, and pulling it toward the seat Q, this allowing the belly of the axle to

settle down as the bend becomes vertical instead of horizontal.

Another feature of the improvement is the entire freedom of the plows to seek their own draught-line, as they are hung and drawn by a "clevis," as any ordinary draught-plow.

If the team raises a mound of earth, it does not affect the plows, as they are entirely free to rise or fall with the movements of the clevis N.

To this clevis N are securely attached a foot-lever, D, and a hand-lever, A.

Should the plowman wish the plows to go deeper, for any cause, he presses his weight on the foot-lever D, which is exactly equivalent to riding on the "beam" of a common plow; or, by pushing the handle A forward, throws the plow out of the ground, until the temporary difficulty may be passed.

The plow-frames K have a bolt about midway their length, which travels in a slot, L, seen in figs. 2 and 3, and goes forward and back, as the tongue M rises and falls, in going over uneven ground.

There is a bar, H, on the edge of which are some notches, engaging with the lever E, holding the same in a similar manner as the piece C holds the lever B, wherever it may be desirable to adjust the plows P.

The check J is used to prevent the lever E from going too far back, and, when not plowing, the latch I holds it entirely out of ground.

It is thought that the parts above described are improvements on known methods, are simple and easily made, and altogether form a novel device.

What I desire to claim by Letters Patent, is—

The levers A B C D E, the links G and F, (in which may be rotated the bent axle R,) the bent axle R, and the latch I, when used in the manner described, and for the purposes set forth.

J. TUSTIN.

Witnesses:

H. L. DARR,  
WM. F. FISH.