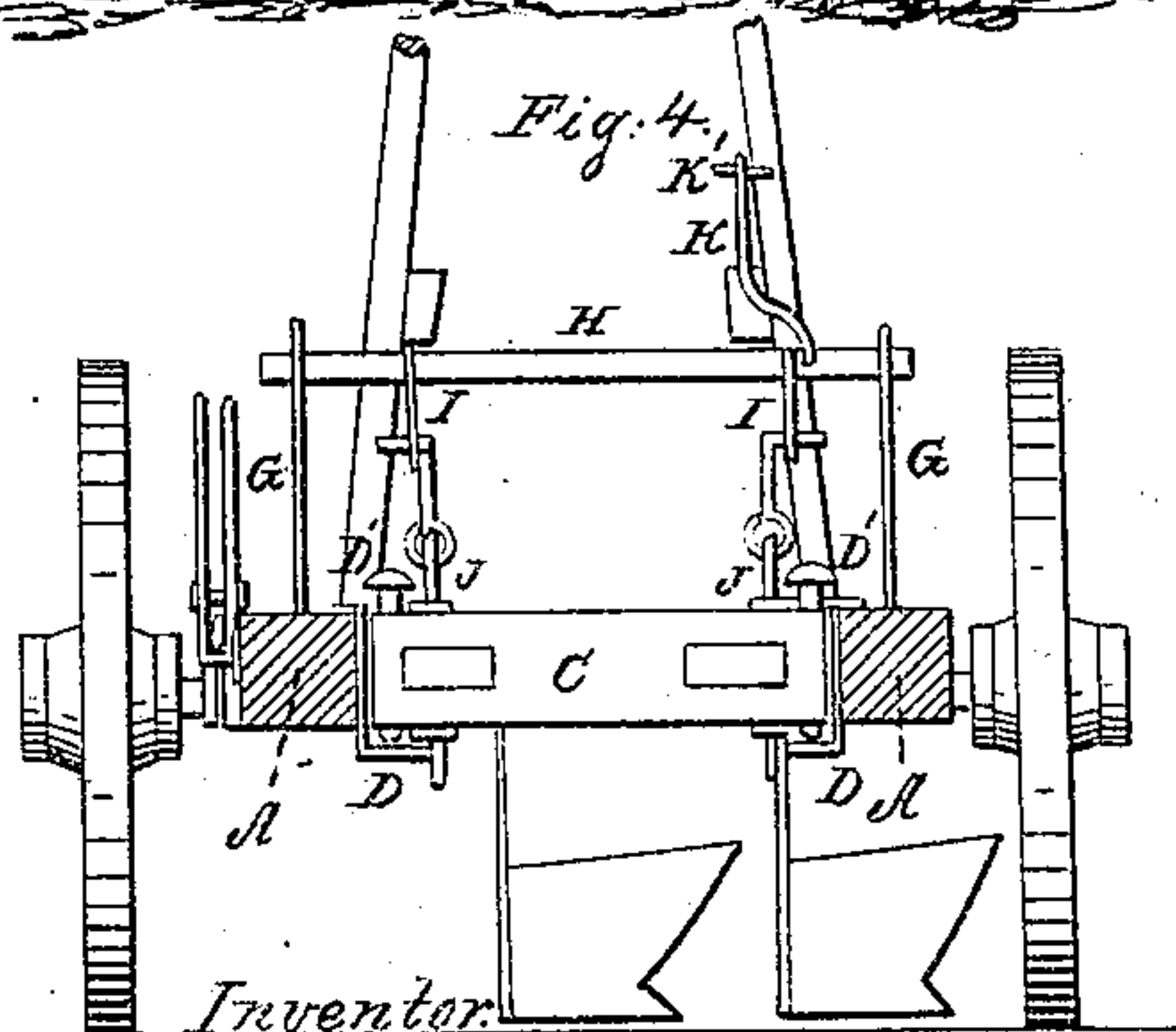
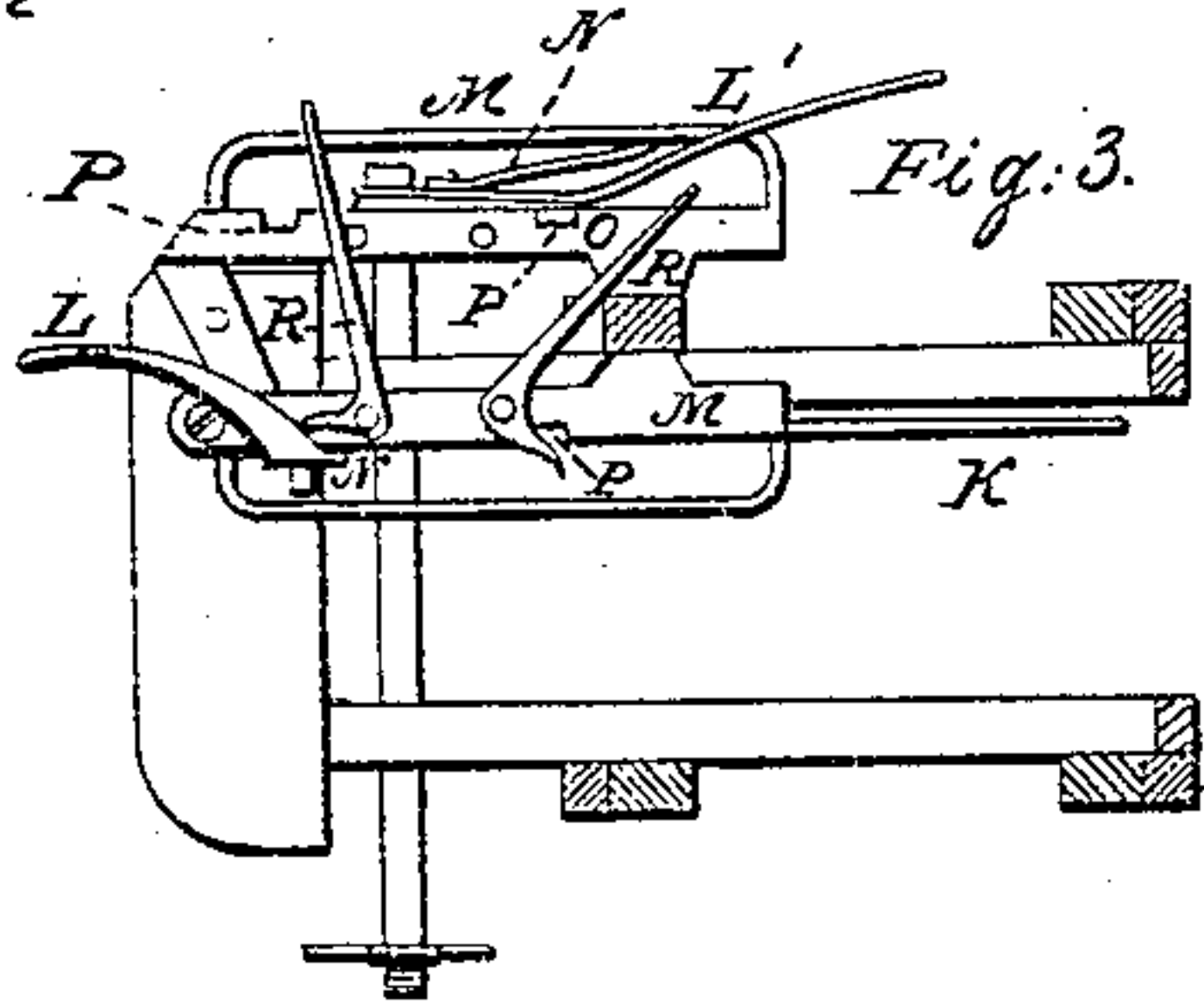
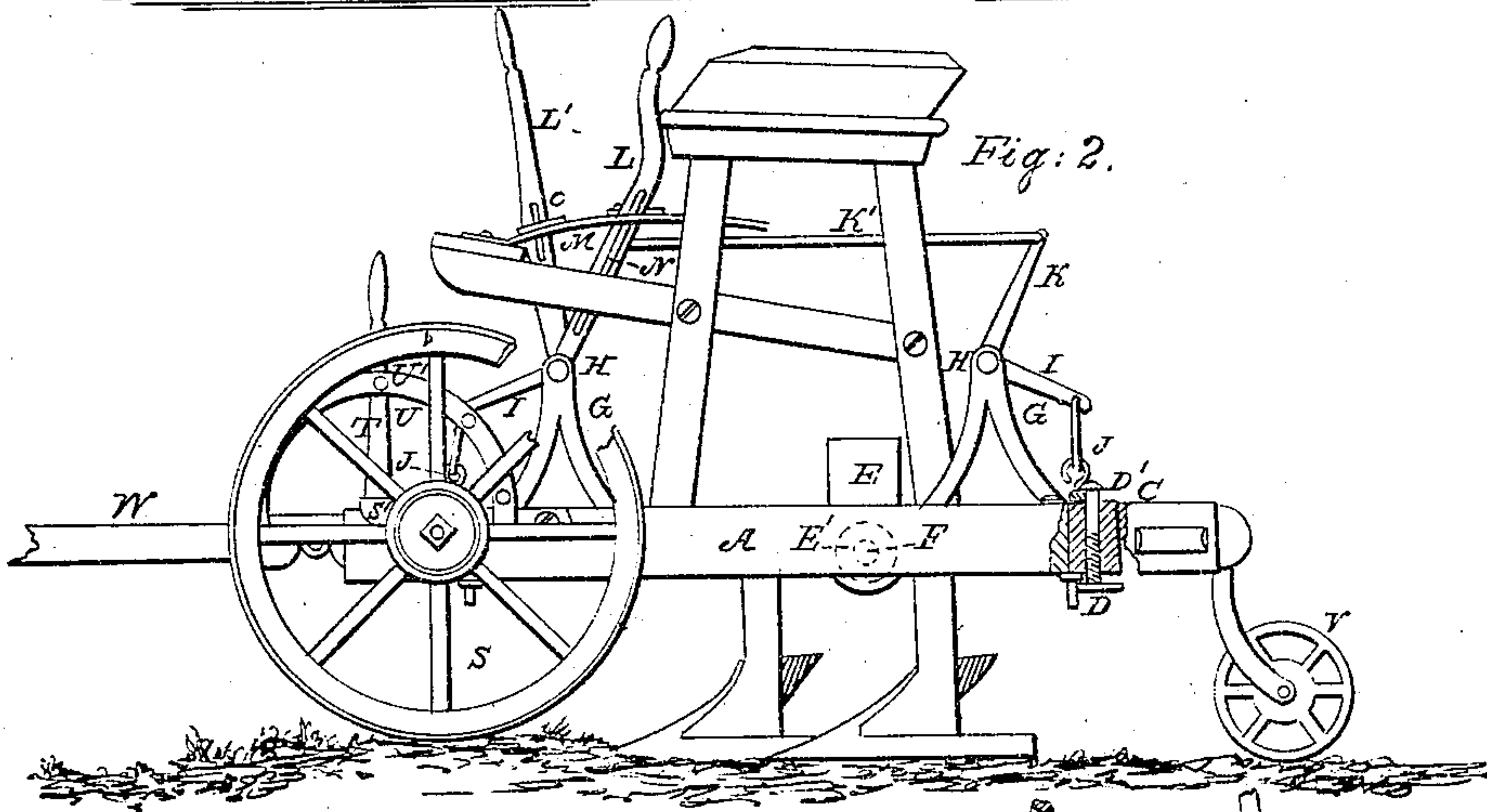
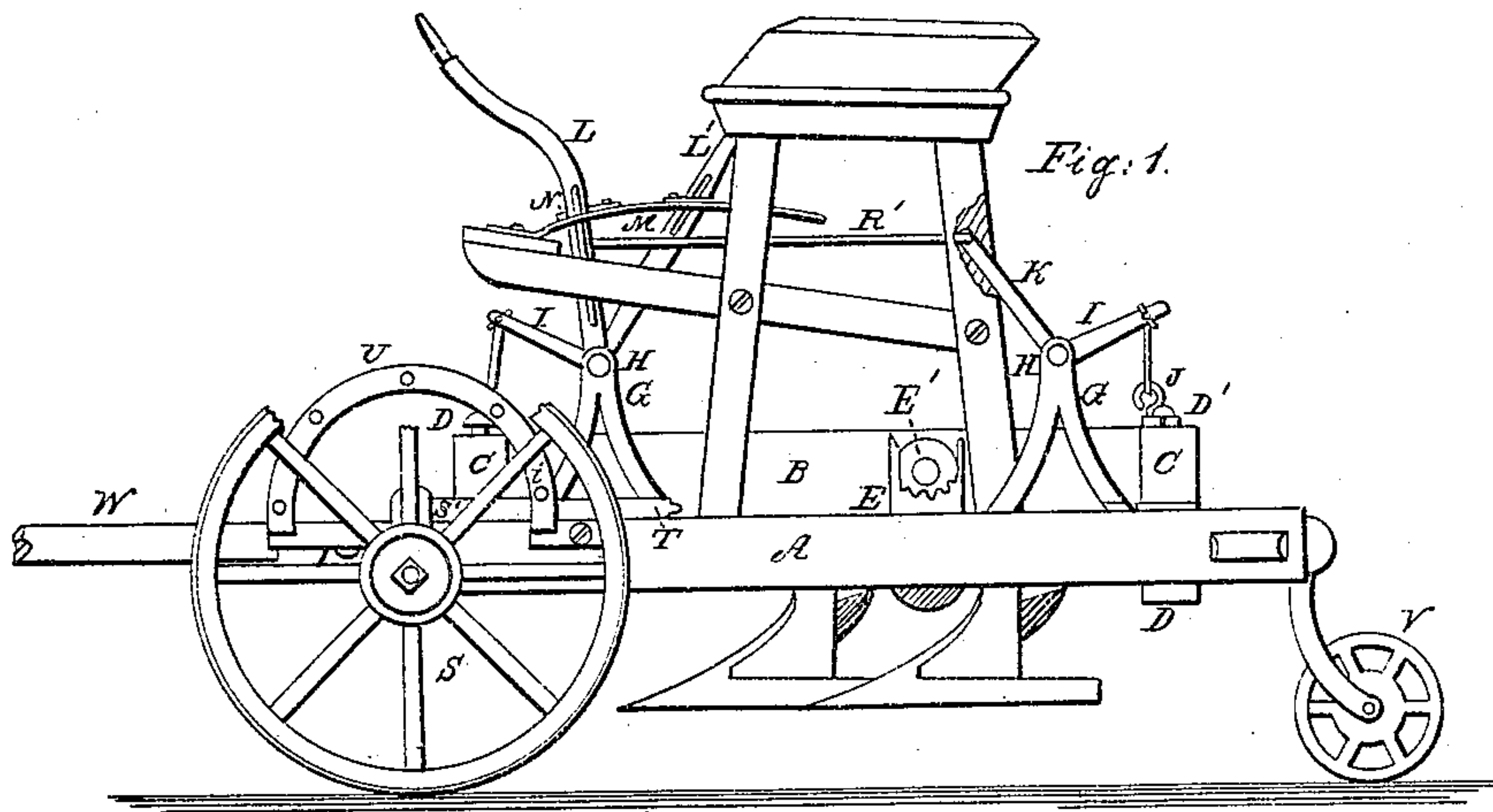


C. A. FARGO.

Gang Plow.

No. 90,831.

Patented June 1, 1869.



Witnesses.  
J. W. Reed  
J. H. Moulton

Inventor  
C. A. Fargo.  
Assigner to himself and Barber Darling  
by C. W. Smith his atty.



# United States Patent Office.

CORYDON A. FARGO, OF SOQUEL, CALIFORNIA, ASSIGNOR TO  
HIMSELF AND BARBER DARLING.

*Letters Patent No. 90,831, dated June 1, 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, CORYDON A. FARGO, of Soquel, in the county of Santa Cruz, and State of California, have invented certain new and useful Improvements in Gang-Plows; 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.

The nature of my invention is to provide an improved gang-plow, so constructed, that it can be easily managed by the driver, without the necessity of dismounting from his seat. At the same time, the plow will perform much better work, turning the sod evenly, and completely over, and with less power than is required in the use of the ordinary gang-plow.

My invention consists in the employment of an oblong or square frame, in which is placed a smaller frame, to which the plows are attached. These beams, with the plows, are raised and lowered in ways on the larger frame, by means of a series of levers, and a connecting-rod, attached to cranks, the cranks having arms that are linked to the plow-frame. Each corner of the outer frame is provided with a bent plate, upon which set-screws, that pass through the ends of the inner frame, bear.

The front cross-beam of the outer frame constitutes the axle-bed for the two driving-wheels. One of the axles is provided with a crank, that is worked by a projecting arm, or lever, operating in a rack. To the rear end of the machine is attached a wheel, which turns in any direction desired.

Referring to the drawings—

Figure 1 is a side elevation of my machine, with the inner, or plow-frame raised, and wheel broken away.

Figure 2 is also a side elevation, with inner frame depressed, and side beam of the outer frame and driving-wheel broken away.

Figure 3 represents a plan of racks, levers, pawls, and upper crank-axle.

Figure 4 is a vertical section, taken back of the driving-wheels.

A represents the outer, or main frame, to which the driving-wheels and rear wheel are attached.

The inner frame, to which the gang of plows is attached, consists of two horizontal beams, B B, connected to mortised cross-end beams C C, with projecting ends.

At each corner of the main frame are attached metal plates D D, with their lower ends bent inwardly, at right angles.

The projecting ends of the cross-beams are provided with vertical set-screws D' D', which turn upon the metal plates, for raising or lowering the plow-frame, and thereby regulating the depth of the furrow cut by the plows.

Near the centre, at each side of the main frame, are

placed vertical ways E E, in which move friction-rollers E' E', attached to a transverse bar, F, that passes through both the horizontal beams of the plow-frame.

Two brackets, G G, are set on the top of the horizontal beams of the main frame, which uphold the two transverse crank-axes H H.

These cranks are provided with arms I I, which are connected, by links, to set-screws J J, which enter the cross-beams of the plow-frame, and by the turning of which the plow-frame is elevated or depressed, allowing greater sweep, when the levers are used, for suspending the plows.

The rear crank-axle is provided with an upright arm, K, to which is keyed a connecting-rod, K', that extends to a lever, L, on the forward crank-axle, thereby connecting the two cranks.

A lever, L', is also keyed to the end of the front crank-axle; and both levers work in a double rack, M, that is attached to the foot-board and post of the driver's seat.

The outside of these levers is provided with a spring, N, and the inside with a lug, O, which catch in the notches P P'.

Two pawls, R R, cover the notches P', and the action of one lever unships the other.

The front cross-beam of the main frame constitutes the bed for the axle of the driving-wheels.

The land-wheel S is provided with a crank-axle, S', and is placed at the top of the cross-beam.

An arm, T, extends from the crank, which works in a semicircular rack, U, and is held by a pin and key, U'.

By this means, the land-wheel is raised or lowered, to keep the machine in a horizontal plane, while the opposite wheel runs in the furrow, or upturned and loose sod.

To the rear-end cross-beam is attached a follower, or supporting-wheel, V, which turns in any direction desired.

The pole, or neap W, is attached to the front end of the outer frame by hooks and eyes.

The operation of my machine may be described as follows, to wit:

When the inner frame is suspended, and the plows raised by the crank-axes, and the levers are in position in the notches, or catches on the double rack, and it becomes necessary to operate with the plows, the driver forces out the right-hand lever L, which causes the front end of the inner plow-frame to drop, carrying the points of the plows into the ground, and the lever slides along the rack, guided by the outer rail, until it flies into the forward notch, or catch. At the same time, it strikes the end of the forward pawl, which throws out the opposite lever from the notch, and the rear end of the plow-frame is gradually lowered, carrying back the lever to the rear catch in this part of the rack, when that pawl is set for the reverse oper-



ation, that is, for raising the frame and plow, which is accomplished in precisely the same manner as above described, by releasing the left-hand lever first.

It is confidently asserted, that in the use of my plow, one person, and that person the driver, will perform more work in a day, and do it better, with the same gang, than two men will accomplish with the ordinary gang-plow, as no vibration, or swaying from side to side, can take place, and, consequently, no bad furrows are made, the plows being supported, on the inner frame, by the ways and plates on the outer frame.

The draught of my plow is also believed to be much less than that of a single frame, when unsupported by outer frame-work in construction.

Having thus described my invention,

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

1. The bent plates D D, attached to the outer frame, as described, the vertical set-screws D' D', which bear upon the said plates, for raising or lowering the plow-beams, substantially as set forth.

2. The vertical ways E E, friction-rollers E' E', operating in the said ways, and the transverse bar F, to which the rollers are connected, substantially as and for the purpose set forth.

3. Connecting the two crank-axes H H by the rod K', so that both of the said axes may be operated by the upright levers L L', substantially as and for the purpose specified.

4. The set-screws J J, operating in the beams of the plow-frame, and linked to the arms I I of the axes, in combination with the said axes, as and for the purpose set forth.

5. In combination with the levers L L', operating in the double rack M, the pawls R R, for unshipping, or releasing the levers alternately from the notches P', substantially as and for the purpose specified.

6. The front-end cross-beam of the outer frame, for attachment of the neap, or pole, axle, and crank-axle, of the driving-wheels, in combination with the crank-axle S' and semicircular rack U, the whole constructed and arranged to operate substantially as specified.

In witness whereof, I have hereunto set my hand and seal.

CORYDON A. FARGO. [L. S.]

Witnesses:

C. W. M. SMITH,  
E. V. SUTTER.