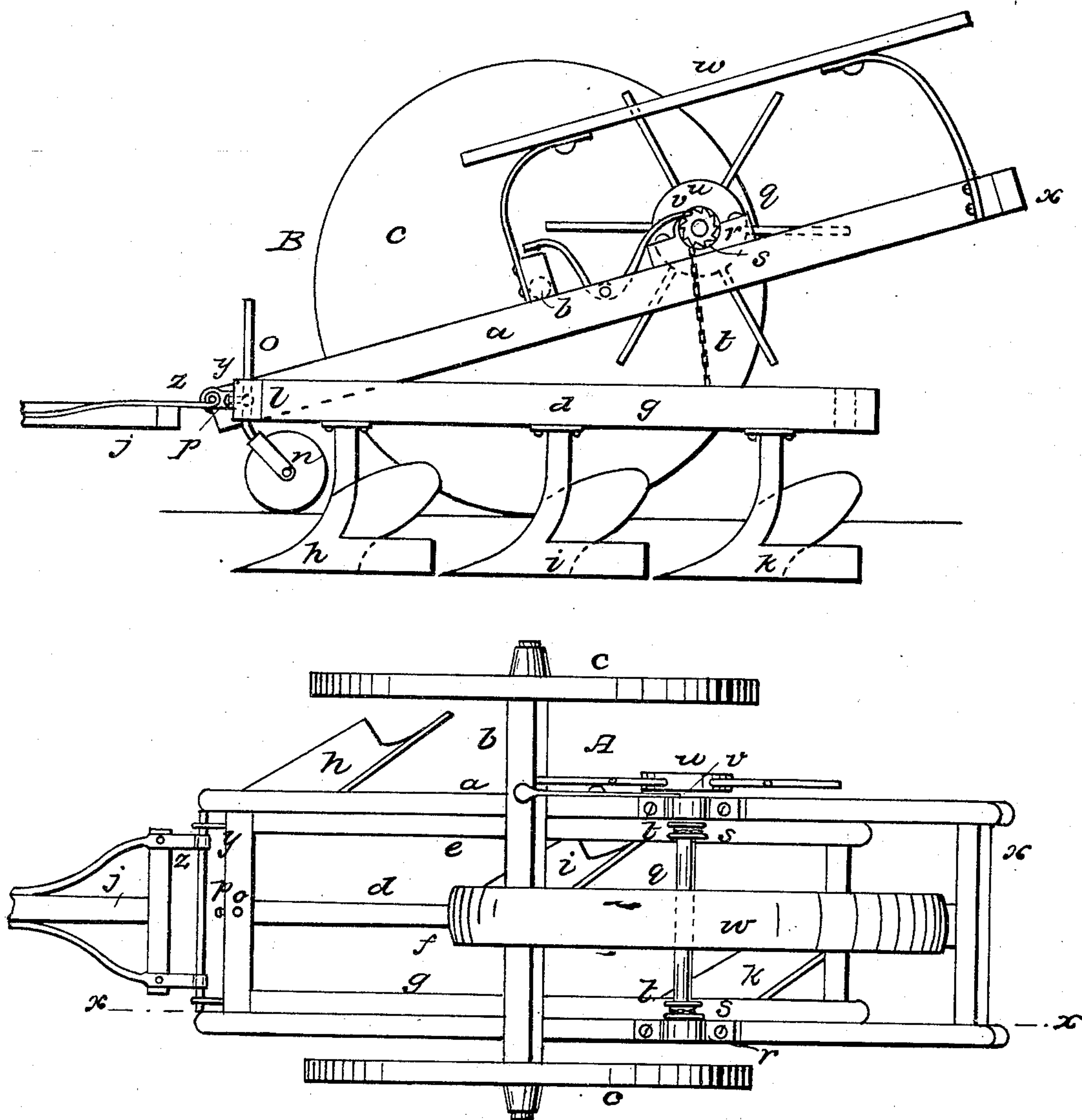


G. R. CARTER.

Gang Plow.

No. 90,237.

Patented May 18, 1869.



Witnesses

W. B. Crosby
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Inventor

George R. Carter

United States Patent Office.

GEORGE R. CARTER, OF NEW YORK, N. Y.

Letters Patent No. 90,237, dated May 18, 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, GEORGE R. CARTER, of the city, county, and State of New York, have invented an Improved Gang-Plow; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practise it.

The invention has particular reference to that class of gang-plows, in which the plow-beams or beam-frame forms part of a wheel-carriage or truck-frame, the plow-beams or beam-frame having a capability of vertical movement relatively to the carriage-frame.

My invention consists primarily in hanging the carriage upon one axle, so that it can be tipped freely at either end, the beams or beam-frame being hung to the front end of the carriage-frame, its rear part being suspended from the main frame behind the axle, and having provision for raising and lowering it.

The drawings represent a gang-plow embodying my improvements.

A shows the plow in plan.

B is a vertical section on the line $x x$.

a denotes the main or carriage-frame secured to an axle, b , which is mounted upon high wheels c , the carriage tipping freely upon or with said axle, as will be readily understood.

To the front end of this frame is hung the plow-frame d , which, extending back beyond the axle b , has fixed to and depending from its beams $e f g$, the standards of the plowshares $h i k$, which form the plow-gang.

Under the front rail l of the frame d , is a gauge-wheel, n , the spindle o , of the bearings of which passes through the front rail, it being secured in position by a screw, p , and the wheel being set at any desirable height, by raising or sliding down the spindle.

As the front end of the plow-frame swings vertically, relatively to the axle b , the gauge-wheel n regulates the depth of penetration of the front plowshare, as seen at B.

Across the main frame, in rear of the axle, may extend a windlass-shaft, q , journaled in bearings $r r$, on the main frame.

Around pulleys $s s$, upon this shaft, are wound chains $t t$, to the lower ends of which the rear end of the plow-frame is suspended, as seen at B.

By winding up the chains, by means of a windlass, u , or other suitable mechanism, the rear end of the plow-frame and the carriage-frame may be brought into the same plane, the plow-frame being held in position by a ratchet-and-pawl mechanism, v .

Over the rear part of the two frames, is a long-seat, w , connected at one end to the axle, and at the oppo-

site end to the rear rail, x , of the main frame, as seen at B.

The operation of the plow is as follows:

The gauge-wheel n is first set to a height or distance above the plane of the lower surfaces of the plows equal to the depth to which the furrow is to be cut. The windlass-chains are then loosened, letting the rear end of the plow-beams down. The carriage being now drawn forward, the front plow will penetrate the ground until the gauge-wheel strikes the surface of the ground, and all the other plows will enter the ground, and plow to the same depth as the front one, the beam-frame and the carriage-frame both yielding vertically as circumstances require.

The driver sits upon the seat w , and by moving back upon the seat can readily tilt up the front end of the carriage-frame, and start the front plow from the ground, or temporarily decrease its depth of penetration, while, by winding up the windlass-chains and tilting up the front of the carriage, he can raise the whole gang of plows from the ground.

It will be seen that the plowshares all assume their positions independently of the carriage-frame, the latter assuming such inclined position as will bring the lower surface of the two carriage-wheels $c c$, and the lower surface of the gauge-wheel n , into a plane with the series of plowshares, at a height upon each, corresponding to the depth of penetration of all, as seen at B.

The draught-pole j is attached to the front rail of the beam-frame, and draws directly in the line of the beams.

The pole is hung to the rail by means of a rod running through eye-bolts y , and through eyes at the end of strap-pieces z , fixed to the pole; and by means of thimbles or collars and set-screws the pole may be adjusted in position laterally, so as to cause the plows to take more or less land as desired.

1. I claim, in combination with the plow-beams or beam-frame, the tilting carriage-frame, substantially as described.

2. I also claim, with the tilting carriage-frame and the plow-frame pivoted to the front end thereof, the long seat extending from the axle to the rear of the carriage-frame, substantially as shown and described.

3. I also claim a gang-plow, having the plow-beams or beam-frame pivoted to the front end of the carriage-frame, when the latter is arranged to tip relatively to the draught-pole, substantially as shown and described.

GEORGE R. CARTER.

Witnesses:

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