H. MINUSE.

Wheel-Plow.

No. 68,777. Patented Sept 10. 1867.

Fig. 1

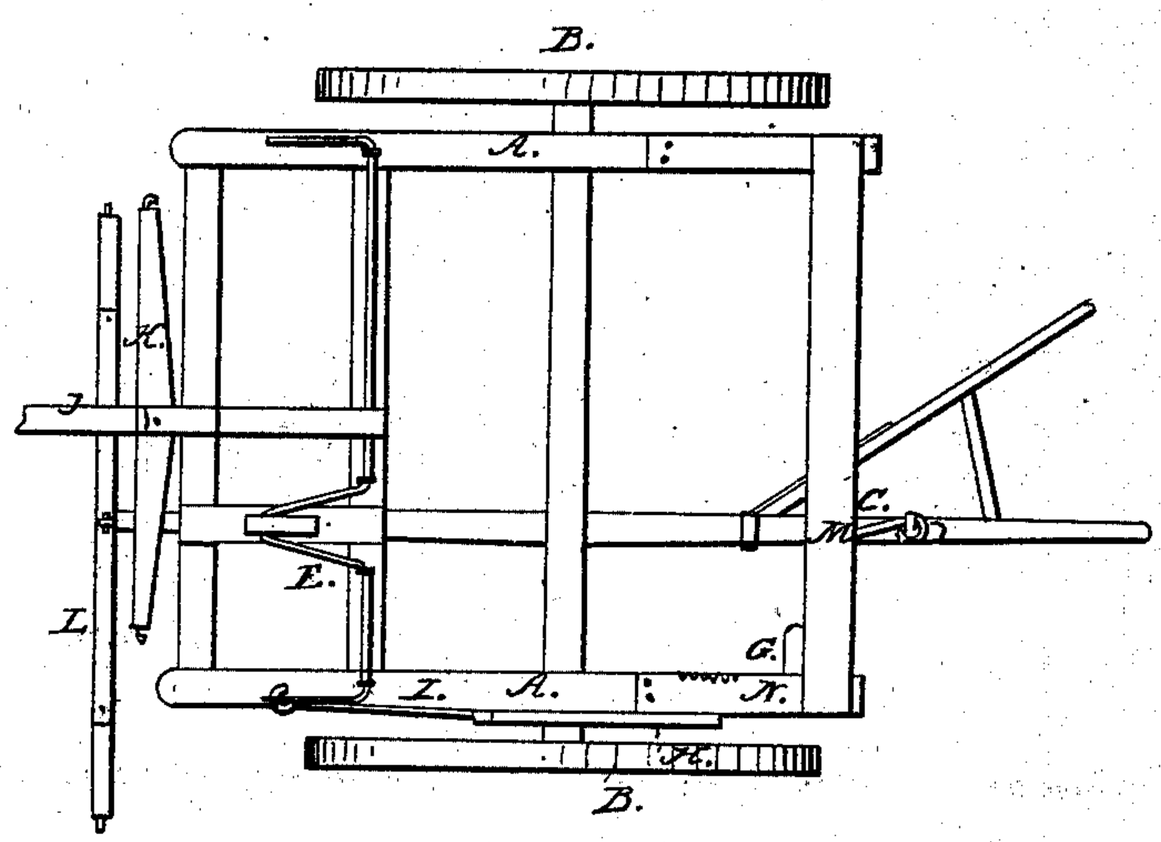


Fig. 2.

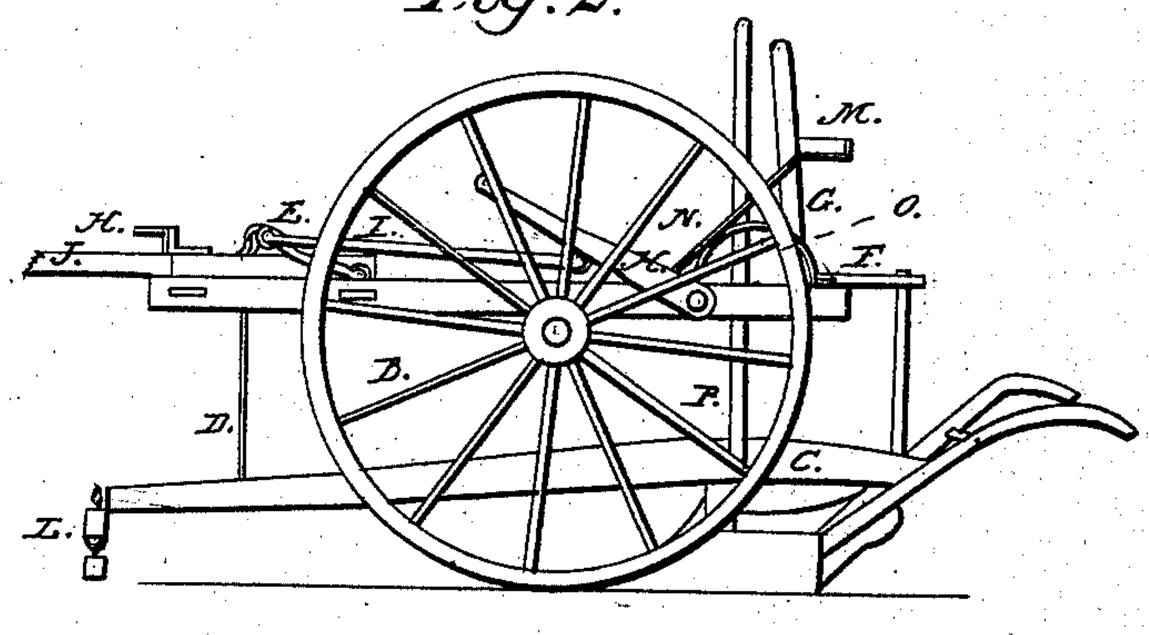


Fig. 3.

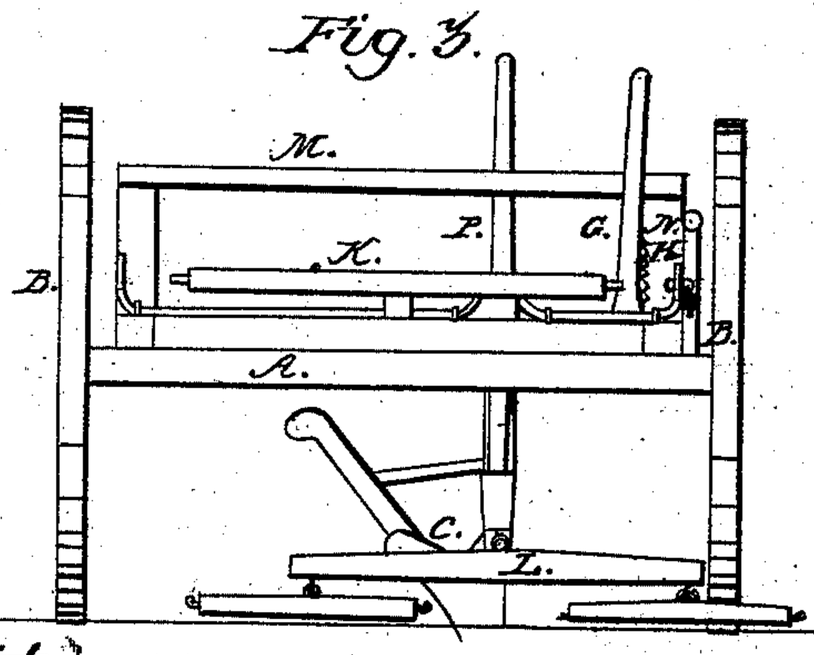
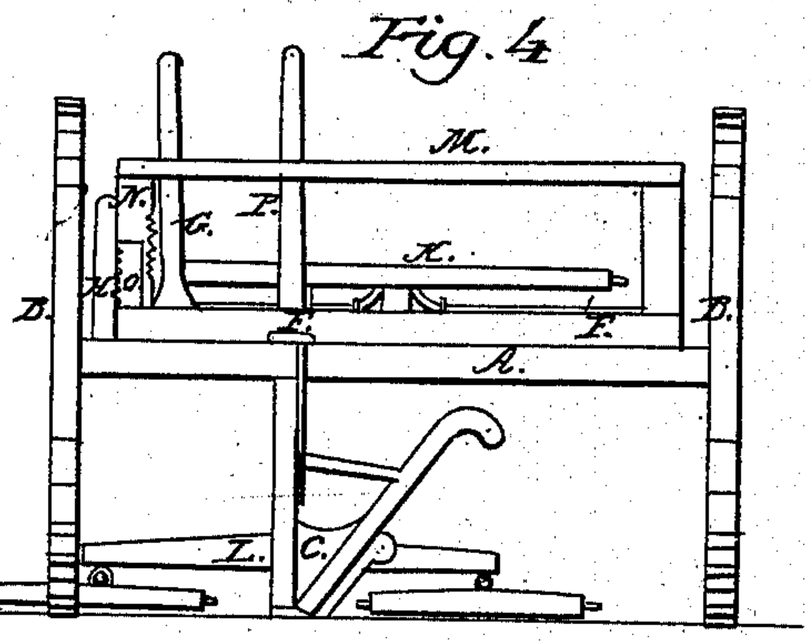


Fig. 4



Witnesses:
J. H. Burridge
Frank S. Alden

Inventor:
Horatio Minuse

United States Patent Office.

HORATIO MINUSE, OF MILAN, OHIO.

Letters Patent No. 68,777, *dated September* 10, 1867.

IMPROVEMENT IN CARRIAGE-PLOUGH.

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, H. MINUSE, of Milan, in the county of Erie, and State of Ohio, have invented certain new and useful improvements in Carriage-Ploughs; and I do hereby declare that the following is a full and complete description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a top view of the plough.

Figure 2 is a side view.

Figure 3 is a view of the front end.

Figure 4 is a view of the rear end.

Like letters of reference refer to like parts in the several views.

A, fig. 1, is a frame mounted upon the wheels B. To the under side of this frame or carriage is hung an ordinary plough, C, the front end of the beam being attached by the rope or chain D, fig. 2, to a crank-lever, E, whereas the rear end is suspended to the projecting arm F, said arm being connected to the cross-rail of the carriage, and which rail is so pivoted in the frame that it can be turned around by means of the lever G, for a purpose hereafter shown. H is also a lever pivoted to the side of the frame, and connected to the crank-lever E by a link, I, whereby the said lever is operated, as will presently be described. J, fig. 1, is the pole, and K the cross-tree by which the carriage is drawn. To the beam of the plough is also attached a double-tree, L, by which it is geared to and drawn by the team in the following manner, viz:

The team is hitched directly to the plough, and is drawn by them independently of the carriage, the purpose of which carriage is only to carry the plough and assisting in guiding it in the course of its work, and which is also attached to the team by means of the cross-tree referred to, one end of which is hitched to the near horse and the other to the off one. The driver takes his position on the seat M, fig. 2, thus placing the levers G H to his left. The machine, on being placed in the right direction, the plough is lowered by means of the levers G H, more or less, as the depth of the furrow may require, and is thus secured by the levers being made to engage in the notches of the racks N O, fig. 4. The plough is held in an upright position by the arm P, the lower end of which is connected to the beam and then held by the ploughman, and is thus controlled in its lateral movements by the superior arm of the lever with greater ease than it could be by holding it by the handles in the ordinary way.

In using this machine, the off horse walks in the furrow and the near one on the land, hence the wheels of the carriage run on each side of the furrow, which steadies and sustains the plough in the course of its work, turning neat and straight furrows with greater ease to the operator than in the ordinary way. Should it be required to deepen the furrow, the draught end of the plough-beam can be lowered by means of the lever H without affecting the hind end, or both can be raised and lowered at the same time, and thus the plough be made to run deep or shallow, as circumstances may demand.

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

The special arrangement and combination of the herein-described plough and carriage, when operated in the manner and for the purpose substantially as set forth.

HORATIO MINUSE.

Witnesses:

J. H. BURRIDGE,

GEO. A. KOLBE.