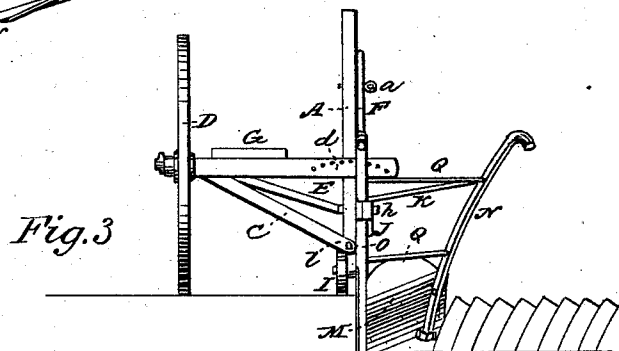
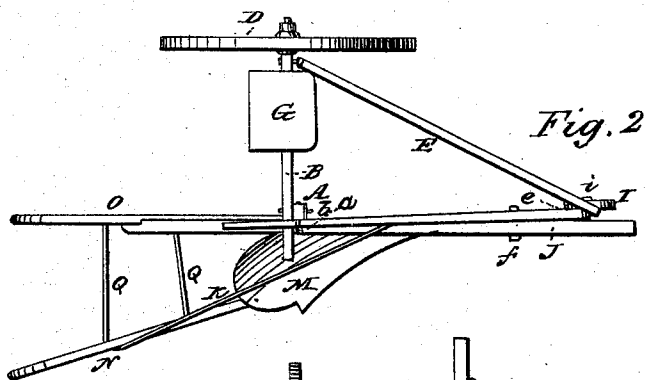
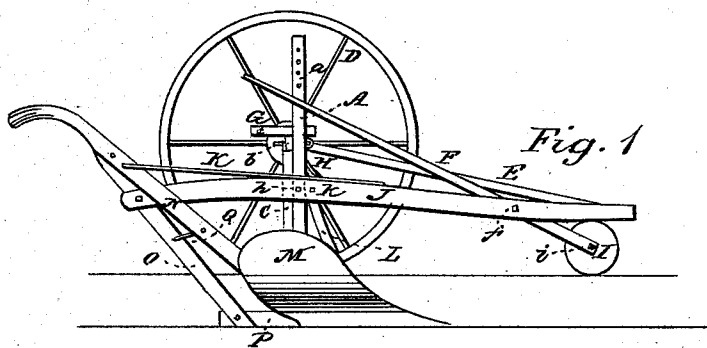


A. E. & A. L. PORTER.

Wheel Plow.

No. 100,800.

Patented March 15, 1870.



Witnesses:

W. Hamms
A. Chaffin

Inventors:

A. E. Porter -

A. L. Porter -

BY Jobbasson, ATTORNEY.

UNITED STATES PATENT OFFICE.

A. E. PORTER AND A. L. PORTER, OF LAMOILLE, ILLINOIS.

IMPROVEMENT IN RIDING ATTACHMENTS FOR PLOWS.

Specification forming part of Letters Patent No. 100,500, dated March 15, 1870.

To all whom it may concern:

Be it known that we, A. E. PORTER and A. L. PORTER, of Lamoyille, in the county of Bureau, in the State of Illinois, have invented certain Improvements in the Construction of Riding Attachments for Plows, of which the following is a specification.

The first part of our invention relates to the construction and arrangement of such riding attachments in such a manner that an operator may sit upon it while plowing with comfort and without any considerable increase of the draft of the plow.

The second part of our invention relates to the construction and arrangement of a lever and simple wheel in such a manner that by the use of them the operator, while driving the team and sitting upon the seat, may regulate the depth of the furrow that he is cutting.

The third part of our invention relates to the construction and arrangement of the axle and certain braces with pivot-connections in such a manner that the wheel, which mainly supports and carries the attachment and operator, shall always run in a line parallel to that of the plow proper, and that the axle shall always be kept in a position perpendicular to the beam of the plow, whether the plow be running deep or shallow.

In the accompanying drawings, Figure 1 represents a side elevation of a plow with our improved attachment; Fig. 2, a plan of the same, and Fig. 3 an end view.

The plow shown in the drawings is one of ordinary form, and is given merely for the purpose of illustrating more perfectly the construction and operation of our invention, and is composed of the standard L, to which is secured the mold-board M, landside P, and beam J. The handles O and N are attached to the beam J, landside P, and mold-board M, and are united by the cross-bars Q Q, as shown. The standard A is fastened to the plow-beam J by the bolt *h*, and the brace H is placed between the standard A and the beam J, as shown in Fig. 1, to strengthen and stiffen the standard in its position. This standard is an important part of the riding attachment, and is the means of its connection with the plow. One end of the axle B is connected with it by the pivot-bolt *b*, and on the other end turns the carriage-wheel D; and on and near the same end is placed and fixed the driver's seat G,

which is placed near that end in order to relieve the plow proper of as much of the weight of the driver as possible. Then, in order that the axle B shall always be kept in its true position perpendicular to the beam J, a brace, E, of suitable size and strength, is made to extend from the outer end of the axle, to which it is fastened, forward to a point near the front end of the beam, where it is connected with the beam by a hinged joint, *e*; but then, inasmuch as the carriage-wheel D rolls upon the surface of the unbroken ground, while the plow proper runs under the surface and to various depths, it is necessary to have its connections with the riding attachment so adjustable that the axle B shall be kept in a position parallel to the surface, and the wheel D in a true vertical position, and the connection so strong and secure as to prevent irregular and unnecessary action, friction, and straining of the parts. In order to effect this object, a brace, C, is rigidly attached at one end to the outer end of the axle and at the other to the lower end of the standard A by the pivot-bolt *l*, where it works as a loose joint.

Upon examining Fig. 3, it will be apparent that the plow, as shown, is about one foot in the ground below the surface, while the axle B is parallel with it, and the wheel is vertical; but it is obvious that if the plow proper were raised so that its bottom should rest upon the surface, then the inner end of the axle would be raised considerably higher than the other, and that the wheel D would be careened over to the left in a corresponding degree, and the plow would rest upon the bar or landside P. Now, by means of our devices for that purpose, the riding attachment and plow proper may be quickly and easily brought into their respective proper positions. The holes in the axle B are made in a line, *d*, occurring at regular intervals, forming the arc of a circle of which the pivot-bolt *l* is the center, and when the pin *b* is withdrawn from the hole in the standard A and one of the holes in the arc *d* in the axle B the inner end of the axle B may be depressed to a level position, and at the same time moved endwise, so as to remove the wheel D farther from the plow and into a vertical position again; and then, by means of the pin *b* inserted in one of the holes in arc *d*, the axle and wheel may be secured in position.

To regulate the depth of the furrow to be

cut, the lever F is pivoted to the beam J by the bolt *f*, upon the lower end of which the roller I turns upon the bolt *i* as an axis, and this roller turns upon the unbroken surface. The upper end of the lever moves up and down against the side of the standard A, which is perforated with a series of holes, as shown in the drawings, and the lever may be held in any position desired by a pin, *a*, inserted over it in the holes last mentioned. By depressing the upper end of the lever, the other end with its wheel is elevated, and thus the plow let deeper into the soil; but by raising the upper end of the lever a contrary result follows.

The driver or operator may both regulate the depth of cut and the relative position of the plow and attachment while seated upon the seat G.

The brace K is fastened at the forward end upon the beam J, and extends back and is fastened at the rear in or upon the handle N, and is intended to stiffen that handle, which would not otherwise be sufficiently supported in case the plow were to be manipulated by the handles.

We claim as our invention—

1. The riding attachment for plows hereinbefore described, composed of the standard A, with pin or bolt *b*, axle-tree B, with seat G, and arc of holes *d*, wheel D, and braces C and E, the said several parts being constructed, arranged, combined, and operated substantially as and for the purposes hereinbefore described.

2. The lever F, with its roller I, in combination with the plow proper, J M, provided with the described riding attachment A B G D E C, substantially as and for the purposes described.

As evidence that we claim the foregoing we have hereunto set our hands, in the presence of two witnesses, this 16th day of September, A. D. 1869.

A. E. PORTER.

A. L. PORTER.

Witnesses:

L. D. HOPKINS,

HENRY SHOWALTER.