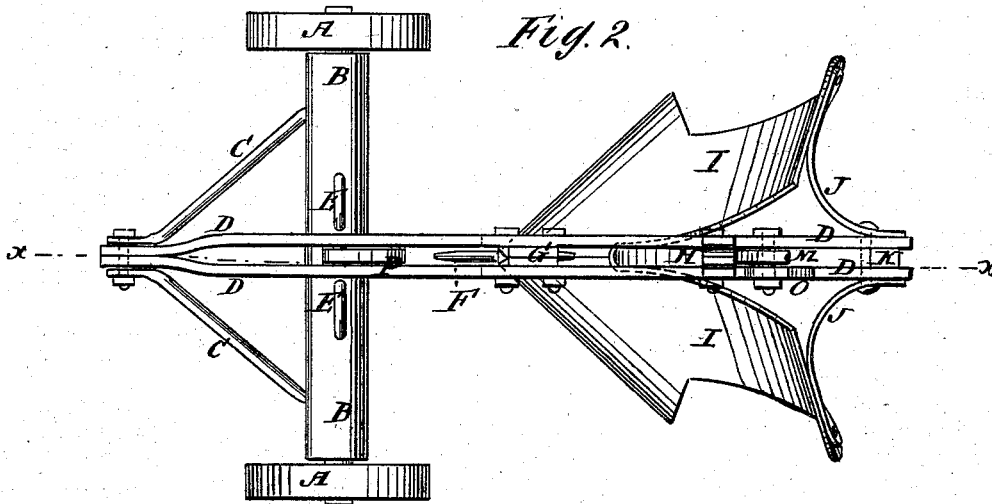
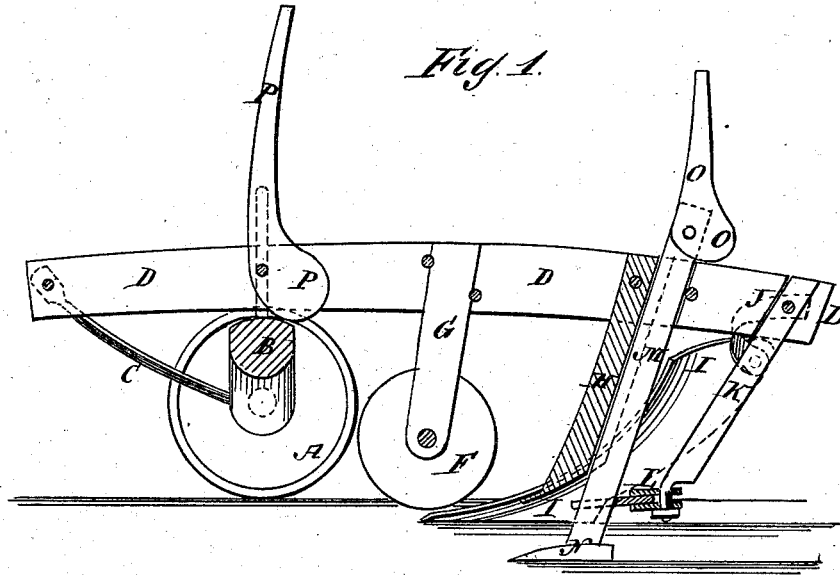


C. ATKINSON.

FLOW

No. 189,912.

Patented April 24, 1877.



WITNESSES:

E. Wolff.
J. N. Scarborough.

INVENTOR:

C. Atkinson.

BY

Munnell

ATTORNEYS.

UNITED STATES PATENT OFFICE.

CHARLES ATKINSON, OF MONTEREY, ILLINOIS.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. **189,912**, dated April 24, 1877; application filed February 17, 1877.

To all whom it may concern:

Be it known that I, CHARLES ATKINSON, of Monterey, in the county of Calhoun and State of Illinois, have invented a new and useful Improvement in Double Trench and Subsoil Plow, of which the following is a specification:

Figure 1 is a vertical longitudinal section of my improved plow, taken through the line *x x*, Fig. 2. Fig. 2 is a top view of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved plow for opening trenches and subsoiling, which shall be so constructed as to clear itself in opening trenches, and which shall be simple in construction, and readily adjusted to work at any desired depth in the ground.

The invention will first be described in connection with the drawing, and then pointed out in the claims.

A represents the wheels, which revolve upon the journals of the axle B. To the axle B, near its ends, are attached the rear ends of two rods or bars, C, which incline toward each other, and the forward ends of which are pivoted to the opposite sides of the forward end of the beam D by a bolt. To the axle B are attached two upright guides, E, which project upward upon the opposite sides of the beam D, as shown in the drawings. The beam D is made of two parallel bars, which are secured to each other by bolts, the said bolts also serving to keep the upright parts of the plow in place. F is a rotary cutter, which is pivoted to the standard G, which passes up between the bars of the beam D, and is kept in place by bolts passing through said beam. H is the plow-standard, the upper end of which passes up between the parts of the beam D, and is secured in place by bolts passing through said beam. I are the double mold-boards, which are made in the proportion of twelve inches wide by twenty inches long. This proportion is necessary to enable the plow to clear itself when opening trenches. The upper ends of the mold-boards I are supported by braces J, the inner ends of which are bolted to the rear end of the beam D.

The plow-standard H and the mold-boards

I are strengthened by the brace K and curved bar L. The upper end of the brace K passes up between the rear ends of the bars of the beam D, and its lower end is secured to the center of the curved bar L, the ends of which are secured to the lower parts of the mold-boards I.

The standard H is made hollow, or is grooved upon its rear side, to receive the standard M, which is further kept in place by guides formed upon, or attached to, the curved bar L.

To the lower end of the standard M is attached the subsoil-plow N. The upper end of the standard M passes between the parts of the beam D, and to it is pivoted an eccentric lever, O, the eccentric of which rests upon the top of the beam D, so that, by operating the eccentric lever O, the subsoil-plow may be raised, lowered, and adjusted to work at any desired depth in the ground.

To and between the parts of the beam D, directly over the axle B, is pivoted an eccentric lever, P, the eccentric of which rests upon the axle B, so that by operating the said lever the forward end of the beam D may be raised and lowered to adjust it, to cause the plow to work at any desired depth in the ground.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of the following elements: the double plow I, to turn opposite furrows, the rolling colter F, to divide the same, and the subsoiler M N, having cam O, all regulated in working depth by the cam-lever P raising the plow-beam upon the axle B, substantially as shown and described.

2. The combination of the eccentric lever O with the subsoil-standard M and the plow-beam D, substantially as herein shown and described.

3. The combination, with the mold-boards I, of the braces J K and bar L, constructed and arranged substantially as and for the purpose specified.

CHARLES ATKINSON.

Witnesses:

WM. BATCHELDER,
S. A. WHITE.