W. L. PAUL.

PLOW.

APPLICATION FILED JUNE 11, 1910.

1,025,830.

Patented May 7, 1912.

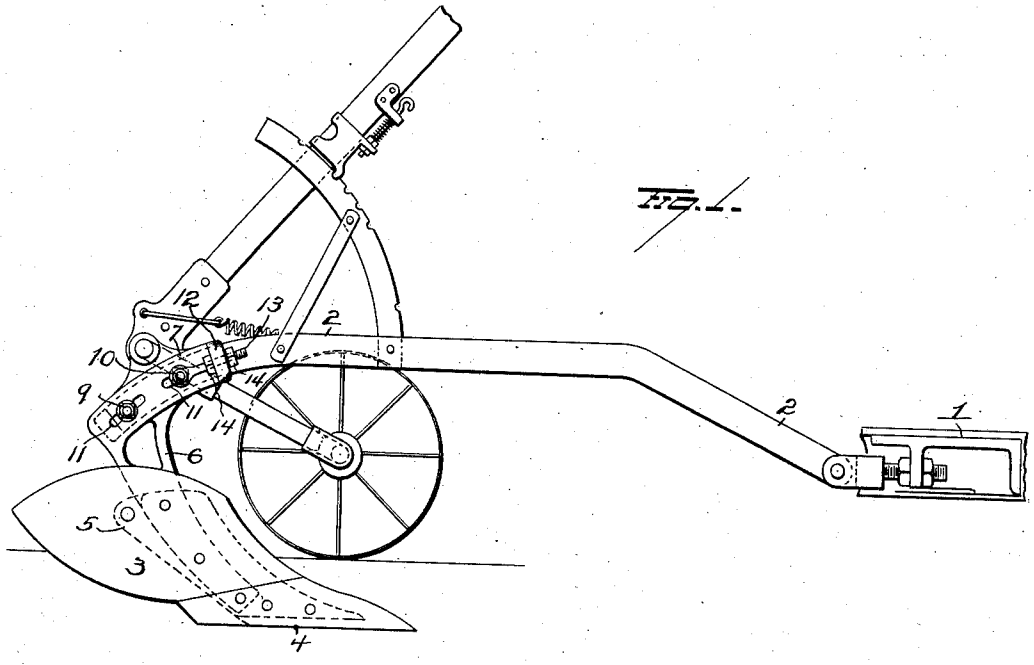

FIG. 1.

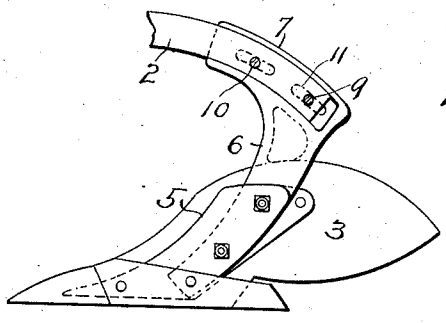

FIG. 2.

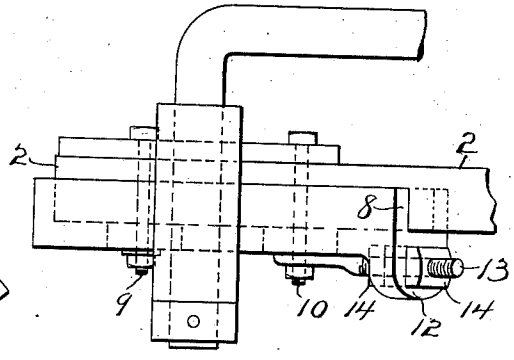

FIG. 3.

WITNESSES

E. L. Nottingham

G. F. Downing

INVENTOR

W. L. Paul

By A. G. Seymour

Attorney

UNITED STATES PATENT OFFICE.

WILLIAM L. PAUL, OF SOUTH BEND, INDIANA, ASSIGNOR TO OLIVER CHILLED PLOW WORKS, OF SOUTH BEND, INDIANA.

PLOW.

1,025,830. Specification of Letters Patent. Patented May 7, 1912.

Application filed June 11, 1910. Serial No. 566,418.

To all whom it may concern:

Be it known that I, WILLIAM L. PAUL, of South Bend, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Plows; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in plows and more particularly to such as are adaptable for use with "engine gang plow" construction in which the soil engaging member and standards are subjected to considerable strain.

With prior constructions, the standard and frog (where a standard has been bolted to the rear end of the beam as distinguished from the type of plow in which the beam is continuous to form the standard bolted to the frog) have usually been made integral. In this case, when a standard breaks by reason of the plow running into an immovable obstruction, it becomes a laborious task to replace the same because all the plow parts or soil engaging parts are fitted and held by bolts directly to the standard. When these bolts are removed they can seldom be replaced and permit the smooth surface which the soil engaging parts require for perfect working.

One object of my present invention is to obviate the difficulties heretofore encountered with plows used in engine gang plow constructions, in which the soil engaging parts are secured directly to a standard integral with the plow beam, and to provide a structure which will permit the ready repair of a plow should a standard break and to so construct the standard that it will break before some other more expensive part of the structure will be submitted to sufficient strain to break the same.

A further object is to provide a plow structure in which the suction or dip of the soil engaging member can be easily and quickly effected without (during the making of such adjustment) causing said soil engaging member to advance or go backward or rise or descend to a great extent.

With these objects in view the invention consists in certain novel features of construction and combinations of parts as hereinafter set forth and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a plow showing an embodiment of my invention, and Figs. 2 and 3 are detail views.

1 represents a portion of the truck or traveling member of an engine gang plow structure and provided with suitable devices for the pivotal attachment of the forward end of a plow beam 2,—with the rear end of which latter, a soil engaging member 3 is connected. The rear portion of the beam 2 is curved in the arc of a circle of which the point 4 on the soil engaging member is laterally opposite the center. The soil engaging member 3 is secured to a frog 5 and to the latter, the lower end of my improved standard 6 is securely bolted. The upper end of the standard 6 is made with an elongated portion 7 having a curved seat for the accommodation of the rear curved portion of the beam and with a flange 8 resting upon said curved portion of the beam. The upper elongated portion of the standard is secured to the rear end of the beam 2 by means of bolts 9—10 passing transversely through the beam and through elongated slots 11 in the elongated upper end of the standard. The forward end of the elongated portion 7 of the standard is provided with an enlargement 12 through which a threaded eye bolt 13 freely passes,—one end of said bolt being connected with the bolt 10 and said bolt 13 is normally retained in position by means of nuts 14 engaging the respective faces of the enlargement 12. By loosening the nuts on the bolts 9—10 and one or the other of the nuts 14, the standard can be moved on the curved portion of the beam. In this manner the suction or dip of the plow engaging member can be adjusted. Thus when it is desired to give the plow more suction,—*i. e.*, dip the point down lower relatively to the heel of the soil engaging member,—the standard will be slid forwardly on the beam, the eye bolt 13 serving to assist in making this adjustment and also to hold the standard in fixed position on the beam.

It will be observed that with the construction above described, the point of the soil engaging member does not (during the making of the adjustment) advance or recede, nor does it rise or descend to a great extent, which is quite a desirable feature in structures of the type to which my invention relates.

The standard 6 is made weak enough to break before any other expensive part can break or bend out of shape, but said standard is of sufficient strength to withstand ordinary usage and will break only when subjected to strain incident to the engagement of the soil engaging member with an obstruction which will not yield.

Having fully described my invention what I claim as new and desire to secure by Letters-Patent, is,—

1. The combination with a plow beam, a soil engaging member comprising a mold board, land-side and point, and a standard connected with said soil-engaging member, of means connecting the standard with the beam and affording adjustment of the soil engaging member in the arc of a circle the center of which is located in the plane of the bottom of the soil-engaging member rearwardly of the point of the same.

2. The combination with a plow beam terminating at its rear end in a downward curved portion, and a soil-engaging member comprising a mold-board, land-side and point, of a standard connected with the soil engaging member having a curved enlargement at its upper end concentric with a circle, the center of which is located in the plane of the bottom of the soil-engaging member rearwardly of the point of the same, and means adjustably securing said enlargement to the curved rear end of the beam.

3. The combination with a plow beam, and a soil-engaging member comprising a mold-board, a land-side and a point, of a standard connected with the soil-engaging member having an enlargement at its upper end curved in the arc of a circle, the center of which is located in the plane of the bottom of the soil-engaging member rearwardly of the point and forwardly of the heel of the land-side of said soil-engaging member, the enlargement on the standard having elongated slots, and bolts passing through said slots and the beam.

4. The combination with a plow beam terminating at its rear end in a downwardly curved portion, and a soil-engaging member, of a standard connected with the soil-engaging member, said standard having an enlargement at its upper end, said enlargement being curved concentric with a circle, the center of which is located in the plane of the bottom of the soil-engaging member rearwardly of the point and forwardly of the rear end of said soil engaging member, said enlargement lying parallel with the curved rear end of the beam and provided with elongated slots, bolts passing through said slots and the beam, and means for moving said enlargement to adjust the soil-engaging member in an arc of a circle concentric with the center of the circle of which the enlargement on the standard and the rear end of the beam form segments.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

WILLIAM L. PAUL.

Witnesses:
R. S. FERGUSON,
E. I. NOTTINGHAM.