A. G. PERRY.

PLOW.

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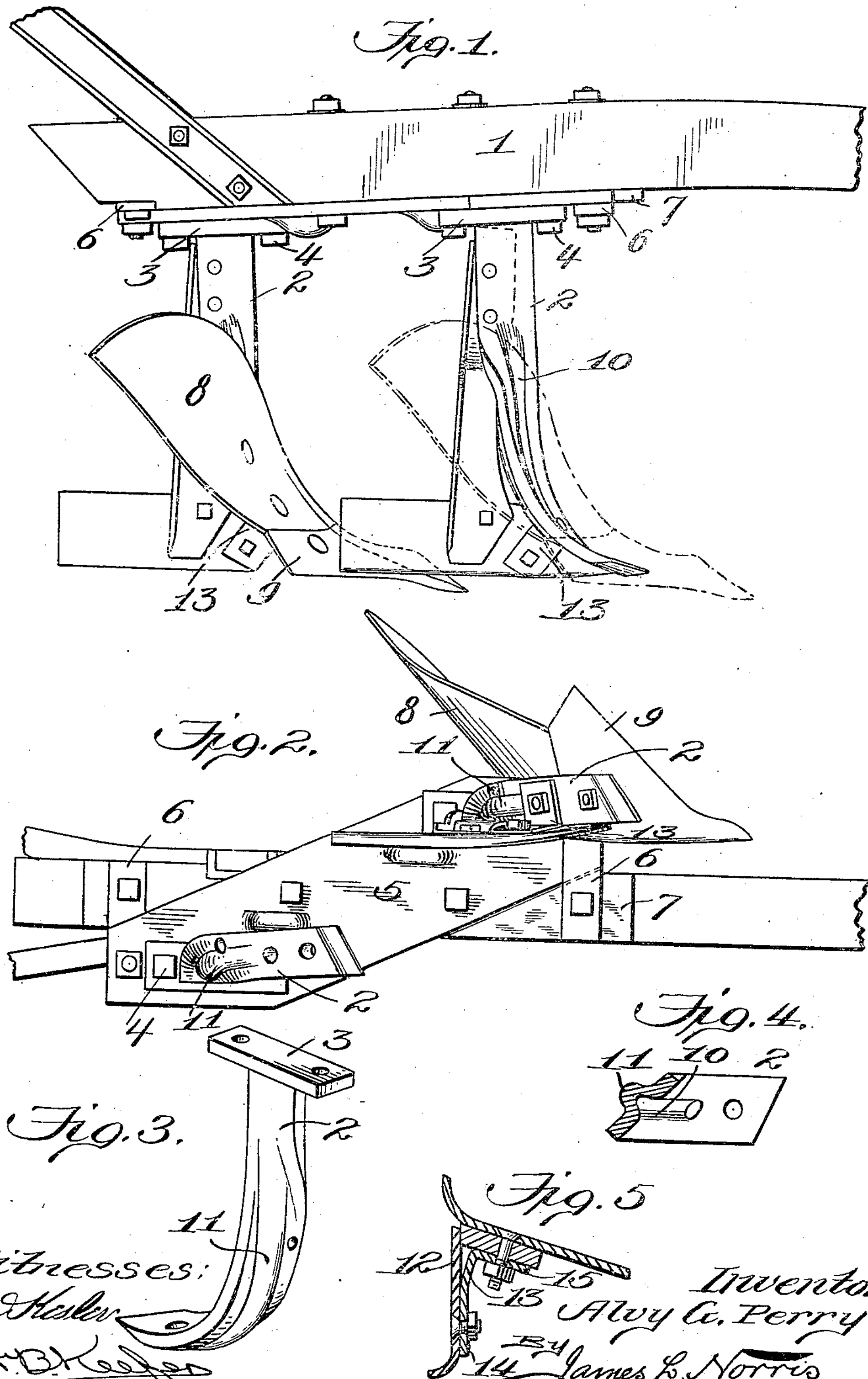

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UNITED STATES PATENT OFFICE.

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PLOW.

946,461. Specification of Letters Patent. Patented Jan. 11, 1910.

Application filed December 2, 1908. Serial No. 465,700.

To all whom it may concern:

Be it known that I, ALVY G. PERRY, a citizen of the United States, residing at Coldwater, in the county of Tate and State of Mississippi, have invented new and useful Improvements in Plows, of which the following is a specification.

My present invention relates to improvements in plows, and it has for one of its objects to provide an improved standard for the attachment of the mold board and share, the standard being ribbed and grooved longitudinally to stiffen it and thereby prevent bending owing to such strains as may be imposed upon it when obstructions are encountered, and the standard moreover has a twist about a longitudinal axis to reinforce and stiffen it from such lateral strains to which it may be subjected.

Another object of the invention is to provide an improved reinforcement for the land side of the plow, this reinforcement being preferably in the form of a bracket or elbow one arm of which is secured to the inner surface of the land side and its other arm is secured to the rear side of the plow standard, such a construction insuring the requisite rigidity between the plow standard and land side and avoiding the necessity of recessing the standard as would be necessary should the bracket be arranged between the forward side of the standard and the plow share.

A further object of the invention is to provide improved means for securing the standard to the plow beam whereby the necessity of bending the cross braces is avoided, a filling block being arranged between the cross brace and the under side of the plow beam whereby it is possible to secure the braces to the beam without the necessity of bending them, the cost of manufacture of the plow being thereby reduced.

To these and other ends, the invention conssits in certain improvements, and combinations and arrangements of parts, all as will be hereinafter more fully described, the novel features being pointed out particularly in the claims at the end of the specification.

In the accompanying drawing: Figure 1 is a side elevation of a plow constructed in accordance with my present invention, a double plow being shown in that instance; Fig. 2 represents a bottom plan view of the plow shown in Fig. 1 one of the plows being removed; Fig. 3 is a perspective view of one of the plow standards removed from the plow beam; Fig. 4 represents a transverse section of the plow standard showing the twist and the reinforcing groove and rib; and Fig. 5 represents a detail sectional view of the plow standard, share and land side showing the reinforcing bracket applied thereto.

Similar parts are designated by the same reference characters in the several views.

The improvements provided by the present invention are capable of use generally in connection with plows of various kinds, although I have shown such improvements as applied to a double turning plow in the accompanying drawing.

In the present instance, the plow consists of a plow beam 1 to which a pair of plow standards are attached, these plow standards being arranged one in advance of the other and offset laterally. The construction of each plow element in the present instance is the same, and a description of one will be sufficient for both. Each plow element comprises a plow standard 2 the upper end of which has a perforated plate 3 whereby it may be secured to the plow beam by means of the bolts 4, this plate resting upon a diagonally-extending plate 5 which engages the under side of the beam. In order to effectually secure the plow standards and the plate 5 to the plow beam, a pair of cross braces 6 are provided, one end of each cross brace being bolted to the under side of the plate 5 and its opposite end extends beneath the plow beam. Owing to the thickness of the plate 5, however, the inner end of each cross brace will not bear upon the under side of the beam, and in order to avoid offsetting the ends of the braces, a filling block 7 is interposed between the under side of the beam and each brace, these blocks being each of a thickness equal to the thickness of the plate 5 and they are cut diagonally so as to fit snugly against the adjacent diagonal edges of the said plate. The standard is formed preferably of flat stock, its upper end being so formed that the material is presented edgewise to the direction of movement of the plow so as to effectually prevent bending of the standard due to obstructions encountered, and in order to provide appropriate surfaces for the attachment of the mold board 8 and the plow share 9, the lower end of the standard is curved forwardly whereby the plow share and mold board will be set

at the proper angle. The standard is also provided with a twist which twist is produced about the longitudinal axis of the standard and at a point adjacent to the top of the mold board, this torsional twist of the standard being slightly less than a quarter turn so that the forward flat face of the standard to which the mold board and plow share are attached will set at the proper angle. In order to sufficiently reinforce the standard from bending due to the strain imposed owing to the share encountering obstructions, a longitudinal crease or groove 10 is formed in the standard and proceeds from the shank thereof to a point in proximity to its forward lower edge. This groove or crease produces a corresponding rib 11 which projects from the rear side of the standard, and the flanged effect given the standard materially stiffens it in a longitudinal direction. The mold board and share may be bolted to the forward face of the standard, as usual, as the rib is arranged at the rear side of the standard and the forward face of the standard, owing to this crease or groove in its center, forms a pair of flat surfaces adjacent to the longitudinal edges of the standard to receive the mold board. The land side 12 is also reinforced as shown in Fig. 5 by an outwardly curved lower edge and is secured to the lower portion of the standard in an improved manner, a bracket or elbow 13 being provided one arm 14 of which is bolted to the inner surface of the land side while its opposite arm 15 is bolted to the rear side of the standard. This bracket or elbow serves to effectually secure the land side in its proper angular relation to the standard and, when so secured, it is unnecessary to recess the standard for the reception of the appropriate attaching arm of the bracket. By providing the standard with a longitudinally extending groove and rib as described, a very rigid and strong construction is obtained, particularly when the groove and rib extend through the torsionally-twisted portion of the standard for, in such cases, the standard cannot become bent either due to obstructions encountered by the plow share, nor can it be bent laterally or by a side strain. The land side of the mold board is also shown in the present instance as having a forwardly directed flange or rib adjacent to its lower edge as shown in Fig. 5.

I claim as my invention:

1. A plow standard composed of flat metal and having its lower portion curved forwardly and having a twist about a longitudinal axis, a crease or groove extending longitudinally at the forward side of the standard and through the said twist therein, the forward side of the standard being adapted for the attachment of the mold board and share.

2. The combination of a plow beam, and a plow standard having an upper attaching end secured to the beam and composed of flat metal which is presented edgewise to the length of the beam, the intermediate portion of the standard being twisted about a longitudinal axis and the lower end of the beam being shaped to receive a plow share, the forward side of the flat metal standard being provided with a longitudinal groove which extends continuously throughout the twisted portion of the standard forming a corresponding reinforcing rib which projects from the rear side of the standard.

3. In a turning plow, the combination of a plow standard having a downwardly and forwardly curved lower end, a plow point and mold board seated upon the downwardly and forwardly curved portion of the standard and adapted to contact therewith from the top of the mold board to the bottom of the standard, a land side, and a bracket for connecting the forward portion of the land side to the standard, said bracket being in the form of an elbow one arm of which is secured to the land side and the other arm being secured to the rear side of the standard, the mold board and plow point receiving surface at the front of the standard being continuous or uninterrupted.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ALVY GREEN PERRY.

Witnesses:
A. S. Poe,
W. F. Cate.