(No Model.) 2 Sheets—Sheet 1.

J. PENTREATH.

PLOW.

No. 354,215. Patented Dec. 14, 1886.

Fig. 1.

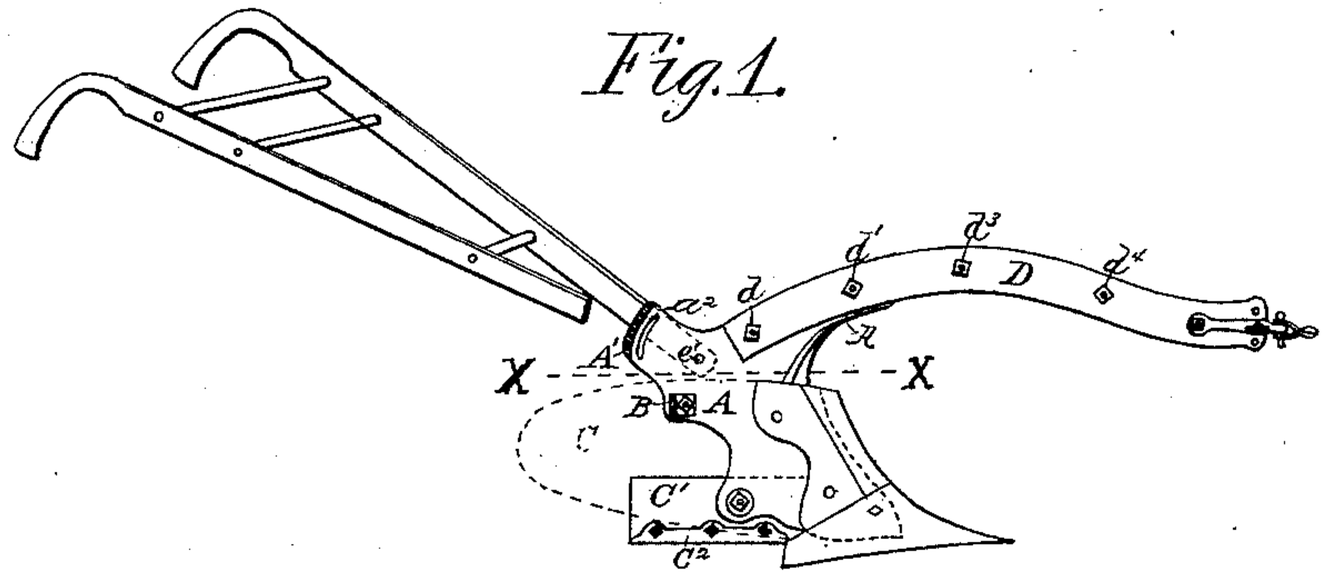


Fig. 2.

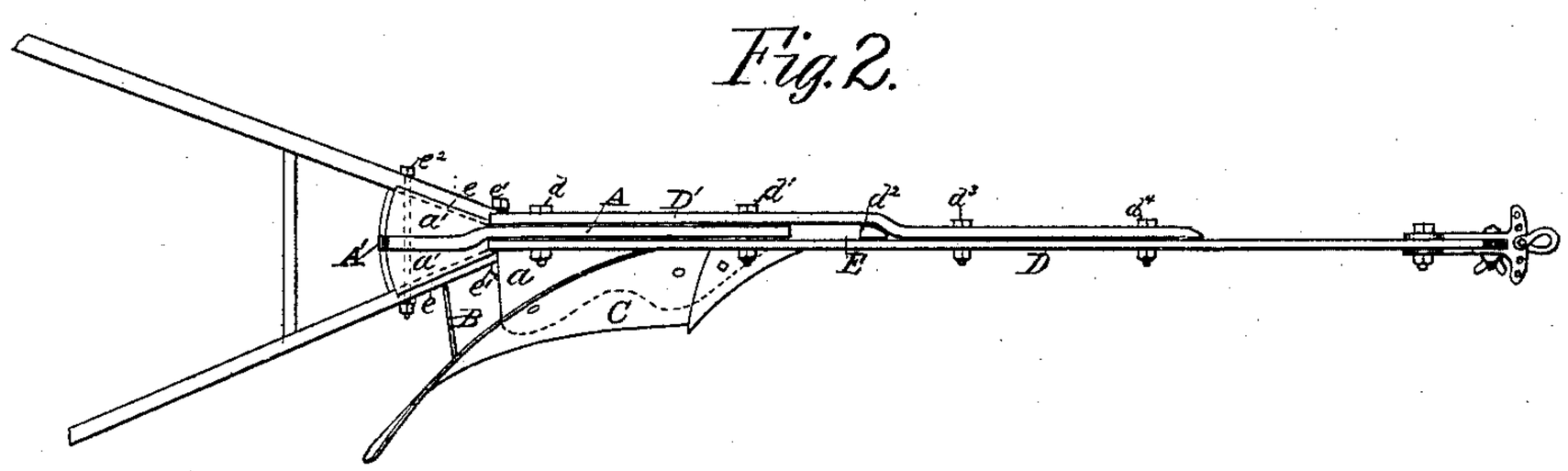


Fig. 3.

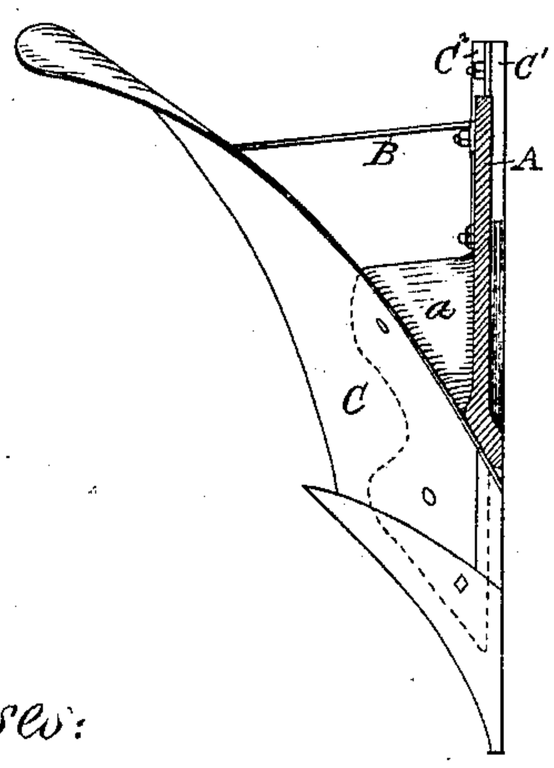
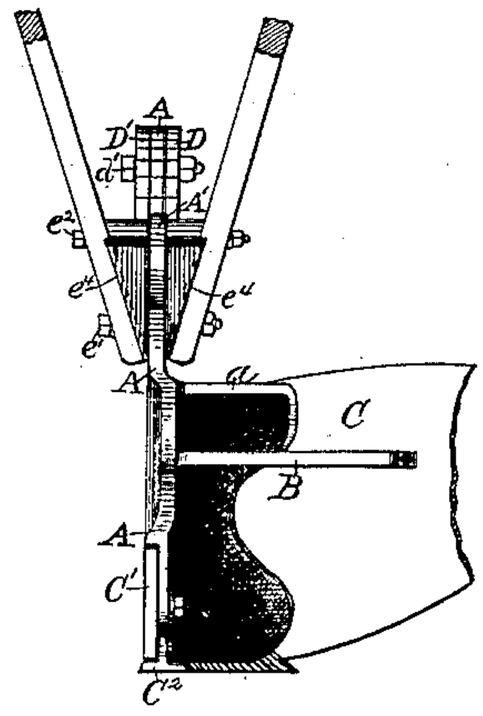


Fig. 4.



Witnesses:

A. B. Dodge.

A. B. Slade

Inventor

John Pentreath

By Wm. M. Cuthbert.

Attorney.

(No Model.) 2 Sheets—Sheet 2.

J. PENTREATH.

PLOW.

No. 354,215. Patented Dec. 14, 1886.

Fig. 5.

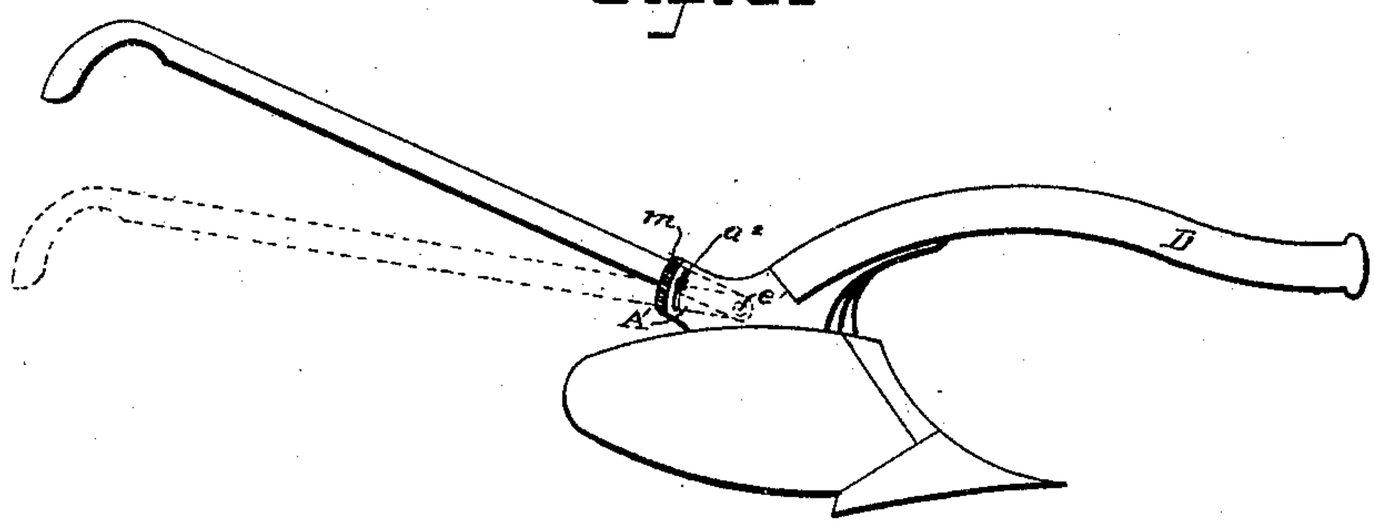


Fig. 6.

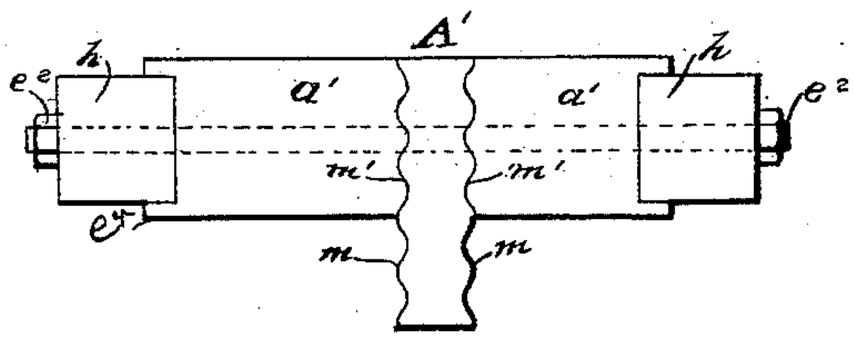


Fig. 8.

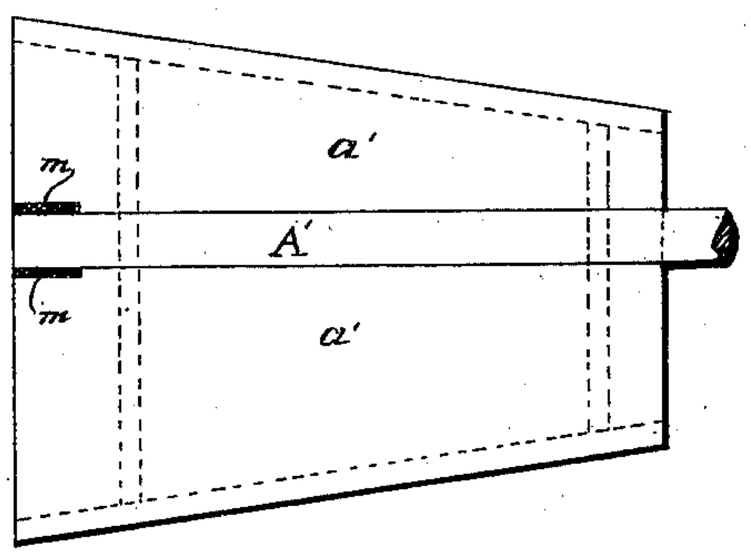


Fig. 7.

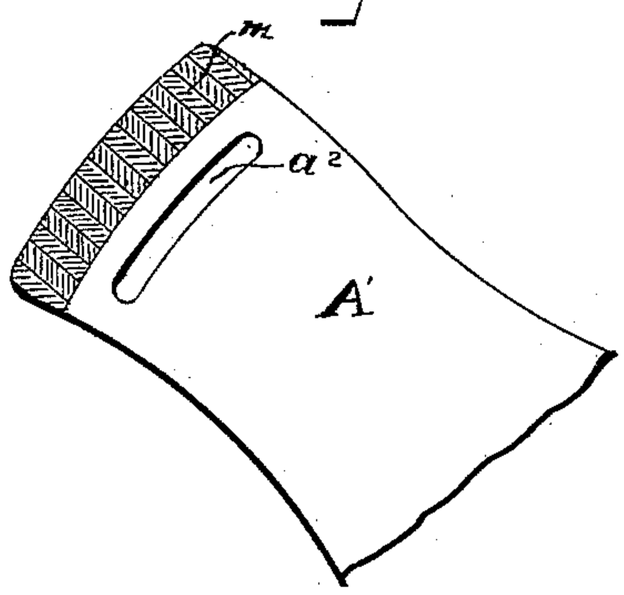
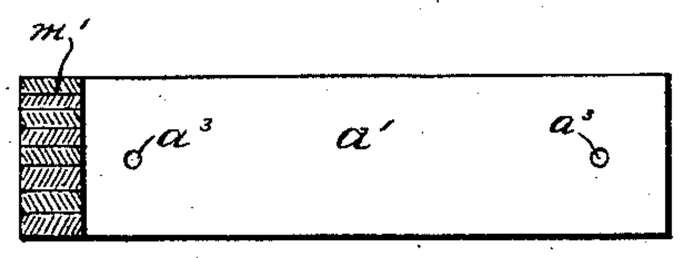


Fig. 9.



Witnesses

Wallace Metcalf

Geo. H. Jones

Inventor

John Pentreath

By W. M. Cuthbert,

Attorney.

UNITED STATES PATENT OFFICE.

JOHN PENTREATH, OF YONKERS, NEW YORK.

PLOW.

SPECIFICATION forming part of Letters Patent No. 354,215, dated December 14, 1886.

Application filed December 4, 1885. Serial No. 184,666. (No model.)

To all whom it may concern:

Be it known that I, JOHN PENTREATH, a citizen of the United States, residing at Yonkers, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Plows, of which the following is a specification.

The object of my invention is durability and strength in the construction and relation of the several parts, especially the beam, standard, mold-board, and landside; also, the vertical adjustment of the handles. I attain these objects by the mechanism illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective view of a plow in which my improvements are embodied, all the parts being in proper relation to each other, the mold-board being shown by dotted lines. Fig. 2 is a top or plan view of the same. Fig. 3 is a horizontal section of the standard of the plow and a top view of the mold-board as braced by a projecting wing of the standard and a brace rod or bar, the section being at line *x x* of Fig. 1. Fig. 4 is a vertical elevation of Fig. 1, taken at the rear of the plow, a part of the mold-board and handles being removed. Fig. 5 is a vertical side view of a plow, and shows two positions in which the plow-handles may be placed or adjusted to by the adjusting mechanism, hereinafter set forth. Fig. 6 is a rear vertical view of the standard, blocks, and plow-handles, the handles being in section, and show the corrugations of the standards and blocks interlocked. Fig. 8 is a top view of the rear projection of the standard, (removed from the standard,) the two blocks, and the bolt, and show the series of corrugations on the standard projecting above the faces thereof and the corrugations on the blocks below their bearing-faces. Fig. 7 is a detail of the rear of the standard, showing the series of corrugations on one face and a vertical slot. Fig. 9 is a front view of the face of one of the blocks which bears against the standard and shows its series of corrugations; also, two bolt-holes.

Similar letters of reference refer to similar parts throughout the views.

A is the plow-standard curved forward at the front so as to give a large bearing-surface for the attachment of the beam and its re-enforcement. At the rear it has a short wide projection, A′, which is bent to the right to be in the line of draft of the beam. The lateral faces of this projection or head are divided into two parts separated by the vertical slot a^2. (See Fig. 8.) The first part consists of a series of short longitudinal corrugations, *m*, which project above the other or second part, which is a flat bearing.

a' a' are two metal blocks placed one on each side of the projection A′. Said blocks flare toward the rear, and have top and bottom lateral projecting flanges, e^4, which receive and securely clasp the lower ends of the plow-handles. The inner faces of these blocks a' a' are (like the head A′) divided into two parts, the first part being a series of short longitudinal corrugations, *m*, which are sunk below the other or second part, which is a flat bearing-surface, S′, these two parts having the bolt-hole e^2 between them, the corrugations *m′* corresponding to and receiving the corrugations *m* of the head A′, and the bearing-face S′ of said blocks corresponds to and bears upon the bearing-face S of the head A′ when the said parts are in proper adjustment the one to the other.

e' is a bolt which passes through the points of the handles, the lower ends of the blocks, and the standards, and binds all these parts together, and also acts as a pivot on which the handles and blocks turn.

e^2 is a bolt which passes through the handles and blocks at their rear or wide ends, and through the slot a^2 of the standard projection A′, and secures these parts together, the corrugations *m* and *m′* meshing into each other and are so held by this bolt. It will be seen that when the binding-bolts e' e^2 are screwed up the bearing-faces *s* and *s′* of the head A′ and the blocks receive the lateral pressure and protect the corrugations from being broken, and that the corrugations act to hold the handles to the desired vertical adjustment; and, further, it will be seen that by slightly unscrewing the nuts of these two bolts the corrugations *m m′* will separate and the handles can then be moved up to the position shown by the lines in Fig. 5, or down to that shown by

the dotted lines in the same figure, or adjusted to any other height between these two points, as may be desired.

a is a wing which projects from the right side of the standard A. Its outer edge is of the contour of the mold-board which it supports. On its under side it connects with the body of the plow. (See Figs. 3 and 4.)

C′ is a steel landside provided with a shoe, C^2, made of hard cast-iron in the shape of an inverted T. It is several inches long, like a T-rail, and its stem is placed along the inside of the landside to which it bolts. Its cross part on one side of the stem extends under the landside at its rear end and rests or bears on the ground and receives all the wear which would otherwise fall upon the heel of the landside. (See Figs. 1 and 4.)

B is a brace rod or bar bolted to the inside of the standard A, a little to the rear of and below the wing *a*. It extends transversely to the inside of the mold-board, to which it is bolted, and serves as a brace.

D is the plow-beam. It is constructed of steel, that portion of it which connects to the standard being curved to correspond thereto, and that part which extends in front of the standard is curved, as shown in Figs. 1 and 5. It is placed on the right side of the standard A, in front of the lateral bend of the rear standard projection, A′.

D′ is a re-enforcing piece to the beam D. At its rear it is curved to correspond to the form of the standard A, on the left side of which it is placed and parallel to the beam D, the beam and its re-enforcement being firmly bolted to the standard by the bolts *d d′*, as shown in Fig. 1. The piece D′ extends beyond the front of the standard, and at about eight inches therefrom it is bent over a short metal block, d^2, which is of the same thickness as the standard, to the right, so as to bring its right side or face into contact or bearing with the left side or face of the beam D, to which it is firmly secured by the bolts d^3 d^4. A space or mortise, E, is thus formed between the rear of block d^2 and the front of the standard, which is used for the attachment of a jointer or any similar implement.

It will be seen that by the construction of the plow as herein described it is very durable, and that the beam, mold-board, and landside cannot be broken by use or any ordinary accident, and are lighter than wood; also, that the metal blocks give a firm support to the handles by means of their flanges, these blocks and the handles being all secured to each other by the bolts e' e^2, and move with each other as one piece when the handles are being adjusted up or down, as in practice it is not necessary to withdraw the bolt e^2, but only to loosen the nut enough to permit the disengagement of the corrugations *m* and *m′* and to slightly loosen the nut on bolt *e′*. The handles can then be moved to the desired adjustment, as the bolt e^2 will move freely in the slot a^2.

I claim—

The plow-standard A, having the corrugated head A′, and the curved slot a^2, in combination with the blocks *a′*, having outer flanges, e^4, and inner corrugations, *m′*, the plow-handles, and the bolts e' e^2, substantially as shown and described.

JOHN PENTREATH.

Witnesses:
NELSON L. ACKERT,
JOHN W. PENTREATH.