E. BALL.

Plow.

No. 46,321 Patented Feb. 14. 1865.

Fig. 1.

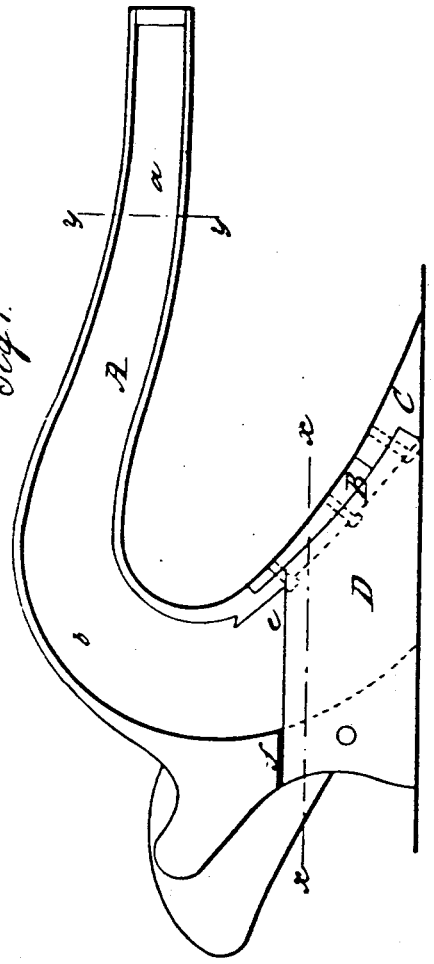
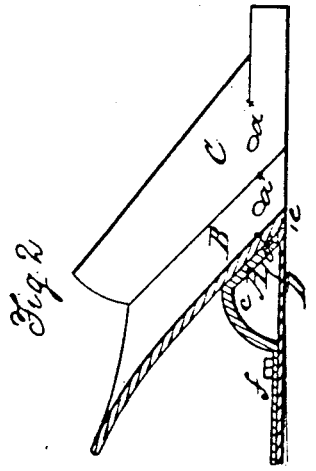


Fig. 3.

Fig. 2



Witnesses:
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UNITED STATES PATENT OFFICE.

E. BALL, OF NORTH MANCHESTER, INDIANA.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. **46,321**, dated February 14, 1865.

To all whom it may concern:

Be it known that I, E. BALL, of North Manchester, in the county of Wabash and State of Indiana, have invented a new and Improved Plow; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of my invention; Fig. 2, a horizontal section of the same, taken in the line *x x*, Fig. 1; Fig. 3, a transverse section of the same, taken in the line *y y*, Fig. 1.

Similar letters of reference indicate like parts.

This invention relates to an improvement in that class of plows in which a cast-iron beam is employed; and it consists in casting said beam of concave form at its land side, as hereinafter fully shown and described, whereby strength with lightness is obtained, and the point or share and mold-board attached to the beam with greater facility than hitherto.

The beam A is cast in one piece and of curved form, the front part, *a*, being slightly concave at its upper surface in a longitudinal direction, and rounded in semicircular form at its rear part, as shown at *b*, and then extending downward and forward, as shown at *c*, the beam gradually increasing in thickness from the front of *b* to the lower end of *c*. The beam is also of curved form in its transverse section, as shown in Figs. 2 and 3, the part *a* being about of semicircular form, as shown in Fig. 3, the concave being at the land side. The rear and lower part of the beam is of straight form at a portion of its convex side, as shown in Fig. 2 at *d*, and this straight portion has the mold-board B and shoe C secured to it by bolts *a'*, the nuts being at the concave side of the beam.

The landside D is secured to the beam by a dovetail, *e*, at its front end, as shown in Fig. 2, said dovetail being formed by a V-shaped groove at the front of the beam, and having the front end of the landside beveled to fit into said groove, its rear part being bolted to a flange, *f*, cast with the beam at its rear part.

By this simple arrangement I obtain a cast-iron beam of great strength and lightness, and one which admits of the share and landside being secured to it with the greatest facility.

I claim as new and desire to secure by Letters Patent—

1. A cast-iron plow-beam of curved form longitudinally and transversely, and the lower and rear part having a straight portion or surface for the attachment of the share and mold-board, substantially as shown and described.

2. Attaching the landside D to the beam by means of the dovetail *e* at its front end and a bolt passing through the landside, and a flange, *f*, at the rear of the beam, as set forth.

E. BALL.

Witnesses:
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