2 Sheets--Sheet I.

E. WIARD.

Plows.

No. 142,136. Patented August 26, 1873.

Fig. 1

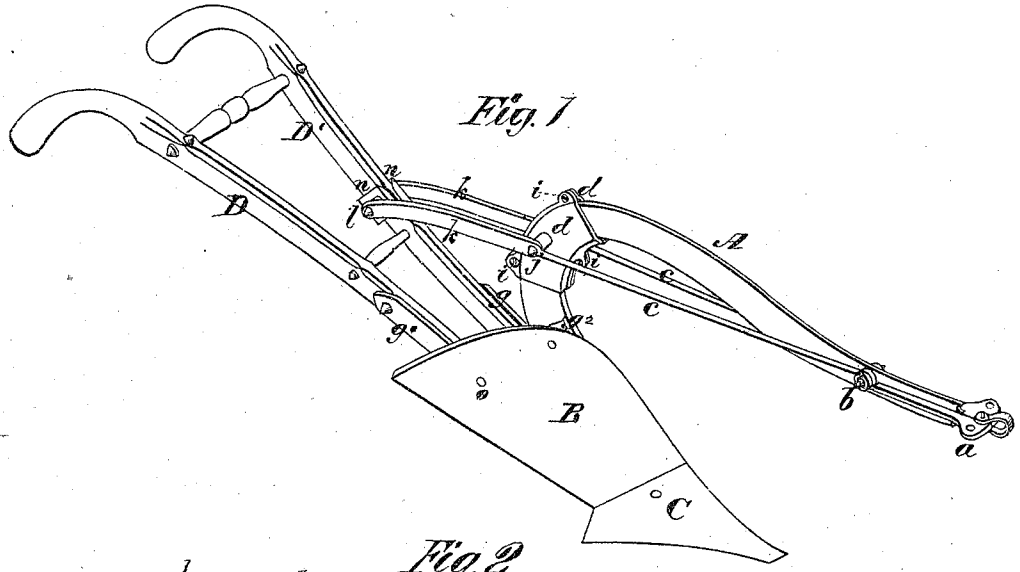


Fig. 2

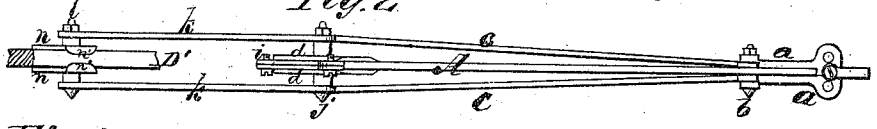


Fig. 3

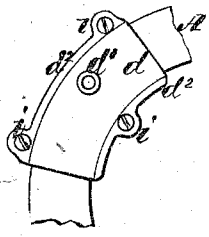


Fig. 4

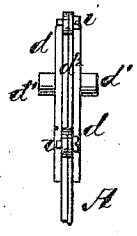


Fig. 5

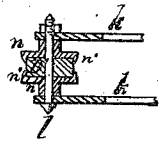


Fig. 6

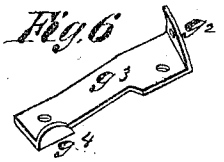
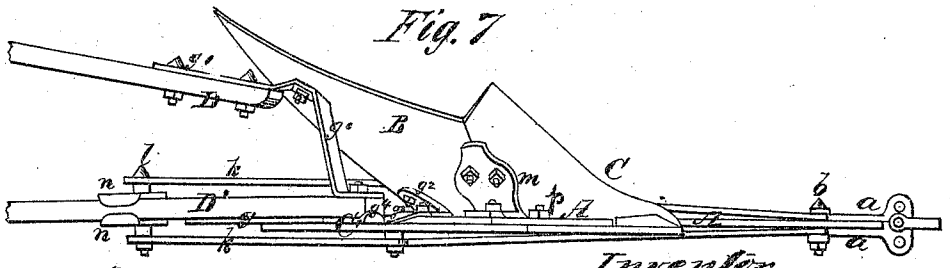


Fig. 7



Witnesses
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J. N. Campbell

Inventor
Edward Wiard
by
Mason Fenwick & Lawrence
Att'ys

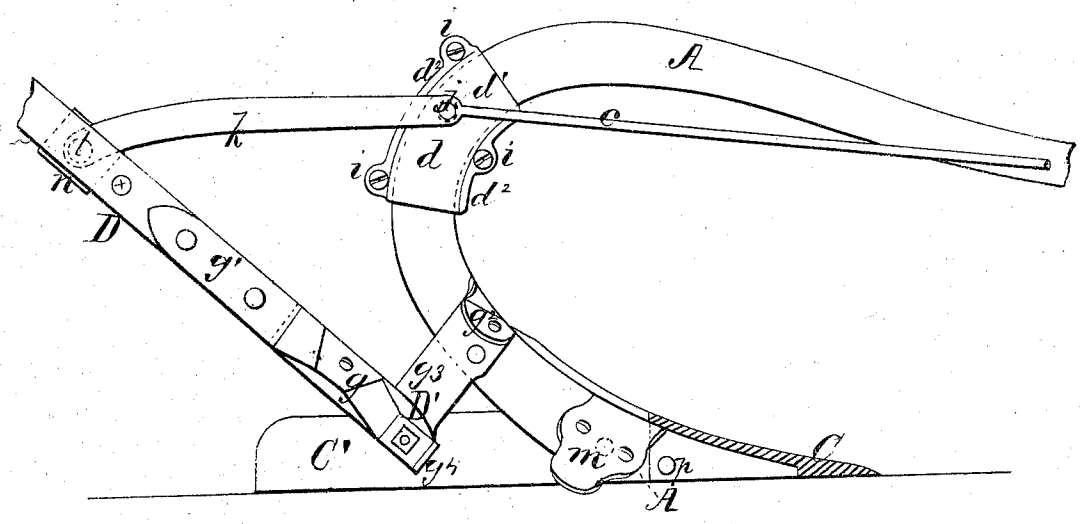
2 Sheets--Sheet 2.

E. WIARD.

Plows.

No. 142,136. Patented August 26, 1873.

Fig. 8



Witnesses.

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N. W. Campbell

Inventor
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UNITED STATES PATENT OFFICE.

EDWARD WIARD, OF LOUISVILLE, KENTUCKY, ASSIGNOR TO BENJAMIN F. AVERY, OF SAME PLACE.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. **142,136**, dated August 26, 1873; application filed July 12, 1873.

To all whom it may concern:

Be it known that I, EDWARD WIARD, of Louisville, in the county of Jefferson and State of Kentucky, have invented certain Improvements in Plows; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1, Plate 1, is an elevation of the mold-board side of the improved plow. Fig. 2, Plate 1, is a top view of the beam and a section through the left-hand handle, showing the truss-braces and clevis. Figs. 3, 4, 5, and 6, Plate 1, are views in detail of several parts of the plow. Fig. 7, Plate 1, is a bottom view of the plow. Fig. 8, Plate 2, is a side view, partly in section, with the mold-board removed.

Similar letters of reference indicate corresponding parts in the several figures.

My invention relates to single mold-board plows; and has for its object bracing, strengthening, and stiffening all parts of a plow in a more substantial manner than hitherto, whereby a light, and at the same time a very strong, plow is obtained, as will be hereinafter explained.

The following description of my invention will enable others skilled in the art to understand it.

In the accompanying drawings, A represents a metallic beam, which is curved behind so as to form also the standard for the plow. B represents the mold-board. C represents the plow point and share, and D D′ represent the handles of the plow. The mold-board and the share, with its point, are secured to the lower curved end of the standard portion of the beam A by means of a bolt, *p*, which is passed through said standard and through the land-side portion of the share and point. I further secure the share to the standard by means of a broad angular plate, *m*, which is bolted to the inside of the standard by a single bolt, which also passes through the land-side bar C′, and by bolts which pass through the share and mold-board. This angular plate *m* not only serves as a means for connecting the land-side, the share, and the lower part of the mold-board to the standard, but it also affords a firm unresisting support for the mold-board and share at their point of junction. The mold-board B is also secured to the standard by means of an angular brace, g^3, which extends from the standard backward and downward, and is secured between the lower end of the handle D′ and land-side bar C′ by means of a single bolt, shown in Fig. 8. The upper end of the brace g^3 is bent at g^2, through which the bolt passes that secures the mold-board to it. The lower part of this brace has a lip or foot, g^4, formed on one side of it, which extends beneath the lower extremity of the beam-handle D′, and affords a firm support therefor. A plate, *g*, is secured rigidly to the handle D′, the lower end of which abuts against the upper edge of the brace g^3. This plate protects the handle from wear, and affords a smooth surface for the earth to slide over. The mold-board is also secured to the two handles D D′ by means of a diagonal spreader, g^1, which also forms a brace. This spreader and brace g^1 is bent, as represented in Figs. 7 and 8, and its ends are firmly bolted to the lower ends of the two handles D D′, while at an intermediate point between its ends it is secured by a bolt, *o*, to the mold-board, and affords a support for this mold-board. The beam A is braced, strengthened, and secured to the beam-handle D′ by the following means: The clevis consists of two pieces, which are pivoted at their ends to the beam A by means of a transverse bolt, to which is also connected the front ends of two rods, *c c*. These rods *c c* extend backward and outward, and are connected by a bolt, *j*, to the extremities of tubes d^1 d^1, which are formed on the sides of two clamps, *d d*. The clamps *d d* are flanged at d^2 and shaped to fit snugly the bend at the junction of the standard with the beam A, and by means of bolts *i* these two clamps are firmly secured on opposite sides of the beam, as clearly shown in the drawings. To the bolt *j* is also secured the front ends of two braces or ties, *k k*, which extend parallel backward, and are secured at their rear extremities to the ends of tubes which are formed on two clasps, *n n*, that embrace the handle D′. The clasps are lipped at *n′ n′*, so that they hug the handle firmly when bolted to it.

It will be seen that the rods *c c*, with the braces *k k*, form ties between the beam A and beam-handle, and also that these rods truss the beam against lateral strain, and enable me to use a very light beam, and at the same time obtain all the strength required.

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

1. The brace-rods *c c*, extending from the clevis-bolt *b* to a bolt, *j*, and connected by braces *k k* to the beam-handle D′, said brace-rods and connecting-rods being spread, substantially as described.

2. The clasps *n n*, constructed with lips and tubes, as described, and secured to the beam-handle D′ by means of a bolt to which the rods *k k* are attached, substantially as described.

3. The flanged clamps *d d*, constructed with tubes d^1 d^1, and confined at the bend of the beam A by means of a bolt, *j*, to which the rear ends of the truss-rods *c c* are connected, substantially as described.

4. The brace g^3, bent at g^2 and g^4, and connected to the mold-board, the standard, and the beam-handle, substantially as described.

5. The spreader-brace g^1, connected to the handle D D′, and having bolted to it the mold-board B, substantially as described.

EDWARD WIARD.

Witnesses:

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CHAS. L. PIPER.