2 Sheets—Sheet 1.

G. A. De LONG.
Hilling-Plow.

No. 201,099. **Patented March 12, 1878.**

Fig. 1.

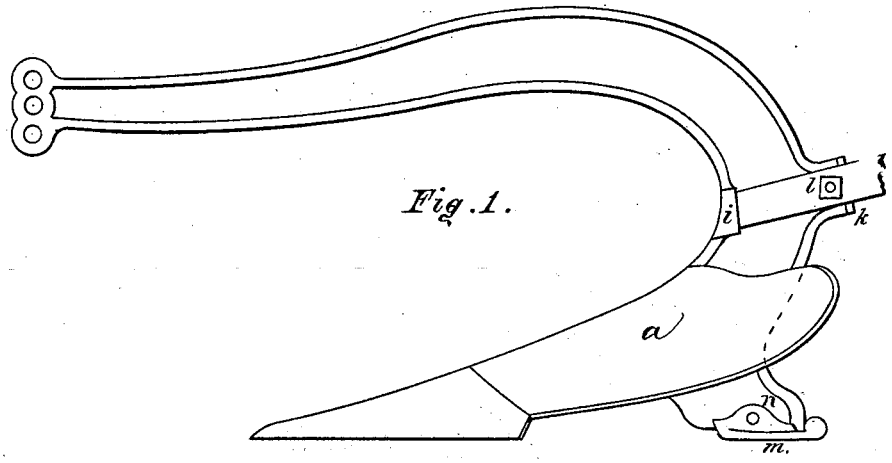
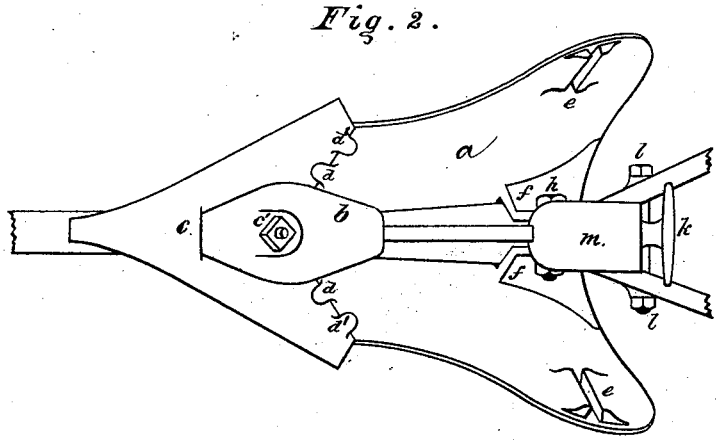


Fig. 2.



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A. Winston.

Inventor:

George A. DeLong
by J. J. Greenough Atty.

2 Sheets—Sheet 2.

G. A. De LONG.
Hilling-Plow.

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Fig. 3.

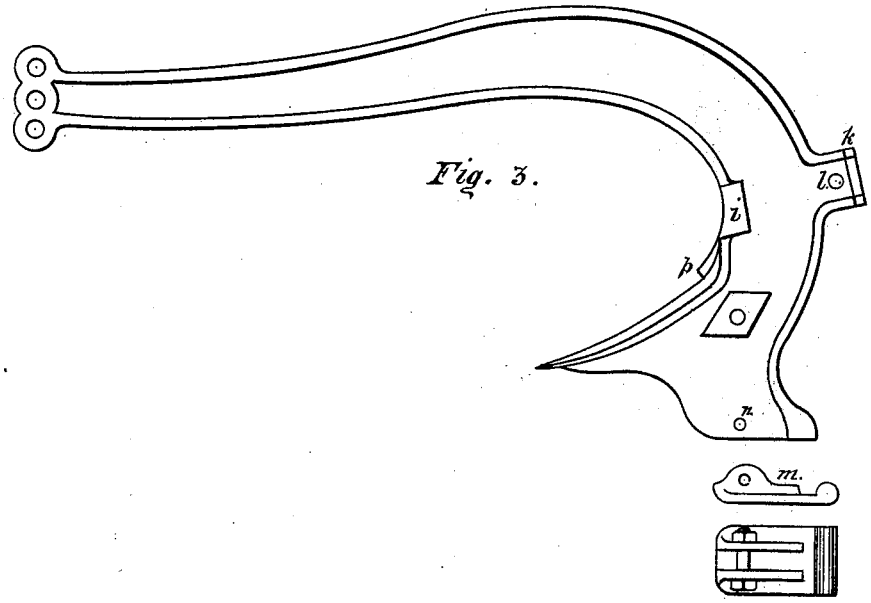
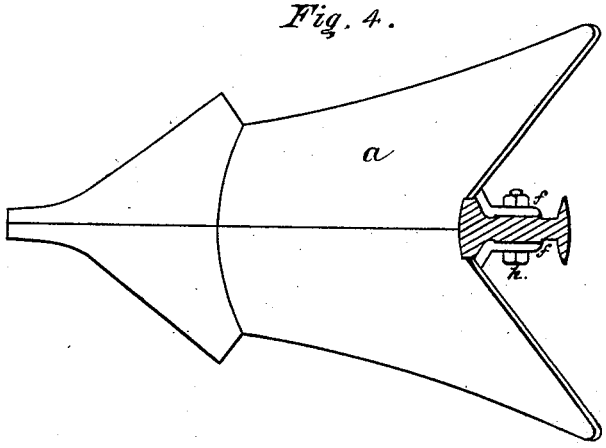


Fig. 4.



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Inventor:

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by J. J. Greenough

Atty

UNITED STATES PATENT OFFICE.

GEORGE A. DE LONG, OF WEEDSPORT, NEW YORK.

IMPROVEMENT IN HILLING-PLOWS.

Specification forming part of Letters Patent No. **201,099**, dated March 12, 1878; application filed January 22, 1878.

To all whom it may concern:

Be it known that I, GEORGE A. DE LONG, of Weedsport, New York, have invented certain Improvements in Hilling-Plows, of which the following is a specification:

The improvements herein described relate to the manner of affixing the point and beam to the mold-board, attachments for wings by which the mold-board is strengthened and braced, and also in the manner of attaching the handles, by which improvements in construction greater strength and permanence are given to the parts, facilitating the molding, casting, and fitting them together, and cheapening and expediting the manufacture. A part of these devices are adapted to other plows.

The construction is as follows, reference being had in the description to the accompanying drawings, which show, in Figure 1, a side elevation of the plow; Fig. 2, a plan of the under side of the point, mold-board, and beam united; Fig. 3, the beam and shoe detached; and, in Fig. 4, a top view of mold-board, showing plan of ears or braces *f*, to hold and brace the beam in place.

The double-winged mold-board *a* has a projection, *b*, on its inner face, projecting beyond its front line under the point *c*, which rests on and is affixed to it (see Fig. 2) by means of a screw-bolt, which is cast into the point without projecting through to its face, and a nut, *c'*. This bolt passes through a hole in the projection *b*, which is so formed as to allow the point to slip into place and lock with the mold-board, and be drawn tight by the nut *c'*.

There are projections *d d'* from the edges of the mold-board and point, on the under side, to securely hold them in place by the use of a single bolt. The wings of the mold-board are strengthened by dovetail cleats at *e e*, that serve to attach extension-wings of wood or metal when needed.

At the upper angle, where the wings meet, two ears or braces, *f f*, are cast, forming a dovetail recess, into which the beam slides and fits, and by which it is braced and held by a single bolt, *h*, passing through them. The lower end of the beam, when in place, fits into a socket in projection *b*, cast on the mold-board.

The beam is of curved form, (shown in Fig. 3,) with a side beading at its edges, formed in front to fit the space between the ears *f f*. The beam has a projection on each side, where the bolt *h* passes through it, for fitting up in the recess, to save filing. There is a projection, *p*, on the front edge of the beam, just over the upper edge of the mold-board, to form a continuous outline therewith, to prevent clogging. Just above this point *p* a loop, *i*, is formed on each side of the beam, to fit the ends of the handles into, and in rear thereof a spreader, *k*, is formed on the beam, against which the handles bear, and are affixed by a horizontal bolt at *l*.

By the above-described construction of parts it will be seen that they are each securely united by a single bolt, and that none of the bolts come through to the wearing-surface, by which any clogging therefrom is avoided. There is a heel-piece cast on the beam, onto which a shoe, *m*, is fitted and supported, forward and back, by proper projections on the heel-piece. A bolt at *n* passes through the sides of the shoe and heel-piece, to hold them together.

Having thus fully described my improvements, I claim—

1. The mold-board *a*, having ears *f f* on the inner face for embracing the beam, and a boss or projection, *b*, forming a socket for securing the lower end of the beam, substantially in the manner and for the purposes specified.

2. The beam constructed as herein specified, and combined with the mold-board by locking into the ears *f* and socket *b*, so that they can be firmly united by a single bolt, substantially as herein set forth.

GEORGE A. DE LONG.

Witnesses:

B. DE LONG,

C. H. WEED.