2 Sheets—Sheet 1.

W. B. ALLEN.

Plow.

No. 214,272. Patented April 15, 1879.

Fig. 1.

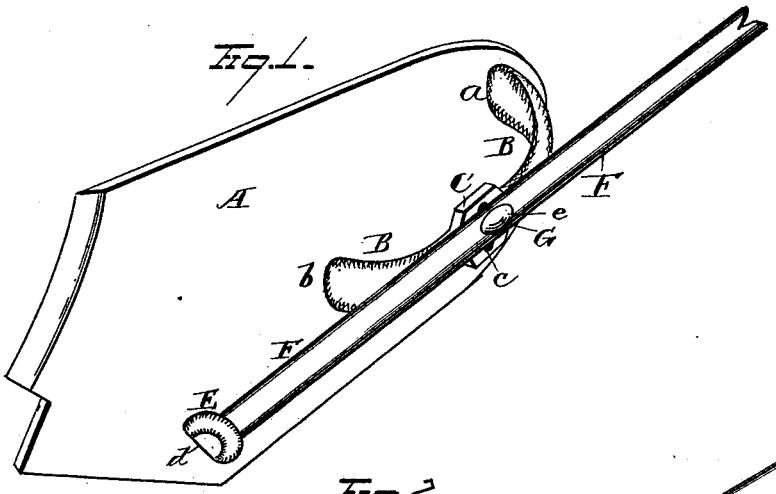


Fig. 2.

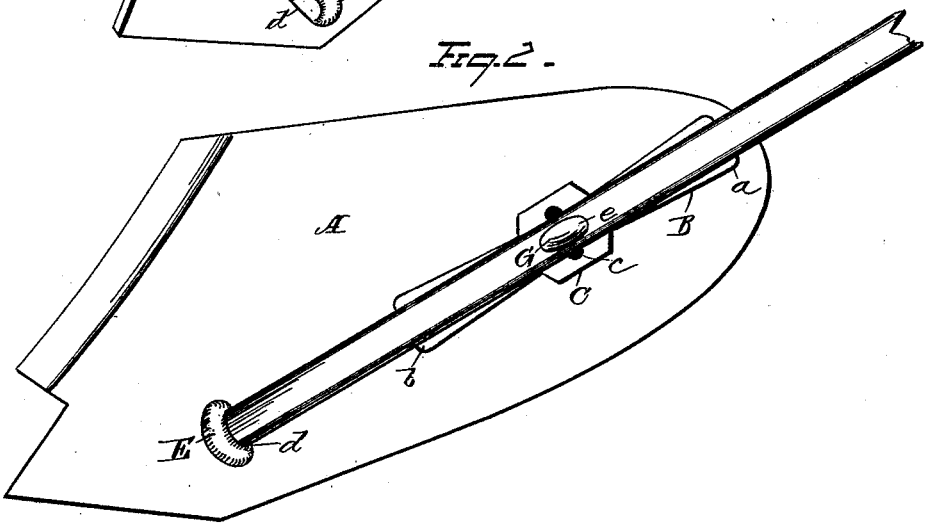
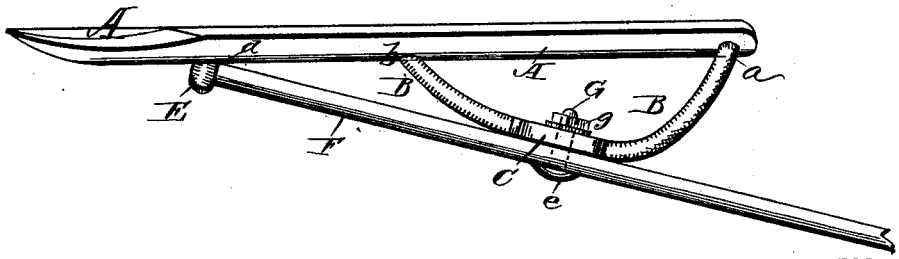


Fig. 3.



WITNESSES

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2 Sheets—Sheet 2.

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Fig 4

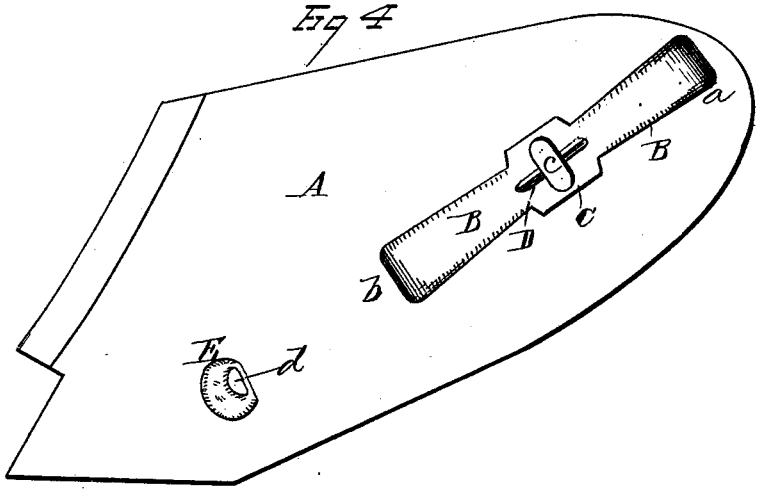
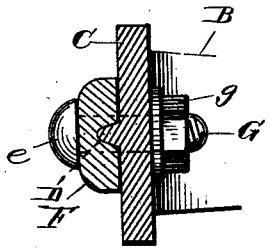


Fig. 5.



WITNESSES
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UNITED STATES PATENT OFFICE.

WILLIAM B. ALLEN, OF ORLEANS, NEW YORK.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. **214,272**, dated April 15, 1879; application filed September 17, 1878.

To all whom it may concern:

Be it known that I, WILLIAM B. ALLEN, of Orleans, in the county of Ontario and State of New York, have invented certain new and useful Improvements in Plows; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in plows, the object being to brace the rear end of a mold-board, that it may be able to withstand greater lateral pressure than mold-boards of ordinary construction.

A further object is to provide the mold-board with a handle-bearing, which shall be supported at distant points on the inner surface of the mold-board.

A further object is to provide a bearing on the mold-board for the adjustable attachment of a plow-handle.

To these several ends my invention consists in a mold-board provided with an arched brace on its inner surface, said brace formed with an enlarged flat bearing for the plow-handle, and means for securing the handle to the bearing on said brace.

In the accompanying drawings, Figure 1 is a view, in perspective, of a mold-board provided with my improvement. Fig. 2 is a side elevation, and Fig. 3 is an edge view, of the same. Fig. 4 is a detached view of the brace, with the handle removed therefrom; and Fig. 5 is a transverse section through the brace and handle.

A represents a mold-board, of any desired form or construction. B is an arched brace, which may be cast solid with the mold-board; or it may be made independently thereof, and secured at its ends by suitable bolts, or in any manner found most expedient in practice.

The rear end, *a*, of brace B is supported on the rear portion of the mold-board, while the forward end, *b*, is supported near its central portion, the brace being preferably arranged nearly or quite parallel with the lower edge of the mold-board. The ends *a b* of the brace are preferably made of greater width than its central portion, to provide for an extended bearing on the inner surface of the mold-board, and hence resist any strains exerted transversely to the length of the brace, and also twisting strains due to the curvature of the mold-board.

The central portion of the arched brace B is provided with an extended flat bearing, C, in which is formed an elongated slot, *c*, arranged transverse to the length of the brace. The center of the flat bearing C is provided with a longitudinal V-shaped rib, D, for a purpose hereinafter described.

Near the forward end of the mold-board is formed or secured thereto a staple, E, the seat *d* of which is on a plane with the flat bearing of the brace. F is a plow-handle, the forward end of which is inserted in the staple E, and the inner side thereof has a firm support on the seat *d* of the staple. G is a bolt, formed with an enlarged head, *e*. The shank of the bolt is inserted in an opening formed in the handle F, and extends through the elongated slot *c* in the bearing C.

By loosening the nut *g* the handle can be adjusted vertically in the elongated slot in the bearing, and secured in the desired position by tightening the nut *g*.

The enlarged head *e* of the bolt permits of an extended bearing on the handle, thereby preventing the latter from breaking at its point of adjustable attachment to the brace.

In order that the handle may be prevented from any displacement when once secured in the desired position for use, I form a longitudinal rib, D, on the upper face and in the center of the brace-bearing. When the handle is forced snugly against the bearing by means of the bolt and nut, as heretofore described, the longitudinal rib D will embed itself in the handle, and thus prevent it from shifting from any position in which it may be secured. The handle is of sufficient width so that the rib will embed itself in some portion thereof throughout any range of adjustment desired.

It is often necessary to adjust the height or angle of both handles; and, again, it is necessary to adjust the mold-board handle to bring it in line with a fixed handle attached to the land-side of the plow.

By my improved attachment any desired

adjustment is readily secured, and also the parts of the plow are materially strengthened.

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

A mold-board provided on its inner side with an arched brace, the opposite ends of which are secured to or formed solid with the mold-board, said brace constructed with a flat bearing, with an elongated slot formed therein, in combination with a plow-handle, and means for securing the handle to said bearing in an adjustable manner, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 7th day of September, 1878.

WILLIAM B. ALLEN. [L. S.]

Witnesses:

J. C. WARNER,

L. R. LOMBARD.