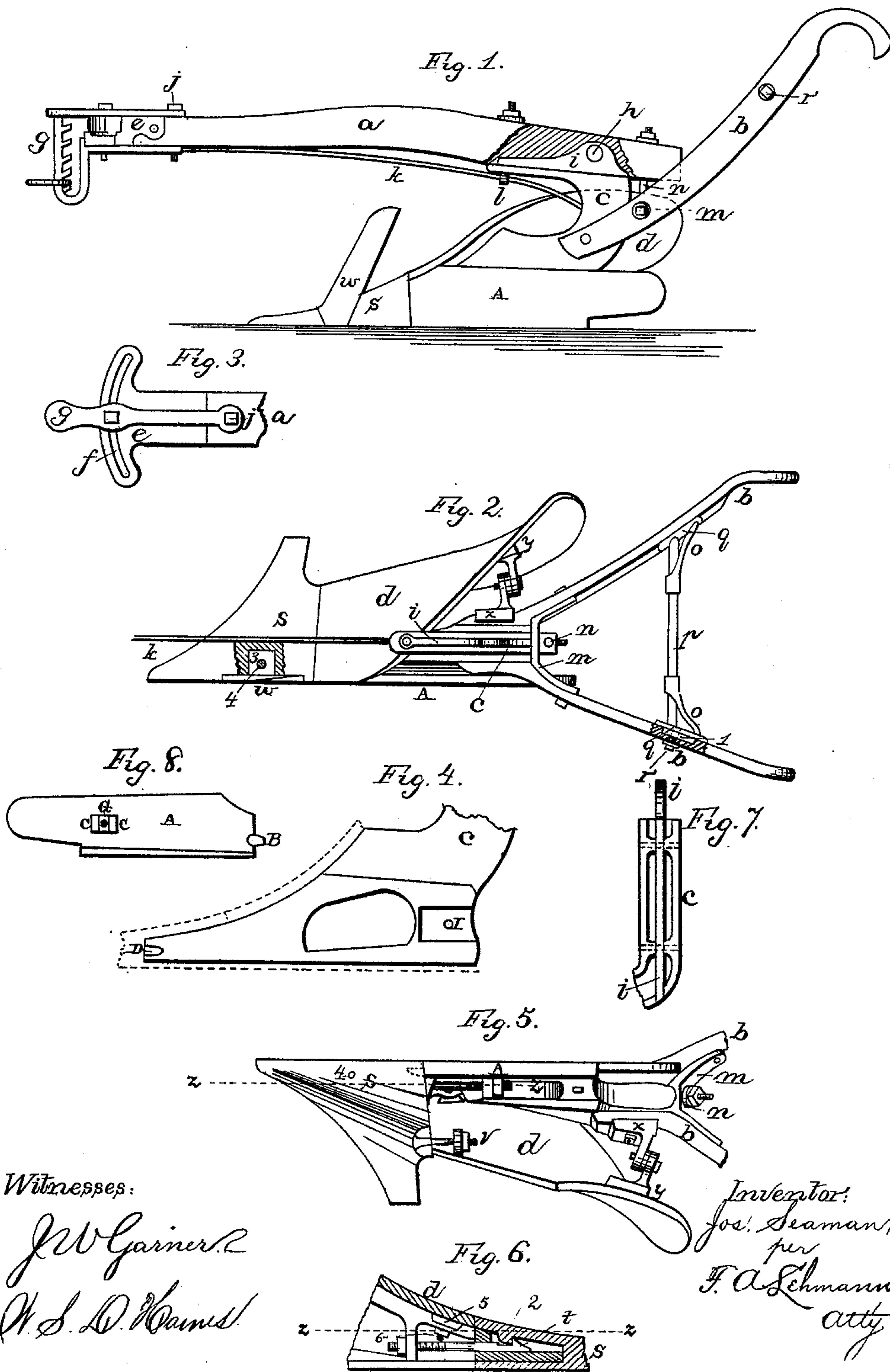


J. SEAMAN.
Plow.

No. 214,201.

Patented April 8, 1879.



UNITED STATES PATENT OFFICE.

JOSEPH SEAMAN, OF RACINE, WISCONSIN.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. **214,201**, dated April 8, 1879; application filed February 27, 1879.

To all whom it may concern:

Be it known that I, JOSEPH SEAMAN, of Racine, in the county of Racine and State of Wisconsin, 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; and it consists in the arrangement and combination of parts, that will be more fully described hereinafter, whereby a stronger and more efficient plow is produced, and one in which the parts can be easily taken apart and put together again.

Figure is a side elevation of my invention; taken from the land-side. Fig. 2 is a plan view of the same, the beam being taken away. Figs. 3, 4, 5, 6, 7, 8 are detail views of the same.

a represents the beam; *b*, the handles; *c*, the standard, and *d* the mold-board. Upon the front end of the beam is secured a casting, *e*, which has a long curved slot, *f*, made through its front end on a radius with the bolt upon which the clevis *g* moves. By means of this slot the clevis can be swung around to either side of the center of the end of the beam, as may be desired, and then securely clamped in that position.

The standard *c* is cast in the form shown, and has its upper end recessed in the under side of the beam, while its front end extends forward to the inside of the plow-point, as shown. This standard, instead of being cast solid, is hollow, and has a flat wrought-iron plate, *i*, placed inside of it, which extends up through the vertical part of the standard, and up above its top into the under side of the beam, where the bolt *h* is passed through both the plate and the beam, so as to secure the standard more securely in place. Upon the inside of the standard are formed projections, which bear upon opposite sides of the plate; and through the standard and plate are passed a number of bolts, which bind the two parts so rigidly together as to form practically one piece. This plate *i*, which has been introduced, preferably, while the standard was being cast,

gives great additional strength to the standard, and enables it to stand any of the strains that may be brought to bear upon it when in use, and makes this form of standard as strong and serviceable as any other, which has not heretofore been the case.

Fastened to the pivotal bolt *j*, upon which the clevis swings, is the draft-rod *k*, which passes back through the lower end of the bolt *l*, back through the standard *c*, the plate *i*, placed inside of the standard, and the handle-cleat *m*, and eyebolt *n*, that passes down through the rear end of the beam. The bolt *l* passes up through the upper end of the standard and through the beam, but is not drawn tightly up into place until after the draft-rod has been adjusted in place, when the bolt is tightened so as to draw the draft-rod up into the form shown, thereby giving great rigidity, strength, and power not only to the beam, but the other parts.

The lower ends of the handles are bolted to the sides of the standard in the usual manner, and are strengthened by the cleat *m*, which is placed between them. As the cleat is placed upon the end of the draft-rod, or has the rod passing through it, and as the eyebolt *n* also has the rod passing through its lower end as it bears against the outer side of the cleat, it will readily be seen that not only is the cleat very rigidly fastened in place, but an additional fastening for securing the standard and beam together is formed.

The outer ends of the handles are braced by the tubular rod *p*, which has a truss, *o*, formed at each end, and the end of both the rod and the truss are secured to the flat plate *q*, which bears against the side of the handle. This plate has a projection, *1*, formed on each end, to fit in a corresponding recess formed in the side of the handle, and then the plate is securely fastened by having a bolt, *r*, passed through it and the handle. This construction is not only very light, but is a great convenience in transportation, as it enables the handles to be removed, and thus the plow will not take up so much room.

The plow-point is made hollow at its thickest point, so as to receive the front end of the standard *c*. As it is a great detriment to a plow to have bolts passed through the wear-

ing-surface of either the point or the mold-board, this point *s* is not bolted to the standard in the usual manner. Inside of the point is formed a projection, 2, behind which the hooked rod *t* catches. This rod passes backward through a portion of the standard, and receives a nut on its rear end, as shown.

In order to fasten this point *s* and the mold-board *d* together, there is formed a dovetailed catch on the under side of the rear edge of the point, and in this catch is caught the head of the screw-bolt *r*, which passes back through an eye on the under side of the mold-board. In this manner the point is secured to both the standard and the mold-board without having to pass a bolt through the top of either point or mold-board.

In the vertical edge of the point *s* is made a recess, into which the colter *u* fits. Projecting from the inside of this colter is a stud, which fits in a recess made in the edge of the point, and up through this point and stud 3 is passed a bolt, 4. As the colter is held by the recess in the side of the point, and then braced by the stud and bolt, it will be readily seen that it is very securely held.

The mold-board is fastened to the standard near its point, by having a dovetailed catch, 5, formed on the underside of the mold-board; and passing through the standard is a screw-bolt, 6, which has its head so shaped as to fit into this catch. A nut being applied to this bolt it is drawn downward, so as to clamp the board and point rigidly together. Upon the same bolt which passes through the lower ends of the handles and the standard is a casting, *x*, which is fastened to the slide *y* by a suitable bolt. This slide is made dovetailed, and slips into a correspondingly-shaped catch or socket, *y*, formed on the mold-board. As the slide and casting are pivoted together when the other fastening is loose, the board can be turned in any position. By means of the two

fastenings above described no bolt-holes in the mold-board are necessary.

On the front end of the land-side *A* is made a projection, *B*, which fits in a recess, *D*, made in the front end of the standard, and catches under the rear end of the point, whereby the land-side is securely held in place at this end. On the inner side of the land-side, near its rear end, are made the two projections *C*, the inner edges of which are dovetailed, so as to receive the dovetailed slide *G*. In this slide screws the outer end of the bolt which passes through the hole *I* in the bottom of the standard. By this means no bolt-holes are made in the land-side.

Having thus described my invention, I claim—

1. In a plow, the land-side *A*, having the projection *B*, to catch under the point *s*, projections *C*, dovetailed slide *G*, and a bolt for passing through the standard into the slide, substantially as set forth.

2. The combination of the standard *c*, draft-rod, cleat *m*, and eyebolt *n* with the handles, substantially as specified.

3. The tubular rod *p*, trusses *o*, plates *q*, projections 1, and bolts *r*, substantially as shown.

4. The point *s*, having a recess to receive the point of the standard, and a projection, 2, in combination with the hooked fastening-rod *t*, as described.

5. The mold-board fastened to the standard by means of the catches 5 *y*, bolt 6, casting *x*, and bolt to fasten the casting and slide together, as specified.

In testimony that I claim the foregoing I have hereunto set my hand this 19th day of February, 1879.

JOSEPH SEAMAN.

Witnesses:

WM. F. BUFFHAM,
ERASTUS C. PECK.