

W. LAPE.

Plow.

No. { 1,662, }
 { 32,666. }

Patented June 25, 1861.

Fig. 14.

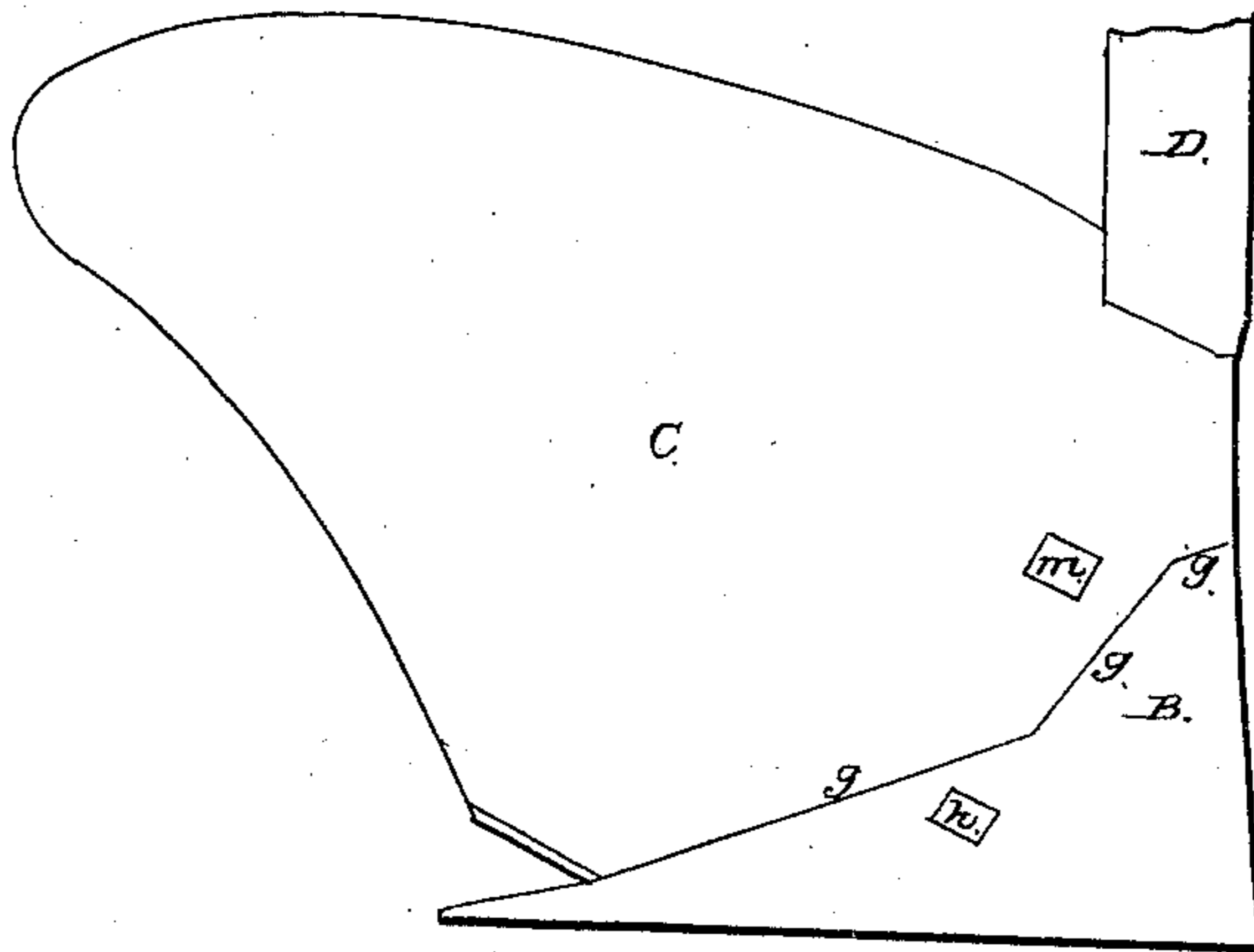


Fig. 13.

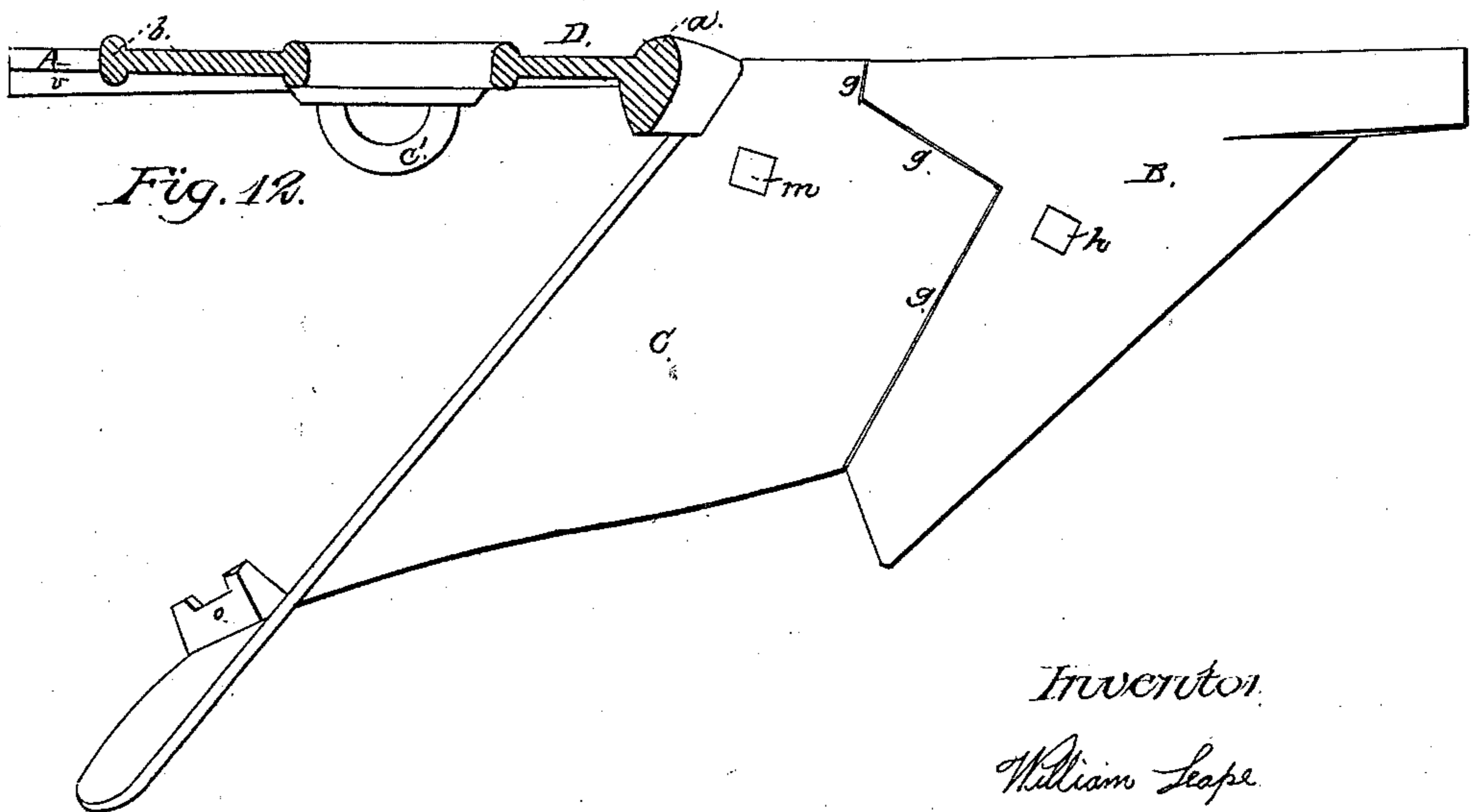
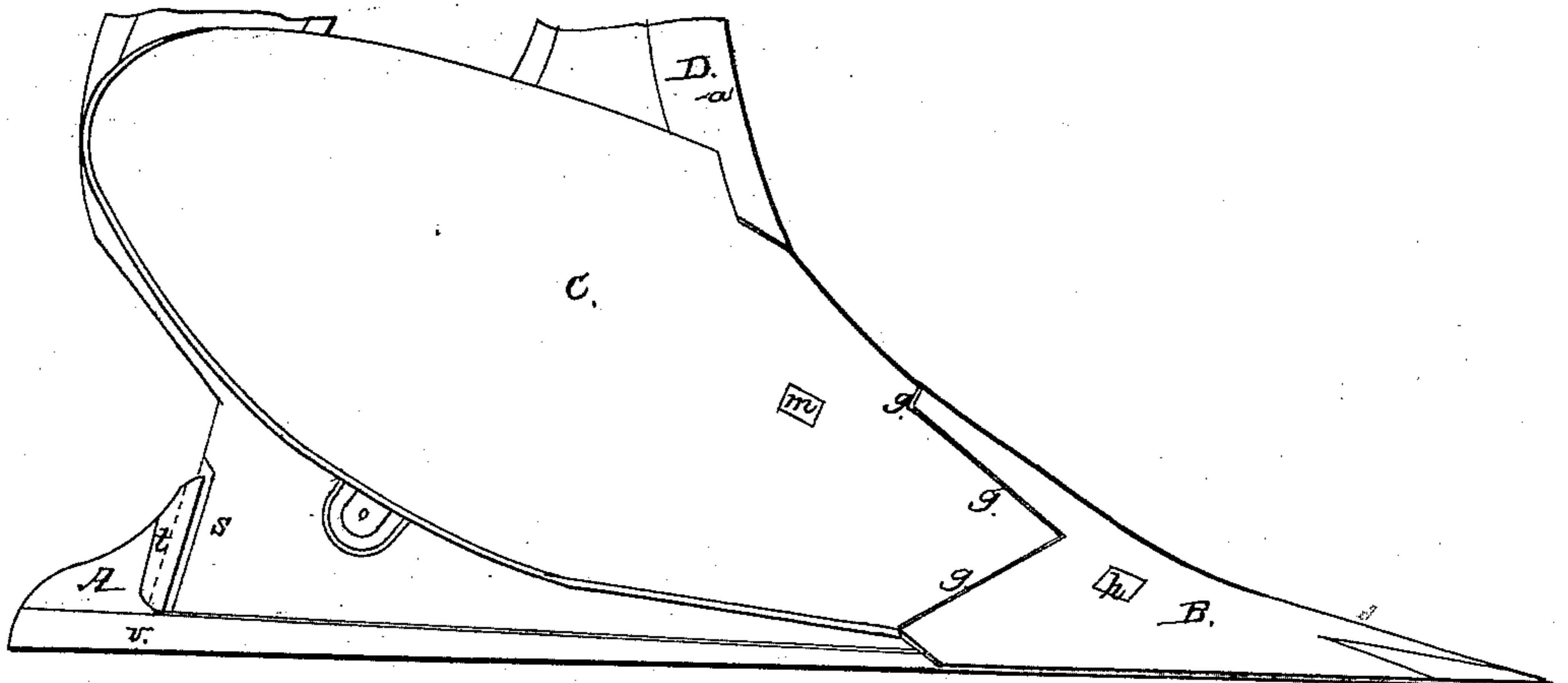


Fig. 12.

Witnesses:
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WILLIAM LAPE, OF TROY, N. Y., ASSIGNOR TO HIMSELF AND F. R. STOW.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. 32,666, dated June 25, 1861.

To all whom it may concern:

Be it known that I, WILLIAM LAPE, of the city of Troy, in the county of Rensselaer and State of New York, have invented a certain new and useful Improved Plow; and I do hereby declare that the following is a full and exact description of the same, reference being had to the annexed two sheets of drawings, in which the same letters of reference indicate like parts in all the figures.

On Sheet I, Figure 1 is a side elevation of one of my improved plows. Fig. 2 is a plan of the same plow turned bottom side up, and showing a partial or horizontal section at or near the line $z z$ in Fig. 1. Fig. 3 is a partial transverse section at the line $y y$ in Fig. 2. Fig. 4 is a partial transverse section at the line $x x$ in Fig. 2. Fig. 5 shows the inner side of the landside. Fig. 6 shows the parts of the united share, mold-board, and beam against which the landside is fastened. Fig. 7 is a plan of a screw-bolt and nut by which the landside is secured to the united share, mold-board, and beam. Fig. 8 is a view of the outer side, and Fig. 9 of the inner side, of that part of the beam to which the united share and mold-board and the landside are secured. Fig. 10 is a view of a part of the inner side of the mold-board with the share attached, and Fig. 11 is a plan of the bolt by which the united share and mold-board are secured to the beam. On Sheet II, Fig. 12 is a plan, Fig. 13 a side elevation, and Fig. 14 a front elevation, all on a larger scale than the other drawings, of that portion of one of my improved plows which acts upon the soil.

The parts of my improved plow are constructed and united together as follows, to wit:

The stock, or that part to which the landside A and the united share B and mold-board C are secured, is cast of cast-iron in one piece with the draw-beam D, and the beam is cast with a wider and deeper double flange, a , on its lower or shorter edge than the double flange b on its upper or longer edge, whereby the two-fold object of preventing the beam from shrinking unequally, and consequently from straining, warping, or breaking while cooling in the operation of casting, and of securing the greatest quantity of strength of metal in that part of the beam which is subjected to the greatest strain when the plow is in use, is at once accomplished.

The share B is formed with a flange, e , an

inside lug, f , and shoulders $g g$, Sheet II, and is fitted to and fastened by a screw-bolt, h , and nut h' upon the correspondingly-recessed forward part of the mold-board C, all substantially as indicated by the annexed drawings.

The mold-board C is united to the beam D by means of the rib or flange i , Figs. 2, 4, 8, 9, cast on the beam and inserted in a recess formed by the lug j near the lower end, and the long flange or flanges k , Figs. 4, 2, and 10, both cast on the mold-board, in connection with the shoulders $l l'$, respectively cast on the mold-board and the beam, and with the bent screw-bolt m and its nut m' , that bolt being passed through an aperture in the mold-board and a lateral slot, m^2 , in the rib i , and the mold-board and beam being braced apart at their rear ends by the bars E E', Fig. 2, just inserted in or through and extending between the handles F F, which are respectively secured to the beam and to the mold-board by means of screw-bolts $n n$, and screw-nuts $n' n'$, and a stud, o , and loops $o' o^2$, respectively cast in or upon the mold-board and beam, the whole being shaped and arranged substantially as shown by the annexed drawings; and while this fastening is strong enough, it is at the same time a little yielding, to lessen the liability of breaking the parts by running against fixed rocks or stones in the ground, and the lug j is so immovable and is so shaped and projects downward so little, and the screw-nut m' and the brace E are so high above the base of the plow, that it is hardly possible that the plow can become clogged or that those parts can be broken or loosened by contact with any projecting stones which may be in the furrow under the plow.

The removable landside A is secured against the depressed part p and shoulder q of the beam (and against the shoulder r of the mold-board and the flange e of the share, so as to thereby help support the share and mold-board) by having the rear end, s , of the beam or stock beveled on its inner side, (see Figs. 2, 6, and 9,) and also inclined forward as it rises, (see Figs. 8 and 13,) and a correspondingly-inclined lug, t , cast on the inner side of the landside and fitting over the doubly-inclined parts of the beam, as shown by Figs. 2 and 13, there being also a screw-bolt, u , and nut u' to clamp the forward part of the landside to the beam, and the whole being shaped and arranged substantially as shown by the annexed drawings.

This mode of attaching the landside is very cheap, and allows the landside to be removed by merely unscrewing the one nut, *u'*, and is at the same time held more securely than if it was attached by two screw-bolts alone, or by wooden wedges inserted in dovetailed recesses formed by lugs cast on the inner sides of the landside and stock in the common way.

The landside A has a flange, *v*, Fig. 5, cast along the inner side of its base, so as to give the plow a firm bearing without making it draw as hard as it would if the flange were cast on the outer side, so as to wedge into or against the unplowed ground.

By having the landside extend back to or nearly to or past the rear end of the mold-board, as shown by Figs. 2 and 13, the plow will generally run much more steadily than if the landside were much shorter than the mold-board.

The length, width, inclination, and form of the upper or acting surface of the share B and mold-board C united are in a degree indicated by Figs. 12, 13, 14, and other of the drawings, and is such that the share and mold-board will cut loose, lift up, and turn over an ordinary

sod without either breaking it or crimping it up in heaps, so that the plow draws easier than most if not all of those in common use, and is particularly well adapted for cutting and turning over a tough sod, or one of many years standing.

Having thus shown and described the manner of constructing the several parts and of attaching them together in my improved plow, I wish it understood that I do not herein claim as new any of those parts or modes independent of the rest; but I do not know or believe that a plow having all of the above-specified features was ever known or used before it was made or invented by me.

What I claim as new and of my invention, and desire to secure by Letters Patent, is—

A plow having its landside A, share B, mold-board C, and beam D all constructed and united together in the manner herein shown and described.

WILLIAM LAPE.

Witnesses:

GEORGE MACARDLE,
AUSTIN F. PARK.