(No Model.)

# L. GIBBS.

## PLOW.

No. 368,527. Patented Aug. 16, 1887.

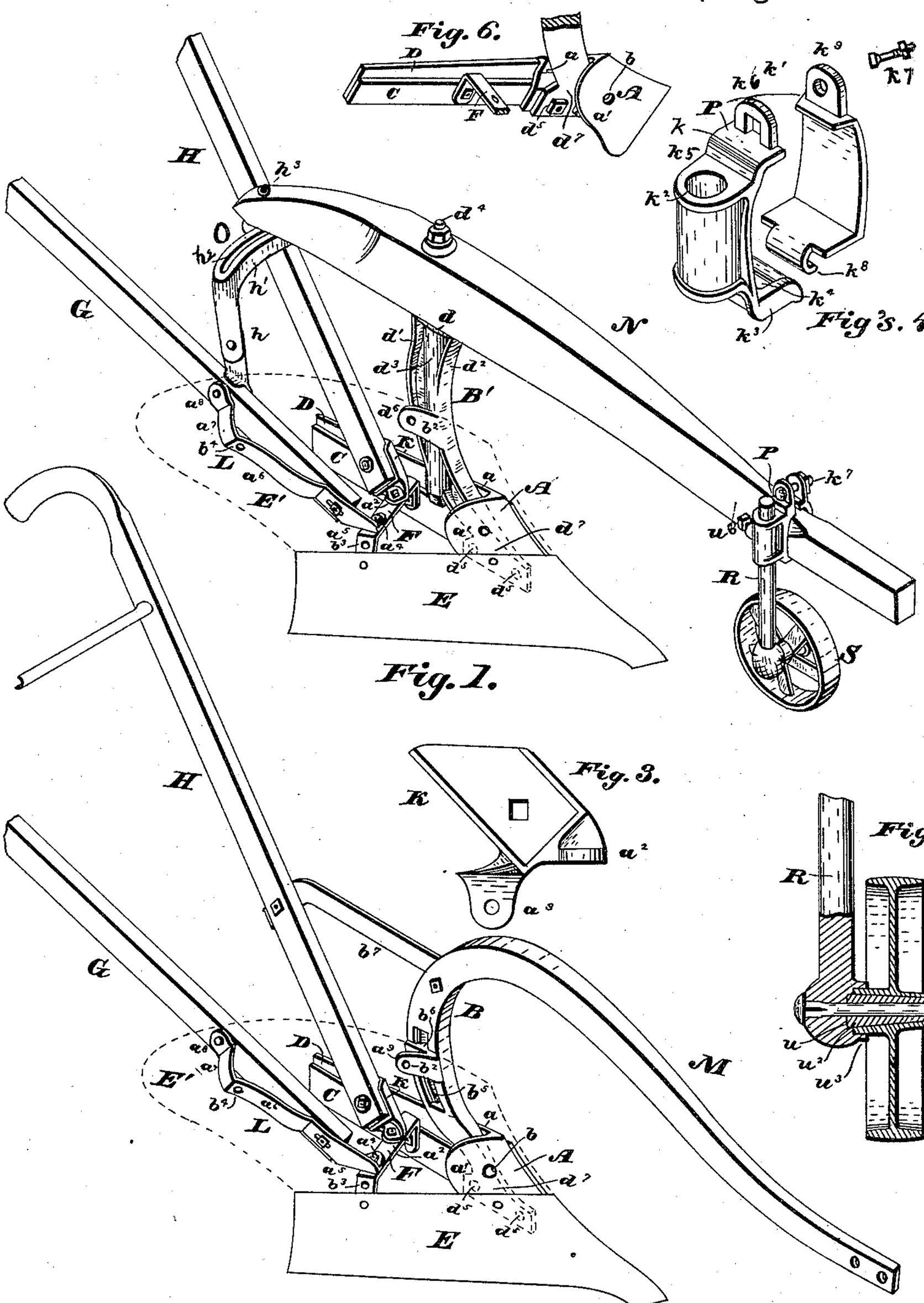


Fig. 1.




Fig. 6.




Fig. 3. A.




Fig. 3.




Fig. 5.

WITNESSES:

Harry Grease.

Chas. F. Miller

Fig. 2. Lewis Gibbs INVENTOR

BY

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# UNITED STATES PATENT OFFICE.

LEWIS GIBBS, OF CANTON, OHIO, ASSIGNOR TO THE BUCHER & GIBBS PLOW COMPANY, OF SAME PLACE.

## PLOW.

SPECIFICATION forming part of Letters Patent No. 368,527, dated August 16, 1887.

Application filed March 4, 1887. Serial No. 229,704. (No model.)

*To all whom it may concern:*

Be it known that I, LEWIS GIBBS, a citizen of the United States, and a resident of Canton, county of Stark, State of Ohio, have invented a new and useful Improvement in Plows, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

My invention relates to improvements in plows; and it consists in providing a plow-bottom adapted to be used in the construction of plows differing in size or material but of a similar conformation.

My invention also relates to and consists in providing an interchangeable beam-standard and beam, and further relates to the manner of connecting the guide-wheel to the beam, and to all of the details and combinations of parts, as described, and set forth in the claims.

Figure 1 is an isometrical view of a plow embodying my invention, showing the manner of using the wood beam. Fig. 2 is same view showing the use of metal beam. Fig. 3 is a view of handle-socket. Fig. 4 is an isometrical view of the clamp by which the guide-wheel is secured to the beam. Fig. 5 is a view of a guide-wheel and supporting-shank, partly sectional, showing the thimble-skein and bolts. Fig. 6 is a view of parts assembled for explanation.

Similar letters of reference indicate corresponding parts in all of the figures in the accompanying drawings.

Letter A is a shoe of the form substantially as shown, having a backwardly-projected wing, *a*, for a support for the lower end of the beam-standard B, frame-piece C, and landside D, and an outwardly, backwardly, and downwardly projected wing, *a'*, for a support for the share E and mold-board E', the outline of which is indicated by the dotted lines, the mold-board being removed that the detail may be more clearly shown. The landside D is bolted to and supported by the frame-piece C and the shoe A, the front upper edge of the landside flush with the corresponding edge of the shoe. The share E is bolted to and supported by the downwardly and outwardly projected wing *a'* of the shoe A, the front edge of the share lapping over the front end of the landside to a point about flush with the face of the landside, as shown in Figs. 1 and 2.

The frame-piece F, of the form substantially as shown in the drawings, Figs. 1 and 2, is a spreader or brace to support the share and landside, and also a bottom support for the handles G and H, the lower end of the handle H resting in a socket, K, said socket K being provided with a lug, $a^2$, by which it is bolted to the frame-piece F, and a lug, $a^3$, (see Fig. 3,) by which it is also bolted to frame-piece C, and the handle H is secured to the socket K by the use of a bolt, as shown. The handle G is supported and secured to the plow frame or bottom by the use of a bracket, L, of the form substantially as shown, having at its lower end a flange, $a^4$, by which it is secured to the frame-piece F, and an upwardly-projected portion, $a^5$, an outwardly and upwardly projected portion, $a^6$, an inwardly-projected portion, $a^7$, and an upwardly-projected portion, $a^8$, the handle being secured to the portions $a^5$ and $a^8$, substantially as shown. That portion of the said bracket or handle-support designated $a^6$ is slightly concaved, as shown, so as to conform to the convex or back portion of the mold-board.

In Fig. 2 there is shown attached to the metal beam M an outwardly and backwardly projected bracket, $a^9$, as a support for the front upper edge of the mold-board. The said mold-board when placed in position, as shown by the dotted lines, is bolted to the shoe by a bolt through the perforation *b*, to the bracket $a^9$ by a bolt through perforation $b^2$, and to frame F at $b^3$ and to the concave portion $a^6$ of the handle-supporting bracket by a bolt through perforation $b^4$, the front cutting-edge of the mold-board overlapping the front edge of the landside and forming a continuous cutting-edge from the point of the share to the top of the mold-board.

In the shank or shank-section of standard B of the metal beam M there is provided a slot, $b^5$, to receive a projected shank, $b^6$, on the bracket $a^9$, by which the said bracket may be

adjusted, and when so adjusted may be fixed by a through-bolt. $b^7$ is a support for handle H, having, as shown, one of its ends bolted to the beam, the other end bolted to the handle.

To adapt the plow to the use of a wood beam, N, as shown in Fig. 1, there is provided a cast-metal standard, B′, having a flange, $d$, on its upper end, on which the beam rests, and flanges $d'$ $d^2$ to strengthen said standard, and a central cylinder, $d^3$, as shown, extending from the lower end of the standard to the top and through which the beam-bolt $d^4$ is passed. By this described form of a cast-metal standard great strength is secured a with small amount of metal.

The lower end of the standard B′ is provided with a downwardly and forwardly projected end section, $d^7$, as shown by the dotted lines, said section having perforations $d^5$, and is otherwise adapted to be bolted to the shoe A. There is also provided and integral with said standard an outwardly and rearwardly projected lug, $d^6$, to which the mold-board E′ may be bolted.

A beam-support, O, of substantially the form shown in Fig. 1, having a vertical section, $h$, the lower portion of which is connected with the handle G, a horizontal portion, $h'$, connected with the handle H, and a slot, $h^2$, and bolt $h^3$ in the rear end of the beam N, as shown, may be adjusted to give the plow more or less land.

The guide-wheel support P (shown in Fig. 4) is composed of two parts, $k$ and $k'$, the part $k$ having a vertical annular socket, $k^2$, an inwardly-projected flange, $k^3$, having a slot, $k^4$; also from the upper end of said annular socket $k^2$ there is an inwardly-projected flange, $k^5$, having an upwardly-projected lug, $k^6$, said lug having a perforation for clamping-bolt $k^7$. Part $k'$ is formed substantially as shown in Fig. 4, having at its inner and lower end a hook, $k^8$, adapted to enter into the slot $k^4$, the upper end having a lug, $k^9$, perforated, as shown, for bolt $k^7$. The clamp formed as described embraces the beam N, as shown in Fig. 1.

The wheel-shank R is adapted to and is adjustable in the annular slot $k^2$, and may be fixed by the set-screw $u^8$. At the lower end of said shank R there is a socket, $u$, to receive the thimble-skein $u^2$, and a sand-band, $u^3$. The wheel S is passed over the skein, the tightening-bolt passed through, as shown, the washer $u^4$ passed over the bolt, the shoulder $u^5$ resting on the end of the skein, and the flange $u^6$ extending up over the end of the hub $u^7$ of the wheel S, thus forming a sand-band or protection to that end of the skein.

As hereinbefore stated, in the plow frame or bottom hereinbefore described, and consisting of the shoe A, frame-pieces F and C, the handle-supports L and R, with the interchangeable beam-standards, is provided a frame for plows of two or more sizes, only varying in the dimensions of parts, and may be used for a cast-iron or a steel plow, or for a plow composed of a composition steel and cast-iron parts, the parts being interchangeable, thus greatly reducing the initial cost in manufacturing, as well as a great convenience to the parties using such implement.

Having thus fully described the nature and object of my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a plow, the combination, with the plow-beam and the plow-frame, of a plow-standard consisting, essentially, of a hollow cylinder provided with a flange at its upper end to form a seat for the plow-beam, a side flange, as $b^2$, for the attachment of the mold-board, and a forwardly-projected flange, as $d^7$, at its lower end for the attachment of the plow-frame, and a through-bolt, as $d^4$, for securing the standard to the beam, substantially as set forth.

2. In a plow, a cast-metal standard, B′, consisting, essentially, of a hollow vertical cylinder, $d^3$, top plate, $d$, flanges $d'$ $d^2$, and a downwardly and forwardly projected section, $d^7$, substantially as shown, and for the purpose set forth.

3. The combination, with a cross-brace, as F, of the plow-frame, of a handle-brace, L, provided at its lower end with a laterally-turned flange, as $a^4$, a seat for the lower end of the handle, as at $a^5$, an outwardly-curved portion, as $a^6$, forming an extended bearing for the mold-board, and an inwardly-extending portion, as $a^7$, having a turned flange for its attachment to the handle, the whole constructed and arranged substantially as set forth.

4. The handle-securing piece K, provided with a main portion adapted to receive and embrace three sides of the handle at its lower end, with a perforated flange, $a^2$, for its attachment to the cross-brace of the plow-frame, and with a flange, $a^3$, for its attachment to the frame-piece along the landside, substantially as set forth.

In testimony whereof I have hereunto set my hand this 25th day of February, A. D. 1887.

LEWIS GIBBS.

Witnesses:
W. K. MILLER,
CHAS. R. MILLER.