(No Model.)

L. P. THOMPSON.

HILLING PLOW.

No. 348,069. Patented Aug. 24, 1886.

Fig. 1.

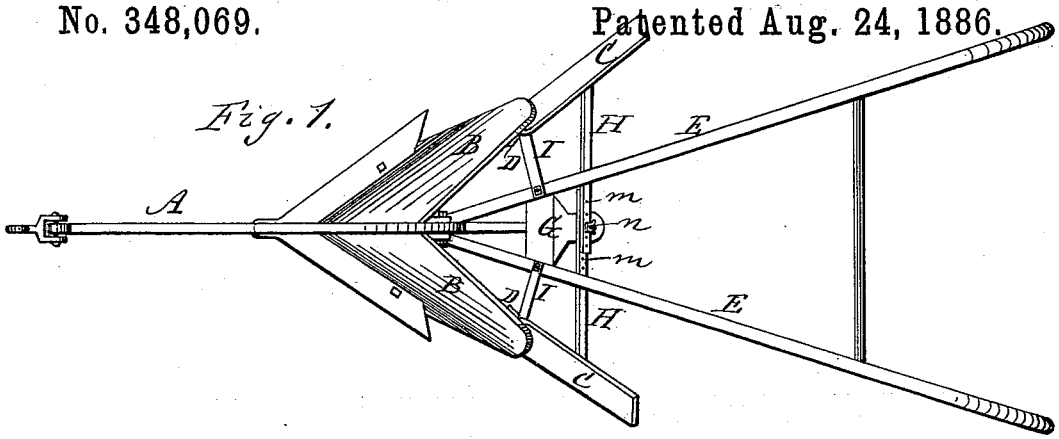


Fig. 2.

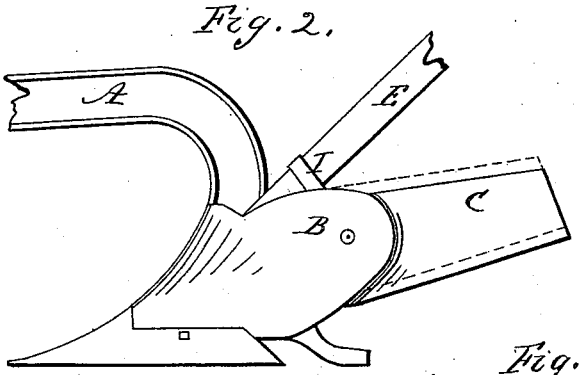


Fig. 3.

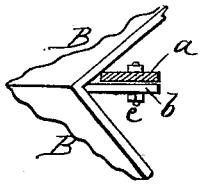


Fig. 4.

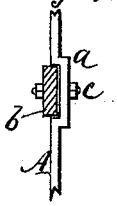


Fig. 5.

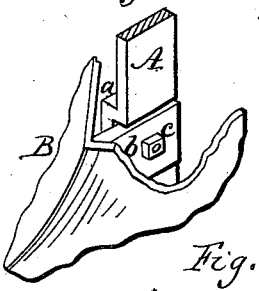


Fig. 6.

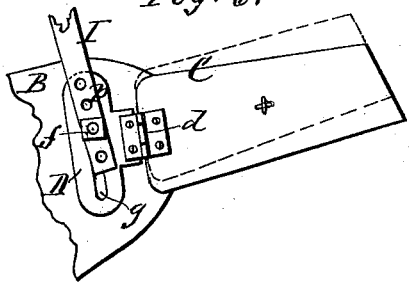


Fig. 7

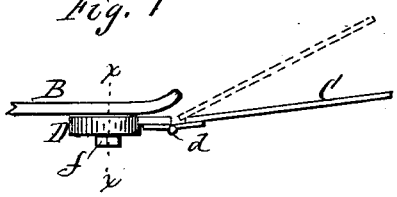


Fig. 8.

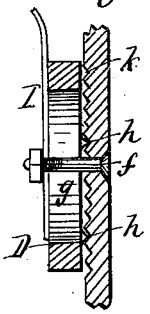


Fig. 9.

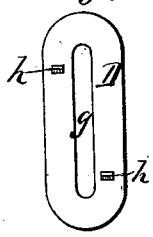
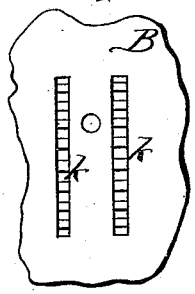


Fig. 10.



Attest.

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UNITED STATES PATENT OFFICE.

LESTER P. THOMPSON, OF PHELPS, NEW YORK.

HILLING-PLOW.

SPECIFICATION forming part of Letters Patent No. 348,069, dated August 24, 1886.

Application filed February 15, 1884. Serial No. 120,895. (No model.)

To all whom it may concern:

Be it known that I, LESTER P. THOMPSON, of Phelps, Ontario county, New York, have invented a certain new and useful Improvement in Hilling-Plows; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a plan of the plow. Fig. 2 is a side elevation of the same. Figs. 3, 4, and 5 are detail views, showing the means for uniting the mold board with the beam. Fig. 6 is an elevation, looking on the inner side of one of the wings, and showing the means for attaching the adjustable wings to the mold-board. Fig. 7 is a plan view of Fig. 6. Fig. 8 is a vertical cross-section, enlarged, in line *x x* of Fig. 7. Fig. 9 is an elevation of the bearing D, looking on the inner side. Fig. 10 is an elevation showing the ratchet-teeth on the inner side of the mold-board, against which the bearing D rests.

My improvement relates to hilling-plows for cultivating between rows of plants, and is of that kind where wings are used attached to the rear ends of the mold-boards, and operating to throw the dirt around the plants. Such wings have been before used, and I do not claim them, broadly; but my invention consists in a new means for attaching them, as hereinafter described and claimed.

In the drawings, A shows a metallic beam, which is curved down in the rear and forms the standard for attaching the mold-board.

B B is the mold-board, which is double-winged, so as to throw the dirt over on both sides. It is cast or formed in one piece, and is attached to the standard of the beam by the following means: The standard is formed with an offset socket or cavity, *a*, and the mold-board is formed with a straight lug, *b*, which extends centrally and longitudinally and rests in the socket or cavity *a*, and is secured in place by a screw-bolt, *c*. This is shown most clearly in Figs. 3, 4, and 5. By this means the mold-board is brought centrally with the standard, and the parts are secured in the simplest and strongest manner, and but a single bolt is required. The lug is so firmly seated that it can never get out of place. By this arrangement a shoulder is left on each side of the standard, which presents the same appearance in looking down on top.

C C are two wings hinged at the rear ends of the mold-board and capable of adjustment out and in at the rear, also up and down vertically, either bodily or at different inclines, by the means hereinafter described. The wings are attached on the inner sides of the mold-boards by means of hinges *d d* to bearings D D, which in turn are attached to the mold-board by screw-bolts *f f*. The bearing is provided with a slot, *g*, through which the bolt *f* passes, and by this means the bearing can be adjusted higher or lower, carrying the wing with it bodily. This vertical adjustment of the wing is indicated by the dotted lines in Fig. 2. The wing can also swing on its hinge out and in, and this lateral adjustment is indicated by the dotted lines in the plan view, Fig. 7. On the inner or back side of the bearing D is a spur or point, *h*, on each side of the slot, Figs. 8 and 9, and on the face of the mold-board, over which the bearing rests, are sets of ratchet-teeth *k k*, Figs. 8 and 10, into which the spurs strike. By this means the bearing can be held at any height when clamped by the bolt, and be prevented from twisting or turning out of place. By setting the spurs into different teeth of the ratchets the bearing can also be set in a somewhat inclined position, so that, in addition to the adjustments of the wing C, as before described, the wing can be adjusted so that it will stand at an incline with the rear end the highest, as indicated by the dotted lines in Fig. 6. By means of these several adjustments of the wings almost any desired kind of hill may be produced around the plants—steep, flat, or otherwise. To make a steep hill the wings are raised at the rear end. To make a flat hill they are lowered. To adjust the wings to wide rows they are thrown farther apart, and to narrow ones they are brought together. By hinging on the inner sides of the mold-board, and not at the rear ends or outside, all clogging is prevented, the weeds passing off without obstruction.

G is a block or cross-piece attached to the lower ends of the handles E E.

H H are cross-straps attached at their outer ends to the wings C C, their inner ends lap-

ping past each other, provided with adjusting-holes *m m*, through which passes a bolt, *n*, securing them to the block G. By this means the lateral adjustment of the wings is produced.

I I are straps attached at their top to the handles and at their bottom to the bearings D D by means of the screw-bolts *f f*, which pass through holes *p p* of the straps. By this means the handles are adjusted higher or lower.

Having described my invention, I disclaim simply and broadly the use of wings hinged to the rear end of the mold-board; but

I claim—

1. In a hilling-plow, the combination, with wings hinged at the rear end of the mold-board, of the bearings D, secured on the inner side of the mold-board, to which the wings are hinged, said bearings being slotted vertically and secured by bolts and provided with teeth or spurs, which engage with ratchets or depressions on the inner sides of the mold-boards, as shown and described, and for the purpose specified.

2. In a hilling-plow, the combination of the wings C, the hinges *d*, the bearings D, having spurs on the back engaging with ratchet-teeth on the mold-board and provided with longitudinal slots, through which pass the clamping-bolts *f*, the straps I, connecting the handles with the bearings, and the cross-straps H H, connected with the wings, lapping past each other and secured by a screw-bolt, as shown and described, and for the purpose specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

LESTER P. THOMPSON.

Witnesses:

PETER S. BURNNETT,

WM. F. VINCENT.