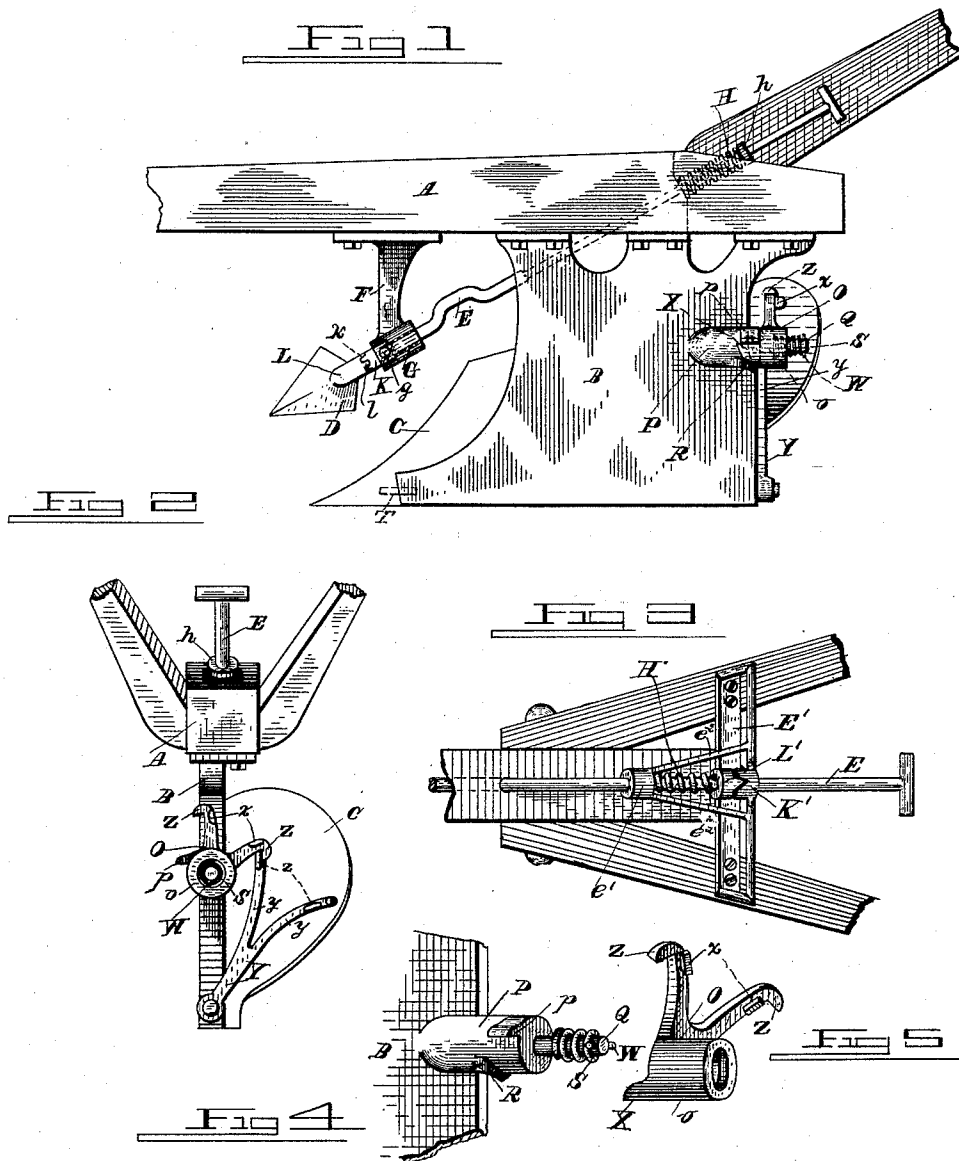


(No Model.)

J. DU SHANE.
PLOW.

No. 475,681.

Patented May 24, 1892.



WITNESSES

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JAMES DU SHANE, OF SOUTH BEND, INDIANA.

PLOW.

SPECIFICATION forming part of Letters Patent No. 475,681, dated May 24, 1892.

Application filed November 4, 1891. Serial No. 410,894. (No model.)

To all whom it may concern:

Be it known that I, JAMES DU SHANE, of South Bend, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Plows; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 is a side elevation, partly in section, of my improved plow. Fig. 2 is a rear view thereof. Fig. 3 is a detail view illustrating a modification of the colter-rod-adjusting devices. Figs. 4 and 5 are detail views.

This invention is an improvement in side-hill or reversible plows in which the mold-board is pivoted to the standard in such manner that it can be swung to right or left of the beam.

The present invention consists in the novel construction of parts for adjusting the colter to correspond with the adjustment of the mold-board and in novel devices for locking the mold-board when adjusted, as will be hereinafter clearly described.

Referring to the drawings by letters, A designates the beam, and B the standard attached thereto.

C is the mold-board, pivoted or hinged at its point by bolt T to the toe of the standard. The rear end of the mold-board is connected to a V-shaped casting Y, the arms *yy* of which are fastened to the mold-board, while its shank is pivoted to the heel of the standard. By this arrangement the mold-board can be turned under the standard and adjusted to right or left thereof at the will of the plowman.

zz are lugs on the arms of casting Y, adapted to be engaged by a locking-latch, hereinafter referred to.

P designates a stud attached to or projecting from the heel of the standard above the pivot of the casting Y, and it has diametrically-opposite ears *p p* and a reduced extension or journal Q.

O designates a V-shaped locking-latch having a tubular shank *o*, fitted on journal Q and pressed toward ears *p* by a spring S, slipped on the journal exterior to the shaft and con-

fined by a pin W or nut. The sleeve may be recessed to partially receive the spring. On the lower and inner end of the sleeve is a projecting lip X, having its corners slightly rounded, as indicated, and it projects under ears *p* and is adapted to engage one of said ears when the latch is shifted to right or left, thus preventing it falling too far downward. The legs of the latch have hooked ends Z Z, adapted to engage the lugs *zz* on casting Y, respectively, thereby locking the mold-board when shifted and preventing displacement thereof.

R designates a rounded lip on stud P below and between ears *p* and which is engaged by lip X on shank O when the latch is turned, causing it to turn outward on its journal until it has been turned to right or left. Then spring S forces the latch inward, so that lip X lies between one ear *p* and lip R, thereby locking the latch, so that it will not be casually displaced when properly shifted. The legs of latch O have projecting flanges *xx*, so that the plowman can shift the latch with his foot.

D designates the colter, which is mounted on the front lower end of a rod E, having bearings in the standard, beam, and in a casting F, attached to the beam in front of the standard. As shown, this casting is formed with a sleeve G on its lower end, and in this sleeve and around rod E is a short tube K, which is secured in the sleeve by a set-screw *g*, and in the projecting end of said tube is notched or toothed, as at *k*. The rod E plays freely through said tube and sleeve.

L designates a collar fixed on rod E next the colter, or it may be formed on the colter, and it has projecting teeth *l*, adapted to engage the notches *k* of tube K and lock the rod and colter, preventing turning thereof.

H designates a coiled spring on rod E, bearing against the beam and against collar *h*, fixed on the rod and acting to hold teeth *l* in engagement with notches *k*. When the mold-board is shifted to right or left, the colter is turned accordingly. The plowman, by pushing rod E, disengages teeth *l* and notches *k*, and, turning the rod until the colter is properly shifted, releases the rod, and the teeth and notches re-engage by the action of spring H. An equally simple arrangement of lock-

ing devices is shown in Fig. 3. A bracket-casting E' is secured between and to the handle-bars and has a central tubular piece K', notched on its lower face, and a collar e', projecting below piece K' and supported by arms e² on the bracket. The upper end of rod E plays through collar e' and piece K', and on said rod, between the collar and piece, is secured a collar L', having its upper face notched to engage the notches of piece K' to lock the rod. A spring H' is slipped on the rod between collars e' and L'. The teeth, notches, and spring may be arranged at other points in the length of rod E, if desired.

15 Instead of latch O engaging casting Y it may engage the edge of or lugs attached to the mold-board.

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

1. The combination of the plow-standard, and mold-board pivoted thereto, substantially as described, with a latch adapted to lock the mold-board and pivoted on a stud projecting from the rear of the standard, said stud having laterally-projecting ears and a curved lip, and the shank of the latch which is pivoted on the stud having a projecting lip, as and for the purpose set forth.

2. The combination of the standard having a stud at its heel formed with lateral ears and a curved lip between the ears, with the mold-board pivoted to the standard, the locking-latch therefor having its shank journaled on

said stud and formed with an inwardly-projecting lip adapted to engage the lip and ears of said stud, and a spring for forcing said shank inward, substantially as described.

3. The combination of the standard, a reversible or swinging mold-board connected thereto, with an adjustable colter, a longitudinally-movable spring-controlled rotatable rod carrying said colter, and locking devices for said rod, substantially as specified.

4. The combination of the beam, the standard, and mold-board, with a rotatable longitudinally-movable rod journaled in said beam and standard, a colter on the end of said rod, the teeth and notches for locking said rod, and the spring controlling the same, substantially as described.

5. The combination of the standard having a stud at its heel formed with lateral ears and curved lip between the ears, with the mold-board pivoted to the standard, the locking-latch therefor having its shank journaled on said stud and formed with an inwardly-projecting lip adapted to engage the lip and ears of said stud, and a spring for forcing said shank inward, and an adjustable colter, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JAMES DU SHANE.

Witnesses:

RUFUS ROMINE,
JEANIE ANDERSON.