

UNITED STATES PATENT OFFICE.

LOUIS RONAT, OF CARONDELET, MISSOURI.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. 85,696, dated January 5, 1869.

To all whom it may concern:

Be it known that I, LOUIS RONAT, of Carondelet, in the county of St. Louis and State of Missouri, have made certain new and useful Improvements in Plows; and I do hereby declare that the following is a full and clear description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention relates, first, to the arrangement of reversible plows; secondly, to the method of regulating and gaging the depth of the plow, and, lastly, the detail construction of the parts used in reversing the plows.

To enable those skilled herein to make and use my said invention, I will proceed to describe its construction and operation, referring to the accompanying Figure 1 as a side elevation, to Fig. 2 as a front view, and to Fig. 3 as a detail elevation, showing the lock or catch; Fig. 4 as a part plan.

I construct the plow-beam A in the usual form, arranging thereon a journal, *a*, by which the beam rests in the cross-beam B, supporting its forward end. The beam may turn freely in said journal, but shoulders on both sides prevent the plow-beam from longitudinal motion.

The cross-beam B, I support by the bracket C. This has a nut, *c*, through which the screw D passes, said screw being supported by the bracket E, which rests on the axle F, this again being carried on the wheels G in the usual manner. In order to guide the cross-beam B, I arrange the bracket E to pass through this beam at *e*.

It will be seen that, by the screw D, the bracket C and the cross-beam B and the forward end of the plow-beam A may be raised or lowered, and thus the depth of the working-plow H may be gaged.

The plows H and H' are secured to a frame, I, connected with the rear end of the beam A, the said frame-pieces being so formed that the forward lower edge, *h*, is sharpened to fit under the share, and the inner edge adjoining at *h*¹ may be shod for the land-side.

The mold-board *h*² may be braced against the frame I in any suitable manner. Immediately in front of the plows H H' the colters K are secured to the plow-beam A.

It will be seen that in plowing in one direction the one plow H enters the ground. When the operator is at the end of the furrow the plow is turned, and then, by reversing the position of the plows H H', the next fur-

row may be made immediately adjoining the one made just before.

In order to retain the plow H in the ground, I attach a stop, *l*, to the forward end of the beam A. The said stop enters a lock-mortise, *l'*, of the detent L, secured to the cross-beam B.

When the operator desires to bring the other plow, H', into work, he turns the plow-beam A, using therefor the handle M, in the manner now to be described.

The handle M is hinged to the plow-beam at *m*. The hinge-eyebolt *m* is also used as a guide for the rod N, which connects with the rods *n* and *n'*, running to the ends of the segment O. The latter has the notches *o*, which engage on the upper and lower shanks *p* of the guide-staple P, secured to the frame I.

The segment O and a double handle, Q, are hinged to the main handle M at *q*.

In order, then, to withdraw the stop *l* from the mortise *l'*, the operator, by the handle Q, first releases the segment O from its detent at *p*, and by so doing the segment O moves one of the rods *n* or *n'* to draw the stop *l* out of said detent L. The operator then may easily turn the plows H and H' by turning the beam A at its handle M.

When the plow H' has reached the ground, the stop *l* enters the detent L on the other side of the cross-beam B, and the segment O is again engaged upon the then upper shank, *p*, of the staple P; thus the plow H' being held similarly to the plow H.

In order that the draft attachment may not be disturbed in its proper action by the successive rotations of the plow-beam, I use a clevis, R, attached to the beam at *r*, and having a vertical slot, *r'*, in which the draft-hook S may slide up or down, as required.

Having thus fully described my invention, what I claim is—

1. The turning plow-beam A, in combination with the cross-beam B and plows H H' and frame I, substantially as set forth.

2. The stop *l*, mortise *l'*, and detents L, in combination with the rod N, rods *n* and *n'*, segment O, and handles Q, substantially as and for the purposes set forth.

In witness of said invention I have hereunto set my hand this 8th day of October, A. D. 1868.

LOUIS RONAT.

Witnesses:

GEO. P. HERTHEL, Jr.,
WM. W. HERTHEL.