(No Model.) 2 Sheets—Sheet 1.

O. H. EDDY.

FOOT LATCH FOR REVERSIBLE PLOWS.

No. 480,077. Patented Aug. 2, 1892.

Fig. 1.

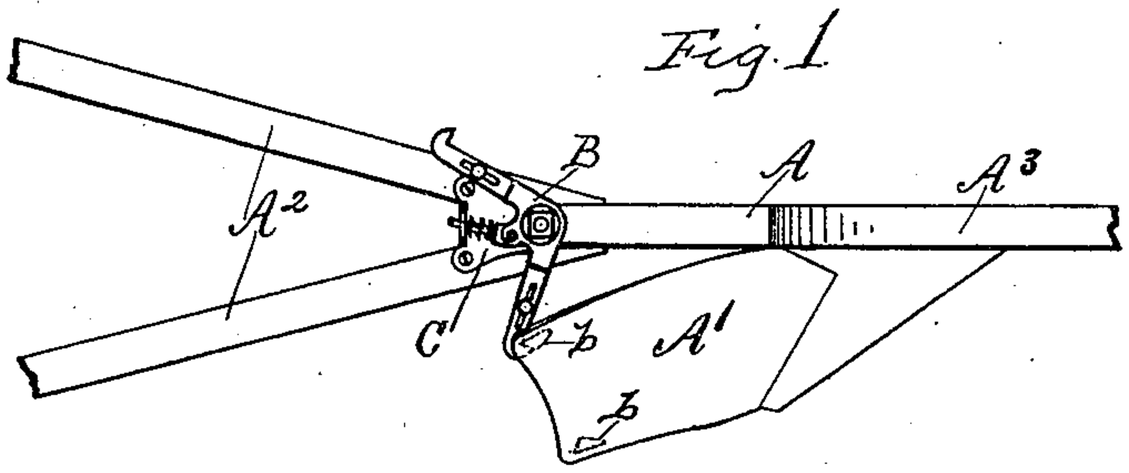


Fig. 2.

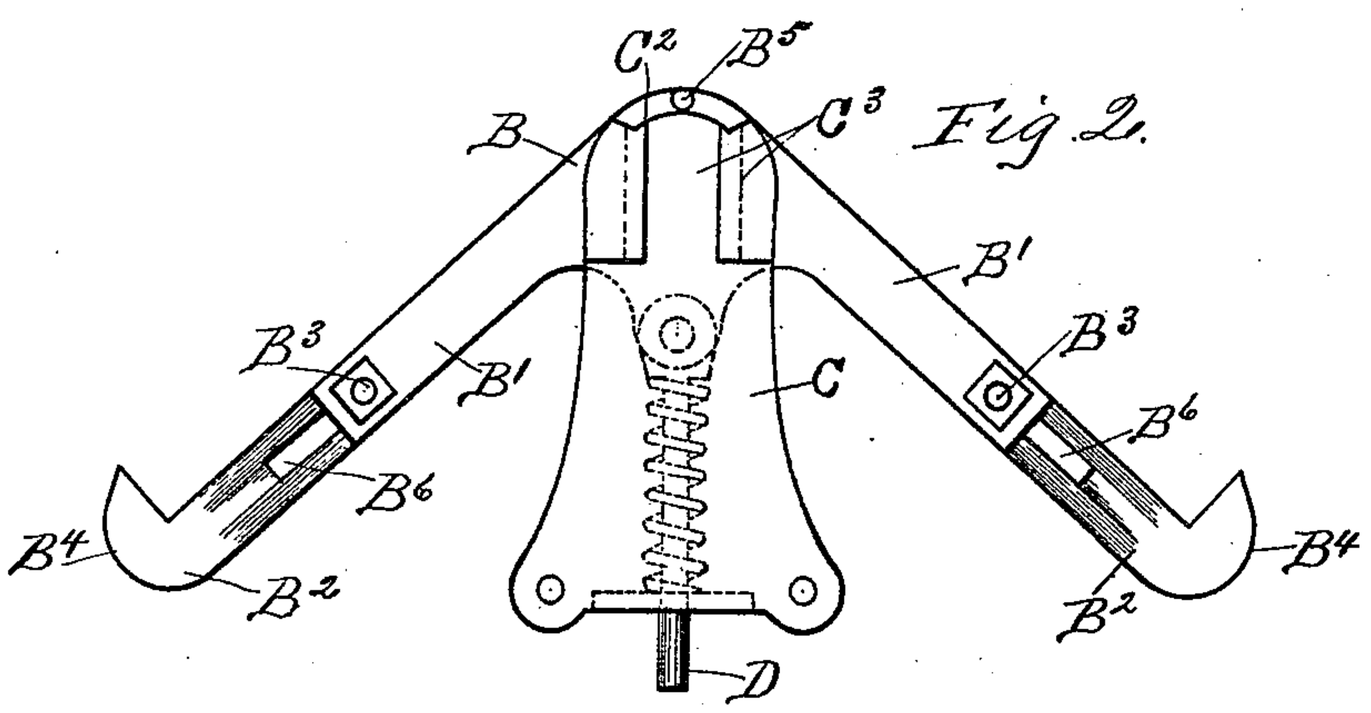
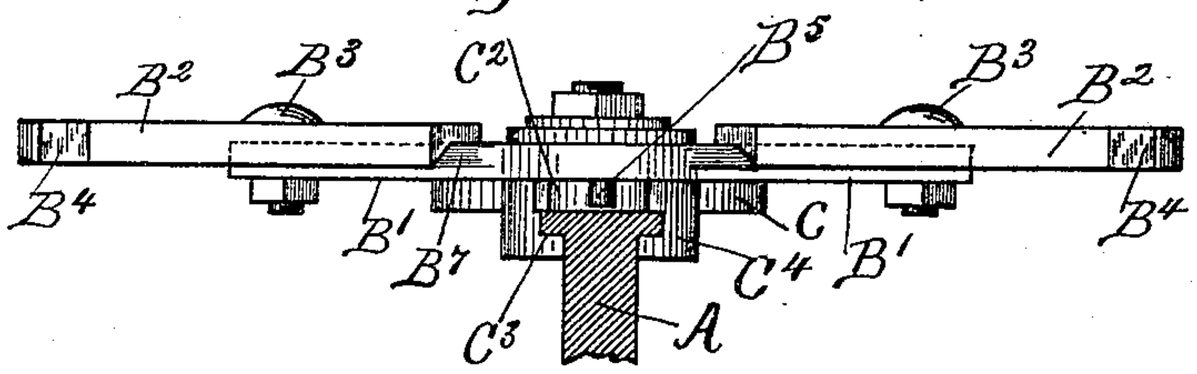


Fig. 3.



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(No Model.) 2 Sheets—Sheet 2.

O. H. EDDY.

FOOT LATCH FOR REVERSIBLE PLOWS.

No. 480,077. Patented Aug. 2, 1892.

Fig. 4.

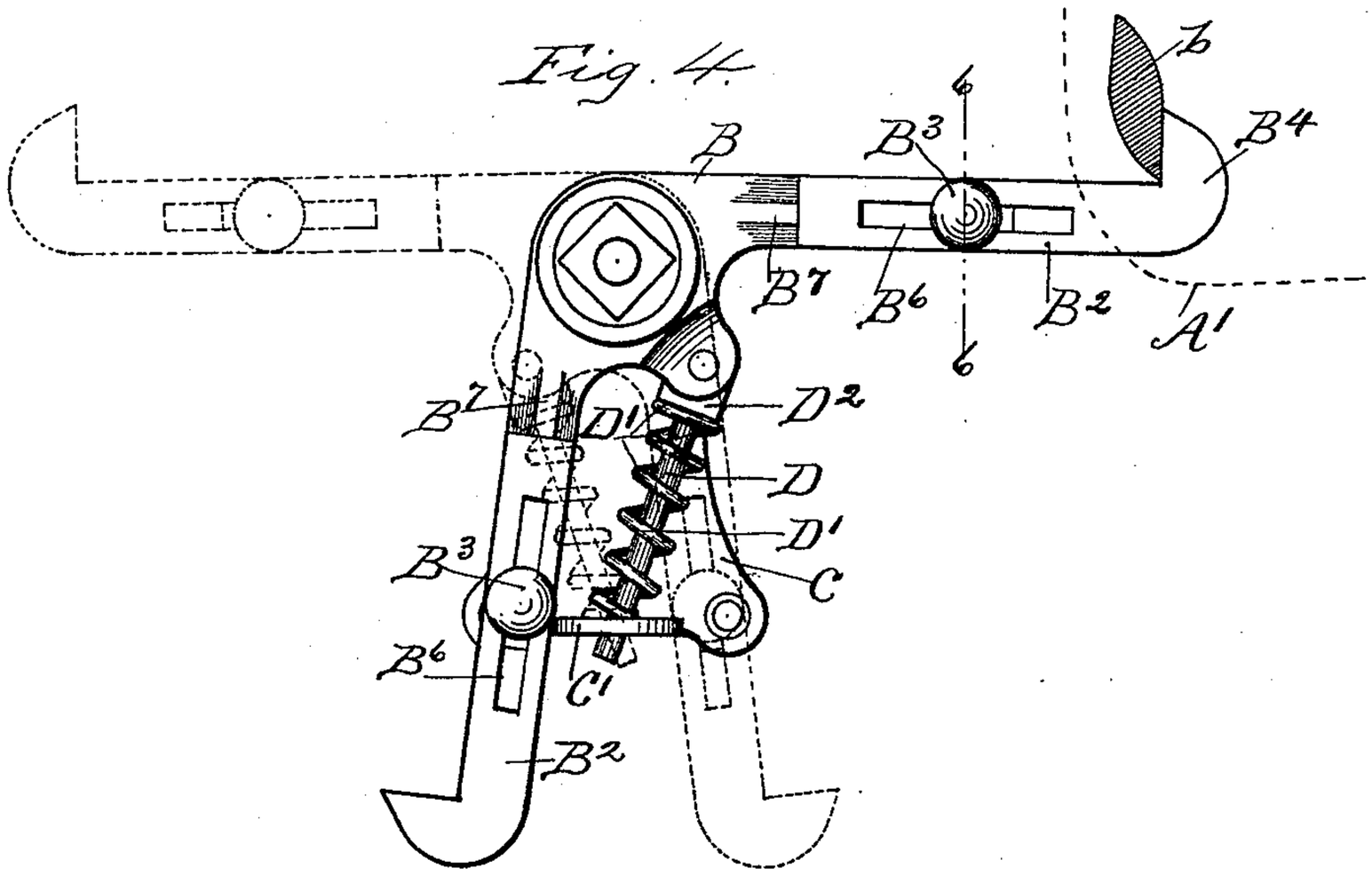


Fig. 5.

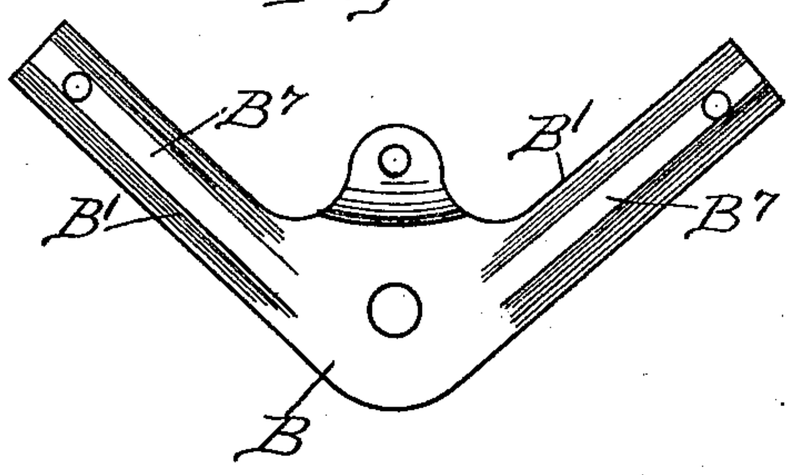


Fig. 6.

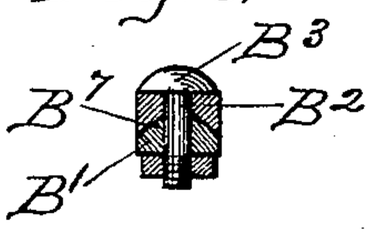
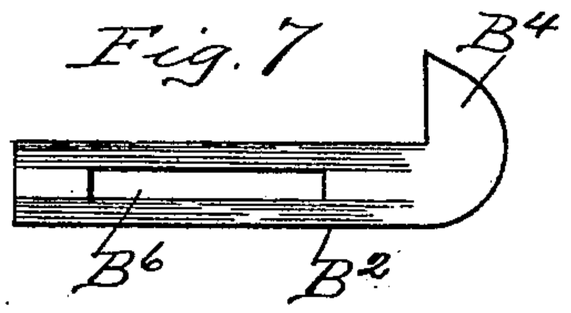


Fig. 7



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UNITED STATES PATENT OFFICE.

OSCAR H. EDDY, OF GREENWICH, NEW YORK, ASSIGNOR TO W. EDDY & SONS, OF SAME PLACE.

FOOT-LATCH FOR REVERSIBLE PLOWS.

SPECIFICATION forming part of Letters Patent No. 480,077, dated August 2, 1892.

Application filed March 5, 1892. Serial No. 423,812. (No model.)

To all whom it may concern:

Be it known that I, OSCAR H. EDDY, a citizen of the United States, residing at Greenwich, county of Washington, and State of New York, have invented certain new and useful Improvements in a Foot-Latch for Reversible Plows, of which the following is a specification.

My invention relates to such improvements; and it consists of the novel construction and combination of parts, hereinafter described and subsequently claimed.

Reference may be had to the accompanying drawings and the letters of reference marked thereon, which form a part of this specification.

Similar letters refer to similar parts in the several figures therein.

Figure 1 is a top plan view of a reversible plow provided with my improved foot-latch. Fig. 2 is a bottom plan view of the foot-latch and its supporting-plate detached from the plow. Fig. 3 is a front elevation of the parts shown in Fig. 2 in position upon the plow-standard, the latter being shown in section. Fig. 4 is a top plan view of the same. Fig. 5 is a top plan view of the bell-crank lever and latch-supporting arms detached. Fig. 6 is a vertical cross-section taken on the broken line 6 6 in Fig. 4. Fig. 7 is a bottom plan view of an adjustable latch-piece detached.

This invention relates to improvements in a plow having a reversible mold-board of the class commonly known as "side-hill" plows; and the invention consists of the novel mechanism for locking the mold-board in position upon either side of the plow.

A represents the standard of a well-known form of plow having the reversible mold-board A′, pivoted to the standard in the usual manner. The handles A^2 are secured to the rear portion of the standard, and the draft-beam A^3 is made integral with or secured to the front portion of the standard.

The mechanism for locking the mold-board in position comprises a pair of latch-hooks secured upon the ends of a bell-crank lever. The bell-crank lever B is pivotally supported upon the plate C, secured to the plow, and is provided upon each of its arms B′ with a latch-piece B^2, secured thereon by the bolt B^3. Each latch-piece is provided on its projecting end with a hook B^4, adapted to engage and lock with a lug *b* on the mold-board to hold the latter in position.

The latch is spring-controlled and spring-actuated through a part of its movement. The spring-supporting rod D is pivotally secured at one end to the bell-crank lever at a point intermediately of the arms B′, and its other end passes through an aperture in the upright flange C′, projecting from the rear portion of the supporting-plate C. The coil-spring D′ incloses the rod D and bears at one end upon the upright flange C′ and at the other end upon the flange D^2 on the inner end of the rod. When the bell-crank lever is in a position for one of the latch-hooks to engage a lug on the mold-board, as in the position shown in Fig. 4, the expansive force of the spring is communicated to the arm D′, which supports the engaging-hook and controls the latch by holding such hook in engagement. When the other latch-hook is to be used to lock the mold-board upon the opposite side of the plow, the mechanism is brought to the position indicated by dotted lines in Fig. 4 and the force of the spring is exerted upon the other arm of the lever. The force of the spring is exerted upon one arm or the other of the lever, except when the lever occupies the neutral position at the middle point of its movement, as shown in Fig. 2, and the latch-hook secured to the arm upon which the spring acts is controlled by the spring.

The device is adapted to be operated by the foot of the plowman, a single kick being sufficient to disengage the latch and throw it past the neutral position, whereupon the spring completes the operation and holds the latch in a position to lock the mold-board upon the other side of the plow. The outer end of the latch-hook is rounded or beveled, so that when the lug upon the mold-board strikes against the end of the hook as the board swings into place the latch will be forced back, its controlling-spring yielding sufficiently to allow the lug to pass the hook and be engaged thereby. The bell-crank lever is provided with a depending pin or lug B^5, adapted to travel in a groove C^2 in the supporting-plate. The

end walls of such groove form stops adapted to be engaged by such pin to limit the movement of the latch and hold one of the hooks in position to be engaged by the lug on the mold-board when the plow is reversed.

The latch-pieces are adjustible longitudinally upon the lever-arms to permit adjustment of the length of the latch-arms. To accomplish such adjustment, I provide a slot B^6 in the latch-piece, adapted to receive and form a slideway for the bolt B^3, which is secured to the arm B′. Such bolt may be loosened when it is desired to adjust the latch-piece, and when tightened securely holds the latter in position.

To prevent lateral movement of the latch-piece upon the arm B′, the arm is provided with a longitudinal rib B^7 upon its upper side, adapted to fit a longitudinal groove in the under side of the latch-piece, as shown in Figs. 3 and 6. A single bolt is thus sufficient to hold the parts firmly together. The plate C, which supports the latch, is preferably secured to the plow by means of a T-shaped groove C^3 in the under side of the depending front portion C^4 of the plate. The form of the groove C^3 corresponds with the form of the upper portion of the standard A, which form of construction permits the plate to be slipped onto the standard from its rear end to the desired position, where it is fastened by securing overlapping portions of the plate to the plow-handles by bolts or screws, as shown.

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

In a foot-latch for reversible plows, the combination, with a bell-crank lever having end hooks and means for securing the lever pivotally upon a plow, of a spring-supporting rod having one end pivoted to the bell-crank lever and provided with a spring-supporting flange and the other end movable in a fixed support, and a coil-spring inclosing the rod with one end of the spring bearing upon the flange on the rod and the other end upon the fixed support, substantially as described.

In testimony whereof I have hereunto set my hand this 23d day of February, 1892.

OSCAR H. EDDY.

Witnesses:
DANIEL CRANDALL,
DUFFIN C. ALLEN.