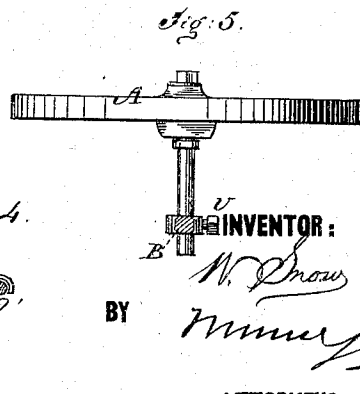
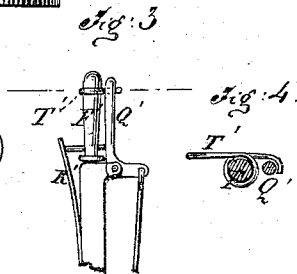
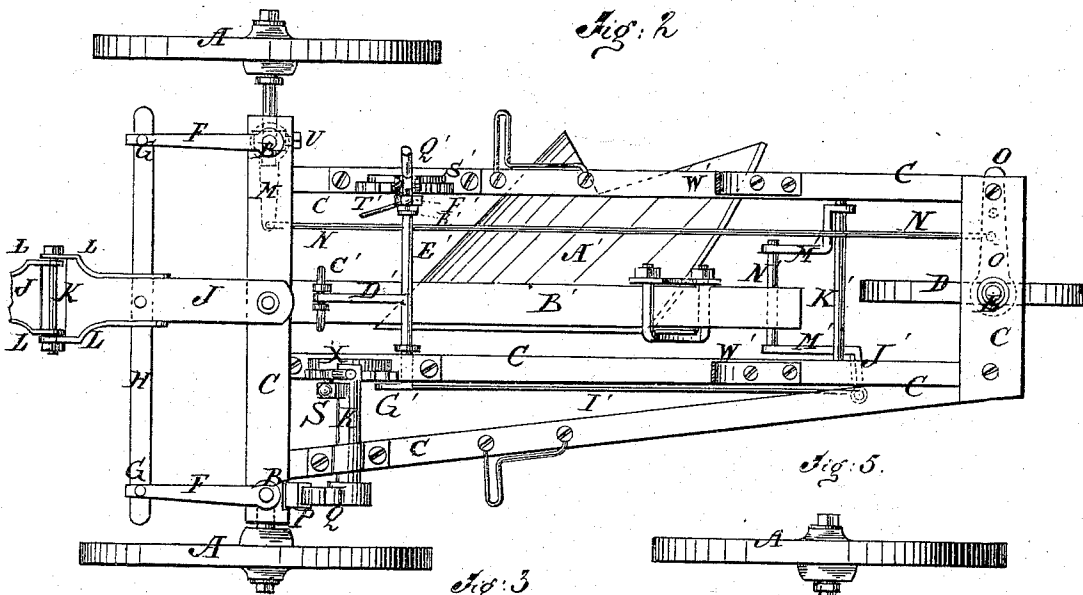
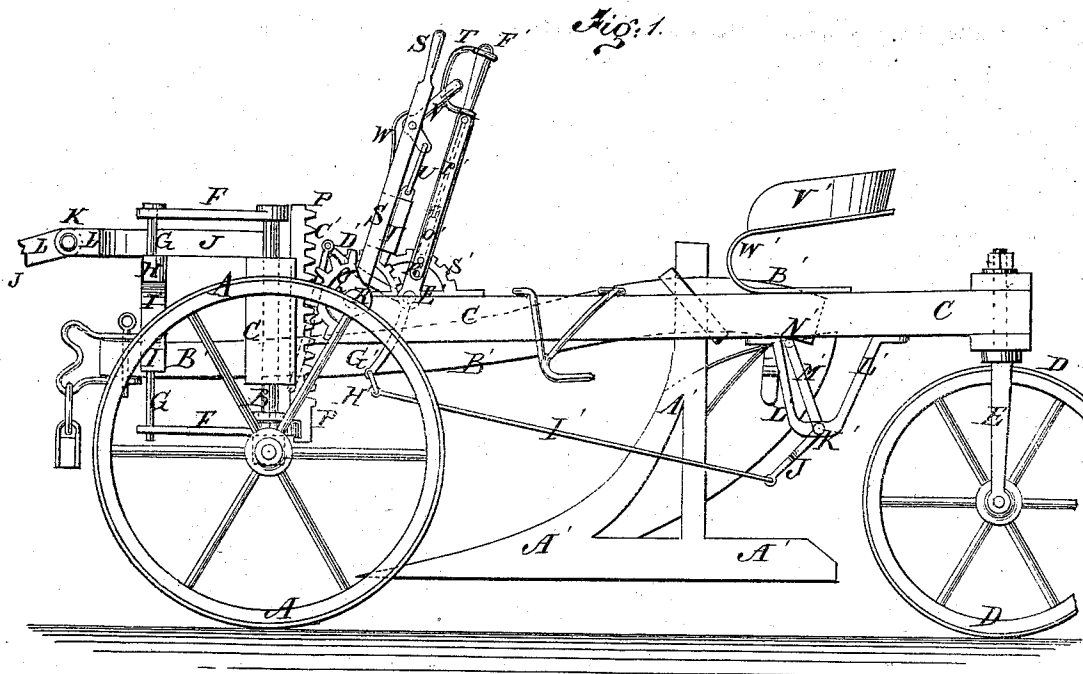


W. SNOW.
Three-Wheel Riding-Plows.

No. 148,149.

Patented March 3, 1874.



WITNESSES:

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BY

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UNITED STATES PATENT OFFICE.

WILLIAM SNOW, OF WAVERLY, ILLINOIS.

IMPROVEMENT IN THREE-WHEEL RIDING-PLOWS.

Specification forming part of Letters Patent No. 148,149, dated March 3, 1874; application filed December 1, 1873.

To all whom it may concern:

Be it known that I, WILLIAM SNOW, of Waverly, in the county of Morgan and State of Illinois, have invented a new and useful Improvement in Three-Wheeled Riding-Plow, of which the following is a specification:

Figure 1 is a side view of my improved machine. Fig. 2 is a top view of the same, the driver's seat being removed. Fig. 3 is a detail side view of the locking-catch of the adjusting-lever. Fig. 4 is a detail top view of the same. Fig. 5 is a detail section of the adjustable axle.

Similar letters of reference indicate corresponding parts.

The invention will first be fully described, and then pointed out in the claims.

A are the two fore wheels, which revolve upon journals attached to or formed upon the lower ends of the standards B, which are swiveled to the forward corners of the frame C. D is the rear wheel, which revolves upon a journal formed upon or attached to the lower end of the standard E, which is swiveled to the middle part of the rear end of the frame C. To the upper and lower ends of the forward standards B are rigidly attached arms F, projecting forward at right angles with the journals of said standards. The forward ends of the two arms F of each standard are connected by rods G, which also pass through the ends of the cross-bar H, and are strengthened by braces I. The cross-bar H is pivoted at its center to, and is supported by, the tongue J, the rear end of which is pivoted to the forward end of the frame C. The tongue J is jointed a little in front of the cross-bar H by means of a bolt, K, passing through the overlapped projecting ends of metallic straps L, attached to the side edges of the adjacent ends of the parts of the tongue J. By this construction the forward end of the tongue J has a free up-and-down but no lateral movement, and thus relieves the horses' necks from having to support any more weight than the weight of the said forward end of the tongue, and at the same time enables the machine to be accurately guided. To the middle part of the standard B of the furrow-wheel A is rigidly attached an arm, M, projecting inward at right angles with the arms F. To the end of the arm M

is pivoted the forward end of a rod, N, which passes back beneath the frame C, and its rear end is pivoted to the outer end of the arm O, rigidly attached to the standard E, and projecting toward the plowed-land side and at right angles with the plane of the wheel D. By this construction, when the fore wheels are inclined in turning, the rear wheel will be inclined to the same extent in the opposite direction, so that the machine may be turned in a very small space. Several holes may be formed in the arm O, to receive the end of the rod N, so that by adjusting the said rod the wheel D will be inclined more or less than the fore wheels A, as may be desired. To the lower part of the standard B of the land-side wheel A is attached the lower end of a bar, P, which passes up through a notch or groove in the rear side of the front cross-bars of the frame C, and has teeth formed in its rear side, into which mesh the teeth of the toothed segment Q, attached to the end of the short shaft R, which works in bearings in the longitudinal bars of the frame C, and has a lever, S, rigidly attached to it. By this construction the land-wheel A may be lowered, so that the machine may be level when moving from place to place, and raised when the machine is at work to run upon the unplowed land while the rear wheel D runs in the furrow in the rear of the plow, and the other fore wheel A runs in the furrow plowed in the previous round. The lever S is secured in any position into which it may be adjusted by a pawl, T, which is operated by a connecting-rod, U, bent hand-lever V, and spring W, connected with the said lever S. The pawl T takes hold of the teeth of a segment, X, attached to the frame C. A' is the plow, which is constructed and attached to the beam B' in the ordinary manner. The forward part of the beam B' projects between two vertical bars attached to and forming a part of the forward end of the frame A. To the beam B', directly over the point of the plow A', or nearly so, is pivoted the end of the clevis C', the other or upper end of which is pivoted to the end of an arm, D', formed upon or attached to the shaft E', which works in bearings attached to the frame C, and which is operated by a lever, F', attached to it. To the inner end of the shaft E' is rigidly attached an arm,

G', to the end of which is connected, by a link, H', the end of the rod I', the rear end of which is connected with the end of the arm J', rigidly attached to the shaft K', which works in bearings in brackets L', attached to the frame C. To the shaft K' are attached arms, M', to the outer ends of which is attached a cross-bar, N', to which the rear end of the plow-beam B' is attached. By this construction, by operating the lever F', the plow may be raised away from the ground for convenience in passing from place to place, or lowered to work at any desired depth in the ground. The lever F is held in any position into which it may be adjusted by the pawl O', operated by the connecting-rod P', bent lever Q', and spring R', and which takes hold of the teeth of the segment S' attached to the frame C. To the upper end of the lever F' is attached a spring-catch, T', upon which the free end of the hand-lever Q' may be caught to lock the pawl Q away from the toothed segment S', and thus allow the plow A' B' to work up and down freely.

To enable the furrow-wheel A to be adjusted as a larger or smaller plow is used, its journal is passed through a socket in the lower end of its standard B, where it is secured in place by

a set-screw, U, as shown in Figs. 2 and 5. V' is the driver's seat, which is supported from the frame C by springs W' in such a position that the driver when in his seat can easily reach and operate the levers S F'.

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

1. In a wheel-plow, the combination, with wheels A D and tongue J, having swiveled cross-bar H, of the swiveled standards B, having the wheel-journals, and the arms F F', connected by rods G, as and for the purpose described.

2. The combination, with the truck-frame and plow-beam, of swiveled standard E, having arm O and the journal on which rear wheel turns, the rod N, and the standard B, having arm M, and vibrated from the tongue, as and for the purpose set forth.

3. The combination of the lever F', the armed shaft E' D' G', clevis C', link H', rod I', armed shaft K' J' M', and bar N', with the plow-beam B' and frame-work C, substantially as herein shown and described.

Witnesses: WILLIAM SNOW.

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