J. FAY.

Sulky-Plow.

No. 161,770. Patented April 6, 1875.

Fig. 1.

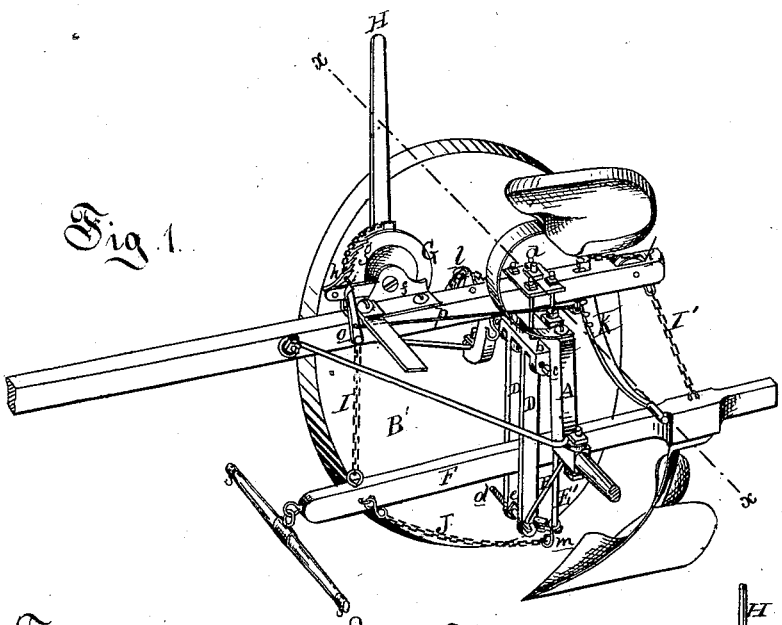


Fig. 2.

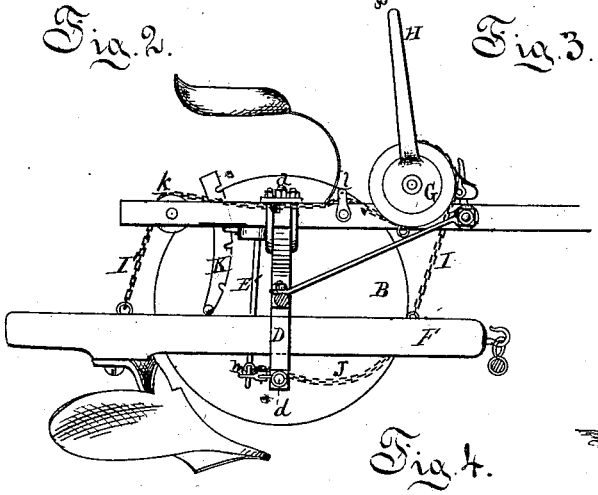


Fig. 3.

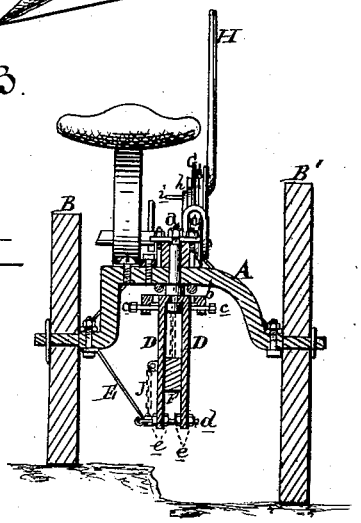
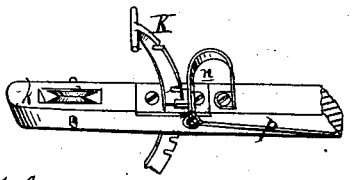


Fig. 4.



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JOHN FAY, OF NEW BOSTON, MICHIGAN.

IMPROVEMENT IN SULKY-PLOWS.

Specification forming part of Letters Patent No. **161,770**, dated April 6, 1875; application filed January 22, 1875.

To all whom it may concern:

Be it known that I, JOHN FAY, of New Boston, in the county of Wayne and State of Michigan, have invented an Improved Sulky-Plow, of which the following is a specification:

The first part of my invention relates to a device for raising and lowering a plow suspended under a sulky-pole, both ends of the beam being moved at the same time.

The second part of my invention relates to the devices for securing the plow-beam in position and for guiding the same.

Figure 1 is a perspective view of my sulky-plow, looking at it from "land." Fig. 2 is a partial elevation of the furrow side of the device, the furrow-wheel being removed. Fig. 3 is a cross-section at *x x*, Fig. 1. Fig. 4 is a bottom perspective view of the rear end of the pole, showing the quadrant locking device.

In the drawing, A represents an arched and bent metallic axle, on one arm of which is mounted a traction-wheel, B, and on the other another and larger wheel, B′, which runs in the bottom of a furrow. C is a pole or tongue, which is clamped to the top of the axle. *a* is a swivel-bolt passing down through the pole and axle. On its lower end is a swivel-bar, *b*, having down-turned ends, through each of which a set-screw, *c*, is tapped. The swivel-bar is slotted at each side of the bolt-hole to receive the heads of two guide-bars, D, through the lower ends of which a screw-threaded eyebolt, *d*, passes, and on which jam-nuts *e* are placed to adjust the guide-bars to or from each other. The plow-beam passes between the guide-bars, which are adjusted at the top by the set-screws *c c*. The guide-bars are braced in a vertical position by a diagonal brace, E, extending from the eye of the bolt to the axle-arm of the land side, and by a vertical bar, E′, bolted at the top to a clip on the axle, and at the lower end to an ear on the head of the eyebolt. F is the wooden beam of a plow of ordinary construction, which beam plays freely between the guide-bars, which are made adjustable to receive a wood or iron beam of any thickness. G is a grooved pulley journaled on a stud projecting from a flanged plate, *f*, bolted to the pole forward of the driver's seat. To the pulley a handle or lever, H, is bolted, and to the inner side a ratchet-segment, *g*, is bolted, with which engages a spring-pawl, *h*, having a stud, *i*, projecting from one side, so that the driver may disengage the pawl by pressing forward the stud *i* with his foot.

The front end of the beam is suspended by a chain, I, whose upper end is secured to the top of the pulley at or near the handle. The rear end of the beam is suspended from a chain, I′, which passes over a sheave, *k*, in a slot in the rear end of the pole, passing thence over a guide-pulley, *l*, on the side of the pole, its other end being secured to the lower edge of the pulley.

By throwing forward the pulley-lever the plow is lowered to the ground, and by pulling it back the plow is raised, and then is held by the ratchet and pawl.

A chain, J, is secured at its front end to the side of the plow-beam near its front end. Any link near its other end is hooked to a hook, *m*, sliding on the vertical bar E′, by means of which chain the plow may be hooked back far enough to have the furrow-slice clear the furrow-wheel as it is turned over.

To prevent the plow from rising while at work, a quadrant-stop bar, K, notched on its front edge, plays in a slot through the overhanging end of the pole. It has a T-head, which at all times rests upon the beam. A spring-catch, *n*, Fig. 4, on the under side of the pole engages with any notch, and thus prevents the segment-stop from rising. The spring-catch is disengaged by a foot-lever, *o*, connected therewith by a rod, *p*. When the plow is lowered the spring-catch should be disengaged to allow the stop K to follow down the plow-beam.

The team is hitched to a double-tree on the end of the beam, so that the draft is direct on the beam, which is kept level by the stop-bar.

The plow-beam being pivoted to the center of the axle through the swivel-bolt, the direction of the plow is not affected by the swaying of the pole.

The front beam-chain governs the depth, which is regulated by the ratchet and pawl, the rear chain being only used to raise that end of the plow.

The draft of this sulky-plow is lighter than the same plow would show without the sulky,

partly because the friction of the plow-wheel is obviated, and partly because it takes its cut steadily without digging the point up and down, as is the case where a plow is guided by hand.

What I claim as my invention is—

1. The pulley G, lever H, ratchet *g*, pawl *h*, and chains I I′, in combination with the tongue and plow-beam of a sulky-plow, substantially as and for the purpose set forth.

2. The combination of the bolt *a*, swivel *b*, guide-bars D D, set-screws *c c*, eyebolt *d*, nuts *e*, and braces E E′, in combination with the axle and pole to receive and guide a plow-beam, substantially as described.

JOHN FAY.

Witnesses:
SAMUEL RICE,
E. E. RYAN.