M. SATTLEY.

Wheel-Plows.

No. 135,594. Patented Feb. 4, 1873.

Fig. 1.

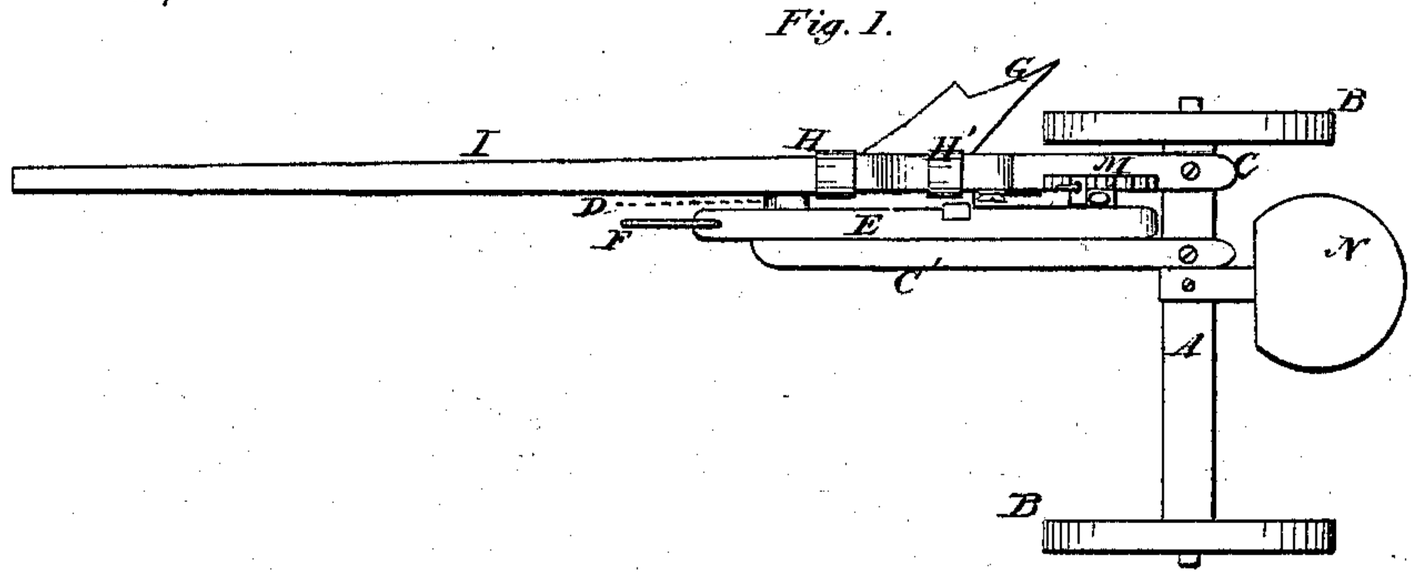


Fig. 2.

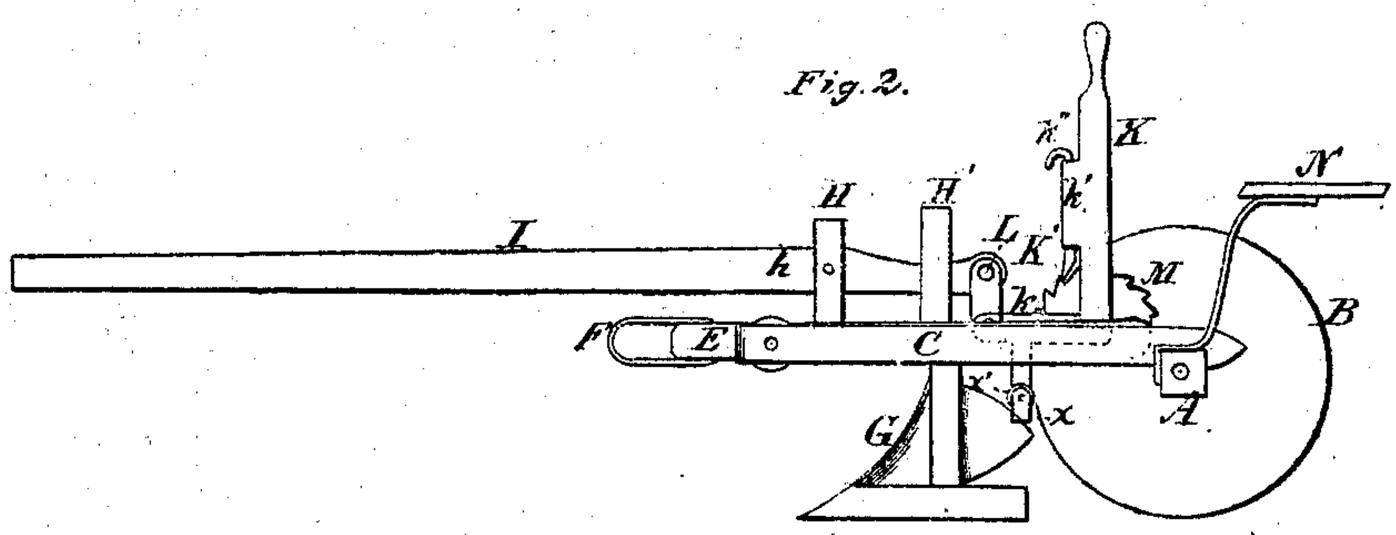


Fig. 3.

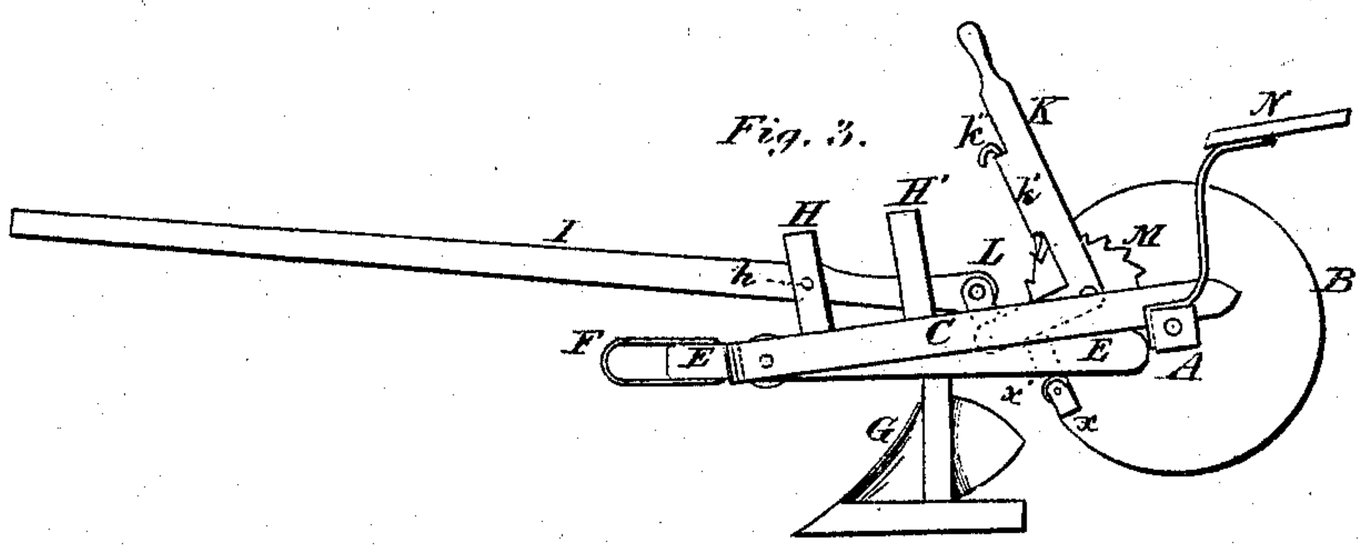
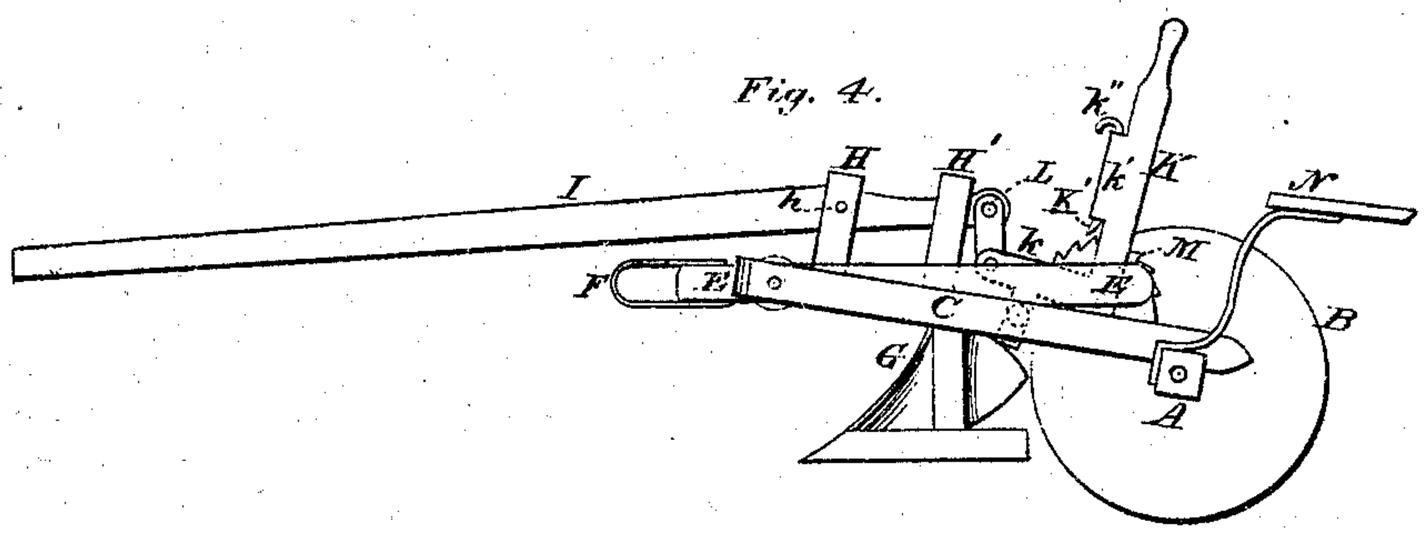


Fig. 4.



Witnesses.
C. A. Poole
John R. Young

Inventor,
Marshall Sattley, by
Prindle and Ley his Attys.

UNITED STATES PATENT OFFICE.

MARSHALL SATTLEY, OF TAYLORVILLE, ILLINOIS.

IMPROVEMENT IN WHEEL-PLOWS.

Specification forming part of Letters Patent No. **135,594**, dated February 4, 1873.

To all whom it may concern:

Be it known that I, MARSHALL SATTLEY, of Taylorville, in the county of Christian and in the State of Illinois, have invented certain new and useful Improvements in Sulky-Plows; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a plan view of the upper side of my improved device. Fig. 2 is a side elevation of the same with the nearest wheel removed and the plow depressed, and Fig. 3 is a like view of said device with the plow elevated.

Letters of like name and kind refer to like parts in each of the figures.

The object of my invention is to enable a sulky-plow to be more easily and efficiently operated than heretofore; and it consists principally in the means employed for regulating the running depth of the plow, substantially as and for the purpose hereinafter shown. It also consists in the device as a whole, when its several parts are constructed and combined substantially as and for the purpose hereinafter shown and described.

In the annexed drawing, A represents the axle of the machine, having journaled upon its ends two ground-wheels, B, of usual construction. Secured to or upon the upper side of the axle A, near the "off"-wheel, are two rails, C and C′, which from thence extend horizontally forward in parallel lines, as shown. Between the rails C and C′ is left a space, D, that has a width somewhat greater than the thickness of either rail and receives the plow-beam E, which beam, extending from the axle A to a point slightly beyond the forward ends of said rails, is pivoted to or between said ends so as to permit its rear end to rise or fall. A clevis, F, attached to the forward end of the plow-beam enables the connection therewith of the horses, while at or near the longitudinal center of said beam is attached the plow G in the usual manner. Secured upon the outer rail C, immediately in rear of the pivotal bearing of the plow-beam, is a metal standard, H, which has, preferably, an ∩ shape, between the vertical portions of which the tongue or pole I is placed and secured in position at a point somewhat above said rail by means of a bolt, *h*, that serves as a pivotal bearing for and upon which said pole may oscillate in a vertical plane. A second standard, H′, having a corresponding shape and width but a height somewhat greater than that of said standard H, is secured to or upon the rail C in rear of the latter, and serves as a guide for the rear end of the pole and prevents any lateral movement of the same. From its pivotal bearing the pole I extends rearward to a point about midway between the same and the axle, and is adjusted to and secured in vertical position with relation to the rail C by means of the following-described mechanism: A lever, K, provided with an arm, *k*, that extends forward from its lower end at a right angle with the same, is pivoted at said lower end to or upon the inner face of the rail C, at a point slightly in advance of the axle, and has said arm connected to or with the rear end of the pole I by means of a short metal bar, L, which is pivoted at its ends to or upon said parts. As thus arranged, by moving the upper end of the lever K rearward or forward, the rear end of the pole will be correspondingly elevated or depressed. When adjusted to place the lever K is locked by means of a pawl or detent, K′, which is placed within a suitable housing, *k′*, upon the front side of the same, and, by means of a spring, is pressed downward into engagement with a toothed quadrant, M, that is formed upon a circle of which the pivotal bearing of said lever is the center. A rod, *k″*, attached to the upper end of the detent K′ and extending upward through the housing *k′*, furnishes a means whereby said detent may be released from engagement with its quadrant. The downward movement of the rear end of the plow-beam E is limited by means of an arm, *x*, which extends downward and then horizontally inward from the longitudinal center of the arm *k* of the lever K, and bears against the lower side of said beam. A roller, *x′*, is pivoted within said arm *x* and furnishes for the same a bearing upon said beam, for the purpose of lessening the friction when said beam and plow are raised. The addition of a driver's seat, N, completes the device, which operates as follows:

The plow-beam being connected to or with the frame at a point considerably in advance of the wheels, the vertical movement of the latter as they pass over uneven ground is practically lost before it reaches said plow-beam,

so that the plow moves along at a uniform depth below the surface of the ground, instead, as heretofore, of following the irregularities of the same. When it is desired to raise or lower the plow the result is effected by means of the pivoted lever and tongue and their connection, which together afford sufficient leverage to enable the plow to be adjusted vertically with ease and dispatch even while operating in heavy ground.

While possessing these advantages, the whole device is simple in construction, durable, and comparatively inexpensive.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

1. In combination with the frame of the machine and with the pivoted plow-beam, the tongue I pivoted in front of its rear end, the lever K provided with the arms *k* and *x*, and the connection L, substantially as and for the purpose shown.

2. The hereinbefore-described machine, consisting of the axle A, ground-wheels B, rails C and C′, plow-beam E, clevis F, plow G, standards H and H′, pole I, lever K and *k*, detent K′, connection L, and quadrant M, when said parts are constructed and combined to operate substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 30th day of September, 1872.

MARSHALL SATTLEY.

Witnesses:

WILLIAM R. CALLOWAY,

THOMAS W. LONG.