2 Sheets—Sheet 1.

J. PIERPONT.

Sulky-Plow.

No. 200,841. Patented March 5, 1878.

Fig. 1.

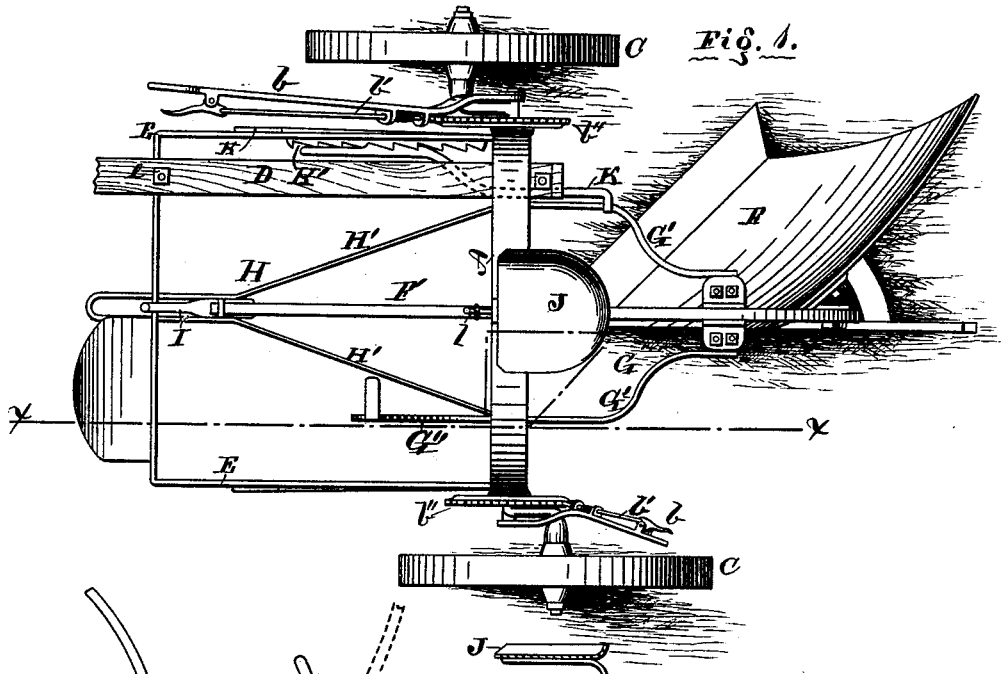
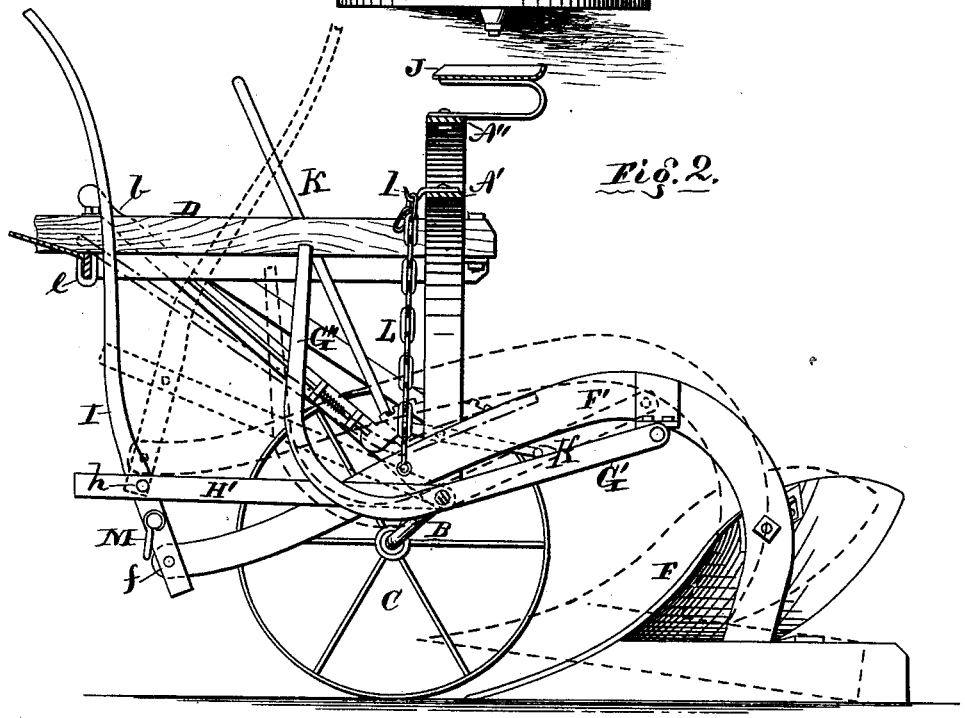


Fig. 2.



Witnesses:
M. H. Barringer.
Thos. C. Temple

Inventor:
Joshua Pierpont,
By W. B. Richards
Atty.

2 Sheets—Sheet 2.

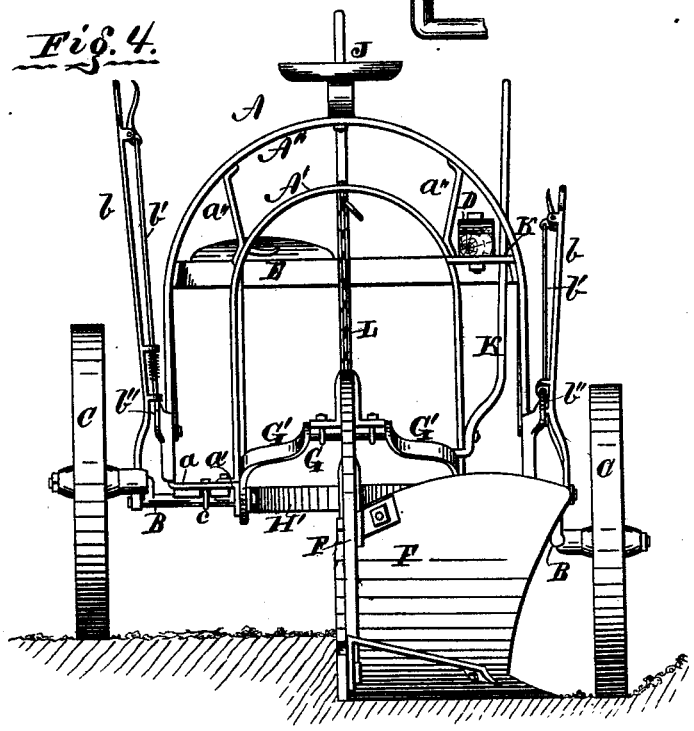
J. PIERPONT.

Sulky-Plow.

No. 200,841. **Patented March 5, 1878.**

Fig. 3.

Fig. 4.



Witnesses:
Thos. C. Temple.
M. M. Barringer.

Inventor:
Joshua Pierpont,
By W. B. Richards,
Atty.

UNITED STATES PATENT OFFICE.

JOSHUA PIERPONT, OF BUSHNELL, ILLINOIS.

IMPROVEMENT IN SULKY-PLOWS.

Specification forming part of Letters Patent No. **200,841**, dated March 5, 1878; application filed June 9, 1877.

To all whom it may concern:

Be it known that I, JOSHUA PIERPONT, of Bushnell, in the county of McDonough and 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, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in sulky-plows; and consists, first, in connecting the plow with the axle by means of two yokes, one projecting forward and one rearward from the axle, the rear yoke hinged to the plow-beam and the forward yoke connected thereto by a link or lever, which permits of oscillation of the yokes to raise and lower the plow, and also furnishes a convenient hand-hold by which the operation may be performed.

The invention further consists in so constructing and connecting the aforesaid parts that, in operating them to raise the plow from the ground, the point of the plow will be raised first.

The invention further consists in the use of a locking-lever, in combination with aforesaid devices, by means of which the plow may be prevented from rising above a certain fixed depth, while it is allowed to fall and rise freely below said fixed point, all as hereinafter fully described.

In the accompanying drawings, Figure 1 is a top view of a sulky-plow embodying my invention. Fig. 2 is a sectional view in the line *x x* in Fig. 1. Fig. 3 is a detail view, showing the connection of the crank ends to the main part of the axle. Fig. 4 is a rear elevation.

Referring to the parts by letters, A represents the elevated central part of the axle, formed of an interior bar of wrought-iron, A′, and exterior bar A″. The lower ends of the bar A″ are bent inward, as shown plainly at *a*, and downward, as shown at *a′*, and the lower ends of the bar A′ are bent outward and bolted to the part *a* of the bar A″, as shown in Fig. 3. The upper portions of the bars A′ A″ are braced to each other by braces *a″*. B B are short crank-axles, each with one end formed into a spindle for a supporting-wheel, C, and its other end journaled to the axle A by means of a yoke, *c*, and a suitable bearing in the part *a′* of the bar A″. Each crank-axle B is provided with a lever, *b*, and spring-pawl *b′*, by means of which it may be adjusted in the ordinary manner, to raise and lower either side of the axle A, and be held, when adjusted, by engaging the spring-pawls in the segmental racks *b″*. D is the tongue, secured at its rear end to the axle A, and forward to the front side of the foot-rest frame E, by means of a yoke, *e*, by which it may be adjusted laterally. F is the plow, and F′ the plow-beam. G is a yoke formed of two bars, G′ G′, their forward ends hinged or journaled, one to the inner projecting end of each crank-axle B, and their rear ends journaled to the rear portion of the plow-beam in such manner that the yoke may oscillate in a vertical plane. H is a yoke formed of arms H′ H′, the rear ends of which are journaled upon the same axial bearings as the forward ends of the yoke G, and the forward ends of which are journaled at *h* to a lever, I, the lower end of which is journaled to the end of the plow-beam at *f*, and the upper end of which extends upward to within easy reach of the operator from his seat J.

The yokes G and H may be pivoted at any suitable points on the axle A. One of the arms G′ is extended forward to form a lever, G″, on which the driver may place his foot and press downward to raise the plow above the ground, and to hold it in an elevated position while turning, &c. K is a lever pivoted to the axle A, and its rear end turned inward so that it will rest upon one of the bars G′ when its forward end is raised or drawn backward by the driver. K′ is a rack-bar, with which the lever K may be engaged to hold it in any desired position.

When the plow is adjusted to run at a certain depth the lever K may be adjusted and fixed in position, as described, with its rear end resting on a bar, G′, and will act as a stop to prevent the plow rising in hard ground and other places, but will not interfere with the wheels rising to pass over obstructions, nor prevent the plow going below the depth to which adjusted.

The lever K may be released from the rack-

bar and thrown forward when it is desired to elevate the plow.

L is a chain secured to the plow-beam at its lower end, and its upper portion may be engaged with a hook, *l*, at the crown of the arched axle A.

When it is desired to plow a given depth—say, six inches—the wheels and plow are adjusted to run the plow a few inches deeper—say, eight inches. The chain L is then adjusted to only permit the plow running at the six-inch depth, and may thus be made to transfer the weight of the furrow-slice from the bottom of the plow to the wheels, and thus reduce friction by transferring it from surfaces with sliding contact to surfaces with rolling contact.

The dotted lines at Fig. 2 show plainly the manner of raising the plow point first by drawing the upper end of the lever I backward, and it will be evident from the inspection of the same figure that the plow-beam, being connected to the yoke H by the link or lever I, will permit both yokes G H to oscillate freely in vertical planes, and thus allow the plow to rise and fall freely.

The draft-hook or clevis M may be attached to the end of the plow-beam or to the lower portion of the lever I.

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

1. In a sulky-plow in which the plow-beam is connected to the axle by means of a pivoted yoke projecting rearward from the axle or frame, the combination of a pivoted yoke projecting forward from the axle or frame, and connected to the plow-beam by means of a link or lever, so as to permit the plow to rise and lower by the oscillation of the yokes, substantially as and for the purposes specified.

2. In combination with a plow connected to the axle by a rear yoke, a forward yoke, link, and lever, I, by means of which the plow may be raised from the soil with its point end first, substantially as described, and for the purpose specified.

3. The lever K, arranged to operate with the yokes G H, lever I, axle A, and wheels C, substantially as described, and for the purpose specified.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOSHUA PIERPONT.

Witnesses:
SOLON BANFILL,
L. V. HOOVER.