

UNITED STATES PATENT OFFICE.

JOSEPH M. PAYNE, OF DALLAS, TEXAS.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. **198,902**, dated January 1, 1878; application filed January 13, 1877.

To all whom it may concern:

Be it known that I, JOSEPH M. PAYNE, of Dallas, in the county of Dallas and State of Texas, have invented a new and valuable Improvement in Plows; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side elevation of my plow attachment, and Figs. 2, 3, and 4 are detail views thereof.

This invention relates to sulky-plows; and it consists in certain improvements therein, hereinafter more fully set forth.

In the accompanying drawings, A designates a plow-beam; B, a standard, bolted thereto; and C, a plow carried by said standard.

I do not claim any novelty in the foregoing devices.

D designates the axle of the sulky attachment, which axle is journaled on said beam by a clip, E. Said clip consists of two plates, or of a plate bent to form two leaves, $e e^1$, which are curved in the middle to form a tubular space, e^2 , (shown in detail in Fig. 3,) for the reception of one end of said axle D.

Two U-shaped screw-threaded bolts, $e^3 e^4$, are provided with nuts, and used to clamp plates or leaves $e e^1$ to beam A.

To the other end of axle D I secure the lower end of an adjusting-lever, F, which lower end is provided with a crank-arm, F', at right angles to said lever F, but in the same vertical longitudinal plane therewith. Said crank-arm is provided with a rigidly-attached journal, f , on which turns sulky-wheel G.

When adjusting-lever F is tipped forward, plow C and wheel G occupy an upright position. When said lever F is drawn backward, the operation of crank-arm F' causes said wheel G and plow C, with the parts attached, to incline sidewise. Said lever F may be locked at any point of such adjustment (thereby retaining the entire apparatus in the position desired) by means of a segmental plate, H', attached to the cross-bar H, which is rigidly secured to the plow-beam, and is provided with

a depending ear for journaling the crank-axle D, and with a curvilinear series of perforations, h , arranged at regular intervals.

Lever F is provided with a pivoted catch, I, which is held by the operation of spring I' in engagement with said perforated segmental plate H. A stud on the lower end of said catch passes through a perforation, g , in said lever, and enters any one of said holes h when brought opposite thereto.

J designates a small caster wheel or roller, which is attached to beam A, near the front end thereof, on the side opposite to sulky-wheel G.

This attachment is effected by means of a clip, K, similar to clip E, and provided with a vertical tubular passage, k , in which the shank J' of said caster-roller J is adapted to slide vertically. The upper end of said shank is reduced to form a neck, j , and shoulder j^1 . Said neck is screw-threaded, to receive a nut, j^2 , on its upper end. On said neck, between said nut and shoulder, sits an arched slotted arm, L, formed on the lower end of a pivoted adjusting-lever, L'. When said lever is rocked backward the pressure of arm L against the under side of nut j^2 raises shank J' and roller J; or, if the latter rests upon the ground, the corresponding pressure of said lever upon its pivot lowers the front of beam A and the point of plow C. Said lever L' is pivoted to an upright bar or plate, M, which is attached to beam A by a clip, m .

M' designates a segmental bar or plate, made in one piece, with said upright bar M, and provided with perforations m' . To said lever L' is pivoted a catch, N, (similar to catch I,) and provided with a stud, n , which is forced by the operation of spring N' into engagement with any one of said perforations m' , thereby locking said lever L' in any position desired. The pivotal attachment of said catches I and N to their respective levers may be made by means of lugs on the outside of the latter, or in any other convenient way.

By means of lever L' and arched arm L, in combination with shank J' and roller J, the point of plow C may be raised or lowered at will, to compensate for inequalities of the ground.

As my adjusting devices and sulky attachment are all secured by clips, they may be applied to any ordinary plow-beam without remodeling or otherwise weakening the same. No bolt-holes are required. Caster-wheel J facilitates the turning of the plow.

The seat Z is attached to the cross-bar H by means of the connecting spring or bar *o'*. The cross-bar H is braced by means of bars or rods. (Not fully shown in the drawings.) The outer one or the brace rod, near the wheel, extends forward, and is secured to the plow-beam, and the inner rod attached to a foot-platform, which, in connection with the outer bracing-rod, supports the same.

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

In a one-wheel plow, the combination of the cross-bar H, having the ratchet H', and being rigidly secured to the plow-beam, with the bell-crank lever F, carrying the wheel G upon its shorter arm, and the spindle-crank *f*, journaled to the cross-bar, substantially as described, and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOSEPH MOTT PAYNE.

Witnesses:

PAUL FURST,
PHILIP LINDSLEY.