

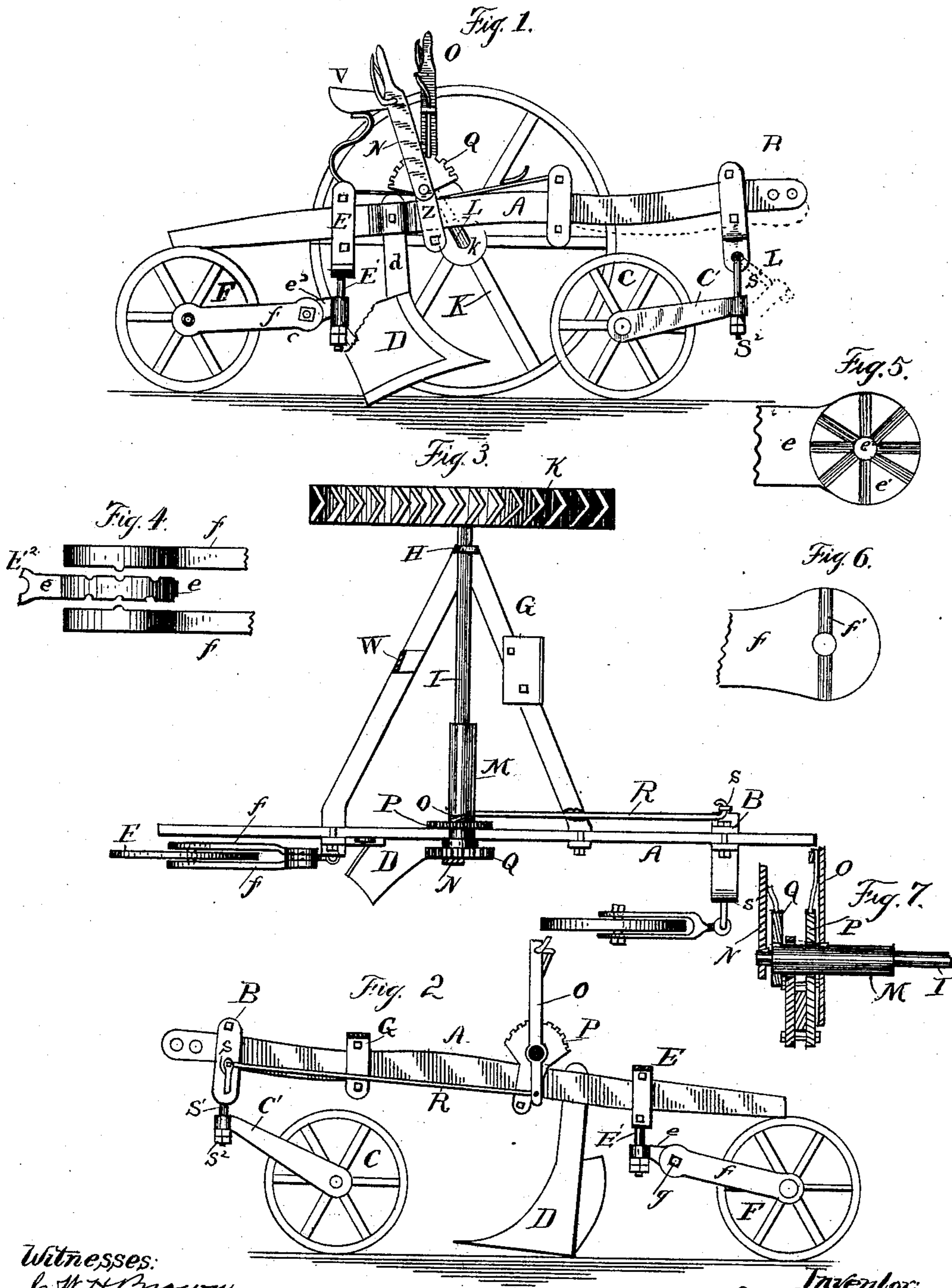
(No Model.)

J. R. ERVIN.

SULKY PLOW.

No. 322,094.

Patented July 14, 1885.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

JAMES R. ERVIN, OF MARSHALL, MISSOURI.

## SULKY-PLOW.

SPECIFICATION forming part of Letters Patent No. 322,094, dated July 14, 1885.

Application filed April 30, 1885. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES R. ERVIN, residing at Marshall, in the county of Saline and State of Missouri, have invented certain new and useful Improvements in Sulky-Plows, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to sulky-plows of the class which are provided with swiveled wheels on the plow side of the frame, and with mechanism for readily raising or lowering the plow.

The improvement consists in certain constructions and combinations of parts whereby the adjustments are easily and quickly effected, and the details of such improvements are hereinafter pointed out in the claims.

Figure 1 is a side elevation of the plow and attachments, part of the mold-board being broken away. Fig. 2 is a reverse side elevation, partly sectioned. Fig. 3 is a plan with seat removed. Fig. 4 is a detail of the joint by which the furrow-wheel may be raised or lowered. Figs. 5 and 6 are details of the same. Fig. 7 is a detail section of the axle-connections by which the main wheel is raised or lowered.

A represents the plow-beam, to which the shackle B of the front caster-wheel, C, is secured, as also the plow D and the shackle E of the furrow-wheel F. The triangular frame G is also mounted at its broad end on the plow-beam, the other end having a bearing at H for the main axle I. These shackles may be adjusted lengthwise of the beam by means of the bolts passing through them. The large wheel K is secured to a bent arm, L, of axle I, so that the rotation of axle I in its bearings will raise or lower the axis *k* of the wheel K. The other end of axle I has the lever N attached, so that the movement of said lever may turn the axle in its bearings H and M, the latter being a sleeve about the shaft and free to turn thereon, but being itself a pivot for the lever O, and having its bearings in the bars of shackle Z. The lever O is held by a catch, engaging notched sector-plate P, as usual, and has a draw-rod, R, leading to bell-crank lever, S, which lever has its bearings in the shackle B, and its other end, S', serves as a pivot about which the hanger C' of wheel C is free to turn, being held thereon by lock-nut S<sup>2</sup>. The movement

of lever O will thus serve to rock the bell-crank S and raise or lower the front end of the plow-beam thereby, and at the same time by rocking the sleeve M, to which the notched sector Q is secured, the lever N, interlocking with said sector, and the axle I, will be rocked, and the relative elevation of the frame with relation to the wheel K will be correspondingly changed; but when (as for side-hill plowing) the operator desires to raise or lower the outer end of frame G with relation to wheel K, he rocks lever N, and thereby the shaft I, leaving lever O and sleeve M attached to sector P, and the position of shaft I and wheel K are changed without disturbing wheel C. The plow D is attached to the beam A by its shank *d* passing through a socket on the beam, so as to be vertically adjustable. The furrow-wheel F is swiveled to shackle E, which shackle consists of a plate on each side of the plow-beam and screw-bolts passing through the plates above and below the beam, so that the shackle may be adjusted relatively to the beam, either vertically or longitudinally. One of the plates of shackle E has a cylindrical extension, E', which forms the pivot of the swivel E<sup>2</sup> of arm *e*. This arm *e* has an extension, with radially corrugated or ribbed surfaces *e'* *e'*, and a hole, *e*<sup>2</sup>, passing through the same. The arms *f* *f* are attached by a screw-bolt to the extension *e*, said arms having ribs or corrugations *f'* to engage with those, *e'*, on plate *e*. The bolt *g*, which passes through holes *e*<sup>2</sup> *f*<sup>2</sup>, may be loosened and the arms *f* turned thereon as a center, thus raising or lowering the axis of wheel F, when by tightening the bolt the arms are firmly secured in their new position. Thus the general elevation of the plow-beam and plow with reference to the furrow-wheel may be determined. Seat V is supported on standard W, or in other suitable manner. It will thus be seen that by one lever the rider is able to raise or lower one side of the frame, by the other he may adjust both the side and front, and that the adjustment of the furrow-wheel is also provided for, while the free swiveling movement of the wheels on the beam side of the frame is at all times permitted.

I claim—

1. In combination with the beam of a sulky-plow, a front caster-wheel, a bell-crank lever

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mounted on the beam to which said caster-wheel is swiveled, a landside-wheel, a lever on the axis thereof, and a connection from said lever to the bell-crank lever on which the  
5 caster-wheel is swiveled, substantially as described.

2. In a sulky-plow, the combination of the triangular frame with the beam by means of shackles, and the axle having one bearing in  
10 the frame and another in a shackle on the beam, whereby the beam may be moved longitudinally with relation to the frame and axle, as set forth.

3. In combination with the beam of a sulky-plow, a shackle adjustable relatively thereto,  
15 a pivot on the shackle, an arm swiveled on said

pivot and having ribbed faces, and a wheel-frame having ribbed faces adjustably secured to said arm, as set forth.

4. In combination with the plow-beam of a sulky-plow, a swiveled front wheel and connections, as described, whereby the same may be raised and lowered, and a swiveled furrow-wheel having arms by which the vertical ad-  
25 justment of the same relatively to the beam may be effected, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

J. R. ERVIN.

Witnesses:

J. B. RADER,

JOS. SAPPINGTON.