(No Model.) 2 Sheets—Sheet 1.

J. WALTER.

SULKY PLOW.

No. 301,648. Patented July 8, 1884.

FIG 1

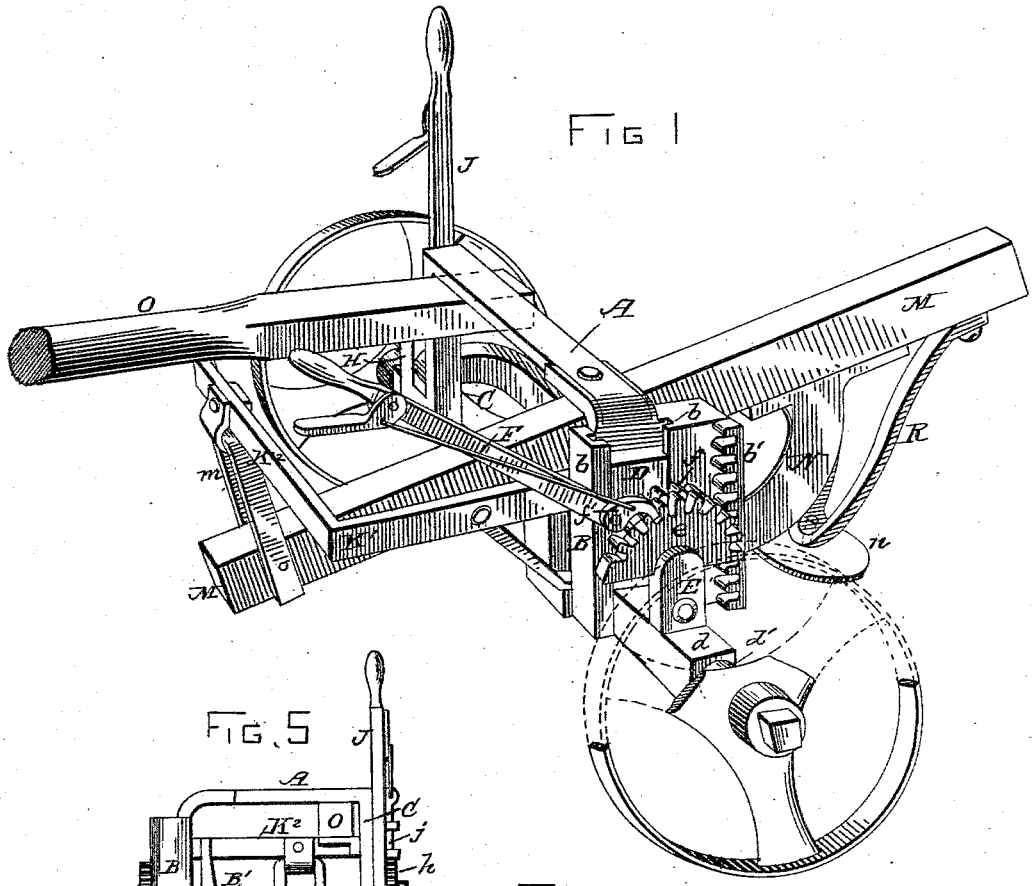
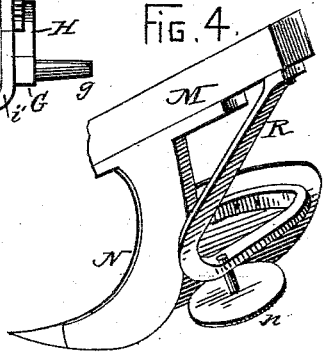


FIG. 5

FIG. 4.



WITNESSES:
R. A. Clark.
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INVENTOR,
John Walter,
per Chas. H. Fowler
ATTY

(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

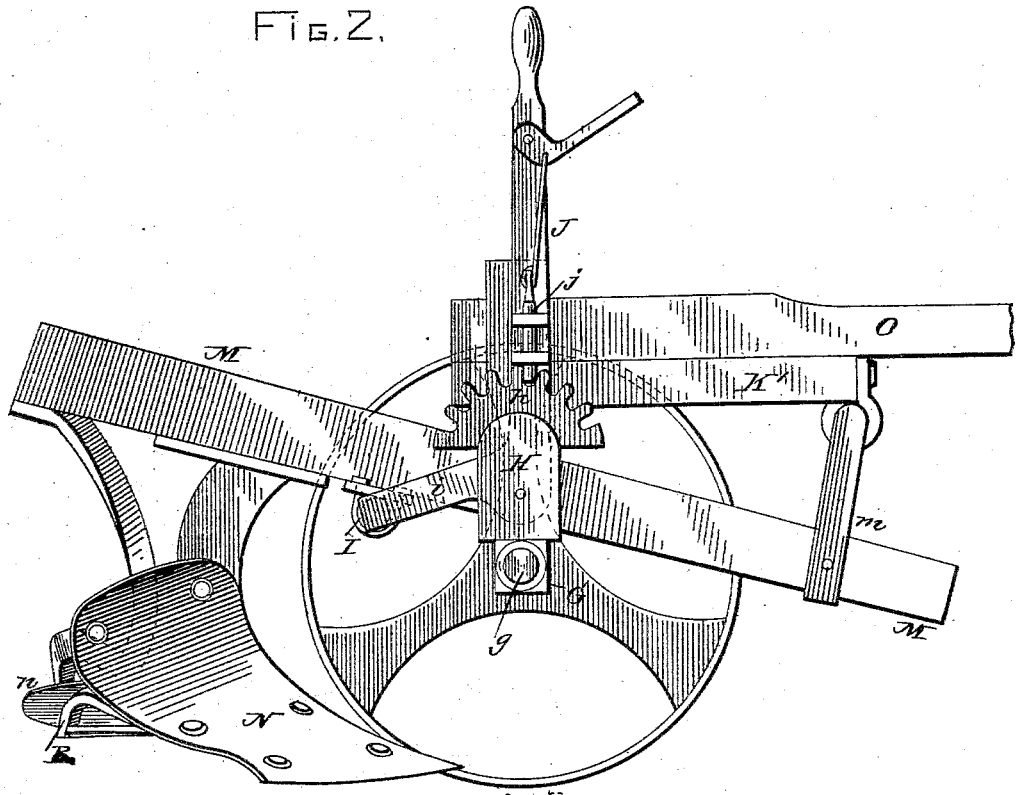
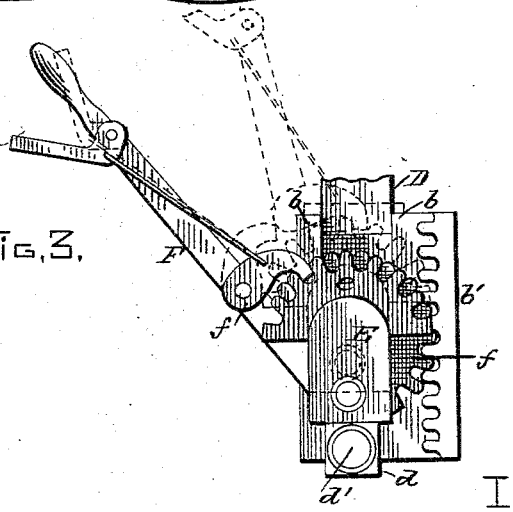


Fig. 3.



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ATT'Y.

UNITED STATES PATENT OFFICE.

JOHN WALTER, OF PIQUA, KANSAS.

SULKY-PLOW.

SPECIFICATION forming part of Letters Patent No. 301,648, dated July 8, 1884.

Application filed April 7, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN WALTER, a citizen of the United States, residing at Piqua, in the county of Woodson and State of Kansas, have invented certain new and useful Improvements in Sulky-Plows; and I do hereby declare that the following is a full, clear, and exact description 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.

This invention relates to sulky-plows; and it consists in the novel construction hereinafter described, whereby the depth of the plowshare may be regulated, and the sulky adapted to hillsides of different grades, and in other improvements, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of my plow. Fig. 2 is a side view of same. Fig. 3 is a detail view showing the movable axle and devices for adjusting same; and Fig. 4 is a detail view of the plowshare. Fig. 5 is a detail view of the operating mechanism.

The sulky-frame is composed of the top bar, A, provided on its opposite ends with depending arms B C. The arm B is provided on its outer face with guides *b b*, and has a rack, *b'*, formed on it to one side of the guides, as clearly shown in Figs. 1 and 3. A bar, D, is adapted to and is movable vertically in the guides *b*. The axle *d* is bent at right angles outward from the lower end of this bar, and is provided with a spindle, *d'*. A short standard, E, is mounted on axle *d* near the joint of the spindle, and serves as a support for the curved rack *e*, which is mounted on its upper end. From Fig. 1 it will be seen there is a slight space between the rack and the bar D. The lever F is pivoted within this space, and has a segment-gear or rack-segment, *f*, formed on its lower end and meshed with the rack *b'* on the arm B. As this lever F is rocked on its pivot the segment-gear meshed with rack *b'* will move the bar D up and down in the guides *b*. A pawl, *f'*, pivoted on lever F in poition to engage rack *e*, and operated by hand-lever and connecting-rod, serves as a means whereby the bar B, and consequently the wheel supported on spindle *b'*, may be held in any desired point of adjustment. The arm B, it will be seen, is cast in a single piece with guides *b* and rack *b'*, and forms convenient simple structure, which, in connection with bar D, lever F, &c., enables the easy adjustment of the landside-wheel. An axle, G, is bent from the lower end of arm C, and has a suitable spindle, *g*, formed on its outer end. A short standard, H, similar to standard E, and provided with a curved rack, *h*, is mounted on the axle G a short distance from arm C. The crank I has its arms *i i'* pivoted the one *i* on a support or standard, B', projected inward from arm B of the sulky, and the other, *i'*, is pivoted between the arm C and standard H, below the curved rack *h*. A lever, J, is bent upward from or secured on the forward end of arm *i'*, and is provided with a pawl, *j*, arranged to engage rack *h*, as more clearly shown in Fig. 2. By this construction the crank I may be adjusted to and held at any desired height. The forward frame is composed of bars K' K². The bars K' are secured at their rear ends to the arms B C on the inner sides of the said arms and near the top bar, A. The bar K² connects the forward ends of these bars K', and is arranged parallel to bar A, as shown. I brace the forward frame by a bar, L, secured at one end to support B' and at its forward end to said frame, as shown in Figs. 1 and 5. The beam M is supported at its forward end on the cross-bar of frame K, preferably by means of a hanger, *m*. I extend the beam back over and journal it on the crank I, as shown in Figs. 2 and 5. The plowshare N is secured on the rear end of the beam, and is provided back or in rear of its mold-board with a roller, *n*, which is journaled in approximately vertical line, so it will revolve in a plane parallel to the ground-surface. A brace, R, has one end connected to the back of the plow N, and extends along the same some distance to strengthen it, after which the brace extends outward and upward at an angle to the beam M, where its opposite end is fastened. This brace R forms means for strengthening the plow, and at the same time a bearing for the axle or journal of the roller *n*. The periphery of the roller *n* extends to or

slightly beyond the landside of the share, and serves to overcome the tendency to run down hill, common in hillside-plows.

The operation of my machine is simple, and will readily be understood from the foregoing description. The sulky-adjusting devices and those for raising and lowering the beam are arranged so as not to interfere with each other, and yet in convenient reach for easy operation by the driver.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a sulky-plow, the combination of the arched axle A, having at one end the fixed spindle G and stud or post H, and provided at its opposite end with the branch B′ and frame B, having guides *b* and rack *b′*, the stub-axle D, having spindle *d d′* and stud E, rack *e*, and the segment-lever F, the rack and lever being supported on the movable axle-arm, substantially as shown and described.

2. The combination, with the plow-beam and mold-board, of the roller *n*, and the curved or coiled brace and journal support R, extending along the mold-board, and thence horizontally to the landside of the plow and secured to the beam, serving to strengthen the mold-board and brace it to the beam, and as a support for the vertical wheel-journal, substantially as shown and described.

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

JOHN WALTER.

Witnesses:
SAMUEL MALCOM,
D. EWART.