

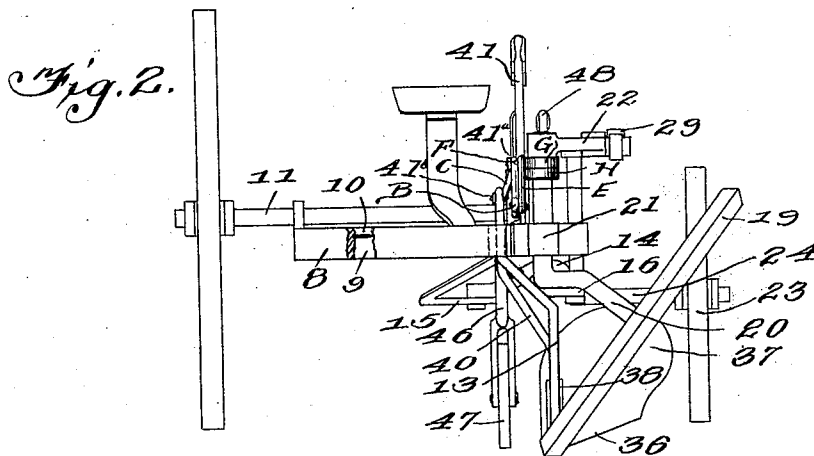
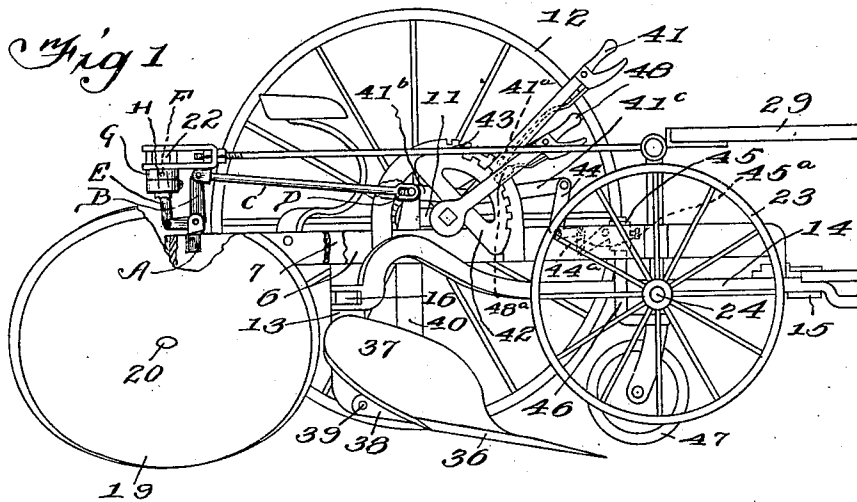
H. MAHLER.
PLOW.

APPLICATION FILED JULY 7, 1908. RENEWED DEC. 16, 1910.

999,817.

Patented Aug. 8, 1911.

2 SHEETS—SHEET 1.



WITNESSES:

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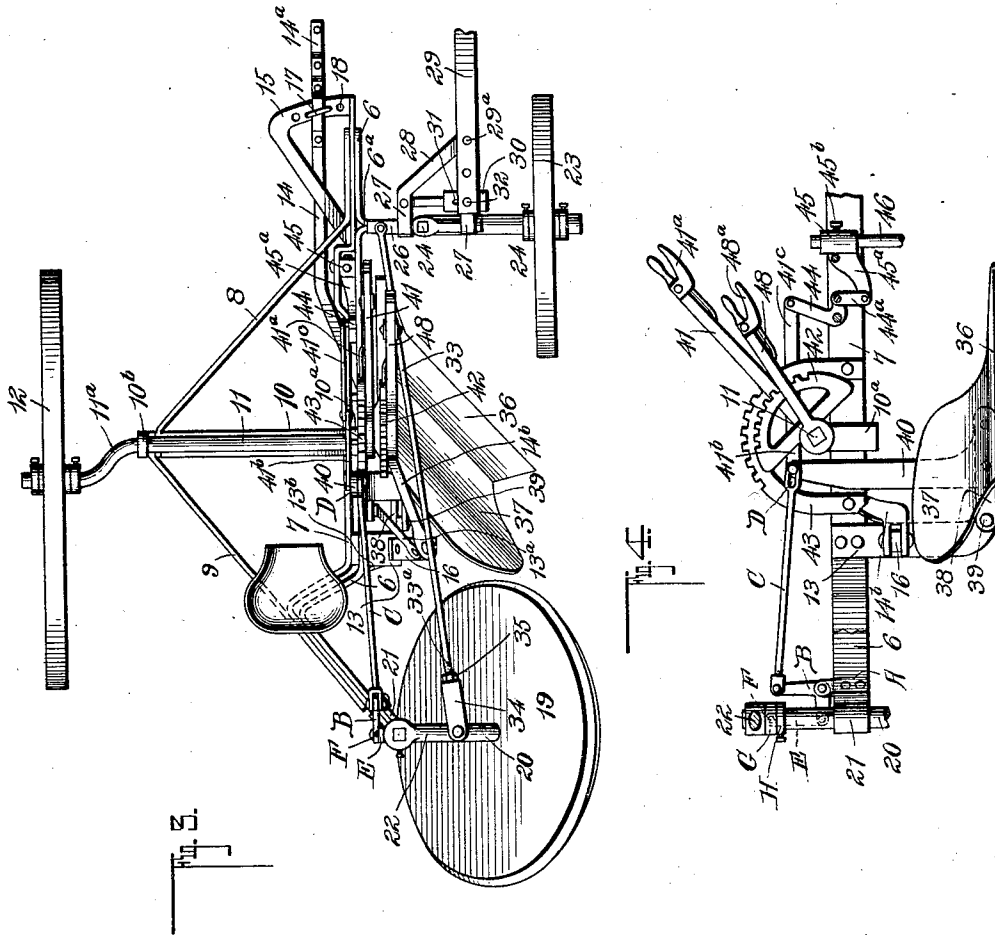
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2 SHEETS-SHEET 2.



Witnesses

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UNITED STATES PATENT OFFICE.

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PLOW.

999,817.

Specification of Letters Patent.

Patented Aug. 8, 1911.

Application filed July 7, 1908, Serial No. 442,354. Renewed December 16, 1910. Serial No. 597,720.

To all whom it may concern:

Be it known that I, HENRY MAHLER, a citizen of the United States, residing at Westpoint, in the State of Nebraska, have
5 invented certain new and useful Improvements in Plows, of which the following is a specification.

This invention relates to improvements in sulky-plows, and more particularly the plow shown and described in my former Patent No. 689206, dated December 17, 1901.

The object of the present invention is to provide means for raising and lowering the rear end of the plow frame, and to this end
15 the invention consists in a novel arrangement and combination of parts to be hereinafter described and claimed.

In the accompanying drawings Figure 1 is a side elevation of the plow showing the application of the invention. Fig. 2 is a rear
20 end view thereof. Fig. 3 is a plan view, and Fig. 4 is a detail view showing the connection of the levers to the raising mechanism of the rear end of the frame and the tilting
25 of the plow.

Referring specifically to the drawings, the main frame of the plow comprises longitudinal beams 6 and 7, lateral angular beams 8 and 9, and a cross beam 10, all of which
30 beams are securely fastened together by bolts or otherwise. The beam 10 carries the cranked axle of the land-wheel 12. The plow-standard 13 is rigidly secured at its upper end between the beams 6 and 7. The
35 draft-bar 14 is pivoted at its rear end to a bracket 16 secured to the plow-standard, and extends obliquely to a clevis-frame 15 whereby its front end is supported and on which it is laterally adjustable. The furrow-wheel 19 is carried by an axle 20 in an
40 inclined position as usual, and the axle is bent to a vertical position and extends through a boxing 21, formed at the rear end of the main-frame, and it is provided at its
45 upper end with a lever 22. The axle 24 of the front wheel 23 is provided with a lever 26, to which the tongue 29 is connected. The levers 22 and 26 are connected by a rod
50 in such a manner that the wheels 19 and 23 in turning a curve are turned to the same angle, but in different directions, as will be understood, to permit a short turn of the plow.

The plow-share 36 and mold-board 37 are
55 rigidly connected to the landside 38, and the

latter is pivoted to the plow-standard 13 by a pin 39. To the landside is fastened a standard 40 which extends thence upwardly loosely between the beams 6 and 7 and a short distance above the same.

On the axle 11 is loosely fulcrumed a hand-lever 41, and to the beams 6 and 7 is secured a toothed segment 43, which is engaged by the usual spring latch 41 carried by said lever. The hand-lever is connected to the upper end of the standard 40 by a link 41^b and by a link 41^c to one arm of a bell-crank 44, which is pivoted between the beams 6 and 7. The other arms of the bell-crank is connected by a link 44^a to the arm 45^a of a pivoted socket-piece 45 which carries the standard 46 of the rolling colter 47.

To tilt the plow downwardly, the lever 41 is thrown forwardly, which has the effect of lowering the plow-point by a downward turn upon its pivot 39. At the same time, the lever throws the colter forwardly and slightly upward, so that it will retain its proper position relative to the land and not enter the same too deep. To cut the shallow furrow or to raise the plow-point, the lever 41 is thrown rearwardly and the plow and colter correspondingly tilted.

The main frame is raised or lowered with respect to the wheels by hand-lever 48. This lever is fixed to the squared end of axle 11, whereby the latter may be turned in its bearings. The lever is provided with the usual spring latch 48^a which engages the teeth of a segment 42 mounted on the lever 41. Either lever may be moved and the adjustment of its connected parts effected independently of the other; also, normally—that is, when the latch 48^a is in engagement with the segment 42 the lever 48 moves with the lever 41, the fulcrums of both levers being concentric. This arrangement allows the plow to be tilted, and the frame raised or lowered by manipulation of the lever 41 alone.

The parts thus far described are the same as in my Patent No. 689206, dated December 17, 1901, and a more extended description thereof is thought unnecessary, and I will now proceed to describe the improvements which I have made and which I desire to claim in the present application.

To the rear end of the main frame is secured a bracket A on which is pivoted a bell-crank B, one arm of which is connected to

one end of a link C which has at the other end a slot D to receive the upper end of the standard 41. The other arm of the bell-crank is connected by a link E to have a pin
 5 F projecting from a collar C which embraces the axle 20. The collar is located on the vertical portion of the axle between the lever 22 and a set collar H on the axle.

By the herein described connection between the axle 20 and the standard 40 it will be seen that when said standard is tilted as already described to raise or lower the plow and colter, the rear end of the main-frame will also be raised or lowered, which makes
 15 a higher lift.

The frame-lifting attachment is simple in construction, it can be readily applied, and it effectually serves the purpose for which it is designed.

20 I claim:

In a sulky plow, the combination with the main frame, of a furrow wheel having a

portion of its shaft journaled within, and vertically movable through, a boxing at the rear of said frame, a pivoted plow share 25 intermediate the frame, a tilting standard therefor, a colter mounted forwardly in the frame, a hand lever operatively connected to the standard to tilt the same, forward connections between the standard and colter 30 whereby the latter will be simultaneously tilted, a bell-crank-lever mounted at the rear of the frame, a link connected between one arm of said bell-crank-lever and a portion of said furrow wheel shaft, and a connecting 35 rod extending between the opposite arm of said lever and said tilting standard.

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

HENRY MAHLER.

Witnesses:

C. A. WENSTRAND,
 GEORGE BOGART.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."