

(No Model.)

2 Sheets—Sheet 1.

C. THOM & C. J. BAILEY.
SULKY PLOW.

No. 462,935.

Patented Nov. 10, 1891.

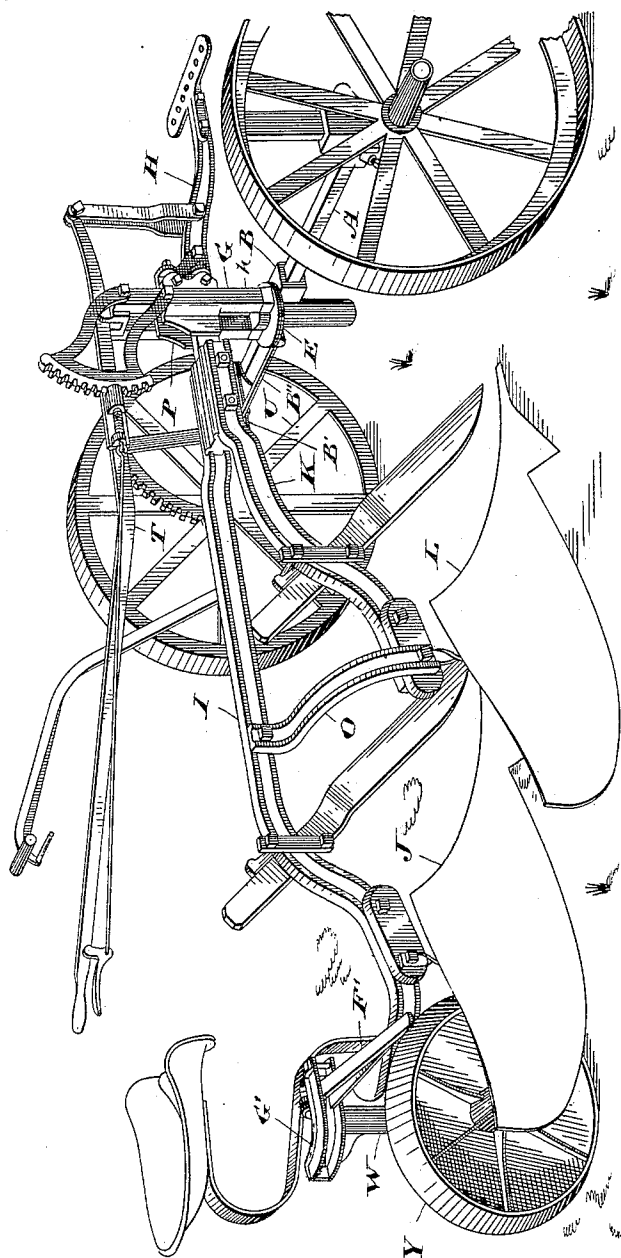


Fig. 1

Witnesses

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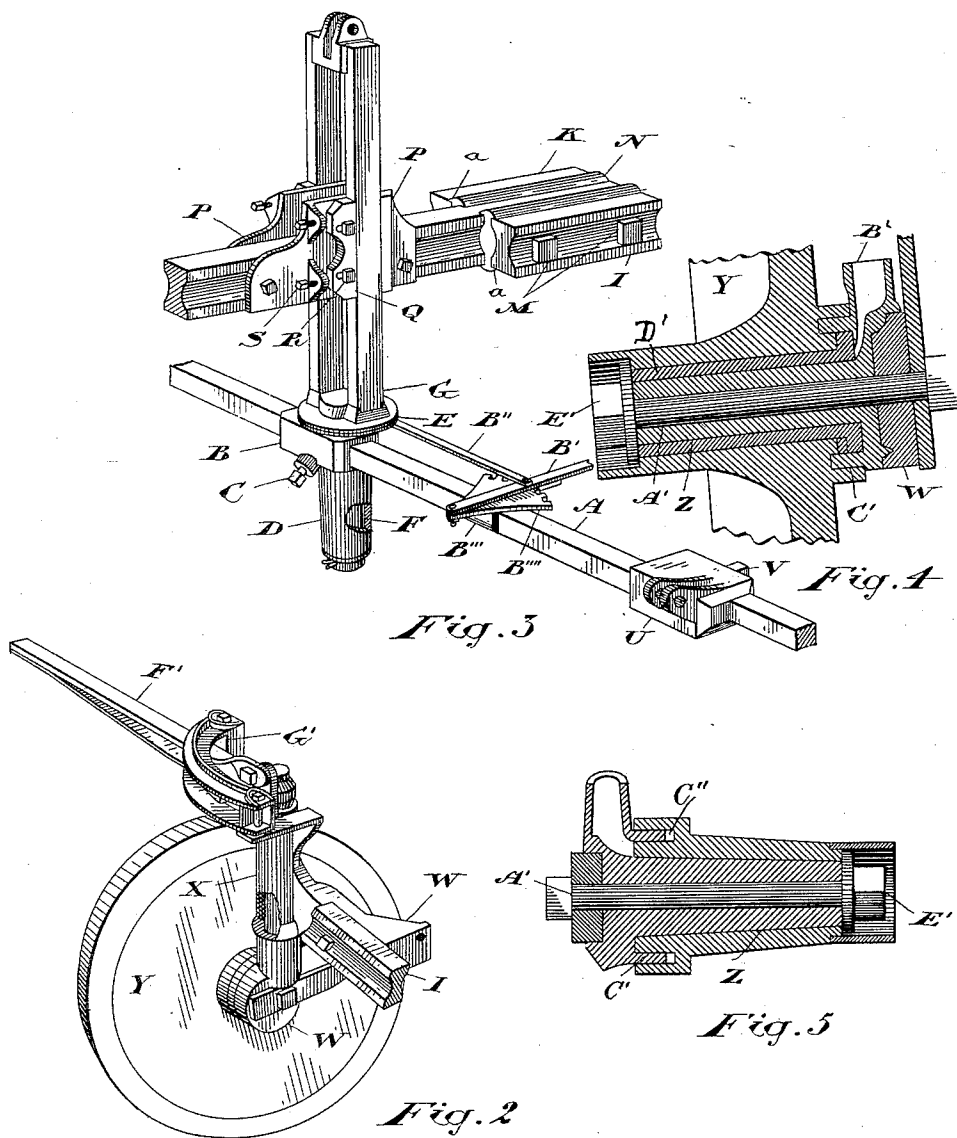
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Witnesses

L. Edw. Mayhew
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UNITED STATES PATENT OFFICE.

CHARLES THOM AND CHARLES J. BAILEY, OF AURORA, CANADA, ASSIGNORS
TO HERBERT W. FLEURY, OF SAME PLACE.

SULKY-PLOW.

SPECIFICATION forming part of Letters Patent No. 462,935, dated November 10, 1891.

Application filed January 5, 1891. Serial No. 376,804. (No model.)

To all whom it may concern:

Be it known that we, CHARLES THOM and CHARLES J. BAILEY, both mechanics, and both of the village of Aurora, in the county of York, in the Province of Ontario, Canada, have jointly invented a certain new and useful Improvement in Sulky-Plows, of which the following is a specification.

The object of the invention is to improve, simplify, and strengthen the construction of a sulky-plow; and it consists, essentially, in the construction and arrangement of parts, as hereinafter specifically explained, and then definitely claimed.

Figure 1 is a perspective view of our improved sulky-plow. Fig. 2 is a perspective detail of the rear furrow-wheel. Fig. 3 is a perspective detail of a portion of the plow-beam, axle, and guide between which the plow-beam passes. Figs. 4 and 5 are sectional details showing the formation of the wheel-bearings.

In the drawings, A is the wheel-axle, which is preferably made rectangular in section. On this axle we fit a bracket B and secure it in position by a set-screw C. A sleeve D is formed upon and projects below the bracket B, and a disk E is formed on top of the said bracket. The king-bolt F fits into the sleeve D, and is formed upon or secured to the bracket G, which constitutes the guide between which the plow-beam passes and is vertically moved.

H is the front section of the plow-beam.

I is the portion to which the rear plow J is connected, and K is the portion of the plow-beam to which the front plow L is connected.

It will be observed that each section of the plow-beam is grooved or concaved on each side, and on reference to Fig. 3 it will be seen that these sections are securely fastened together by means of bolts M and two blocks N. These blocks, it will be noticed, are shaped so as to fit into the groove or concave sections of the plow-beam and have lips a formed on their top and bottom to overlap the top and bottom of the sections composing the plow-beam, and as a consequence of this formation the sections H, I, and K are rigidly secured together when the bolts M are tightened. With the view of still further bracing the

plow-beam we connect the rear of the plow-beam section K to the plow-beam section I by means of a vertically-set brace O. In this way we secure a very rigid plow-beam of, comparatively speaking, light material.

With the view of securing a steady slide connection between the plow-beam and its vertical guiding-bracket G we rigidly secure to the plow-beam II side plates P, which side plates pass between the vertical bars h, forming the bracket G. In front of each bar h we secure to the plates P a movable block Q, held to the said plate by pinch-screws R, passing through elongated holes in the said blocks. These elongated holes permit the adjustment of the blocks Q by the set-screws S, so that any lost motion may be readily taken up. T is a hand-lever pivoted on the bracket G and arranged, as shown, for the purpose of raising and lowering the plow-beam.

In order to allow the plow to be run close to a fence in plowing head-lands, and also to permit the land-wheel to be set to run on top or between the furrows, as may be desired, we divide the axle A and connect the two parts together by a bracket U, through which the the parts of the axle A are passed and rigidly held therein by the set-screw V. The plow-beam section I extends behind the plow-head J sufficiently far to allow the bracket W to be fixed to it. In this bracket a bearing X is formed, in which the spindle of the rear furrow-wheel Y is carried. By thus making the rear furrow-wheel so that it will swivel, the plow, which is also pivoted on its front axle, will turn in a very small space and facilitate the turning of the plow at headlands.

On reference to Fig. 4, which is a detail of the rear furrow-wheel journal or bearing, it will be observed that the axle Z is a short piece secured to the bracket W by means of a bolt A'. The oil-cup B' is formed in the axle Z, and an annular flange C' is formed upon and extends around the said axle. A bushing D' is inserted in and secured to the hub of the wheel Y. This bushing is journaled on the axle Z. An annular recess C'' is made inside of the hub of the wheel Y to fit onto the annular flange C', forming an effectual casing or cap to prevent sand and dirt

from reaching the journal. The bolt A' is provided with a suitable nut E', having an annular flange formed on it to fit into the hub and close the end of the bearing, as indicated.

5 Fig. 5 shows a form of bearing without the bushing D'; but otherwise it is exactly the same as the bearing shown in Fig. 4.

We should have mentioned that the spindle of the furrow-wheel Y is provided with a handle F', by which the angle of the wheel may be readily altered. This handle passes through a quadrant G' and is provided with a spring, by which the said handle may be thrown into a notch made in the quadrant G', and thus lock it at any desired angle.

15 By making the blocks N thicker the offset made in the plow-beam sections K and I may be avoided.

We should have mentioned before that the 20 bracket B is made adjustable upon the shaft A in order to enable the driver to straighten or narrow a furrow by the adjustment of the plow-beam. The bracket is adjustable by means of a lever B', connected to the sleeve D by means of the rod B''. The lever B' is pivoted on a bracket B''', fixed to the axle and provided with a notched quadrant B'''. The bracket B, being loose on the shaft, may be easily adjusted thereon by the movement 30 of the lever B'.

The mechanism described will, we think, be found preferable; but of course it will be understood that any means for adjusting the bracket upon the axle will be within our invention. 35

What we claim as our invention is—

1. In a sulky-plow, a bracket B, fixed to the axle A and having a sleeve D formed on it to receive the king-bolt F, extending from the 40 bracket G, arranged above the axle A, in which the plow-beam is movably held above said axle, substantially as and for the purpose specified.

2. A bracket B, secured to the axle A, a disk 45 E, formed on its top, and a sleeve D on its bot-

tom, in combination with the bracket G, having a disk formed on its bottom to rest on the disk E, and a king-bolt F to fit into the sleeve D.

3. The bracket G, extending along the axle 50 and having vertical bars h, forming the sides of said bracket G and between which the plow-beam section H passes, in combination with the side plates P and movable blocks Q, substantially as and for the purpose specified. 55

4. The vertical bars h, forming the sides of the bracket G and between which the plow-beam section H passes, and the king-bolt F, extending from the bracket G and journaled 60 in the sleeve D, in combination with the side plates P and movable blocks Q, substantially as and for the purpose specified.

5. In a sulky-plow, a plow beam section I, extending behind the rear plow and supporting the bracket in which the vertical spindle 65 of the rear furrow-wheel is journaled, and means, as the lever F, for regulating the same, substantially as and for the purpose specified. 70

6. A wheel-axle Z, provided with an oil-cup B' and an annular flange C', in combination with the hub of a wheel having an annular recess C'', and a bolt A', provided with a suitable nut E', substantially as and for the purpose 75 specified.

7. A wheel-axle Z, having an oil-cup B' and an annular flange C', in combination with the hub of a wheel having a bushing D' to fit the axle and an annular recess C'' in its face to 80 receive the annular flange C', a bolt A', and nut E', substantially as and for the purpose specified.

Aurora, October 4, 1890.

CHARLES THOM.
CHARLES J. BAILEY.

In presence of—

A. YULE,
JAS. A. PERYRINE.