C. F. CHAMBERS.

WHEEL-PLOW.

No. 185,725. Patented Dec. 26, 1876.

Fig. 1.

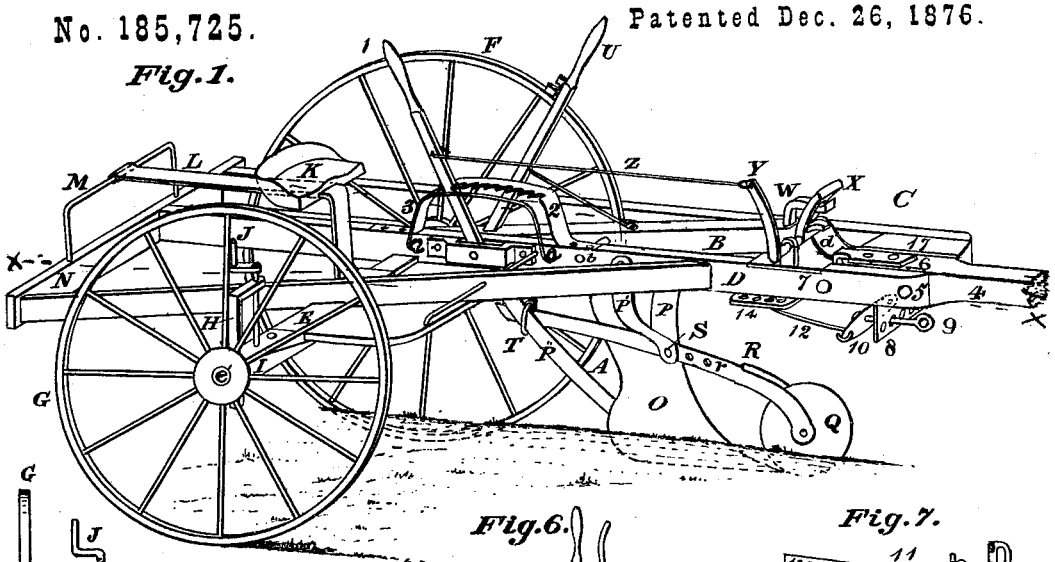


Fig. 6.

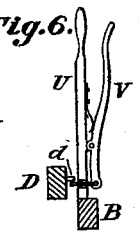


Fig. 7.

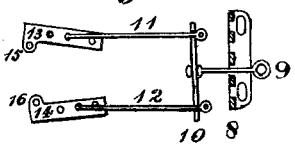


Fig. 4.

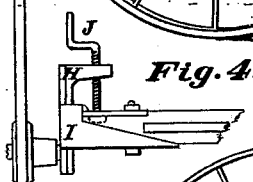


Fig. 2.

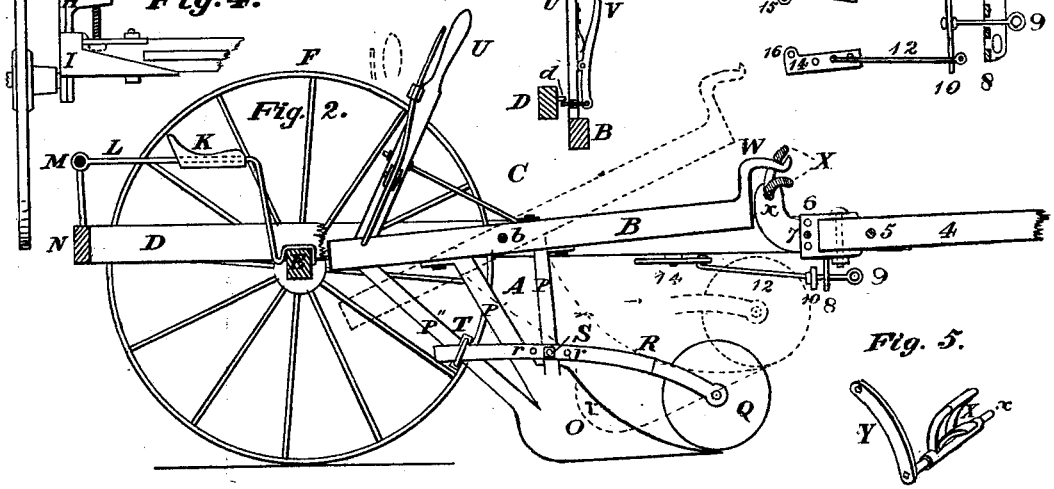


Fig. 5.

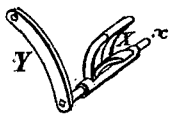
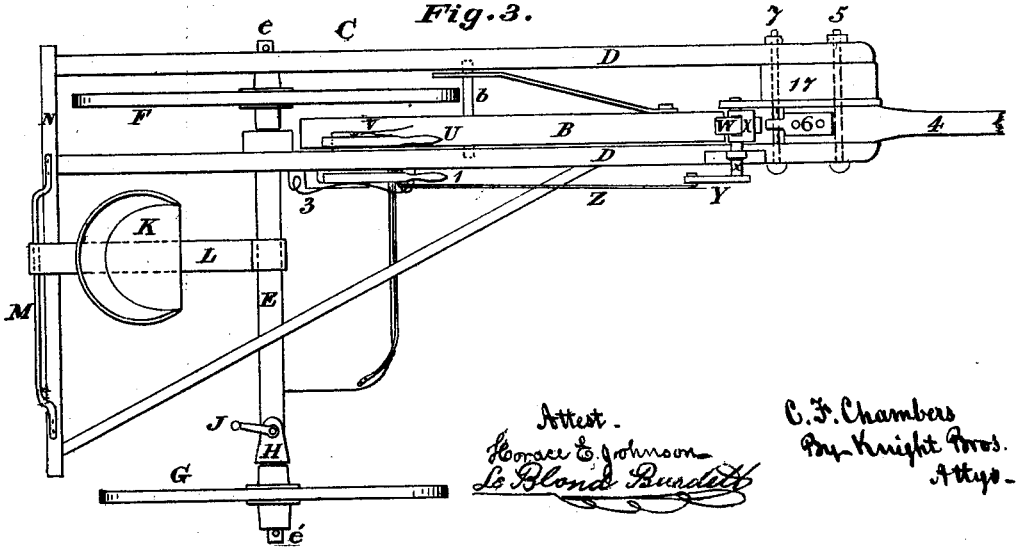


Fig. 3.



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UNITED STATES PATENT OFFICE.

CHARLES F. CHAMBERS, OF HUTSONVILLE, ILLINOIS; (LEROY E. CHAMBERS, ADMINISTRATOR.)

IMPROVEMENT IN WHEEL-PLOWS.

Specification forming part of Letters Patent No. **185,725**, dated December 26, 1876; application filed June 20, 1876.

To all whom it may concern:

Be it known that I, CHARLES F. CHAMBERS, of Hutsonville, Crawford county, Illinois, have invented new and useful Improvements in Wheel-Plows, of which the following is a specification:

My invention consists in certain improvements in wheel or sulky plows.

In the accompanying drawings, Figure 1 is a perspective view of a sulky-plow embodying my improvements. Fig. 2 is a section at the line *x x*. Fig. 3 is a top view. Fig. 4 is a front elevation of my plow-handle and catch. Fig. 5 shows the cam-yoke and lever-arm separately. Fig. 6 shows the handle and its spring-catch separately. Fig. 7 is an under-side view of my draft attachment.

My plow proper, A, is swung by pivots *b* in suitable wheel-carriage C, whose hounds D rest upon and are attached to axle E of the two ground-wheels F and G. Of these wheels the wheel F, being designed to occupy the furrow, is somewhat larger in diameter than the wheel G, which is designed to run along the unplowed ground. The axle-spindle *e* for the furrow-wheel F is a rigid projection from the axle. The land-side spindle *e'*, on the other hand, does not project immediately from the axle, but from an adjustable slide, H, which occupies vertical guide I upon the axle end, and is capable of elevation or depression by means of screw J. By this means the operator is enabled at any moment to adjust the axle to a true level, and thus insure erect position of the plow, without sensibly changing its depth. The driver's seat K is supported by and capable of being slid forward or backward upon a steel band, L, which itself rests and is capable of being slid laterally upon the axle and a horizontal bar, M, which rises from the rear rail N of the carriage. The plow-beam B has a suitable share, O, of any desired construction connected to it by suitable sheaths or standards P. Said share may also have a disk-colter, Q, journaled in a hanger, R, having a series of orifices, *r*, for a pivot, S, which occupies one of the plow-standards. The rear portion of the hanger R is secured to a rear standard, P″, at any desired height by means of clip T. By this arrangement the colter Q can be set at any desired position in advance of and above the land-side edge. The entire plow is swung within the carriage upon pivots *b*, which, projecting laterally from the plow-beam B, occupy bearings in the carriage-frame. Projecting upward and forward from the beam B is a handle, U, having a spring-catch, V, capable (when the rear end of the beam is depressed, as indicated by dotted lines in Fig. 2) of engaging with a projection, *d*, on the carriage-frame, so as, when desired, to maintain the share and colter in the unearthed condition indicated by dotted lines.

The plow-beam terminates, in front, in a goose-neck, W, having upturned lip *w*. This goose-neck engages within a peculiarly-formed cam-yoke, X, pivoted at *x* to the carriage-frame, and having an arm, Y, which is connected by rod Z with a lever, 1, which is pivoted to the hounds, and is capable of being engaged in a ratchet, 2, upon the carriage-frame, so as to hold the cam-yoke, and consequently the plow, to any desired working position. A spring, 3, operates to hold the lever 1 securely in the ratchet. The lever 1 is placed forward or backward, according to whether it be desired that the plow shall have more or less pitch; or, if it be desired to completely unearth the plow, the lever 1 is thrown so far forward as to entirely clear the cam-yoke from the goose-neck, and then the operator, grasping the lever U and catch V, pulls the plow into the position indicated by dotted lines in Fig. 2, and the catch V, being then released, operates to maintain the plow in its said unearthed condition as long as may be desired. This provision is useful for passing over a stump or rock, or for discontinuing the furrowing operation at any point, and also for putting the implement in condition for travel. The tongue 4 is pivoted to the hounds at 5, and has, at its rear end, a plate, 6, with a series of perforations. A bolt, 7, which traverses the hounds, being inserted in one or other of these perforations, operates to hold the tongue at the desired angle. 8 is a plate arranged transversely to the under side of the hounds, and having a series of perforations,

as shown. 9 is a rod, which is inserted in one or other of the perforations, according to whether it be desired to give the plow more or less "land." Thus by inserting the rod 9 in the right-hand perforation, the plow is directed away from land, causing a narrower furrow to be produced, or by inserting it in the left-hand perforation the contrary effects are secured. The rod 9 occupies a single-tree, 10, whose extremities are connected by rods 11 and 12 with perforated plates 13 and 14, which are pivoted to the hounds at 15 16. The rods 11 and 12 are shifted to whichever perforation will give an even draft at each shift of the rod 9 in the perforated plate 8. 17 is a block which fills the space between the plate *d*, which constitutes the left-hand bearing of the cam-yoke, and the left-hand member of the hounds. This block and the tongue may be caused to change places where a very narrow furrow is desired.

I claim as new and of my invention—

1. In combination with the pivoted plow A, having the handle U and catch V, and the goose-neck W, the adjustable and releasable cam-yoke X, connected with lever 1, capable of engagement in rack 2, in the manner set forth.

2. The combination of the perforated plates 8, 13, and 14, rods 9, 11, and 12, and single-tree 10, for regulating the width of furrow and the amount of draft, as explained.

In testimony of which invention I hereunto set my hand.

CHARLES F. CHAMBERS.

Attest:

ISAAC N. LOWE,

J. J. GOLDEN.