

J. L. STEARNS.

Wheel Plow.

No. 84,970.

Patented Dec. 15, 1868.

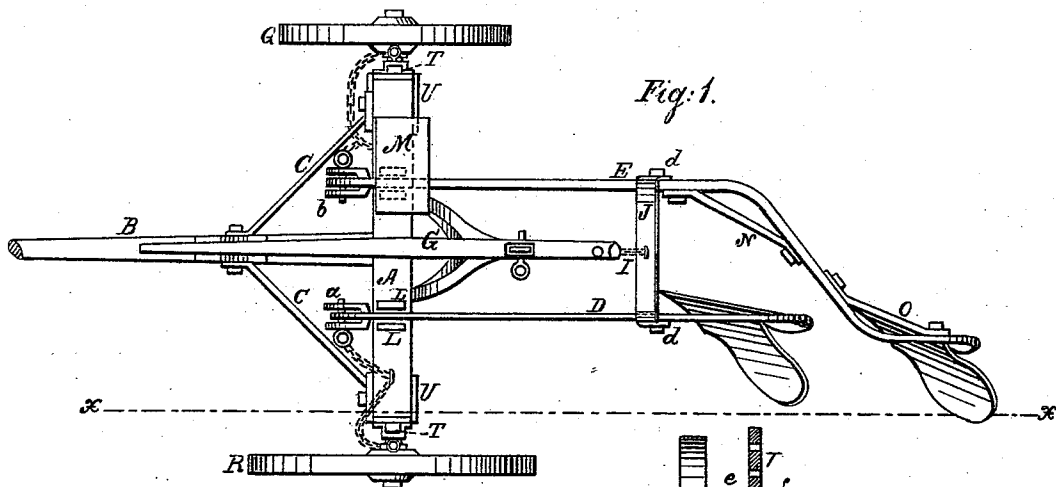


Fig. 1.

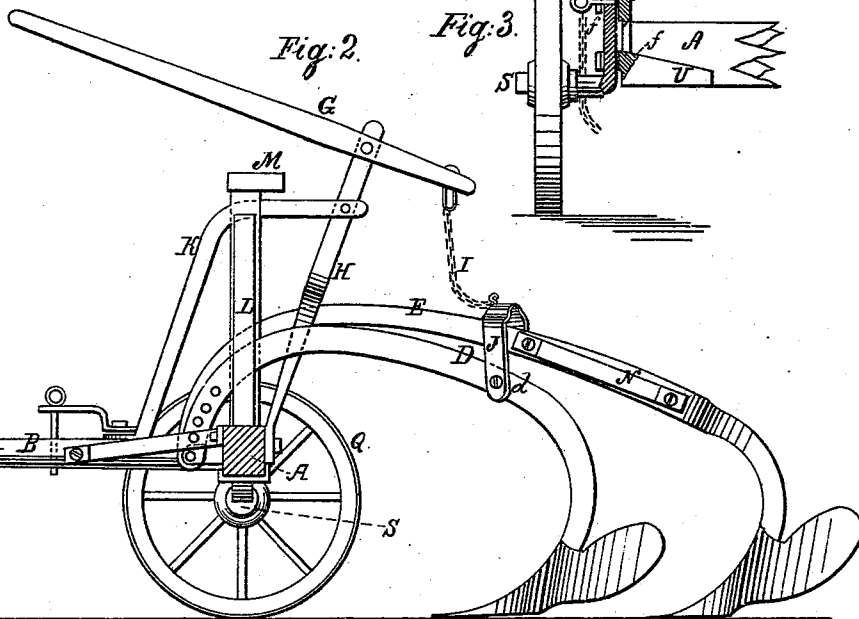
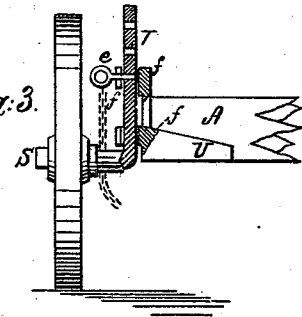


Fig. 2.

Fig. 3.



Witnesses:  
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# United States Patent Office.

J. L. STEARNS, OF MAHOMET, ILLINOIS.

Letters Patent No. 84,970, dated December 15, 1868.

## IMPROVEMENT IN PLOWS.

The Schedule referred to in these Letters Patent and making part of the same.

### To all whom it may concern:

Be it known that I, J. L. STEARNS, of Mahomet, in the county of Champaign, and State of Illinois, have invented a new and useful Improvement in Plows; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan view of my improved plow.

Figure 2 is a side elevation of the principal part of the plow, from a section through the line *xx* of fig. 1.

Figure 3 is a detail sectional view, showing the manner of raising and lowering the wheels.

Similar letters of reference indicate like parts.

The object of this invention is chiefly to provide a riding or sulky-plow, so called, which is adaptable as a gang breaking-plow, or a subsoil-plow, by merely changing the plows, that is to say, by attaching the proper plows to the sulky.

The invention consists in the construction and arrangement of the parts by which the above-mentioned objects are accomplished, together with other devices perfecting the whole, all of which are herein duly set forth.

In the drawings—

A is the axle-tree, B, the tongue affixed thereto, and braced by plates C C, as shown.

The plow-beams D and E are respectively the beams of the breaking and subsoil-plow, the breaker being in advance of the subsoil, and in the same line of draught.

The front ends of these beams are each pivoted within lug-plates affixed to the axle-tree, as shown at *a* and *b*, by two removable pins or bolts, which are connected with the axle-tree by chains, for convenience.

The plows are raised by means of a lever, G, which is pivoted to the upright, H, rising from the axle-tree, as shown.

This upright is braced by an elbow-iron, K, affixed to the tongue and to the said upright, in the manner shown.

The plow-beams are kept from undue lateral deviation by means of guide-standards L L, one pair of which is surmounted by the driver's seat M.

The rear end of the lever is connected by a chain, I, with a cross-piece, J, connecting the plow-beams at their parallel parts, as shown.

I have not attempted to show any improved form for the mould-boards of the plows, as any proper form of breaking or subsoil-plow may be used, but I have shown the beam of the breaking-plow constructed with a short curve, and the beam of the subsoil-plow with a greater curve to bring the mould-board in line be-

hind the front or breaking-plow. The angles of this beam are strengthened by braces N and O, as shown.

The front plow is raised above the rear plow by shifting the pin or bolt by which it is pivoted to the jaw *a* to one of the series of holes in the curved end of the plow-beam, thus making the pivot-bolt *d* of the brace J a fulcrum.

In the same manner the other plow may be adjusted to the desired relative height with the first plow.

When, however, the machine is to be used as a breaking-plow exclusively, the subsoil-beam E is removed, and another straight beam, similar to the beam D, and bearing the proper plow-point, with its mould-board, is substituted for it.

The machine will then cut two breaking-furrows.

The wheels Q and R are of different diameters, the wheel R being the larger, and designed to run in one furrow to gauge the other, while the smaller or land-wheel, Q, runs on the unplowed soil.

The height of either or both wheels, with reference to the axle-tree, is rendered adjustable by means of the construction shown at fig. 3, where the spindles S, on which the wheels revolve, are formed with vertical extensions T, which are movable up or down in the loop-plates *f*, forming part of the plates U, which latter are affixed to the under side of the axle-tree, as shown, and extend up at the ends and sides a short distance, thus forming a box-cavity, in which the axle-tree rests, a pin, *e*, passing through one of the loops and any one of the holes in the extension T, to hold it in place.

When the machine is taken to or from the field, the plow-beams are raised by the lever G, the handle-end of which may be held by a loop or link attached to the tongue, and slipped over it when depressed.

In plowing, a hook or similar device may be employed to hold the lever at the right angle for plowing, or the plows may be suffered to drag without support from the lever.

The plow-beams are arched vertically, as shown, to clear them of any collecting trash or sticks, and are made of wrought-iron, preferably, though cast-steel or malleable iron would answer the same purpose.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

The combination of the axle-tree A, wheels Q and R, guide-standards L, upright H, lever G, chain I, and brace J, with the adjustable plow-beams D and E, all arranged as set forth for the purpose specified.

Witnesses:

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