HORN, Jr. & MANCY.

Gang Plow.

No. 82,223. Patented Sept. 15, 1868.

Fig. 1.

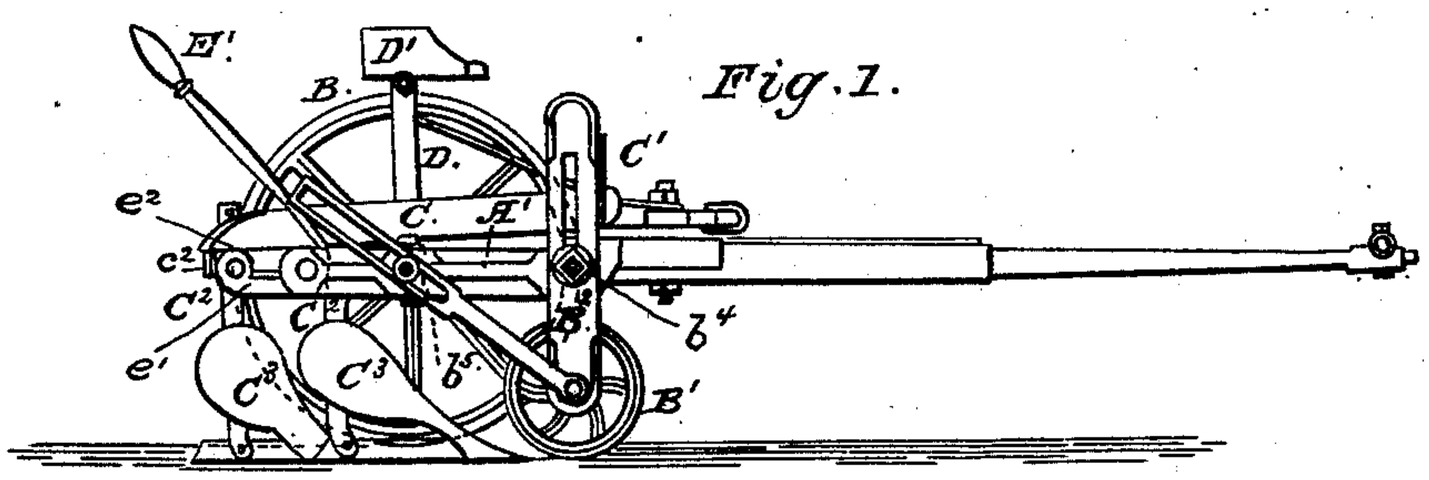


Fig. 2.

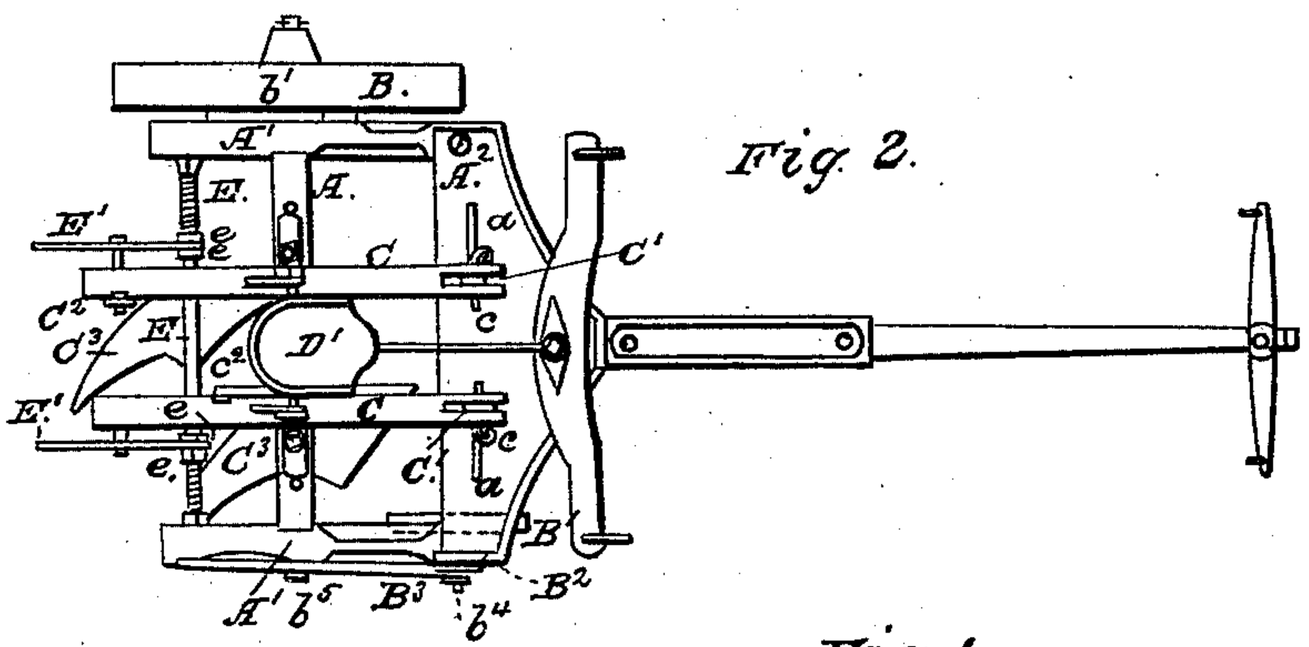


Fig. 3.

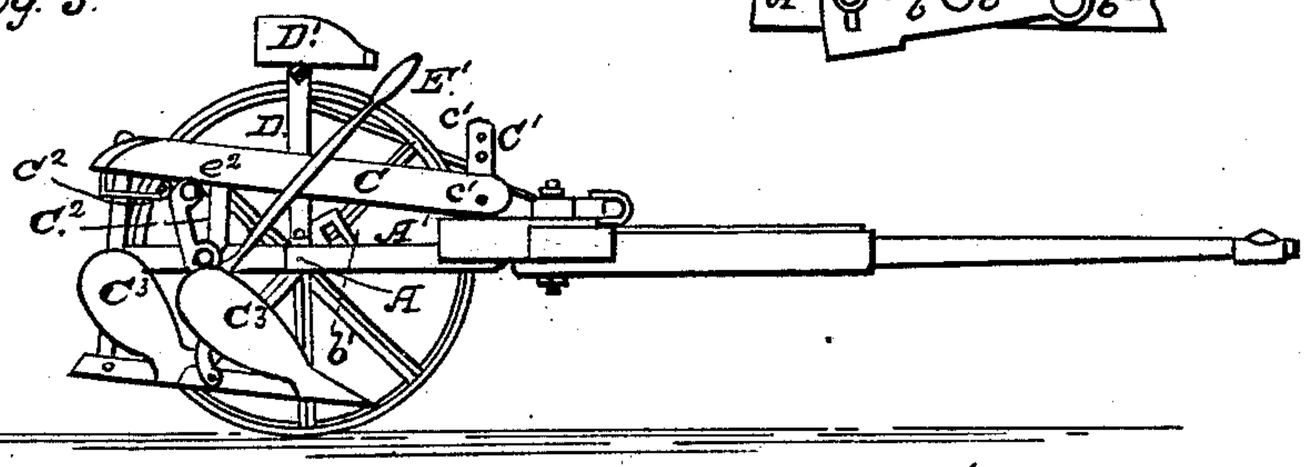
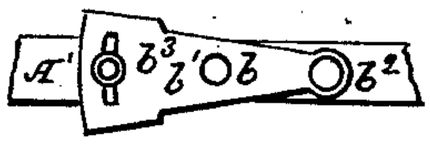


Fig. 4.



Witnesses
G. Brandau
J. W. Herthel

Inventors;
Chas. L. Horn, Jr.
L. Mancy
by their
attys. M. Randolph & Co

United States Patent Office.

CHARLES L. HORN, JR., AND LEONARD MANCY, OF ST. MORGAN, ILLINOIS, ASSIGNORS TO LEONARD MANCY.

Letters Patent No. 82,223, *dated September* 15, 1868.

IMPROVEMENT IN GANG-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 we, CHARLES L. HORN, Jr., and LEONARD MANCY, of St. Morgan, in the county of Madison, and State of Illinois, have made certain new and useful Improvements in Gang-Plows; and we do hereby declare that the following is a full and clear description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object of this invention is to construct a gang-plow, improved in the following respects, viz, the furrow-wheel is affixed to an adjustable post, in such a manner that it may be set at any required height, for the purpose of plowing deep or shallow, and the said wheel is otherwise so arranged that it may be placed much closer to the team than the construction of other gang-plows will allow, thus enabling the plows to be brought forward, and the draught on the team proportionately lightened.

The other parts of the invention relate to the general construction of the frame and plow-beams, also the levers for raising up the plows, and to various other minor parts of the machine.

To enable those skilled in the art to make and use our improved gang-plow, we will proceed to describe its construction and operation.

Figure 1 of the drawings is a side elevation of the improved plow.

Figure 2 is a plan of the same.

Figure 3 is a sectional elevation of it; and

Figure 4 is a detail elevation of the metallic arm which carries the large supporting-wheel.

The frame which supports the operative parts of the machine, consists of the transverse beam A, (which fills the office of an axle,) the side beams A^1, resting on the said transverse beam, and the front beam A^2, which connects the front ends of the two side beams.

The machine is mounted on two wheels, one of which, B, is a large one, of about the size of an ordinary wagon-wheel, and the other, B′, is quite small, say of only about one-third the diameter of the other. The wheel B is placed on the land-side of the machine, and runs on a metallic arm, *b*, shown best in fig. 4. This arm has a metal face-plate, b^1, by means of which it is secured to the side of the frame, A A^1. As is clearly shown in fig. 4, this face-plate b^1 is of considerable length, say one foot, (more or less,) and one of its ends is fixed to the beam A^1 by means of a pivot-pin, b^2, while the other end of it has a segmental slot, through which passes the set-screw b^3, by means of which it is secured to the frame. By means of this set-screw, the slotted end of the said plate may be adjusted to any required height, and the depth of the furrow plowed partially adjusted thereby.

The small wheel B^1 has its arm or axle attached to the bottom end of the post B^2, which point of attachment to the said post is stiffened by means of the brace B^3. The set-screws b^4 and b^5, by means of which the upper ends of the said post and brace are attached to the side beam A^1, pass through slots in the said pieces, and, by means of this adjustable arrangement, the aforesaid wheel B^1 may be more or less elevated, like the wheel B, and for the same purpose.

The forward ends of the plow-beams C are pivoted to the vertical posts C^1 by means of the pins *c*, two or more holes *c′* being provided in the said posts, for the reception of the aforesaid pins, so as to attach the said plow-beams at any required height, for the purpose of regulating the height of the plows, and the consequent depth of the furrow. Slots *a* are made in the front beam A^2, for the bottom ends of the posts C^1, for the purpose of a lateral adjustment of the same, so as to regulate the width of the furrow cut. Screw-nuts on the bottom ends of the posts, secure them in whatever position they may be placed in the slots *a*.

The plow-beams C are mortised, near their central part, for the passage of the standards D, on the top ends of which is placed the seat D′. The bottom ends of these posts are attached to the beam or axle A by means of screw-bolts, several holes being made in the said piece A, for the adjustment of the plow-beams to different widths of furrow.

The devices for raising the plows up out of the ground consist of the transverse rod E, placed between the back ends of the side beams A, and the levers E′, fulcrumed to the said rod. These levers are given a lateral adjustment by means of the set-nuts *e*, placed on either side of them, on the threads of the rod E. The upper ends of these levers are placed conveniently accessible from the seat D, and the lower ends of them have short elbows e^1, from the sides of which pins e^2 project laterally, under the ends of the beams C, which beams rest on the said pins e^2, and are raised or lowered as the said levers are thrown forward or backward by the driver. Staples c^2, attached to the bottom sides of the beams C, guide the pins e^2 in their proper relative positions. The posts C^2, which carry the plows C^3 on their lower ends, are affixed to the beams C near their back ends.

The great advantages sought to be obtained by the above-described construction are, that the operative parts are concentrated to the smallest possible limit, and the plows are thrown well forward toward the team, so as to lessen the draught.

Having described our invention, what we claim, is—

1. The frame A A^1 A^2, the wheels B and B^1, adjustable arm *b* b^1, post B^2, and brace B^3, when combined and arranged as herein shown and described.

2. The plow-beams C, their posts C^1, and the frame-beam A^2, when constructed substantially as herein shown and described, and for the purpose set forth.

3. The beams C, posts D, and seat D′, when constructed and arranged as herein shown and described.

4. The arrangement of the beams C, rod E, and lever E′, in the manner and for the purpose herein described and set forth.

In testimony of which invention, we hereunto set our hands in presence of—

CHAS. L. HORN, JR.,
LEONARD MANCY.

Witnesses:
M. RANDOLPH,
GEO. P. HERTHEL, Jr.