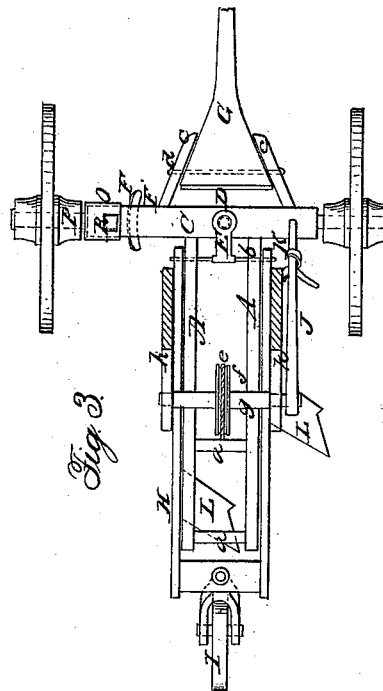
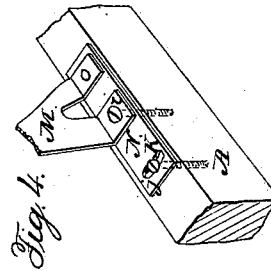
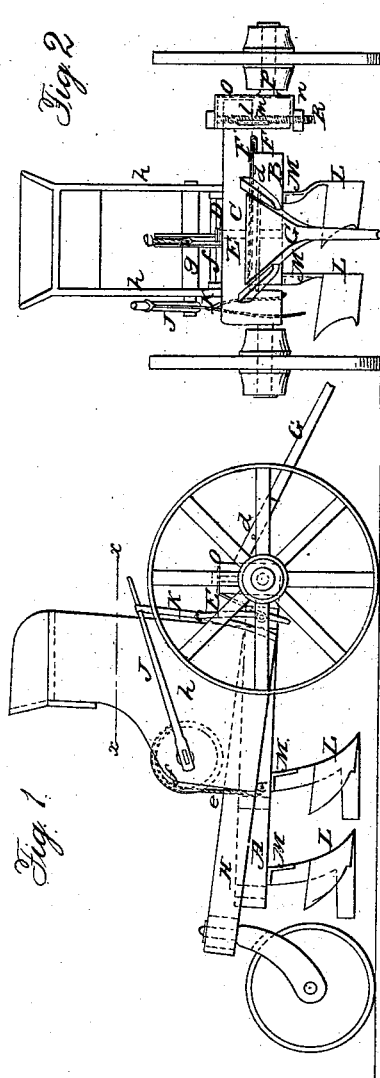


H. C. SMITH.

Wheel Plow.

No. 51,875.

Patented Jan. 2, 1866.



Witnesses:
b. L. Toole
Henry Morris

Inventor
H. C. Smith
Mr. Munroe
att'y

UNITED STATES PATENT OFFICE.

H. C. SMITH, OF RIDGE FARM, ILLINOIS.

IMPROVEMENT IN GANG-PLOWS.

Specification forming part of Letters Patent No. 51,875, dated January 2, 1866; antedated December 28, 1865.

To all whom it may concern:

Be it known that I, H. C. SMITH, of Ridge Farm, in the county of Vermillion and State of Illinois, have invented a new and Improved Gang-Plow; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those 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 side view of my invention; Fig. 2, a front view of the same; Fig. 3, a plan or top view of the same, the seat-supports being in section, as indicated by the line *xx*, Fig. 1; Fig. 4, a detached and inverted perspective view of a portion of one of the plow-beams, showing the manner in which the plow-standards are attached to the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new and improved gang-plow; and it consists, first, in a new and improved mode of attaching the head-block and plow-beams to the axle, whereby the tongue is allowed to move freely in any direction, and the team relieved from side draft as well as from downward pressure of the draft-pole, and the plows held or retained in a proper working position.

The invention consists, second, in a novel arrangement of the plow-beams, whereby the same may be conveniently raised and lowered, and made to penetrate the desired distance into the earth, according to the depth of furrow desired, at the same time causing the plows to be supported by the machine, so as to obviate much friction and insure a light or easy draft.

A A represent two parallel plow-beams, which are connected by cross-bars *a*, and have their front ends secured in a head-block, B.

C represents an axle, which is secured to the upper surface of the head-block B by a king-bolt, D, strap E, and plates F F'. The strap E is of metal, its front end resting on the axle C, and having the king-bolt D passing through it, the back end of said strap being fitted on a rod, *b*, which passes horizontally through the front parts of the beams A A. The plates F F' are attached, one to the under side of the axle C and the other, F', to

the upper side of the head-block B, the plate F' on the head-block working over the plate F of the axle, as shown clearly in Fig. 2, and serving to connect the head-block and axle, while they admit of the free turning of the axle on the king-bolt D. The axle C has two hounds, *c c*, attached to it, between which the draft-pole G is secured by a bolt, *d*, as usual. By this arrangement it will be seen that the plow-beams are connected with the axle in such a manner as to insure them being kept in a proper working position, while at the same time the axle is allowed to turn freely in its king-bolt.

H represents a rectangular frame, within which the plow-beams A A are fitted, the front end of said frame being secured to the plow-beams by the rod *b*, to which the back end of the strap E is secured. The back end of the frame H is supported by a caster-wheel, I, and the plow-beams have a cord or chain, *e*, attached to them, which passes over a pulley, *f*, fitted on a shaft, *g*, the bearings of which are in seat-supports *h h* attached one to each side of the frame H. One end of the shaft *g* has a lever, J, fitted upon it, the outer end of which is connected by a strap, K, with the lower end of one of the supports *h* of the seat. By raising or lowering the outer or front end of the lever J the plow-beams, and consequently the plows, may be raised and lowered, and the latter secured at any desired height, as the strap K is so arranged that it may be taken up or let out, as desired, it being provided with a buckle for that purpose. The plows consequently may be adjusted to make furrows of a greater or less depth, as desired, and as they are supported by the machine, or rather by the wheels thereof, the usual friction attending the pressure of the soles of the plows on the bottoms of the furrows is avoided.

The plows (designated by L) may be of the usual or any proper form, secured to or cast with standards M, the upper ends of which have flat plates N secured to them, which plates are connected to the under sides of the beams A A by screws *i*, on which they turn freely. (See Fig. 4.) The plates N also have curved or segment slots *j* made in them, through which set-screws *k* pass into the beams A. By this arrangement it will be seen that the

plows L may be turned or adjusted so as to take in more or less land, as may be desired.

On one end of the axle C there is fitted a metal box, O, which is allowed to slide freely up and down, and is retained in proper position by vertical slots *l l* made in its front and rear sides, and in which pins *m* attached to the front and rear sides of the axle work. To this box O the arm P of one of the wheels Q of the axle C is attached, and through the axle C and box O a screw, R, passes vertically, said screw having a nut, *n*, on its lower end underneath the box O. By turning this screw R the box O may be raised or lowered at will, according to the depth of the furrow in which the wheel of the arm P runs, and the plows L consequently retained in a level or horizontal position.

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

1. The connecting of the plow-beams A A to the axle C by means of the king-bolt D, strap E, and plates F F', all constructed, combined, and arranged in the manner as and for the purpose herein set forth.

2. The plow-beams A A, attached to the axle C, as shown, in combination with the frame H, the latter being connected at its front end to the plow-beams by the rod *b*, and its rear end supported by the caster-wheel I, the above parts being used, in connection with the cord or chain *c*, pulley *f*, lever J, and the strap K, or its equivalent, for the purpose specified.

H. C. SMITH.

Witnesses:

SAMUEL WEEKS,

GEO. A. DICE.