

## Gang-Plow.

Patented Aug. 7, 1866.



*Inventor:*

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# UNITED STATES PATENT OFFICE.

WILLIAM BATTELL, OF QUINCY, ILLINOIS.

## IMPROVEMENT IN GANG-PLOWS.

Specification forming part of Letters Patent No. 56,878, dated August 7, 1866.

*To all whom it may concern:*

Be it known that I, WILLIAM BATTELL, of Quincy, Adams county, 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 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 or top view of my invention; Fig. 2, a side view of the same; Fig. 3, a side sectional view of the same.

Similar letters of reference indicate like parts.

This invention relates to a new and improved gang-plow of that class in which the plows are arranged so as to be adjustable laterally as well as vertically.

The invention consists in a peculiar construction and arrangement of parts whereby lightness of draft is obtained and the plows rendered capable of being manipulated with the greatest facility, while simplicity of construction prevents any of the parts getting out of repair or working-order.

A represents a rectangular frame, which is mounted on two wheels, B B, in a novel manner, the axles of said wheels passing through the rear parts of bars C C, the front ends of which are connected by hinges or joints *a* to the front part of the frame A. The rear ends of the bars C C have segment-bars D attached to them, and these bars D pass up through guides *b*, attached to the sides of the frame A, and are connected at their upper ends to levers E E, as shown clearly in Fig. 2. By adjusting these levers E E the frame A may be varied in height, so as to regulate the depth of the penetration of the plows as may be desired, the levers E being held at any desired point within the scope of their movement by chains *c*, attached to frame A. These levers E may be readily adjusted or operated by the driver from his seat F.

G G are two plow-beams, the front ends of which have clevises H attached, composed of two plates, *d d*, between which the beams are fitted and secured by a screw-bolt, *e*. The rear parts of the plates *d d* extend down in segment form, and are perforated with a series

of holes, *e'*, through any of which a bolt, *f*, passes. By shifting these bolts the line of draft of the plows may be varied, as desired. The clevises H are fitted loosely on a rod, I, placed transversely in the front part of the frame A, and between the plates *d d* of each clevis, and on the rod I there is fitted a thimble, *g*, into which a set-screw, *h*, passes. By means of these set-screws the plow-beams may be adjusted laterally and secured at any desired point. The beams G pass through laterally-adjustable stays Q at the rear of the frame A.

J represents the plows, which are attached to curved standards K. The upper ends of these standards are attached to the beams, and the lower ends are attached to the rear ends of the land-sides *i* of the plows, a space being allowed between the rear of the mold-boards and the standards. By this means the plows are effectually prevented from choking or clogging, trash not being allowed to accumulate between the beams and the rear parts of the mold-boards.

Each plow-beam G has a curved bar, L, attached to it by a link, M. These bars L pass through guides N, attached to the rear of the frame A, and rest upon friction-rollers *j* in said guides. The front ends of the bars L are pivoted to levers O, the lower ends of which are secured by fulcrum-pins *k* to the seat-standards *l*. By adjusting the levers O, throwing them forward to their fullest extent, the plows J will be raised entirely out of the ground, and the levers are self-locking, no fastening of any kind being required to hold them down and the plows in an elevated position.

It will be seen from the above description that the device is under the complete control of the driver, and that there are but few parts comprising the machine, and none which would be liable to get out of repair.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The attaching of the axles of the wheels B B of the machine to the rear parts of the bars C C, the front ends of which are attached by hinges *a* to the front part of the frame A, in connection with the segment-bars D, attached to the rear parts of the bars C, and the le-



vers E E, attached to the bars D, all arranged substantially as and for the purpose specified.

2. The arrangement of the curved bars L, attached to the plow-beams by links M, guides N, with rollers *j* fitted in them, and the levers O, all arranged to operate substantially in the manner as and for the purpose herein set forth.

3. The construction of the clevises H, as shown and described, to admit of the adjustment of the plow-beams, as set forth.

4. The thimbles *g*, provided with the set-screws *h*, in combination with the clevises H, rod I, and adjustable stays Q, substantially as and for the purpose set forth.

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Witnesses:

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