

C. ATWOOD.

Gang Plow.

No. 54,089.

Patented Apr. 24, 1866.

Fig. 2.

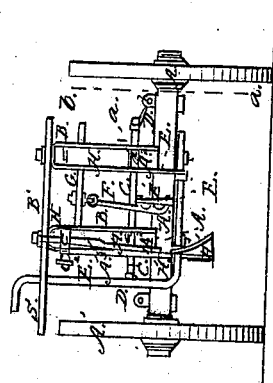
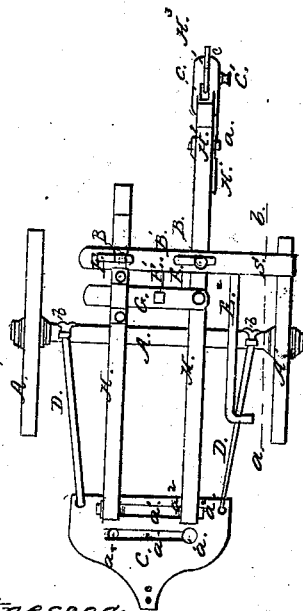
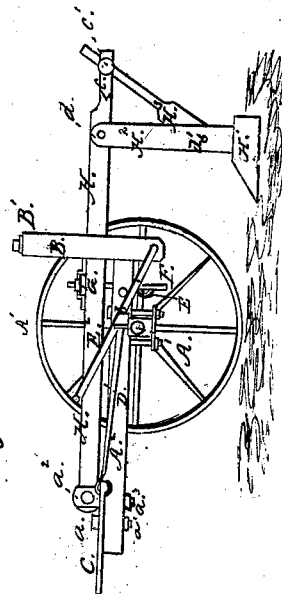


Fig. 1.



Witnesses:  
S. M. Randolph  
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Fig. 3.



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# UNITED STATES PATENT OFFICE.

C. ATWOOD, OF LEBANON, ILLINOIS.

## IMPROVEMENT IN GANG-PLOWS.

Specification forming part of Letters Patent No. 54,089, dated April 24, 1866.

*To all whom it may concern:*

Be it known that I, CARRELL ATWOOD, of Lebanon, in the county of St. Clair and State of Illinois, have invented a new and useful Improvement in Gang-Plows; and I 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.

Figure 1 of the accompanying drawings is a plan of one of the improved plows. Fig. 2 is a rear-end elevation of the same. Fig. 3 is a sectional elevation taken on the line *a b* in Figs. 1 and 2.

This invention relates, first, to the connection between the forward end of the supporting-frame and the plow-beams; secondly, to the adjustable connection between the metallic head-plate on the front of supporting-frame and the ends of the axle, whereby the whole machine may be adjusted to a correct alignment; thirdly, to a combination of levers and brakes for the purpose of keeping the plows in the ground while at work; fourthly, to the adjustable clamp on the rear ends of the plow-beams for the purpose of adjusting the plows by means of a movable brace, so as to throw the points of the plows more or less down.

To enable those skilled in the art to make and use my gang-plows, I will proceed to describe their construction and operation.

The axle A, the wheels A', (not shown in model,) and the supporting-frame A<sup>2</sup> are of the usual construction in common use, and consequently will not be minutely described here.

The guiding-frame for the plow-beams, composed of the metallic stands B B and the beam B', the adjustability of these parts to different widths, and their connection with the axle are the same in detail as the similar parts in a patent already allowed to myself. Consequently they will not be described here or alluded to any further than they are connected with the parts especially incorporated in the present invention.

C is a metal plate, placed on top of the forward ends of the beams of the frame A<sup>2</sup> and fastened to them by means of the bolt *a* and beam-sockets *a*<sup>2</sup>. Slots *a*' are made in the plate C for the passage of the fastening devices *a* and *a*<sup>2</sup>, which, after passing through

the plate C and frame A<sup>2</sup>, are secured in position by means of the nuts *a*<sup>3</sup> on the bottom of the frame A<sup>2</sup>. By loosening these nuts the slot *a*' will admit of any desired regulation of the width of the frame, after which it may be again firmly secured by tightening up the nuts *a*<sup>3</sup>.

On either side of the machine there is a brace or tie-rod, D, the forward end of which is firmly secured to the plate C, while its back end passes through an eyebolt or other similar device attached to the axle, and is there secured by the nut *b*.

After the machine has been set up it may be correctly aligned by loosening one of the nuts *b* and tightening the other, and vice versa.

A shaft, E, has its bearings in the lower ends of the stands B, between which points of support it is provided with a short lever, E', the outer end of which is arranged to hook onto a series of hooks on the lower end of the hook-rod F, which is suspended under the cross-bar G, to which it is securely attached by means of connecting-links.

The bar G rests on top of the plow-beams H. The driver's seat (not shown) should be located on the outer end of the beam B' at *s*, from which position he can easily place his foot on the lever E<sup>2</sup>, the lower end of which is firmly attached to the shaft E. By pressing down the lever E<sup>2</sup> the driver can transmit, through the medium of the shaft E, lever E', and rod F, any required amount of pressure to the bar G, and thus hold the beams H down, so as to keep the plows H' in the ground.

These devices are intended to overcome a difficulty experienced by farmers in keeping the plows in the ground in some kinds of soil, especially hard or stony ground.

The plow-post H<sup>2</sup> is fastened to its beam by a single bolt, *d*, so that the lower end of it may swing backward or forward, as may be required to accommodate the length of the brace H<sup>3</sup>, which is fastened to the post by means of the bolt *d*', which admits a like longitudinal motion. The upper end of the brace H<sup>3</sup> passes through a strap-piece, *c*, attached to the rear end of the beam H, and is then secured by means of the set-screw *c*'. The brace H may be adjusted so as to place the plow more or less forward, thereby throwing the point of it more or less elevated, and then the

parts thus adjusted secured in position by tightening the set-screw *c'*.

Having described my invention, what I claim is—

1. Forming the forward connection between the beams of the frame  $A^2$  of a metal plate, C, having slots *a'* in it for the passage of the attaching devices *a* and  $a^2$ , so that the machine may be readily adjusted to any width.

2. The adjustable tie or brace rods D, or their equivalent, when used as and for the purpose set forth.

3. The combination of the shaft E, levers  $E'$  and  $E^2$ , hook-rod F, and cross-bar G, or their equivalent devices, with the plow-beams of gang-plows, for the purpose herein set forth.

4. The combination of the strap-piece *c* and set-screw *c'* with the beam H and with the braces  $H^3$ , as and for the purpose set forth.

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Witnesses:

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