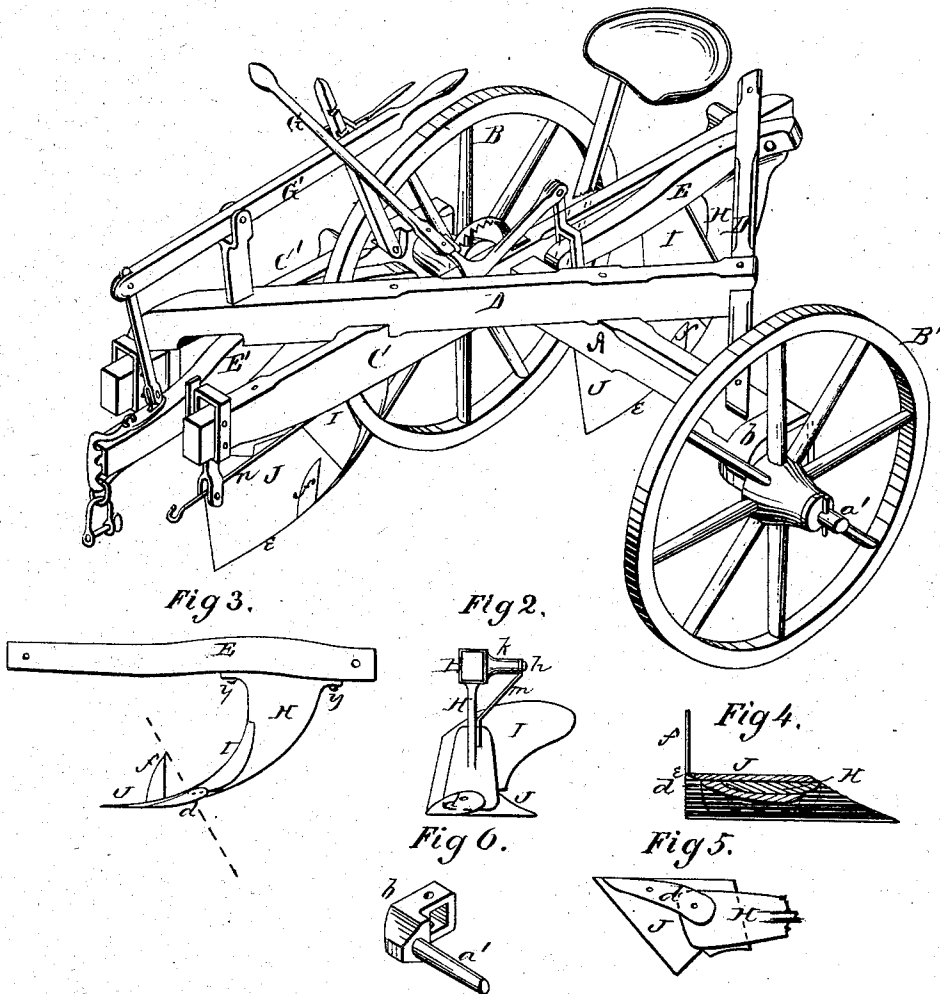


M. HARROLD.
Gang-Plows.

No. 154,863.

Patented Sept. 8, 1874.

Fig 1.



WITNESSES.

J. O. Theodore Lang,
C. L. Euerh.

INVENTOR

Mahlow Harrold,

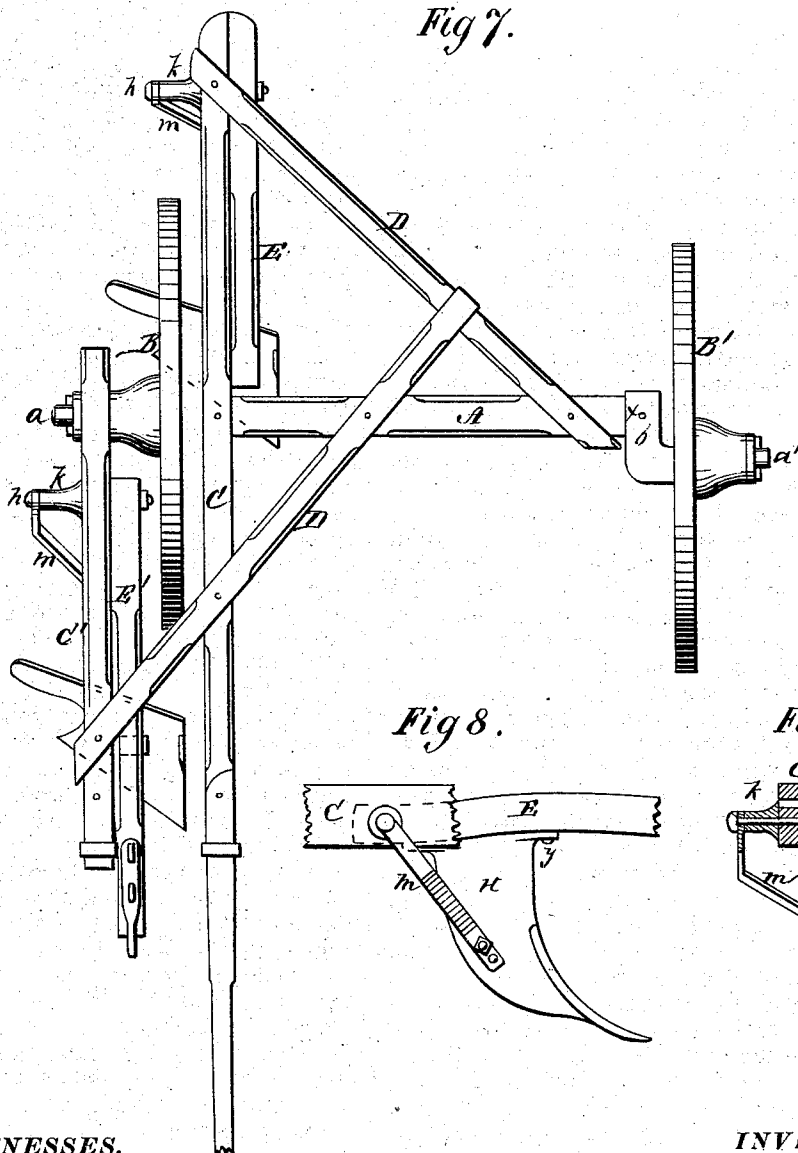
By Alexander Stuart

Attorneys.

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J. P. Theodor Lang
le L. Everh

INVENTOR

Mahtow Harrold.

By *Alexander Mahtow*

Attorneys.

UNITED STATES PATENT OFFICE.

MAHLON HARROLD, OF WAPELLA, ILLINOIS.

IMPROVEMENT IN GANG-PLOWS.

Specification forming part of Letters Patent No. **154,863**, dated September 8, 1874; application filed June 5, 1874.

To all whom it may concern:

Be it known that I, MAHLON HARROLD, of Wapella, in the county of De Witt and in the State of Illinois, have invented certain new and useful Improvements in Gang-Plows; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a gang-plow, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a perspective view of my gang-plow. Figs. 2, 3, 4, 5, and 6 are detached views of certain parts thereof. Fig. 7 is a plan view of the gang-plow with the adjusting levers and seat removed. Figs. 8 and 9 show the means for adjusting each plow.

A represents the axle of the plow-frame, provided at one end with a spindle, *a*, for the reception of the wheel B. To this end of the axle A is secured a beam, C, which extends a suitable distance in front and rear of the axle. The outer end of the spindle *a* passes through the rear end of a beam, C', which extends forward parallel with the beam C, and the whole braced together by means of braces or beams D D running diagonally, as shown particularly in Fig. 7. Upon the other end of the axle A is a square tenon, upon which fits a correspondingly-shaped socket, *b*, fastened by a pin, *x*, said socket having an extension on one side from which projects a spindle, *a'*, for the reception of the wheel B'. This socket *b* may be turned and placed on the tenon, so as to adjust the wheel B' up or down, as desired. To the rear end of the beam C, on the inner side, is pivoted the rear end of a plow-beam, E, the front end of which extends nearly to the rear side of the axle A, and is there connected to an elbow-lever, G, by means of which it is raised and lowered, as desired. In front of the axle G, to the inner side of the beam C', is pivoted the rear end of another plow-beam, E', which extends forward alongside

of said beam, and is connected to a lever, G', for raising and lowering the same. By this arrangement of the beams C C' and their plow-beams E E' it will be seen that the two plows are perfectly evenly balanced, and their weight supported entirely upon the wheel B.

The plows used are constructed entirely without any land-side bar, and the wheel B follows on a line with the inner edge of the front plow. This wheel thus takes the place of the usual bar on the land-side of the plow, and, so to say, converts the ordinary sliding friction to rolling friction, whereby the draft is materially lessened.

H represents the plow foot or standard, to which the mold-board I and share J are secured, the front of the plow being braced and strengthened by a supporting-piece, *d*, underneath. Along the inner side of the share J is formed the cutting-edge *e*, running from the point of the share to the upright colter *f*, formed on or attached to the share. The front part of the share J is extended, and runs flat in the bottom of the furrow so as to cut the earth before it commences to rise. This flat part of the share extends from the point to about an inch and a half in front of the colter, and is about twice as long on the inner or land side as it is on the outer or mold-board side. The rear end of each plow-beam may be adjusted up and down by changing the pivot-bolt *h* in different holes in the beam to which the plow-beam is pivoted, as shown in Fig. 9. The bolt *h* passes through a casting, *k*, held against the outer side of the beam C or C', and the bolt, at the outer end of this casting, fastens or holds the upper end of a brace, *m*. The lower end of this brace has two or more holes for the passage of a bolt to fasten it to the plow-standard H. This standard is fastened to the under side of the plow-beam by a screw or bolt, *y*, at the front and rear, as shown in Fig. 3. By loosening these bolts the standard may be turned inward or outward, and fastened and held firmly in position by the brace *m*, the bolt that connects the brace with the standard being changed in different holes in the brace. To the under side of the beam *c* at a suitable point is secured the draft-beam *n*, which may extend forward either to the forward end of the same

beam C, or to the front end of the plow-beam E', and the tongue is then shifted from the end of the beam C to the end of the beam C'. This change of the tongue and draft-rod is to accommodate and use the gang-plow for subsoil purposes, the front plow subsoiling while the rear plow cuts a new furrow.

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

1. In a gang-plow, having two separate and independent plows, the arrangement of the pivoted and adjustable plow-beams E and E', one on the inside and the other on the outside of the wheel B, one in front and the other in the rear of the axle, the wheel B being directly in rear of and on a line with the inner edge of the front plow, as set forth.

2. The combination of the axle A, spindle *a*, wheel B, beams C C', plow-beams E E', and braces D D, all substantially as and for the purposes herein set forth.

3. The combination of the plow-beam E, beam C, bolt *h*, casting *k*, brace *m*, and standard H, all constructed substantially as and for the purposes herein set forth.

4. The supporting-piece *d*, in combination with the standard H and share J, for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 9th day of May, 1874.

MAHLON HARROLD.

Witnesses :

THOS. SLADE,
CHAS. B. SLADE.