G. L. GIFFORD.
Plow.

No. 213,410. Patented Mar. 18, 1879.

Fig. 1.

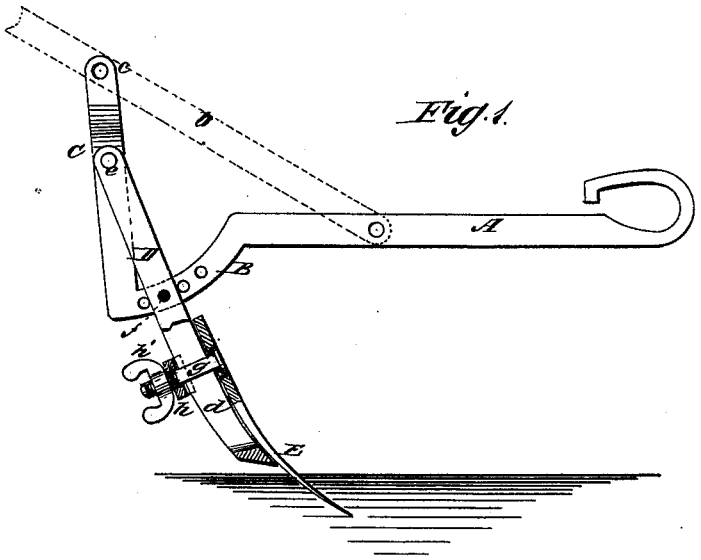


Fig. 2.

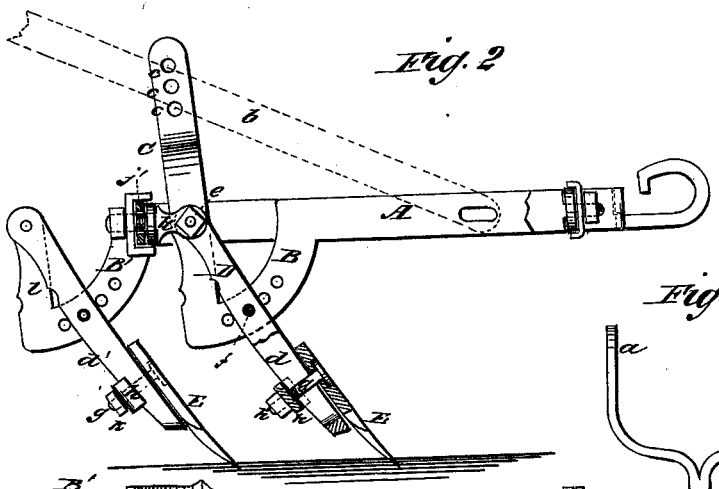


Fig. 4.

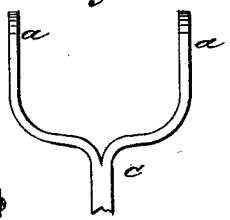
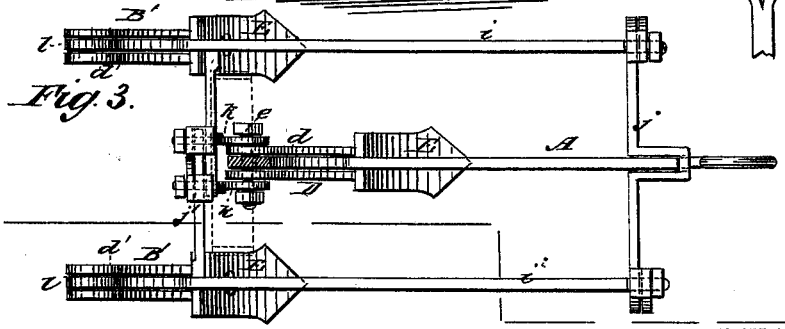


Fig. 3.



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UNITED STATES PATENT OFFICE.

GEORGE L. GIFFORD, OF SAN ANTONIO, TEXAS.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. **213,410**, dated March 18, 1879; application filed October 22, 1878.

To all whom it may concern:

Be it known that I, GEORGE L. GIFFORD, of San Antonio, in the county of Bexar and State of Texas, have invented a new and useful Improvement in Plows, of which the following is a specification:

The invention will first be described in connection with the drawings, and then pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of my improved plow. Fig. 2 is a part section. Fig. 3 is a plan of my improvements applied to a gang of plows, and Fig. 4 is a detail of the standard.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, the plow-beam is indicated by the letter A. It is made of iron, and at the rear end is curved downward into a quadrant of a circle, forming a guide, B, and is then bent upward at an acute angle, forming a standard, C, which is split into two parts, forming arms *a a*.

The handles *b* of the plow (indicated by dotted lines) are fastened at one end to the plow-beam, one on either side thereof, and are sustained and secured to the arms *a* by a pin passed through one of the holes *c* therein. Several of these holes are made in each arm to enable the handles to be adjusted at different angles to the plow-beam, so as to provide for the changed position of the plow-points, as hereinafter described.

The plow-stock is represented by the letter D. It is provided with a central longitudinal slot, *d*, through which, when applied to the plow, is passed the guide B, and the upper ends straddle the standard C, and are secured thereto by a pivot, *e*, passed through and fastened by a screw-nut.

The point on the standard where the stock D is pivoted must be the center of the circle of which the guide B forms a segment, and the stock D forms a radius of the same circle.

A hole, *f*, is made in the stock, which coincides with similar holes in the guide B, and by means thereof the stock can be adjusted at different angles to the plow-beam, and thereby adapted to plow at different depths. The greater the depth of the plowing desired, the greater the angle of the stock to the beam, and vice versa.

The plow-point is designated by the letter E. It is secured to the stock D by a bolt, *g*, passed through a hole, and with its head countersunk in the face of the point, as clearly shown. This bolt is passed through the slot *d* in the stock, thence through a flanged washer, *h*, and is secured by a nut, *h'*. The point can be adjusted at any desired place on the stock by means of the nut and bolt, so that as it wears it can be let down until it is completely worn out.

To arrange a gang of plows, a rectangular frame is made, composed of the side bars *i i*, placed parallel to the plow-beam, and supported at the forward end by being bolted to the ends of the cross-bar *j*, fastened in the center to the end of the beam A, and at the rear fastened to the cross-bar *j'*, bolted to the arms *k k*, which are in turn pivoted one on each side of the standard C by the pivot *e*, to which the plow-point stock D is secured.

The ends of the side bars *i i* project back of the cross-bar *j'*, and are curved downward into quadrants B' B' of the same radius as B, and then turned up at an acute angle, forming standards *l l*. Over the quadrants B' B' are placed the slotted stocks *d' d'*, and the upper ends of these stocks are pivoted to the tops of the standards *l l*. The stocks *d' d'* are provided each with a hole, that coincides with a series of holes in the quadrant in the same way and for the same purpose described in stock D and guide B.

The plow-points E E are fixed to the stocks *d' d'* in the same way, and are adjusted in the same manner as to the stocks D, heretofore referred to.

By this arrangement it will be seen a gang of plows are connected to one beam, and are placed in such a way that three parallel furrows will be thrown up.

The stocks D and *d' d'* are adjusted on the guides B B' by inserting a wooden pin through coincident holes, and as the plowing is to be deeper or shallower the angle of the stock and point with the beam is made greater or less, and the handles are adjusted accordingly.

This whole plow can be made of wrought-iron and forged out, with the exception of the points, which should be of cast-iron or steel.

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

1. The slotted plow-beam A, having the curved perforated guide B and vertical portion C, with branched arms and holes *c*, in combination with the slotted standard D and adjustable handles *b*, substantially as shown and described.

2. As an improvement in plows, the frame composed of side bars *i i*, end bars *j j'*, and having quadrant guides B' B', standards *l l*, and pivoted stocks *d' d'*, in combination with guides B, standards C, and beam A, substantially as described.

GEORGE LEWIS GIFFORD.

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