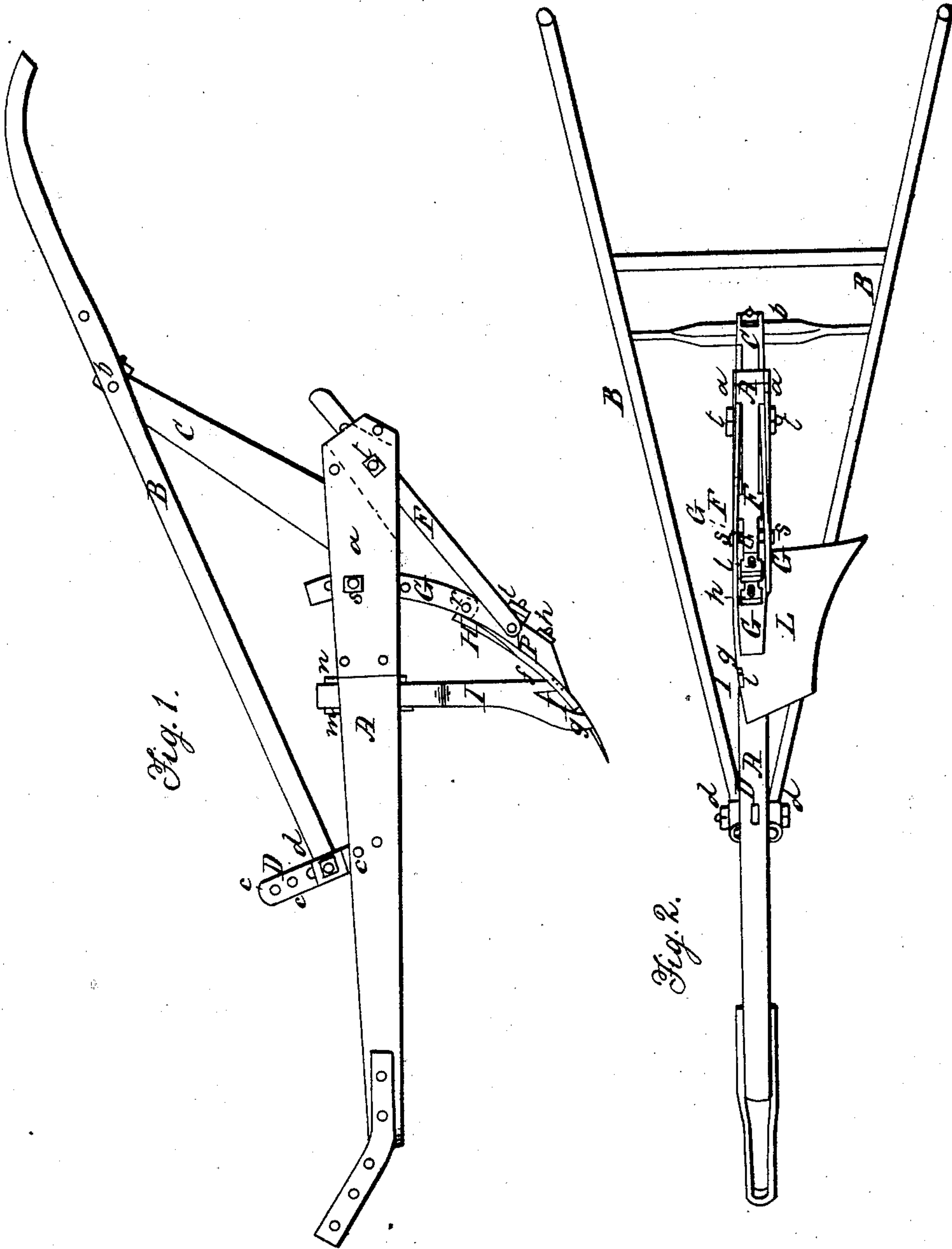


J. BANK.  
Shovel-Plow.

No. 18,726.

Patented Dec. 1, 1857.



# UNITED STATES PATENT OFFICE.

JOSEPH BANKS, OF DADEVILLE, ALABAMA.

## IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. **18,726**, dated December 1, 1857.

*To all whom it may concern:*

Be it known that I, JOSEPH BANKS, of Dadeville, in the county of Tallapoosa and State of Alabama, have invented a new and Improved Graduating and Adjusting Plow; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification—

Figure 1 being a side elevation of the plow, and Fig. 2 a plan of the bottom thereof.

Like letters designate corresponding parts in both figures.

The foot G of the plow is composed of bars of iron welded together at the bottom, but separated—say an inch, or thereabout—the remainder of their length. These side bars pass through separate mortises in the beam A, formed by cutting notches in the sides thereof and covering them with iron straps *a a*, which are strongly secured to the beam by rivets, each passing through both straps. These straps give additional strength to the beam, and extend so as to cover mortises, formed as above described, for the reception of the braces F F, there being two of which attached by a pivot to the opposite sides of the foot G. By thus employing double braces and bars, separated as far as proper compactness will allow, much greater strength and firmness are attained, especially as opposed to side strain. Both the foot G and braces F F are provided with sets of holes at regular and corresponding distances apart, through which bolts *s* and *t* respectively pass to secure them to the beam, whereby, either separately or both together, may be adjusted, and thus increase or diminish the depth of the plow, or vary the angle which the point forms with the beam, to suit all kinds of work.

On the front side of the foot G a shoulder piece or stop, H, is secured by means of a pivot, *r*, passing through an ear projecting from its upper end, as represented in Fig. 1. The lower end is thus allowed to move closer to or farther from the foot. A bolt, *l*, is passed through the lower end and then back between the bars of the foot. The lower end of the bolt receives a nut, whereby the lower end of the

shoulder-stop H is adjusted toward or from the foot G.

In order to keep the shoulder-stop in the position to which it is adjusted, a wedge, *p*, is driven behind it, as shown in Fig. 1. By this adjustment of the shoulder-stop its surface is brought flush with the surface of the point L, the upper end of which bears against it; and, as different kinds of points are attached to the plow, often varying considerably in thickness, it is only by such an arrangement that a smooth surface—which is of considerable importance in that part of the plow—is in all cases obtained.

The point or share L (different forms of which are used for different purposes) is secured to the foot G by a bolt and nut, *h*. The colter I has two branches, *f g*, at the bottom. The rear branch, *f*, rests in a notch formed in the upper side of the point L toward its upper end, while the fore branch, *g*, passes down in a notch in the edge of the point, and thence bends under and hooks into a depression in the bottom of the point, substantially as represented in the drawings. The shank of the colter extends up through a long mortise in the beam, and is held therein by wedges *m* and *n*, driven into the mortises respectively against both edges of the shank. Thus the colter both bears upon the upper side and lifts against the under side of the point, thereby giving it great firmness and steadiness, and holding its wing or opposite edge strongly to the strain to which it is subjected. The long mortise in the beam and wedges on both edges of the colter-shank allow the colter to be adjusted to positions to suit all the adjustments and graduations of the foot G and braces F F.

The handles B B of the plow are adjusted to the desired height by pivoting them on the stretcher-bar *b*, which is firmly secured to the standard C, and attaching their forward ends to an arm, D, which projects forward from the beam, and is provided with a set of holes, *c c c*. A bolt, D, is passed through the handles and any one of these holes. This mode of adjusting is superior to that of adjusting the rear ends in several particulars. Thus, it al-

lows the rear ends to be more rigidly supported, and also extend farther behind and away from the plow for the convenience of the plowman.

What I claim as my invention is—

The arrangement of the double-branched colter I so that its rear branch rests on the point or share and its forward branch supports the under side of said point, in combina-

tion with the vertical and forward and rear adjustments of the colter in the beam, substantially in the manner and for the purposes specified.

JOSEPH BANKS.

Witnesses:

J. S. BROWN,  
R. F. OSGOOD.