J. M. Leonard,

Plow Coulter.

No. 110,251 Patented Dec. 20. 1870.

Figure 1.

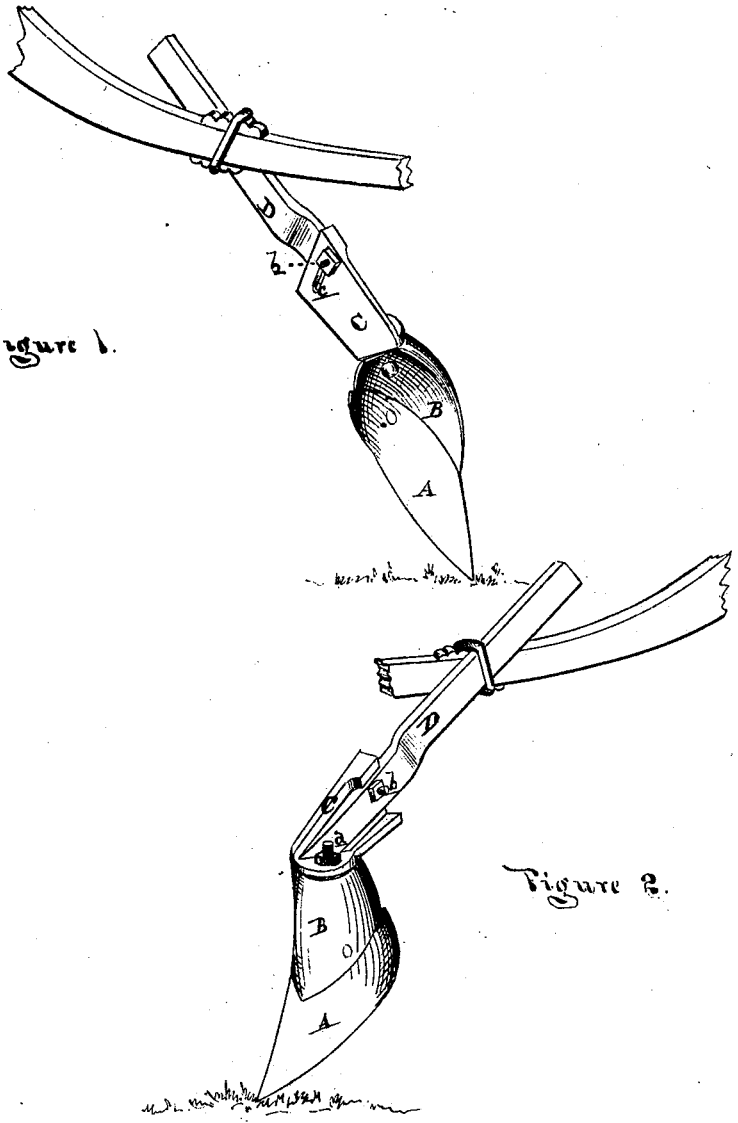

Figure 2.

ATTEST

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Frederick Ebert

INVENTOR

J. M. Leonard

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United States Patent Office.

JOHN M. LEONARD, OF MARSHALL CITY, MICHIGAN.

Letters Patent No. 110,251, dated December 20, 1870.

IMPROVEMENT IN ADJUSTABLE PLOW-JOINTERS.

The Schedule referred to in these Letters Patent and making part of the same.

To whom it may concern:

Be it known that I, JOHN M. LEONARD, of Marshall City, in the county of Calhoun and State of Michigan, have invented a new and useful Improvement in an Adjustable Plow-Jointer; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification, in which—

Figure 1 is an elevation from the "land-side" of my jointer, and

Figure 2 is a similar view from the "furrow" side.

Like letters indicate like parts in each figure.

The nature of this invention relates to the construction of an adjustable plow-jointer in such a manner that the size of the furrow-slice taken by it may be varied to suit the plowman in the various soils; and, in like manner, the pitch of the jointer may be changed as circumstances may require.

The invention consists in providing a joint between the shank and mold-board of the jointer, and in providing the shank with an oblong slot, through which the bolt securing it to the standard passes, permitting the pitch of the shank to be changed at will.

In the drawing—

A represents the share or point, and B the mold-board of the jointer, pivoted to the lower end of the shank C by the bolt *a*, so that it has a swivel movement thereon.

D is the standard, attached to the plow-beam by a clevis, in the place usually occupied by the colter.

The shank is secured to the standard by a screw-bolt, *b*, which passes through an elongated slot, *c*, in the shank, which allows the shank to be more or less inclined on the standard.

The jointer shown throws its slice in the opposite direction to that taken by the plow, or, to be more explicit, turns it "to land," when it is covered in at the next turn.

In plowing in heavy, stiff soils, the slice to be taken by the jointer must necessarily be less than in plowing stubble, to either of which it may be adjusted by means of the nut *d'*, after being properly set.

As the point of the share becomes worn too much to be adjusted by altering the pitch of the standard in the clevis, the proper pitch may be secured for the jointer by adjusting the shank on the standard, through the bolt which attaches it thereto.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The combination, in an adjustable plow-jointer, of the point A, the mold-board B, the shank C, and the standard D, wherein the mold-board B is pivoted to the lower end of the shank C by the bolt *a*, and the shank C is provided with the slot *c*, and secured to the standard D by the bolt *d*, and the several parts named are constructed and arranged substantially as described and shown.

JOHN M. LEONARD.

Witnesses:

M. STEWART,

FREDERICK EBERTS.