2 Sheets—Sheet 1.

J. OXENFORD.

Plow-Colter.

No. 206,818. **Patented Aug. 6, 1878.**

Fig. 1.

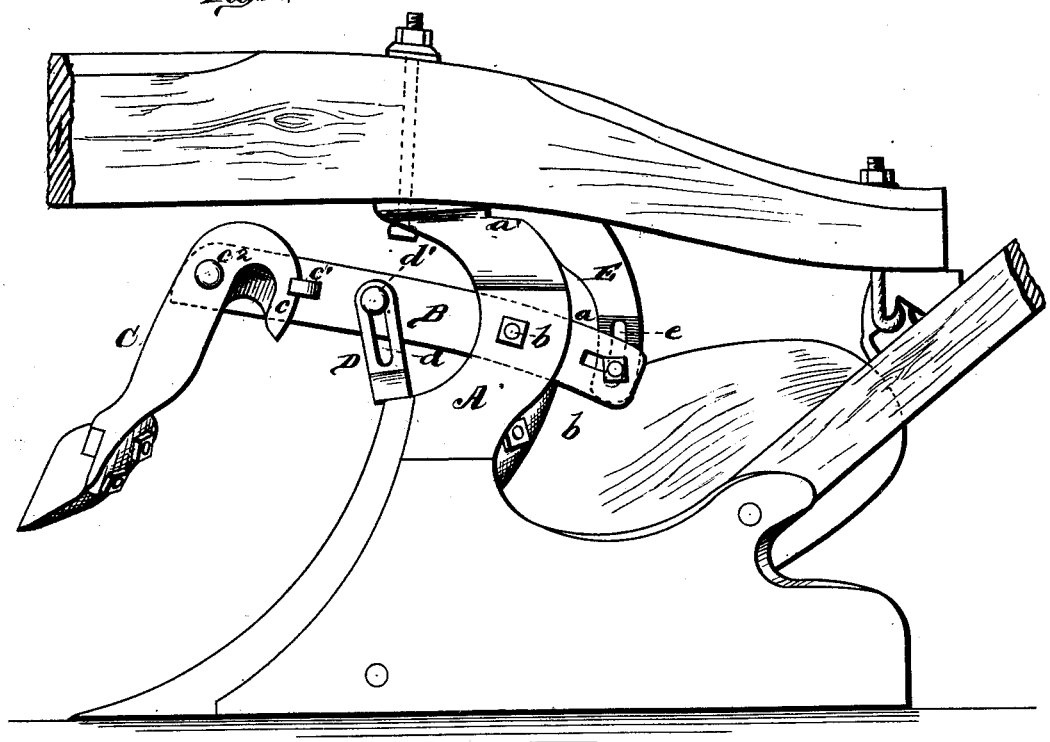

Fig. 2.

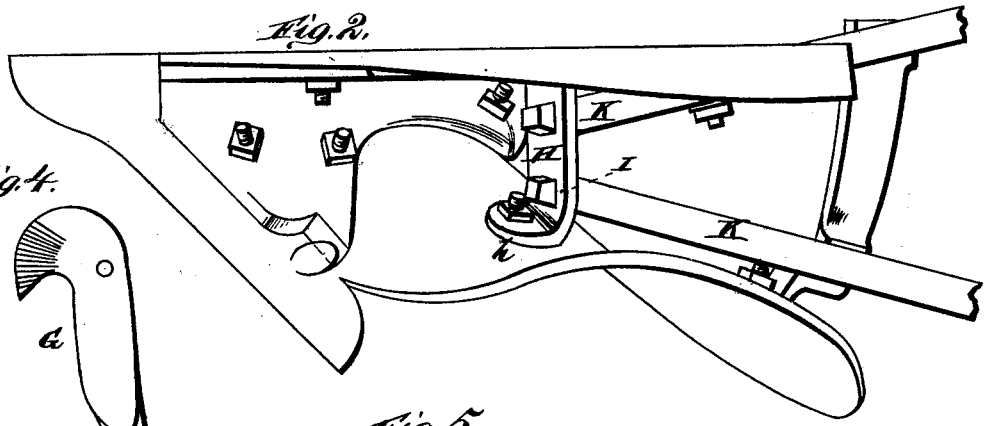

Fig. 4.

Fig. 5.

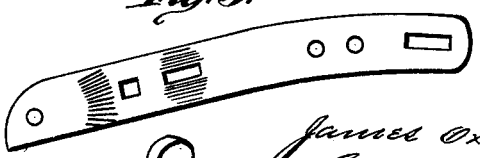

Fig. 3.

WITNESSES

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2 Sheets—Sheet 2.

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Fig. 6.

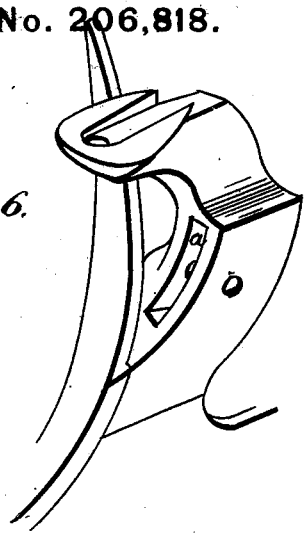


Fig. 7.

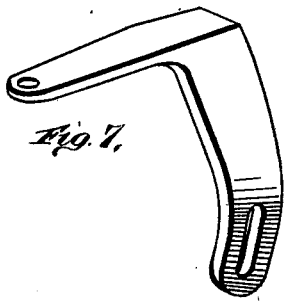


Fig. 8.

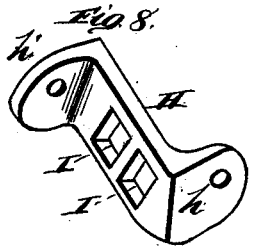


Fig. 9.

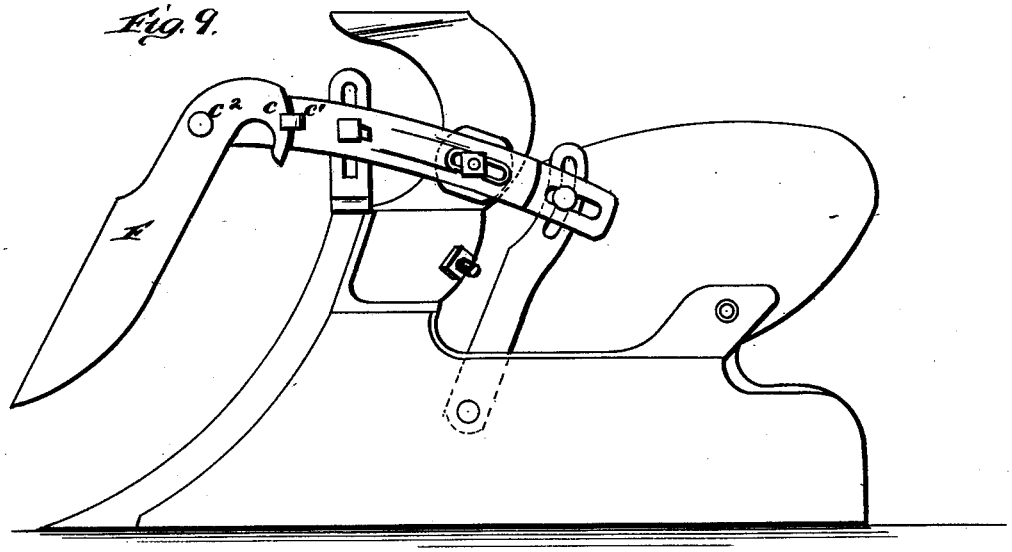


Fig. 10.

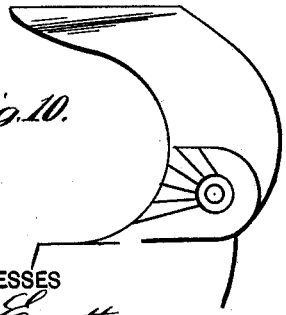
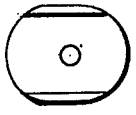


Fig. 11.

Fig. 12.



WITNESSES

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UNITED STATES PATENT OFFICE.

JAMES OXENFORD, OF KALAMAZOO, MICHIGAN.

IMPROVEMENT IN PLOW-COLTERS.

Specification forming part of Letters Patent No. **206,818**, dated August 6, 1878; application filed June 29, 1878.

To all whom it may concern:

Be it known that I, JAMES OXENFORD, of Kalamazoo, in the county of Kalamazoo and State of Michigan, have invented a new and valuable Improvement in Plow-Colters; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a side view of my plow and colter. Fig. 2 is a bottom-plan view. Figs. 3, 4, 5, 6, 7, and 8 are perspective details. Fig. 9 is a side view of a modification; and Figs. 10, 11, and 12 are detail modification views.

My invention consists in a mortised plow-standard, through which passes an adjustable colter-beam roughened at each end on opposite sides, one to furnish bearing for the colter or jointer and the other for attachment to a brace. The side of the colter is also roughened, and it is secured to the beam by a headed bolt upon one side, which bolt engages and binds the curved arm of the colter, and an ordinary bolt and nut upon the other. A short slotted brace is pivoted to the colter-beam and rests upon the top of the mold board or point, and this brace is between the standard and the colter. The rear end of the colter-beam is slotted, as also is the brace to which it is secured, and these slots in the two braces allow the colter-beam to be adjusted at will. The jointer and colter are interchangeable, either being used, as desired.

Referring to the drawings, A represents the plow-standard, provided with a mortise, *a*, through which passes colter-beam B, bolted to the standard at *b*.

The beam B is roughened or corrugated at each end on opposite sides, the one b^1 furnishing a bearing for the curved arm *c* of the colter C, which is firmly held to the beam B by a headed bolt, c^1, which engages the arm *c*, and a bolt, c^2, which passes through beam and colter-arm, and is held by a nut. The inner side of the colter-arm is roughened to correspond with the rough surface on the beam.

Pivoted to the beam B, between the colter and standard, is a short brace, D, slotted at *d* to receive a headed bolt, *d'*.

E represents a brace, curved and extending upward, which engages against the plow-beam on its upper surface, and also against a dovetail shoulder, *a'*, in the standard A. The lower end of this brace is roughened to correspond with the roughened surface on the side of the rear end of the colter-beam B, and a slot, *e*, receives a headed bolt, which passes through a transverse slot, b^2, in the beam, and secures them together by means of a nut. By means of these slots the colter-beam may be adjusted at will, as is obvious.

The same means and mode of attachment may be applied to either the colter F or the jointer G, as the shank or arm on each are identical in form, and they are readily interchangeable at will.

H represents a stout metal cross bar or brace, having an elbow, *h*, by which it is bolted to the mold-board, and another elbow, bent in an opposite direction, by which it is bolted to the land-side. I represents mortises or apertures adapted to receive and furnish easy and secure bearings for the handles K, which extend upward and are secured by a hook-bolt to the plow-beam.

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

The combination of the adjustable colter-beam B, having roughened surfaces on opposite sides, as shown, and slots to secure adjustment, with the slotted braces D E, curved colter-arm *c*, headed bolt c^1, and standard A *a a'*, as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JAMES OXENFORD.

Witnesses:
SAMUEL W. OXENFORD,
W. S. MCKINNEY.