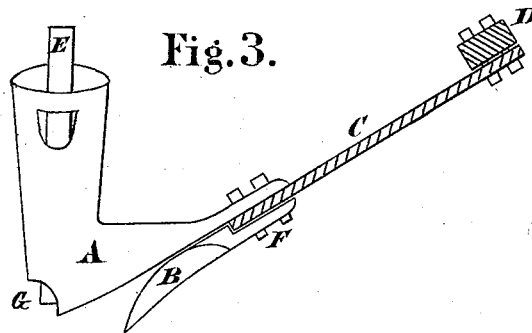
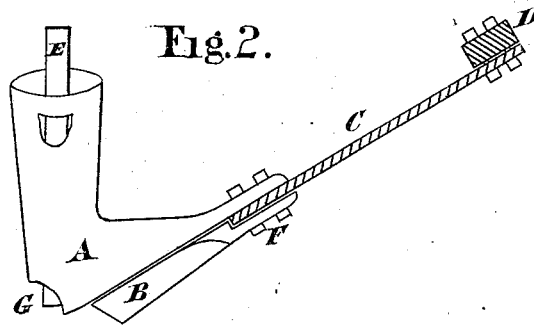
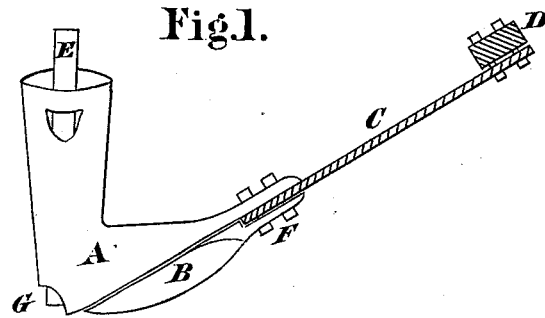


J. T. WEST,
Colter for Grain-Drills.

No. 207,577.

Patented Aug. 27, 1878.



WITNESSES.

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UNITED STATES PATENT OFFICE.

JOHN T. WEST, OF ALLENSVILLE, KENTUCKY.

IMPROVEMENT IN COLTERS FOR GRAIN-DRILLS.

Specification forming part of Letters Patent No. 207,577, dated August 27, 1878; application filed January 28, 1878.

To all whom it may concern:

Be it known that I, JOHN T. WEST, of Allensville, in the county of Todd and State of Kentucky, have invented a certain new and useful Improvement in Pioneer Colters for Grain-Drills; 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 accompanying drawings, forming part of this specification, and to the letters of reference marked thereon, in which—

Figures 1, 2, and 3 show in side elevation three several forms of my improvement.

The invention consists in removably securing colters to the bottom of drill teeth or shoes, in order to provide the under side of the shoes with a cheap thin facing that will penetrate the ground and render the draft of the machine easier and lighter, the said colters serving, also, to strengthen the weakest point of the shoe, and protect it from abrasion and from wearing blunt.

I have shown my improvement applied to shoes secured by a straight flat spring to the shoe-bar, and my invention is specially adapted to this class of drills, for it serves to strengthen the joint of the shoe and spring, which is a weak point, and to protect it.

A is the shoe, having the grain-tube E and the heel G, where the grain escapes. B, in the three figures, is the colter.

In Fig. 1 the colter is made with a rounded or convex edge, in Fig. 2 it is cleaver-shaped, and in Fig. 3 it has a concave edge. These colters are secured to the under side of the shoes by the bolts F, that serve to secure the shoes to their springs C. The backs of the colters lie

against the bottoms of the shoes, and they serve to penetrate any kind of earth and open it for the shoes. They also serve to strengthen the weakest point of the shoe—viz., its joint with the springs C—and to protect the shoe from abrasion. Acting as pioneer colters, they lessen or lighten the draft of the machine by preparing a path for the shoes.

The colter shown in Fig. 3 is adapted to tear or plow up the earth, and is especially recommended for hard or baked earth free of trash.

The colters are readily removed when worn and requiring grinding; but it should be remarked that the edge of the colters is not necessarily sharpened, but is simply ground down thin.

D is the bar to which the springs C are attached, and which is appropriately secured to the machine.

I am aware that it is old to apply a cutter or colter to the front of a grain-drill tooth; also, that it is old to removably secure a colter to the bottom of a drill-tooth; and, also, that it is not new to make a colter solid with the bottom of a drill-tooth. These several constructions form no part of my invention.

What I claim is—

A pioneer colter, B, in combination with a shoe, A, and the support C, the said colter arranged upon the bottom of the shoe, and fastened to the shoe-support C by the same bolts, F, used to secure the shoe, and serving to reinforce the joint, substantially as shown and described.

JOHN T. WEST.

Attest:

E. A. YOST,
W. G. SANFORD.