

(No Model.)

J. H. McPHERSON.
Tooth for Grain Drills.

No. 232,199.

Patented Sept. 14, 1880.

Fig. 1.

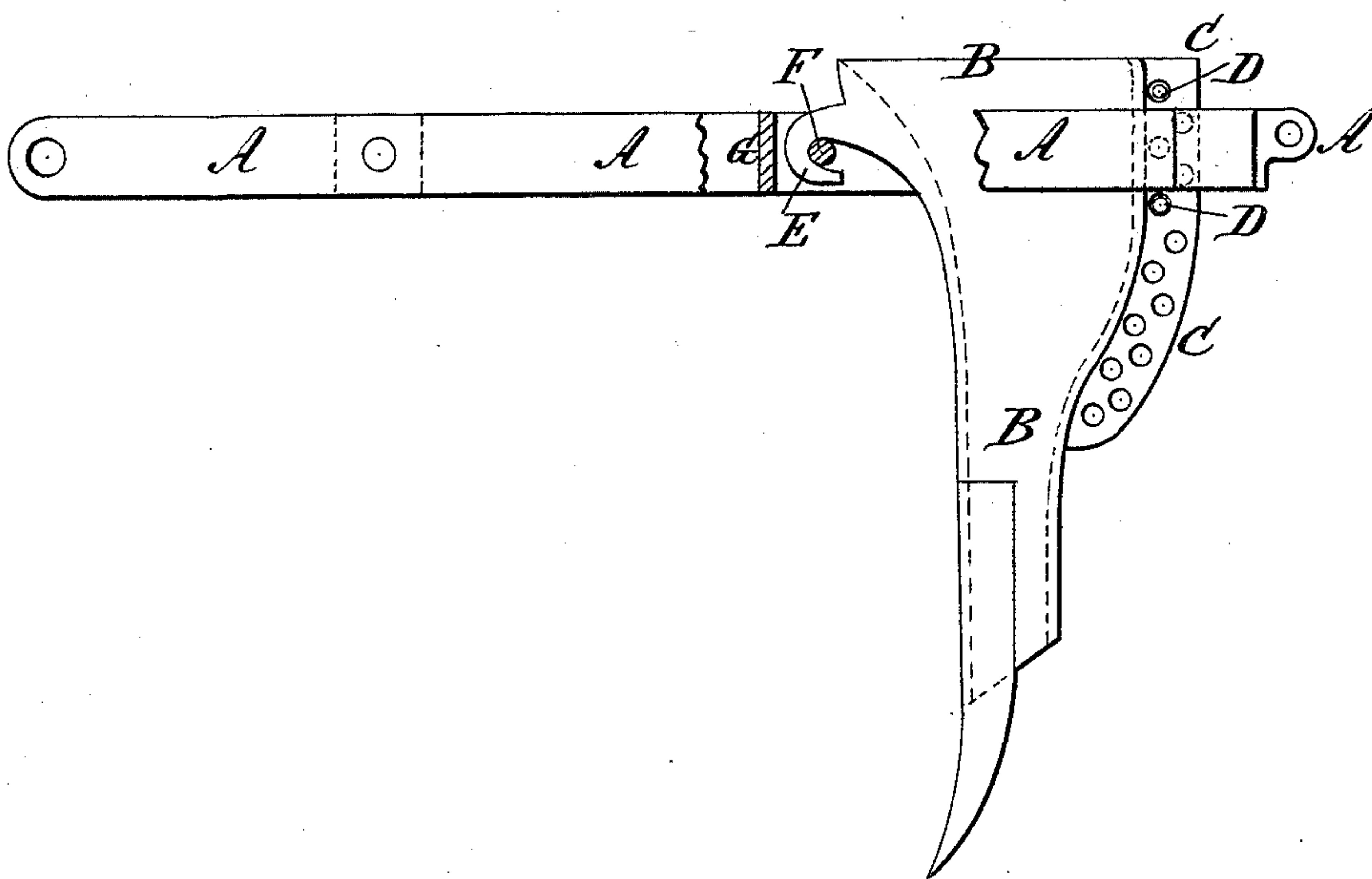
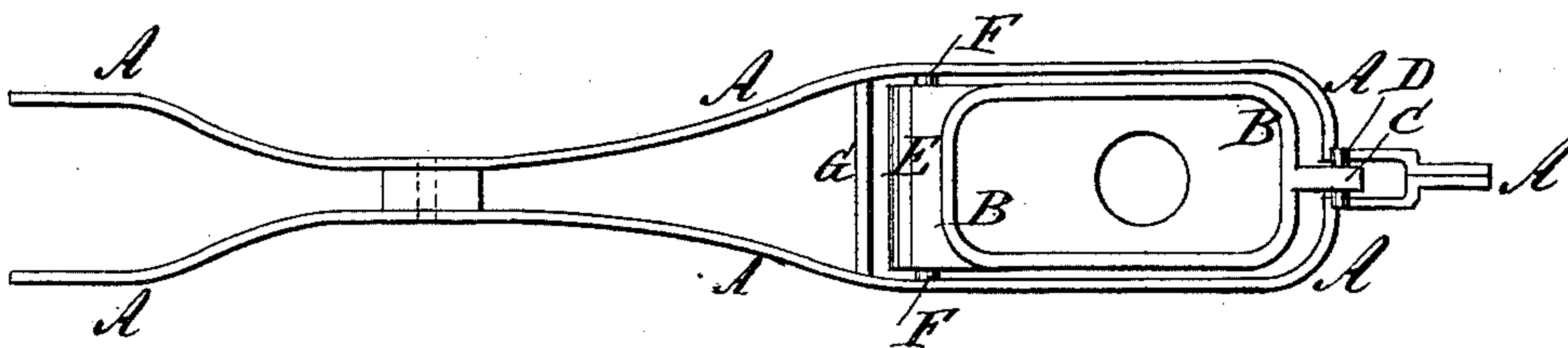


Fig. 2.



WITNESSES:

A. Seckel.
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UNITED STATES PATENT OFFICE.

JOHN H. McPHERSON, OF XENIA, OHIO.

TOOTH FOR GRAIN-DRILLS.

SPECIFICATION forming part of Letters Patent No. 232,199, dated September 14, 1880.

Application filed May 14, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. McPHERSON, of Xenia, in the county of Greene and State of Ohio, have invented a new and useful Improvement in Teeth for Grain-Drills, of which the following is a specification.

Figure 1 is a side elevation, partly in section, of the improvement. Fig. 2 is a plan view.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish teeth for grain-drills so constructed that they can be readily detached for sharpening and for convenience in passing from place to place, and which will swing back, should they strike an obstruction, to prevent the teeth from being broken.

The invention consists in constructing a drill-tooth with a perforated flange upon its rear side to receive wooden pins to keep the tooth in working position, and with a hook upon its forward side to hook upon a bolt or pin attached to the draw-bars to allow the tooth to be readily detached, and a guard-bar to prevent the hook from becoming unhooked accidentally, as will be hereinafter fully described.

A represents the draw-bars, to which the teeth B are attached. The forward ends of the bars A are spread apart, and are perforated to receive the rod or bolts by which they are attached to the frame of the drill. The bars A are connected at a little distance from their forward ends by a bolt or rivet, a block being interposed between them to keep them at the proper distance apart.

The rear parts of the bars A are so shaped as to receive between them and fit loosely upon the upper part of the tooth B. The rear ends of the bars A are bent rearward, inward, and rearward to form a groove or recess to receive a flange, C, formed upon the rear side of the upper part of the tooth B.

In the rear end of the bars A is formed a hole to receive the chain for raising the tooth from the ground.

In the flange C are formed a number of perforations to receive wooden pins D, one of which is placed above the bars A to keep the tooth in place when raised from the ground and when the drill is backed. The other pin

D is placed beneath the bars A, and is made of sufficient strength to resist the draft-strain under ordinary circumstances; but should the tooth strike an obstruction the said pin will break and allow the tooth to swing back to prevent the said tooth from being broken.

Upon the upper part of the front of the tooth B is formed, or to it is attached, a hook, E, to hook upon a pin or bolt, F, attached to the bars A, as shown in Figs. 1 and 2.

To the bars A, in front of the pin or bolt F, is attached a cross-bar, G, to prevent the hook E from becoming unhooked when the tooth B is in working position.

With this construction, by withdrawing the upper pin D the tooth B can be swung forward and unhooked to be sharpened, or for convenience in moving the drill from place to place.

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

1. A drill-tooth constructed substantially as herein shown and described, consisting of the tooth B, having a perforated flange, C, upon its rear side and a hook, E, upon its forward side, to adapt it to be detachably attached to the draw-bars A, as set forth.

2. In a drill-tooth, the combination of the perforated flange C and the pins D with the rear side of the drill-tooth B and the recessed rear ends of the draw-bars A, substantially as herein shown and described, whereby the tooth is held in position and allowed to swing back should it strike an obstruction, as set forth.

3. In a drill-tooth, the combination, with the forward side of the tooth B and the draw-bars A, of the hook E and the pin or bolt F, substantially as herein shown and described, whereby the tooth can be readily detached, as set forth.

4. In a drill-tooth, the combination, with the draw-bars A, the pin or bolt F, and the hook E, formed upon the forward side of the tooth B, of the guard-bar G, substantially as herein shown and described, whereby the tooth is prevented from becoming unhooked accidentally, as set forth.

JOHN HIRLING McPHERSON.

Witnesses:

J. C. NISBET,
A. TRADER.