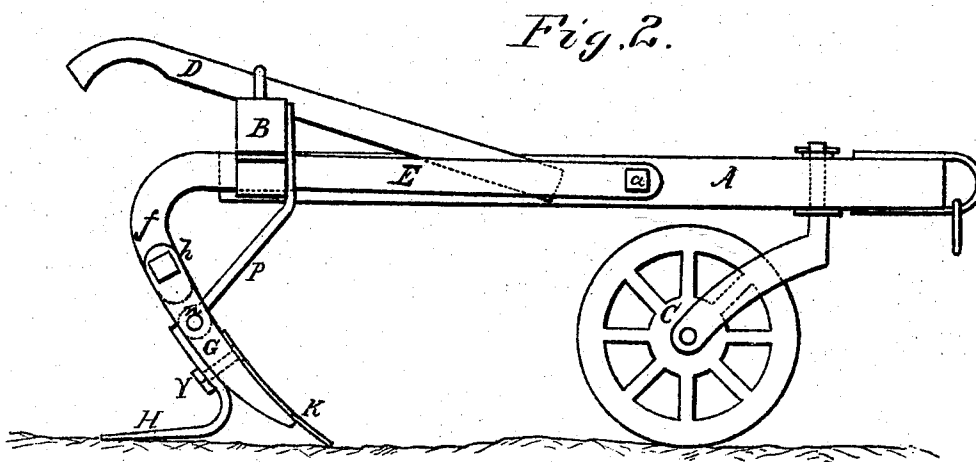
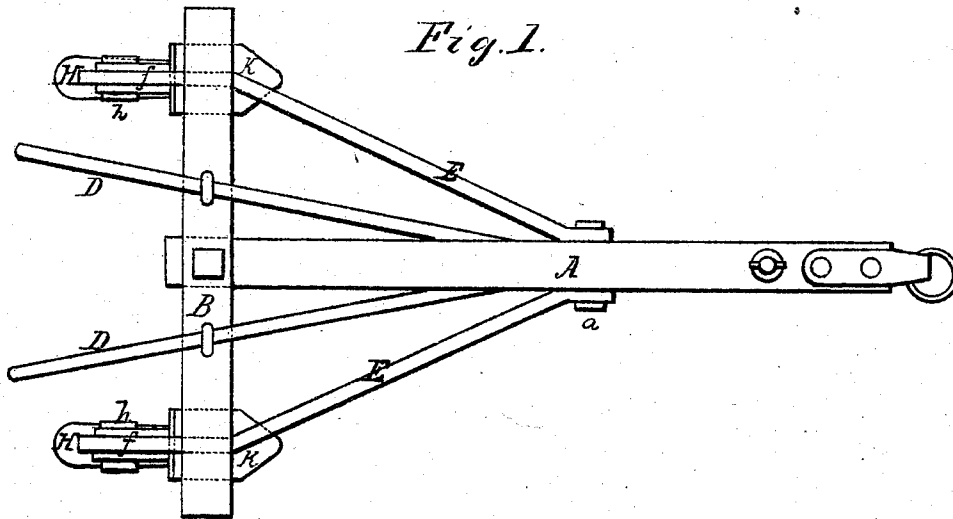


J. H. RYNERSON.
Corn Ground-Markers.

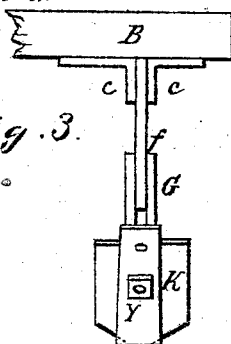
No. 144,146.

Patented Oct. 28, 1873.



Witnesses.
E. M. Bates. *Fig. 3.*
George E. Upham.

Inventor.
James H. Rynerson,
Clippard & Co.,
attys.



UNITED STATES PATENT OFFICE.

JAMES H. RYNERSON, OF CLAYTON, INDIANA.

IMPROVEMENT IN CORN-GROUND MARKERS.

Specification forming part of Letters Patent No. **144,146**, dated October 28, 1873; application filed June 28, 1873.

To all whom it may concern:

Be it known that I, JAMES H. RYNERSON, of Clayton, in the county of Hendricks and State of Indiana, have invented a new and valuable Improvement in Corn-Ground Markers; 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 representation of a plan view of my invention. Fig. 2 is a side view of the same. Fig. 3 is a detail.

My invention relates to markers for corn-ground; and consists, in the following novelties, to wit: First, in a novel guide and detachable auxiliary marker attached to the rear of the standard; and in the construction and arrangement of the marking-plow, auxiliary marker, pivoted standard, and braces, as hereinafter described and claimed.

A of the drawings represents the horizontal or main beam of my marker; B, the cross-beam; C, a caster-wheel, and D D the handles. E E represent side braces, connected with the draft-beam by a bolt at *a*, and to the lower side of the cross-beam by staples, as shown at *c*. These side braces, after passing to the rear of the cross-beam, are bent downward, as shown at *f*, and serve to form the upper section of the plow-standard. G represents the lower section of my standard; and it consists of a single curved and slotted metal bar, with perforations through both its jaws to receive the bolt and break-pin next mentioned. *h* represents a bolt passing through the jaws of the lower section of the standard; and *n* is a wooden pin, usually called a break-pin, also passing through an opening in said jaws. The bolt *h* serves to unite the upper with the lower section of the standard; and the break-pin serves to connect the adjustable brace hereinafter mentioned with said pivoted section. K represents the marking-plow, and the letter H the

guide or auxiliary marker next described. This guide and marker H consists in a bent plate of metal flattened and broadened toward its rear end, as shown. It serves not only as a guide to regulate the depth of furrow for the marking-plow, but also to return a portion of loose earth from the sides of the furrow, and form a smooth even bed for the seed to be planted. Both the marker proper and the guide H are united together by a single bolt, *y*, which passes through the slot of the standard, and by which they are made adjustable therein.

This guide or marker H may be detached from the rear end of the standard, and the implement used as an ordinary cultivator.

P represents a brace-rod extending from the cross-bar to the break-pin in the jaws of the standard. This brace is made adjustable upon the beam by means of perforations and holding-pin; and serves not only to hold and brace the pivoted section of the standard, but also to regulate the depth of furrow for the marking-plow.

The break-pin is designed to give way and relieve the plow from danger of breakage when encountering an insurmountable obstacle.

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

1. In a corn-field marker, the detachable and adjustable guide or auxiliary marker H, substantially as specified, and for the purpose mentioned.

2. The marking-plow K, and auxiliary marker H, united together by a bolt, in combination with the pivoted and slotted standard G, side braces E, and brace-rods P, substantially as specified.

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

JAMES H. RYNERSON.

Witnesses:

WM. A. RAGAN,
C. T. LAWRENCE.