## W. GARDNER. Drag.

No. 159,811.

Patented Feb. 16, 1875.

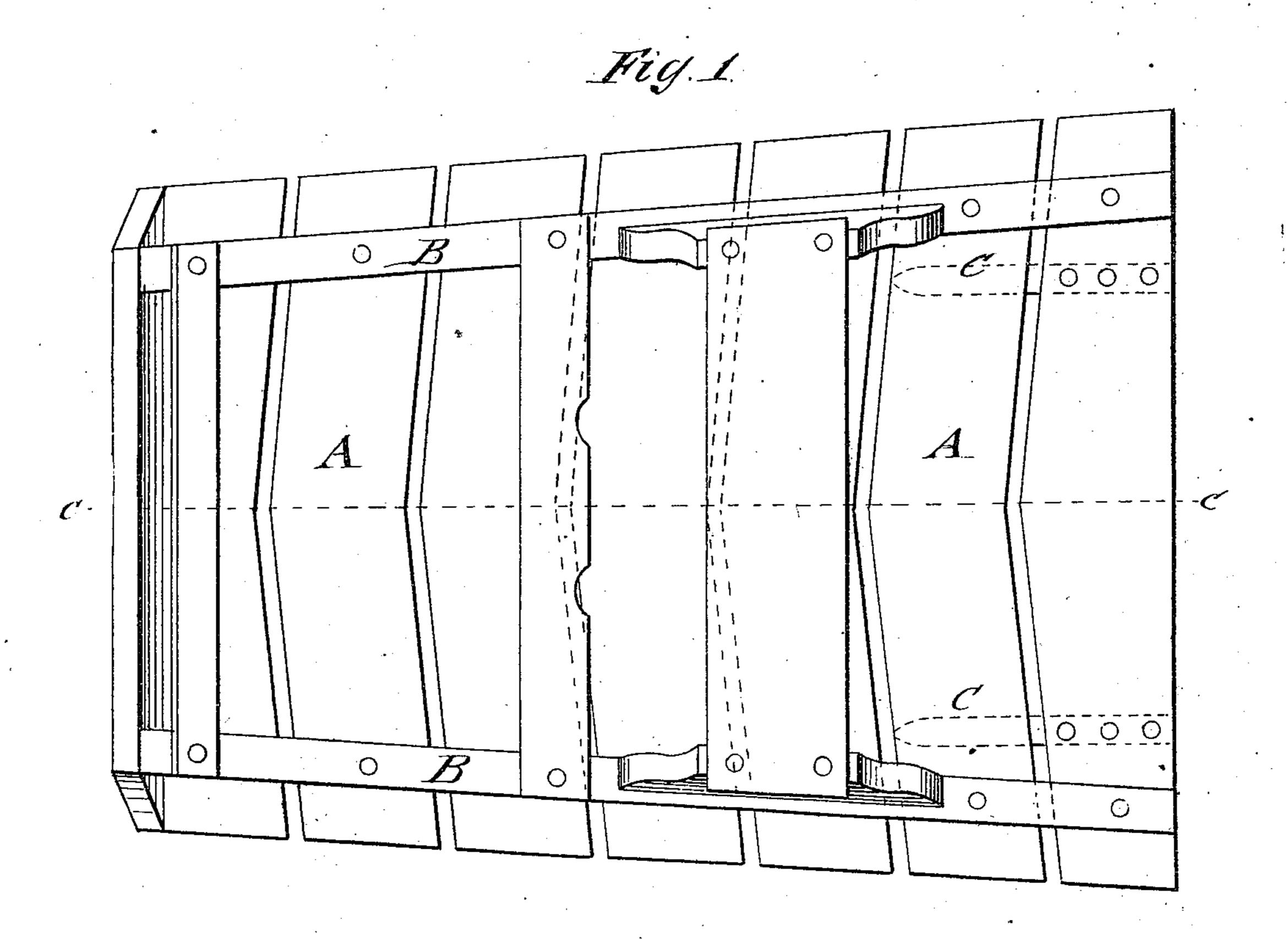
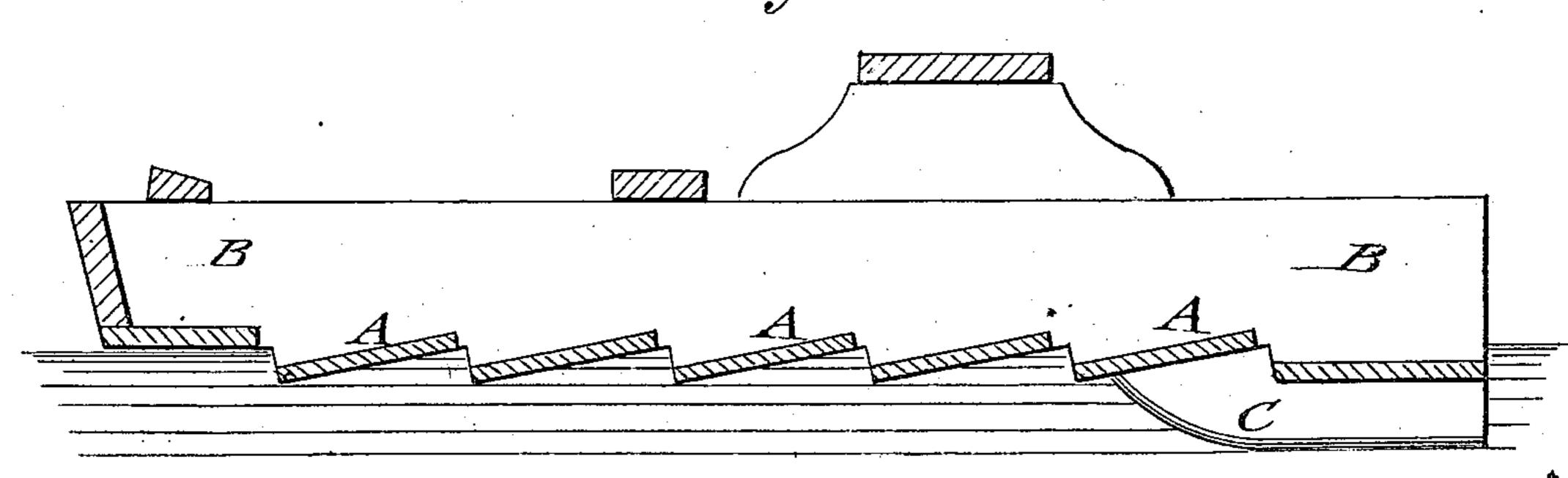


Fig. 2.



WITNESSES:

A Terry

INVENTOR:
W. Garoner
BY
MININEYS.

## UNITED STATES PATENT OFFICE.

WILSON GARDNER, OF WHEELERSBURG, OHIO, ASSIGNOR TO HIMSELF AND L. SALLADAY, OF SAME PLACE.

## IMPROVEMENT IN DRAGS.

Specification forming part of Letters Patent No. 159,811, dated February 16, 1875; application filed November 30, 1874.

To all whom it may concern:

Be it known that I, WILSON GARDNER, of Wheelersburg, in the county of Scioto and State of Ohio, have invented a new and Improved Drag, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a top view of my improved drag; and Fig. 2, a vertical longitudinal section of the same on the line c c, Fig. 1.

Similar letters of reference indicate corresponding parts.

The invention will first be fully described,

and then pointed out in the claim.

In the drawing, A represents the sections of my drag, which are made of suitable metal, with steel cutting or breaking edges, so as to be reversible after one edge is worn out. The sections A are preferably formed under an obtuse angle from the longitudinal axis of the drag, as shown in Fig. 1, and attached by bolts under suitable inclination, and with proper interstices between the sections to parallel or inclined side ribs or carriers B. The ribs B support, near the front part of the drag, a lateral piece for attaching the shafts or tongue, and at some distance back of the

The front and rear sections B are not placed under an angle at inclination to the ribs, but attached in horizontal position, the rear section serving for the purpose of applying thereto the detachable steel molds or runners C, which are fitted to the rear and under side of the immediately adjoining section, and may be adjusted thereto at greater or lesser width. The runners C are used for the purpose of furrowing the ground for corn, and are adjusted according to the distance of the furrows. The ground is broken and cut up by the drag in an effective manner

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

The pulverizers A and furrowers C, connected with the same carriers B, substantially as shown and described, so that ground may be laid off in rows for planting as fast as it is brought into fine tilth, and by the same operation.

WILSON GARDNER.

Witnesses:

W. C. EAKINS, L. C. VOORHES.