W. L. WADDY.
Harrow.

No. 227,862. Patented May 18, 1880.

Fig. 1.

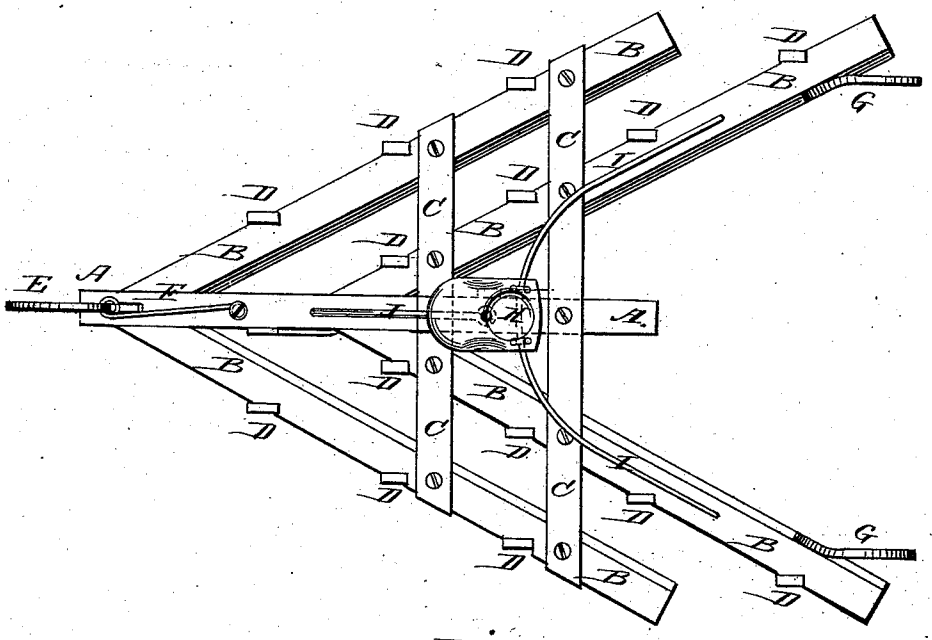


Fig. 2.

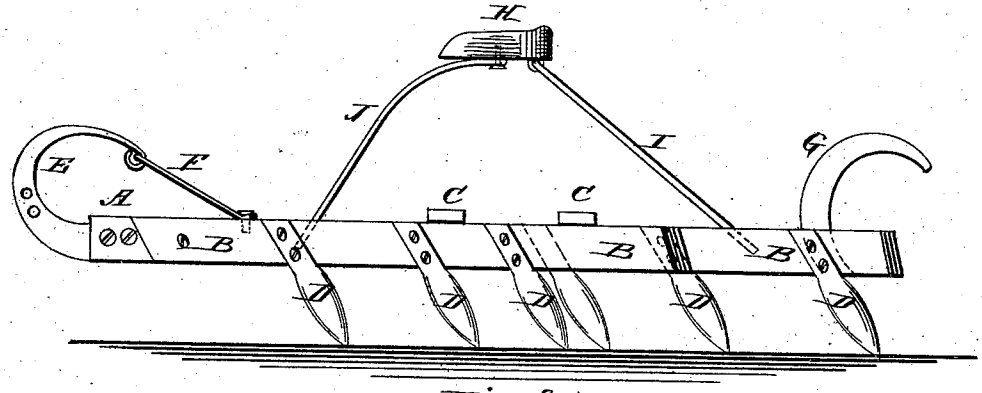


Fig. 3

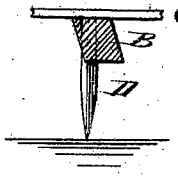


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM L. WADDY, OF PEYTONA, KENTUCKY.

HARROW.

SPECIFICATION forming part of Letters Patent No. 227,862, dated May 18, 1880.

Application filed February 18, 1880.

To all whom it may concern:

Be it known that I, WILLIAM LEWIS WADDY, of Peytona, in the county of Shelby and State of Kentucky, have invented a new and useful Improvement in Harrows, of which the following is a specification.

Figure 1 is a plan view of the improvement. Fig. 2 is a side elevation. Fig. 3 is a cross-section of one of the beams. Fig. 4 is a cross-section of one of the harrow-teeth.

Similar letters of reference indicate corresponding parts.

The object of this invention is to enable a harrow to be reversed and slid on runners, as hereinafter described.

A is the central bar of the harrow-frame. To the opposite sides of the forward and middle parts of the central bar, A, are attached the beveled forward ends of the side bars, B.

The harrow-frame is stiffened and strengthened by two cross-bars, C, bolted to the bars A B, as shown in Fig. 1. D are the harrow-teeth, the lower or cutting parts of which are made long and lancet-shaped. The harrow-teeth D are inclined to the rearward at an angle of twenty-five or thirty degrees, and their shanks are bolted to the inclined bars B in such positions that the paths of the teeth will be about two inches apart. The shanks of the harrow-teeth D are set in notches cut in the outer sides of the inclined bars B, so that the planes of the teeth may be parallel with the line of draft. With this construction grass, weeds, stalks, sods, lumps, and clods will be cut in pieces by the teeth D, and the inclination of the said teeth will prevent them from becoming choked or clogged. With this construction, also, when one edge of the teeth becomes dull or worn they can be detached and reversed, bringing the other edge forward.

To the forward end of the central bar, A, is attached the lower end of a curved or goose-neck bar, E, in which are formed holes for the attachment of the draft. The curved bar E is strengthened against the draft-strain by a brace-rod, F, the forward end of which is attached to the end of the said curved bar E. The rear end of the brace-rod F is attached to the central bar, A.

To the rear parts of the rear inclined bars, B, are attached the handles G, which are curved to the rearward parallel with the line of draft. The curvature of the draft-bar E and the handles G is such that when the harrow is turned over they may serve as runners for drawing the harrow from place to place.

H is the driver's seat, which is attached to the bend of the U-rod I and to the upper end of the rod J. The arms of the rod I are inclined to the rearward, and their ends are inserted in holes in the rear parts of the rear bars, B. The rod J is inclined forward, and its forward end is inserted in a hole in the middle part of the central bar, A. With this construction the seat H and its supporting-rods I J can be detached when the harrow is to be turned over and drawn from place to place.

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

In a harrow, the combination, with the harrow-frame A B C and the curved draft-bar E, of the curved handles G, substantially as herein shown and described, to adapt the said curved draft-bar and handles to serve as runners when moving the harrow from place to place, as set forth.

WILLIAM LEWIS WADDY.

Witnesses:

LUNSFORD T. RUCKER,

G. N. ROBINSON.