

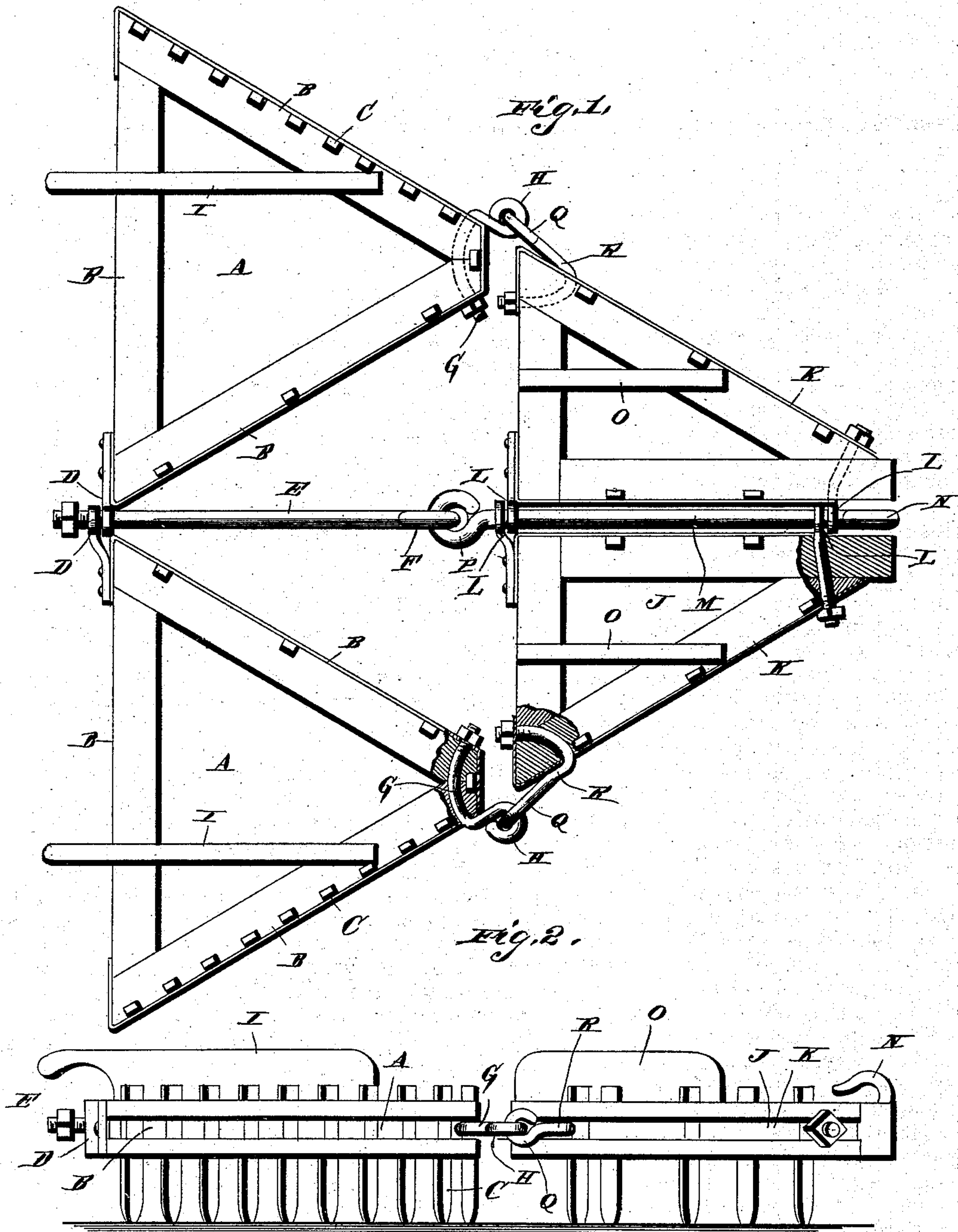
(No Model.)

J. W. DOBYNS.

HARROW.

No. 384,966.

Patented June 26, 1888.



Witnesses.

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UNITED STATES PATENT OFFICE.

JAMES W. DOBYNS, OF WOOD LAWN, VIRGINIA.

HARROW.

SPECIFICATION forming part of Letters Patent No. 384,966, dated June 26, 1888.

Application filed February 13, 1888. Serial No. 263,893. (No model.)

To all whom it may concern:

Be it known that I, JAMES W. DOBYNS, a citizen of the United States, residing at Wood Lawn, in the county of Carroll and State of Virginia, have invented a new and useful Improvement in Harrows, of which the following is a specification.

My invention relates to improvements in harrows; and it consists in certain novel features hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a plan view of my improved harrow. Fig. 2 is a side view.

Referring to the drawings by letter, A A designate two similar triangular harrows, each consisting of three harrow-bars, B, connected at their ends. The teeth C are secured in the forwardly-converging bars in the usual or any preferred manner. At their adjacent rear corners these triangular harrows are provided with the inwardly-projecting eyes or perforated ears or lugs D, through which I insert the rear section, E, of the draft-rod. The rear end of the section E of the draft-rod is screw-threaded, and a nut is mounted thereon to prevent the same being drawn through said eyes. The front end of this section of the draft-rod is provided with a hook, F, for the purpose of forming a flexible connection with the front section of the draft-rod, as will presently appear. The meeting ends of the forwardly-converging harrow-bars are secured together by a bolt, G, inserted transversely therethrough and having a retaining-nut mounted on its inner end and a hook, H, formed on its outer end, as shown. These harrows A A are provided with handles I, as shown, for guiding-purposes and for the purpose of lifting the same over large obstructions.

J designates a third triangular harrow made in two equal sections, K K, as shown. The adjacent sides of these sections are provided with the inwardly-perforated ears or lugs or eyes L, through which I insert the front section, M, of the draft-rod. The front end of this section of the draft-rod is provided with a hook, N, for the attachment of the draft-applying devices. The sections K of this front harrow are provided with weights O to hold them to the ground, as shown. These sections are also flexibly connected to the rear harrows by means of a ring or eye, P, on the rear end of the section M of the draft-rod engaging the hook F on the front end of the section E, and by the hooks Q at the outer rear

corners of the sections K engaging the hooks H at the front corners of the rear harrows. The hooks Q have their shanks R extended backward alongside the side bars of the sections K and then bent at a sharp angle and passed through the same and the rear bars of the said sections, and have nuts mounted on their free ends, thus serving to secure the said bars together.

It will be seen from the foregoing description, taken in connection with the accompanying drawings, and upon reference to the dotted lines marked thereon, that I have provided a very cheap and simple harrow which will readily accommodate itself to all inequalities of the ground, and in which a broken part can be easily replaced by a new one without necessitating the securing of an entirely new device.

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

The combination, in a harrow, of the central longitudinal draft-rod composed of the sections M and E, connected at their meeting ends by the hooks P and F, having a nut on the threaded rear end of the section F, and the draft-hook N at the front end of the section M, the two similar harrow-frames, K, having the shape of right angled-triangles with their right angles inward, connected to the section M by the eyes L, near the front and rear ends of said sections provided with suitable depending harrow-teeth and on their upper surfaces with the weights O, and the similar triangular harrow-frames, A A, provided with suitable depending teeth, (connected to their side rails,) and a handle, I, rising from each at corresponding points, connected to the rear portion of the section F of the draw-bar by the eyes D, and to the outer rear corners of the harrow-frames K by the hooks Q, which have shanks R, passing through openings in said corners and engaging nuts on their inner threaded ends, and the hooks H, which have shanks G, passing through openings in the apices of the corresponding frames A and engaging nuts on their inner threaded ends, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

Witnesses: JAMES W. DOBYNS.

H. H. FARMER,

T. J. FARMER.