

G. B. GABLE.

HARROW.

No. 176,431.

Patented April 25, 1876.

FIG. 1.

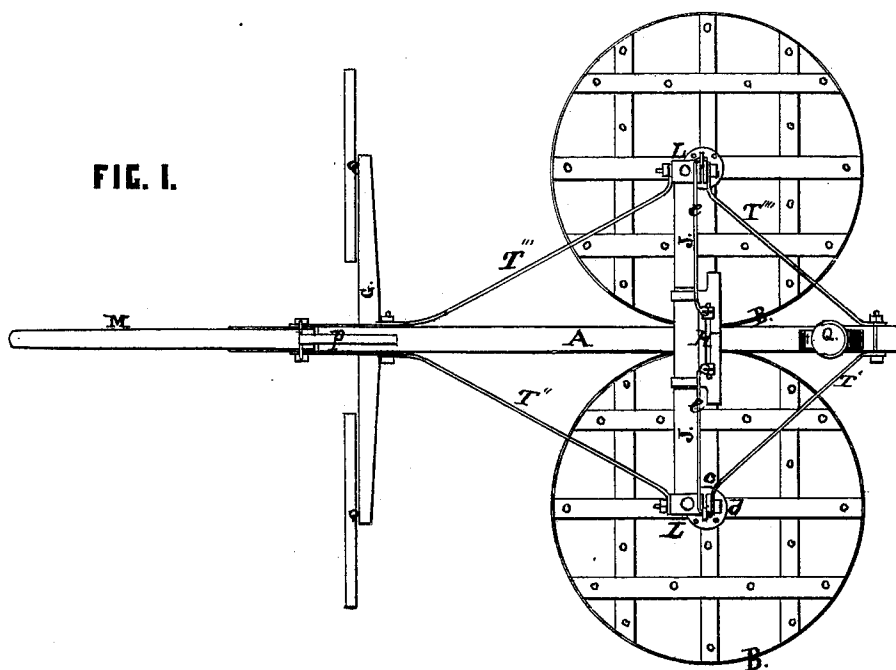


FIG. 2.

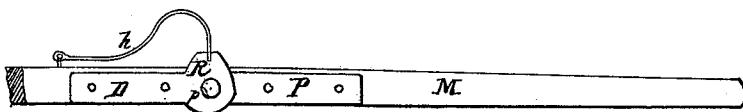
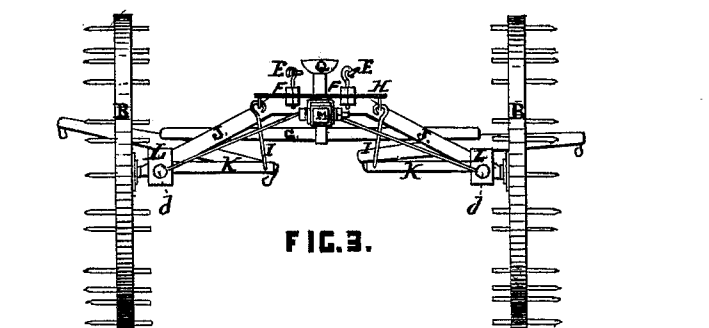


FIG. 3.



ATTEST.

John O'Kara
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INVENTOR.

George B Gable
By His Atty
Wood & Bogle

UNITED STATES PATENT OFFICE.

GEORGE B. GABLE, OF DAYTON, OHIO, ASSIGNOR OF ONE-HALF HIS RIGHT
TO CHARLES H. WATERS, OF SAME PLACE.

IMPROVEMENT IN HARROWS.

Specification forming part of Letters Patent No. **176,431**, dated April 25, 1876; application filed
October 23, 1875.

To all whom it may concern:

Be it known that I, GEORGE B. GABLE, of Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Harrows, of which the following is a specification:

This invention relates to improvements in convertible harrows; and the invention consists in providing a jointed tongue for use in harrowing, with means for converting the same into a stiff tongue for transporting the harrow on the truck-rims on circular harrow-frames, all of which will be fully hereinafter described in detail.

Figure 1 is a plan view of the invention. Fig. 2 is an elevation of the jointed tongue. Fig. 3 is a rear elevation of Fig. 1.

Reference being made to the accompanying drawings, K K represent pivoted axles attached at either end of the arch J by means of metal brackets L L. J J represents the arched beam or axle. C C, Fig. 1, represent slots cut in brackets L, on the bottom of which axles K rest when the harrows are turned up to stand on their rims. d d represent pivot-bolts passing through bracket-bearing L and through the stub-axles K K resting in slots c. These slots c c are cut in right line with the top and outside portions of brackets L L in the form of a right-angle triangle. Fig. 3 shows axles K in the horizontal side of these slots, and Fig. 1 shows the axles occupying the vertical side of the slots. These parts should be of sufficient strength to resist the vibration and strain of the harrows. I I represent hinged hook-rods made to engage in the end of axles K, when they are in position shown in Fig. 3, to hold the harrows B B on their rims. H represents a slotted plate bolted at the center of arches J J, the slot running in right lines with axles K. E E represent eyebolts fastened in the slot of plate H by bolts and washers, as shown

in Fig. 3. e e represent hook-rods securely attached at one end to eyebolts E, and having at the other end a hook, which engages in a hole at the end of axles K, which hold the harrow B B in a rigidly horizontal position. The eyebolts E E are made adjustable to or from the center of arches J J to adjust the plane of harrows in the ground, so that as either the outer or inner side of the rims of the harrows are made to enter the ground at greater or less depths by adjusting the eyebolts E E the direction of revolution of the harrows is controlled. h represents a detachable hinged key for engaging in slot R and converting the jointed tongue into a rigid one. T' T'' T''' T'''' represent brace-rods for rigidly securing the draw-beam A to the arched beam J J. Q represents a seat mounted on the rear end of draw-beam A for the driver to occupy. M represents the jointed end of the tongue. D represents metallic straps bolted on each side of draw-beam A, with ears projecting above the frame A, which are slotted transversely, as shown in Fig. 2. p represents corresponding straps bolted on the end of the tongue M, having corresponding slots in ears R. P represents a pivot-bolt passing through straps D P, and attaching tongue M to draw-beam A.

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

1. In a truck-harrow frame, the slotted plate H and adjustable eye-bearings E E, catches F, for controlling the harrow, substantially as set forth.

2. The combination, in a convertible harrow, of the jointed tongue M and the devices D, P, and h, constructed to stiffen the joint and correct it to the harrow-frame.

GEO. B. GABLE.

Witnesses:

JAMES O. JEFFERYS,
CHAS. W. FINCH.