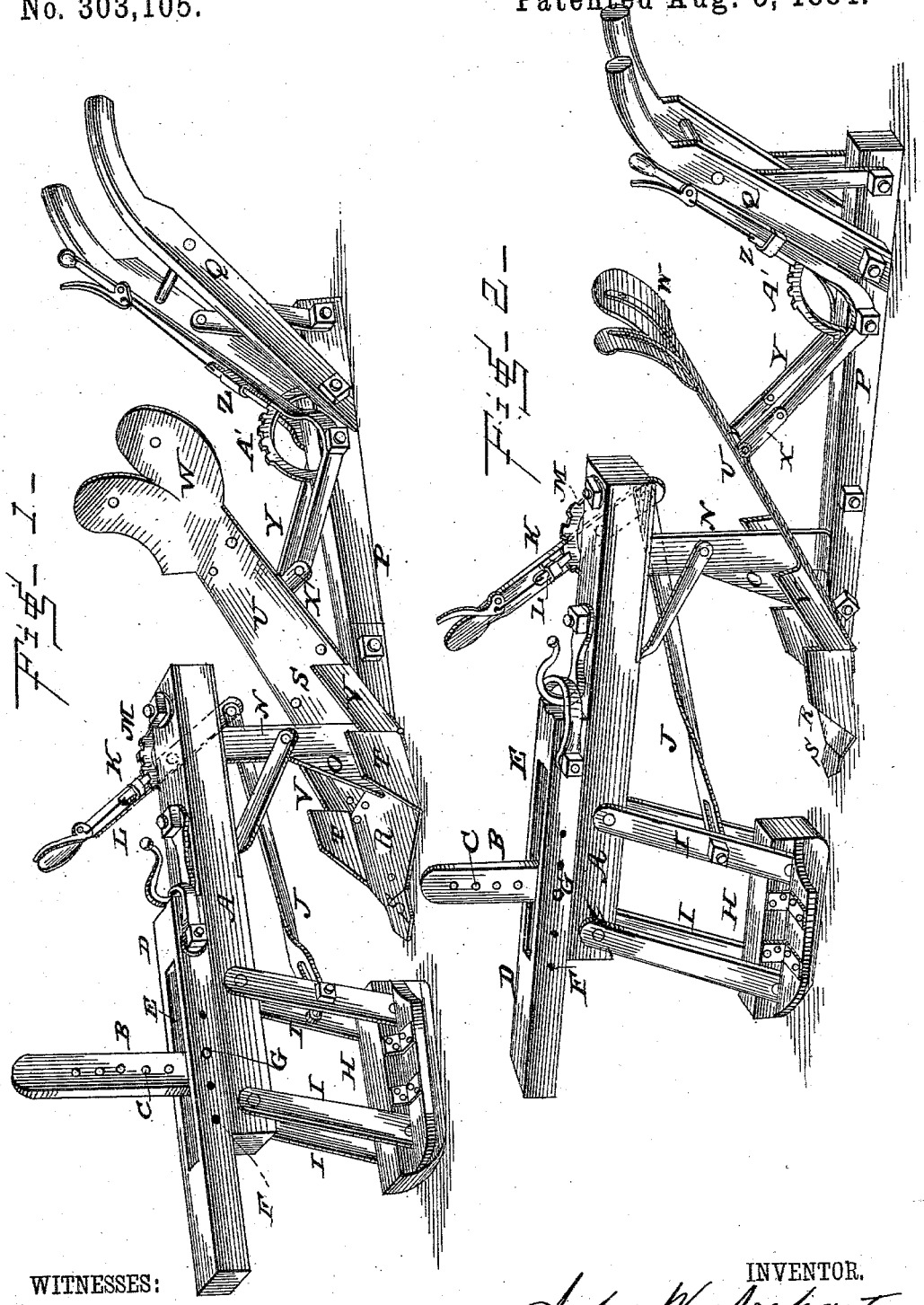
(No Model.)

# J. W. AREHART.

## DITCHING PLOW.

No. 303,105. Patented Aug. 5, 1884.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN W. AREHART, OF WILLOW HILL, ILLINOIS.

## DITCHING-PLOW.

SPECIFICATION forming part of Letters Patent No. 303,105, dated August 5, 1884.

Application filed May 16, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN W. AREHART, a citizen of the United States, and a resident of Willow Hill, in the county of Jasper and State of Illinois, have invented certain new and useful Improvements in Ditching-Plows; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved ditching-plow seen from the forward end, and Fig. 2 is a similar view of the plow seen from the rear.

Similar letters of reference indicate corresponding parts in both the figures.

My invention has relation to ditching-plows; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the beam, the forward end of which is provided with an upright, B, having a number of perforations, C, and the draft-bar D is hinged at its rear end upon the upper side of the beam to the rear of the upright, and slides with a longitudinal slot, E, upon the upright, having perforations F in the sides of the slot, registering with the perforations in the upright, and through which a bolt, G, may pass, adjusting the draft-bar at different angles to the beam.

A sliding guide-shoe, H, is hinged at the lower ends of two pairs of arms, I, hinged to the forward end of the beam, and a rod, J, is hinged to the rear pair of arms with its forward end, and with its rear end to the lower end of a lever, K, pivoted upon the side of the rear end of the beam, and provided with a spring-lock, L, which engages a cogged segment, M, upon the rear end of the beam, and by means of which lever the hinged arms may be pushed farther forward or drawn farther back, raising or lowering the shoe.

The standard N is secured at its upper end in the rear end of the beam, and is provided with a sharp cutter, O, having an inclined forward edge, and a lower shoe or beam, P, is secured to the lower end of the standard, and has the handles Q projecting upward from its rear end.

The share R is secured upon the forward end of this lower shoe, and consists of a flat plate having converging forward edges, at the point of which a small share, S, projects, and the straight side edges of the share or horizontal cutter are provided with upright flat side cutters, T, the forward edges of which are inclined, while the inclined mold-board or dirt-conveyer U is hinged at its forward end to the rear edge of the share. The forward ends of the side edges of the mold-board are provided with upwardly-bent flanges V, to the rear of and in line with the upright side cutters, and the rear end of the dirt-conveyer forms laterally-curving wings or mold-boards W, extending to both sides.

Two downwardly-projecting arms, X X, are secured upon the under side of the inclined dirt-conveyer, and the forward ends of a bifurcated lever, Y, bent at a right angle, are hinged or pivoted to the lower ends of these arms, while the lever is pivoted at its bend upon the lower shoe or beam, straddling the same, and is provided with a spring-lock, Z, which engages a cogged segment, A′, upon the upper side of the rear end of the lower shoe or beam.

It will be seen that the plow may be adjusted to run deeper or less deep by adjusting the sliding shoe, and that the pitch of the plow may be adjusted by raising or lowering the draft-bar, while the inclined dirt-conveyer may be adjusted at its required angle for throwing the dirt upon the surface of the ground at the sides of the ditch by tilting the lever upon the rear end of the lower shoe.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination of the beam, the guide-shoe, the hinged arms, the connecting-rod, the hand-lever, and a ditching-plow, as and for the purpose shown and set forth.

2. The combination of the upright having the cutter at its forward edge, the lower shoe or beam secured at its forward end to the lower end of the standard and having the han-

dles at its rear end, the horizontal share secured to the forward end of the said beam or shoe and having the upright side cutters, the inclined dirt-conveyer having flanges at the lower ends of its side edges and having curved wings or mold-boards at its upper end and downwardly-projecting arms at its under side, and the bifurcated lever bent at a right angle, pivoted upon the lower shoe or beam, and having its forward bifurcated ends pivoted to the lower ends of the arms, as and for the purpose shown and set forth.

3. The combination of the beam having the perforated upright at its forward end, the longitudinally-slotted draft-bar having perforations through its sides and provided with a bolt passing through the perforations, the sliding shoe hinged to arms at the forward end of the beam, and having means for raising and lowering it, the standard having the cutter, the share or horizontal cutter having the upright side cutters, and the inclined dirt-conveyer having means for adjusting its inclination, as and for the purpose shown and set forth.

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

JOHN W. AREHART.

Witnesses:

GEORGE THOMPSON,

W. H. EIDSON.