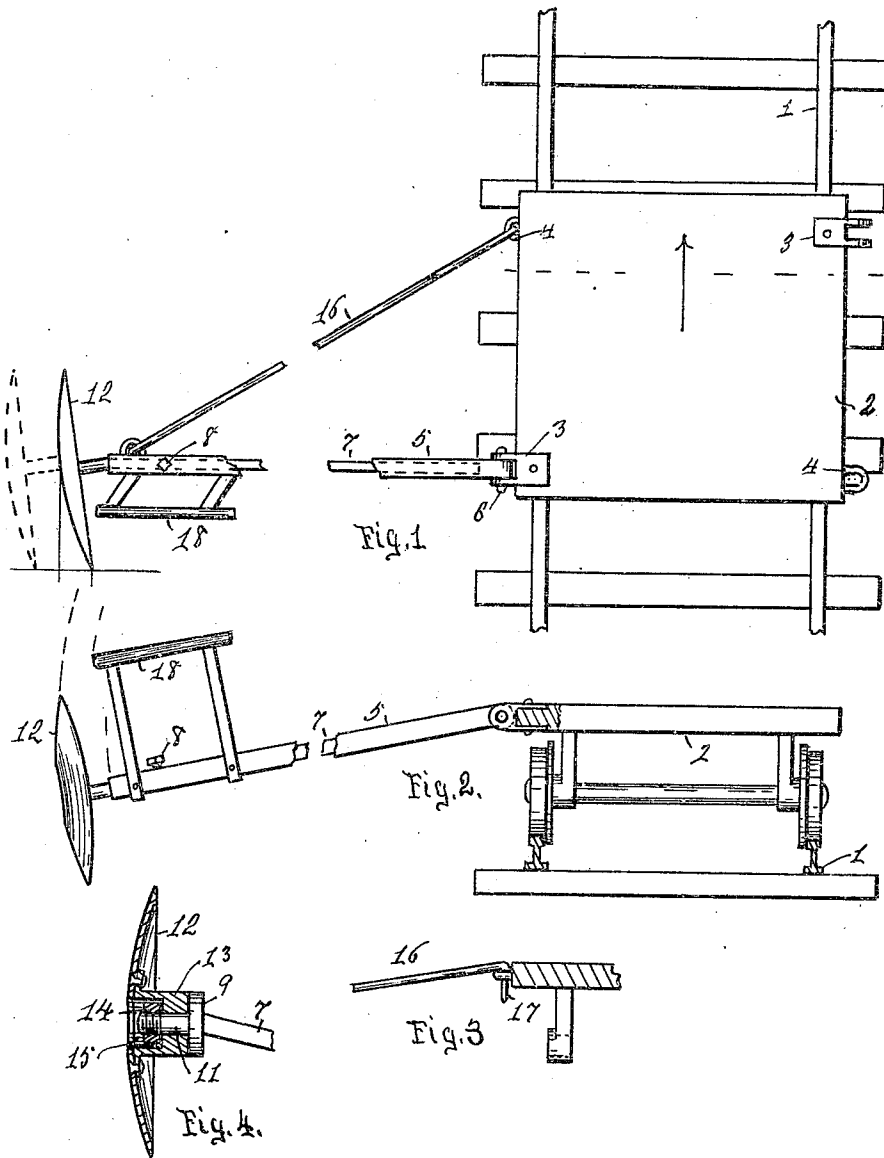


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GRASS AND DITCH LINE CUTTER.
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959,845.

Patented May 31, 1910.



Witnesses:

Geo. Allendorf.

Samuel S. Carr.

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UNITED STATES PATENT OFFICE.

CHARLES DAWES, OF LIBERTY, INDIANA, ASSIGNOR OF ONE-HALF TO JOHN P. HOWE,
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GRASS AND DITCH-LINE CUTTER.

959,845.

Specification of Letters Patent.

Patented May 31, 1910.

Application filed June 21, 1909. Serial No. 503,332.

To all whom it may concern:

Be it known that I, CHARLES DAWES, a citizen of the United States, residing at Liberty, Indiana, have invented a new and useful Improvement in Grass and Ditch-Line Cutters, of which the following is a specification.

My invention relates to grass and ditch line cutters of the class adapted for the use of railways or elsewhere.

The objects of my invention are to provide a device attachable to a car truck for cutting a furrow parallel to the tracks, for the purposes hereinafter specified, and to provide simple and durable construction and assembly of the co-acting members for securing facility of operation and efficiency of action. These objects are attained in the following described manner as illustrated in the accompanying drawings, in which:—

Figure 1 is a plan of a grass and ditch line cutter embodying my improvements; Fig. 2, a rear elevation; Fig. 3, a vertical section on the line *a—a* of Fig. 1 showing the hook and staple connection of the brace rod with the truck, and Fig. 4 a horizontal section showing the manner of connecting the furrow opener with the extensible arm.

In the drawings, 1 represents a railroad track, 2 a track side hand car movable thereon and provided with hinge members 3 and 4. A tubular arm 5 is removably hinged at one end to either of the hinge members 3 by means of a removable pintle or bolt 6. A shaft 7 secured in different longitudinal and also different rotative adjustments within the arm 5 by means of a set screw 8 is formed with a collar 9 and with a spindle 11 at a slight angle to its length. A concavo-convex disk or furrow opener 12 provided with a hub 13 on its concave side is rotatively mounted on the spindle 11. A nut 14 adjustably threaded on the end of the spindle and concealed within a counter bore 15 formed in the hub serves to maintain the disk in proper position on the spindle without any extension beyond the convex surface thereof. A brace rod 16 movably connected at one end near the outer end of arm 5 is formed on its opposite end with a hook 17 adapted to detachably engage with either of the staple or hinge members 4 as desired. A handle 18 secured near the outer end of arm 5 is a con-

venience for the operator in controlling the pressure on the disk or for raising it over obstructions.

In operation, the truck may be moved slowly along the track for causing the disk to cut a line in the soil parallel to the track and at such a predetermined distance therefrom as the extensible connections of the disk with the truck may be adjusted and secured.

By means of the rotative adjustment of the shaft in the arm, the disk may be adjusted in different vertical and horizontal angles simultaneously in relation to the arm, for regulating the amount of its shearing cut and for better adapting it to operate at different elevations in relation to the track.

The hinge connections with the truck permits the disk to be raised or lowered by means of the handle or to be turned directly over the truck for being moved short distances. The disk and connections may be entirely disengaged from the truck when desired by the removal of the pintle 6 from hinge 3 and the disengagement of hook 17 from staple 4, and it may be attached to either side of the truck as desired.

Having fully described my improvements, what I claim as my invention and desire to secure by Letters Patent of the United States is:—

In a grass and ditch line cutter, the combination with a truck adapted to run on a track, a tubular arm removably hinged at one end to the rear portion of one side thereof, a brace rod secured to the other end of the arm, and removably hinged to the front portion of the same side of the truck, and a handle secured on the arm whereby a downward pressure may be exerted thereon, of a shaft mounted within the arm, and both longitudinally and rotatively adjustable in relation thereto, said arm being formed with a spindle on its outer end and turned at an angle to its length, and means for maintaining the shaft in different positions of adjustment both longitudinal and rotative in relation to the arm for the purpose specified.

CHARLES DAWES.

Witnesses:

JOHN P. HOWE,
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