

No. 743,176.

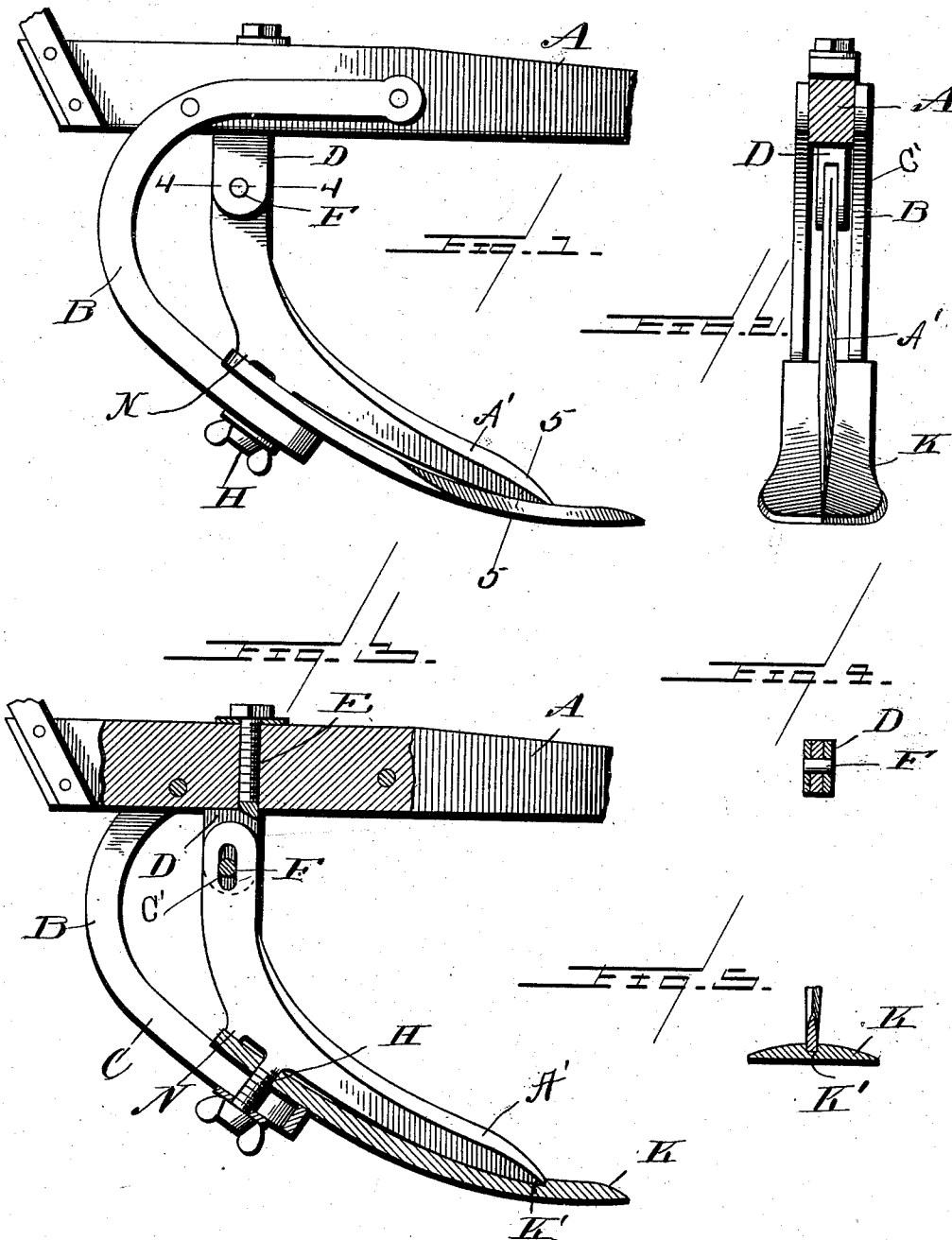
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W. LUQUIRE.

ROOT CUTTING ATTACHMENT FOR PLOWS.

APPLICATION FILED APR. 2, 1903.

NO MODEL.



*WITNESSES:*

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# UNITED STATES PATENT OFFICE.

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## ROOT-CUTTING ATTACHMENT FOR PLOWS.

SPECIFICATION forming part of Letters Patent No. 743,176, dated November 3, 1903.

Application filed April 2, 1903. Serial No. 150,843. (No model.)

*To all whom it may concern:*

Be it known that I, WILEY H. LUQUIRE, a citizen of the United States, residing at Buckhead, in the county of Morgan and State of Georgia, have invented certain new and useful Improvements in Root-Cutting Attachments for Plows; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in root-cutters adapted for attachment to a plow-beam and so arranged as to be made adjustable, whereby the cutting-knife may be held in different positions and fastened to a subsoil-plow and having its cutting edge disposed in a vertical plane.

The invention consists, further, in various details of construction and combinations and arrangements of parts, which will be hereinafter fully described and then specifically defined in the appended claims.

My invention is illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this application, and in which—

Figure 1 is a side elevation of my improved root-cutting apparatus. Fig. 2 is a front elevation. Fig. 3 is a sectional view longitudinally through the cutter, parts being shown in elevation. Fig. 4 is a cross-sectional view on line 4 4 of Fig. 1, and Fig. 5 is a cross-sectional view on line 5 5 of Fig. 1.

Reference now being had to the details of the drawings by letter, A designates a plow-beam of ordinary construction having the standard B made of a single piece of iron which is bent in the shape illustrated, the two ends of said standard being bolted or otherwise fastened to the beam and having an open space intermediate the portion which extends below said beam.

A' designates a knife which is slightly concaved and has an elongated slot C' at its upper end, and D designates a clevis, the forked ends of which carry a bolt F', which passes through the elongated slot C' in the root-cut-

ting knife A', thus allowing the knife to be moved forward or backward. The shank portion E of said clevis extends through an aperture in the beam and has a nut fitted over its threaded end, whereby said member may be securely held to the beam. Projecting from the under edge of said knife is an integral threaded bolt H, which is adapted to be disposed in the space intermediate the two portions of said standard, as shown, and to be guided therein. A suitable winged nut is mounted upon the end of said bolt H and is provided for the purpose of clamping and holding the knife in an adjusted position. K designates a subsoil-plow, which has a hole through which said integral bolt H passes, and the upper face of said subsoil-plow has a recess K' therein, in which the under edge of the root-cutting knife rests and is held. Projecting from the under edge of the said knife is a lug N, which bears against the rear end of the subsoil-plow, as shown in the drawings, and when the winged nut is tightened it will be observed that the root-cutter will bear with sufficient friction against the subsoil-plow to hold the same securely to the standard and the root-cutting knife will bind against the subsoil-plow in a position at right angles thereto. When it is desired to adjust the root-cutter, the winged nut may be loosened and the root-cutting knife and the subsoil-plow beneath may be pushed forward or rearward a distance limited by the length of the slot in the root-cutting knife.

From the foregoing it will be observed that by the provision of a root-cutting knife embodying the features of my invention the cutters are made adjustable, and the vertically-running roots may be severed by means of the horizontally-disposed cutting edges of the subsoil-plow, and the other roots which may be disposed across the forward progress of the apparatus will be cut by the vertically-disposed root-cutting knife, and having the latter adjustable, as described and shown, a draw cut is presented to the root as the implement is driven over the ground.

While I have shown a particular construction of the apparatus embodying the features of my invention, it will be understood that I may make alterations in the detailed con-

struction of the device without departing from the spirit of the invention.

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

1. A root-cutting apparatus comprising a beam, a standard secured thereto, a root-cutting knife fastened to said beam, an apertured subsoil-plow, an integral bolt projecting from said root-cutting knife and passing through said aperture, and a winged nut for clamping the root-cutting knife and subsoil-plow to said standard, as set forth.

2. A root-cutting apparatus comprising a beam, a standard secured thereto, a root-cutting knife, a clevis held to said beam, one end of said root-cutting knife being fastened to said clevis, a bolt passing through the walls of said clevis and through the aperture in said knife, a subsoil-plow, and means for clamping said knife and plow to the standard, as set forth.

3. A root-cutting apparatus comprising a beam, a standard, a clevis, a root-cutting knife with one end fastened to said clevis, a bolt passing through said clevis, and an elongated aperture in the rear end of said knife, a nut for holding the threaded shank portion of the clevis to the beam, a subsoil-plow having a

recess on its upper edge in which a portion of the under edge of said root-cutting knife rests, an integral bolt on said root-cutting knife passing through an aperture in the subsoil-plow, and a winged nut for clamping the root-cutting knife and plow to the standard, as set forth.

4. A root-cutting apparatus comprising a beam, a standard secured thereto, a clevis fastened to said beam, a root-cutting knife mounted to have a longitudinal play, an integral bolt projecting from the under edge of the root-cutting knife, and a lug adjacent to said bolt adapted to bear against the upper face of the subsoil-plow, the upper surface of the latter being recessed to receive the free end of the root-cutter, and a winged nut fitted over said integral bolt and adapted to hold the knife and plow to said standard, as set forth.

In testimony whereof I hereunto affix my signature in presence of witnesses.

WILEY <sup>his</sup> X LUQUIRE.  
mark

Witnesses:

KIETTO SMITH,  
JAS. INGRAM,  
JAS. L. CROSSLEY.