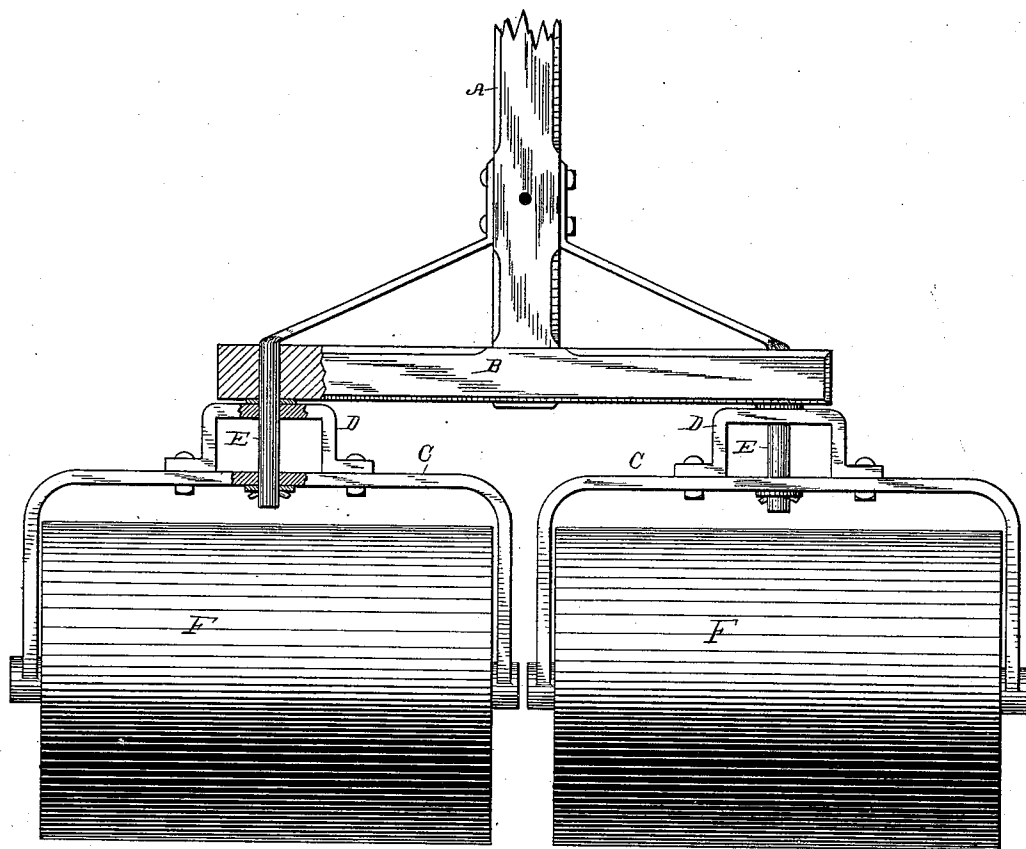


(No Model.)

H. W. KUHL.
LAND ROLLER.

No. 468,996.

Patented Feb. 16, 1892.



Witnesses:

Walter S. Wood
Marian L. S. S. S.

Inventor.

Henry W. Kuhl
By *Lewis C. West*
Att'y.

UNITED STATES PATENT OFFICE.

HENRY W. KUHL, OF GALIEN, MICHIGAN.

LAND-ROLLER.

SPECIFICATION forming part of Letters Patent No. 468,996, dated February 16, 1892.

Application filed August 24, 1891. Serial No. 403,625. (No model.)

To all whom it may concern:

Be it known that I, HENRY W. KUHL, a citizen of the United States, residing at Galien, county of Berrien, Michigan, have invented a new and useful Land-Roller, of which the following is a specification.

This invention relates to that class of land-rollers in which two rollers are employed end to end and separated from each other and pivoted to tilt independently of each other; and it has for its object certain features, below described and claimed, designed to simplify, cheapen, and strengthen the construction.

In the drawing forming a part of this specification is shown a plan view of a land-roller embodying my invention, a portion of the left-hand side in the figure of said drawing being broken away.

Referring to the lettered parts of the drawing, B represents the rear cross-bar of the tongue A, thus forming a T end to the tongue.

At C are U-frames, to the ends of which are attached axles, upon which the rollers F F are revolvably mounted.

To the front side of the U-frames C is attached a forwardly-extending offset D, and through this offset and through the frame C is loosely passed rearwardly-extending ends E of the brace-rods of the tongue, said rearwardly-extending ends E forming axes upon which the roller-frames are pivoted, so that said rollers can tilt vertically—as, for instance, if the ground should be higher under one roller F than under the other roller at their contiguous ends said rollers would tilt vertically and conform to said conditions of the surface of the ground, and will tilt inde-

pendently of each other whenever the surface of the ground is not of a uniform nature common to each roller. It will be observed that this inverted-U-shaped offset D, which is bolted to the frame C, not only forms a portion of the bearing for the axes E, but also trusses or strengthens the front bar of the inverted-U-shaped frame C by the use of a small amount of light material. It will also be observed that by extending the tongue-braces well through the T end B of the tongue they perform two functions and greatly simplify the mechanical work in building these devices, which have to be produced quickly and cheaply in order to be available on the market.

While only two rollers are shown, of course any multiple of them here shown may be incorporated in a single land-roller.

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

The combination of the tongue having the T end, the brace-rods of the tongue extending rearwardly through said T end, forming axes, and the frames bearing the rollers, the forward bars of said frames being provided with the inverted-U-shaped offsets, said forward bars and inverted-U-shaped offsets being pivoted to said axes, substantially as set forth.

In testimony to the foregoing I have hereunto subscribed my name in the presence of two witnesses.

HENRY W. KUHL.

Witnesses:

THERON N. CHILSON,
CHAS. A. CLARK.