

I. E. WIND.

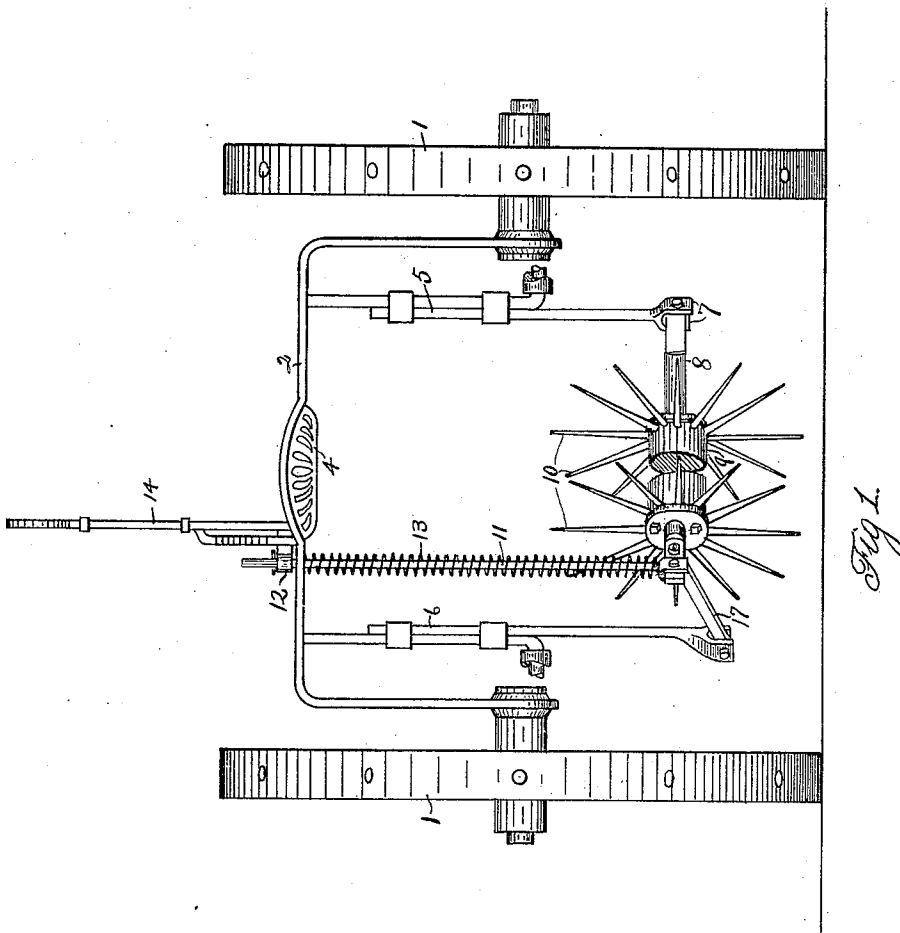
WEEDER.

APPLICATION FILED FEB. 2, 1912.

1,049,188.

Patented Dec. 31, 1912.

2 SHEETS—SHEET 1.



WITNESSES:

May Montgomery
Sophie Segel

INVENTOR

I. E. Wind

BY

Hardway & Cuthy
ATTORNEYS.

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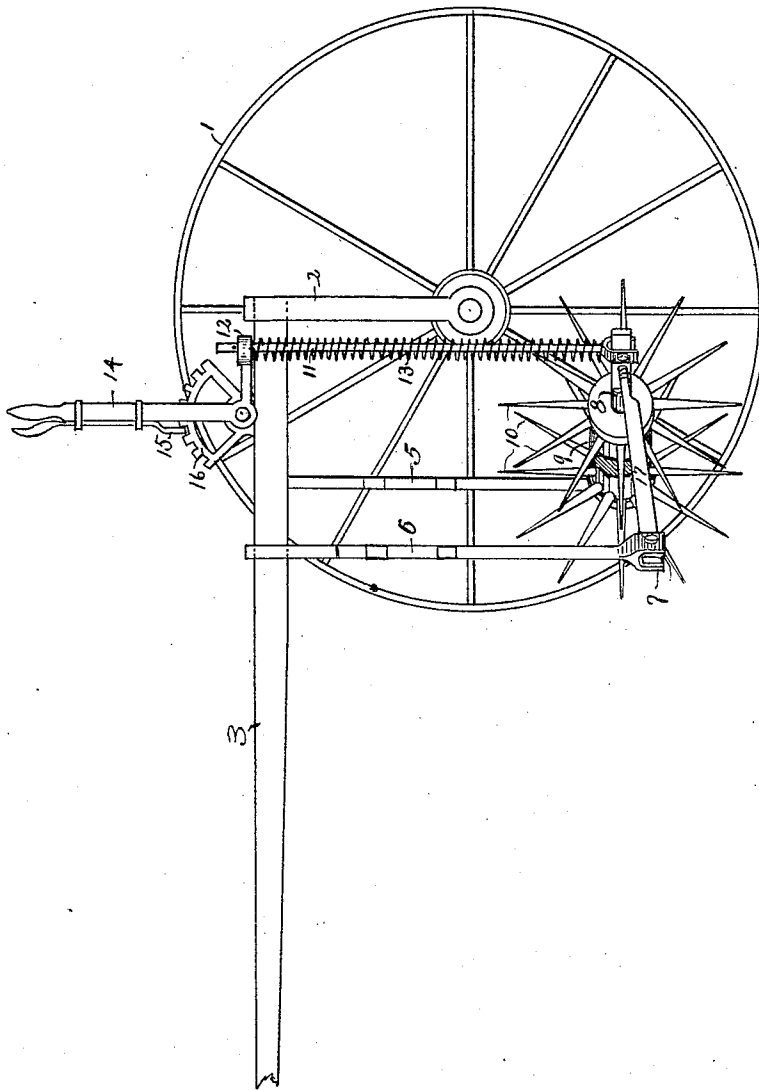


Fig. 2.

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UNITED STATES PATENT OFFICE.

IVER EBBESEN WIND, OF DANEVANG, TEXAS.

WEEDER.

1,049,188.

Specification of Letters Patent.

Patented Dec. 31, 1912.

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To all whom it may concern:

Be it known that I, IVER EBBESEN WIND, a citizen of the United States, residing at Danevang, in the county of Wharton and State of Texas, have invented certain new and useful Improvements in Weeders, of which the following is a specification.

My invention relates to new and useful improvements in weeders.

10 The object of the invention is to provide a device of the character described having a rotatable toothed member suspended therefrom whose axis of rotation is at an angle to the path of travel of the implement from which it is suspended, the teeth of said rotatable member being designed to pulverize the earth over which it passes in a manner and for the purposes to be described in this specification.

20 A further feature of the invention resides in the provision of means for holding the toothed member yieldably against the surface over which it passes.

25 With the above and other objects in view, the invention has particular relation to certain novel features of construction, operation and arrangement of parts, an example of which is given in this specification and illustrated in the accompanying drawings, wherein—

35 Figure 1 is a rear view of the device, with certain portions thereof broken away in order to more clearly disclose my improvement, and Fig. 2 is a side elevation thereof with the rear carrier wheel removed.

Referring now more particularly to the drawings wherein like numerals of reference designate similar parts in each of the figures, the numerals 1, 1 refer to suitable carrier wheels which support an arched axle 2 from which is suspended the operative mechanism of the device. Secured to the axle are suitable shafts 3 and supported thereby is the seat 4. Depending from the shafts 3 and on either side of the seat are the hangers 5 and 6 arranged so as to be vertically adjustable the latter of which is arranged in front of the other with respect to the line of travel of the device. The lower end of the hanger 5 is bifurcated and between the fingers 7 thereof is secured one end of an axle 8 upon which the hub 9 is rotatably mounted. This hub is preferably of wood having its ends protected by suitable metallic plates and secured to the hub are a plurality of rows of radiating spikes 10, whose outer ends are

sharpened so as to readily pierce the surface of the ground. The other end of axle 8 is secured to a rod 11, which extends upwardly through a cuff 12 carried by the free end of hand lever 14 and surrounding this rod 11 and interposed between the cuff 12 and the enlarged lower end of rod 11, is a strong coil spring 13, whose respective ends are secured to said cuff and rod and which serves as a resilient cushion and holds the rotatable toothed member yieldably against the ground. The hand lever 14 is pivoted to the frame work and by the manipulation thereof the cuff 12 and the said rod and the rotatable toothed member may be readily elevated or lowered. This lever 14 may be held in any desired position by means of a dog 15 carried by said lever, which is arranged to engage with the rack member 16, secured to the axle 2.

The axle 8 is arranged diagonally with respect to the line of travel of the machine so that the rotatable member has a disk like effect upon the ground surface over which it passes. Secured to the lower end of the hanger 6 is a link 17, whose other end is adjustably secured to the end of axle 8 which is supported by the rod 11 and by a suitable adjustment of this link, the angle of the rotatable member to the line of travel may be regulated.

This improvement is designed for the purpose of pulverizing the ground along the rows of growing plants and removing the weeds therefrom and as the implement moves along the row, the long sharp spikes pierce and tear up the surface of the ground and leave the ground loose and remove the weeds therefrom.

While I have shown and described one form of my device, yet it is obvious that various changes may be made in the mechanical construction thereof without varying the principle and while I have shown but one form, I do not desire to limit myself to the specific form shown, but reserve the right to change the same, so long as I remain within the limits of the appended claims.

What I claim is:—

1. A device of the character described comprising a supporting frame and carrier wheels therefor, two hangers depending from the frame and each composed of two sections, said sections being adjustable relative to each other, one of said hangers being

arranged in front of the other with respect to the line of travel of the device, a shaft one end of which is supported by one of said hangers and disposed diagonally with respect to the line of travel of the device a link connecting the lower end of the other of said hangers with the other end of said shaft, an elongated hub rotatively mounted on said shaft, radiating spikes projecting from said hub whose plane of rotation cuts the line of travel of the device, a hand lever pivotally mounted in said frame and arranged to be manipulated in a forward or rearward direction, a locking mechanism for locking said lever against movement, a cuff carried by said hand lever and extending rearwardly therefrom and arranged to move up or down as said hand lever moves forwardly or rearwardly, a rod attached to one end of said shaft and extending upwardly through said cuff and being slidable relative to the cuff, and a coil spring surrounding said rod whose respective ends are attached to the cuff and the lower end of the rod, said coil spring operating in resistance to said cuff and rod and tending to hold said spikes resiliently against the surface over which they pass.

2. A device of the character described including a supporting frame and carrier wheels therefor, vertically adjustable hangers depending from the frame, a hand

lever pivotally mounted on said frame and arranged to be manipulated in a forward or rearward direction, a locking mechanism for locking said lever against movement, a cuff carried by said hand lever and extending at a right angle therefrom and arranged to move up or down as said hand lever is manipulated, a rod extending through said cuff and being slidable relative thereto, a coil spring surrounding said rod whose respective ends are attached to the cuff and the lower end of the rod, a shaft whose respective ends are secured to the lower end of one of said hangers and to the lower end of said rod, said shaft extending diagonally across the line of travel of said device, a link connecting the lower end of the other of said hangers with the end of said shaft which is connected to the lower end of said rod, a means for adjusting said shaft on said link and varying the angle of the shaft with the line of travel of the device, an elongated hub rotatably mounted on said shaft and radiating spikes projecting from said hub.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

IVER EBBESEN WIND.

Witnesses:

E. R. SMITH,
E. F. EARL, Sr.