

(No Model.)

J. J. MILLER.
WEED TURNER.

No. 469,581.

Patented Feb. 23, 1892.

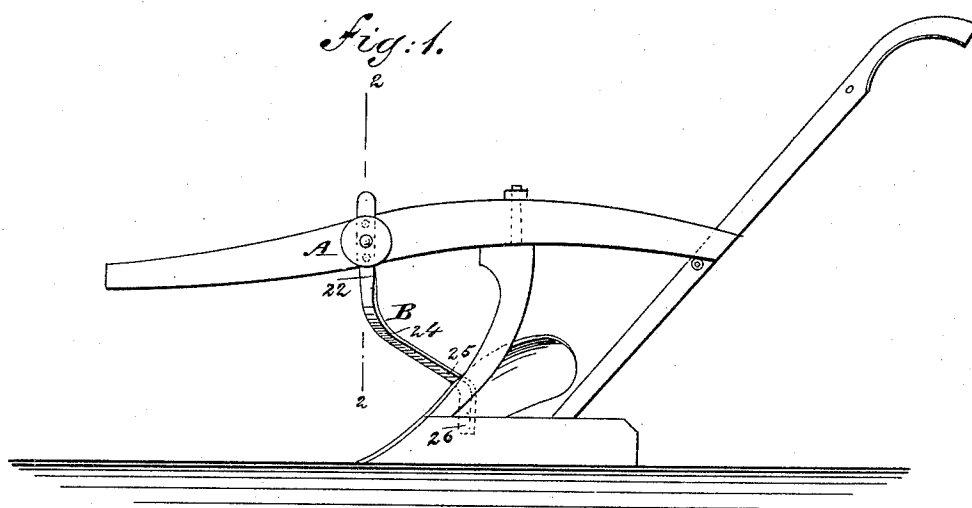


Fig: 2.

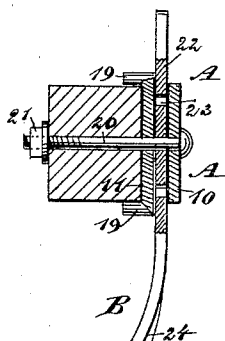
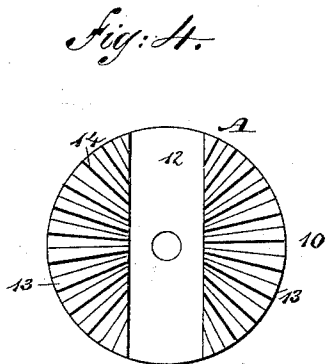
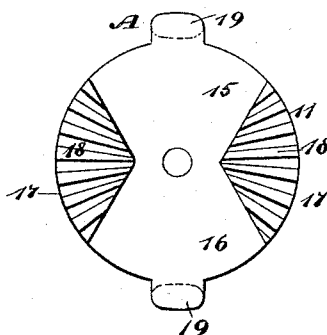


Fig: 3.



WITNESSES:

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JOHN JIMMERSON MILLER, OF BARTOW, FLORIDA.

WEED-TURNER.

SPECIFICATION forming part of Letters Patent No. 469,581, dated February 23, 1892.

Application filed October 28, 1891. Serial No. 410,070. (No model.)

To all whom it may concern:

Be it known that I, JOHN JIMMERSON MILLER, of Bartow, in the county of Polk and State of Florida, have invented a new and useful Improvement in Weed-Turners, of which the following is a full, clear, and exact description.

My invention relates to a weed-turner adapted for attachment to plow-beams, and has for its object to provide a device capable of being conveniently and expeditiously adjusted to or from the mold-board of the plow to regulate the amount of sod to be turned under, and also to so construct the device that it will automatically return to its normal position when engaging with and passing a stump or other fixed obstruction.

Another object of the invention is to so construct the device that a narrow edge only will be presented to the front of the beam and to obstructions, thus insuring a minimum of pressure thereon.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of a plow, the device being attached thereto. Fig. 2 is a section taken practically on the line 2 2 of Fig. 1. Fig. 3 is an inner face view of one section of the ratchet of the device, and Fig. 4 is an inner face view of the other section.

The device consists, essentially, of a ratchet A and a blade B. The ratchet is constructed in two disk-sections 10 and 11, as shown in Figs. 3 and 4, and the disk-section 10, which is the outer section, is provided upon its inner face with a straight channel 12, extending through from one edge to the other, producing thereby at each side semicircular recessed or embossed surfaces 13, which surfaces have teeth 14 cut therein, the said teeth being radially arranged. Upon the outer face of the inner disk-section 11 two opposing dovetail recesses 15 and 16 are produced, the said recesses bisecting at the center of

the disk, thus virtually forming a single recess and producing at opposite sides raised or embossed surfaces 17 of essentially triangular shape, which surfaces have teeth 18 formed thereon which are radially arranged, the teeth 18 of the disk-section 11 being adapted for engagement with the toothed surfaces 13 of the outer section of the ratchet. The inner section of the ratchet is provided upon its inner face at the periphery with two horizontally-located studs 19, which studs are oppositely arranged, one being at the top and the other at the bottom of the disk. These studs are adapted to engage, respectively, with the top and bottom surfaces of a plow-beam, as is best shown in Fig. 2, and through the medium of these studs the disk-section 11 of the ratchet is prevented from turning, as the outer disk-section 10 is the only one that has movement. The two disk-sections are connected with each other and with the plow-beam through the medium of a bolt 20, which bolt passes loosely through apertures in the sections of the ratchet located at their centers and through the plow-beam, being provided at one end with a jam-nut 21.

The blade B is made, preferably, of thin steel and is ordinarily rectangular in cross-section. The blade comprises an upper vertical section 22, provided with a number of apertures 23, preferably three, as shown in Fig. 2. This portion of the blade closely fits in the channel 12 of the outer section 10 of the ratchet, and when the two ratchet-sections are together this upper portion of the blade also enters the connected channeled surfaces 15 and 16 of the inner ratchet-section, the bolt 20 passing through one of the apertures 23. Immediately below the ratchet the blade is given a twist to the front, as indicated at 24, which presents its edge to the front of the implement, and from thence the blade is carried over and beyond the mold-board and then downward in the direction of the board, forming thereby below the twisted portion 24 an intermediate diagonal section 25 and a lower vertical section 26.

The object of providing the blade with the apertures 23 is to admit of it being adjusted vertically to suit beams more or less high, and through the medium of the ratchet the

blade is adjusted laterally to carry its lower end 26 to or from the mold-board, so as to turn the sod under to a greater or less degree, and as the edge of the blade is presented to the front it offers but little contacting surface to any stationary or fixed obstruction, and the blade, being of spring metal and quite light, should it strike a stump will quickly spring back to its normal position.

The construction of the ratchet enables the blade to be quickly, conveniently, and accurately set as desired, as the blade at its upper end is virtually held by the outer section of the ratchet, and the dovetail shape of the recesses 15 and 16 in the inner fixed section of the ratchet admits of the upper end of the blade being carried to either a vertical or a diagonal position in the direction of the right or of the left.

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

1. In a weed-turner, the combination, with a ratchet mechanism consisting of two disk-sections, one provided in its inner face with a channel extending through from edge to edge and essentially straight and provided with radially-arranged teeth at each side of the channel, the other section upon its outer face being provided with oppositely-arranged essentially-dovetailed recesses connecting at the center of the disk and radially-arranged teeth at opposite sides of the connected recesses, of a blade the upper end of which is fitted to the straight channel of one ratchet-section and is capable of movement in the connected recesses of the opposite ratchet-section, and means, substantially as shown and described, for clamping the ratchet-sections and the blade together, as and for the purpose set forth.

2. In a weed-turner, the combination, with a blade, of a ratchet comprising an inner section adapted to be fixed upon a plow-beam, the said section being provided in one face with oppositely-arranged dovetail recesses or channels and radially-arranged teeth at the sides of the said recesses or channels and also with lugs projecting from its opposite face, and a movable section having a channel adapted to register with the connected channels of the fixed section and to snugly receive one end of the blade and also having radially-arranged teeth at the sides of said channel, and a locking mechanism passed through the ratchet-sections and the blade, as and for the purpose specified.

3. In a weed-turner, the combination, with a ratchet, one section of which is adapted to be stationary and is provided with oppositely-arranged and connected dovetail recesses or channels, the other section being provided with a straight recess or channel extending through from side to side, and both sections having radially-arranged teeth at opposite sides of their recesses, of a blade having a vertical upper end and twisted to present its edge to the front of the plow, the upper end of which blade is adjustably fitted in the straight recess of one disk or ratchet section and is moved with said section in the recessed portion of the fixed section, and means for connecting the sections and the blade, as and for the purpose set forth.

JOHN JIMMERSON MILLER.

Witnesses:

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S. B. IVEY.