No. 649,129. Patented May 8, 1900.

A. B. & J. W. JONES.

STALK CUTTER.

(Application filed Oct. 28, 1899.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

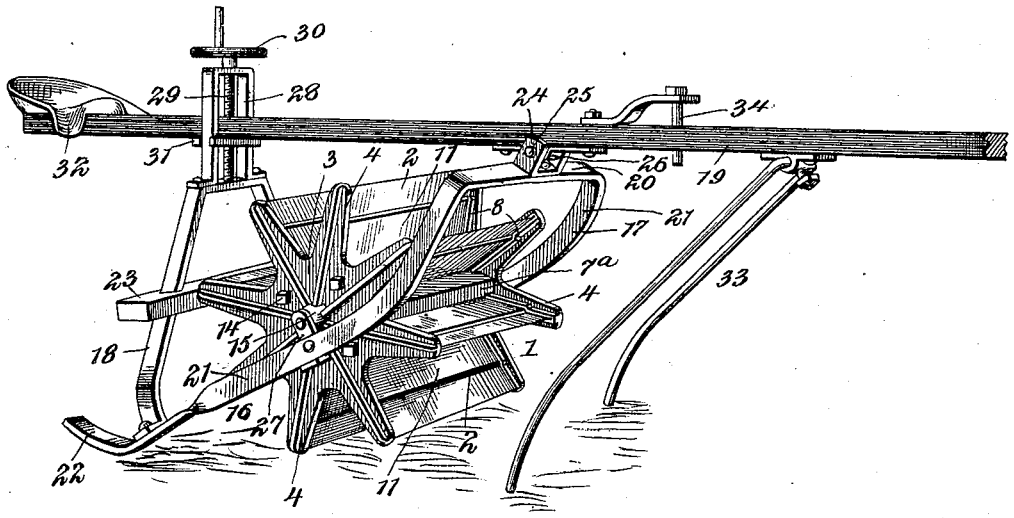
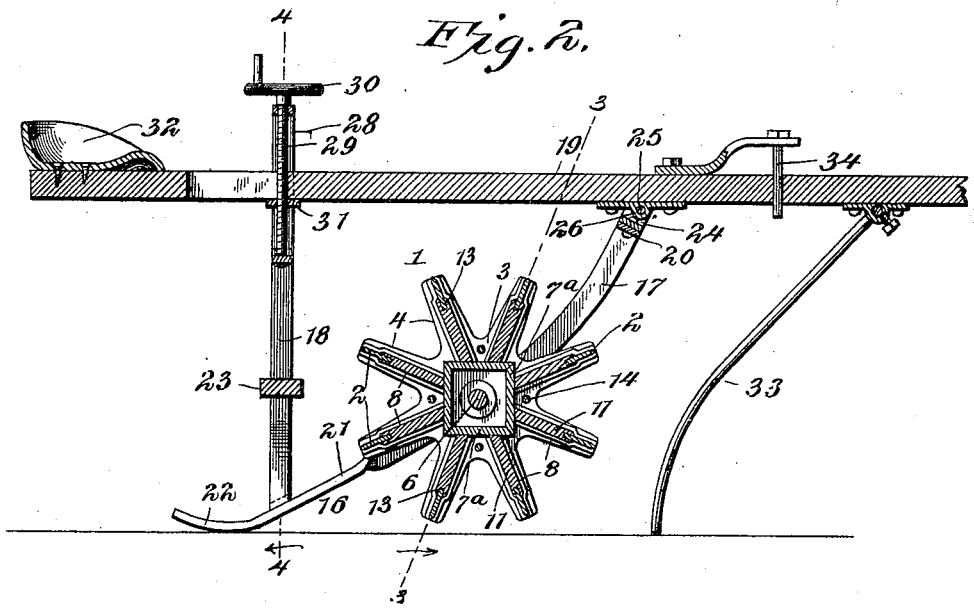


Fig. 2.



Witnesses
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T. J. Riley

Alonzo B. Jones Inventors,
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Fig. 3.

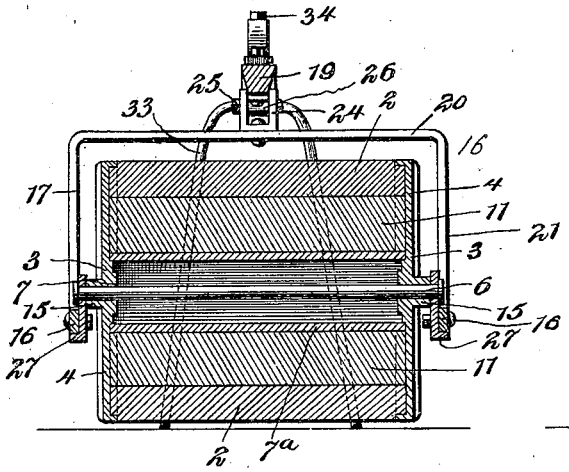


Fig. 4.

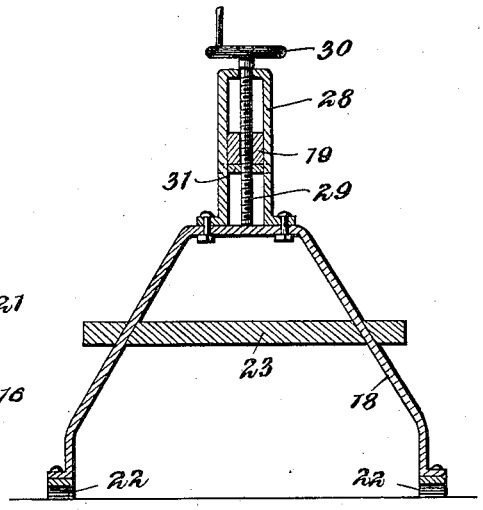
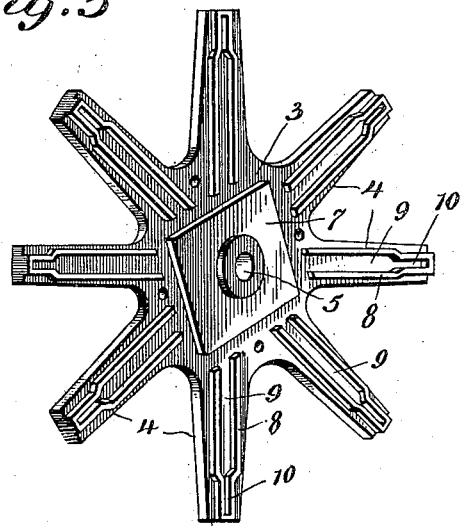


Fig. 5.



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UNITED STATES PATENT OFFICE.

ALONZO B. JONES AND JOHN WESLEY JONES, OF NATCHITOCHES, LOUISIANA.

STALK-CUTTER.

SPECIFICATION forming part of Letters Patent No. 649,129, dated May 8, 1900.

Application filed October 28, 1899. Serial No. 735,126. (No model.)

To all whom it may concern:

Be it known that we, ALONZO B. JONES and JOHN WESLEY JONES, citizens of the United States, residing at Natchitoches, in the parish of Natchitoches and State of Louisiana, have invented a new and useful Stalk-Cutter, of which the following is a specification.

The invention relates to improvements in stalk-cutters.

The object of the present invention is to improve the construction of stalk-cutters and to increase their strength, durability, and efficiency and to provide a simple and inexpensive one which will not become choked with vines and which may be readily adjusted to arrange the knives in and out of operation.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a stalk-cutter constructed in accordance with this invention. Fig. 2 is a central longitudinal sectional view. Fig. 3 is a transverse sectional view on line 3 3 of Fig. 2. Fig. 4 is a similar view on line 4 4 of Fig. 2. Fig. 5 is a detail perspective view of one of the spiders.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a rotary cutter arranged in the form of a cylinder or roller and provided with radial blades 2, and the said rotary cutter is provided at its ends with spiders 3, having radial arms 4 for supporting the blades 2, as clearly illustrated in Fig. 2 of the accompanying drawings. The spiders, which are provided with central openings 5 to receive a shaft or axle 6, have rectangular bosses or enlargements 7 for supporting sides 7^a of a rectangular box which incases the shaft or axle and which is interposed between the spiders. The arms of the spiders are provided with longitudinal grooves formed by ribs or flanges 8 and consisting of enlarged inner portions 9 and contracted or narrow outer portions 10 and receiving, respectively, transverse boards 11 and the blades 2. The boards 11 form radial partitions, and the ribs or flanges 8 terminate short of the boss or enlargement 7 to permit the boards or partitions to abut against the outer faces of the sides of the central transverse box or casing. The ribs or flanges 8 and the boss or enlargement 7 form recesses in which the sides of the box or casing are seated. The narrow or contracted grooves 10 are closed at their outer ends, and the radial boards or partitions 11 are provided at their outer edges with longitudinal grooves 13 to receive the inner longitudinal edges of the blades. The spiders are connected by transverse rods 14, passing through perforations formed in the web portions between the arms and adapted to retain the boards and the knives in engagement with the spiders. The radial boards or partitions stiffen and support the blades and enable very thin ones to be employed, and there is no liability of the parts of the rotary cutter coming out or working loose.

The spiders are provided at their outer faces with strengthening-ribs, and they have hub extensions 15, which offset the spiders from the supporting-frame 16, in which the rotary cutter is mounted. The supporting-frame 16 consists of arched front and rear portions 17 and 18, connected at their tops with a longitudinal draft-beam 19 by the means hereinafter described. The arched front portion 17 of the supporting-frame is composed of a transverse top bar 20 and rearwardly-inclined sides 21, arranged parallel with each other and provided at their lower or rear ends with extensions forming runners 22, and the said sides are given a quarter-bend to arrange the runners 22 flat against the supporting-surface. The runners 22 are slightly curved and have their front portions inclined upward to enable them to slide readily over the ground. The rear arched portion of the frame is vertical and has upwardly-converging sides secured at their lower ends to the upper faces of the runners and connected between their ends by a transverse bar or beam 23. The transverse bar 20 of the front portion of the supporting-frame is provided at its center with upwardly-extending ears 24, preferably formed integral with a detachable plate and perforated for the reception of a pivot or pintle 25, disposed transversely of the draft-beam and passing through an eye 26 of the same. The eye 26, which may be of any de-

sired construction, is preferably formed integral with a plate or casting secured to the lower face of the draft-beam, as clearly illustrated in Fig. 2 of the accompanying drawings. Secured to the sides of the front portion of the supporting-frame are L-shaped bearing-plates 27, extending upward from the said sides and provided above the same with bearing-openings for the reception of the transverse shaft or axle of the rotary cutter. The transverse bar or beam 23, which supports the rear portion 18 of the supporting-frame, is provided with openings for the reception of the sides of the said rear portion 18 and is secured to the same by suitable fastening devices.

The rear portion of the supporting-frame is provided with a vertical rectangular guide or frame 28, in which is swiveled or journaled a vertical screw 29, having a hand-wheel 30 at its upper end and engaging a threaded opening of a cross-head 31 of the draft-beam. The cross-head 31, which is secured to the lower face of the draft-beam, is provided at its ends with recesses to receive the sides of the guide or frame 28, and by adjusting the screw 29 the draft-beam will be raised and lowered in the guide or frame, as will be readily apparent. By adjusting the screw the rotary cutter is raised and lowered to carry it to the ground to arrange it in operative position and to raise it above the ground to prevent it from operating. When the rotary cutter is elevated above the ground out of operation, the weight rests upon the runners 22, which are adapted to slide readily over the ground, and when the rotary cutter is lowered to its operative position the runners operate to keep the stalk-cutter properly balanced and will prevent the same from upsetting by reason of the rotary cutter sinking too deeply into the ground at one side.

The rear end of the draft-beam carries a seat 32 for the accommodation of the driver, and the transverse bar or beam projects beyond the arched rear portion 18 and forms convenient rests for the feet of the operator.

A rake 33 is arranged in advance of the rotary cutter, and this rake, which is secured to the draft-beam, is arranged at an inclination and is adapted to adjust itself to the character of the ground. It is composed of two tines or portions connected by a transverse top portion, which may be secured to the draft-beam by any suitable means. The draft-beam is provided at a point in advance of the pivot of the supporting-frame with a vertical pivot 34, by means of which the whiffletrees are mounted on the draft-beam.

It will be seen that the stalk-cutter is simple and exceedingly inexpensive in construction, that it possesses great strength and durability, and that it may be readily adjusted to throw it into and out of operation. It will also be apparent that the rotary cutter or cylinder is exceedingly light, that the parts will not work loose or come out, and that it will not become choked or clogged with vines. Furthermore, it will be apparent that the runners are adapted to support the weight of the machine when the rotary cutter is out of operation and that when the same is in operation they serve to balance the machine.

Changes in the form, proportion, size, and the minor details of construction within the scope of the appended claims may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What is claimed is—

1. A stalk-cutter comprising a draft-beam, a supporting-frame pivotally connected at the top with the draft-beam and provided at its bottom with runners, a rotary cutter mounted on the supporting-frame at a point between the draft-beam and the runners, and adjustable connections between the draft-beam and the supporting-frame, substantially as and for the purpose described.

2. A stalk-cutter comprising a draft-beam, a supporting-frame having inclined sides pivotally connected at the top to the draft-beam and provided at their lower ends with runners, a rotary cutter journaled on the inclined sides between the ends thereof, and means for adjustably connecting the runners with the draft-beam, substantially as described.

3. A stalk-cutter comprising a longitudinal draft-beam, a supporting-frame composed of an arched front portion provided at the bottom with runners, and a rear portion extending upward from the runners and adjustably connected with the draft-beam, means for pivoting the front portion of the supporting-frame to the draft-beam, and a rotary cutter mounted between the sides of the front portion of the supporting-frame, substantially as described.

4. A stalk-cutter comprising a supporting-frame composed of an arched front portion, a rear portion extending upward from the front portion at the back thereof, said supporting-frame being provided with runners, a vertical guide or frame mounted upon the rear portion of the supporting-frame, a draft-beam pivoted to the front portion of the supporting-frame and passing through the said guide or frame, means for adjusting the draft-beam in the guide or frame, and a rotary cutter journaled on the supporting-frame, substantially as described.

5. A stalk-cutter provided with a rotary cutter comprising spiders, a central box or casing interposed between the spiders, radial partitions extending from the box or casing, and blades arranged at the outer edges of the partitions, substantially as described.

6. In a stalk-cutter, a rotary cutter composed of spiders, radial partitions provided at their outer edges with grooves, and the radial blades fitting in the said grooves, substantially as described.

7. In a stalk-cutter, a rotary cutter composed of spiders provided with radial grooves

closed at their outer ends, radial partitions fitting in the inner portions of the grooves and provided at their outer edges with grooves, and the radial blades fitting in the outer portions of the grooves of the spiders and arranged in the grooves of the partitions, substantially as described.

8. In a stalk-cutter, a rotary cutter comprising spiders provided with central bosses or enlargements and having radial flanges forming grooves and terminating short of the boss or enlargement, the central casing having its sides supported by the enlargement, the radial partitions arranged in the inner portions of the grooves, and the blades fitted in the outer portions of the grooves, substantially as described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

ALONZO B. JONES.
JOHN WESLEY JONES.

Witnesses:
P. E. LEMRE,
T. T. GESSIER.