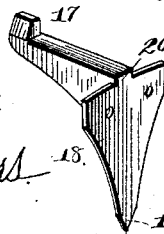
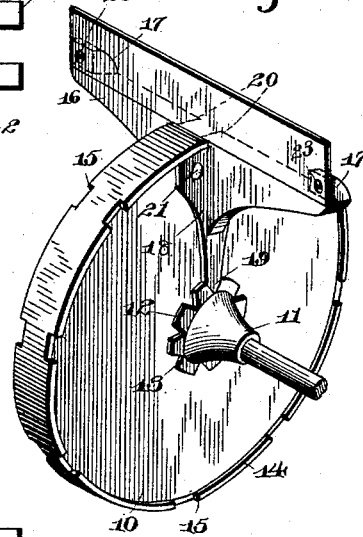


J. L. TOWNSEND.
STALK CHOPPER.

Patented Jan. 3, 1893.



Chas A Ford
Jas H Higgins

20 *Fig. 4.*

By *nus* Attorneys,

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UNITED STATES PATENT OFFICE.

JAMES L. TOWNSEND, OF FULMORE, NORTH CAROLINA.

STALK-CHOPPER.

SPECIFICATION forming part of Letters Patent No. 489,047, dated January 3, 1893.

Application filed May 31, 1892. Serial No. 435,032. (No model.)

To all whom it may concern:

Be it known that I, JAMES L. TOWNSEND, a citizen of the United States, residing at Fulmore, in the county of Robeson and State of North Carolina, have invented a new and useful Stalk-Chopper, of which the following is a specification.

My invention relates to improvements in stalk-choppers, the objects being to produce a cheap and simple machine designed to effectually chop into small lengths standing stalks; that is so constructed as to prevent choking of the knives; to permit of simultaneous raising and lowering of the chopping and stalk-guiding mechanism; and finally to provide an improved chopping-wheel so constructed as to be strong and durable, and to permit of a ready removal and re-insertion of a new knife-securing bracket in case a break should occur.

With these objects in view the invention consists in certain features of construction hereinafter specified and particularly pointed out in the claims.

Referring to the drawings:—Figure 1 is a vertical longitudinal sectional view of a stalk chopper machine constructed in accordance with my invention. Fig. 2 is a bottom plan view. Fig. 3 is a perspective view of a portion of the chopping disk or wheel. Fig. 4 is a detail perspective of one of the brackets.

Like numerals indicate like parts in all the figures of the drawings.

In practicing my invention, I employ a rectangular framework, the same consisting in this instance of the opposite pairs of parallel longitudinal side-bars 1 connected at their rear ends by a cross-bar 2 and at their front ends by a cross-bar 3, the latter surmounting the upper edges of the side-bars and having secured at its center a draft-tongue 4. Short axles 5 connect the side-bars of each pair and between each of said pairs of side bars ground-wheels 6 are mounted on the axles. A transverse shaft 7 passes through the front ends of the opposite pairs of side-bars 1 immediately below the front cross-bar 3, and loosely mounted upon this shaft between the pairs of side-bars 1 is a pair of opposite side-suspension bars 8 which extend rearwardly to points opposite the ground wheels. A transverse shaft 9 has its ends journaled in the rear extremi-

ties of the suspension-bars and upon the center of the same there is secured a cast-metal chopping disk 10. This disk 10 is provided at opposite sides with projecting hubs 11, and with blades 12 cast integral with the disk, the peripheries of the blades being provided with V-shaped notches 13. The disk is provided with a surrounding separate or integral rim or tire 14, and the edges of the same extend beyond the opposite faces of the disk, and radially opposite the notches of the blades 12, said flange is provided with pairs of opposite seats or recesses 15.

16 designates a bracket-arm, and the same is provided at its outer extremity with an upwardly-disposed abutment 17, and at its inner side has cast integrally therewith a triangular securing plate 18. The upper edge of the plate 18 is curved upon the same radius as the periphery of the disk. The lower edge of said plate is beveled at opposite sides to form V-shaped tenons 19. The bracket 16 projects at its rear or inner end slightly beyond its plate 18, forming a lug 20, adapted to fit in the seat or recess 15. In constructing the chopping-disk these brackets are arranged in pairs at opposite sides of the disk, the lugs 20 taking in the recesses 15 of the flange of the disk, and the inner ends or tenons 19 of the plates 18 taking into the V-shaped notches of the circular plates. In this position bolts 21 are passed transversely through each of the pairs of opposite plates 18 and through the disk at each side of each of the bracket-arms. This brings the abutments transversely opposite each other, and each pair has securely bolted to it a transverse blade 22, the bolts 23 passing through the blades near each end and through the abutments. By this construction it will be obvious that the disk as a whole is greatly strengthened and the knives firmly supported in position and capable of withstanding the severe strain to which they are subjected, and if by chance, a knife or bracket should break it may be readily removed and a new one substituted at very slight cost and with but little delay. A cross-bar 24 connects the two suspension-bars 8 near their front ends or rather immediately in rear of the shaft 7, and from said bar there extends upward and rearward a curved guard or shield 25 which projects over the chopping disk. A

curved standard 26 also projects upward and rearward from the cross-bar 24 and supports at its rear front end a seat 27 for the accommodation of the driver.

5 At each side of the center of the cross-bar 24 and at the under side thereof there is located a downwardly-disposed inclined guide-arm 28, which when the chopper is in operative position is suspended a very short distance from the ground. These two arms 28 10 being diverged toward their lower ends serve to gather in the stalks of the row and present them to the chopping-knives. Furthermore, by locating the arms upon the cross-bar 24 15 they rise or are drawn up out of operative position at the same time as and with the chopping-mechanism such movement being secured by an ordinary elevating-mechanism such as is common in this class of machines 20 and which will be hereinafter described. Short bearing standards 29 rise from the opposite inner side-bars 1, and a rock-shaft 30 is journaled therein. This rock-shaft is provided with a lever 31 within reach of the 25 driver, and adapted to be operated by him. At an angle to said lever the shaft is provided with an arm 32, connected by a short chain 33, with an eye 34, located upon the cross-bar 24. It will be obvious that by drawing the 30 lever 31 to the rear the rock-shaft will be rocked and being connected to the suspension-bars 8, which are pivoted at their front ends, the latter with what mechanism they support will be swung up out of operative position, or so that the chopping knives will be 35 out of contact with the ground and the guide-arms 28 out of guiding position.

From the foregoing description, in connection with the accompanying drawings, it will 40 be seen that I have provided a machine of

great simplicity, which is very effective in operation, which is strong and durable; whose knives are conveniently supported in position and adapted to resist the severe strain to which they are subjected; and which may be 45 readily replaced in case of breakage.

Having described my invention what I claim is:—

1. In a stalk-chopper, a centrally located rotatable chopping disk provided at its opposite faces with pairs of opposite and outwardly extending brackets removably secured to the disk, and a series of choppers extending across the periphery of the chopper and secured to the pairs of brackets, substantially as specified. 55

2. In a stalk-chopper, the disk provided at opposite sides with circular hub-plates having V-shaped notches, a peripheral flange whose edges extend beyond the faces of the disk 60 and are notched in radial alignment with the notches of the plates, combined with the pairs of opposite brackets terminating at their inner ends in plates provided at their outer ends with abutments, said brackets extending 65 at their upper inner ends beyond the plates and fitting the recesses of the peripheral flange, said plates being provided with V-shaped tenons fitting the notches of the hub-plates, bolts connecting the plates of each opposite pair of brackets, and chopping knives 70 bolted to the abutments, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 75 the presence of two witnesses.

JAMES L. TOWNSEND.

Witnesses:

JOHN H. MORRISON,
R. O. PITMAN.