(No Model.) 2 Sheets—Sheet 1.

J. MALLON.

STUBBLE SHAVER.

No. 405,169. Patented June 11, 1889.

Fig. 1.

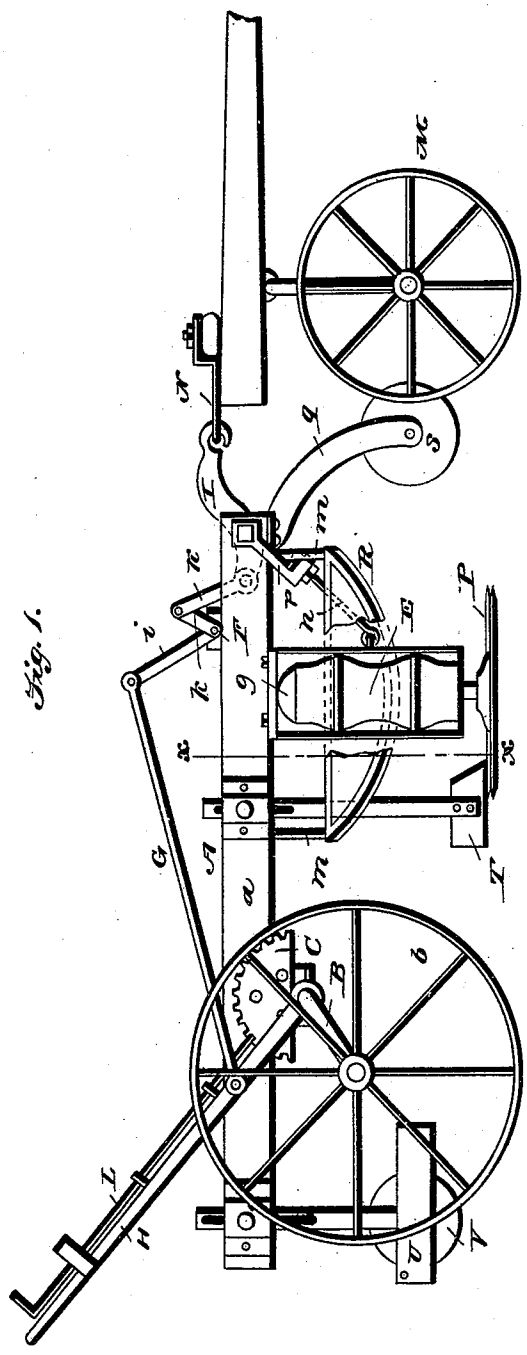
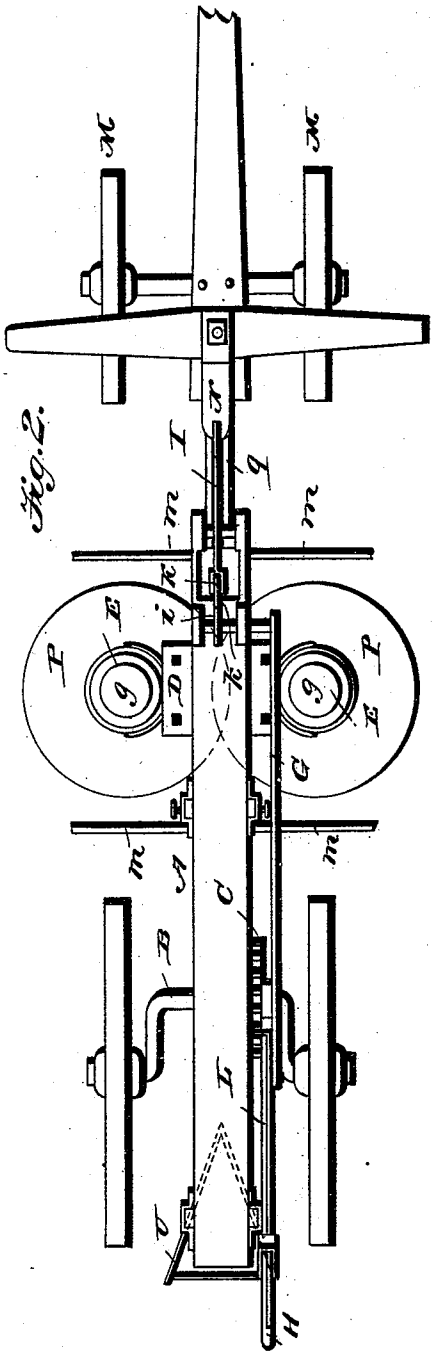


Fig. 2.



Witnesses:

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Inventor:
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(No Model.) 2 Sheets—Sheet 2.

J. MALLON.

STUBBLE SHAVER.

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Fig. 3.

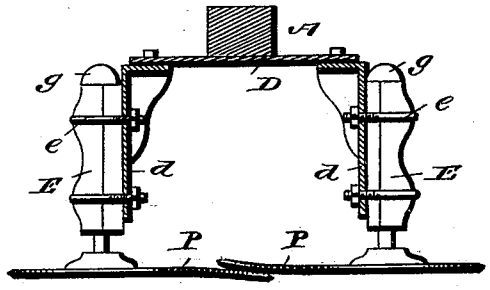


Fig. 4.

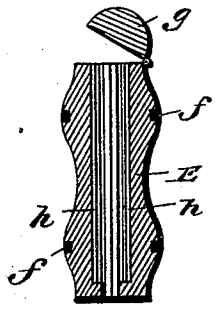


Fig. 5.

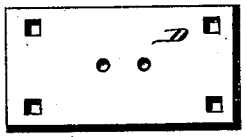
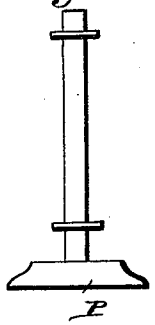


Fig. 6



Witnesses:

James Shelby

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UNITED STATES PATENT OFFICE.

JAMES MALLON, OF NEW ORLEANS, LOUISIANA.

STUBBLE-SHAVER.

SPECIFICATION forming part of Letters Patent No. 405,169, dated June 11, 1889.

Application filed February 25, 1889. Serial No. 300,997. (No model.)

To all whom it may concern:

Be it known that I, JAMES MALLON, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Stubble-Shavers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a stubble-shaver or stalk-chopper, and the novelty will be fully understood from the following description and claims, when taken in connection with the accompanying drawings, in which—

Figure 1 is a side elevation with the shield and draft-tongue partly broken away. Fig. 2 is a plan view of the same. Fig. 3 is a vertical sectional view, taken in the plane indicated by the dotted line *x x* of Fig. 1. Fig. 4 is a vertical sectional view of one of the journal-boxes. Fig. 5 is a plan view of one of the plates employed for the attachment of the journal-boxes, and Fig. 6 is a view of one of the axles of the rotary cutters removed from the box.

Referring by letter to the said drawings, A indicates the main frame composed of a central longitudinal beam *a*. This frame is supported near its rear portion by wheels *b*, mounted on a crank-axle B, which has its bearing in the under side of said beam.

C indicates a segmental rack, which is secured to the frame A above the crank-axle, and is designed to serve in connection with a hand lever and detent for raising and lowering the frame, and also the cutters and other devices carried thereby.

D indicates a horizontal plate, which is secured to the longitudinal beam *a* of the main frame, and preferably to the under side thereof near its forward end. This plate has secured to it near opposite ends brackets *d*. These brackets *d* depend from the said plate D, on opposite sides of the horizontal beam *a*, and are provided with perforations to receive eyebolts *e*, which are designed to secure the journal-boxes in position.

E indicates the journal-boxes for the axles of the horizontal cutters. These boxes are of a peculiar construction, being formed in two longitudinal sections, and each section provided on its inner side with a flange to receive and sustain a rigid collar on the spindles of the axles. The sections are, furthermore, provided with external grooves *f*, which, when brought together, coincide to receive within them the eye portion of the bolts *e*, the threaded extensions of said bolts passing through apertures in the brackets *b*, where they are secured by nuts or other suitable fastening devices. One section of each journal-box is provided with a hinged cap *g*, and said sections are respectively provided with one or more internal grooves *h*, to receive a suitable packing, which may be saturated with a lubricant.

Journaled in the forward portion of the horizontal beam *a* is a transversely-arranged shaft F. This shaft may have a crank on each end which extend in opposite directions. One end of said shaft is provided with a rearwardly-oblique arm *i*, and the upper end of this arm is connected, by means of a rod G, with a hand-lever H, one end of the latter being made fast to the crank-axle B of the main frame, so that when said hand-lever has been moved in the turning of the axle B the shaft F will also be moved through the medium of the arm *i* and connecting-rod G. This shaft F has its arm *k* at the opposite end extending forwardly oblique, and connects with a clevis or pivoted lever I by means of a link K. Consequently when the shaft F has been moved or rocked, as above described, the lever I will also be moved through the medium of the link K and the arm *k*. By this means it will be seen that when it is desirable to lower the frame and the cutting, clearing, and scraping apparatus carried thereby the operator should grasp the hand-lever H, and after freeing the locking-rod L from the teeth of the segmental rack move it in the proper direction until it again engages the teeth at the desired point. By this operation it will be seen that as the crank-axle B has been turned in its bearings to lower the rear portion of the frame the rod G, through the medium of the arms *i* and *k* and the connecting-link K, will operate upon the pivoted lever I, so as to simultaneously lower the forward portion of the frame and the apparatus carried thereby.

M indicates the front wheels, which are mounted upon a suitable axle and support a

tongue and whiffletree, as shown, and this tongue and whiffletree are connected, by means of a strap N, to the forward hooked end of the pivoted lever I, so that the frame carrying the operating mechanism may be lowered and raised without altering the position of the draft-tongue and whiffletree, or in any manner affecting the draft.

P indicates shavers or cutters arranged in a horizontal position on each side of the main frame. These cutters overlap one another, so that in operation the stalk or stubble cannot pass without being severed.

The main frame or beam *a* is provided at a point in front and rear of the cutters or their journal-boxes with cross bars or arms *m*, and to the outer ends of these arms are secured arms for the attachment of shields R. These shields are designed to protect the lubricating journal-boxes E, and are arranged one on the outer side of each of them.

The brackets *d* are braced and securely held in position by a threaded rod *n* and a pivoted link *p*, which is journaled at its upper end to the forward portion of the beam *a*. This link *p* has an eye at its lower end to receive the upper end of a rod *n*, and said rod is rendered adjustable by means of a thumb-nut or other suitable device, so that the rotary cutters P may be moved at an angle with relation to the main frame, and the said cutters adjusted to a true horizontal position.

S indicates a vertically-arranged rotary cutter, which is journaled on the lower end of an arm *q*, secured to the forward end of the beam *a*, so as to travel in advance of the stubble-shaver and serve to cut weeds and trash that may be in the cane row.

T indicates a scraper, which is arranged slightly in rear of the rotary cutters P and in close relation thereto. This scraper, which is secured to the lower end of a vertical arm, has its bearing in a slot of the main frame or a casting thereon, and the said arm is slotted to receive a set-screw or the like, whereby the said scraper may be raised and lowered for the accommodation of the cutters.

U indicates a fluke or device for spreading the trash. This spreader or fluke is arranged at the rear portion of the main frame, and is composed of two blades diverging rearwardly, so as to present an acute angle to the trash upon the row. Journaled between the branches of this fluke is a wheel V, which is designed to extend slightly below the diverging branches and serve as a gage therefor, and the whole device, including the roller, is rendered vertically adjustable in the main frame by means of a set-screw or the like.

Having described my invention, what I claim is—

1. The combination, with the main frame, of the crank-axle carrying supporting-wheels, the segmental rack secured to said frame, the crank-axle journaled in the forward end of said frame, the hand-lever fixed to the axle, the link connecting the forward end of the frame with the truck-frame, the rod connecting the hand-lever with the forward crank-axle, and the link connecting the pivoting-link with said crank-axle, substantially as specified.

2. The combination, with the main frame, supported as described, of the lubricating journal-boxes, the brackets supporting the same, and the horizontal cutters having vertical shafts journaled in said boxes, substantially as specified.

3. The combination, with the main frame, of the lubricating journal-boxes constructed as described, the brackets securing said boxes to the main frame, and the shields for the boxes, substantially as specified.

4. The combination, with the main frame, of the truck-frame, the pivoted link connecting the same, the double-crank rock-shaft journaled in the forward end of the main frame, a link connecting one arm of said crank-shaft with the rear end of the connecting-link I, the hand-lever secured to the rear crank-shaft, and the rod connecting an arm of the rock-shaft to the said hand-lever, substantially as specified.

5. The combination, with the main frame adapted to be vertically adjustable, as described, of the horizontal rotary cutters, the scraper adapted to be vertically adjustable, and arranged in rear of said cutters, a rotary trash-cutter arranged in advance of the stubble-cutters, and a vertically-adjustable clearer arranged at the rear of the frame, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES MALLON.

Witnesses:
HELMUTH HOLTZ,
PERCY D. PARKS.