(No Model.)

J. B. NEFF.

STALK CUTTER.

No. 344,850. Patented July 6, 1886.

Fig. 1.

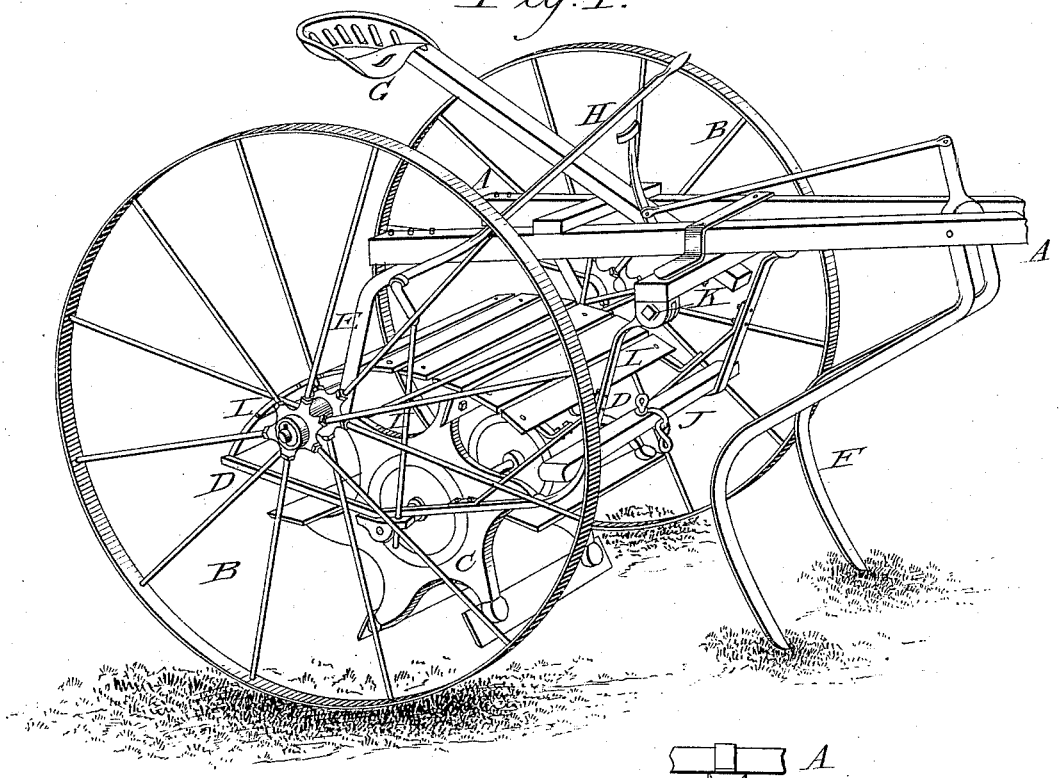
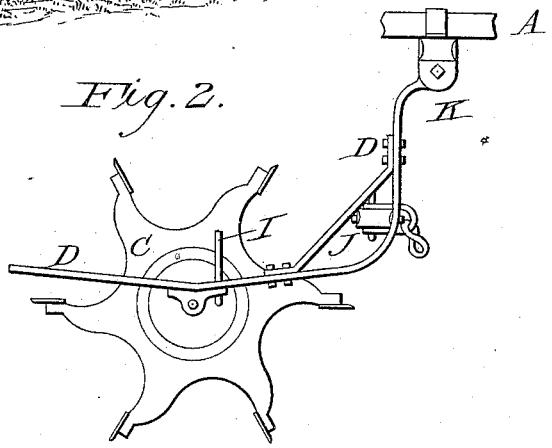


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOSEPH B. NEFF, OF BURLINGTON, IOWA, ASSIGNOR TO MARY E. NEFF, OF SAME PLACE.

STALK-CUTTER.

SPECIFICATION forming part of Letters Patent No. 344,850, dated July 6, 1886.

Application filed February 25, 1884. Serial No. 122,010. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH B. NEFF, a citizen of the United States, residing at Burlington, in the county of Des Moines and State of Iowa, have invented a new and useful Stalk-Cutter, of which the following is a specification.

My invention relates to improvements in stalk-cutters in which the draft is directly upon the cutter-head frame below the point of its hinged connection to the main frame; and the objects of my invention are to provide a stalk-cutter with a low draft, to place the draft directly upon the cutter-head instead of upon the tongue or main frame, and to hinge the cutter-head frame above the draft, in order that the draft of the team may increase the cut of the knives to the extent of the power necessary to propel the weight and resistance of main-frame wheels and rider. I attain these objects by means of the construction of my machine as illustrated in the accompanying drawings.

Figure 1 is a perspective view of the entire machine, except a portion of the tongue, which is cut away. Fig. 2 is a side view of the cutter-head and cutter-head frame, showing the connection of the forward end of the cutter-head frame to the main frame.

Similar letters refer to similar parts throughout both views.

The tongue A, axle E, wheels B B, and seat G constitute the cutter-head vehicle. The lever H is connected with the main frame, and also, by means of the rod I, is connected with the cutter-head C, having hood L. The lever H is used for suspending the cutter-head for transportation. The stalk-hook F is for the purpose of raking the stalks to a right angle with the knives upon the cutter-head C, and can be suspended by a foot-lever when not in use. The draft-bar J is bolted upon cutter-head frame D below the pivotal point K. The cutter-head frame D consists of two heavy iron bars, running nearly horizontal at their lower and back portions, bent upward and forward in the shape of a goose-neck at their front ends, and connected together at the back end by a bar, and in front of the cutter-head C by the draft-bar J, leaving a sufficient space between them for the cutter-head C to revolve in boxes bolted to the frame D. The front end of the frame-bars D are hinged loosely to the main frame A at the points K K. When the team is attached to the draft-bar J and the machine is propelled, the draft is directly upon the cutter-head C, the attachment of the cutter-head C and frame D to the frame A being above the draft attachment at J. The main-frame wheels and driver are propelled from the hinge K. It will be readily perceived that this mode of attaching the cutter-head frame D to the main frame or tongue A and draft at the bar J causes all the resistance the vehicle and weight of rider may make to be transferred to increase the force of the blow. If the natural weight of the cutter-head C is sufficient under ordinary circumstances to cut the stalks as it rolls over the ground, then the leverage given to the swinging cutter-head C and frame D by the resistance of the vehicle and rider will make the cutting process more efficient when the resistance is greatest by reason of a wet or rough condition of the ground to be passed over. Even wet or difficult stalks may be cut under such circumstances.

The cutter-head frame D may be properly compared to a double-ended lever fulcrumed at the draft-bar J. The upper end of this so-called "lever," being confined at the pivotal point K, cannot be deflected from its position, while the lower end being free is therefore made to press the cutter-head C toward the ground by the draft at J. This principle of the attachment of the draft leaves the tongue free from draft complications, while the weight of the rider at G balances the natural weight of the front portion of the main frame and tongue. By my principle of low draft I prevent any weight of the tongue upon the animals' necks. I also prevent jolting the rider by my low hitch and hinged connection above the draft.

I do not confine myself to the precise shape shown of my cutter-head-frame bars or to the precise spot they may be attached to the main frame, for it is evident that the hinged connection may be farther forward or back, or higher or lower than the point shown. Neither do I confine myself to attaching my draft to a wood cross-bar, as shown, as the draft may be attached by rods or chains from the side bars of the swinging frame to a double-tree.

I am aware that stalk-cutters have been

made prior to my invention having cutter-heads, wheels, and seats, and I do not therefore claim, broadly, a stalk-cutter; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

In a rotary head stalk-cutter, having wheels, frame, and tongue, a swinging independent cutter-head frame hinged to the main frame, so as to admit of free vertical movement, the point of draft attachment on the swinging frame being below the hinged connection of said frame and between said hinged connection and the cutter-head, whereby the draft of the team increases the force of blows of the knives, substantially as described, and for the purpose set forth.

JOSEPH B. NEFF.

Witnesses:
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