

No. 837,810.

PATENTED DEC. 4, 1906.

T. L. DURHAM.
STALK CUTTER.

APPLICATION FILED AUG. 30, 1906.

Fig. 1.

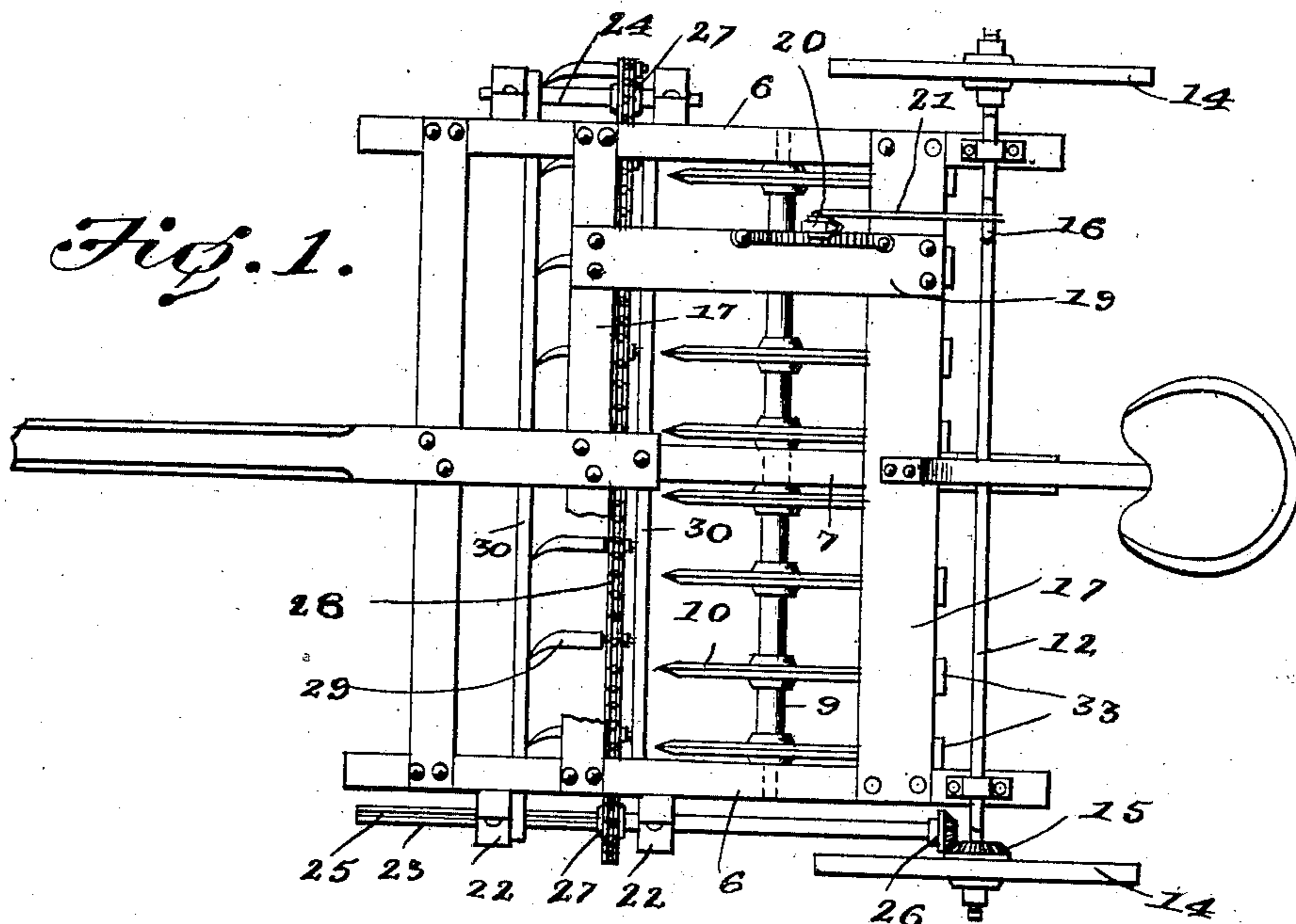
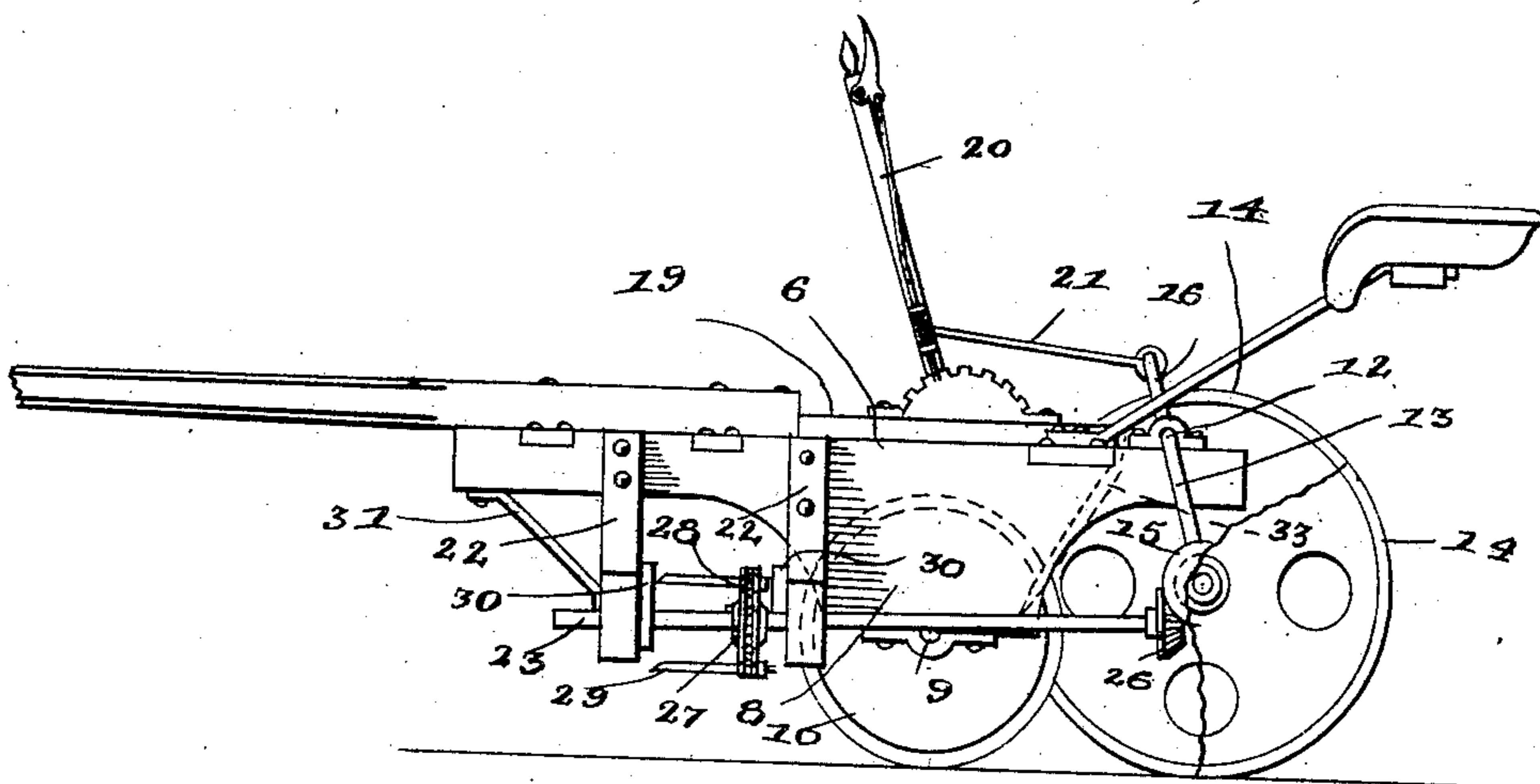


Fig. 2.



WITNESSES:

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STALK-CUTTER.

No. 837,810.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, THOMAS L. DURHAM, a citizen of the United States, residing at Otto, in the county of Falls, State of Texas, have invented certain new and useful Improvements in Stalk-Cutters; and I do hereby 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 has reference to stalk-cutters, and more particularly to that class of machines which are designed to be drawn across the fields by horse or other power and provided with means for felling the stalks and for cutting them into suitable lengths, so that they may be readily plowed under.

The particular improvements consist in the provision upon the rear end of the machine of a rocking axle carrying the traction-wheels, movement of the axle in one direction or the other being adapted to bodily change the position of the traction-wheels, and consequently raise or lower the same.

Further improvements include the particular construction of the device for pulling down the stalks, hereinafter referred to as the "stalk-feller," and the means for operating the same.

The invention further consists in the construction, combination, and arrangement of parts, all as hereinafter fully described, specifically claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a top plan view of the invention, and Fig. 2 is a side elevation.

Parts of one of the traction-wheels and of the frame are broken away in the drawings to show the stalk-pulling device and the means for driving its chains.

Like parts are designated by corresponding reference-numerals in both views.

Referring to the drawings, the frame of the machine is shown as including side beams 6 and an intermediate beam 7, provided with a downward extension 8, through which extends the shaft 9, carrying a plurality of disk cutters 10, separated from each other by spacing-collars.

Journalled in bearings provided on the rear end of beams 6 and 7 is a rocking axle 12, having downward extensions 13 at opposite ends, upon which are loosely mounted the traction-wheels 14. In the preferred construction of the machine one of the traction-wheels is provided with a gear 15, formed in-

tegral with said wheel upon the inner face thereof. Axle 12 is further formed with a crank portion 16, located at the opposite end thereof from gear 15. The several beams 6 and 7 are connected by transverse beams 17, the front and central transverse beams 17 and the intermediate beam 7 further serving as the supporting means for the pole or tongue of the machine, which is secured thereto. The rear beam and the central transverse beam 17 are further connected together by a beam 19, to which is secured a lever 20, connected by a link 21 with the crank portion 16 of the axle 12, lever 20 being provided with the usual segmental rack and pawl for retaining said lever in adjusted position.

Secured to the outer face of each side beam 6 is a pair of depending brackets 22, the lower ends of which are provided with registering openings through which pass shafts 23 and 24, respectively, the former having a sliding movement endwise and formed with a longitudinal groove 25. The rear end of shaft 23 is provided with a bevel-pinion 26, adapted to mesh with the bevel-gear 15. Shafts 23 and 24 are each provided with a sprocket 27, the sprocket on the former shaft having a feather or spline (not shown) fitting in the groove 25 in said shaft.

The sprockets 27 are connected by a sprocket-chain 28, carrying outwardly-curved fingers 29, the stem of said fingers extending through the links of the chain and threaded for engagement with a nut, whereby the curved portion or blade of said fingers may be adjusted toward or from the ground. The sprocket-chains run between guide-beams 30, secured to the forward member of each pair of brackets 22, the front guide-beam having openings at its opposite ends in alinement with the openings in the front member of the brackets for the passage thereof of shafts 23 and 24. The front end of beams 6 and the lower end of the front members of the brackets are connected by diagonal braces 31, while the rear end of the intermediate beam 7 has secured thereto a seat.

From the foregoing it will be obvious that when the draft-animals are hitched to the pole 18 or the latter secured to a traction-engine a movement in one direction or the other of the operating-lever will rock the axle 12, through the link connection between said lever and axle, and thus correspondingly throw the traction-wheels forward or back-

ward, such latter movement resulting in a consequent elevation or depression of the machine-frame. Owing to the sliding movement of shaft 23 within its brackets, its gear 5 may be moved into driving engagement with the traction-wheel gear 15 irrespective of the position of the traction-wheels, the feathered mounting of the sprocket-gear on said shaft allowing the latter to be moved there-
10 through.

In its operation the machine is drawn forwardly, causing the rotation of the traction-wheels and cutter-disks and effecting the movement of the sprocket-chains, as above
15 described, the depth of cut of the disks being adjusted by means of the connection between the rocking axle and its operating-lever. As the machine is drawn forwardly the fingers on the sprocket-chains will engage the
20 stalks and pull the same downwardly beneath the chain-guides and into the path of the rotating cutters, which will cut the stalks into suitable lengths. A series of scrapers 33 are preferably secured to the rear transverse
25 beam 17, the scrapers being formed with the customary V-shaped notches, in which the cutters fit, the position of the scrapers being adjusted to correspond with that of the cutters.

30 The number of cutter-disks carried by the shaft 9 may be varied at will, the intermediate beam 7 being dispensed with, when but a small number of disks—as, for instance, five—is made use of.

35 Further modifications and changes may obviously be made within the scope of the claims and without departing from the spirit of the invention.

What is claimed is—

40 1. A stalk-cutter comprising in combination a frame including an axle, and traction-wheels mounted thereon; a shaft journaled in said frame in advance of said axle; a plurality of cutters mounted on said shaft; a transversely-disposed stalk-felling device carried
45 by the frame in advance of said shaft; and means for operating said stalk-felling device.

2. A stalk-cutter comprising in combination a frame including an axle, and traction-
50 wheels mounted thereon; a shaft journaled in said frame in advance of said axle; a plurality of cutters mounted on said shaft; a transversely-disposed stalk-felling device carried by the frame in advance of said shaft, comprising a moving member provided with a
55 plurality of fingers; and means for driving said member.

3. A stalk-cutter comprising in combination a frame including an axle; and traction-
60 wheels mounted thereon; a shaft journaled in said frame in advance of said axle; a plurality of cutters mounted on said shaft; a trans-

versely-disposed stalk-felling device carried by the frame in advance of said shaft and comprising a chain; fingers carried by said
65 chain; guide-beams between which said chain travels; and means for driving said chain.

4. A stalk-cutter comprising in combination a frame including a main shaft and traction-wheels mounted thereon; a shaft jour-
70 naled in said frame in front of said main shaft; a plurality of cutters mounted on said front shaft; a pair of depending brackets secured to opposite sides of said frame in advance of said shaft; a shaft journaled in each
75 pair of brackets; a sprocket-wheel mounted on each shaft; a sprocket-chain connecting said sprocket-wheels; guides for said sprocket-chain, carried by said brackets; fingers carried by said sprocket-chain; a gear on the
80 rear end of one of said last-mentioned shafts; and a gear on the adjacent end of one of said first-mentioned shafts, in mesh with said first-mentioned gear, for driving said sprocket-chain.

5. A stalk-cutter comprising in combination, a frame; a shaft journaled in said frame; a plurality of cutters mounted on said shaft; a shaft journaled in said frame in the rear of
90 said first-mentioned shaft; traction-wheels carried on opposite ends of said shaft; means for rocking said rear shaft to change the position of said traction-wheels bodily, and raise and lower the frame; a transversely-disposed
95 stalk-felling device carried by said frame in advance of said cutter-carrying shaft; and means for operating said stalk-felling device.

6. A stalk-cutter comprising in combination a frame; a shaft journaled in said frame; a plurality of cutters mounted on said shaft;
100 an axle mounted in said frame; in the rear of said shaft; traction-wheels mounted on opposite ends of said axle; a pair of depending brackets secured to opposite sides of said frame in advance of said shaft; a fixed shaft
105 journaled in one pair of brackets; a longitudinally-movable shaft journaled in the opposite pair of brackets; a gear secured to the rear end of said movable shaft; a sprocket-wheel mounted on each shaft; a sprocket-
110 chain connecting said sprocket-wheels guides for said sprocket-chain carried by said bracket; fingers carried by said sprocket-chain; and a gear formed on the inner face of
115 one of said traction-wheels, into engagement with which the gear on said longitudinally-movable shaft is adapted to be moved, to effect the rotation of said sprocket-chain.

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

THOMAS L. DURHAM.

Witnesses:

F. M. GREEN,

GEO. D. CAMPBELL.