

(No Model.)

4 Sheets—Sheet 1.

D. O. FOSGATE.
CORN CUTTER AND SHOCKER.

No. 513,495.

Patented Jan. 30, 1894.

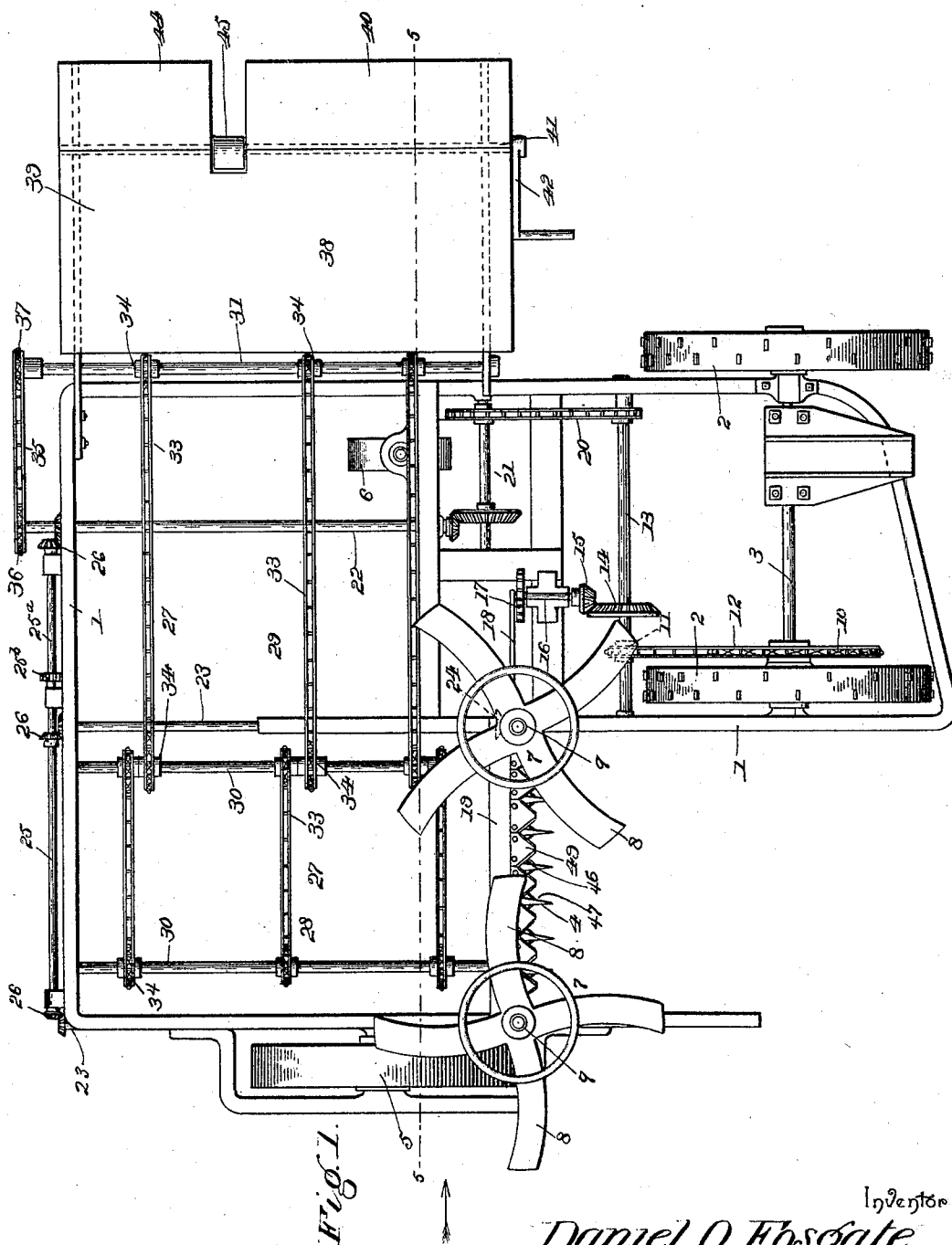


Fig. 1.

Inventor

Daniel O. Fosgate.

Witnesses

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By his Attorneys.

C. A. Snow & Co.

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Fig. 2.

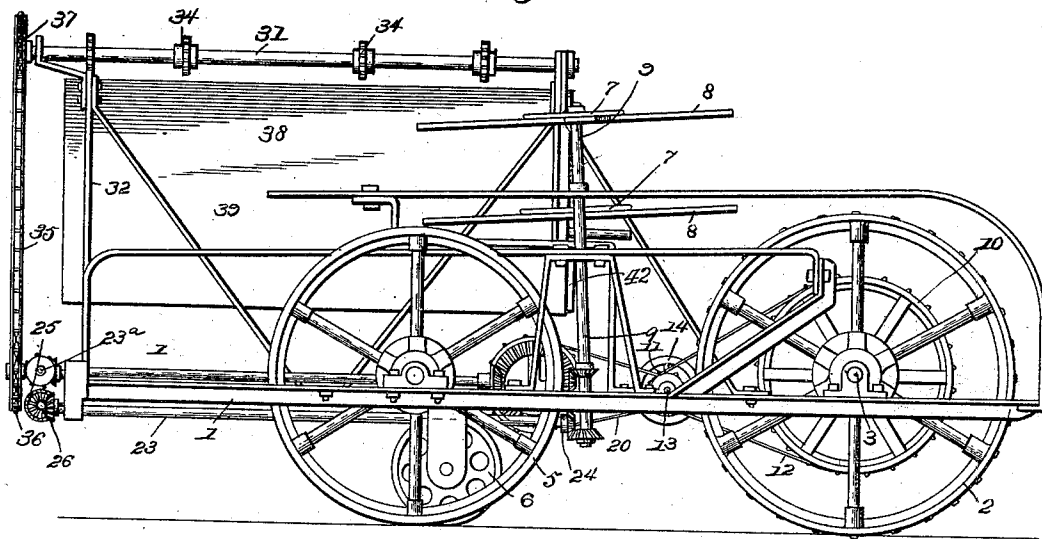
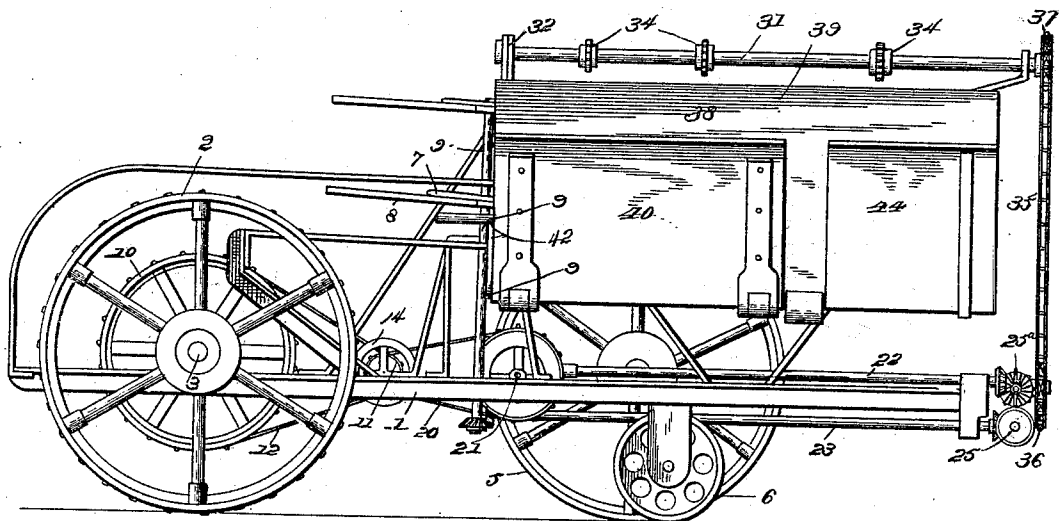


Fig. 3.



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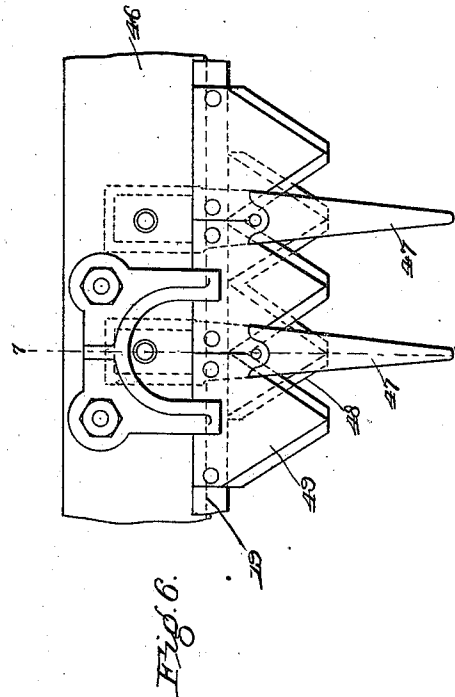
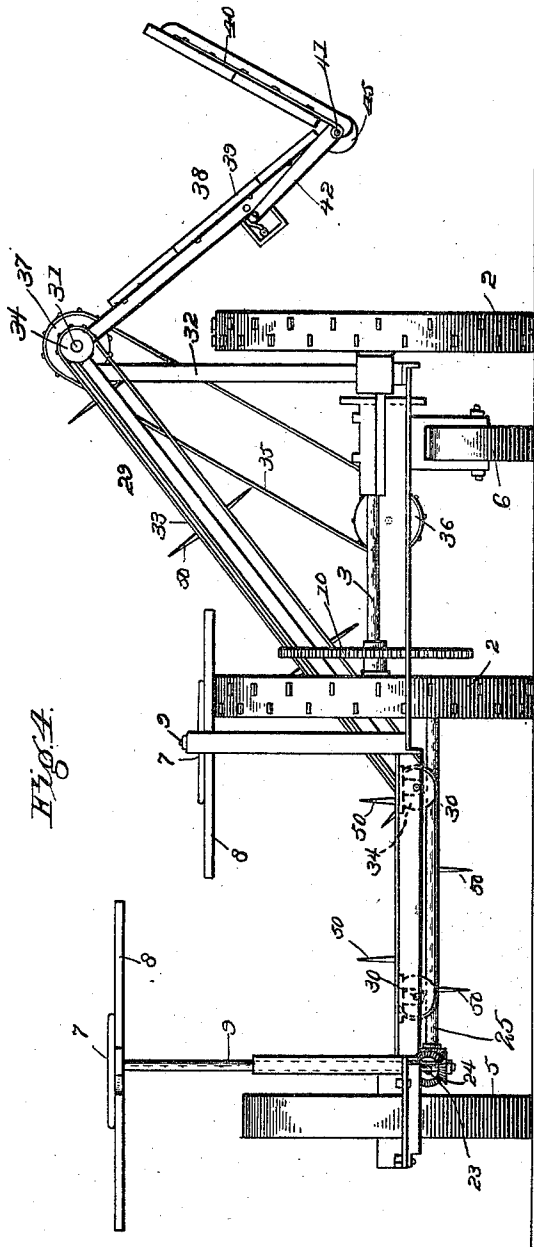
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(No Model.)

4 Sheets—Sheet 4.

D. O. FOSGATE.
CORN CUTTER AND SHOCKER.

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Patented Jan. 30, 1894.

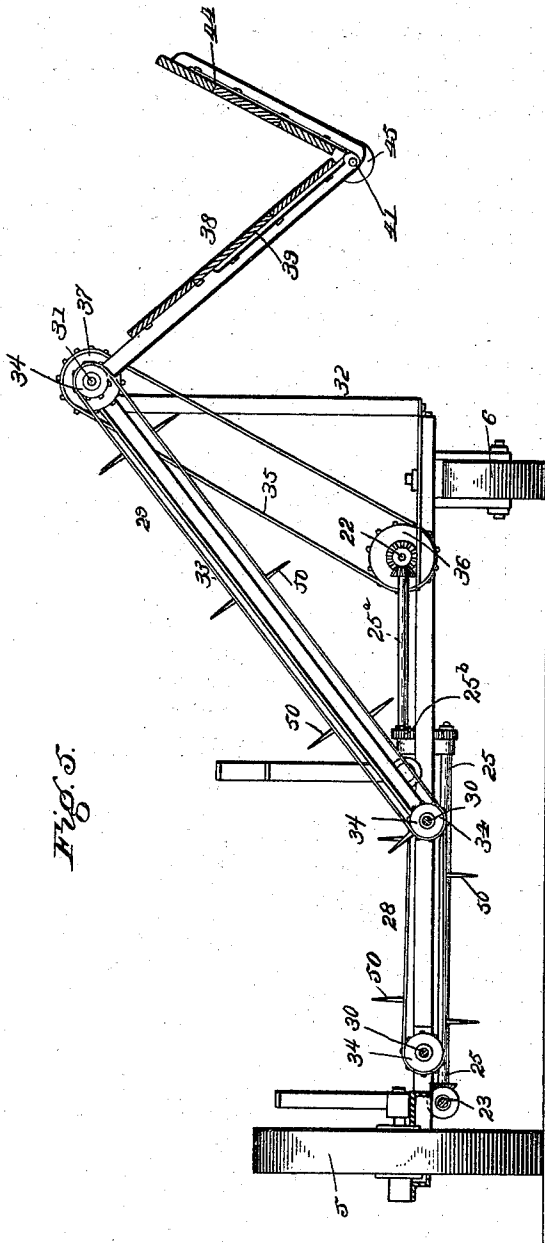


Fig. 5.

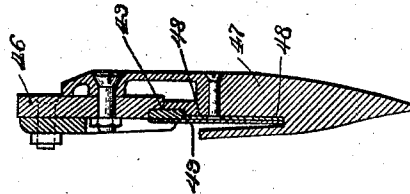


Fig. 6.

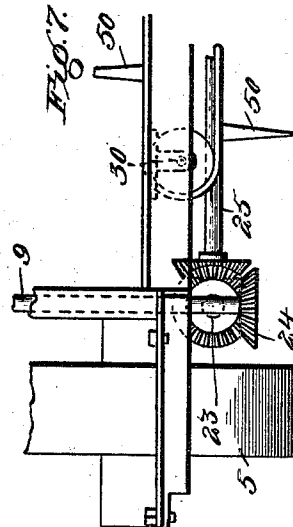


Fig. 7.

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UNITED STATES PATENT OFFICE.

DANIEL O. FOSGATE, OF AURORA, ILLINOIS, ASSIGNOR OF ONE-HALF TO
FRANK E. MERRILL, OF SAME PLACE.

CORN CUTTER AND SHOCKER.

SPECIFICATION forming part of Letters Patent No. 513,495, dated January 30, 1894.

Application filed June 22, 1893. Serial No. 478,484. (No model.)

To all whom it may concern:

Be it known that I, DANIEL O. FOSGATE, a citizen of the United States, residing at Aurora, in the county of Kane and State of Illinois, have invented a new and useful Corn Cutter and Shocker, of which the following is a specification.

My invention relates to corn-cutting and shocking machines, and has for its object to provide an organization of apparatus capable of gathering and cutting stalks, transferring them by means of suitable elevating devices to a shock carrier which is provided with a bobbin carrying twine for tying the stalks into bundles or shocks and of delivering the same and arranging them in upright positions along the path of the machine.

Further objects and advantages of my invention will appear in the following description and the novel features thereof will be particularly pointed out in the claims.

In the drawings—Figure 1 is a plan view of the mechanism embodying my invention. Fig. 2 is a side elevation taken in the direction of the arrow in Fig. 1 with the elevating chains omitted. Fig. 3 is a similar view showing the opposite side of the machine. Fig. 4 is a front view with the cutting mechanism omitted. Fig. 5 is a transverse sectional view upon line 5—5 of Fig. 1. Fig. 6 is an enlarged plan view of a portion of the cutting mechanism. Fig. 7 is an enlarged sectional view of the same upon line 7—7 of Fig. 6. Fig. 8 is a detail view, showing the connection between the spindle of one of the gatherers and the shaft by which it is driven.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

The framework 1 of the machine is preferably constructed of steel as being lighter for its strength than other available materials, and it is provided with the carrying and operating wheels 2 which are fixed to the shaft 3 arranged transversely at the front of the machine.

4 represents the cutting mechanism and adjacent to the outer end thereof is arranged a bearing wheel 5 to support said outer end of the mechanism. A caster wheel 6 is also employed in rear of the operating wheels 2 as an

additional means for supporting the framework.

7—7 represent the gatherers having the radially-disposed arms 8 and carried by the vertical spindles 9. The shaft 3 is connected by means of sprockets 10 and 11 and the connecting chain 12 to a counter-shaft 13 which is in turn connected by gears 14 and 15 to a stub shaft 16 provided with a crank wheel 17 and connected by means of a pitman 18 to the sickle-bar 19. The counter-shaft 13 is, furthermore, connected by means of suitable sprocket gearing 20 with a shaft 21 which is geared to a shaft 22 which is arranged parallel with the length and direction of movement of the machine, as shown clearly in Fig. 1. Parallel with the shaft 22 are similar shafts 23 which are geared at their front ends by means of beveled pinions 24 to the lower ends of the vertically-disposed spindles 9, and a transversely-disposed shaft 25 at the rear end of the machine is connected by similar beveled gears 26 to the shafts 23 and 22 whereby the motion of the latter is communicated through the shafts 23 to the gathering arms. The shaft 25 is supplemented, in this connection, by an auxiliary shaft 25^a, geared to the shaft 25 at 25^b.

27 represents an elevating mechanism having a horizontal portion 28 which is arranged directly in rear of the cutting mechanism and an inclined portion 29 which rises toward its outer side, as shown clearly in the front and transverse sectional views. This elevating device consists of the parallel shafts 30 which are arranged in the same horizontal plane and extend from the front to the rear of the framework in rear of the cutting mechanism, and an elevated parallel shaft 31 which is supported by means of standards 32, such shafts being connected by means of the carrying chains 33 traveling over suitable chain-wheels 34. Motion is communicated to the shaft 31 by means of a sprocket chain 35 which connects chain-wheels 36 and 37 which are fixed, respectively, to the shafts 22 and 31.

38 represents a shock carrier which is arranged at the opposite side of the machine from the cutting mechanism and comprises a fixed inclined table 39 whose upper edge is arranged adjacent to the upper end of the

elevating device, and a swinging leaf 40 which is pivotally connected at the edge to the lower and outer edge of the table. A hinge-bar 41 is employed to connect the swinging leaf with the fixed table and it is provided with a crank 42 whereby the swinging leaf may be operated, a suitable retaining device 43 being provided at one end of the hinge-bar to hold the leaf in its normal position.

44 represents a stationary leaf which is arranged at the rear end of the table and permanently occupies a position in the plane of the swinging leaf when the latter is elevated to hold the stalks, as shown in full lines in Fig. 5. The adjacent ends of the leaves 40 and 44 are separated, and the bobbin 45 is arranged on the hinge-bar therebetween, such roller being adapted to carry the binder cord or twine which is employed for tying the bundles in shocks.

The cutting mechanism comprises a finger-bar 46 carrying guard fingers 47, such guard fingers carrying fixed knives 48 to co-act with the knives 49 of the sickle-bar 19.

This being the construction of my apparatus, the operation thereof is as follows: A single row of corn is cut at one time, the stalks being gathered in by the arms 8 and severed in the usual way by means of the cutting device. As the stalks are cut they fall rearwardly upon the chains of the elevator which are provided with spurs 50 to insure the movement of the stalks therewith. As the stalks reach the upper end of the elevating device they fall and are accumulated upon the shock carrier until a sufficient number of hills have been cut to form a shock of the desired size. The machine is now stopped and the operator ties the same to form a bundle or shock by means of the cord which is rolled upon the roll 45, and after having accomplished this portion of the operation the swinging leaf is released and the shock is dropped with the butts of the stalks on the ground, whereby the shock is arranged in a vertical or upright position at the side of the machine.

From the above description it will be seen that the operation of the machine is simple and direct and that the shocks may be conveniently formed and placed without personal handling upon the part of the operator.

It will be understood that various changes in form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of my invention.

Having described my invention, what I claim is—

1. In a corn cutter and shocker, the combination with a supporting framework, and cutting and elevating devices carried thereby and operatively connected to the ground wheels, of a shock carrier fixed to the framework at the delivery end of the elevating device and comprising a fixed table inclined downward from the grain, a fixed leaf 44 arranged at an angle to said table at its rear end, a swinging leaf 40 pivotally connected to the lower edge of the table and adapted to be arranged in a plane common with said fixed leaf, and means to operate the swinging leaf, substantially as specified.

2. In a corn cutter and shocker, the combination with a supporting framework, cutting and elevating mechanisms carried by the framework and operatively connected to the ground wheels, of a shock carrier arranged at the delivery end of the elevating mechanism, and having a fixed table, a stationary leaf arranged at one end of said table at an angle thereto, a hinge-bar mounted at the lower outer edge of the table, a swinging drop leaf carried by said hinge-bar, and a cord bobbin rotatably mounted upon the hinge-bar between the contiguous ends of the fixed and swinging leaves, substantially as specified.

3. In a corn cutter and shocker, the combination with a supporting framework and suitable ground-wheels, cutting mechanism operatively connected to said ground-wheels, rotary gatherers arranged at opposite sides of the cutting mechanism, and connections between said gatherers and the ground-wheels, of a laterally-movable elevating mechanism having a horizontal portion 28 located directly in rear of the cutting mechanism, and an upwardly and outwardly inclined portion 29 co-operating with said horizontal portion, means for connecting said elevating mechanism with the ground-wheels, and a shock-carrier located at the upper and outer end of the inclined portion of the elevating mechanism to receive the bundles therefrom, said shock-carrier having at its rear end a stationary leaf to hold the upper end of a shock and a drop-leaf to release the lower end of a shock, whereby the shock is delivered in an upright position, substantially as specified.

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

DANIEL O. FOSGATE.

Witnesses:

R. W. GATES,

FRANK E. MERRILL.