

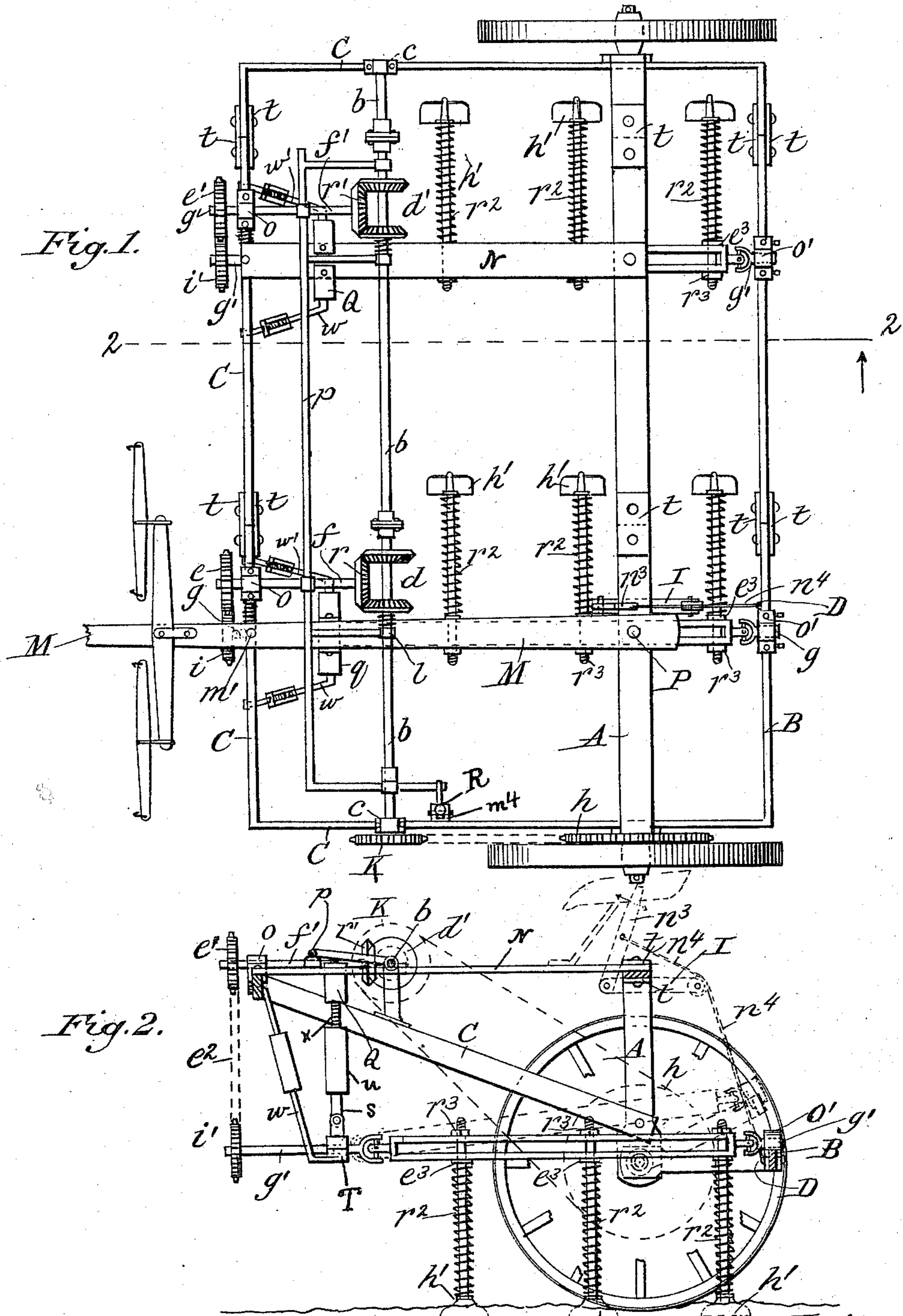
(No Model.)

2 Sheets—Sheet 1.

J. N. MOORE.
COTTON CHOPPER.

No. 582,075.

Patented May 4, 1897.



Attest:

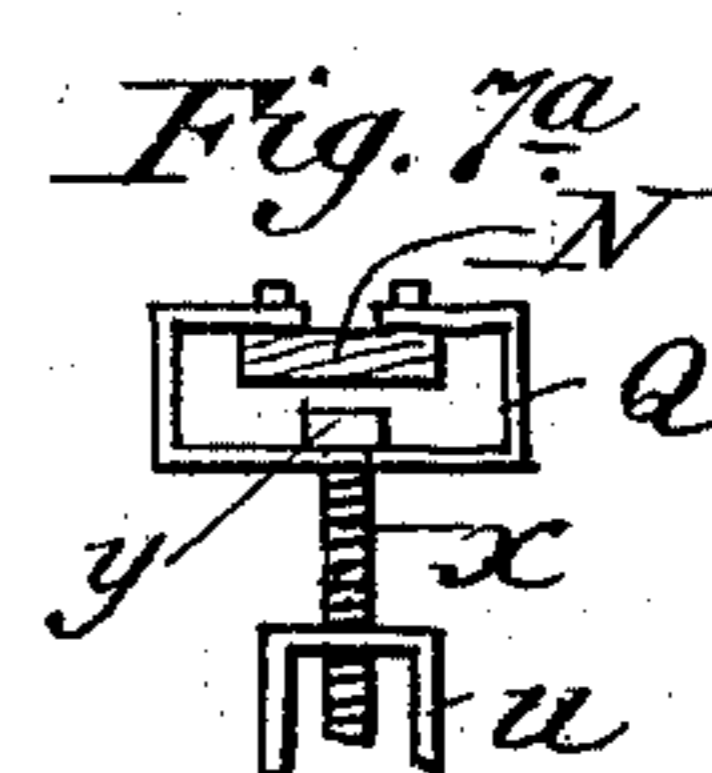
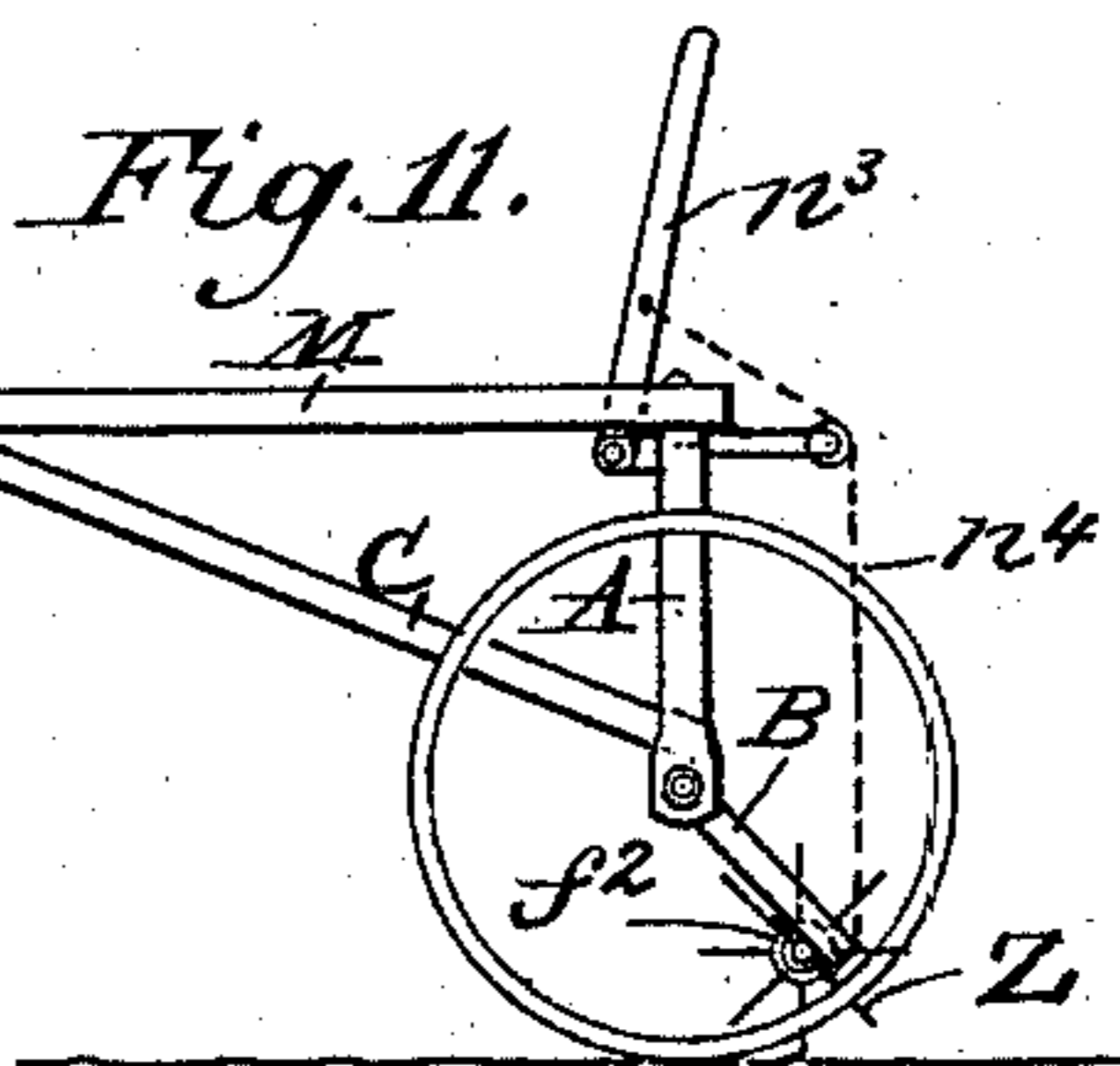
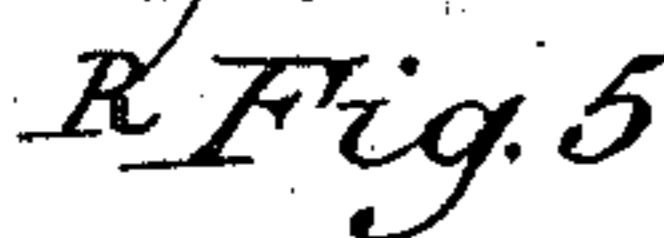
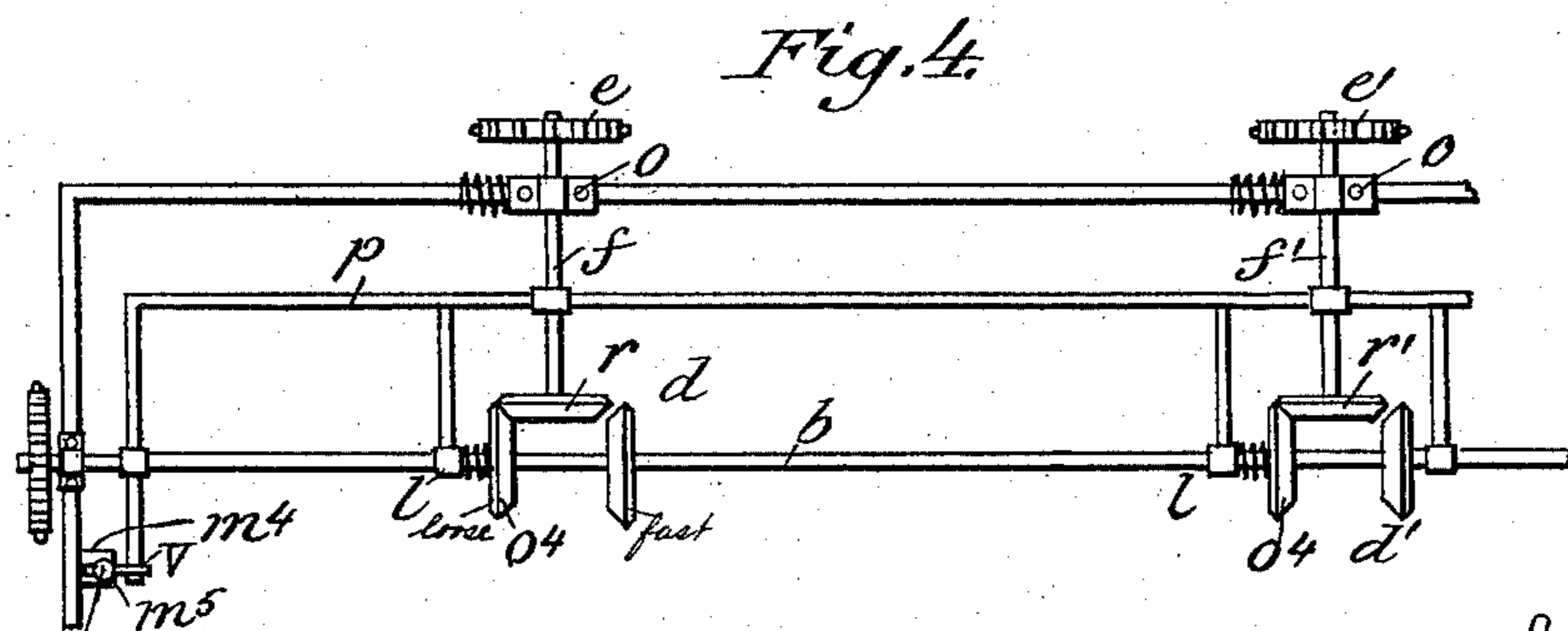
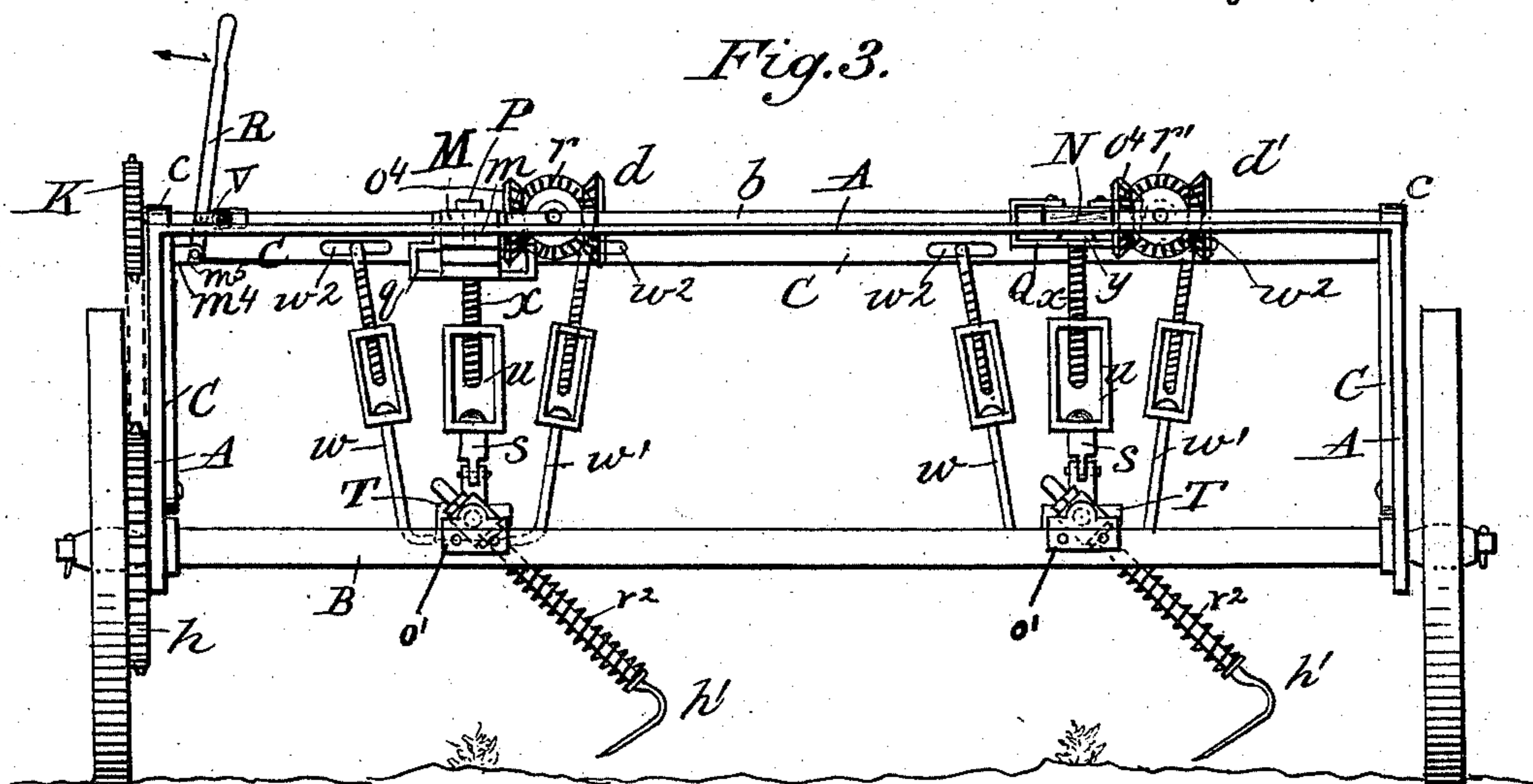
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Inventor:
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2 Sheets—Sheet 2.

No. 582,075.

Patented May 4, 1897.



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UNITED STATES PATENT OFFICE.

JOHN NEALLY MOORE, OF TAYLOR, TEXAS.

COTTON-CHOPPER.

SPECIFICATION forming part of Letters Patent No. 582,075, dated May 4, 1897.

Application filed August 25, 1896. Serial No. 603,840. (No model.)

To all whom it may concern:

Be it known that I, JOHN NEALLY MOORE, a citizen of the United States, residing at Taylor, in the county of Williamson and State of Texas, have invented certain new and useful Improvements in Cotton-Choppers; 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.

My invention relates to improvements in cotton-chopping machines; and the objects thereof are to so construct the same that it will be cheap, durable, have as few parts as practicable, and be easily assembled.

With these objects in view my invention consists in the novel construction, combination, and arrangement of parts and in the various details thereof, as will first be pointed out in the specification and then claimed.

In the drawings forming a part of this specification, and in which like letters of reference represent corresponding parts, Figure 1 is a plan view of my improved cotton-chopper. Fig. 2 is a vertical section on the line 2 2 of Fig. 1. Fig. 3 is an end elevation. Fig. 4 is a view of a portion of the front frame carrying the gears, with a contrivance for throwing the wheels out of gear. Fig. 5 is a view of the loop for attachment to the tongue and bar N to support the suspending device. Fig. 6 shows a suspending contrivance to be attached under the tongue. Fig. 7 is a similar view showing the suspending device in a different position. Fig. 7^a is a similar view of a suspending device to be supported under the bar N. Fig. 8 is a perspective view showing one of the main bars forming the frame of the machine. Fig. 9 is a perspective view of a similar bar. Fig. 10 is a perspective view of a bar forming the axle of the machine. Fig. 11 is a view showing the machine arranged as a cornstalk-cutter.

A represents a metallic frame-bar bent at right angles at its ends, and having the journal-bearings W' formed in said ends. B is a bent bar forming the arched axle of my machine, having compound bends at its ends so as to form the spindles N', which are to be thrust in opposite directions through the perforations at W' in the extremities of A. C is a bent frame-bar which engages with the

frame-bar A by means of bolts passing through the perforations F F' in said bars. The three bars are thus bound together and form a stout economic frame for carrying the various parts of the machine.

The frame-bar A normally stands upright, B horizontal or nearly so, and C is revolved on the bolts at F F' upward until its upper edge is on or nearly on a level with the horizontal portion of section A.

M represents the tongue, having a slit *m* adapted to receive the frame-bar A, to which it is bolted by means of a pin P, passing through perforations in said tongue and bar. The forward end of the tongue is fastened by a similar pin or bolt *m'* to the frame-bar C.

N represents a brace connecting frame-bars A and C, so as to additionally reinforce the same.

A shaft *b* is journaled on frame C by means of metallic straps *c*. This shaft *b* carries two sets of beveled cog-wheels *d* and *d'* and on its extremity a sprocket-wheel K, which is actuated by chains from the sprocket-wheel *h*, mounted along with the carrying-wheel and on its inside next the machine.

The sets of beveled cog-wheels upon the shaft *b* engage with bevel cog-wheels (marked *rr'*) on the extremities of short shafts, (marked *ff'*), their other ends being journaled on the edge of bar C by means of straps *o*, and carrying on their extremities, beyond the bar C, sprocket-wheels *e e'*, which operate, by means of sprocket-chains *e²*, the sprocket-wheels *i i'* below the latter, revolving the shafts *g g'*, on which are carried hoes or choppers *h'*. The rear ends of the shafts *g g'* are journaled on the upper edge of the rear bar B by means of boxes *o'*, which permit of lateral adjustment of said shafts, and their forward ends are supported by loops *q Q* for suspending the same under the tongue M and bar N. These loops are bent as shown in Figs. 5 and 7^a and are provided with slots *m'* to receive bolts *y*, said bolts having their heads narrower in one direction than the other, so that they can be passed into the slots, and then by turning them they are securely locked. The lower part of the bolt is screw-threaded, as at *x*, and a swivel-frame or turnbuckle *u* is adjusted upon it, which, being revolved upon the screw-threaded bolt, is raised or depressed,

thus carrying up or down a box T, suspended to the same by a bolt s. The forward ends of shafts g and g' are journaled in the boxes T and of course are easily adjusted vertically by means of the same. Just above the box T a joint is provided in the bolt that connects the box T with the swivel u . This joint is provided to allow the rear ends of the shafts g and g' to be lifted or lowered, as hereinafter described.

w and w' are arms or braces entering slots w^2 in bar C, said slots allowing lateral movement either way, the purpose of said arms being to brace the supports or suspending devices. These arms may also be provided with swivels to lengthen or shorten them, as required, when the swivels u are operated.

The shafts g g' are constructed in the form of four-sided prisms with slots cut through them nearly from end to end and at right angles to one another.

The handles of the hoes are provided with spiral wire springs r^2 to break the jar of the blow upon the ground and allow of automatic adjustment to any inequalities in the surface of the ground.

The hoe-handles are inserted in the slots shown and described in the shafts g g' , and secured by suitable nuts r^3 and washers e^3 above and below the latter.

I is a contrivance for elevating and depressing the rear bar B. It consists of a piece of timber recessed at both ends, the forward end of which carries a lever n^3 , to which is attached a light chain n^4 , and at its rear end is provided with an idler-pulley, over which passes the chain and is attached to the bar B at D.

To convert the cotton-chopping machine into one for cutting up dead cornstalks on the ground, the machine is dismantled of the shafts and pulleys and a combination of knives Z is placed in position, being journaled under the bar by means of straps f^2 .

t on each of the three bars represents fish-bars in sets of two clamping them. By loosening these fish-bars a section can be removed from each bar, and by a joint in the shaft b a similar length of that shaft can be removed. By this means half the length of the machine, carrying one complete set of shafts, wheels, and pulleys, with one of the shafts g' carrying its proportion of the hoes, can be removed. The remaining parts may be brought together and firmly spliced into a compact machine, carrying a single set of hoes, with corresponding shafts and pulleys.

In Fig. 4 I have shown a contrivance for throwing the wheels out of gear, so that the machine can be moved without actuating the hoes. A rod p passes along parallel with rod b , engaging loosely the shafts f f' and also engaging by offsets the shaft b at l . The rod on the left is bent at right angles and made to cross shaft b , engaging it on its passage and extending a few inches beyond. Near this end there is a cleat m^4 , fixed beneath the

bar C and having in its end a recess m^5 in which to seat a lever R. The lever R, being placed in position at m^4 with the end of the rod at V, when operated by hand moves the rod p and also the shafts f f' right or left, as desired. The bevel-wheels o^4 are idler-wheels intended merely to keep the wheels r and r' in position. They rest loosely upon the shaft b and are kept closed against the wheels r r' by means of a spiral spring upon the shaft b . The boxes in which are journaled the shafts f f' , seated upon the edge of the bar C, are so constructed and provided with springs beneath that they follow the lateral movements of the rod p , thus keeping the shafts f f' always at right angles to the bar C.

The wheels of my machine are attached in the usual manner, preferably by split pins, as shown in the drawings, but other suitable means may be employed.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a device of the class described, the combination with the main frame thereof, of slotted shafts journaled therein, chopping-hoes yieldingly supported in said slots, means for adjusting the shafts vertically, and means for revolving the shafts from the main wheel-carrying shaft.

2. In a device of the class described, the combination with the main frame thereof, of hoe-carrying shafts journaled therein, hoes yieldingly supported in said shafts, means for elevating and depressing the rear and forward ends of said shaft, and a series of gearing to revolve the hoe-carrying shafts from the main drive-shaft.

3. In a device of the class described, the combination with the main frame thereof, of hoe-carrying shafts journaled therein, hoes carried by said shafts, gearing connected with said shaft and operated from the main drive-shaft, slots in the forward member of the frame, braces working in said slots, adjustable boxes connected to said braces and to the hoe-carrying shafts, and means for throwing the gearing into or out of operative position.

4. In a device of the class described, the combination with the main frame thereof, of hoe-carrying shafts journaled therein, gearing connecting said shafts with the main drive-shaft, means for throwing said gearing into or out of operative position, and means for separating the machine by detaching a section of the same by the fish-bars t and the jointed section in shaft b , so as to reduce the number of operating members thereof.

5. In a device of the class described, the combination with the main frame thereof, of hoe-carrying shafts journaled therein, gearing connecting said shafts with the main drive-shaft, means for throwing said gearing into or out of operative position, bracing means for the forward shaft, adjusting means for said bracing means, and springs encircling the handles of the hoes.

6. In a device of the class described, the combination with the main frame thereof, of hoe-carrying shafts journaled therein, hoes
5 elevating and depressing the rear and forward ends of said shafts, a series of gearing to revolve the hoe-carrying shafts from the main drive-shaft, an angular rod journaled in the forward end of the frame and
a carrying gears, and a hand-lever hinged to

the side of the frame and having connection with said angular rod by means of which the machine may be thrown into or out of operative position.

In testimony whereof I affix my signature 15
in presence of two witnesses.

JOHN NEALLY MOORE.

Witnesses:

H. E. WILLSON,
P. O. WILLSON.