B. J. LOWMAN.

COTTON CHOPPER.

APPLICATION FILED SEPT. 7, 1909.

966,845.

Patented Aug. 9, 1910.

2 SHEETS—SHEET 1.

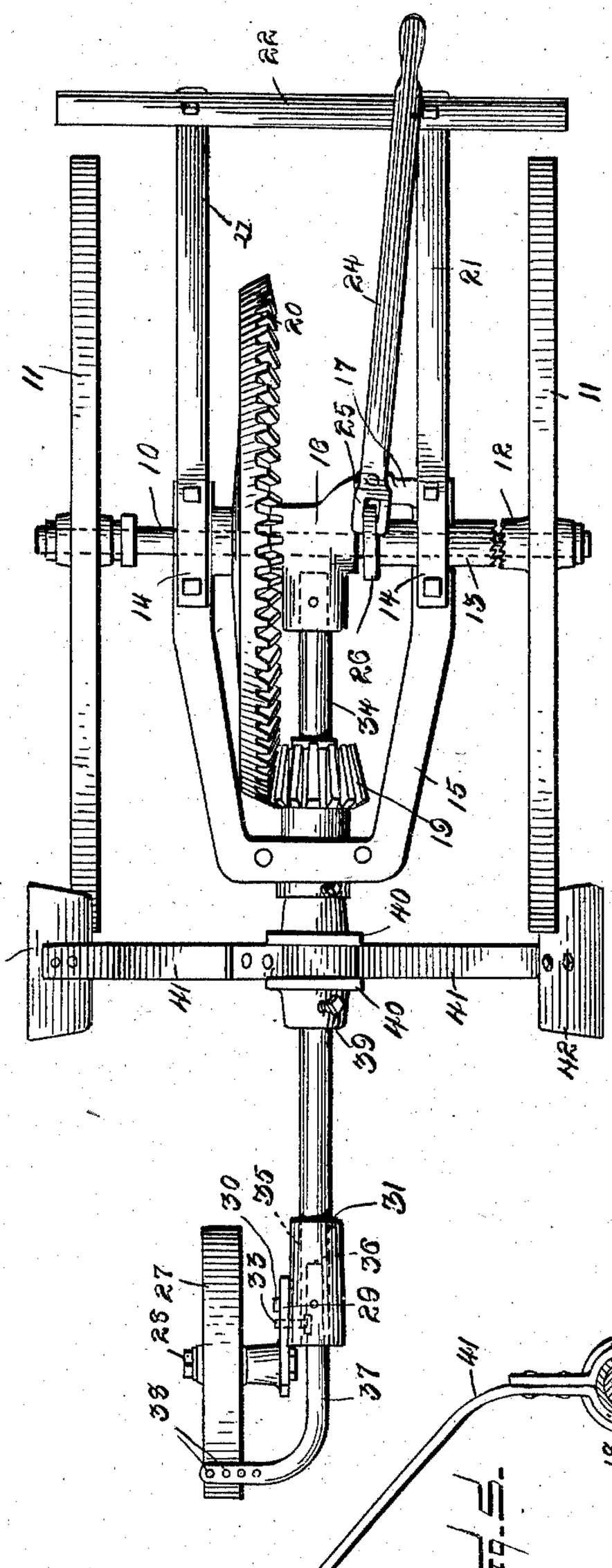


Fig. I.

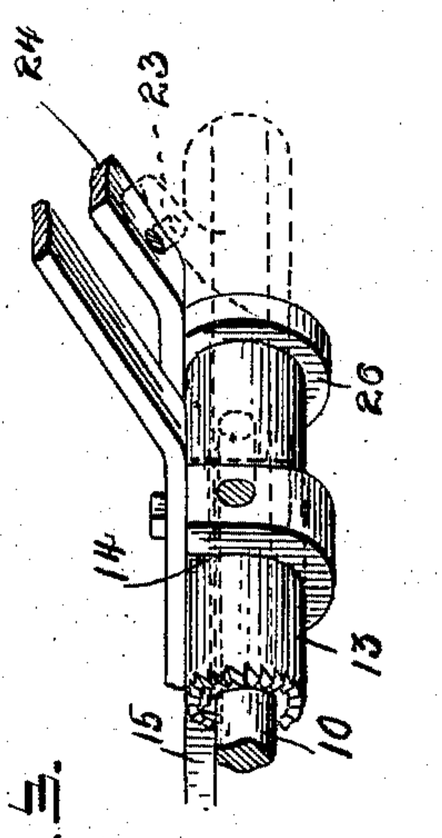


Fig. 2.

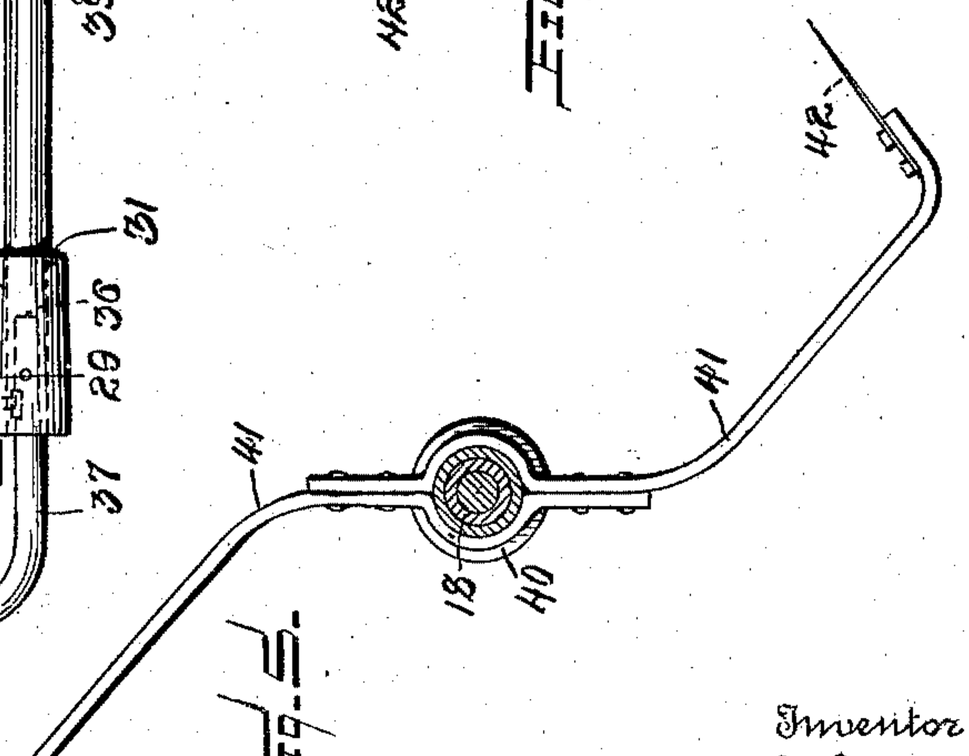


Fig. 3.

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2 SHEETS—SHEET 2.

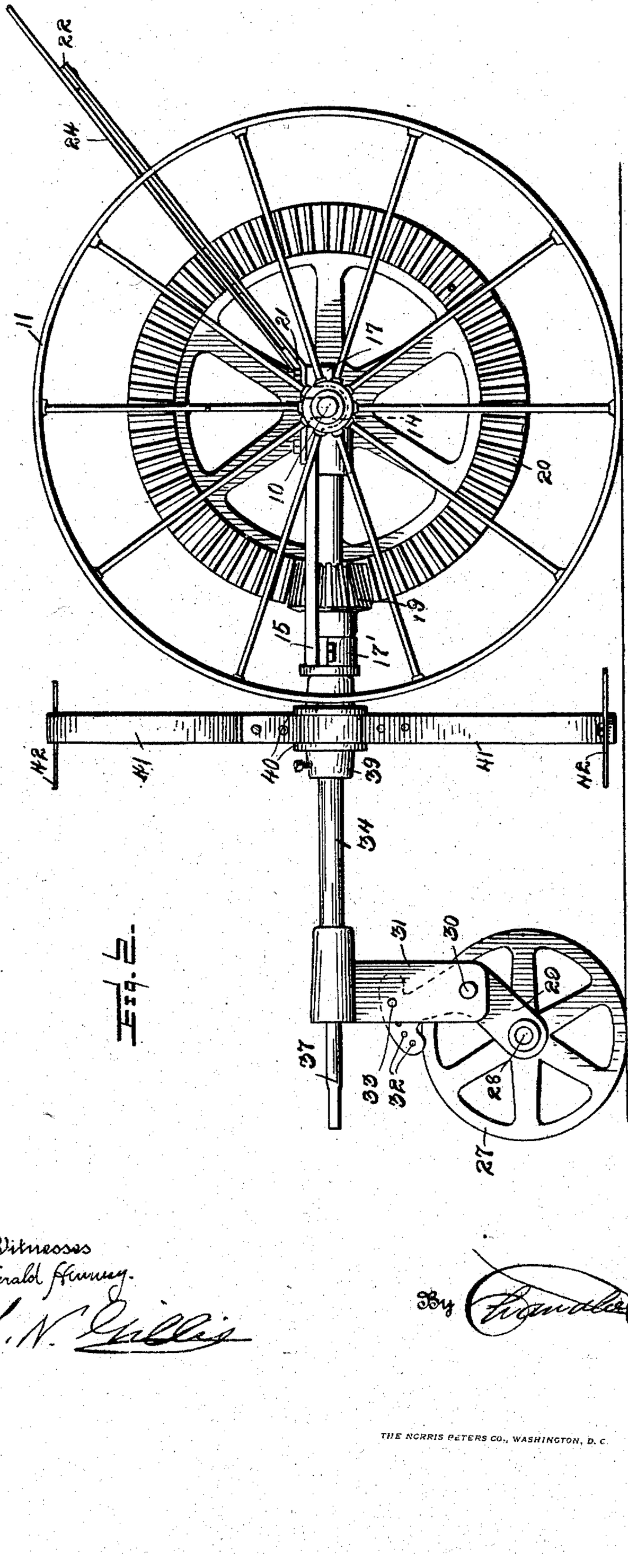


Fig. 2.

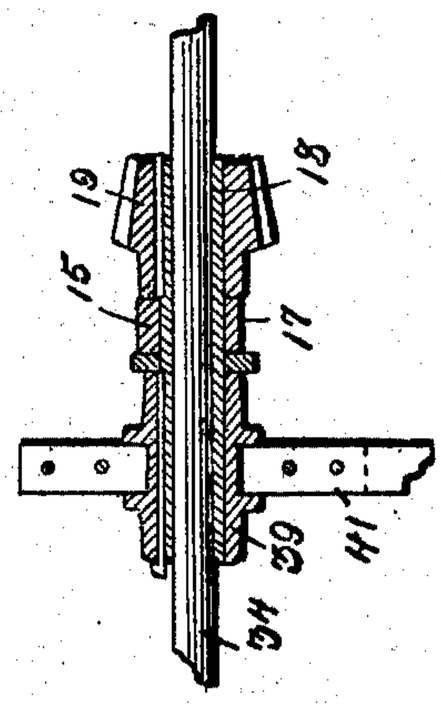


Fig. 4.

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# UNITED STATES PATENT OFFICE.

BENJAMIN J. LOWMAN, OF SHEFFIELD, ALABAMA.

## COTTON-CHOPPER.

966,845. Specification of Letters Patent. Patented Aug. 9, 1910.

Application filed September 7, 1909. Serial No. 516,501.

*To all whom it may concern:*

Be it known that I, BENJAMIN J. LOWMAN, a citizen of the United States, residing at Sheffield, in the county of Colbert, State of Alabama, 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.

This invention relates to cotton choppers and it has special reference to cotton choppers of the rotary, wheel supported type.

One object of the invention is to provide an improved form of frame construction for devices of this character.

A second object of the invention is to provide an improved form of driving means for devices of this character.

With the above and other objects in view, as will be hereinafter apparent, the invention consists in general of an improved wheel supported frame whereon is carried an improved chopper driving mechanism and choppers actuated thereby.

The invention further consists in certain novel details of construction and combinations of parts hereinafter fully described, illustrated in the accompanying drawings, and specifically set forth in the claims.

In the accompanying drawings, like characters of reference indicate like parts in the several views, and:—Figure 1 is a top plan view of a cotton chopper constructed in accordance with this invention. Fig. 2 is a side elevation of such a chopper. Fig. 3 is a detail view from the rear of the chopper showing the clutch mechanism, the view being partly in section. Fig. 4 is a detail longitudinal section showing the manner of carrying the chopper blades and their drive gear. Fig. 5 is a detail of the chopper blades.

The numeral 10 indicates a shaft whereon are mounted freely rotatable wheels 11 one of which is provided with a ratchet 12. At 13 is a slidable ratchet which is splined on the shaft 10 and is movable to engage the ratchet 12. This shaft is carried in bearings 14 formed on a frame comprising a substantially U-shaped member 15 and there is also provided an intermediate bearing 16 formed on an extension 17 extending inwardly from one of the arms of the U-shaped frame member. At the forward end of the U-shaped frame member is formed a bearing 17′ wherein is supported a sleeve 18 which is freely rotatable in the bearing and on this sleeve is keyed, or otherwise secured, a bevel gear 19 which meshes with a bevel gear 20 keyed, or otherwise securely fixed, upon the shaft 10.

The sides of the U-shaped frame 15 are bent upward as indicated at 21 to form handles and these handles are connected by a cross bar 22. Supported on a bracket 23 formed on the frame member 17 is a shifter lever 24 which is forked as at 25 to engage a rib 26 of the clutch member 13.

Supporting the forward end of the frame is a wheel 27 which is carried on a stub axle 28 fixed in a swinging member 29 pivoted as at 30 to a forward casting 31. The swinging member 29 is provided with an arcuate series of holes 32, the center of the arc being the axis of the pivot 30, and the member 31 is provided with a hole 33 with which the several holes of the series 32 are adapted to be brought into registry. A suitable pin or bolt may then be inserted through the registering holes and securely hold the swinging member from shifting. By this means the height of the forward end of the frame may be regulated to a nicety. Fixed in the bearing member 16 is a shaft 34 which passes through the sleeve 18 and has its forward end secured in an opening 35 formed at the upper end of the casting 31. This forward end of the shaft is recessed as at 36 and in the recessed end is carried a tongue 37 along which extends a series of bolt receiving apertures 38 for the purpose of attaching a draft clevis.

Secured to the sleeve 18 is a hub 39 provided with ribs 40 wherein are mounted resilient arms 41 each of which supports a chopper blade 42.

In the operation of the device the axle or shaft 10 is thrown out of gear with the tractor wheels 11 and the machine driven to the field of operation. The clutch member is then moved to engage the shaft with one of the wheels and the machine driven along the row. As the shaft 10 rotates the gear 20 will also rotate and this in turn will cause the rotation of the gear 19, sleeve 18 and hub 39, thus actuating the chopper blades to rotate the same and cause the usual chopping action. It is to be observed that the shaft 34 forms a substantial portion of the frame and that the sleeve 18 which ro-

tates thereon serves to hold the shaft in proper relation to the bight of the U-shaped frame 15.

There has thus been provided a simple and extremely strong construction of the type described and for the purpose specified.

It is obvious that minor changes may be made in the form and construction of this invention without departing from the material principles thereof. It is not therefore desired to confine the invention to the exact form herein shown and described, but it is wished to include all such as properly come within the scope of the appended claims.

Having thus described the invention, what is claimed as new, is:—

1. In a cotton chopper, an axle, a pair of wheels supporting said axle, a main frame supported on said axle, a frame member extending forwardly from said axle and forward of said main frame, a ground wheel supporting the forward end of said frame member, a sleeve rotatable on said frame member and extending beyond the main frame, chopper blades rotatable with said sleeve mounted thereon in front of the main frame, and means to connect one of the pair of wheels and the sleeve to rotate the sleeve as the wheel rolls along the ground, said means comprising a gear fixed on said sleeve, a gear meshing therewith fixed upon said axle, a clutch member on one of the wheels supporting the axle, a second clutch member splined to the axle, and a clutch lever to move the second member into and out of engagement with the first.

2. In a device of the kind described, an axle, a pair of tractor wheels supporting said axle, a clutch member formed upon one of said tractor wheels, a clutch sleeve slidable upon the axle, a U-shaped frame carried upon said axle and provided with suitable bearings for the reception of the axle, a bracket formed on said U-shaped frame member and provided with a bearing intermediate the first mentioned bearings, a bearing formed in the forward bight portion of the U-shaped frame, a shaft having one end secured to the bracket and passing through the bearing in the bight of the U-shaped frame, a sleeve rotatable on said shaft and in the bearing through which said shaft passes, a gear fixed on the sleeve and meshing with the first mentioned gear, a front wheel, a casting on the forward end of the shaft and provided with a downwardly extending portion, a swinging frame provided with an axle for the front wheel, means to regulate the height of said axle above the ground, a hub on the forward end of said sleeve, arms on said hub, and chopper blades carried at the extremities of said arms.

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

BENJAMIN J. LOWMAN.

Witnesses:

HOMER J. URQUHART,

H. B. URQUHART.