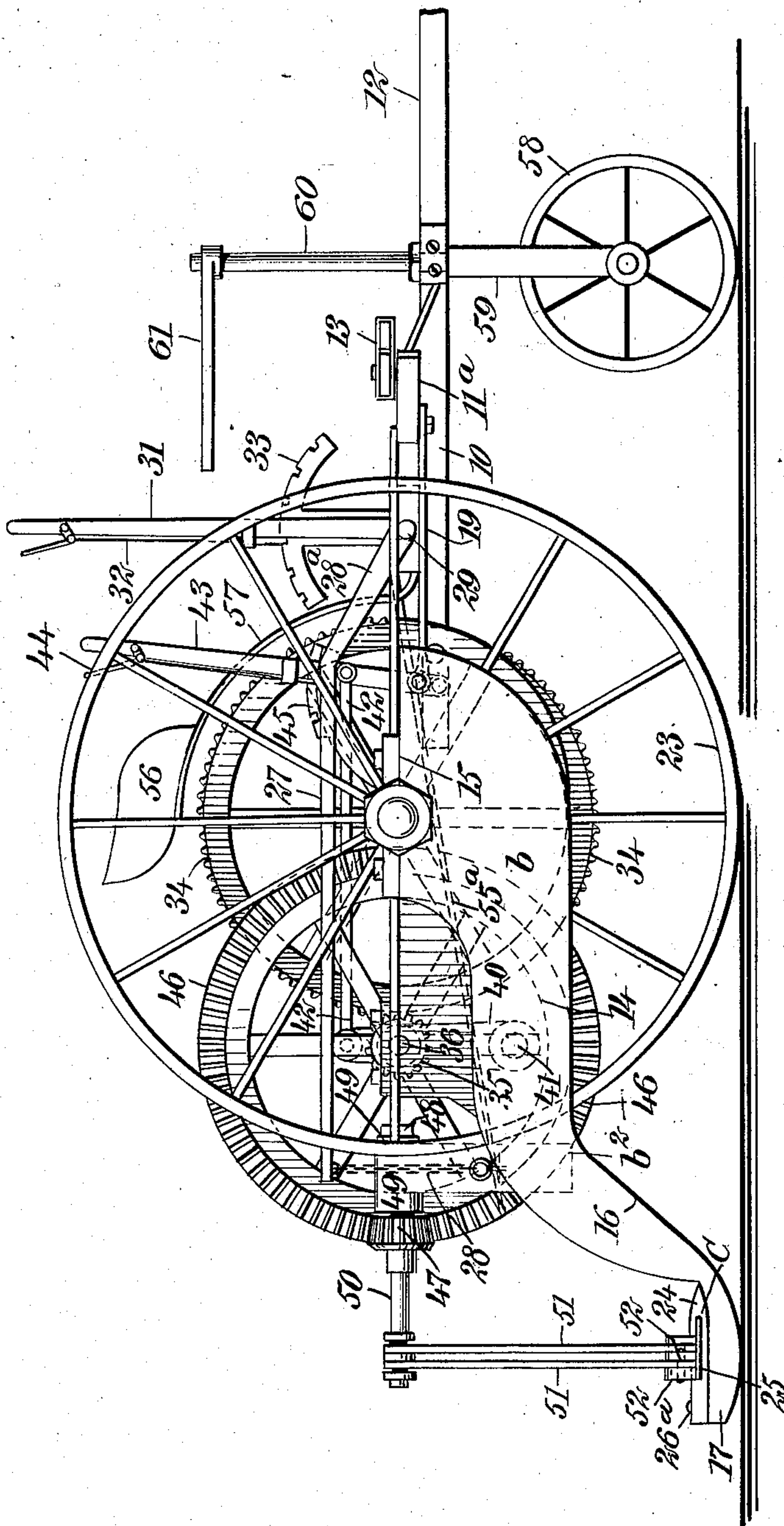


No. 858,947.

PATENTED JULY 2, 1907.

J. H. BROWN.
MOWING MACHINE.
APPLICATION FILED FEB. 5, 1906.

2 SHEETS—SHEET 1.



WITNESSES:

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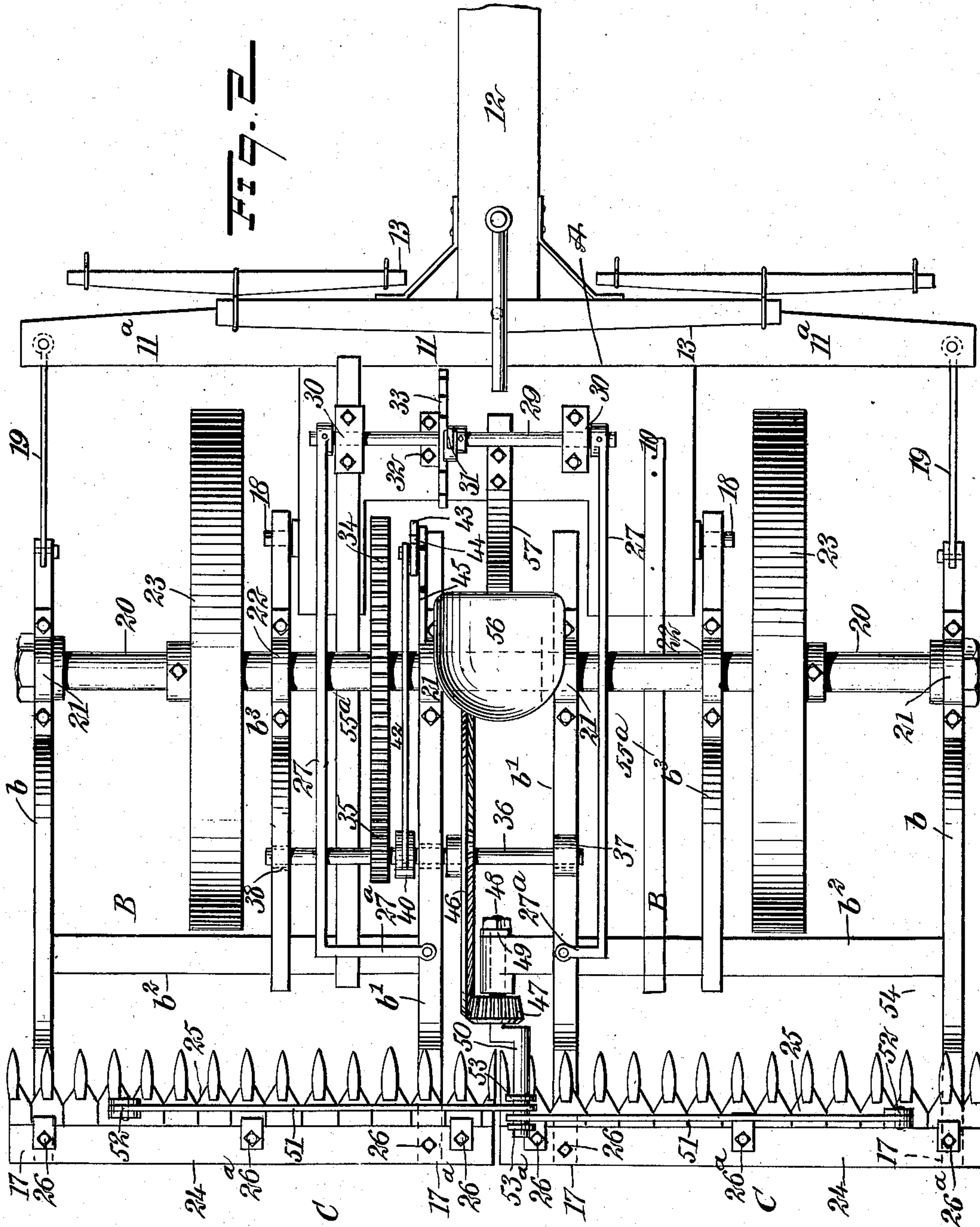
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UNITED STATES PATENT OFFICE.

JOHN HENRY BROWN, OF CARLIN, NEVADA, ASSIGNOR OF ONE-HALF TO FRANK BOGART, JR.,
OF CARLIN, NEVADA.

MOWING-MACHINE.

No. 858,947.

Specification of Letters Patent.

Patented July 2, 1907.

Application filed February 5, 1906. Serial No. 299,466.

To all whom it may concern:

Be it known that I, JOHN HENRY BROWN, a citizen of the United States, and a resident of Carlin, in the county of Elko and State of Nevada, have invented a new and Improved Mowing-Machine, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide a simple and economic form of mowing machine so constructed that it will be double acting, it being possible to employ two sickles each of which has pivotal support, enabling the sickles to rise and fall to accommodate themselves to rough or irregular ground, means being provided for simultaneously lifting the sickles when the machine is to be moved to various points in the field or in going to and coming from the field.

The invention consists in the novel construction and combination of the several parts as will be hereinafter fully set forth and pointed out in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the machine; and Fig. 2 is a plan view of the same.

In the construction of the machine, three frames are employed, namely; a front frame A and two frames B arranged side by side at the rear of the front frame. The front frame A usually consists of a platform 10 having a front bar 11, the ends 11^a of which extend beyond the sides of the platform, and define practically the width of the machine. A bolt or tongue 12 is secured to the platform 10 on the front bar 11 in any suitable or approved manner, and its forward frame A is provided with the customary doubletrees 13. Each rear frame B is of the same construction, and said frames are placed side by side. The frames B each consist of an outer side member *b* and an inner side member *b'*, the two side members *b* and *b'* being identical in formation, comprising an upper forward wide section 15 having a flat upper edge and an intermediate rearwardly extending horizontal narrower section 14, and a downwardly and rearwardly curved terminal section 16. The terminal section 16 being attached to or integral with a shoe 17, as is shown in Fig. 1. In the further construction of each frame B, a cross bar *b*² connects the outer and inner side members *b* and *b'*, and an intermediate beam *b*³ is likewise provided, which is attached to the rear connecting bar or member *b*². The side members *b'* are of substantially the same construction as the members *b*, except that they are higher at their upper central portions, as is also shown in Fig. 1. The forward ends of the intermediate bar members *b*³ of the

rear frames B are pivotally mounted upon studs 18 which extend from the sides of the platform 10 and the outer side members *b* of said members, having hinged connection at their forward ends with rods 19, the said rods being secured to the extensions 11^a from the platform, as is best shown in Fig. 1, and in this manner a connection is effected between the rear frames and the forward frame of the machine.

An axle 20 of the machine is passed through suitable bearings 21 located on the flat upper portions of the frame members *b* and *b'*, the axle passing loosely through such bearings and the said axle 20 likewise passing loosely through bearings 22 formed upon the intermediate bars or members *b*³ of the said frames B, and two supporting wheels 23 are secured on the axle 20, the said supporting wheels being located between the outer side members *b* of the rear frames, and the intermediate bars or members *b*³.

Two cutting devices or sickles are employed, one for each of the rear frames B, being supported upon shoes 17 at the lower rear ends of said frames. The cutting devices or sickles extend slightly beyond the inner side portions of the inner shoes 17, and likewise some distance beyond the outer faces of the outer shoes, as illustrated in Fig. 1, and each cutting device or sickle consists of the customary finger bar 24 and cutting bar 25. The finger bars 24 are removably secured to the shoes 17 by means of bolts 26 and 26^a, or their equivalents, and some of the bolts 26^a are also employed to hold the upper extension of the cutter bars in place. It is therefore obvious that the finger bars and their accompanying cutter bars may be readily removed whenever desired. It is also obvious that the finger bars and their accompanying cutter bars will automatically ascend or descend to accommodate themselves to any inequalities in the ground, sufficient play being provided where the sections are connected.

The rear frames B rock upon the axle 20 and so may be simultaneously raised or lowered in the following manner: Lever arms 27 are arranged one adjacent to the inner edge of each rear frame B, and said lever arms extend in direction of the front and rear of the machine and are preferably formed as shown in Fig. 1, wherein the body portions of the arms are straight and at their rear ends the body portions are provided with centrally extending bracket members 27^a at right angles to the body of said lever arms, and these bracket members have chains 28 attached thereto, said chains being connected in any suitable and approved manner with the connecting members or bars *b*² of said rear frames. The forward ends 28^a of the said lever arms 27 are carried downward and forward and are secured

to the end portions of a shaft 29 journaled in suitable bearings 30 secured to the platform 10, as is best shown in Fig. 2. A hand lever 31 is secured to the shaft 29, which hand lever is provided with a thumb latch 32 adapted for engagement with the rack 33, also supported by the platform 10.

A large gear 34 is secured upon the axle 20, and this gear meshes with a pinion 35 located on a drive shaft 36. The right hand end of the said shaft 36 is loosely mounted in ordinary bearings 37, while the opposite or left hand end of the shaft is mounted to turn and slide in bearings 38. The pinion 35 and shaft 36 are shifted to make and break connections between said pinion and the large gear 34 in the following manner: A vertical arm 40 is pivoted to the inner side member *b'* of the left hand rear frame as shown at 41 in Fig. 1, and the upper portion of the said arm 40 loosely receives the shaft 36, which shaft, it may here be stated, is likewise loosely passed through the inner side member *b'* of the left hand rear frame B, and the upper end of the said arm 40 is connected with a link 42, and said link in its turn is connected with a hand lever 43 suitably fulcrumed upon the forward end of the said inner side member *b'* of the left hand frame B. The said lever 43, and pinion 35 may be brought into or carried out of gear with the driving gear 34 whenever so desired.

A beveled gear 46 is secured upon the drive shaft 36 and said beveled gear meshes with a beveled pinion 47 secured upon a short shaft 48 journaled in suitable bearings at the upper end of a standard 49, which standard is carried by the rear connecting frame or member *b''* of the right hand frame B, as is best shown in Fig. 1. This shaft 48 at its rear end is provided with a crank arm 50 and links 51 are connected with the said crank arm and with the cutter bars 25, as is shown at 52 in Fig. 2. Thus by the rotation of the crank arm 50, simultaneously reciprocating movement is imparted to the two cutter bars and the links 51 are held in place on the crank arm 50 by means of suitable collars 53 secured to the said arm.

In order to make sure that the cutter bars shall be held down to their work or instantly returned to the ground after having risen to pass an obstruction, springs 55^a are secured to the platform 10, which springs pass down beneath the axle and have bearing upon the cross bars of the frames B.

In order to guide in a convenient manner, a pilot wheel 58 having suitable bearings 59, is pivotally mounted at the rear portion of the tongue 12, and a post 60 from the bearings 59 extends upward and is provided with an attached handle 61 which is within convenient reach from the driver's seat, but said pilot wheel may be otherwise placed, if so desired. The driver's seat 56 is supported by a standard 57 secured to the platform 10, but said seat may be otherwise supported and located.

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

1. In mowing machines, a wheel supported frame comprising a front frame and rear frames placed side by side and having hinged connections with the front frame, the side pieces of which rear frames terminate in horizontal shoes adapted to travel on the ground, a pair of sickles, one supported on the shoes of each of the said rear

frames, a drive shaft and driving connection between the cutter bars of the sickles and the drive shaft operating the cutter bars simultaneously in the same direction.

2. In a mowing machine, a wheel supported frame comprising a front frame and rear frames placed side by side and having hinged connection with the front frame, an axle loosely passed through the rear frames serving as a fulcrum therefor, downward and rearward extensions from each of said rear frames, each of said extensions terminating in shoes, a sickle for each frame mounted on the shoe, connected therewith, and means for simultaneously driving the cutter bars of both sickles in the same direction from the axle of the wheel supported frame.

3. In a mower, a front frame provided with a draft device, rear frames arranged side by side and having hinged connection with the front frame, an axle passed loosely through the rear frames and serving as a fulcrum therefor, supporting wheels on said axle, downward and rearward extensions from the said rear frames, each of said extensions terminating in a shoe, a finger bar for each rear frame secured to the shoes for the particular frame, cutter bars mounted to slide in the finger bars, a crank shaft, links carried by the crank and connected with the cutter bars, and means for driving said crank shaft from the axle of the machine.

4. In a mower, a front frame provided with a draft device, rear frames arranged side by side and having hinged connection with the front frame, an axle passed loosely through the rear frames and serving as a fulcrum therefor, supporting wheels on said axle, downward and rearward extensions from the said rear frames, each of said extensions terminating in a shoe, a finger bar for each rear frame secured on the shoes for each particular frame, cutter bars mounted to slide in the finger bars, a crank shaft, links carried by the crank, and connected with the cutter bars, and means for driving said crank shaft from the axle of the machine.

5. In a mower, the combination with a wheel supported frame consisting of a front section, two rear sections arranged side by side having hinged connection with the front section, and a draft device connected with the front section, of downward and rearward extensions from the rear portions of the rear frame sections, each of said extensions terminating in a shoe, a sickle for each rear frame removably connected with the shoes of the section to which the sickle belongs, a crank shaft and driving connections between the crank and the cutter bars of the sickles, means for driving the crank shaft from the axle of said frame, and a spring attached to the forward section of the frame, exerting downward pressure upon the rear sections of the frame, the said rear sections of the frame being adapted to be automatically raised and lowered when the finger bars of the sickles encounter an obstruction or are on uneven ground, and means for raising and lowering the sickle ends of said rear extensions of the frame.

6. In a mowing machine, the combination with a forward frame, a draft device therefor, a pilot wheel carried by the draft device, two rear frames located side by side, hinged connection between the rear frames and the forward frame, an axle loosely passed through the rear frames acting as a fulcrum therefor, supporting wheels secured to the said axle and a driving gear carried by said axle, of downward and rearward extensions from the rear portions of the rear frames, which extensions terminate in shoes, sickles one supported upon the shoes of each rear frame, a crank shaft, link connections between the crank and the cutter bars of said sickles, a driven shaft provided with a pinion for engagement with the gear on the axle, a gear connection between the driven shaft and the crank shaft, means for shifting the pinion to and from the driving gear on the axle, and means for raising and lowering the rear frames.

7. In a mowing machine, the combination with a forward frame, a draft device therefor, a pilot wheel carried by the draft device, two rear frames located side by side, hinged connections between the rear frames and the forward frame, an axle loosely passed through the rear

frames acting as a fulcrum therefor, supporting wheels
secured to the said axle and a driving gear carried by
the said axle, of downward and rearward extensions from
the rear portions of the rear frames, which extensions
5 terminate in shoes, sickles supported on the shoes of each
rear frame, a crank shaft, link connections between the
crank and the cutter bars for the said sickles, a driven
shaft provided with a pinion for engagement with the
gear on the axle, a gear connection between the driven
10 shaft and the crank shaft, means for shifting the pinion

to and from the driving gear on the axle, means for rais-
ing and lowering the rear frames, and a spring carried by
the forward frame exerting downward pressure upon the
rear portion of a rear frame, substantially as described.

In testimony whereof I have signed my name to this 15
specification in the presence of two subscribing witnesses.

JOHN HENRY BROWN.

Witnesses:

THOMAS SENTER,
H. GALLI.