

No. 681,818.

Patented Sept. 3, 1901.

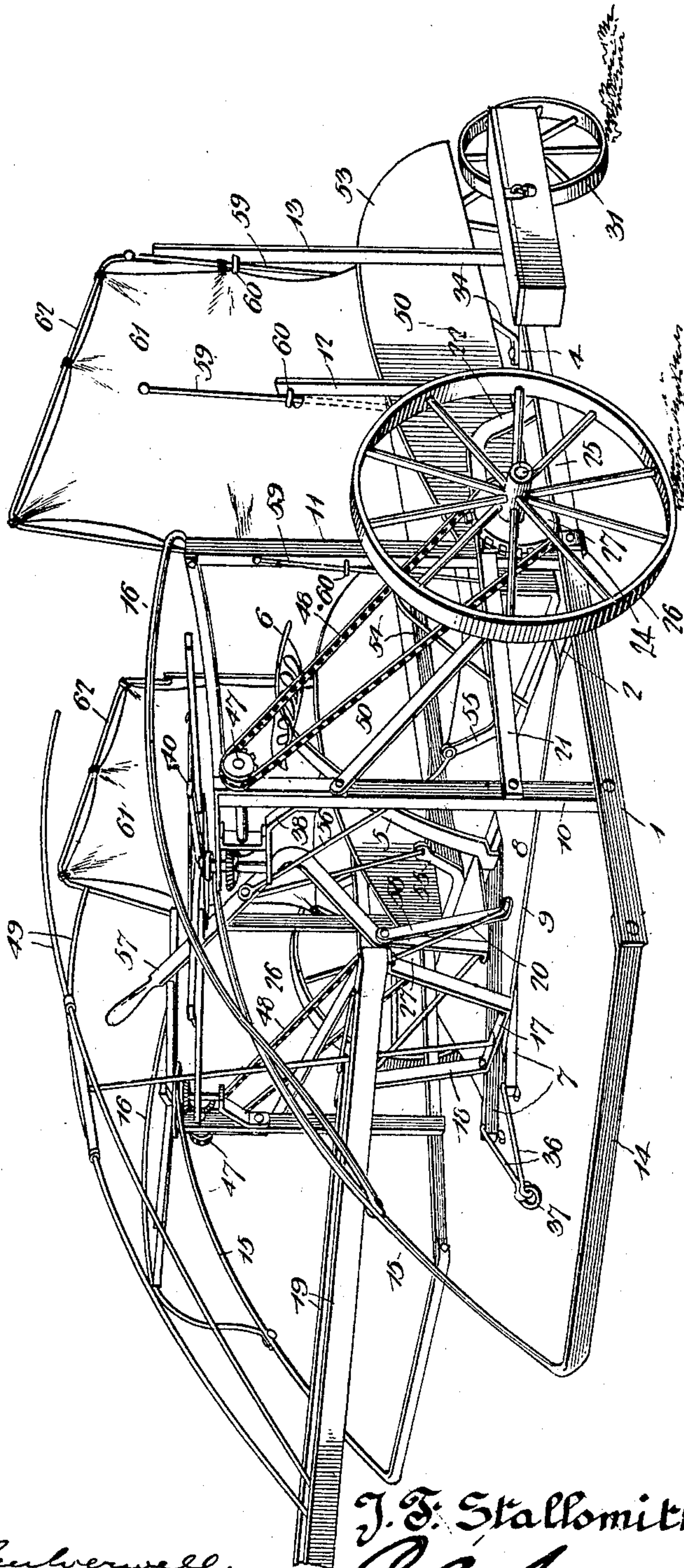
J. F. STALLSMITH.
CORN HARVESTER.

(Application filed Dec. 15, 1900.)

(No Model.)

3 Sheets—Sheet 1.

Fig. 5.



Witnesses

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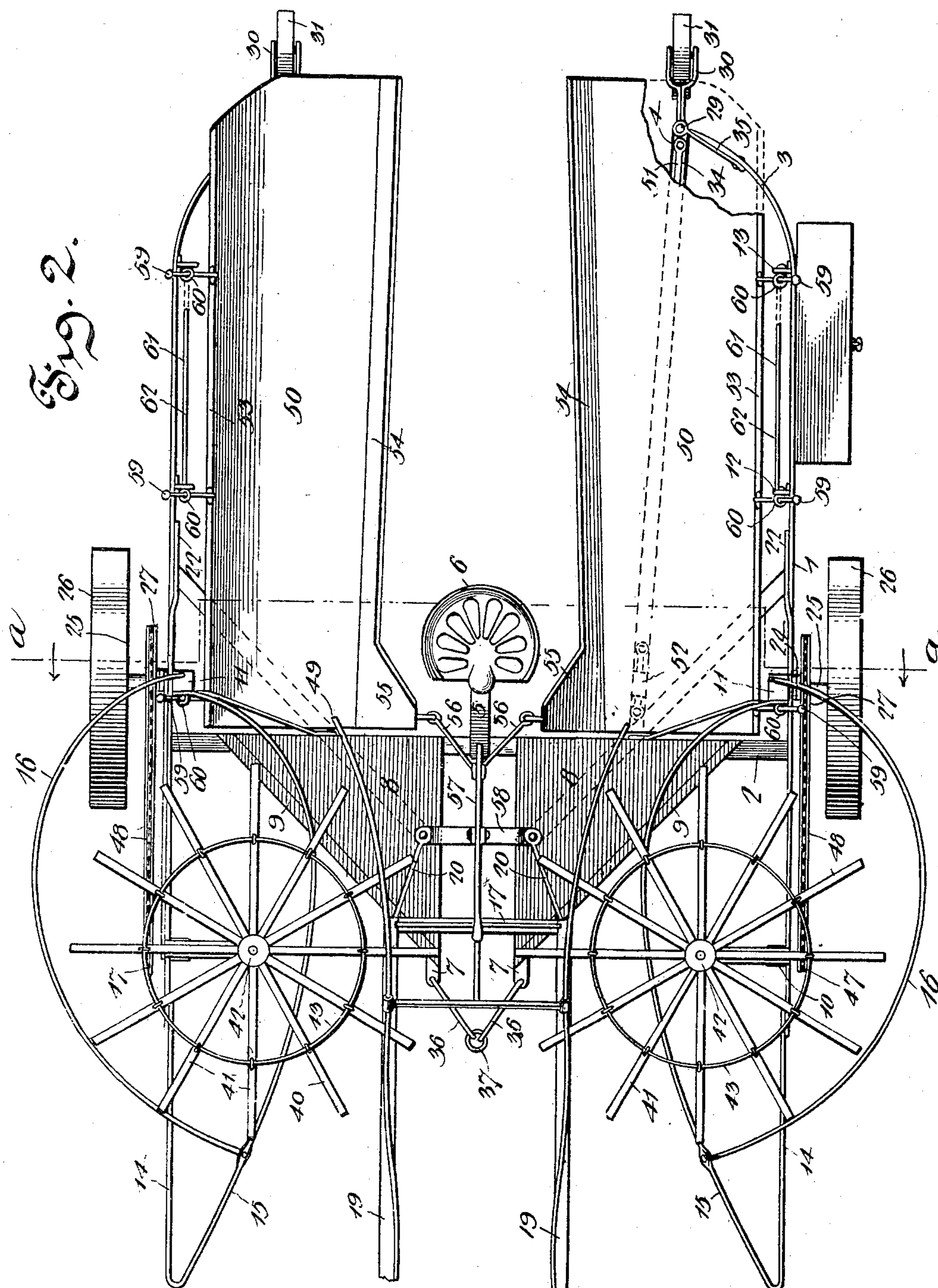
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3 Sheets—Sheet 2.



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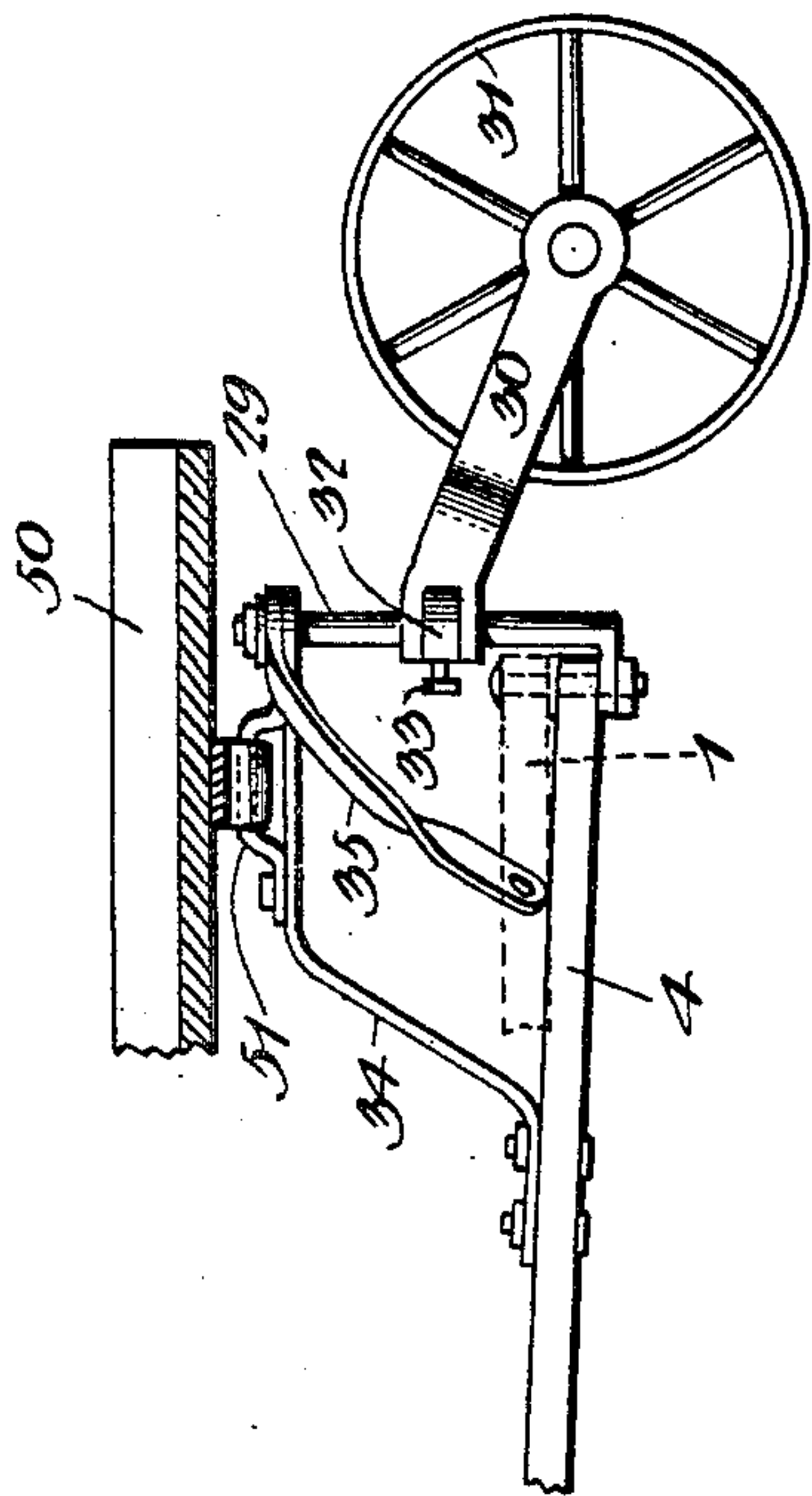


Fig. 3.

Fig. 4.

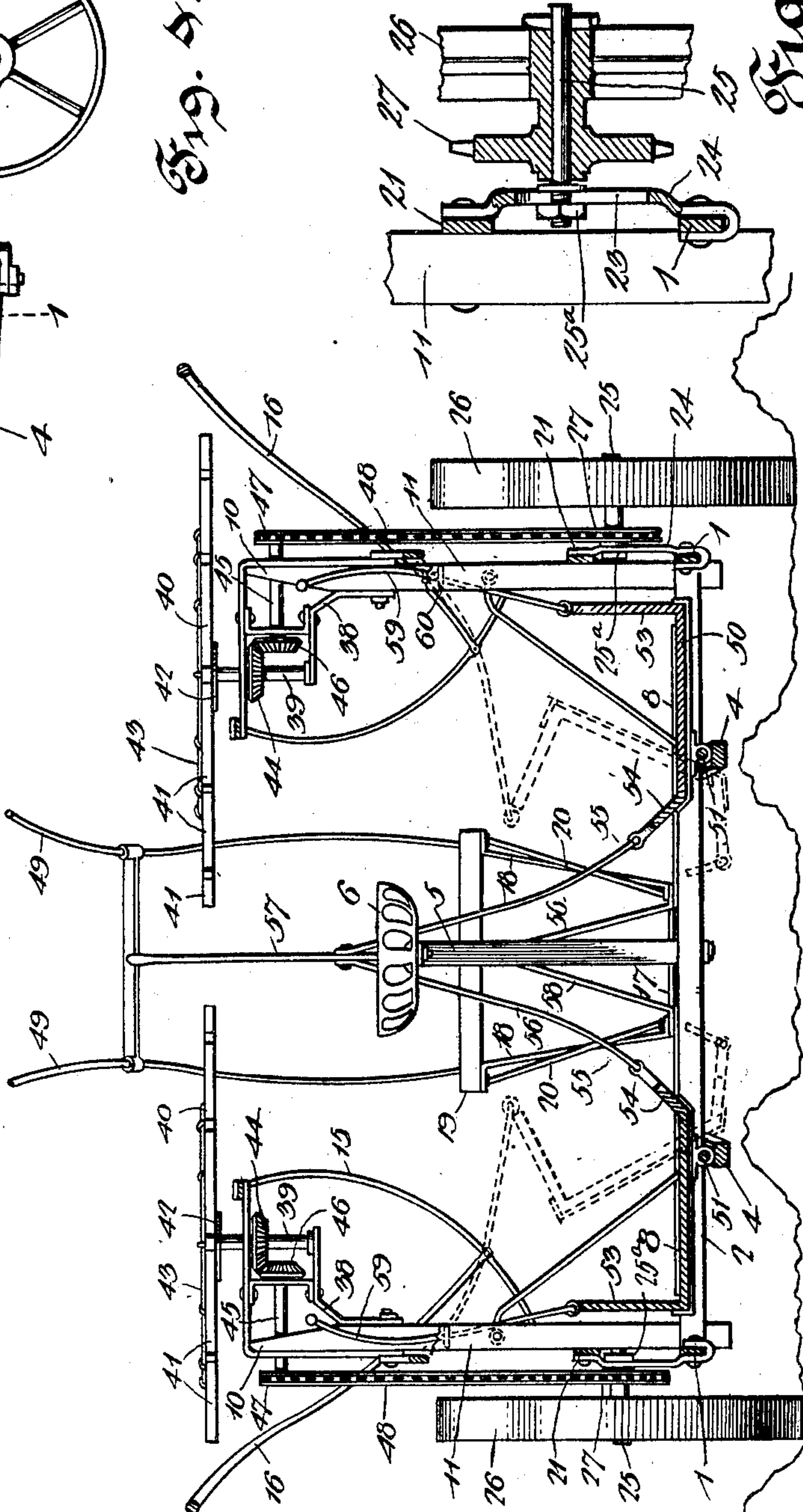


Fig. 5.

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UNITED STATES PATENT-OFFICE.

JOSEPH FRANKLIN STALLSMITH, OF TOPEKA, KANSAS.

CORN-HARVESTER.

SPECIFICATION forming part of Letters Patent No. 681,818, dated September 3, 1901.

Application filed December 15, 1900. Serial No. 39,992. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH FRANKLIN STALLSMITH, a citizen of the United States, residing at Topeka, in the county of Shawnee and State of Kansas, have invented a new and useful Corn-Harvester, of which the following is a specification.

My invention is an improved corn-harvesting machine; and it consists in the peculiar construction and combination of devices hereinafter fully set forth and claimed.

One object of my invention is to effect improvements in the mechanism for cutting the standing cornstalks and disposing the same on the receiving-tables.

A further object of my invention is to effect improvements in the means for receiving the cut cornstalks, collecting the same, and dumping the same in bundles on the ground.

In the accompanying drawings, Figure 1 is a perspective view of a corn-harvester constructed in accordance with my invention. Fig. 2 is a top plan view of the same. Fig. 3 is a vertical transverse sectional view of the same, taken on a plane indicated by the line *a a* of Fig. 2. Fig. 4 is a detail view of one of the trailing supporting-wheels and its connection. Fig. 5 is a detail sectional view of the means for vertically adjusting the frame.

I will first describe the construction of the main frame.

A pair of side bars 1 of suitable dimensions are connected together at a suitable distance from their front ends by a cross-bar 2. The rear ends of the side bars are curved inwardly, as at 3, and diagonally-disposed bars 4 connect said inturned rear ends of said side bars 1 to the said cross-bar 2. On the center of the cross-bar 2 is secured a spring-bar 5, which supports the seat 6. A pair of longitudinally-disposed bars 7 project from the said cross-bar 2 and are parallel with each other, said bars 7 being secured to said cross-bar 2 at suitable distances from the center thereof. Triangular platforms 8 are secured on said cross-bar 2 and said longitudinally-disposed bars 7, the front sides of said platforms being oblique to the line of draft, and at the said front sides of the said platforms are the obliquely-disposed cutter-blades 9. To each of the side bars 1, at a suitable dis-

tance from the front end thereof, is secured the lower end of a vertical standard 10. A similar vertical standard 11 is secured to each side bar 1 at a suitable distance in rear of the bar 10. A suitable standard 12 is disposed in rear of the standard 11 and has its lower end secured to said bar 1, and a suitable standard 13 is disposed in rear of standard 12 and has its lower end secured to the bar 1. To the front end of the side bar 1 is secured a guide-bar 14, which first extends forwardly, is then bent inward, extends upward and rearward, as at 15, and has its rear upper end secured to the front side of standard 11, at the upper end thereof. A curved bar 16 connects each standard 11 with one of the bars 15, said bars 15 and 16 describing a figure resembling an ellipse when viewed from above, as shown in Fig. 2. The platforms 8 are connected together near their front ends by an U-shaped yoke 17, having upturned standards 18, to which are secured the rear ends of the shafts or draft-thills 19. Suitable braces 20 extend from the rear ends of the shafts to said platforms 8. Longitudinally-disposed bars 21 connect the respective standards 10 and 11 at a suitable distance above the side bars 1, and the rear ends of said bars 21 are curved and extended downward and attached to the side bars 1, as at 22. On the outer side of each standard 11 is a vertical bar or plate 24, having a vertical slot 23, forming a guideway for an adjustable spindle 25. Said spindles are enlarged near their inner ends to form flanges that bear against the outer sides of the plates or bars 24 and are secured on said bars or plates at any desired vertical adjustment by means of nuts 25^a, and said spindles carry the supporting and traction wheels 26, each of which has on its inner side a sprocket-wheel 27, that revolves therewith. It will be understood that by adjusting the spindles 25 vertically the frame may be raised or lowered, as may be required. To the rear ends of the bars 1 and 4 are secured vertical rods or standards 29. Forks 30 are pivotally attached to said rods or standards, and trailing wheels 31, which support the rear ends of the frame, are mounted in the said forks. On the standards 29 are vertically-adjustable collars 32, which engage the pivotal ends of the forks and are provided with set-screws 33, which engage

said standards. It will be understood that by this construction and combination of devices the forks may be vertically adjusted on the standards 29 and secured at any desired vertical adjustment, and hence raise or lower the rear ends of the main frame, as may be required. Braces 34 connect the upper ends of the standards 29 and the bars 1. Laterally-disposed braces 35 connect the upper ends of said standards with the curved rear portions of said side bars 1. Suitable draft-links 36 are attached to the front ends of the longitudinally-disposed bars 7 and have their front ends connected together by a link 37, to which a singletree may be attached, as will be understood. A bracket 38, of suitable construction, is secured to the upper end of each standard 10 and extends inward therefrom. In each of said brackets is journaled a vertical shaft 39, which carries at its upper end a revoluble sweep-reel 40, comprising a series of radial arms 41, a central hub 42, and a ring 43, concentrically disposed with relation to the hub and connecting the arms 41 together at a suitable distance from the outer ends thereof. On each shaft 39 is a miter gear-wheel 44. A horizontally-disposed shaft 45 is disposed in bearings formed in each of the standards 10 and in each of said brackets 38. The said shafts 45 are provided at their inner ends with miter gear-wheels 46, which engage said miter-gears 44 and are provided at their outer ends with sprocket-wheels 47, which are connected to the sprocket-wheels 27, that revolve with wheels 26, by means of endless sprocket-chains 48. Said sprocket-chains are composed of detachable links, whereby they may be lengthened or shortened to enable the blocks 24 to be vertically adjusted in the manner and for the purpose hereinbefore described.

It will be evident from the foregoing description and by reference to the drawings that when the machine is in motion power will be conveyed from the wheels 26 to the sweep-reels 40 and that the latter will be rotated so that their inner sides sweep rearwardly above the cutting-blades 9. Suitable fender-bars 49 are attached to the shafts or draft-thills and extend upward and rearward and over the inner sides of the sweep-reels 40. Said fender-bars 49 coact with the bars 15 to guide the rows of cornstalks and dispose the same in the paths of the revolving sweep-reels, so that the cornstalks are caught by the radial arms of the sweep-reels and by said radial arms and by the rings 43 on said sweep-reels maintained in such position as to cause the stalks to be cut by the obliquely-disposed blades 9, and said sweep-reels and said fender-bars 49 and curved bars 15 coact after the stalks have been cut to cause the same to fall rearwardly from the platforms 8 onto the dump-tables 50, which receive the said stalks. The bars 15 also serve to raise the fallen or bent stalks and cause the same to be cut and disposed of by the means and

in the manner hereinbefore stated. The receiving and dump tables 50 are disposed longitudinally and are supported by the rearwardly-extending portions of the main frame formed by the bars 14. The said tables are slightly inclined longitudinally, their rear ends being elevated and pivotally connected or hinged to the braces 34, as at 51. The front ends of the said tables are pivotally connected or hinged to the bars 4, as at 52. Each dump-table has a guard 53 on its outer side and a guard 54 on its inner side, the guards 54 being much lower than the guards 53. Each table is connected at its front end by a laterally-extended arm 55 to a link-rod 56. The said link-rods are connected to a lever 57, which is mounted on a standard 58, that connects the inner portion of the platform 8. Hence by means of this lever 57 the tables 50 may be disposed in such position as to enable them to collect the cut cornstalks, as shown in Figs. 1, 2, and 3, and the said tables may be dumped by raising their outer sides and lowering their inner sides, so as to cause them to discharge their contents inwardly, so that the corn collected by the two tables may be simultaneously discharged therefrom and caused to fall in a single bundle onto the ground between the rows. A series of rods 59 are flexibly connected at their inner ends to the upper sides of the guards 53. The said rods 59 are guided and supported in eyebolts 60, secured to the standards 11, 12, and 13. When the tables 50 are disposed in the position shown in full lines in Fig. 3 to catch the cornstalks, the said rods 59 are disposed in substantially vertical positions. When the said tables are turned on their pivots in order to dump the corn, as hereinbefore described, the said rods 59 are disposed in substantially horizontal positions and bridge the spaces between said tables and the standards on the outer sides of the frame and serve to collect and support the corn which is cut while the tables are being dumped. When the latter are returned to their normal positions, the corn collected by the rods 59 drops therefrom onto the tables, as will be understood. The positions assumed by the tables and the rods 59 when the tables are dumped are indicated in dotted lines in Fig. 3. The said rods 59, as will be understood, form lateral extensions of the outer sides of the tables and serve to connect the latter with the sides of the main frame.

In order to prevent the operation of the machine from being interfered with by the wind on a windy day, I provide fenders 61, which comprise frames 62, secured to the standards 11, 13, and canvas or other suitable cloth stretched and attached to said frames.

In practice I prefer to construct the frame of the machine principally of angle-iron; but the frame may be constructed of any suitable material and braced by any suitable means.

I do not desire to limit myself to the pre-

cise construction and combination of devices herein shown and described, as modifications may be made therein without departing from the spirit of my invention.

5 Having thus described my invention, I claim—

1. In a machine of the class described, the combination with a main frame, a cutting mechanism on the front side thereof, a longitudinal-disposed dumping-table in rear of the cutting mechanism, means to turn the said dumping-table, and rods flexibly connected to the outer side of the dump-table and having guides in one side of the main frame, so that when said table is turned to dump the contents therefrom, said rods serve to collect the corn cut while said table is being dumped and to discharge said corn onto said table when the latter reassumes its normal position, substantially as described.

2. In a corn-harvester, a main frame having cutters on its front side, side standards, draft-thills, sweep-reels revoluble in horizontal planes and disposed above the cutters, fender-bars 49 attached to the thills, disposed within and passing over said sweep-reels, and guide-bars 14, on the sides of the main frame, projecting forwardly therefrom, and having rearwardly and upwardly extending guide portions 15 disposed opposite said fender-bars; passing under the inner sides of said sweep-reels, and having their rear ends attached to said standards, said guide and fender bars forming guideways between them to direct the standing corn to the cutters and reels, substantially as described.

3. In a machine of the class described, the combination of a main frame, a cutting mechanism, a pair of longitudinally-disposed piv-

otally-mounted dumping-tables, spaced apart, and located in rear of the cutting mechanism, said tables having guards at their inner and outer sides, a lever and connections between the same and the tables to dump the latter and discharge their contents into the space between said tables, and rods flexibly connected to the outer guards of said dumping-tables, the sides of the main frame having guides for the said rods, substantially as described.

4. In a corn-harvester, a main frame having cutters on its front side, side standards, draft-thills, sweep-reels revoluble in horizontal planes and disposed above the cutters, fender-bars 49 attached to the thills, disposed within and passing over said sweep-reels, guide-bars 14, on the sides of the main frame, projecting forwardly therefrom, and having rearwardly and upwardly extending guide portions 15 disposed opposite said fender-bars, passing under the inner sides of said sweep-reels, and having their rear ends attached to said standards, said guide and fender bars forming guideways between them to direct the standing corn to the cutters and reels, and outwardly-curved bars 16, disposed beyond the outer sides of said sweep-reels, said bars 16 having their front ends attached to said bars 15 and their rear ends attached to said standards, substantially as described.

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

JOSEPH FRANKLIN STALLSMITH.

Witnesses:

WINNIFRED PRESCOTT,
JAMES M. RHODES.