

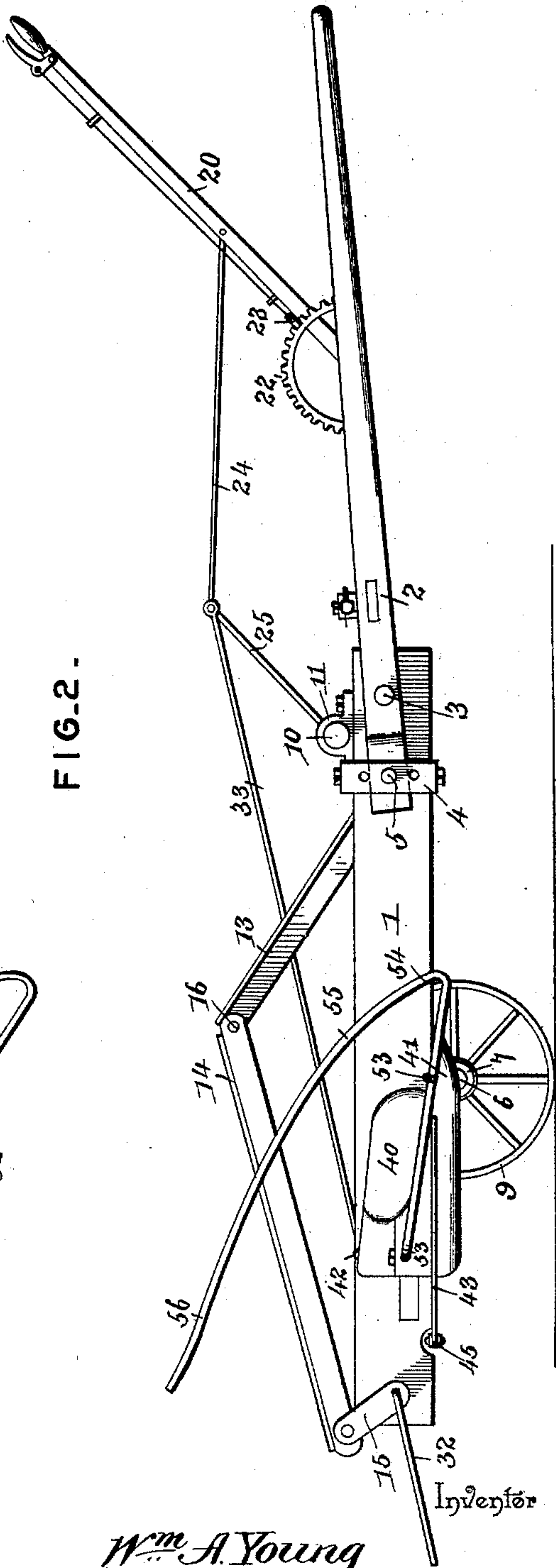
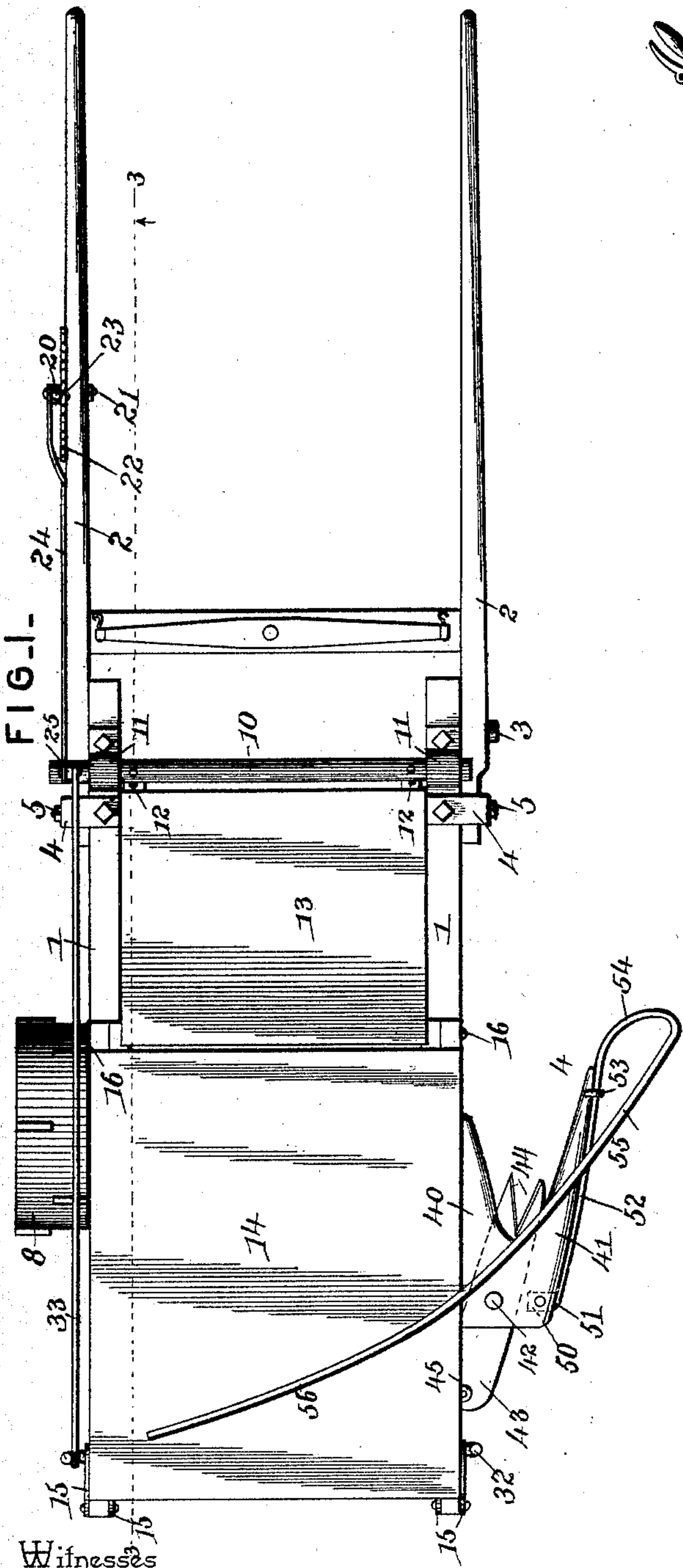
(No Model.)

2 Sheets—Sheet 1.

W. A. YOUNG.
CORN HARVESTER.

No. 486,014.

Patented Nov. 8, 1892.



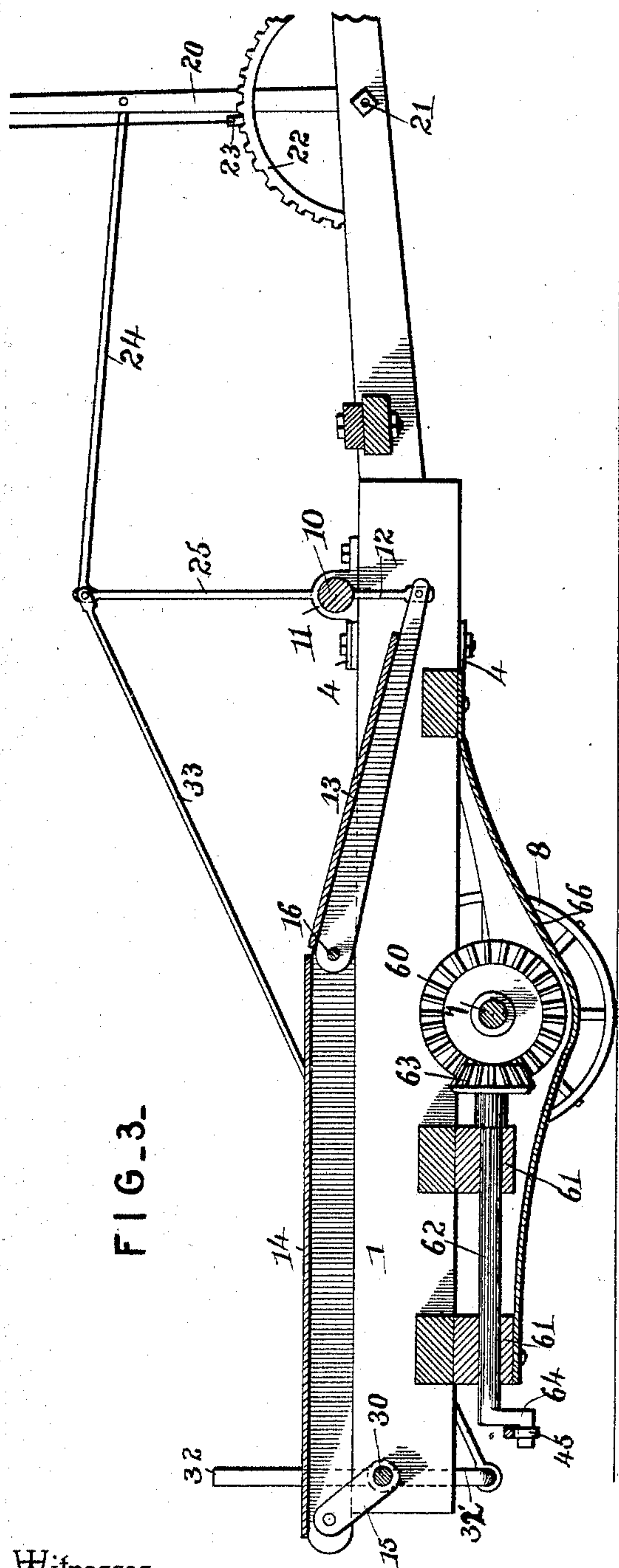
Witnesses
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No. 486,014.

Patented Nov. 8, 1892.



361

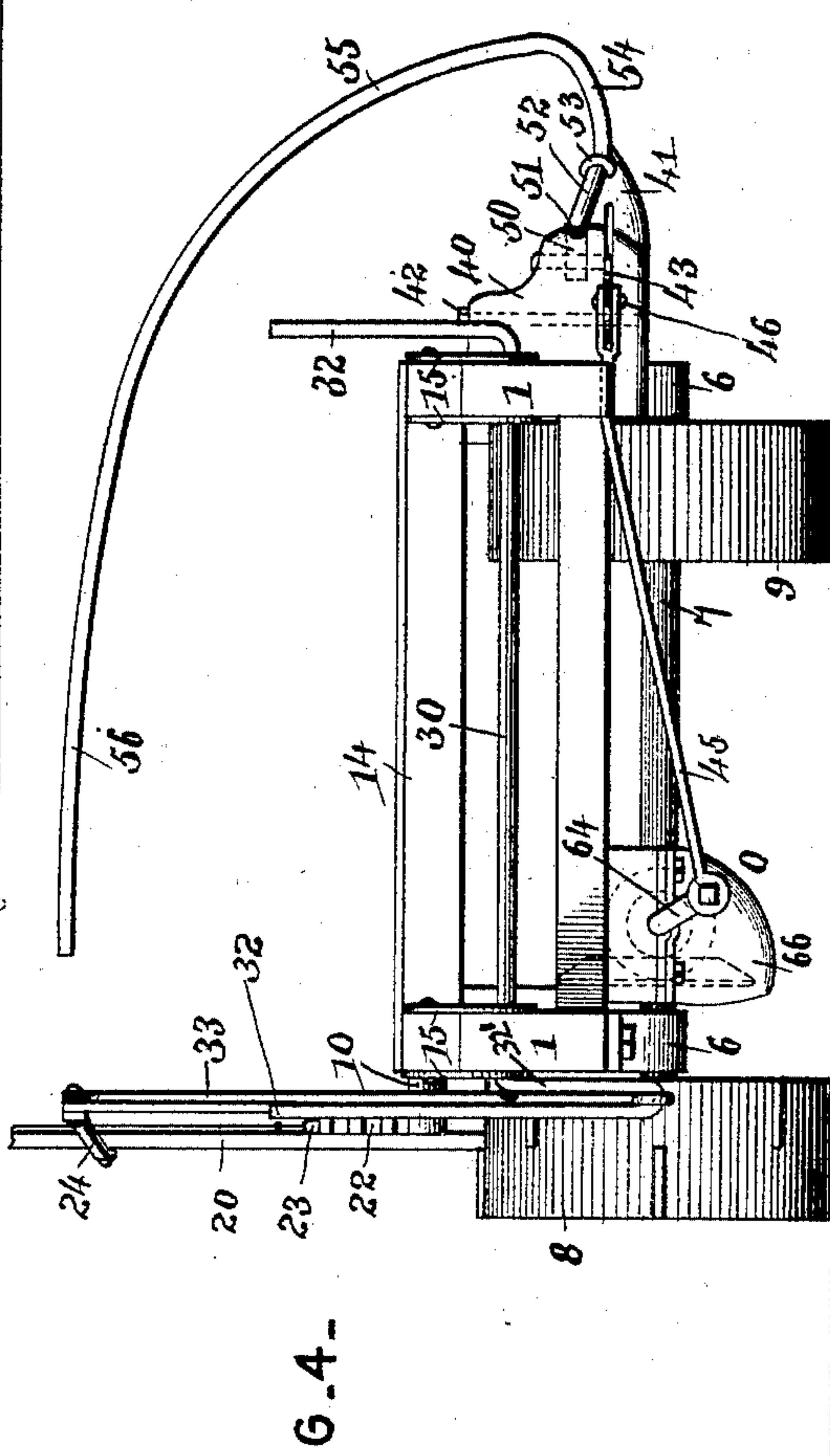


FIG. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM A. YOUNG, OF MANDEVILLE, MISSOURI.

CORN-HARVESTER.

SPECIFICATION forming part of Letters Patent No. 486,014, dated November 8, 1892.

Application filed December 31, 1891. Serial No. 417,033. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. YOUNG, a citizen of the United States, residing at Mandeville, in the county of Carroll and State of Missouri, have invented a new and useful Corn-Harvester, of which the following is a specification.

This invention relates to harvesters of that class adapted for the cutting and dropping of corn or the like; and the object of the same is to effect certain improvements in devices of this character.

To this end the invention consists in a machine embodying the construction hereinafter more fully described and claimed, and as illustrated on the accompanying two sheets of drawings, wherein—

Figure 1 is a plan view of this machine. Fig. 2 is a right-side elevation thereof, showing the table as dumped. Fig. 3 is a section on the line 3 3 of Fig. 1, showing the table before it is dumped. Fig. 4 is a rear elevation.

Before referring to the drawings in detail I prefer to here preface the description by saying that the following enumerated features will be separately grouped and independently described hereinafter.

The essential features are the framework, dumping-table, dumping devices, retaining-arms, cutting apparatus, guide-finger, and knife-operating mechanism.

The framework.—This comprises a rectangular frame 1, to which the thills 2 are pivoted at 3, and 4 is a perforated bracket in rear of the pivot and through which each of the thills passes, a bolt or screw 5 taking through one of the perforations and into the thill, whereby the latter can be set at the desired angle to cause the framework to travel properly over the ground, as will be seen. In boxes 6 is journaled the main axle 7, to which is secured the left wheel 8, standing, preferably, outside the framework, while the right wheel 9 is mounted loosely on the axle, preferably inside the framework, so as not to interfere with the cutting apparatus C.

The table.—10 is a rock-shaft journaled in eyes or bearings 11 across the front end of the framework, and in hangers 12 from this shaft is pivoted the forward end of the front section 13 of the two-part table. The rear end of this section is pivoted on a bar 16 to the

forward end of the rear section 14, which is considerably larger than the front section, and the rear end of the rear section is supported by pivoted links 15 on a shaft 30, hereinafter described. The sections of the table are each preferably of a light wooden framework with a light flooring, the rear section being quite large, as shown, and the flooring of the front section may in some cases be omitted. Obviously when the rock-shaft 10 is oscillated in the proper direction the pivot-rod 16 between the two sections will rise, owing to the fact that the links 15 do not permit the rear end of the table to move as far as the hangers 12 cause its front end to move, and this rising of the pivot-rod raises the front end of the rear section, while the rear end thereof is simultaneously depressed by the links, the result being that this section of the table is thereby dumped to the rear.

The dumping devices.—20 is a lever pivoted at 21 to one of the shafts (or to a pole or tongue, if there be two horses) and moving over a rack-bar 22, which is engaged by a hand-operated pawl 23 on the lever in the usual manner. 24 is a rod leading to the rear from this lever, and the rear end of this rod is linked into the upper end of an arm 25, that rises from the rock-shaft 10. Hence a boy or other person riding on the draft-animal can manipulate the lever to dump the table when desired. 30 is a shaft journaled across the rear end of the framework and at one end is secured a pendent crank 32', whose upper end 32 forms one retaining-arm, while the other end of the shaft rises into another retaining-arm 32 of a length to extend some distance above the rear end of the table. 33 is a rod, which connects the crank 31 with the upper end of the bar or arm 25, which rises from the rock-shaft 10. By this construction the retaining-arms stand upright when the table is not dumped; but a forward movement of the lever 20 draws on the arm 25 and on the rod 33, thereby rocking the shaft 30 and bearing the retaining-arm to the rear, while it simultaneously causes the table to dump, as seen in Fig. 2, and thus the retaining-arms permit the stalks to slide to the rear of the table.

The cutting apparatus.—A U-shaped casting 40, horizontally slotted, as shown in Fig.

4, is secured to the right side of the framework, preferably just in rear of the main axle, its outer arm 41 extending forward and being pointed, as shown, and mounted on a vertical pivot 42 through the finger-bar thus formed is a knife 43, whose front end 44 is notched, so as to form, preferably, two teeth, each of which is ground or sharpened on both edges. 45 is a pitman-rod pivoted at 46 to the rear end of the knife 43 and operated by the operating mechanism described below, and by this construction it will be seen that as the knife oscillates on its pivot its cutting-edges will travel rapidly through the transversely-slotted finger or casting 40, so as to cut the stalks.

The guide-finger.—This is a stout wire rod shaped about as shown. One end 50 is secured in the heel of the finger 40. From this point it bends, as at 51, leads forward, as at 52, over a support or through an eye 53 on the outside of the outer member 41 of the guard-finger, then out, as at 54, then up, as at 55, and then inclines to the rear and inward over the cutting apparatus and for some distance over and obliquely across the rear section 14 of the table, terminating about where shown at 56, this long rear end of the rod being so resilient that it will yield to some extent, as may be necessary in the operation of the machine.

The operating mechanism.—On the axle 7 is secured a bevel gear-wheel 60, and journaled in boxes 61 beneath the framework is a longitudinal shaft 62, having at its front end a bevel gear-wheel 63, meshing with that on the axle, and at its rear end a crank 64, which is connected with the inner end of the pitman-rod 45. A shield or guard 66 is preferably secured to the framework and hangs beneath the operating mechanism, whereby the grain is prevented from becoming entangled therewith, so as to cause the choking or clogging of the machine.

A horse being hitched into the shafts or thills and a boy getting onto his back, this improved harvester is driven around a corn-field with the cutting apparatus at the grain side of the machine—that is, the machine is driven around the field to the right as a screw is turned, although by locating the cutting apparatus on the other side of the machine the latter could be driven in an opposite direction. The main wheel 8, which is preferably roughened on its periphery, as shown, turns the axle and through the operating mechanism reciprocates the pitman-rod and drives the knife, the machine being guided so that the row of cornstalks being cut is directed into the guard-finger 40. As the stalks are cut, the guide-finger throws them over onto and across the rear section 14 of the table, where they accumulate in a pile against the retaining-arms. From time to time the boy bears the lever 25 forward, which swings the retaining-arms backward and raises the pivot-shaft 16 at the center of the table, so

that the rear section 14 thereof is caused to incline to the rear, and the accumulated stalks will therefore slide off the rear end of the table beneath the guide-finger. The lever is then returned to its proper position, where it is locked by its catch. To cause the machine to cut at a different height from the ground, the screws 5 are removed, the thills 2 are adjusted on their pivots 3, and the screws reset through other perforations in the bracket 4.

What is claimed as new is—

1. In a corn-harvester, the combination, with the main framework mounted on wheels and the cutting apparatus carried by the framework and located at one side thereof, of a table mounted on the framework and comprising front and rear sections hinged at their adjacent ends, loose connections between the rear end of the rearmost section and the framework, and a pivotal rocking support journaled in the framework above the front section and pivotally connected to the front end thereof below the horizontal plane of the rear section, substantially as specified.

2. In a corn-harvester, the combination, with the framework, a cutter located at one side of the same, and front and rear rock-shafts journaled in the framework and provided with rock-arms, of a dumping table or platform formed in sections loosely pivoted together at their adjacent ends, the rear end of the rearmost section being loosely connected to the rock-arms of the rear shaft and the front ends of the foremost section being pivotally connected to the rock-arms of the front rock-shaft, a stop-rod mounted on each of these shafts and extending above and below the same, a connecting-rod connecting the two ends of these levers, a hand-lever pivoted upon the machine, a connecting-bar between the same and the connecting-rod, and means for locking the hand-lever, substantially as specified.

3. In a corn-harvester, the combination, with the main framework having the gathering devices, a rock-shaft journaled across the framework, and a bar rising therefrom, of hangers depending from the shaft, a table in two sections connected on a transverse pivot, the front end of the front section being pivoted to said hangers, and links at the rear end of the rear section, pivoted to the framework, the hangers being longer than the links, substantially as and for the purpose set forth.

4. In a corn-harvester, the combination, with the main framework having the gathering devices, a shaft journaled across the rear end of the framework and having a crank, retaining-arms secured to this shaft, a rock-shaft journaled across the framework, an arm rising therefrom, and connections between this arm and the crank, of a table in two sections connected by a transverse pivot, rigid hangers depending from the rock-shaft and connected with the front end of the table, and

links pivotally connecting the rear end thereof with said crank-shaft, substantially as set forth.

5 In a corn-harvester, the combination, with a dumping-table comprising front and rear sections hinged by a knuckle-joint together, the end of the front section being pivotally held by an operating-lever and the rear section having its outer end pivotally connected to a fixed support, of a system of le-

vers for operating said table, 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.

WILLIAM A. YOUNG.

Witnesses:

JOHN WHITWORTH,
HOWARD F. YOUNG.