No. 742,078. PATENTED OCT. 20, 1903.

L. SPENCER.

HARVESTER.

APPLICATION FILED APR. 18, 1903.

NO MODEL. 5 SHEETS—SHEET 1.

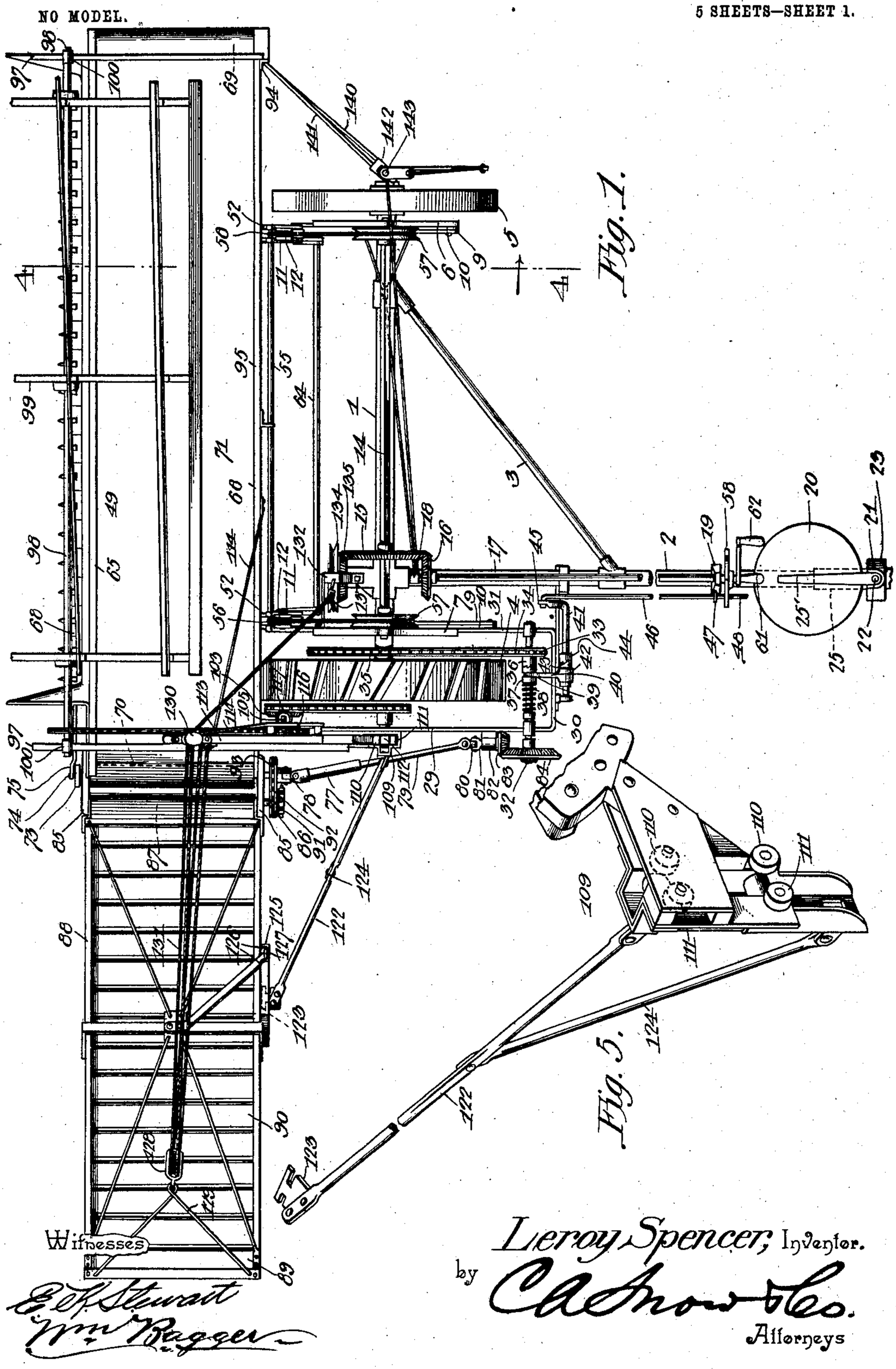

Fig. 1.

Witnesses

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NO MODEL. 5 SHEETS—SHEET 2.

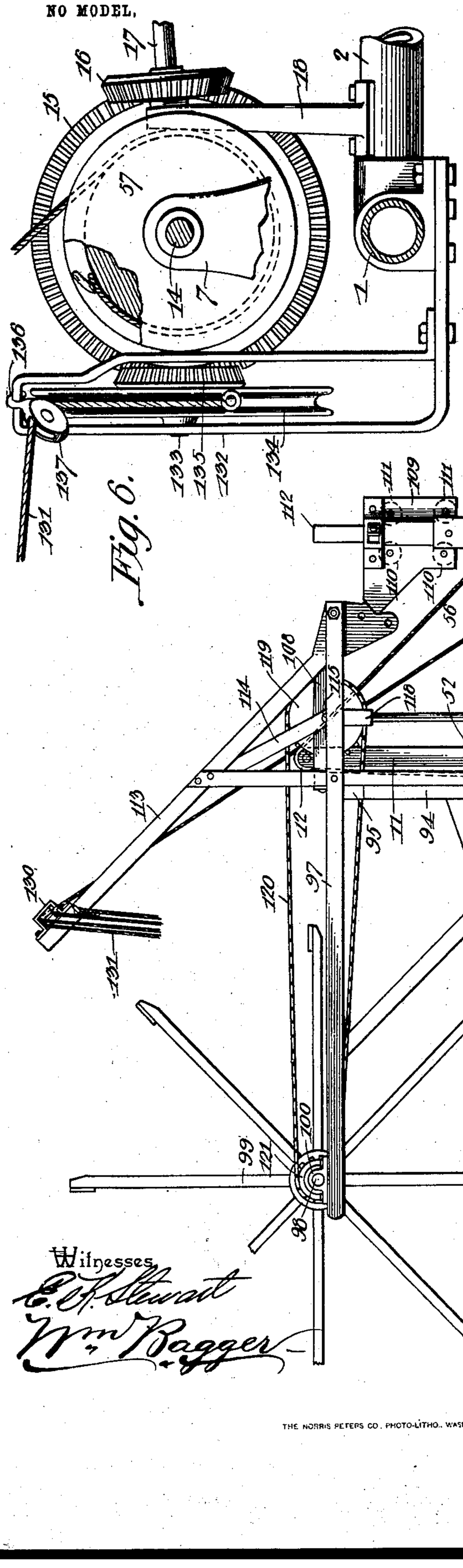

Fig. 6.



Fig. 2.

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NO MODEL. 5 SHEETS—SHEET 3.

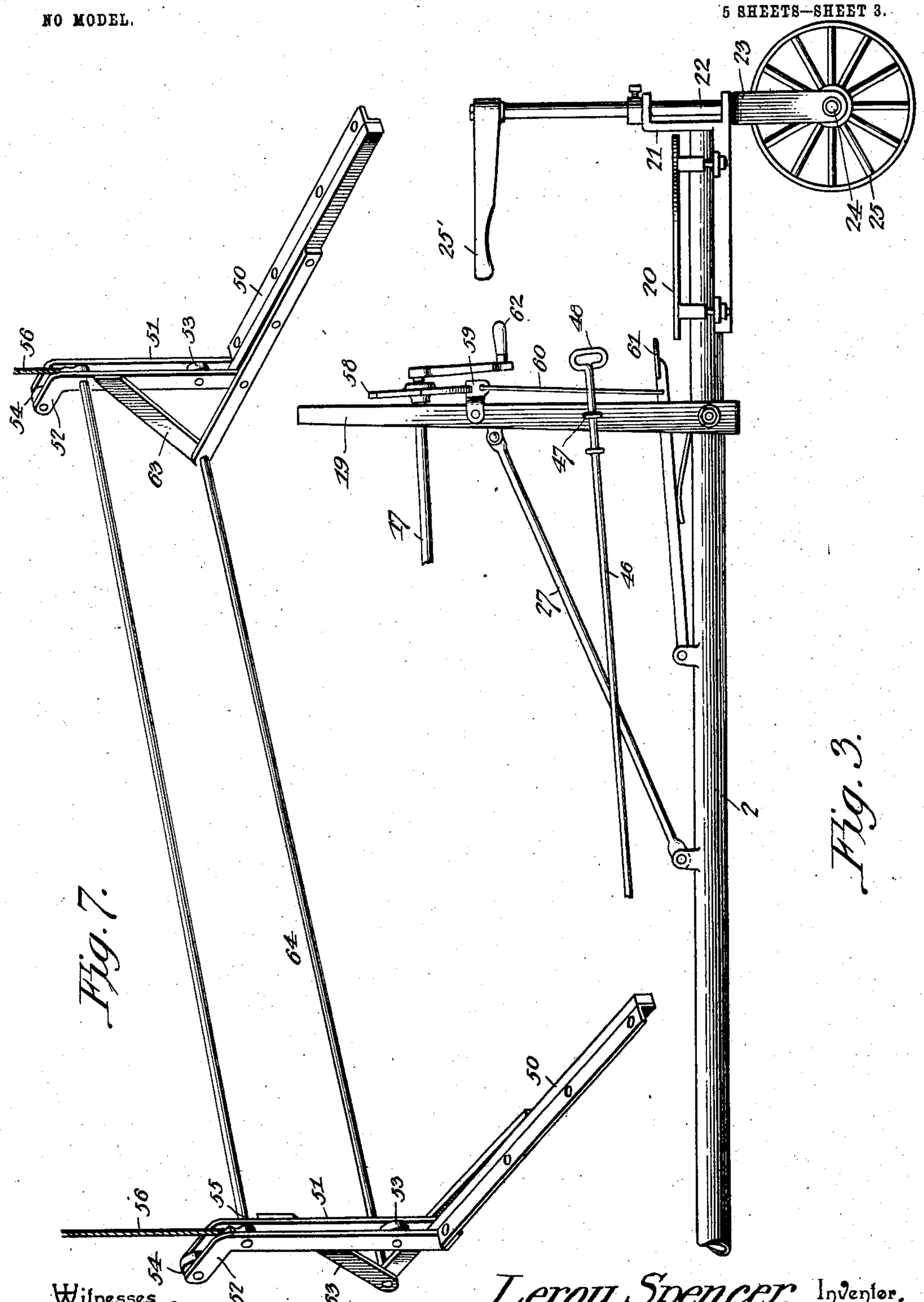


Fig. 7.

Fig. 3.

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NO MODEL. 5 SHEETS—SHEET 4.

Fig. 4.

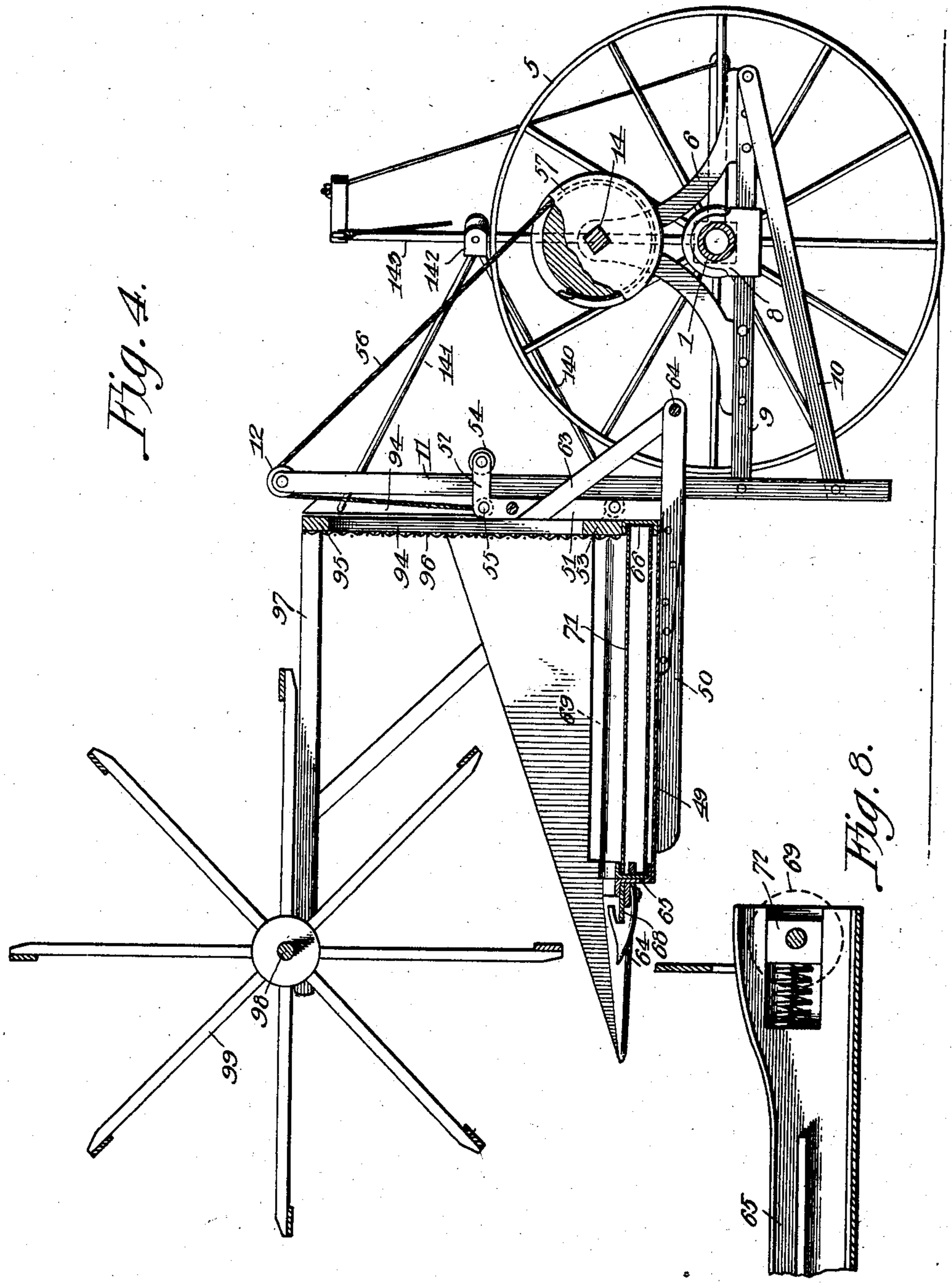


Fig. 8.

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NO MODEL. 5 SHEETS—SHEET 5.

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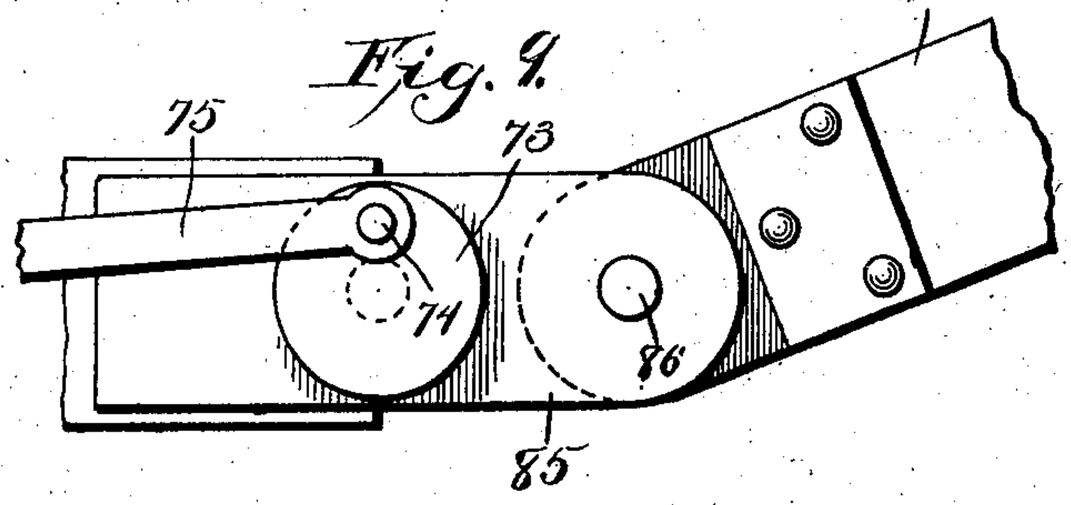
Fig. 9.



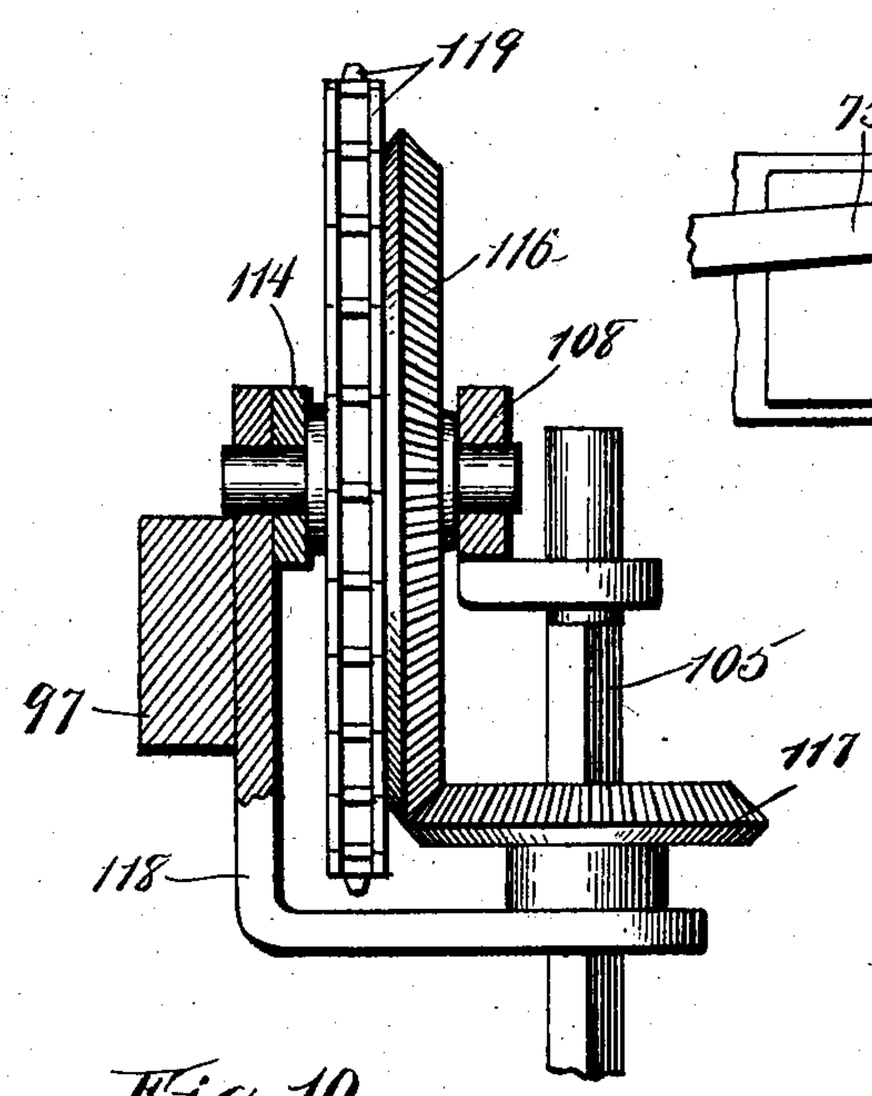




Fig. 10.

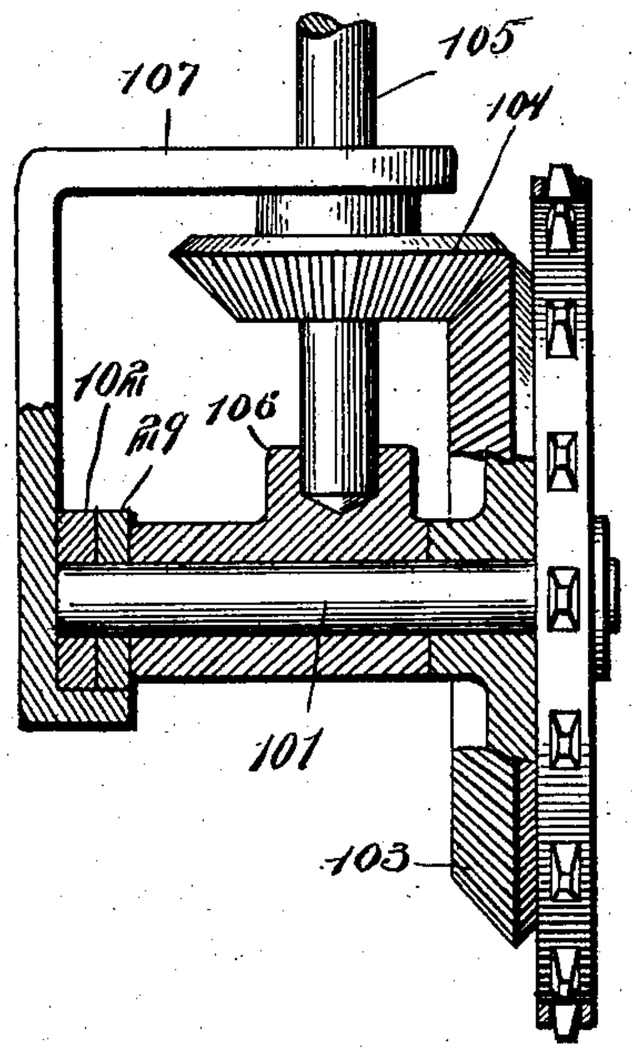
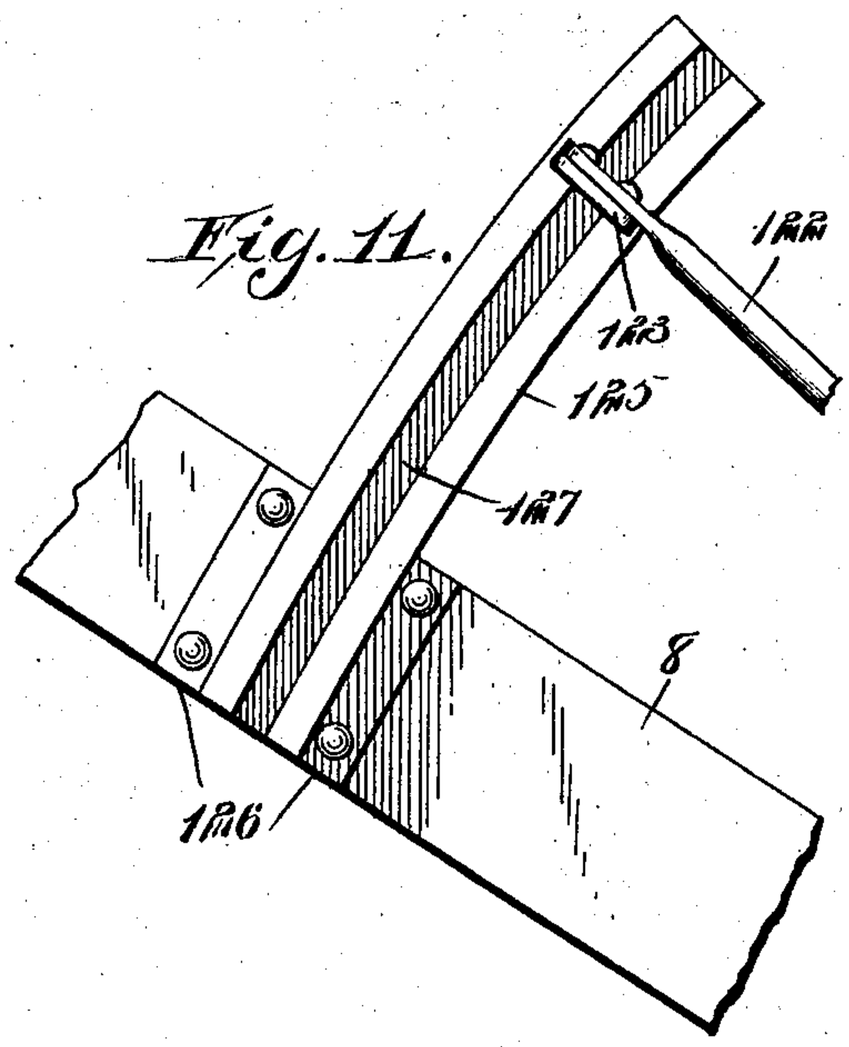



Fig. 11.

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No. 742,078. Patented October 20, 1903.

# UNITED STATES PATENT OFFICE.

LEROY SPENCER, OF ISLAND CITY, OREGON.

## HARVESTER.

SPECIFICATION forming part of Letters Patent No. 742,078, dated October 20, 1903.

Application filed April 18, 1903. Serial No. 153,277. (No model.)

*To all whom it may concern:*

Be it known that I, LEROY SPENCER, a citizen of the United States, residing at Island City, in the county of Union and State of Oregon, have invented a new and useful Harvester, of which the following is a specification.

This invention relates to that class of grain-harvesters which are known as "headers" and which in practice are operated by a team or teams pushing the same. In this class of devices as usually constructed the header-platform in order to enable the grain to be cut at various heights from the ground, according to the height of the straw, has usually been hingedly connected with the frame of the machine in such a manner as to enable it to be tilted, thereby raising and lowering the cutting apparatus at the front edge of said platform or table. Such construction has been found objectionable for many reasons, among which may be named the strain involved upon the various parts when the table has been adjusted at various tilts or elevations. The contrivances whereby the tilting movement of the table or platform has been effected have also usually been more or less complicated and liable to get out of order. On the other hand, where platforms or cutter-tables have been employed which have been capable of being adjusted bodily, so as to keep them level at various heights of adjustment, the means for effecting such adjustment have usually been more or less crude and have frequently involved the necessity of temporarily supporting the table or platform and prying upward upon the same in order to enable the bolts or fastening means whereby connection has been made with the frame of the machine to be detached and readjusted. Such contrivances have always involved much loss of time and have been of such a nature as to enable the requisite adjustment to be made by a single person practically impossible.

My present invention has for its object to construct a header in which the vertical adjustment of the cutting table or platform may be effected in an extremely simple and convenient manner, in which the necessary adjustment may be effected by the driver without necessity of his leaving the platform upon which he is stationed, in which an elevator is provided to carry off from the grain table or platform the heads of grain, said elevator being suitably tilted and connected with the table or platform and with supporting means in such a manner that the tilt of the elevator shall not be affected by the raising or lowering of said table or platform, and, in short, to provide a device of the class referred to which shall possess superior advantages in point of simplicity, durability, and general efficiency.

With these and other ends in view, which will appear as by the description of my invention the aim of the same is better understood, my invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a top plan view of a harvesting-machine constructed in accordance with the principles of my invention, an intermediate portion of the push-bar and connecting-rods having been broken away. Fig. 2 is a longitudinal sectional detail view, on a larger scale, of the front part of the machine, the push-bar having been removed. Fig. 3 is a detail elevation of the push-bar, with its attachments, including the driver's stand. Fig. 4 is a sectional view, on an enlarged scale, taken on the line 4 4 in Fig. 1. Fig. 5 is a perspective detail view of the elevator-brace. Fig. 6 is an enlarged detail view of the winding-drums for the ropes for adjusting the grain table or platform and the bracing means for the elevator. Fig. 7 is a perspective detail view of the supporting-frame for the vertically-adjustable grain table or platform. Fig. 8 is a detail enlarged sectional view illustrating the construction of one of the bearings for the shaft of the outer roller supporting the endless carrier 71. Fig. 9 is a detail front elevation showing the connection of the elevator with the grain-platform. Fig. 10 is a sectional detail view taken on the line 10 10 in Fig. 2, showing the vertical shaft 105 and its related parts in elevation on a larger scale. Fig. 11 is a detail elevation of the rear side of the elevator, showing the housing 125 and its related parts.

Corresponding parts in the several figures

are indicated by similar numerals of reference.

The main frame of my improved header may be described as consisting of the axle 1, the tongue or push-bar 2, and a brace 3, connecting the latter with the axle. It will be observed that the tongue 2 is connected with the axle 1 near one end of the latter at a short distance from the bull-wheel 4, while the connection of the brace 3 with the axle is at no great distance from the opposite end of the latter adjacent to the inner side of the supporting-wheel 5. The connections between the axle, the tongue, and the brace may be effected in any suitable manner whereby the said parts shall be rigidly connected, so as to form a stiff and durable frame structure.

Closely adjacent to the inner sides of the wheels 4 and 5 the axle supports a pair of triangular frame structures 6 and 7, which latter is adjacent to the bull-wheel 4. These frame structures, or "brackets," as they may be properly termed, may be supported from and connected with the axle by means of clips or in any other suitable and convenient manner. These frames, or "brackets," as I prefer to term them, are provided with forwardly-extending arms 9, the front ends of which are in perpendicular alinement with the rear ends of a pair of truss-bars 10, extending downwardly and forwardly from the rear ends of the brackets 6 and 7. The front ends of the arms 9 and the truss-bars 10 support a pair of uprights 11, at the upper ends of which pulleys 12 are supported.

The bracket members 6 and 7 at the upper corners thereof afford bearings for a shaft 14, which is disposed above and parallel to the axle of the machine. This shaft carries a bevel-gear 15, meshing with a pinion 16, mounted upon the front end of a longitudinal shaft 17, the latter having its bearings in uprights 18 and 19, rising from the tongue or push-bar 2. The upright 18 is a simple standard supported upon the tongue at a point close to its junction with the axle. The upright 19 is disposed directly in front of the driver's stand 20, which is supported upon the push-bar near the rear end of the latter. The extreme rear end of said push-bar is provided with a vertically-disposed yoke 21, affording bearings for a shank or spindle 22, the lower end of which is bifurcated, as shown at 23, to receive the ends of a shaft 24, carrying a trail-wheel 25, which, the shank or spindle 22 being swiveled, as described, will adapt itself to the machine when the latter is turning. It may also be used as a guide-wheel to direct the forward movement of the machine, the upper end of the shank or spindle 22 being provided with a handle 25', whereby it may be adjusted, as will be readily understood. The brace-rod 27 connects the upright 19 with the tongue or push-bar. It will of course be understood that braces and connecting-rods of a like nature are to be used wherever their presence in the frame structure of the device may be deemed desirable or necessary.

The end of the axle which carries the bull-wheel is provided with a horizontally-disposed frame structure, comprising, essentially, an outer frame-bar 29, a rear bar 30, and an inner frame-bar 31, which latter is suitably connected with the front end of the bracket 7. The side members 29 and 31 are provided with bearings for a transverse shaft 32, carrying a sprocket-wheel 33, which is connected, by means of a chain 34, with a sprocket-wheel 35, which is suitably connected with the bull-wheel, so as to revolve with the latter. The hub of the sprocket-wheel 33, which is loose upon the shaft 32, forms a clutch member 36, adapted to engage a sliding clutch member 37, which is feathered upon the shaft 32, so as to revolve with the latter. The slidable clutch member 37 is normally held in engagement with the clutch 36 of the sprocket-wheel 33 by means of a spring 38, coiled upon the shaft and forcing the said slidable clutch member in the direction of the sprocket-wheel. The slidable clutch member 37 is provided with an annular groove 39, engaged by a bifurcated rod or arm 40, which is transversely slidable upon the rock-shaft 41, mounted in suitable bearings in rear of the shaft 32. The hub or sleeve 42, by means of which the arm 40 slides upon the rock-shaft 41, is provided with inclined notches 43, adapted to be engaged by a clutch member 44, mounted securely upon the rock-shaft 41. The latter is provided at one end with a crank 45, with which is pivotally connected a rod or link 46, extending to the front upright 19, supported upon the tongue or push-bar, where it is supported slidably in a loop or staple 47. The end of the connecting-rod 46 thus disposed within the reach of the driver is provided with a handle 48, whereby it may be conveniently operated by the driver, so as to oscillate the rock-shaft, thereby causing the clutch member 44 to operate against the notched sleeve 42 of the arm 40, thus causing the latter to slide in an outward direction. When thus operated, the arm 40 by its bifurcated front end engaging the slidable clutch member 39 will force the latter in an outward direction, thereby releasing it from engagement with the clutch member upon the hub of the sprocket-wheel 33, which latter will thus rotate freely upon the shaft 32 without communicating motion to the latter. It will be understood that mechanism, to be hereinafter described, is driven from the shaft 32; hence the necessity for the presence of the mechanism just described for throwing such driven parts of the machine into and out of gear, as may be required.

49 designates the grain-table or cutter-platform, which is supported upon a pair of braces 50, provided with upwardly-extending pairs of arms 51, the upper ends of which have rearwardly-extending brackets 52. Rollers

53 and 54 are journaled between the arms 51 and the brackets 52, said rollers being adapted to engage, respectively, the front and the rear sides of the uprights 11, which are housed between the brackets 52, as will be readily understood, the rollers 53 and 54 serving to permit the supporting devices, comprising the brace 50, arms 51, and related parts, to move freely upwardly and downwardly upon the said uprights 11. The pairs of arms 51 are connected by a cross bar or brace 55, which extends through the said pairs of arms, thereby preventing accidental dislocation of any of the parts. Suitably connected with the ends of the brace 55 are flexible connecting members, such as cords or chains 56, which pass over the pulleys 12 at the upper ends of the uprights 11 and are made fast to the peripheries of grooved wheels or drums 57, suitably secured upon the shaft 14, which has been hereinbefore described.

It will thus be seen that by rotating the shaft 17 in its bearings the pinion 16, engaging the bevel-gear 15, will thereby rotate the shaft 14, together with the drums 57, upon said shaft, thereby winding the cords or flexible connections 56, which, being made fast to the cross-brace 55, will raise or lift the supporting devices of the grain table or platform 49, which will thereby be bodily elevated in a horizontal position to any desired height within the limits of the parts of the device, particularly the uprights 11. This operation of adjusting the grain table or platform may be performed by the driver without necessity of his leaving his station, and the parts may be retained at their adjusted position by means of a ratchet-wheel 58 upon the front end of the shaft 17, said ratchet-wheel being engaged by a vertically-sliding pawl 59, which is connected by means of a rod 60 with a spring-actuated treadle 61. The shaft 17 is also provided with a crank 62, by means of which it may be conveniently operated by the driver. When the shaft 17 is rotated in the proper direction to elevate the grain-table, the ratchet-wheel 58 is automatically engaged by the lock dog or pawl 59. When it is desired to lower the grain-table, the dog or pawl 59 is disengaged from the ratchet-wheel by the driver stepping upon the treadle 61, when the grain table or platform will drop by its own weight, the dropping, however, being restrained by the driver, who retains his hold upon the crank 62, thereby preventing a too sudden drop, which might result injuriously to the machine.

The braces 50, which support the grain-table 49, are extended rearwardly of the uprights or arms 51 and are connected with the latter by means of inclined braces 63 for the purpose of strengthening the parts. The rear ends of the supporting-braces 50 are likewise preferably connected by a transverse brace-rod 64; but the presence of the latter, as well as other mere bracing and connecting parts, will be largely optional with the builder of the machine.

The grain table or platform 49 is provided at its front and rear edges with flanges 65 and 66, and at the front edge is suitably disposed a cutting apparatus comprising a finger-bar 64 and a reciprocating cutter or sickle bar 68, which are of the conventional pattern. Rollers 69 and 70 are provided at the ends of the platform, said rollers supporting an endless apron or carrier 71, which is kept taut by the roller 69 at the inner end of the platform being mounted in slidable spring-pressed boxes 72, the construction and arrangement of which are well understood. The shaft of the roller 70 is provided at its front end with a crank-disk 73, the wrist or crank 74 of which is connected by a pitman 75 with the sickle-bar or cutter-bar 68, to which a reciprocating motion is thus communicated. The roller 70 or the shaft of said roller is connected at its rear end by means of a knuckle-joint 78 with a socket member 77, having a non-circular recess or socket 78′ adapted to receive the correspondingly-shaped end of a tumbling-rod 79, which is connected by a knuckle-joint 80 with a short shaft 81, which is journaled in a suitable box or bearing 82 of the frame member 29, supported upon the outer end of the axle. The shaft 81 carries at its rear end a pinion 83, meshing with a bevel-gear 84 upon the shaft 32, from which motion is thereby transmitted not only to the cutting mechanism, but also to the endless apron or carrier 71.

The outer end of the grain table or platform is provided with ears or brackets 85, affording bearings for the shaft 86 of a roller 87, which is also journaled in bearings in the lower ends of the sides of an elevator-frame 88, which latter may thus be described as being pivotally mounted upon the roller-shaft 86, while the roller 87 may be properly described as being located at the lower end of said elevator-frame. The latter extends outwardly and upwardly from the grain-table and is provided at its upper end with a roller 89. A slatted endless carrier 90 passes over and is supported upon the rollers 87 and 89, as will be seen. The general construction of the elevator-frame is of as simple and light a nature as is compatible with the requisite strength, and the discharge end of said elevator is retained at a suitable tilt by means which are to be hereinafter described. For the purpose of driving the endless carrier 90 the shaft 86 of the roller 87 is provided at its rear end with a sprocket-wheel 91, which is connected by a short chain 92 with a sprocket-wheel 93, suitably mounted upon the shaft of the roller 70 at the outer end of the grain-table.

The grain-table is provided at its rear side with suitably-disposed uprights 94, connected at their upper ends by a cross-piece 95 and supporting a screen 96, such as is usually employed for the purpose of preventing the

heads from being thrown rearwardly over the grain-table. The uprights 94 are provided with forwardly-extending brackets 97, which are to be suitably braced, if desired, and which support the shaft 98 of the reel 99, which is mounted to rotate in suitably-constructed boxes or bearings 100.

101 designates a short shaft which is journaled in suitable bearings in the frame member 29 and in a brace or bracket 102, which latter is suitably connected with the frame of the machine. The shaft 101 carries a bevel-gear 103, meshing with a pinion 104, which is mounted upon a non-circular shaft 105, the lower end of which has a bearing in the boxing 106 of the shaft 101. To said boxing is secured an L-shaped bracket 107, which extends over the pinion 104 and restrains the latter against upward movement upon the shaft 105. The latter is extended upwardly and has a bearing in a bracket 108, which is suitably connected with one of the arms 97 of the vertically-movable grain-platform structure. Said arm 97 is also extended rearwardly and is provided at its rear end with a housing 109, containing a plurality of rollers 110 and 111, which engage the sides of the upright 112, which is rigidly secured to the outer end of the axle of the machine. The housing 109 is so constructed and the rollers 110 and 111 are so disposed therein that the said rollers 110 shall bear against the front of the upright 112, while the rollers 111 shall bear against the outer side of the latter, thereby assisting in supporting the weight of the elevator-frame, as will be presently more fully set forth. From the rear end of the arm 97 extends in an upward and forward direction an inclined derrick-beam 113, which is braced by suitably-disposed truss-bars 114, affording bearings for a short shaft 115, upon which is mounted a bevel-gear 116, meshing with a pinion 117 upon the non-circular shaft 105, which latter is extended a suitable distance above the bracket 108 and an additional bracket 118, between which the said pinion is supported, thereby enabling the said pinion when the grain-platform structure is raised or lowered to slide upwardly or downwardly upon the said non-circular shaft and to remain in operative connection with the latter. The periphery of the bevel-gear 116 is provided with sprocket-teeth 119, connected, by means of a chain 120, with a sprocket-wheel 121 upon the shaft of the reel, to which motion is in this manner transmitted. It will be noticed that owing to the herein-described arrangement of the non-circular shaft, which is extended upwardly a sufficient distance to enable the pinion 117 to move thereon with the platform-carrying structure, motion will be transmitted to the reel in a perfectly steady manner which is not interrupted by the upward or downward movement of the platform-carrying structure.

The housing 109, which, as herein described, is vertically movable upon the upright 112, is provided with an outwardly-extending brace 122, having at its outer end a horizontally-disposed T-lug 123, said brace 122 being reinforced by a subbrace 124. The rear side of the elevator-frame is provided with a segmental housing 125, the edges of which are provided with flanges 126, whereby the said housing is supported upon the rear side of said elevator-casing. The housing 125 has a segmental slot 127, which is engaged by the T-shaped lug 123 at the outer end of the brace-rod 122, so as to form a substantial support for the elevator structure at any tilt to which the latter may be adjusted. The said elevator-frame is thereby very securely supported and at the same time with a degree of flexibility, whereby injury to the working parts of the device will be avoided whether the machine be in transit or during operation. It is obvious, however, that additional support for the outer end of the elevator structure is necessary, and this is afforded by means of a pulley-block 128, suitably connected with a bail 129, connecting the outer ends of the sides of the elevator and casing, the said pulley-block being connected, by means of tackle, with suitably-housed pulleys 130 at the outer end of the derrick-beam 113. One end of the rope or tackle 131 is made fast to the derrick-beam 113, after which it is reeved through the pulleys 128 and 130, as will be seen.

The frame of the machine supports in rear of the axle 1 an upright bracket 132, which is suitably braced and supported and which is provided with bearings for a shaft 133, carrying a grooved wheel or drum 134 and having also connected therewith a beveled pinion 135, that meshes with the bevel-gear 15 of the shaft 14. The upper end of the upright 132 has a bracket 136, in which is journaled a pulley 137, over which the free end of the rope or tackle is guided to the periphery of the grooved wheel or drum 134, to which it is made fast.

It will appear from the foregoing description that when the shaft 17 is rotated to operate the bevel-gear 15 and the parts operated thereby, as herein described, it will at the same time transmit through said bevel-gear 15 a rotary motion to the drum 134 through the pinion 135, which is mounted upon the same shaft as the said drum. Consequently when the grain-platform is elevated by the mechanism herein described the said drum 134, being at the same time revolved or rotated, will serve to wind the rope or tackle 131, thereby shortening the connection between the derrick-beam 113 and the outer end of the elevator-casing in proportion as the latter is being raised. It is obvious that in the absence of such provision the raising or lowering of the grain-platform, assuming the elevator-frame to be braced to the main structure of the machine, will result in the displacement of the said elevator-casing

with relation to the grain-platform, and if, on the other hand, the elevator-casing were braced to the vertically-movable platform structure it would impose upon the latter a side weight which would seriously interfere with the successful operation thereof. By my improved construction and arrangement of parts, however, the free end of the elevator-frame is braced to the main frame of the machine by the adjustable pulley-and-tackle connection, whereby whether the platform structure be raised or lowered the elevator-frame will retain substantially the same tilt with relation thereto. It is obvious that the amount of tilt of the elevator-frame may be initially regulated by simply lengthening or shortening the rope or tackle.

The upright 94 at the inner rear corner of the grain table or platform is provided with braces 140 and 141, extending rearwardly from its lower and upper corners and carrying between their rear ends a pulley 142, which rides upon an upright 143 at the inner end of the axle. This upright is suitably braced, so as to enable it to assist greatly in relieving the strain caused by the weight of the grain-platform.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of my improved heading-harvester will be readily understood. The general construction of said machine is simple and inexpensive, the adjustable parts of the device are capable of being governed and actuated by the driver without additional help or assistance, and my invention presents in a simple and compact form a durable, convenient, and easily-operated machine for the purposes for which it is intended.

I have in the foregoing described a simple and preferred form of my invention; but I desire it to be distinctly understood that I do not limit myself to the structural details herein set forth, but reserve the right to any changes, alterations, and modifications which may be resorted to within the scope of my invention and without departing from the spirit or sacrificing the utility of the same.

Having thus described my invention, I claim—

1. In a harvesting-machine of the class described, the combination with a main-frame structure comprising a wheel-supported axle, a push-bar, bars supported upon said axle and uprights at the forward ends of said bars, of a vertically-adjustable grain-platform, supports for the same, pairs of bars extending upwardly from said supports and having rearwardly-extending bars, and pulleys journaled between said upwardly-extending bars and between the arms, the latter forming housings engaging the uprights carried by the main frame of the machine.

2. In a harvesting-machine of the class described, a frame comprising a wheel-supported axle and a push-bar, uprights supported upon the latter, a shaft journaled in said uprights, brackets supported by the axle, a shaft journaled in said brackets above the axle, bevel-gearing connecting said shaft with the longitudinal shaft above the push-bar, winding-drums upon the shaft above the axle, uprights supported by the frame, pulleys at the upper ends of said uprights, housings vertically movable upon the latter, supporting means connected with said housings, a grain-platform mounted on said supporting means, flexible means connecting said housings with the winding-drums upon the shaft above the axle, said connecting means passing over the pulleys at the upper ends of the uprights, and means for operating the shaft above the push-bar and for retaining it at various points of adjustment.

3. In a harvesting-machine of the class described, a main frame comprising a wheel-supported axle and a push-bar, bars mounted upon said axle, uprights supported by said bars and having pulleys at their upper ends, housings vertically movable upon said uprights, supports connected with said housings, a grain-platform mounted upon said supports, a suitably-disposed shaft, winding-drums upon said shaft, suitably-guided connecting means between said drums and the housings, and means within reach of the driver for imparting a rotary motion to the drum-carrying shaft.

4. In a harvesting-machine of the class described, a frame comprising a wheel-supported axle and a push-bar, a driver's platform upon the rear end of the latter, a trail-wheel supporting the rear end of the push-bar, means within reach of the driver for manipulating said trail-wheel to guide the machine, uprights supported by the frame of the machine, housings vertically movable upon said uprights, supports connected with said housings, a grain-platform mounted on said supports, a shaft supported above the axle, winding-drums upon said shaft, suitably-guided connecting means between said winding-drums and the vertically-movable housings, a shaft supported longitudinally above the push-bar, bevel-gearing connecting the shaft with the drum-carrying shaft, an operating-crank upon the rear end of said shaft in front of the driver's platform, a ratchet-wheel likewise mounted upon said shaft, a vertically-slidable pawl engaging said ratchet-wheel, a spring-supported treadle, and a link connecting the latter with the slidable pawl.

5. In a harvesting-machine of the class described, a frame comprising a wheel-supported axle and a push-bar, bars supported on said axle, uprights at the front ends of said bars, uprights at the ends of the axle, a main platform and a vertically-adjustable grain-platform-carrying frame structure including roller-carrying housings and braces engaging the several uprights.

6. In a harvesting-machine of the class described, a frame comprising a wheel-support-

ed axle and a push-bar, bars supported upon the axle, uprights at the front ends of said bars, a supporting-frame vertically movable on said uprights, a grain-platform mounted upon said supporting-frame, an upright at the outer end of the axle, an elevator-casing hingedly connected with the outer end of the grain-platform, a segmental-slotted housing connected with the elevator-casing, a roller, a roller-carrying housing vertically movable upon the upright at the outer end of the axle, a brace extending from said housing and having at its outer end a T-head engaging the segmental slot in the housing upon the elevator-casing, and means for supporting the free end of the latter at any desired tilt.

7. In a harvesting-machine of the class described, a vertically-movable grain-platform, an elevator-frame hingedly connected with the outer end of said platform, a vertically-movable brace connecting the elevator-casing with the frame structure of the machine, a derrick-arm connected with and vertically movable with said brace and with the supporting means of the vertically-movable grain-platform, pulleys at the outer end of said derrick-arm, a block connected with the free end of the elevator-casing, a winding-drum, gearing connecting said winding-drum with the operating mechanism for effecting the vertical adjustment of the grain-platform and the elevator, and a rope attached to the derrick-arm, reeved through the block at the outer end of the elevator-frame and over the pulleys upon the derrick-arm and guided to the winding-drum where its free end is attached.

8. In a harvesting-machine of the class described, a frame structure, a grain-platform, vertically-adjustable supporting means for the latter, an elevator-casing hingedly connected with the outer end of the grain-platform, bracing means connecting said elevator-casing with the vertically-movable supporting means of the grain-platform, a winding-drum supported by the main-frame structure, and adjustable supporting means connecting the free end of said elevator-casing with said winding-drum.

9. In a harvesting-machine of the class described, the combination of a frame structure comprising a wheel-supported axle and a push-bar, uprights connected with said supporting-frame, a grain-platform, a grain-platform-carrying frame structure vertically movable upon said uprights, said structure including uprights and arms extending forwardly from the same, a reel-carrying shaft supported upon said arms, and means for transmitting motion to said reel-shaft, said means including a non-circular shaft journaled in bearings upon the main frame, a pinion upon said shaft and supported upon the platform-carrying structure, means for transmitting motion to said shaft from the source of power, and means for transmitting motion from the pinion slidable upon said shaft to the reel-carrying shaft.

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

LEROY SPENCER.

Witnesses:
B. CHANCEY,
E. P. LEHOW.