

April 13, 1954

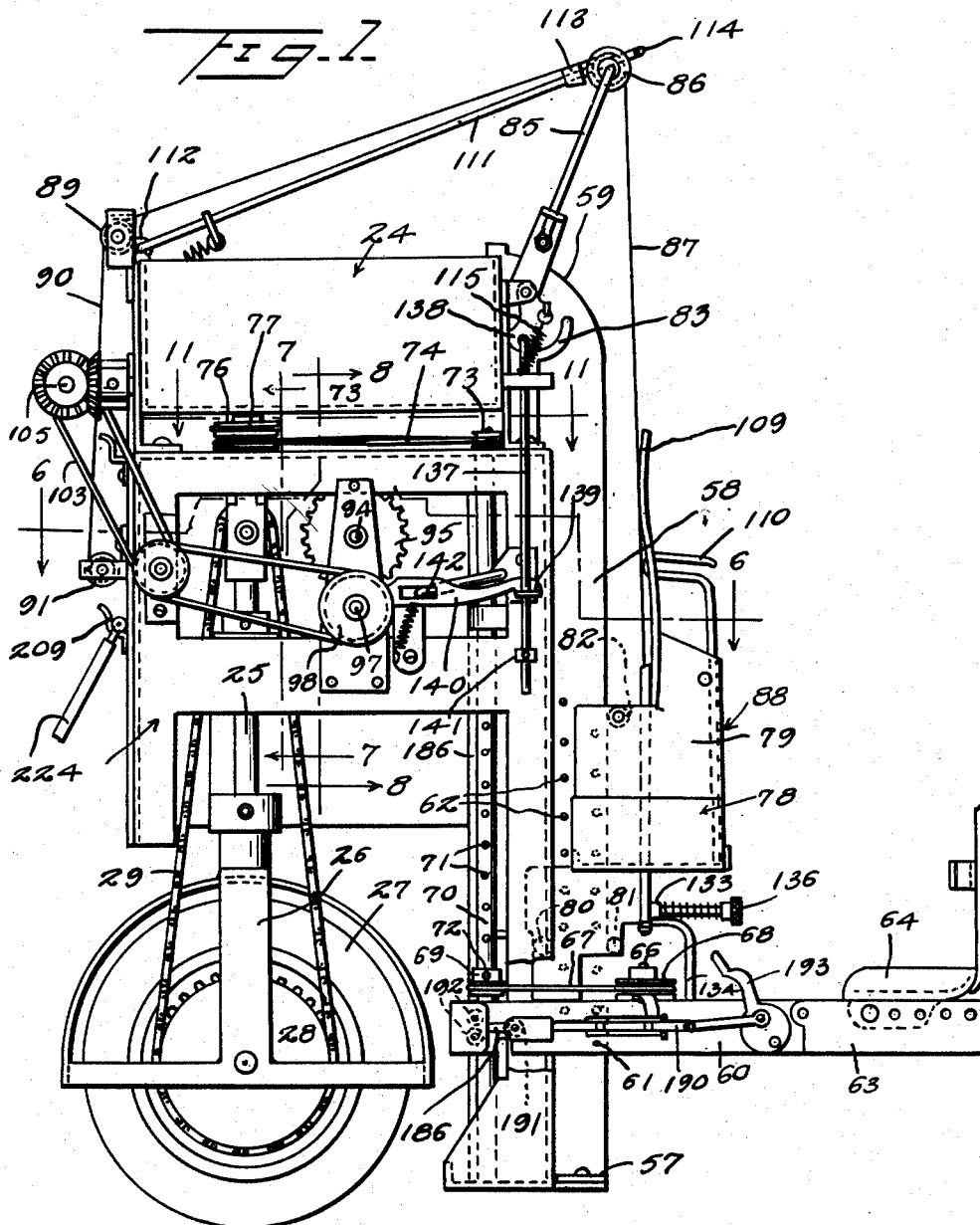
R. L. SPIKES

2,675,136

TOBACCO HARVESTING MACHINE

Filed Feb. 5, 1953

9 Sheets-Sheet 1



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April 13, 1954

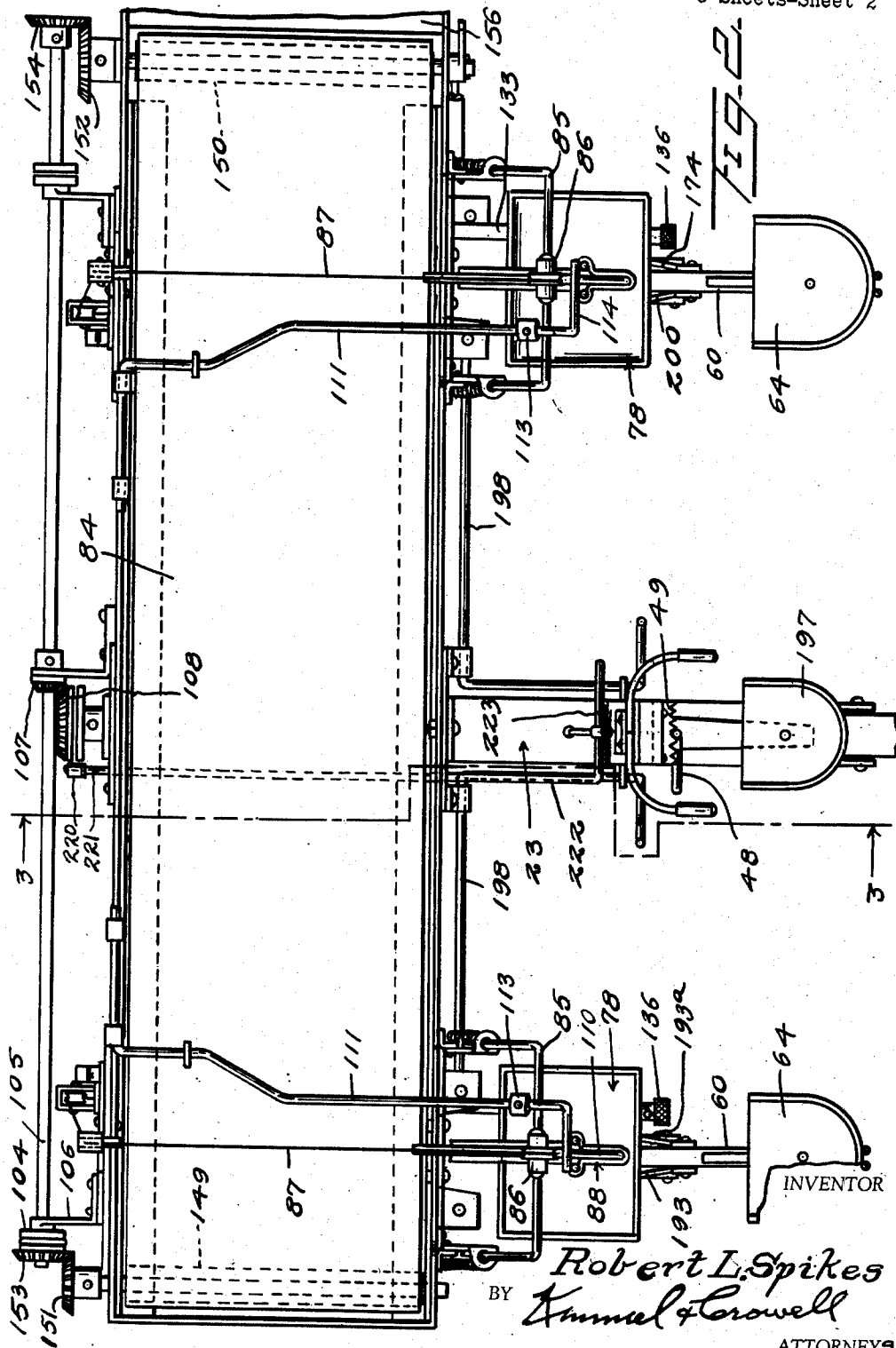
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TOBACCO HARVESTING MACHINE

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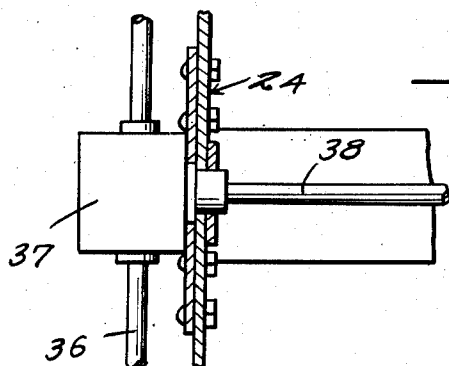
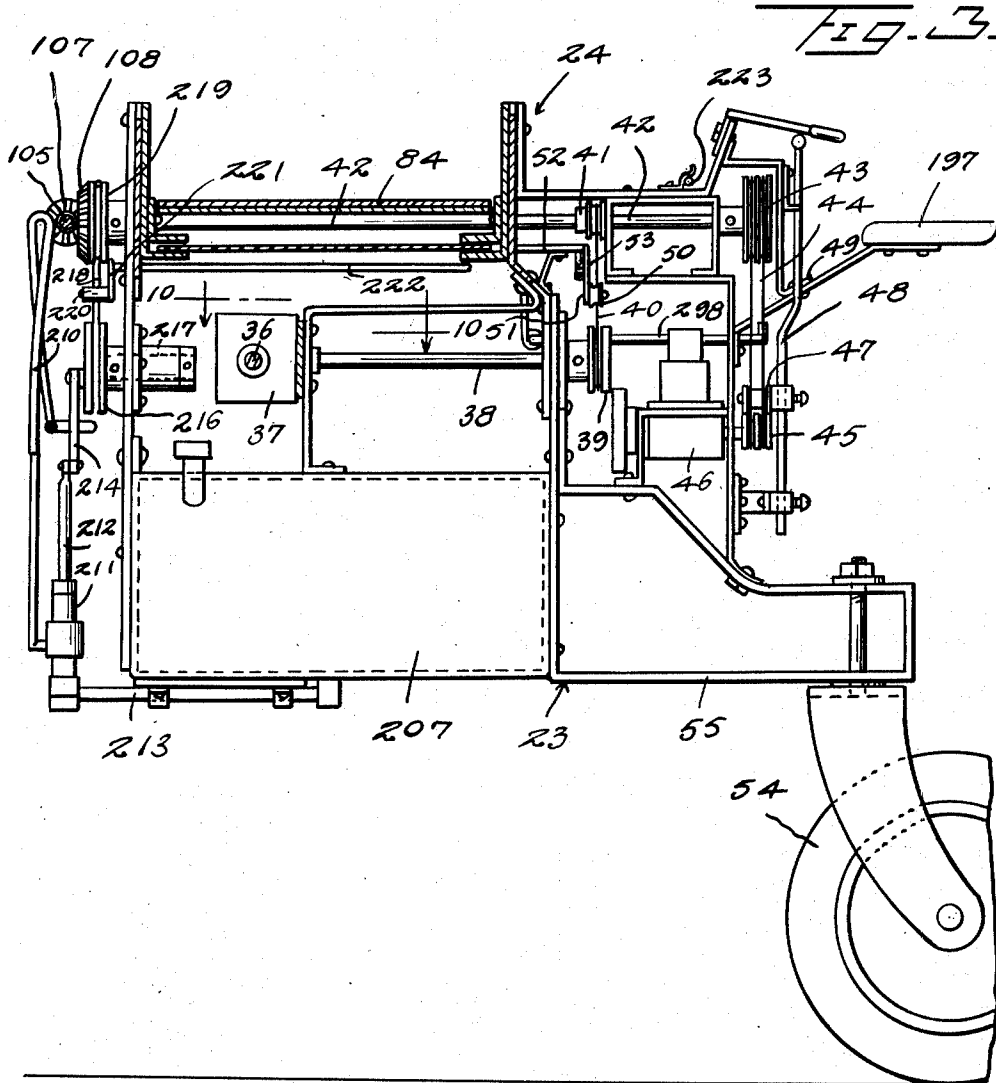
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9 Sheets-Sheet 3



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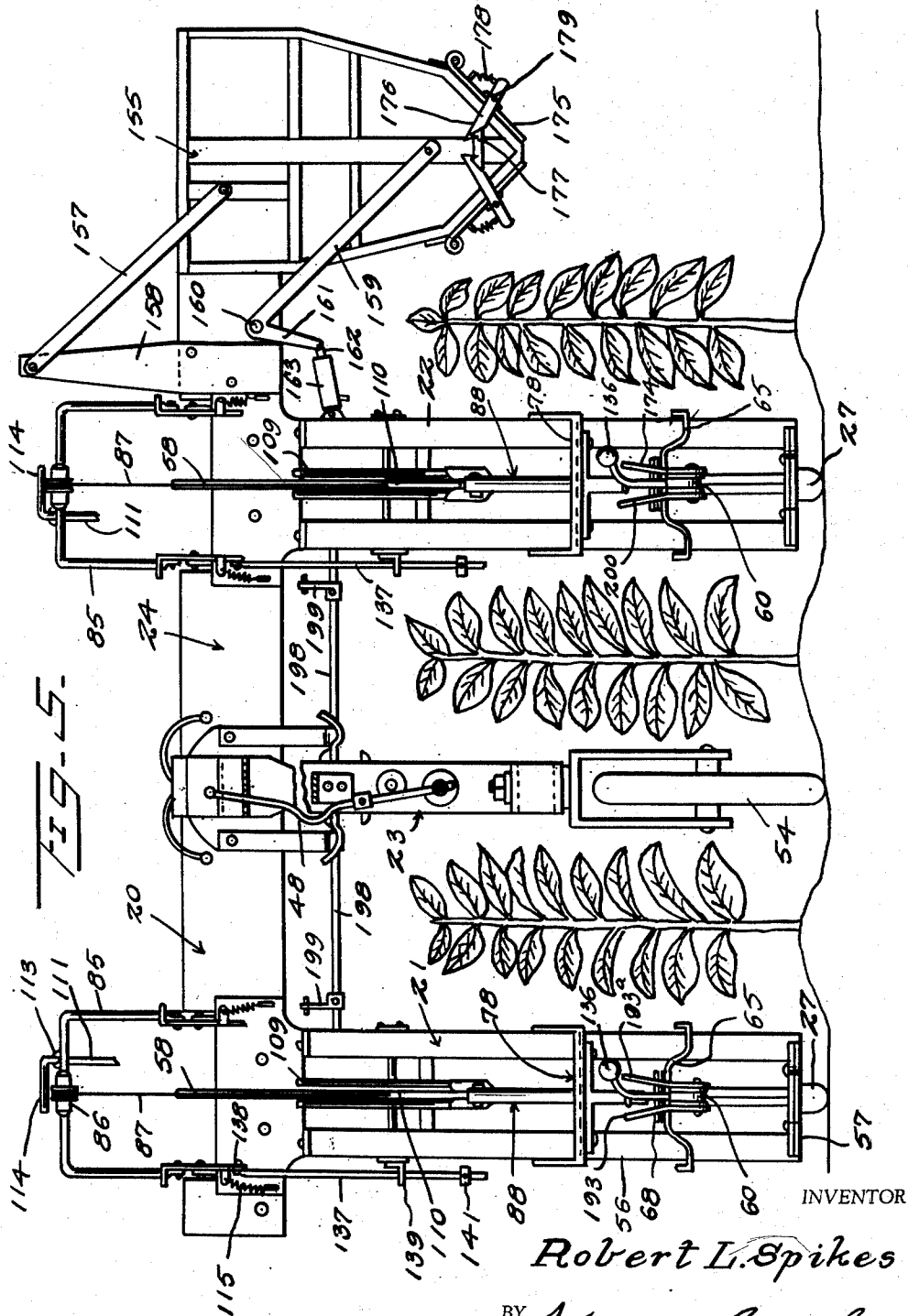
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9 Sheets-Sheet 5



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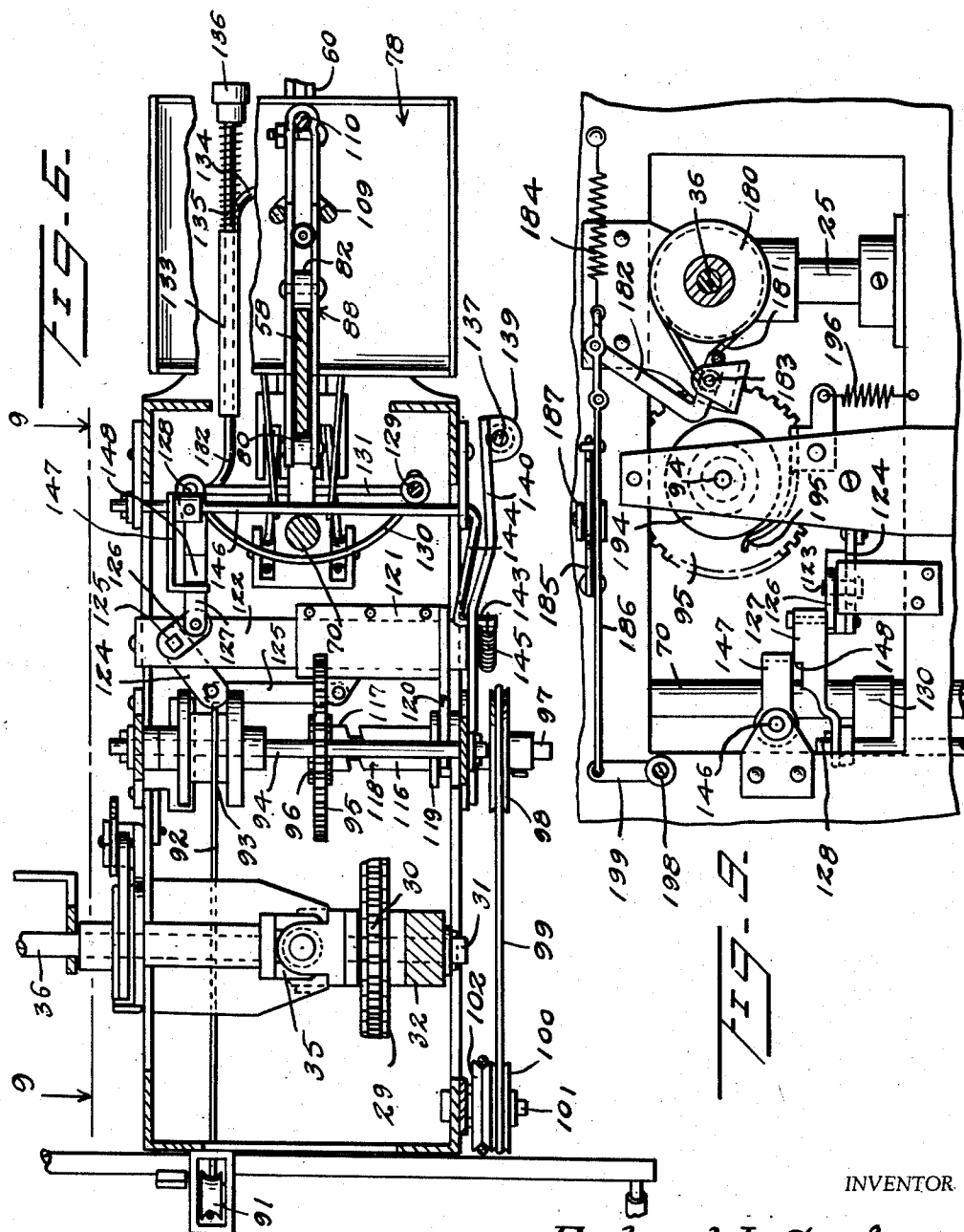
R. L. SPIKES

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TOBACCO HARVESTING MACHINE

Filed Feb. 5, 1953

9 Sheets-Sheet 6



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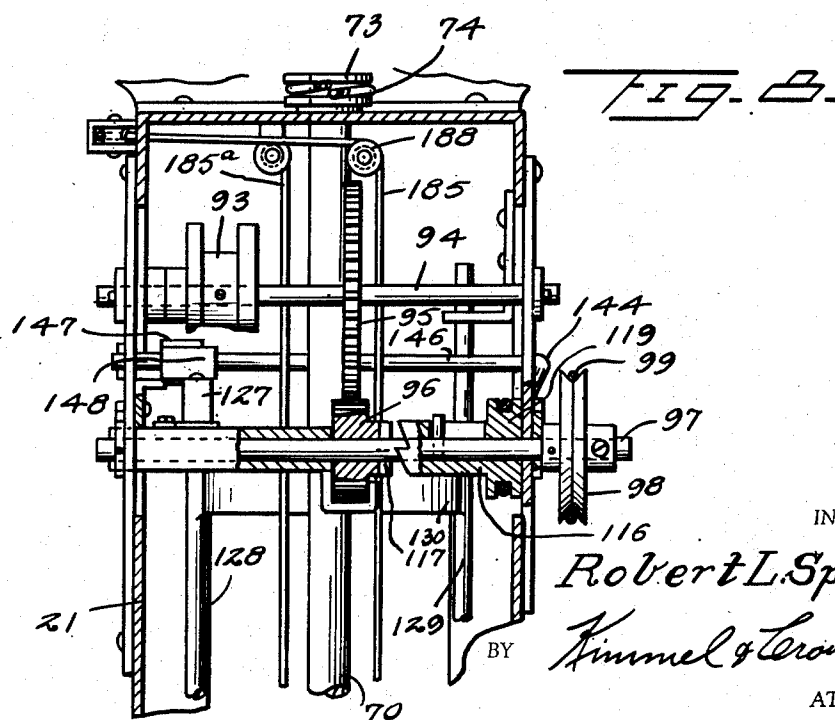
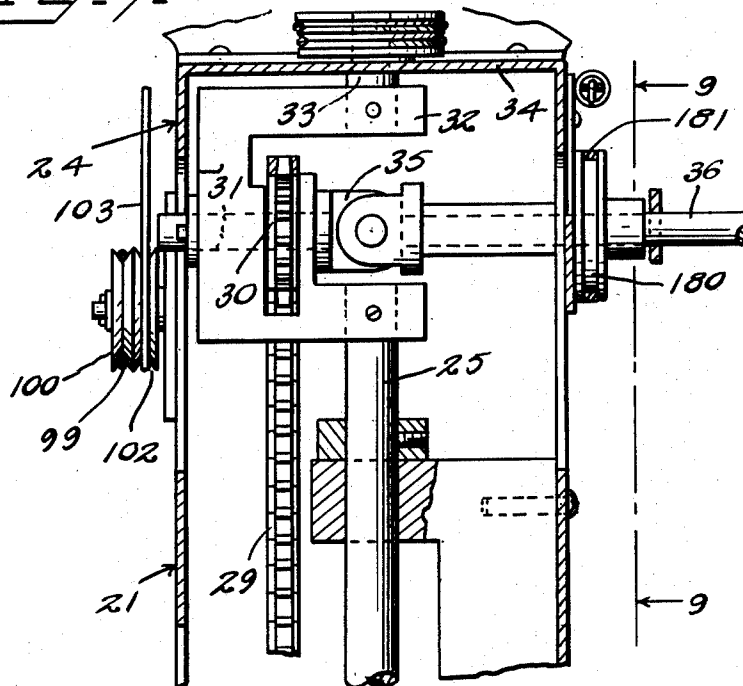
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TOBACCO HARVESTING MACHINE

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9 Sheets-Sheet 7

FIG. 7.



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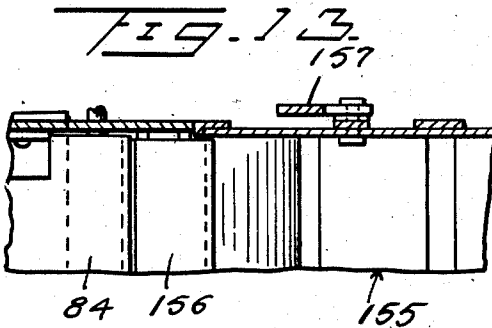
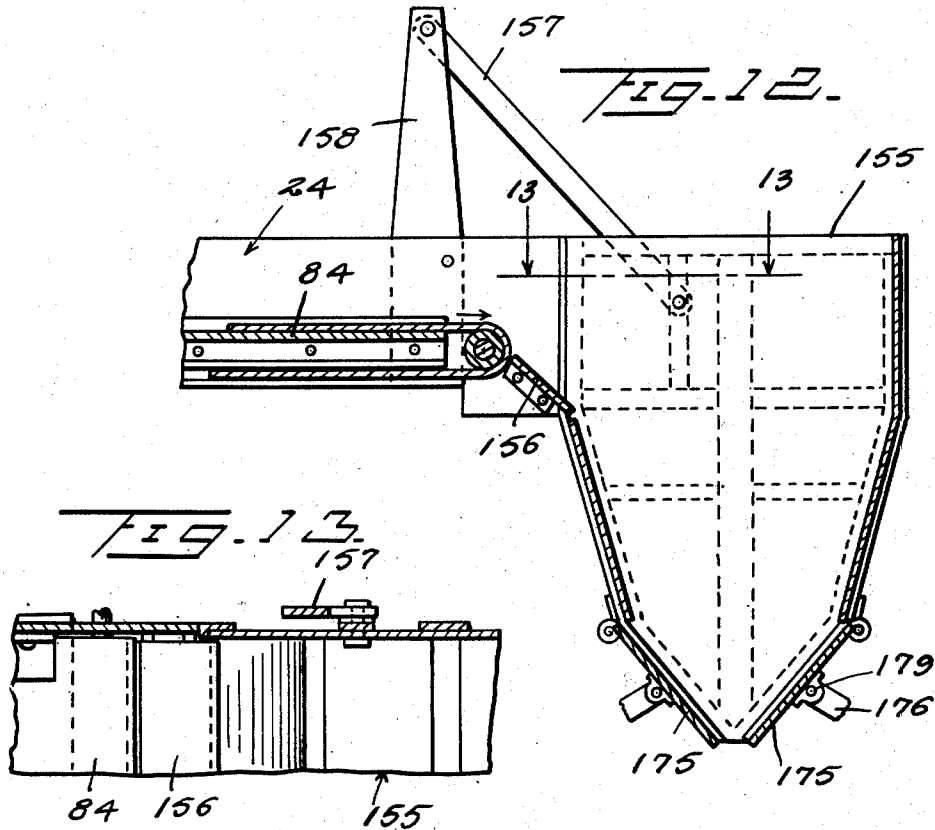
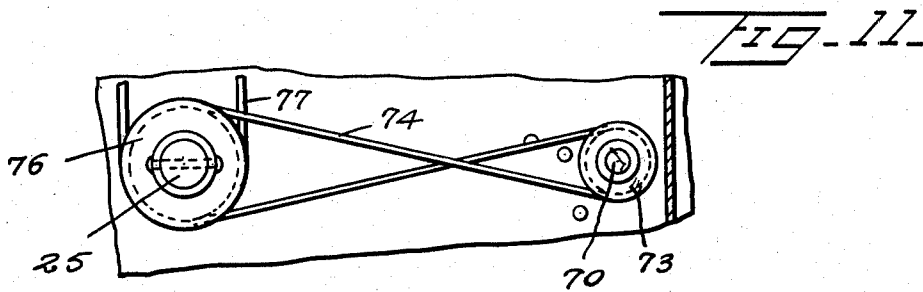
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TOBACCO HARVESTING MACHINE

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9 Sheets-Sheet 8



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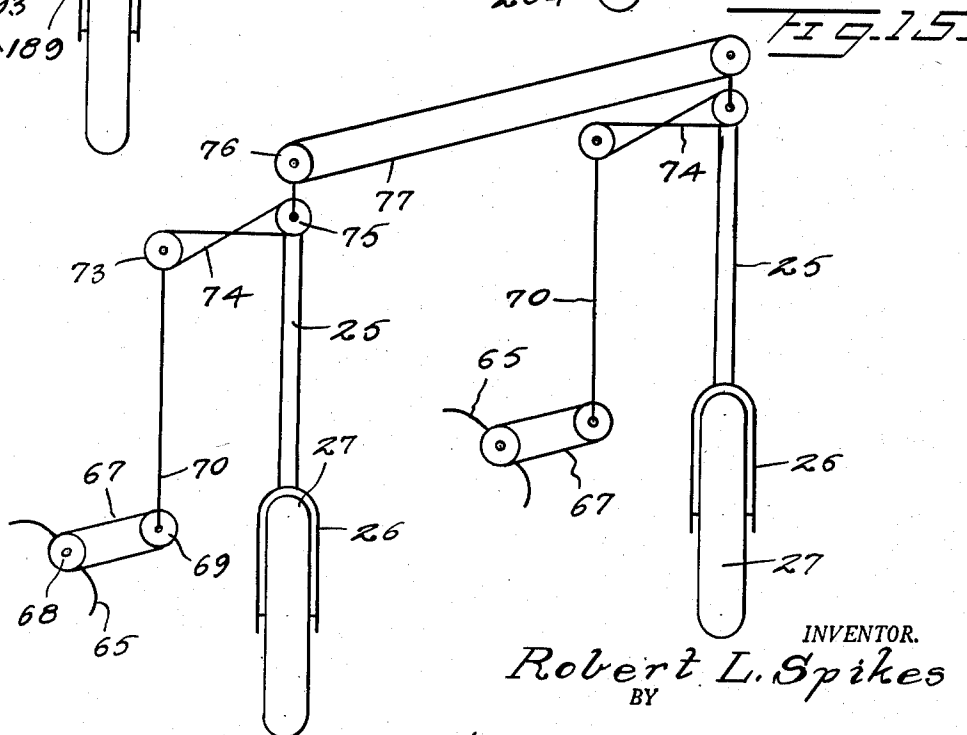
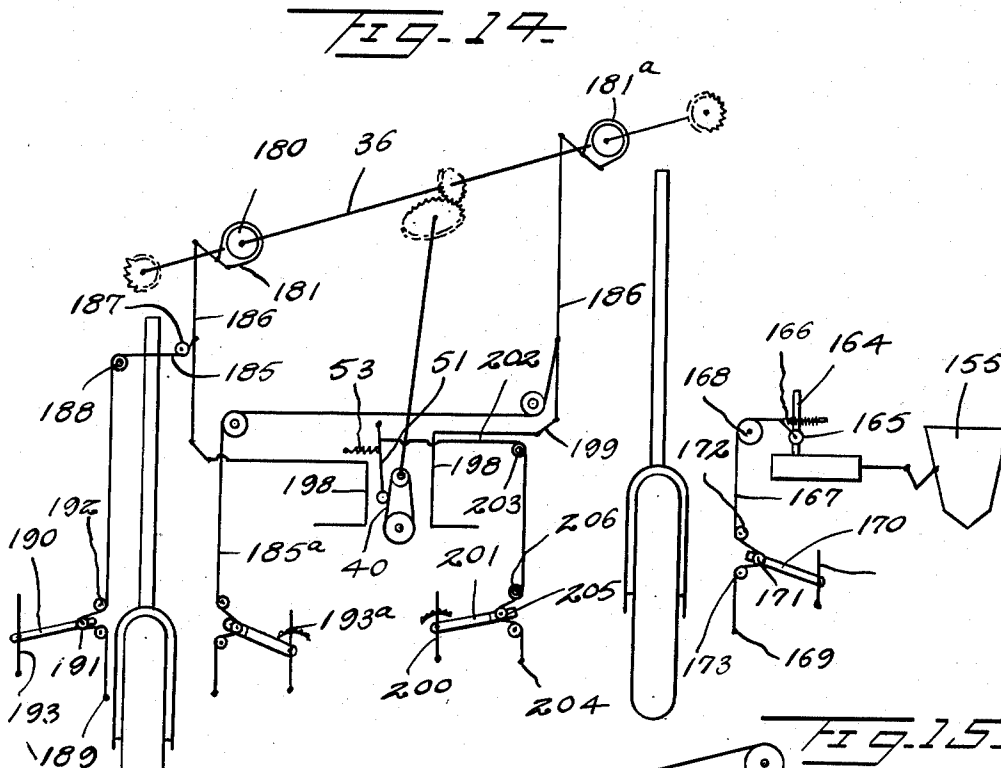
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TOBACCO HARVESTING MACHINE

Filed Feb. 5, 1953

9 Sheets-Sheet 9



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UNITED STATES PATENT OFFICE

2,675,136

TOBACCO HARVESTING MACHINE

Robert Lee Spikes, Maury, N. C., assignor of one-half to Marion Spikes, Washington, D. C.

Application February 5, 1953, Serial No. 335,213

5 Claims. (Cl. 214—83.1)

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In a harvesting of tobacco leaves, more especially as practiced in North Carolina and similar tobacco growing regions, certain of the tobacco leaves are removed by manual means. The plants grow in spaced rows and the common practice is for the leaves to be broken off the stalks by men and boys working along the rows and collecting a certain amount of the leaves in their arms, then crossing over one or more rows to where a mule cart or the like is situated and depositing the leaves therein. Crossing over the rows is necessary due to the fact that only at certain intervals of rows is there a special wide row for the cart. This manual effort is very slow and laborious work and during the harvesting season there is generally a shortage of help. Accordingly, the present invention is intended to accomplish the work of several men, with less effort, and at a considerable saving of time.

It is, therefore, an object of this invention to provide a machine for use in harvesting tobacco wherein a plurality of rows of tobacco may be worked upon, and which includes means whereby the workers may deposit the leaves as they are gathered, into a vertically movable collector or elevator which is arranged to deposit the leaves onto a laterally movable conveyor, and the conveyor discharges the leaves into a second collector having a latched bottom so that the leaves may be periodically deposited into a truck or other vehicle.

Another object of this invention is to provide a tobacco harvesting machine having remote controls so that either worker may regulate the movement of the vehicle.

A further object of this invention is to provide an improved elevator or first collector whereby the elevator is automatically tilted at the upper end of its movement and the elevating mechanism is automatically tripped so that the elevator may gravitatingly return to a lower receiving position.

A further object of this invention is to provide a tobacco harvesting machine which will speed up the harvesting of the tobacco without injury to the leaves, and will permit the harvesting of the leaves irrespective of the height or growth of the plants.

A further object of this invention is to provide a tobacco harvesting machine which includes a spraying means for spraying the plants during the growth thereof.

With the above and other objects in view, my invention consists in the arrangement, combination and details of construction disclosed in the drawings and specification, and then more particularly pointed out in the appended claims.

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In the drawings—

Figure 1 is a detailed side elevation, partly broken away, of a tobacco harvesting machine constructed according to an embodiment of this invention,

Figure 2 is a plan view, partly broken away, of the machine,

Figure 3 is a fragmentary sectional view taken on the line 3—3 of Figure 2,

Figure 4 is a detailed front elevation of the machine,

Figure 5 is a fragmentary rear elevation, partly in section, of the machine,

Figure 6 is a fragmentary sectional view taken on the line 6—6 of Figure 1,

Figure 7 is a fragmentary sectional view taken on the line 7—7 of Figure 1,

Figure 8 is a fragmentary sectional view taken on the line 8—8 of Figure 1,

Figure 9 is a fragmentary sectional view taken on the line 9—9 of either Figure 6 or Figure 7,

Figure 10 is a fragmentary sectional view taken on the line 10—10 of Figure 3,

Figure 11 is a fragmentary sectional view taken on the line 11—11 of Figure 1,

Figure 12 is a fragmentary vertical section at the discharge end of the machine,

Figure 13 is a fragmentary sectional view taken on the line 13—13 of Figure 12,

Figure 14 is a diagrammatic view showing the controls for the operating mechanism,

Figure 15 is a diagrammatic view showing the dual steering controls.

Referring to the drawings, the numeral 20 designates generally a mobile frame structure which is formed of a pair of outer upright frame members 21 and 22, an intermediate frame structure 23, and a horizontal upper frame structure 24.

The upright frame members 21 and 22 are of like construction and each upright frame member 21 and 22 has rotatably mounted therein a vertically disposed steering shaft 25 which is provided at its lower end with a fork 26 between the arms of which a front wheel 27 is rotatably mounted. The two front wheels 27 are driving wheels and a sprocket 28 is secured relative to the wheel 27.

An endless chain 29 engages about the sprocket 28 and also engages about an upper sprocket 30 which is carried by a stub shaft 31 rotatably mounted in a U-shaped connector 32. The connector 32 is fixed to the upper end of shaft 25 and an upper arm of the connector 32 has fixed thereto a short stub shaft 33 which projects upwardly through a top plate 34 carried by the frame 20.

The stub shaft 31 has secured thereto a uni-

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versal coupling 35 and the coupling 35 is secured to a horizontal power shaft 36 which extends from a differential 37 disposed in the central portion of the machine. A right angularly disposed driving shaft 38 extends from the differential 37 and is journaled in an intermediate frame structure 23.

A pulley 39 is secured to the rear end of the shaft 38 and a belt 40 engages about the pulley 39 and about an upper pulley 41 secured to an upper horizontal shaft 42. The upper shaft 42 has secured to the rear end thereof a pulley 43 about which one or more belts 44 engage, and the belts 44 also engage about a driving pulley 45 which is connected with a power element 46 in the form of an internal combustion engine or the like.

An idler pulley 47 is carried by an adjustable hand lever 48 which is carried by the rear of the frame 23, and the pulley 47 engages the belts 44. The lever 48 engages a toothed rack 49 so that lever 48 may be locked in its adjusted position. An idler pulley 50 is carried by a lever 51 rockably mounted on a bracket 52, and is spring-pressed by means of a spring 53 to a released position with respect to belt 40.

A caster wheel 54 is rotatably carried by a bracket 55 extending rearwardly from the frame 23 and is adapted to engage between a pair of rows of plants, as shown in Figure 5.

The frame structure 21 includes a pair of depending frame members 56 connected together as at 57 at their lower ends, and a vertically disposed guide member or flat frame bar 58 is fixed to the bottom member 57 and extends upwardly therefrom. The upper end of the guide bar 58 is inwardly curved, as indicated at 59, and is fixed to the upper frame structure 24.

A horizontally and rearwardly extending supporting bar 60 is vertically adjustable relative to the guide bar 58 by means of a pair of fastening members 61 which engage in spaced holes 62 provided in the guide bar 58. The rear end of the supporting member or bar 60 is formed with a rear hinged member 63, and a seat 64 is secured to the hinged member or bar 63.

A pair of connected together steering levers 65 are pivotally secured to a pivot member 66 carried by the bar 60, and a cable or flexible connecting member 67 engages about a pulley 68 which is fixed relative to the steering levers 65. The cable 67 also engages about a pulley 69 which is vertically adjusted along a vertically disposed shaft 70 which is rotatably carried by the upright frame 21.

The shaft 70 is provided with a plurality of vertically spaced apart openings 71 through which a fastening member 72 engages for vertically adjusting the pulley 69. The upper end of shaft 70 has fixed thereto an upper pulley 73 about which a cable 74 engages, and cable 74 engages about a pulley 75 which is fixed relative to the shaft 25.

The shaft 25 also has fixed thereto a second pulley 76 about which a belt or cable 77 engages, and cable 77 extends lengthwise of the upper frame 24 and is connected with the other upper pulley 76 carried by the second outer upright shaft 25, as shown in Figure 15. By means of the double steering mechanism each worker on a seat 64 will be able to steer the machine as it moves along the rows of plants.

Each frame member 21 and 22 has movably mounted thereon a vertically movable elevator or first collector generally indicated at 78. The

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collector 78 is formed with slide bars 79 engaging the guide 58, and a pair of lower rollers 80 and 81 are carried by the slide bar 79 at the lower portion thereof and engage on the forward and rearward edges of the guide bar 58. An upper roller 82 is also carried by the slide bars 79 and engages the rear edge of the guide 58 above the rollers 80 and 81.

The upper forward portion of the guide 58 is provided with an upwardly and rearwardly projecting arcuate guide opening or slot 83 within which roller 80 is adapted to engage at the time the collector 78 is being tilted, as will be hereinafter described, for discharging the tobacco leaves onto a horizontally movable conveyor 84 which is carried by the upper frame 24.

A U-shaped member 85 is pivotally carried by the upper portion of the frame 24 and has a pulley 86 rotatably mounted thereon. A cable 87 is fixed to the elevator formed by the collector 78 and the slide bars 79, the elevator being generally indicated by the numeral 88. The cable 87 engages over the pulley 86 and over a pulley 89 which is rotatably mounted at the forward portion of the upper frame 24. The cable 87 is then extended downwardly as indicated at 90, and is trained about a lower pulley 91 fixed to the forward portion of the upright frame 21. The cable 87 is then extended rearwardly and substantially horizontally, as indicated at 92, and is wound about a winding drum 93 fixed to a shaft 94.

The shaft 94 has fixed thereto a spur gear 95, and a small spur gear 96 is loosely carried by a shaft 97. The shaft 97 has fixed to the outer end thereof a pulley 98 about which a belt 99 engages. The belt 99 extends forwardly and engages about a pulley 100 mounted rotatably on a stub shaft 101 carried by the forward portion of the upright frame 21. A second pulley 102 is fixed relative to the pulley 100 and a belt 103 engages about pulley 102 and about a pulley 104 which is secured to a horizontal shaft 105.

The shaft 105 is journaled in bearings 106 secured and extending from the forward portion of upper frame 24. Shaft 105 has fixed to the intermediate portion thereof a bevel gear 107 which meshes with a bevel gear 108 secured to right angularly disposed and rearwardly extending shaft 42 carried by the upper frame 24.

The elevator 88 has fixed thereto a pair of upwardly extending rods 109 which are adapted to engage pulley 86, and elevator 88 is also provided with a tripping member 110 which extends from the upper portion of the elevator 88 and is engageable with a locking lever 111 pivotally secured as at 112 to the forward portion of frame 24 and extending upwardly and rearwardly in a position overlying the bight of the inverted U-shaped member 85.

The locking lever 111 is provided with a cam-shaped locking element 113 adjustably secured along the length of lever 111, and locking element 113 is adapted to hold lever or U-shaped member 85 against forward rocking at the time the bars 109 bear against pulley 86. Locking lever 111 is provided with a right angularly disposed and horizontally extending arm 114 which is disposed in the path of the movement of release member 110 so that release member 110 upon striking arm 114 will raise locking element 113 upwardly and thereby permit U-shaped member 85 to swing forwardly and downwardly against the tension of spring 115 which constantly urges U-shaped member 85 downwardly and rearwardly.

At the time the elevator 88 is in its upper position roller 82 will roll over the arcuate portion 59 of guide bar 58 and roller 80 will move into the arcuate slot or opening 83.

The shaft 97 has loosely mounted thereon one element 116 of a clutch, and the other element 117 of the clutch generally indicated at 118 is secured to the spur gear 96, the latter being loose on shaft 97. The clutch element 116 is provided with a grooved portion 119 which is engaged by fork 120, and the fork 120 is fixed relative to a horizontally movable slide 121. The slide 121 is slidably carried by a horizontally disposed guide 122 which is carried by the upper portion of frame 21.

A vertically disposed crankshaft 123 is rotatably carried by the guide 122 and has fixed thereto a crank arm 124 which is connected with the slide 121 by means of a link 125. A second obliquely disposed crank arm 126 is fixed relative to the crankshaft 123 and crank arm 126 has pivotally secured thereto the forward end of a link 127. The link 127 extends rearwardly and is pivotally connected to the upper end of an upright shaft 128.

The shaft 128 is a swinging shaft and is secured in spaced parallel relation to a second pivotally disposed shaft 129 by means of connecting bars 130 and 131. A spring-pressed clutch operating rod 132 is pivotally secured at its forward end to shaft 128 adjacent the lower portion of the latter, and rod 132 is slidable in a sleeve 133 which is secured to and supported from the supporting bar 60 by means of a support 134.

Rod 132 is spring-pressed rearwardly to a clutch releasing position by means of a spring 135, and the rear end of rod 132 has fixed thereto a knob 136. At the time the first collector 78 is substantially filled with tobacco leaves, the worker disposed on the seat 64 will push knob 136 and rod 132 forwardly so as to thereby move clutch element 116 into engagement with clutch element 117. At this time winding drum 93 will rotate so as to wind cable 87 thereabout and raise elevator 88 to its upper discharging position.

When collector 78 is substantially discharged of the leaves and U-shaped lever or member 85 is rocked forwardly, clutch element 116 is automatically released by means of a depending release rod 137 which is pivotally secured at its upper end to a depending arm 138 carried by U-shaped member 85. The lower portion of rod 137 slidably engages through a laterally projecting lug 139 which is carried by a rock lever 140.

A collar 141 is adjustably secured to the lower portion of rod 137 and is adapted upon upward movement of rod 137 to engage lug 139. Lever 140 is provided with an elongated opening 142 through which a laterally projecting extension 143 carried by a crank 144 engages. A spring 145 is secured to the extension 143 and constantly urges the latter downwardly to a clutch locking position. The crank 144 extends horizontally across the upper portion of frame 21, as indicated at 146, and the inner portion of crank 144 has fixed thereto an L-shaped clutch releasing member 147. The clutch releasing member 147 is adapted to engage a keeper 148 which is carried by the link 127. When crank 144 is raised upwardly, clutch locking member 147 is released from keeper 148 and clutch element 116 is then moved to declutching position by means of spring 135.

The conveyor 84 is formed of an endless belt or web which engages about drums 149 and 150

which are rotated by means of bevel gears 151 and 152 respectively. Gear 151 meshes with a bevel gear 153 mounted on one end of shaft 105, and gear 152 meshes with a bevel gear 154 mounted on the opposite end of shaft 105.

The discharge end of conveyor 84 discharges the leaves which are dumped thereon by the elevators 88 into a hopper or receiver generally indicated at 155. A downwardly inclined guide plate 156 is disposed at the discharge end of the conveyor 84 for guiding the leaves into the open upper end of the hopper or receiver 155. The hopper or receiver 155 is supported at the discharge end of conveyor 84 by means of a pair of downwardly inclined links 157 which are pivotally secured at their upper ends to upstanding supporting members 158 fixed to the upper frame 24.

The hopper or receiver 155 is held in a vertical position by means of link 157 and a second link 159 pivotally secured at one end to the lower portion of hopper or receiver 155 and pivotally secured as at 160 to the adjacent end of frame 24.

A crank arm 161 extends obliquely from the upper end of link 159 and is connected with a hydraulic plunger 162 which is slidable in a hydraulic cylinder 163. The cylinder 163 is adapted to be connected to a source of liquid pressure supply by means of a pipe line 164 which is preferably flexible and a valve 165 is interposed in the pipe or tubular line 164. Valve 165 is spring-pressed, as shown in Figure 14, to a closed position by means of a spring 166 and is adapted to be manually moved to an open position by pulling of the cable or flexible member 167.

The cable or flexible member 167 is trained over a guide pulley 168 and one end of the cable 167 is anchored as at 169 to the lower plate 57 of upright frame 22. A horizontally movable valve operating bar 170 has a pulley 171 about which the cable 167 engages, and pulley 171 is disposed between a pair of idler pulleys 172 and 173 which are disposed in vertically spaced position and are carried by the upright frame 22.

A hand lever 174 is pivotally connected between the ends thereof to bar 170 and is pivotally mounted at its lower end on the adjacent seat supporting member 60. A hopper or receiver 155 is provided at the bottom thereof with a pair of downwardly convergent doors or closures 175 which are hinged at their upper edges to the hopper 155 and are latched in closed position by means of latch members 176 engaging keepers 177 which are fixed to the adjacent ends of the hopper 155. The latch members 176 are spring-pressed by means of springs 178 to a latching position. There is a latch member 176 at each end of the hopper 155 for each closure or door 175, and the latch members associated with each door are connected together by means of an elongated rod 179 which forms the pivot member for the latch members 176. In this manner either or both doors 175 may be released to gravitatingly swing downwardly and outwardly to discharging position by release of either latch member 176 at either end of the hopper 155.

In order that the right hand worker disposed on the seat 64 may stop the machine or slow the machine down at selected points or intervals, a pair of brake drums 180 are secured to the shaft 36 and a brake band 181 engages about each brake drum 180. As shown in Figure 9, one end of the brake band 181 is anchored relative to the frame structure and the other end of the brake band 181 is secured to a bellcrank 182 rockably

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supported as at 183. A spring 184 constantly urges the bellcrank 182 to band releasing position, and a cable 185 as shown in Figure 14, is connected to an elongated rod 186 which is pivotally connected with the bellcrank 182.

The cable 185 is trained about pulleys 187 and 188 and is then extended downwardly in outer frame 21 and is anchored as at 189 to the bottom member 57. A brake operating rod 190 is slidably carried by the supporting member 60, and has a pulley 191 engaging about the cable 185 between a pair of idler pulleys 192 which are carried by the frame 21.

A brake operating lever 193 pivotally connected with the frame or support 60 is pivotally connected with bar 190. As shown in Figure 14, there are two brake levers associated with frame member 21, the brake lever 193a being connected by means of a flexible cable 193a to the opposite brake band 181a.

In order to provide a means whereby the winding drum 93 will be held against free turning when the elevator 88 is gravitatingly dropping downwardly to receiving position, a drum 194 is fixed on shaft 94 and a resilient braking member 195 engages the drum 194. The braking member 195 is also spring-pressed to braking position by means of a spring 196, as shown in Figure 9.

The intermediate frame 23 has a seat 197 extending rearwardly therefrom and in order that a person seated on seat 197 may also stop the machine, a pair of brake operating levers 198 are rockably carried by the rear portion of frame 23, and include crank arms 199 pivotally connected with the bars 186. The worker seated in the right hand seat 64 may control the forward movement of the vehicle in addition to regulating the dumping of the hopper 155, by means of a lever 200 which is pivotally connected to a slide bar 201. Idler pulley lever 51 is adapted to be moved to belt tightening position with respect to belt 40 by means of a cable 202 which is connected at one end to lever 51 and is engaged about an upper pulley 203.

The cable 202 is extended downwardly in the right hand frame 22 and is anchored as at 204 to the bottom member 57 of frame 22. Bar 201 has a pulley 205 at the inner end thereof which engages between a pair of idler pulleys 206 carried by the frame 22. Spring 53 maintains cable 202 taut, as well as constantly urging lever 51 to a belt disengaging position.

The intermediate frame 23 includes a tank 207 for containing insecticide and the insecticide is adapted to be sprayed onto the plants as will be hereinafter described. A horizontally disposed pipe 208 is adjustably mounted in clips 209 carried by the forward ends of the frame members 21 and 22 and pipe 160 has secured to an intermediate point thereof a flexible hose 210. The hose 210 is connected with a pump cylinder 211 having a plunger 212 slidable therein.

The intake side of the pump 211 is connected by means of a pipe 213 to the reservoir or tank 207. Plunger 212 is adapted to be reciprocated by means of a pitman 214 which is connected between the plunger 212 and a crank pin 215 secured to a wheel 216 mounted on a shaft 217. The wheel 216 constitutes a pulley and has a belt 218 trained thereabout which also engages about a pulley 219 mounted on shaft 42.

A belt tightening pulley 220 is carried by a crank arm 221 which is secured to a shaft 222 extending rearwardly beneath the conveyor 84. The rear end of the shaft 222 has a crank arm 75

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223 extending right angularly therefrom in front of the seat 197. The pipe 208 has extending downwardly therefrom spray nozzles 224 which are disposed in a position above the plants engaged between the frame members 21, 22, and 23, and at the outer sides of frame members 21 and 22. It will be understood that the spray construction hereinbefore described will be used at any time necessary for spraying insecticide on the plants but will not be used at the time the leaves are being stripped from the plants.

In the use and operation of this machine, when the leaves are to be stripped from the plants, the seat supporting members 60 will be disposed in their lower position which is substantially the position shown in Figure 1. Power member 46 is coupled to the driving mechanism by the control lever 200 and it will be understood that the machine is geared down to a point wherein the workers can readily strip the leaves from the plants without stopping the motion of the machine. The machine will straddle several rows of plants, as shown in Figure 5, with two rows being disposed between outer frame 21 and intermediate frame 23, and between outer frame 22 and intermediate frame 23. The two workers will strip the leaves from the lower portions of the plants of the two rows being straddled by the machine and the workers may also strip the leaves from the plants disposed on the outer sides of the frame members 21 and 22.

After a collector 78 has been substantially filled with leaves, the worker pushes rod 132 inwardly so as to move clutch member 116 into clutching engagement with clutch member 117. Winding drum 93 will then wind cable 87 thereabout and raise elevator 88 upwardly. When elevator 88 is in substantially the upper end of its travel, releasing member 110 will strike arm 114 so as to release U-shaped lever 85 from locking member 113. Continued pull on cable 87 will tip elevator 88 downwardly and inwardly with rods 109 bearing against U-shaped lever 85, and rocking this lever to the left, as viewed in Figure 1.

The leaves carried by the first collector or receiver 78 are dumped onto the laterally moving conveyor 84 and as elevator 88 dumps the leaves onto the conveyor 84, clutch release rod 137 is pulled upwardly and clutch member 116 is moved laterally to a clutch releasing position. With clutch member 116 released, elevator 88 will gravitatingly drop downwardly to a receiving position. The leaves dumped onto conveyor 84 are moved laterally into hopper or second collector 155 and when this collector is substantially filled a truck is moved beneath the hopper 155. Inasmuch as the collector or hopper 155 is disposed in a relatively low position the collector 155 is preferably raised when it is desired to dump the collected leaves into the truck or receiver.

The raising of the hopper or collector 155 is accomplished by opening valve 165 so that lever 159 will be swung upwardly. Lever or link 159 will operate with link 157 in holding hopper 155 in a vertical position.

When the truck is disposed beneath the hopper 155, the worker can discharge the leaves into the truck by opening either or both of the doors 175. If it is desired to drop the leaves vertically downwardly both doors 175 are opened. However, if it is desired to drop the leaves downwardly and to either the right or left, as viewed in Figure 5, either the right or left hand door 175 is released so that the leaves will slide downwardly over the

remaining latched door and into the side portion of the truck.

This machine is adapted to be used during the entire growth of the tobacco plants and as the plants grow taller, the seat supporting bars 59 are vertically raised with respect to the frame members 21 and 22 as hereinbefore described.

This machine will provide means whereby the tobacco leaves may be easily and quickly collected and will save a considerable amount of time in the collecting of the leaves due to the fact that the workers are relieved of the necessity of walking across several rows of plants to deposit their collected leaves into a truck, which moves within a relatively wide passageway between selected rows of plants.

I do not mean to confine myself to the exact details of construction herein disclosed, but claim all variations falling within the purview of the appended claims.

What I claim is:

1. A tobacco harvesting machine comprising a mobile frame, driving means for said frame, a pair of vertically disposed guide members carried by said frame, a vertically adjustable seat support carried by each guide and projecting rearwardly therefrom, means adjusting said seat supports on said guide means, means carried by said seat supports controlling the movement of the machine, a third centrally positioned seat support, means carried by said third seat support for steering said vehicle, a vertically movable collector carried by each guide means, means for raising each collector, a laterally movable conveyor carried by said frame, means at the upper end of each guide for tipping said collectors to thereby discharge the leaves onto said conveyor, means operable by each collector at the time the collector is being tipped for disengaging said raising means whereby the collector may gravitatingly move downwardly to receiving position, and a receiver disposed at the forward end of said conveyor.

2. A tobacco harvesting machine comprising a mobile frame, driving means for said frame, a pair of vertically disposed guide members carried by said frame, a vertically adjustable seat support carried by each guide and projecting rearwardly therefrom, means adjusting said seat supports on said guide means, means carried by said seat supports controlling the movement of the machine, a third centrally positioned seat support, means carried by said third seat support for steering said vehicle, a vertically movable collector carried by each guide means, means for raising each collector, a laterally movable conveyor carried by said frame, means at the upper end of each guide for tipping said collectors to thereby discharge the leaves onto said conveyor, means operable by each collector at the time the collector is being tipped for disengaging said raising means whereby the collector may gravitatingly move downwardly to receiving position, a receiver disposed at the forward end of said conveyor, and means for raising said receiver.

3. A tobacco harvesting machine comprising a mobile frame, driving means for said frame, a pair of vertically disposed guide members carried by said frame, a vertically adjustable seat support carried by each guide and projecting rearwardly therefrom, means adjusting said seat supports on said guide means, means carried by said seat supports controlling the movement of the machine, a vertically movable collector carried by each guide means, means for raising each

collector, a laterally movable conveyor carried by said frame, means at the upper end of each guide for tipping said collectors to thereby discharge the leaves onto said conveyor, means operable by each collector at the time the collector is being tipped for disengaging said raising means whereby the collector may gravitatingly move downwardly to receiving position, and a receiver disposed at the forward end of said conveyor, said receiver including a pair of hinged bottom walls, and releasable latch means for holding said bottom walls in closed position.

4. A tobacco harvesting machine comprising a mobile frame, driving means for said frame, a pair of vertically disposed guide members carried by said frame, a vertically adjustable seat support carried by each guide and projecting rearwardly therefrom, means adjusting said seat supports on said guide means, means including brake means carried by each of said seat supports controlling the movement of the machine, each of said brake means being individually controlled, a vertically movable collector carried by each guide means, means for raising each collector, a laterally movable conveyor carried by said frame, means at the upper end of each guide for tipping said collectors to thereby discharge the leaves onto said conveyor, means operable by each collector at the time the collector is being tipped for disengaging said raising means whereby the collector may gravitatingly move downwardly to receiving position, and a receiver disposed at the forward end of said conveyor, said receiver including a pair of hinged bottom walls, and releasable latch means for holding said bottom walls in closed position.

5. A tobacco harvesting machine comprising a mobile frame, driving means for said frame, a pair of vertically disposed guide members carried by said frame, a vertically adjustable seat support carried by each guide and projecting rearwardly therefrom, means adjusting said seat supports on said guide means, means including brake means carried by each of said seat supports controlling the movement of the machine, each of said brake means being individually controlled, a third centrally positioned seat support, means carried by said third seat support for steering said vehicle, a vertically movable collector carried by each guide means, means for raising each collector, a laterally movable conveyor carried by said frame, means at the upper end of each guide for tipping said collectors to thereby discharge the leaves onto said conveyor, means operable by each collector at the time the collector is being tipped for disengaging said raising means whereby the collector may gravitatingly move downwardly to receiving position, and a receiver disposed at the forward end of said conveyor, said receiver including a pair of hinged bottom walls, and releasable latch means for holding said bottom walls in closed position.

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