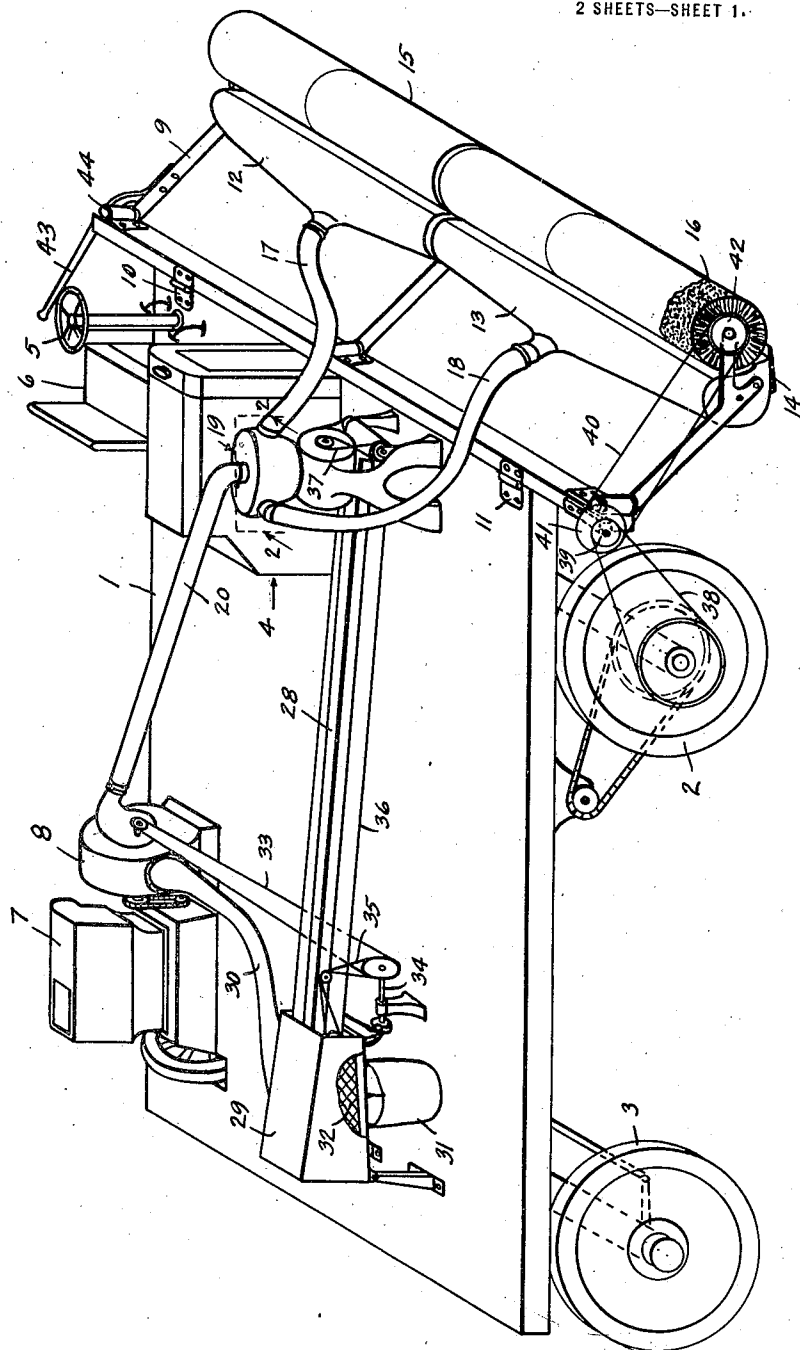


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WALNUT PICKER.
APPLICATION FILED MAY 16, 1919.

1,330,488.

Patented Feb. 10, 1920.
2 SHEETS—SHEET 1.

Fig. 1.

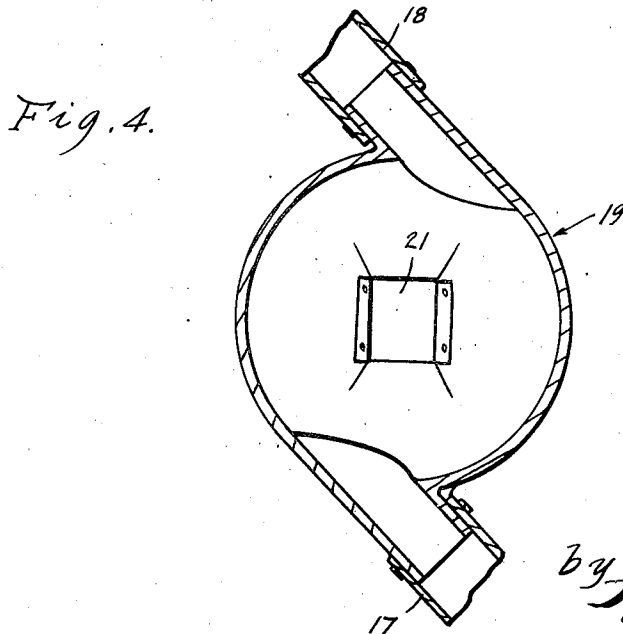
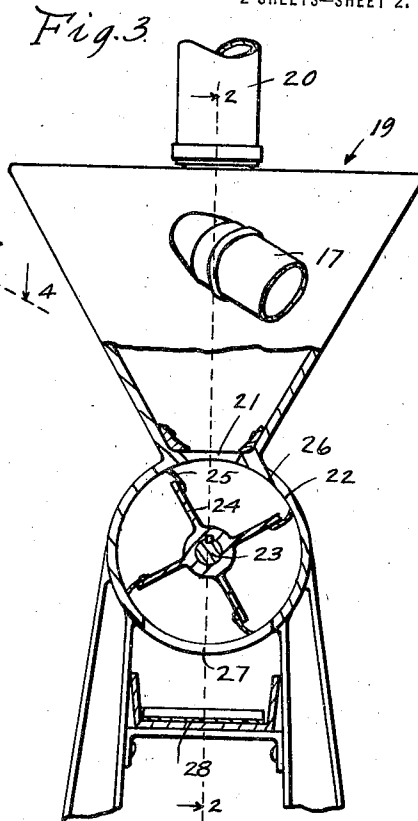
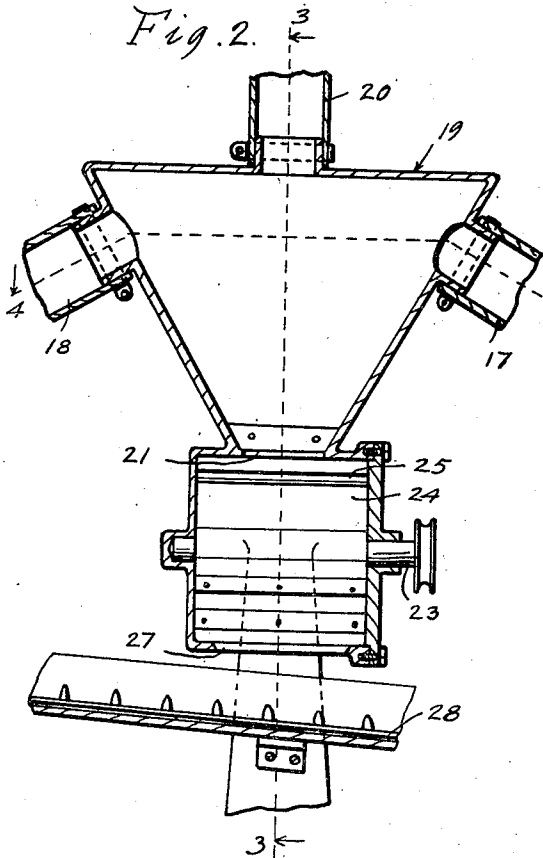


Inventor:
Noah Nelson,
by Hazard & Miller
Attys.

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UNITED STATES PATENT OFFICE.

NOAH NELSON, OF IMPERIAL, CALIFORNIA.

WALNUT-PICKER.

1,330,488.

Specification of Letters Patent.

Patented Feb. 10, 1920.

Application filed May 16, 1919. Serial No. 297,631.

To all whom it may concern:

Be it known that I, NOAH NELSON, a citizen of the United States, residing at Imperial, in the county of Imperial and State of California, have invented new and useful Improvements in Walnut-Pickers, of which the following is a specification.

My object is to make a vacuum walnut picker, and my invention consists of the novel features herein shown, described and claimed.

Figure 1 is a perspective of a vacuum walnut picker embodying the principles of my invention.

Fig. 2 is an enlarged fragmentary sectional detail on the line 2—2 of Figs. 1 and 3.

Fig. 3 is a cross section on the line 3—3 of Fig. 2.

Fig. 4 is a horizontal section on the line 4—4 of Fig. 2.

The platform 1 is mounted on front drive wheels 2 and rear steering wheels 3, and the vehicle thus constructed is driven by an engine 4 and manipulated by a steering wheel 5. An operator's stand 6 extends from one side of the platform 1 near the steering wheel 5. An engine 7 is mounted upon the platform 1 to drive a suction fan 8. A frame 9 is pivotally mounted and connected to the front end of the platform 1 by hinges 10 and 11. The suction heads 12 and 13 are carried by the frame 9 in front of the vehicle, there being shoes 14 below the suction heads and running upon the ground. Rotary sweepers 15 and 16 are mounted in front of the suction heads 12 and 13 and discharge over the shoes 14 into the suction heads. Pipes 17 and 18 lead from the suction heads to the separator 19, and the pipe 20 leads from the separator 19 to the intake of the suction fan 8. The separator 19 is funnel-shaped and has a discharge opening 21. A cylindrical casing 22 is mounted below the opening 21. A shaft 23 is mounted in the casing 22, blades 24 extend from the shaft, and flexible flaps 25 extend outwardly from the blades and rub against the inner face 26 of the cylinder. An opening 27 is formed in the bottom of the cylinder 22. A belt conveyer 28 is mounted with one end below the opening 27 and extends into the second separator 29. A pipe 30 leads from the discharge of the suction fan 8 to the second separator 29. A sack 31 is mounted be-

low the separator 29 to receive the walnuts. The bottom of the separator 29 is a coarse screen 32 large enough to allow the walnuts to pass.

A belt 33 extends from the shaft of the suction fan 8 to a countershaft 34, and a belt 35 extends from the countershaft 34 to drive one end of the belt conveyer 28. A belt 36 extends from the rear end of the belt conveyer 28 to the front end, and a belt 37 extends from the front end of the belt conveyer to the shaft 23, so that when the blower operates the conveyer will operate and the shaft 23 will operate. A belt 38 runs over a pulley upon the front axle or connected to a front wheel to a countershaft pulley 39, and a belt 40 connects the second pulley 41 to a pulley 42 upon the end of the sweeper shaft, so that as the vehicle moves forwardly the rotary sweepers 15 and 16 will be operated.

As the walnut picker is moved over a walnut field the walnuts will pass into the suction heads 12 and 13 and through the pipes 17 and 18 and the pipes 17 and 18 discharge into the separator 19 tangentially and the walnuts will whirl in the hopper and ultimately settle and fall through the opening 21, and as the blades 24 rotate the walnuts will be fed through the opening 27 on to the conveyer 28, and the flexible flaps 25 will serve as valves to hold the air from passing upwardly against the downflow of walnuts. The walnuts will be carried by the conveyer 28 to a second separator 29 where the dirt and leaves will be blown away and the clean walnuts will fall into the removable sack 31. Any dirt which passes through the pipe 20 to the suction fan 8 will pass through the pipe 30 to the second separator and be blown away.

The vehicle is steered by manipulating the rear wheels so that the sweepers and suction heads may be moved closely around the trees. A handle 43 is connected to the frame 9 and the frame 9 has joints 44 so that by manipulating the handle 43 the suction heads and sweepers may be moved laterally to some extent, as required to get close to a tree, or avoid hitting a tree.

Various changes may be made without departing from the spirit of my invention as claimed.

I claim:

In a vacuum walnut picker, a platform

mounted on front drive wheels and rear steering wheels, a frame attached to the forward end of the platfrom so as to swing up and down and so as to swing laterally, suction heads carried by the frame and adapted to engage the ground, rotary sweepers carried in front of the suction heads, flexi-

ble pipes leading from the suction heads, manual means for moving the frame laterally and means for communicating power from the drive wheels to the rotary sweepers.

In testimony whereof I have signed my name to this specification.

NOAH NELSON.