No. 897,844. PATENTED SEPT. 1, 1908.

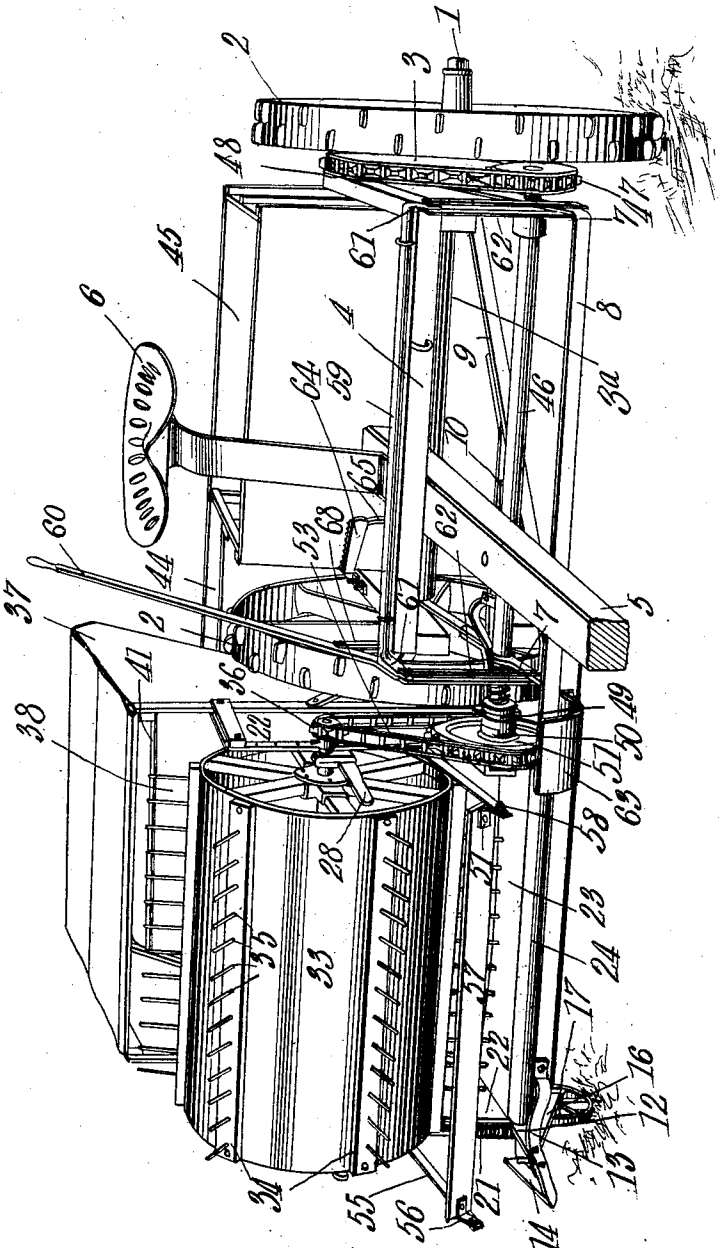
S. NETTLESHIP.

PEA HARVESTER.

APPLICATION FILED FEB. 28, 1907.

4 SHEETS—SHEET 1.

Fig. 1.



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4 SHEETS—SHEET 2.

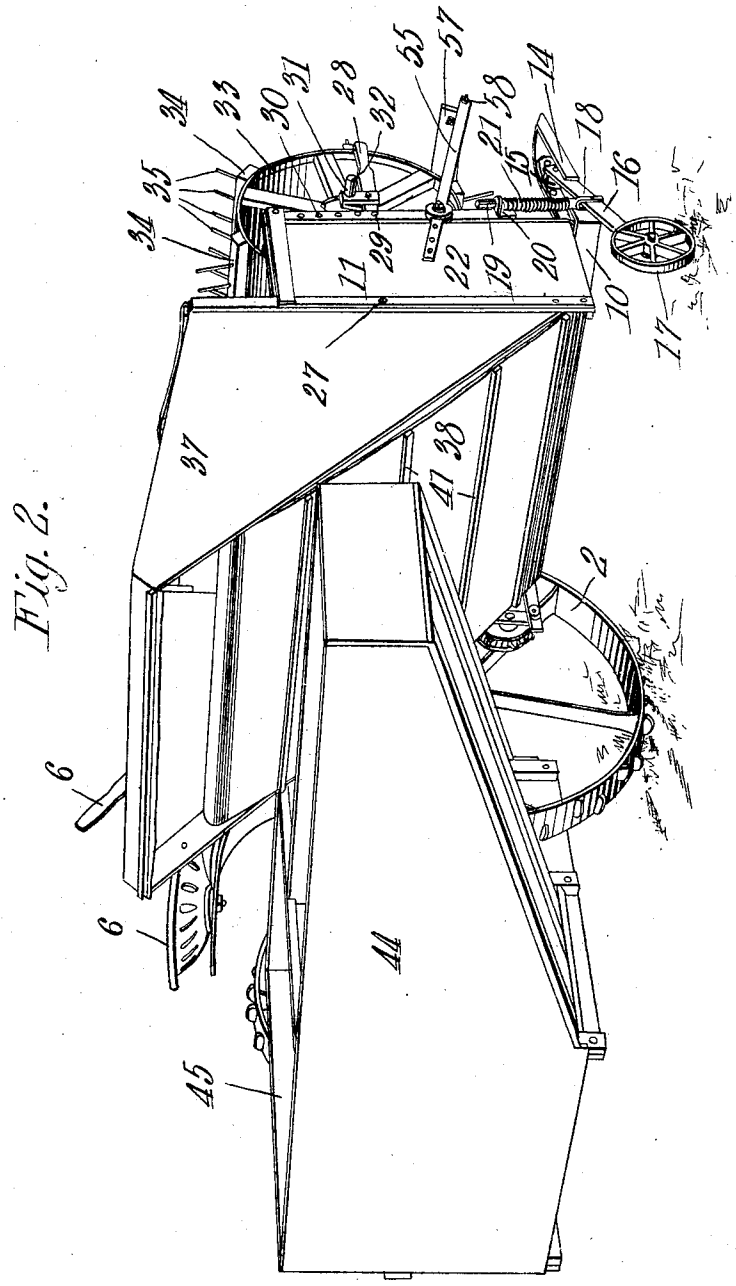


Fig. 2.

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4 SHEETS—SHEET 3.

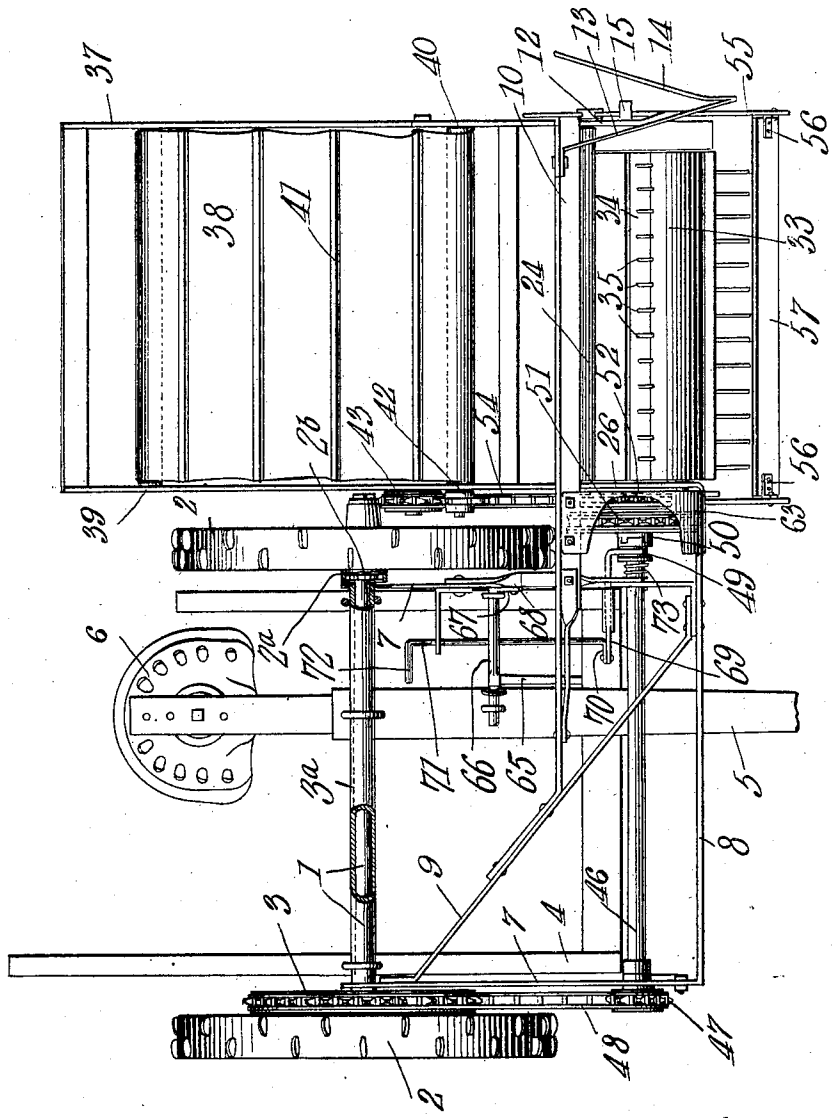


Fig. 3.

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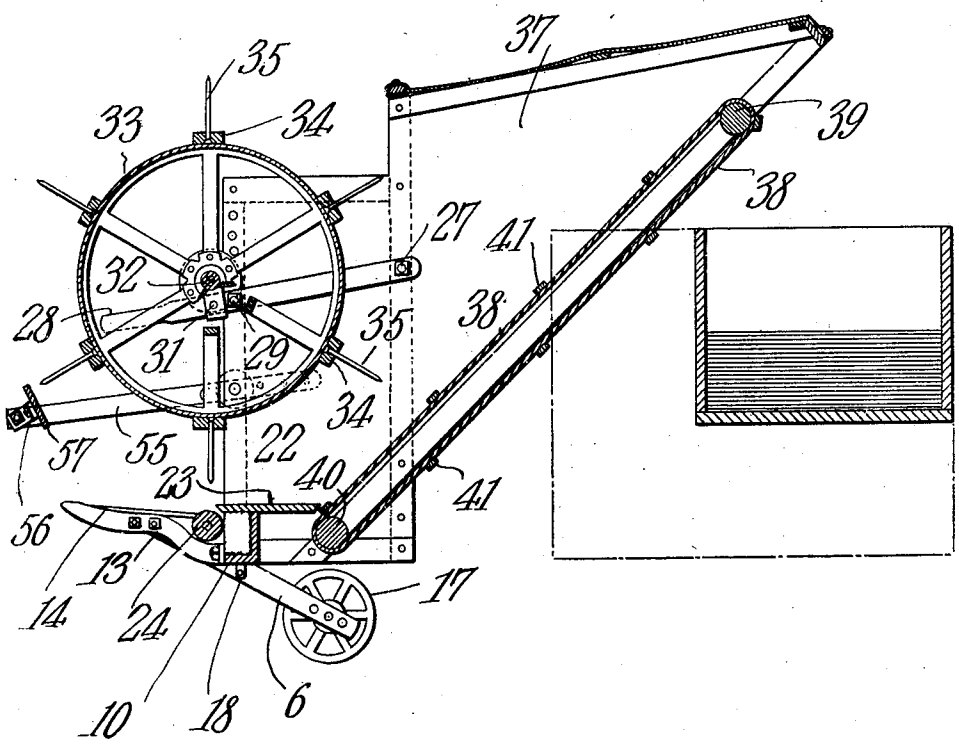
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4 SHEETS—SHEET 4.

Fig. 4.



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UNITED STATES PATENT OFFICE.

SHELBY NETTLESHIP, OF FAYETTEVILLE, ARKANSAS.

PEA-HARVESTER.

No. 897,844. Specification of Letters Patent. Patented Sept. 1, 1908.

Application filed February 28, 1907. Serial No. 359,763.

To all whom it may concern:

Be it known that I, SHELBY NETTLESHIP, a citizen of the United States, residing at Fayetteville, in the county of Washington and State of Arkansas, have invented a new and useful Pea-Harvester, of which the following is a specification.

This invention relates to pea harvesters and particularly to that class of devices designed to strip the pods from the vines, leaving the latter standing in the field.

The device is designed more particularly as an improvement upon the harvester described and claimed in Patent 797,142 granted to me on August 15, 1905.

The object of the invention is to simplify the construction of the machine, and render the same more efficient and easy to operate than heretofore.

With these and other objects in view the invention consists of certain novel features of construction and combinations of parts which will be hereinafter more fully described and pointed out in the claims.

In the accompanying drawings is shown the preferred form of the invention.

In said drawings: Figure 1 is a perspective view showing the front portion of the machine; Fig. 2 is a rear perspective view of the machine; Fig. 3 is a bottom plan view, the bins and the spring pressed supporting wheel being removed; Fig. 4 is a longitudinal section through the picking drum and housings.

Referring to the figures by characters of reference, 1 is the main axle of the machine the same being supported by traction wheels 2, one of which has a drive sprocket 3 revoluble therewith. The hub of each of the traction wheels is connected to the axle by means of a pawl 2^a and ratchet 2^b so that the wheels can rotate independently of each other when the machine is being turned. The axle 1 rotates within a sleeve 3^a on which is secured the main frame or body 4 of the machine. A tongue 5 extends from this body and supports a driver's seat 6 upon the rear portion thereof.

Pivotally connected to the end portions of the sleeve 3^a are side rails 7 preferably formed of metal and connected at their front ends by a transverse rail 8 provided with a diagonal brace 9. An angle iron 10 extends from the brace 9 and in front of the wheel 2 of the machine and this iron serves to support a casing 11 to which the cross rail 8 is also connected in any preferred manner.

An arm 12 extends forward from the outer end of the angle iron 10 and constitutes a brace for a guard finger 13 which extends forward from the machine and is provided with a rearwardly projecting extension 14. A bracket 15 is secured upon the arm 12 and pivotally mounted thereon is an arm 16 carrying a wheel 17 at its rear end. Arm 16 is embraced by a yoke 18 formed at one end of a stem 19 which is mounted to reciprocate within a supporting bracket 20 and a spring 21 exerts a constant downward pressure upon the yoke 18 and arm 16 so as to hold the wheel 17 constantly in contact with the ground and to yieldingly support the adjoining portion of the machine.

Supported upon the angle iron 10 between wheel 17 and the inner traction wheel 2 are side walls 22 connected at their ends by a bottom plate 23. A deflecting roller 24 extends longitudinally in front of the bottom plate 23 and is journaled at one end in the arm 12 which extends forward from the lower end of the outer wall 22 and at its other end within a corresponding arm 26 attached in any preferred manner to the inner end portion of the cross rail 8.

Pivotally connected to each wall 22 near the rear edge thereof, as at 27, is a lever 28 and each of these levers is designed to be held at a desired angle to the bottom of the machine by means of a locking pin 29 adapted to be placed within any one of a series of openings 30. Each lever carries a bearing 31 in which is mounted a shaft 32. This shaft carries a drum 33 having longitudinal strips 34 thereon from each of which extends a series of teeth or pickers 35. A small sprocket 36 is disposed at one end of the shaft.

It will be apparent that by releasing the pins 29 from engagement with the levers these levers can be swung so as to raise or lower the shaft 32 and the parts connected to it, after which the levers can be locked by reinserting the pins 29 in the desired apertures 30.

Attention is called to the fact that the teeth or pickers 35 extend from longitudinal strips 34 secured to the outer face of the drum. As these strips are raised from the surface of the drum they materially assist in creating a current of air to throw the material back into the housing.

Extending above and rearwardly from the walls 22 is a housing 37 having an inclined

endless conveyer 38 therein and mounted on upper and lower rollers 39 and 40 respectively. This conveyer is preferably in the form of a belt having slats 41 extending transversely thereof. A sprocket 42 is arranged at one end of the lower roller 40 and is designed to rotate therewith. An idler sprocket 43 is arranged upon the side of the housing and adjacent the sprocket 42. The upper end of the housing 37 overhangs the feed or inlet end 44 of a bin or receiver 45 which is mounted upon the main frame 4 in rear of the inner wheel 2 and below the seat 6. The inlet end of the bin is provided with an inclined bottom so that the material discharged thereon from the conveyer will be directed by gravity into the bin 45. It will be noted by referring particularly to Fig. 1 that the bin 45 extends forward under the seat and between the wheels 2.

Journaled upon the side strips 7 is a shaft 46 having a sprocket 47 thereon which receives motion through a chain 48 from the drive sprocket 3. A clutch member 49 is feathered or otherwise secured to the shaft 46 and is designed to engage another clutch member 50 which is loosely mounted on the shaft 46 and is formed with or secured to two sprockets 51 and 52. The sprocket 51 is designed to transmit motion through a chain 53 to the sprocket 36 and a chain 54 extends partly around the sprocket 52 and the idler sprocket 43, and the lower ply of the chain rests upon and engages the sprocket 42. Obviously the chain 53 can be shortened or additional links can be added thereto whenever the shaft 32 is adjusted. If desired, however, any suitable means such as a tightening sprocket may be provided.

Arms 55 are adjustably connected in any preferred manner to the side walls 22 and pivotally connected to the front ends of these arms are brackets 56 to which are fastened the ends of a deflecting strip 57 extending longitudinally in front of the drum. The strip 57 can be swung with its face at any desired angle to the ground and its bracket 56 can then be locked against movement by the bolts 58 constituting pivots therefor.

A rock shaft 59 is mounted upon the front portion of the main frame 4 and has a lever 60 extending from it to a point within convenient reach of the driver. Arms 61 extend from the ends of the crank shaft and are connected by links 62 with the forward portions of the side strips 7.

It will be noted that when the machine is drawn forward power is transmitted from the drive sprocket 3 to the shaft 46 and when the clutch members 49 and 50 are in engagement the power will be transmitted from the two chains 53 and 54 to the drum 33 and the conveyer 38. As the machine moves forward the guard finger 13 and its extension 14 will deflect the vines so that the wheel 17 can pass over the ground unhindered. The deflecting strip 57 will force the vines slightly forward and the teeth on the rapidly rotating drum will contact with the vines and pull longitudinally along the pods thereon and direct them forcibly inward upon the conveyer 38. This conveyer will carry them upward and discharge them into the receiving portion 44 of bin 45. The roller 24 will prevent the vines from breaking along the front portion of the machine as the same moves thereover. A guard plate 63 is arranged beneath and in front of the sprockets 51 and 52 so as to prevent the vines from becoming entangled therein. It is of course understood that by swinging lever 60 the side strips 7 and the various parts connected thereto can be raised and lowered. As the picking drum, the carrier and the parts of the machine which act upon the vines are movable with the side strips 7 it is apparent that this adjustment of the side strips will raise and lower the drum and carrier together.

In order that the vertical adjustment of the machine by the lever 60 may be facilitated a treadle 64 is supported below the seat 6 by an arm 65 extending upward from a rock shaft 66. An arm 67 extends from this rock shaft and is connected by a link 68 with the lever 60 so that both the treadle and lever will operate in unison. The clutch 49 is designed to be actuated by an arm 69 which is connected to an arm 70 extending from a rock shaft 71. This rock shaft is provided with an actuating arm 72 at its rear end and by depressing the actuating arm the clutch can be moved against the tension of its spring 73.

What is claimed is:

1. A harvester comprising a wheel supported frame, a driver's seat carried thereby, a bin disposed in rear of the seat and having a laterally extending feed portion provided with an inclined bottom, a housing carried by the frame and in front of the feed portion and at one side of the seat, an endless conveyer disposed entirely within the housing and extending from front to rear thereof, said conveyer being inclined upwardly and rearwardly and disposed to discharge pods into the feed portion of the bin, and a picking drum revolubly mounted in front of and disposed to throw pods against the conveyer, the axes of the conveyer and drum being parallel.

2. A harvester comprising a wheel supported frame, a driver's seat thereon, a housing carried by the frame at one side of and extending rearwardly beyond the seat, an endless conveyer entirely within and extending upwardly and rearwardly from the front of the housing, a bin disposed upon the frame at one side of the housing in rear of the seat, said bin having a laterally extending

feed portion disposed beneath the conveyer and provided with an inclined bottom, a picking drum revolubly mounted in front of the conveyer and having parallel rows of teeth radiating therefrom, said teeth being disposed along lines parallel with the axes of the conveyer, and mechanism for actuating the drum and conveyer.

3. A harvester comprising a wheel supported frame, a driver's seat carried thereby, a bin disposed in rear of the seat and having a laterally extending feed portion provided with an inclined bottom, a housing upon the frame and in front of the feed portion and at one side of the seat, a picking drum revolubly mounted in front of and disposed to throw pods into the housing, and a conveyer within the housing for carrying the pods upwardly to the feed portion of the bin.

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

SHELBY NETTLESHIP.

Witnesses:

W. T. McNair, Jr.,

J. C. Williams.