

Aug. 13, 1935.

L. R. UPCHURCH

2,011,507

REVERSIBLE TOBACCO TRUCK

Filed Oct. 13, 1934

2 Sheets-Sheet 1

Fig. 1.

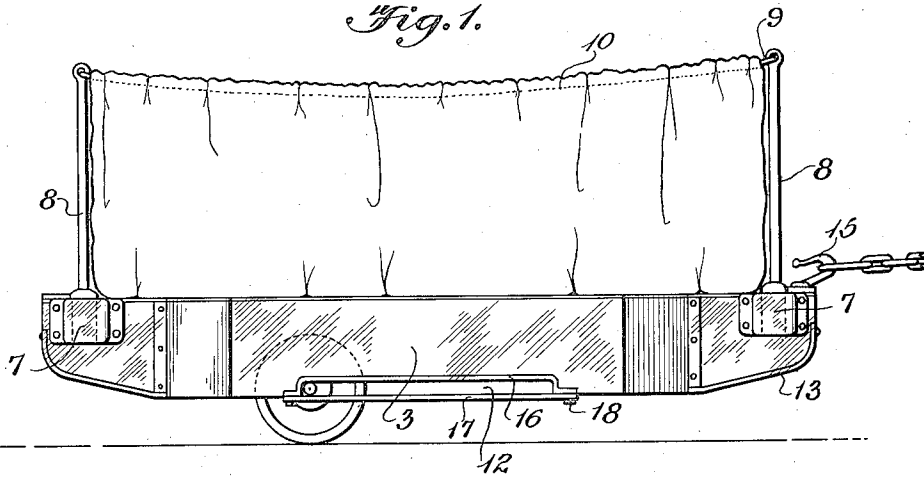


Fig. 2.

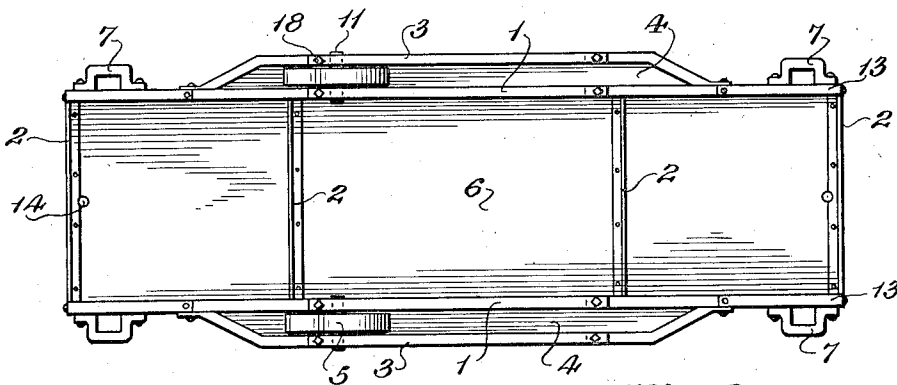
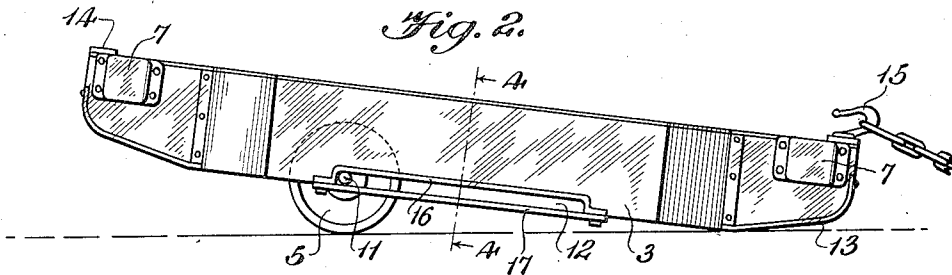


Fig. 3.

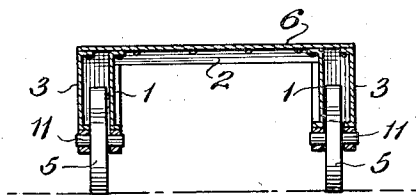


Fig. 4.

Inventor

Lea Roy Upchurch.

By *William C. Lintow.*

Attorney

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2 Sheets-Sheet 2

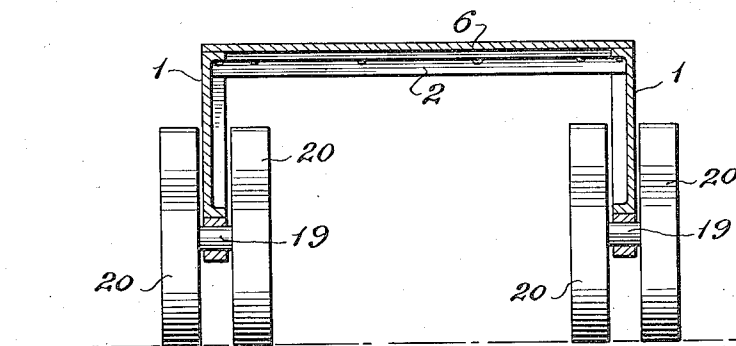
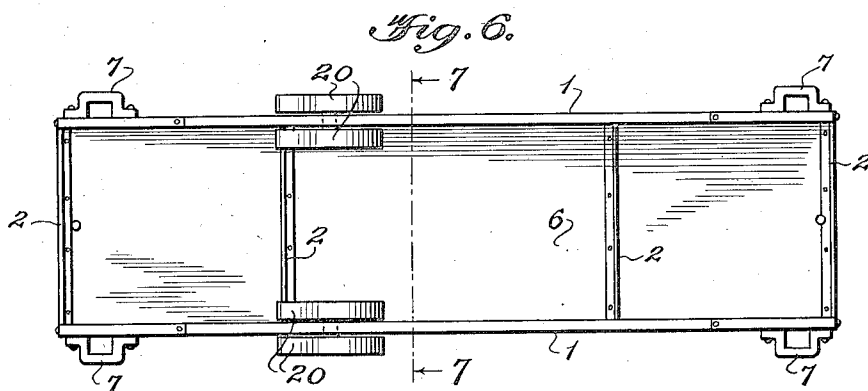
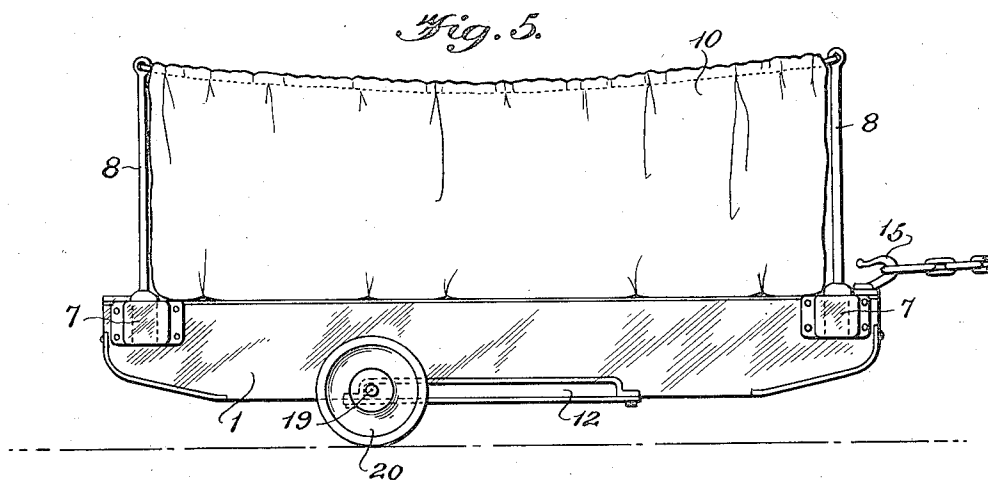


Fig. 7.

Inventor
Ira Roy Upchurch.

By *William C. Linton.*
Attorney

UNITED STATES PATENT OFFICE

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REVERSIBLE TOBACCO TRUCK

Lea Roy Upchurch, Varina, N. C.

Application October 13, 1934, Serial No. 748,225

4 Claims. (Cl. 280—8)

The present invention relates to trucks particularly adapted for use in the harvesting of tobacco and the present application is a continuation in part of my abandoned application filed February 10, 1931, Serial No. 514,849. The trucks commonly in use by tobacco farmers are mounted upon arched runners in order that the same may be drawn over the uneven ground that usually exists between the adjacent rows of standing tobacco plants. The plants gathered are piled upon the trucks and these trucks with the tobacco placed thereupon, are dragged by suitable draft animals from the field to the curing barns. Before a complete load of tobacco has been gathered, it is usually necessary to drag the trucks between several rows of plants and owing to the limited amount of space that usually exists between and at the ends of the rows of plants, it is impractical to turn the truck without causing injury to some of the standing plants, and, therefore, it is the principal object of the present invention to provide a tobacco gathering truck which is capable of being pulled in either direction without turning, thereby materially reducing the time and labor ordinarily required in the harvesting of the tobacco.

Another and equally important object of the present invention is to provide a wheeled tobacco truck, capable of being propelled in opposite directions and one in which the load receiving platform is fulcrumed upon its supporting wheels, so that with the release of the pull or power upon either end of the truck, the forward or power attached end will normally fall to and engage the ground, thereby effecting a braking operation to retard the free movement thereof.

A still further object of the present invention is to provide a tobacco truck of the arched runner type in order that it may pass more freely over the uneven surfaces of the field, having a pair of slidable ground wheels, which latter permit of the pulling of the truck in opposite directions and, at the same time, permit the truck to be turned in a smaller space than that required by trucks equipped with ordinary runners or wheels, the axles of which being retained in fixed relation with respect to the truck.

Other objects of the invention will be in part obvious and in part pointed out hereinafter.

In order that the invention and its mode of operation may be readily understood by persons skilled in the art, I have in the accompanying illustrative drawings and in the detailed following description based thereupon, set out several possible embodiments of the same.

In these drawings:

Figure 1 is a side elevation of the complete tobacco truck;

Figure 2 is another side elevation of the truck with the tobacco supporting frame removed, illustrating the truck's position when the pull is released and its runners performing the braking operation by their engagement with the ground;

Figure 3 is a bottom plan view;

Figure 4 is a transverse section taken on the line 4—4 of Figure 2 in the direction of the arrow points;

Figure 5 is a view similar to Figure 1 but showing each runner of the truck having a single track for the ground wheels thereof;

Figure 6 is a bottom plan view of the same; and

Figure 7 is a transverse section taken on the line 7—7 of Figure 6 in the direction of the arrow points.

Referring now more particularly to the accompanying drawings wherein like corresponding parts are designated by similar reference characters throughout the several views, my improved reversible tobacco truck consists of a load receiving platform which is mounted upon a suitable arched frame comprising side members 1 connected at their upper ends by means of the cross bars 2, which latter are arranged at suitable intervals through the entire length of the side members. Side plates 3 extend along the outer face of each side member 1 and have their opposite ends connected thereto, forming a channel-way 4 in which the ground wheels 5 may travel. The side members 1, cross bars 2 and the side plates 3 are preferably made of metal and the top which provides the load receiving platform of the truck is preferably made of boards consisting of hard wood and herein indicated by the numeral 6. Brackets 7 are secured to the outer face adjacent the opposite end of each side member 1 and have sockets therein for receiving the stanchions 8. Extending through the eyelets formed with the upper end of these stanchions 8 is a cable or other suitable flexible member indicated by the numeral 9 from which is suspended an apron 10. This apron is to extend about the various sides of the platform in order to protect the harvested tobacco from dropping from the truck after it has been placed upon the platform thereof within this apron.

Each ground wheel 5 is provided with a pair of stub axles 11 and the latter are capable of longitudinal movement within the elongated slots 12 provided in the lower edge of the side members 1 and the side plates 3 and these stub axles

11 form a fulcrumed support for the platform of the truck as the same is being propelled over the ground.

These elongated bearing slots 12 are formed 5 by providing recesses in the lower edges of each of the side members 1 and the side plates 3. Seated within each recess is a removable plate 16 providing the upper track for the axles or trunnions 11 of the ground wheels 5; another 10 removable plate 17 provides the lower track and these plates are secured to the side members 1 and 3 by means of the bolts or other suitable fastening elements, herein indicated by the numeral 18. By so detachably connecting the 15 tracks 16 and 17 to the side members 1 and 3, it is obvious that they may be readily removed should they become worn or broken, and new tracks substituted therefor.

By providing stub axles for the ground wheels 20 5, and supporting the platform of the truck upon the side members 1 and 3, the frame of this truck is given an arched formation, thereby permitting the same to readily pass over uneven ground, which is generally encountered in a field 25 containing rows of tobacco plants.

The forward end of each side member 1 is tapered as is better illustrated in Figure 1 of the drawings, and the lower edges of these forward 30 tapered portions of the side members 1 have secured thereto, detachable steel runners 13 which latter are adapted to rest upon the ground when the pull to the truck has been released in order that a braking action will be set up to retard the movement of the truck while travelling 35 downhill or completely brake or stop the truck when the draft pull has been released when travelling over level ground.

Secured to the upper face of the load receiving platform of the truck and adjacent the opposite 40 ends thereof are metal strips 14 which not only provide reinforcements for the opposite ends of the platform, but each has an opening therein for receiving a clevis 15 whereby means 45 are provided to which a whiffletree or other suitable draft animal attachment may be connected to the truck when propelling the same over the ground.

In the harvesting of tobacco, the plants are piled upon the truck and maintained thereon by 50 means of the apron 10 suspended from the cable 9 carried by the stanchions 8. In order that the truck may pass between the rows of plants, it is necessary that the load receiving platform thereof be relatively narrow and before a complete 55 load of tobacco is stored upon the truck it oftentimes becomes necessary to draw or drag the truck back and forth between the various rows or stalks of tobacco. In order that my improved truck may be drawn back and forth between 60 the various rows of tobacco plants, I have provided means whereby the draft animal may be attached to either end of the truck, thereby eliminating the necessity of turning the truck between the rows or at the end of the latter. 65 This is accomplished by simply connecting the clevis hook 15 within the opening formed in either plate 14. By providing a slidable bearing for the axles of the ground wheels 5, the fulcrum point between these ground wheels and the platform 70 of the truck will be automatically changed according to the direction of pull upon the truck, thereby greatly reducing the load upon the draft animal.

When the pull of the draft animal to the truck 75 is applied to that end thereof as is shown in

Figure 1 of the drawings, the axles 11 will travel within the slots towards the left side of the center of the truck until the ground wheels 5 assume the position as herein shown, but should 5 the draft pull be released, the truck will drop by gravity, to the position as is shown in Figure 2, whereupon the runners 13 will slide upon the ground and give a braking action to the traveling 10 movement of the truck. By independently and adjustably connecting the ground wheels to the frame of the truck, the fulcrumed support for the load-receiving platform is not only changed according to the direction of travel of 15 the truck, but permits the truck to be more easily turned in a smaller space than that required of a truck which is mounted upon stationary 20 runners, fixed ground wheels, or both.

In the slightly modified form of the invention as is illustrated in Figures 5 to 7, inclusive, 25 of the drawings, I have disclosed a reversible truck similar to that of the preferred form but have eliminated the side plates 3 and each of the arched runners being provided with a single elongated bearing. Journalled within each bearing 30 is an axle 19 and keyed to the outer ends of each axle are ground wheels 20. By this arrangement, each runner is provided with a pair of ground wheels which not only simplify the construction of the truck but permit a greater bearing 35 surface with the ground over which the wheels travel. This is most desirable as the trucks are used on soft or cultivated ground and by increasing the bearing surface of the wheels applied to each runner, the truck may be pulled 40 over the ground more easily and with less motive power.

Manifestly, the construction herein shown is capable of considerable modification and such 45 modifications as come within the scope of my claims, I consider within the spirit of my invention.

I claim:—

1. A reversible tobacco truck comprising a load 45 receiving platform having means at both ends thereof for pulling the same in opposite directions, a pair of arched runners depending from the platform and extending the full length thereof, an elongated bearing formed in the lower face 50 at the medial portion of each runner, said bearings each consisting of a stationary plate and a removable plate connected thereto, shafts journalled within said plates, ground wheels keyed to said shafts and said shafts with the ground 55 wheels keyed thereto being freely movable from one end to the other extremity of said bearings, whereby with exertion of pull at one end of said truck body said ground wheels will position themselves at the extremity of the bearings opposed to 60 that of the direction of pull and the end portions of said runners opposite to the position of the ground wheels being adapted to engage the surface over which the truck is moved when the pull exerted on the latter is released.

2. A reversible tobacco truck comprising a pair 65 of side members, a side plate connected to each side member forming a pocket therebetween, said side members and side plates having elongated bearing slots therein, ground wheels arranged 70 within said pocket, stub axles carried by said ground wheels and mounted within said elongated bearing slots, a platform mounted upon said side members and side plates, detachable runners secured to the opposite ends of said side 75 members, and means whereby a draft appliance

may be connected to either end of said platform substantially as and for the purpose specified.

3. A truck of the character described comprising a load receiving platform having means at both ends thereof for pulling the same from either of its ends; side members depending from the platform and extending the full length thereof; side plates connected to said side members to project laterally therefrom and in parallel relation therewith; elongated bearings arranged in opposed relation upon the intermediate portions of the side members and the side plates, and extending for a distance from the center point of said side members and plates towards each end thereof, ground wheels journalled in said bearings and freely movable therein from one to the other extremity of the same, whereby with exertion of a pull at one end of said truck body, to cause the wheels to position themselves at that extremity of the bearings opposed to that of the direction of pull; and, means disposed at the opposite end portions of the side members, that means positioned oppositely to the position of the wheels adapted to engage the surface over which

the truck is moving when the pull exerted on the latter is released.

4. A reversible tobacco truck comprising a load receiving platform having means at both ends thereof for pulling the same in opposite directions; a pair of arched runners depending from the platform and extending the full length thereof, an elongated bearing formed in the face and extending at equal distance to each side of the center of each runner, a shaft journalled within each bearing, ground wheels keyed to the opposite ends of each shaft and extending on the opposite sides of each runner, said shafts and ground wheels being freely movable from one end to the other extremity of said bearings, whereby with exertion of pull at one end of said truck body said ground wheels will position themselves at that extremity of the bearings opposed to that of the direction of pull, and the end portions of said runners opposite to the position of the ground wheels being adapted to engage the surface over which the truck is moved when the pull exerted on the latter is released.

LEA ROY UPCHURCH.