

TRAY TRUCK.

987,592.

4 SHEETS—SHEET 1.

A perspective view of a mechanical assembly. It features a vertical support structure with several horizontal arms or levers extending from it. The components are labeled with numbers: 9' at the top; 14, 43, 43', 35, 34, 36, 40, 39, 30, 41, 22, 46, 27, and 15. A hatched rectangular block is attached to one of the lower arms.

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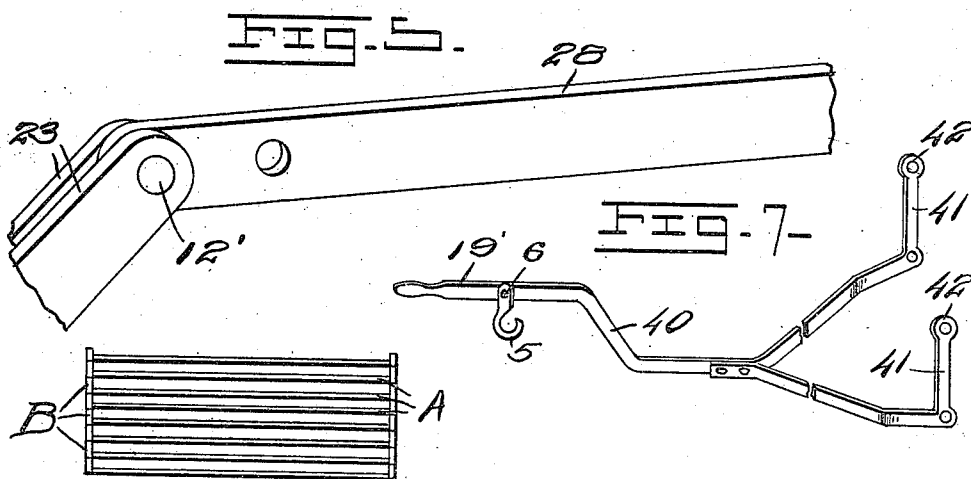
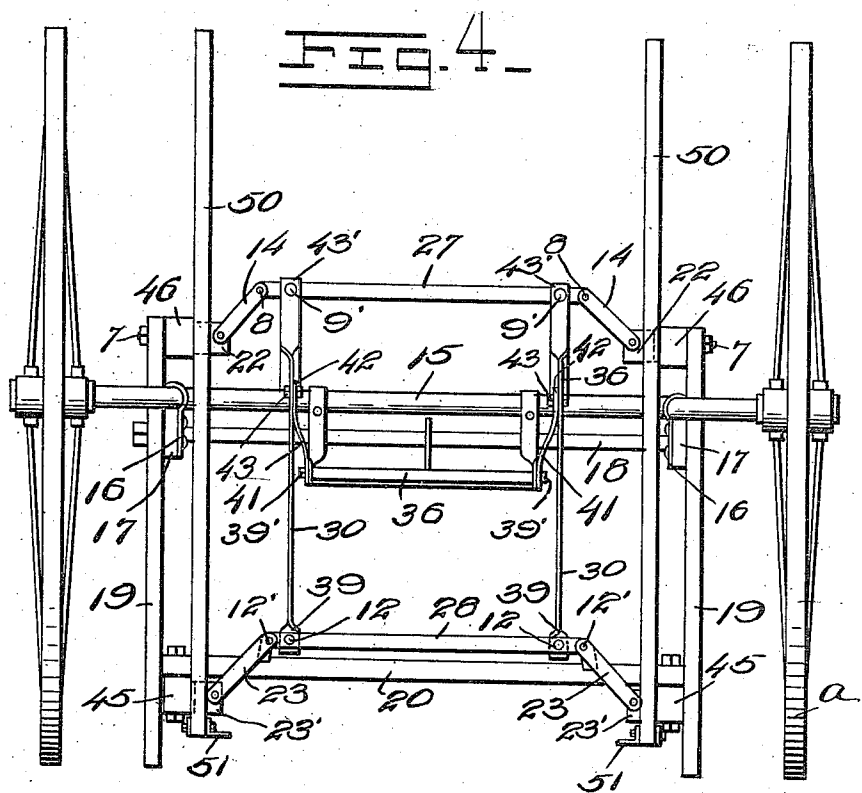
TRAY TRUCK.

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Patented Mar. 21, 1911.

4 SHEETS-SHEET 2.



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4 SHEETS—SHEET 3.

Fig. 8.

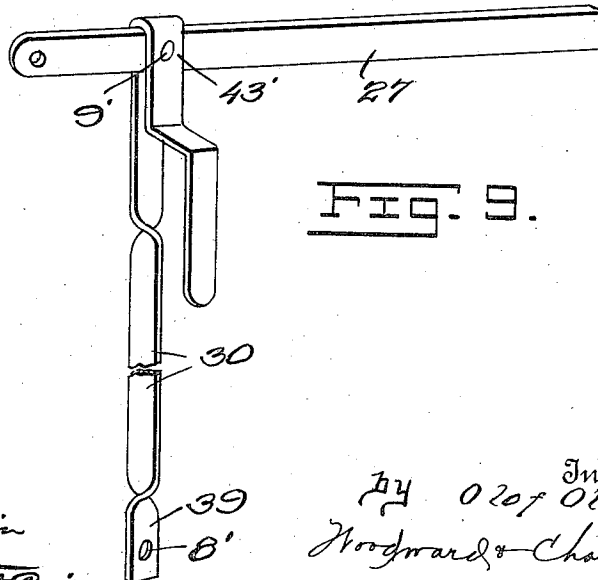
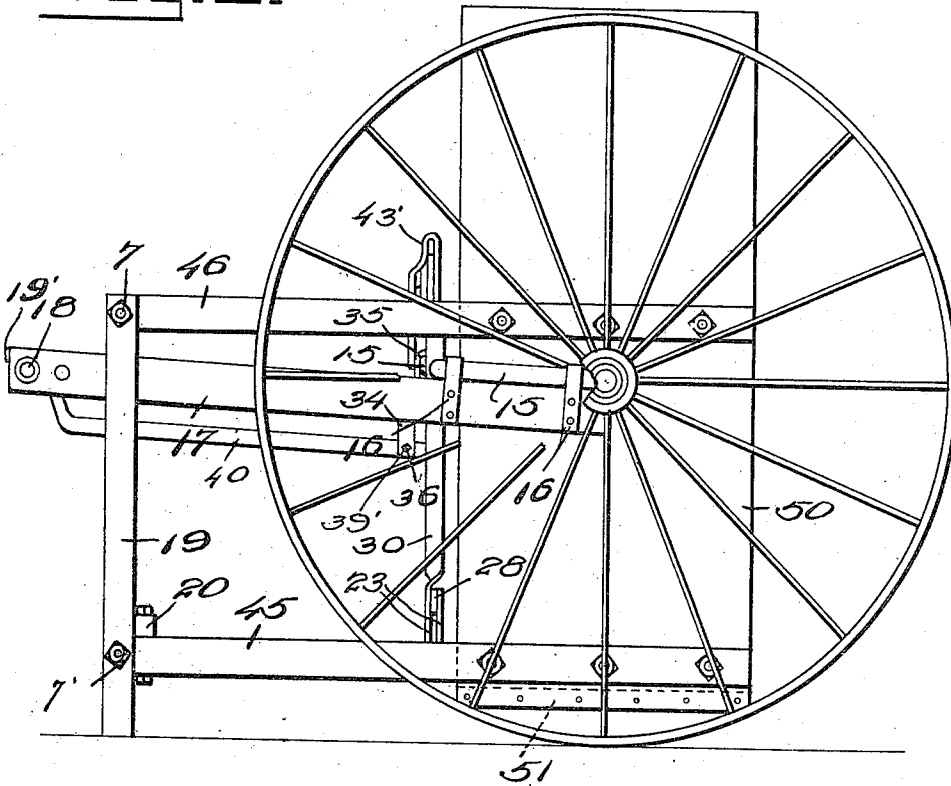


Fig. 9.

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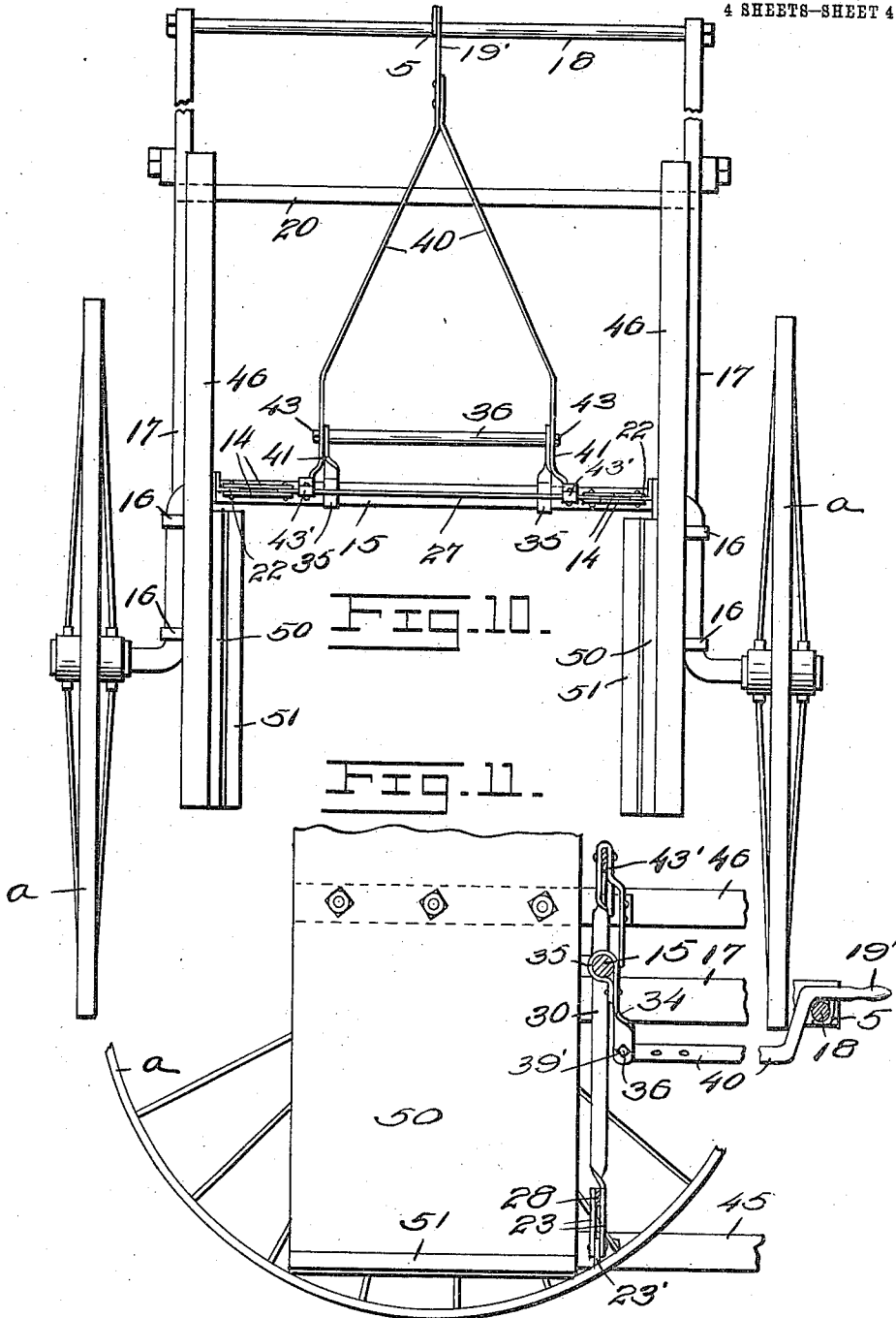
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4 SHEETS-SHEET 4.



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TRAY-TRUCK.

987,592.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, OLOF OLSON, a citizen of the United States, residing at Reedley, in the county of Fresno and State of California, have invented certain new and useful Improvements in Tray-Trucks, of which the following is a specification.

This invention relates to certain new and useful improvements in trucks.

10 The primary object of my invention is to provide a truck arranged for the conveying and expeditious handling of fruit drying trays.

15 Another object is to provide a truck so constructed, that the same may be clamped to a stack of fruit drying trays, in a manner permitting the complete stack of trays to be transported, without displacing or disarranging the cut fruit carried by the trays.

20 With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be herein-after more fully described, and particularly pointed out in the appended claims, it being understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

25 In the drawings forming a part of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 shows a front end view of the truck, supporting a stack of trays. Fig. 2 shows a broken enlarged fragmentary view of the lever connection. Fig. 3 shows a fragmentary portion disclosing the method of securing the hangers to the fulcrum bar. Fig. 4 shows an end view of the truck. Fig. 5 shows a broken portion of the lower bridle bar and connected links. Fig. 6 shows a stack of trays. Fig. 7 is a detached detail of the operating lever. Fig. 8 is a side view showing the arrangement of the push bar. Fig. 9 shows a fragmentary portion of one of the loop bars. Fig. 10 shows a top view of the truck. Fig. 11 shows a broken side elevation disclosing the arrangement of the lifting mechanism.

30 In the preserving of fruit, when the same is dried, the cut fruit is placed upon trays. These trays must be conveyed from the cut-

ting shed where they are arranged in stacks, to the sulfur house or box where the fruit is subjected to the action of a sulfur vapor. In order that the sulfur may circulate between the stacked trays, these trays while they have supporting side rails or battens, are without ends. This, then, necessitates the tray stacks being conveyed between two protecting panels, to prevent the fruit cuttings being jolted out of the trays in transporting them.

35 In the accompanying drawings, the numeral 15 designates a crank shaft which is supported by means of the wheels *a*. Secured to this crank shaft 15 by means of the brackets 16, are the two push bars 17, which at their forward ends are connected by means of the transversely positioned handle bar 18. The crank portion of the shaft or axle is thus held in a horizontal plane, as shown in Fig. 8. Vertically secured to the ends of these push bars 17, are the two similar supporting legs 19, the upper ends of these legs projecting beyond the upper edge of the push bars as disclosed. The legs are secured to the push bars by means of suitable bolts. Near their lower ends, these supporting legs 19 are connected by means of the brace bar 20. Pivottally held to the crank portion of the shaft or axle 15 by means of their recurved ends 35, are the two similar strap metal hangers 34, the lower ends of these hangers being perforated to receive the reduced ends of the fulcrum rod 36 which is secured to the hangers by means of suitable nuts, as shown in Fig. 3. Pivottally held to the reduced ends 39' of this fulcrum rod 36, is the forked operating lever 40, this lever 40 being provided with the two similar upstanding crank arms 41 within the terminal eyes or openings 42 of which are held the pivot pins 43. The lever is operated by means of the handle 19'.

45 In sliding engagement with the crank portion of the axle 15, are two similar loop bars 30, having the upper pierced loop portion 43' in which is held the upper bridle bar 27, the loop forming portion of this bar carrying the bolt 9', by means of which the bridle bar is secured. At their lower ends these loop bars have the bolt openings

8', as shown in Fig. 9. Held to the lower ends 39 of these loop bars by means of the bolts 12, is the lower bridle bar 28, the upper and lower bridle bars being held in parallel spaced relation, as shown. At each end, the upper bridle bar 27 carries bolts 8, which bolts pivotally support the upper links 14, while the bolts 12' within the ends of the lower bridle bar 28, pivotally support the lower links 23.

Secured to the upper end of each supporting leg 19 by means of a bolt 7, is a reach bar 46, two such reach bars being applied as shown. Extending from the lower end of each supporting leg 19, is a reach bar 45, these reach bars being held in parallel relation. The lower bars 45 are pivotally secured to the legs 19 by means of the bolts 7'. Vertically held between the crank ends of the axle or shaft 15, are the two similar panels 50. These panels are secured to the upper and lower reach bars 45 and 46 as shown. Horizontally secured to the lower edge of each panel 50, is an angle iron 51, the lower ledge of which projects beyond the edge of the panel as shown for the purpose hereinafter described. Secured to each upper reach bar 46 is a link supporting ear 22 supporting the links 14, the lower reach bars also being provided with such supporting ears marked 23', supporting the lower links 23. These ears pivotally support the ends of the links in the manner disclosed. The operating lever is of such a length and the crank arms 41 are so positioned, that when this lever is carried downward its full limit, the handle 19' of the lever contacts with the transversely positioned handle bar 18, in which condition the crank arms 41 will have raised the loop bars upward the full limit of their movement.

In the accompanying drawings the letter A designates a stack of fruit trays, each of these trays being provided with battens B forming sides, the ends of these trays, however, being uncovered so that when these tray stacks are placed in the sulfur house or box, the sulfur will freely circulate between and over the trays, in the treatment of the fruit. In Fig. 6 I show a stack of these open ended fruit trays.

When the lever is carried into its extreme upward position resulting in the panels 50 being carried outward their full movement, the space between these panels 50 is such, that a stack of fruit trays A may be conveniently held between them. As the angle irons 51 extend toward one another, on lowering the main operating lever 40, the supporting angle irons are forced below the tray stack, the instrumentalities being so adjusted, that, when the operating lever is in its lowermost position, the tray stack will be securely clamped between the panels. As the main

operating lever is carried downward, the panels 50 are not only carried toward one another, but they are also carried upward by virtue of the action of the link connected bridle bars, so that when the handle 40 is carried downward its full limit, the tray stack will be held above the ground a suitable distance as shown in the drawings. In this condition the ends of the trays are securely closed by means of the panels 50 so that no fruit can be jolted off the trays while transporting the stack. The lever 40 is provided with the hook 5, held by the pin 6, the hook engaging the bar 18 when the trays are in a raised condition.

By this means I provide a truck arranged to handle the trays in stacks. The construction further is such, that the truck panels may be clamped to a tray stack with ease, despatch and accuracy, so that the entire stack may be quickly transported from place to place without disarranging the fruit cuttings. The device is, further, light, simple of construction and positive of operation.

Having thus described my said invention what I claim as new and desire to secure by United States Letters Patent is:

1. In a tray truck, a wheel supported crank axle, two push bars extending from said axle, supporting legs secured to said push bars, two panels vertically supported clear of said crank axle, upper and lower reach bars extending from said supporting legs and secured to said panels, upper and lower supporting ears secured to said reach bars, links carried by said upper and lower supporting ears, a bridle connecting each set of links, an operating lever, vertically disposed bars connecting the upper and lower bridle bars, hangers carried by said crank axle, a rock lever secured to said hangers, and means connecting said operating lever to said vertically disposed bars.

2. In a tray truck, a wheel supported axle, two push bars extending from said axle, two vertically held panels, means to support said panels in parallel spaced relation, bridle bars adapted to move in a vertical direction, and a lever connected to said axle and actuating said bridle bars, as and for the purpose set forth.

3. In a tray truck, a wheel supported axle, two push bars extending from the opposite sides of said axle, vertically disposed legs, reach bars one end of which are attached to said legs, two vertically disposed panels secured to said reach bars at the rear portions thereof, bridle bars, links connecting said bridle bars to the reach bars adjacent to their ends whereby said bridle bars are adapted to move in a substantially vertical direction, and a lever carried by the axle and secured to the bridle bars, as and for the purpose described.

4. In a tray truck, a wheel supported
crank axle, two push bars extending from
said axle, supporting legs secured to said
bars, two reach bars extending from each of
5 said supporting legs, two panels secured to
said reach bars, bridle bars, links pivotally
connecting said bridle bars to said reach
bars, a crank lever carried by said axle, and

means to connect said lever to said bridle
bars.

In testimony whereof I affix my signature,
in presence of two witnesses.

10

OLOF OLSON.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
