B. E. WILLETT.

TANK TRUCK.

APPLICATION FILED APR. 23, 1920.

1,389,724.

Patented Sept. 6, 1921.

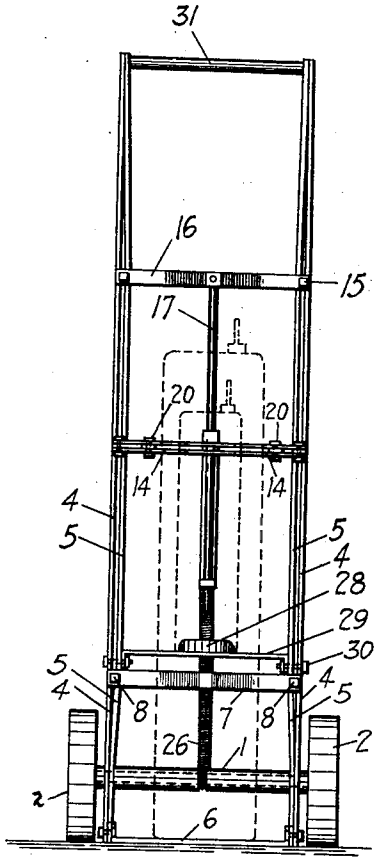


Fig. 1

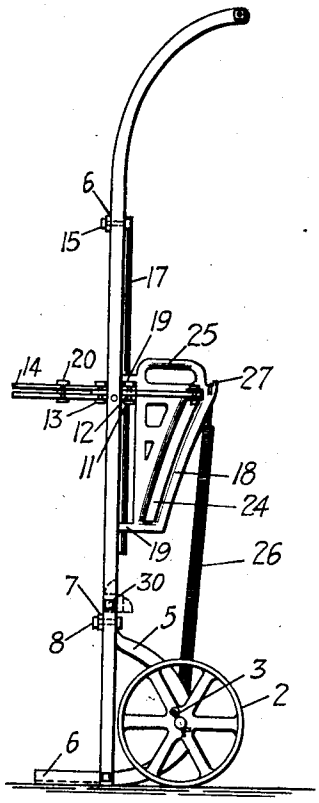


Fig. 2

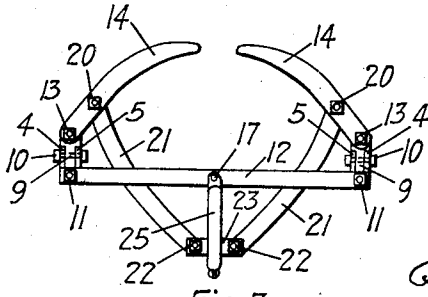


Fig. 3

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UNITED STATES PATENT OFFICE.

BENEDICT E. WILLETT, OF NEAR DAYTON, OHIO.

TANK-TRUCK.

1,389,724. Specification of Letters Patent. Patented Sept. 6, 1921.

Application filed April 23, 1920. Serial No. 375,958.

To all whom it may concern:

Be it known that I, BENEDICT E. WILLETT, a citizen of the United States, residing near the city of Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Tank-Trucks, of which the following is a specification.

The principal object of my invention is to provide a hand truck which is particularly designed for efficiently and conveniently handling small and large tanks, carboys and like containers. The truck is simple in construction, and is equipped with means for readily drawing or pulling a container on the truck and firmly holding it there during its conveyance by it.

One form of embodiment of my invention is illustrated in the accompanying drawings, of which Figure 1 is a front view of my hand truck. Fig. 2 is a side view thereof. And Fig. 3 is a top plan view of the tank gripping lever-mechanism.

Throughout the specification and drawings, similar reference characters denote corresponding parts.

Referring to the accompanying drawings, the numeral 1 designates the axle shaft of the truck, upon each end of which is loosely mounted a truck wheel 2 that is held on said axle by a cotter pin 3. There are two pairs of side bars 4 and 5 for the truck, the inner side bars 5, 5 curving rearwardly in semi-elliptical form at their lower ends for attachment to the axle shaft 1. Riveted between the lower forward ends of the side bars 5, 5 is a nose piece 6. A short distance above the point where the inner side bars 5, 5 come into parallelism with the outer side bars 4, 4, there is disposed a transverse member 7 which is secured to each pair of side bars by a bolt 8 which passes between them. (See Figs. 1 and 2.)

For the purpose of firmly gripping the top portion of a tank to draw or pull it upon the truck after the nose piece 6 engages its lower end, the following mechanism is provided. Secured between the side bars 4 and 5 of each pair, well above the transverse member 7, is a flat member 9 secured to said side bars by a bolt 10. Each flat member 9 projects in front of, and behind, its respective side bars 4 and 5. Straddling the rear portion of each flat member 9, and secured thereto by a bolt 11, are the respective ends of a pair of transverse members 12, 12. To the front end of each flat member 9 there is pivotally secured, by means of a bolt 13, two gripping tongs 14, said tongs curving toward each other for the purpose of gripping a tank or like container when operated by the means now to be described.

Secured to the upper portions of the pairs of side bars 4 and 5, by a bolt 15 which projects between the side bars of each pair, is a transverse member 16, from the middle rear portion of which there projects downwardly a guide rod 17, the latter being connected at its lower end to the member 12. Vertically movable along the guide rod 17 is an operating member 18 shaped somewhat like a hand-saw. (See Fig. 2.) Projecting inwardly from this member are lugs 19, 19 which contain holes through which the guide rod 17 loosely passes and along which the lugs are slidable to guide the member 18 during an up and down movement for a purpose soon to be described.

Pivotally connected between each pair of gripping tongs 14, 14, near their inner ends, by a bolt 20, is a link 21, each link, at its inner end, being pivotally secured by a bolt 22 to a cross piece 23. The latter loosely projects through a downwardly and inwardly inclined slot 24 provided in the member 18, whereby, when the latter is pulled upwardly by a top handle portion 25, the cross piece 23 will be forced inwardly to move the two pairs of tongs 14, 14 outwardly by means of the links 21, 21. When the hand member 18 is pulled upwardly, a coil spring 26 extending between a hook end 27 of the former and the middle portion of the axle shaft 1, is put under tension to assist the operator in pushing the hand member 18 downwardly to draw the tongs 14, 14 firmly around a tank such as the one shown in dotted lines in Fig. 1. In dotted lines in said figure there is also shown a small tank which, when clamped by the tongs 14, 14, is adapted to rest upon a flanged support 28 secured to the middle portion of a transverse bar 29 having right angled ends which are pivotally secured, by means of bolts 30, to the side bars. When a large tank is to be placed upon the truck, the flanged support 28 may be turned to its rear, or out-of-the-way, position, shown in dotted lines in Fig. 2.

At their upper ends the two pairs of side

bars 4 and 5 curve rearwardly, there being secured between their terminals a handle bar 31 by means of which the truck is moved.

Having described my invention, I claim:

1. In a device of the type described, the combination with a hand truck body, of a pair of tongs pivotally secured to said body, a vertically movable handle member on the rear portion of said body, a cross piece loosely passing through a curved slot in said handle member, and links connecting said cross piece and said tongs, whereby when the handle member is moved in one direction, the tongs will be opened to receive the body portion of a tank, and when moved in the opposite direction, said tongs will be closed around the body portion of said tank.

2. In a device of the type described, the combination with a hand truck body, of a pair of tongs pivotally secured to said body, a vertical guide rod secured to the rear portion of said truck body, a handle member vertically movable along said guide member, a cross piece loosely passing through a downwardly and inwardly curved slot in said handle member, a spring connected between the handle member and the lower portion of said truck, and links connecting said cross piece and said tongs, whereby when the handle member is moved upwardly against the tension of said spring, the tongs will be opened to receive the body portion of a tank, and when moved downwardly with the assistance of the spring, said tongs will be closed around the body portion of said tank.

In testimony whereof I have hereunto set my hand this 19th day of April, 1920.

BENEDICT E. WILLETT.

Witness:

HOWARD S. SMITH.