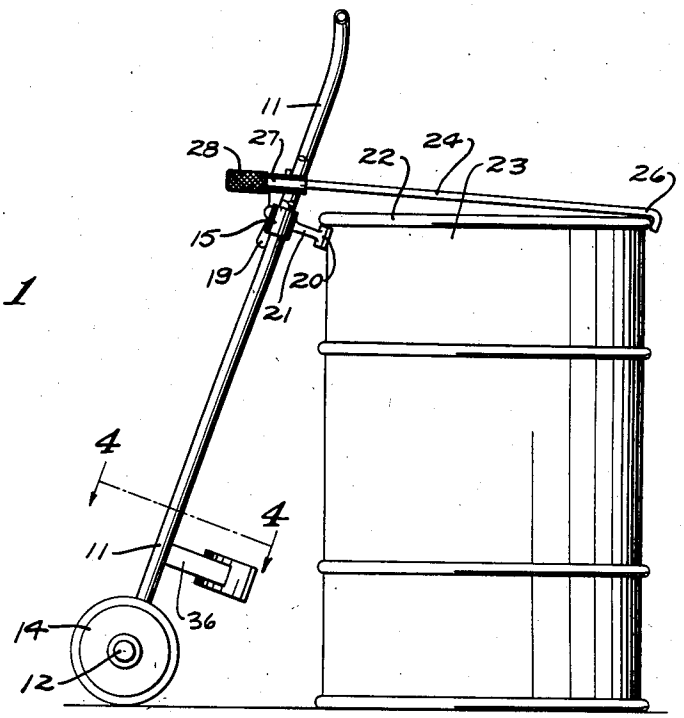
April 9, 1940. W. T. BISSELL 2,196,822

BARREL TRUCK

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Fig. 1



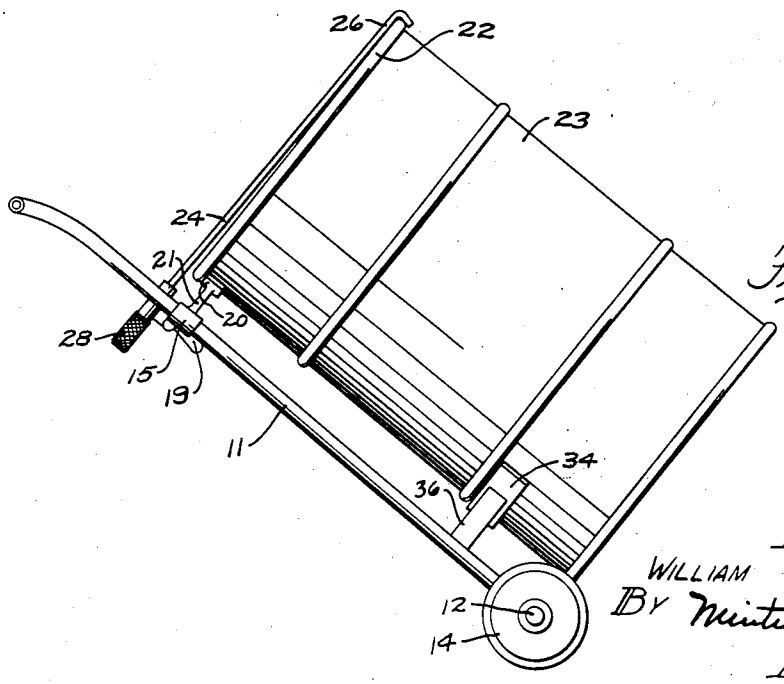


Fig. 2

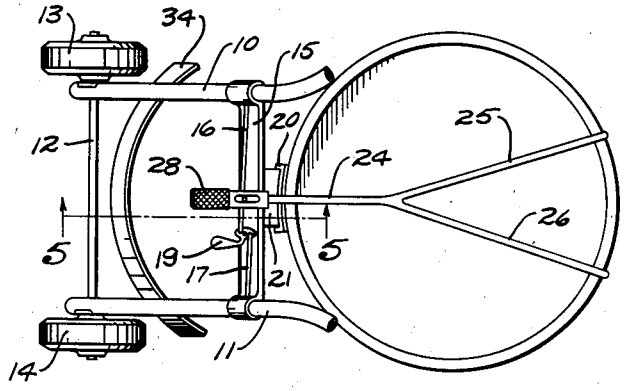
INVENTOR
WILLIAM T. BISSELL,
BY Mintura & Mintura,
ATTORNEYS

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BARREL TRUCK

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Fig. 3



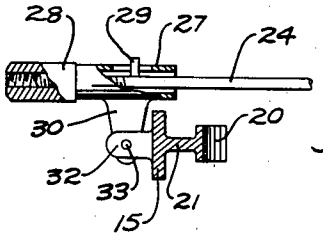


Fig. 5

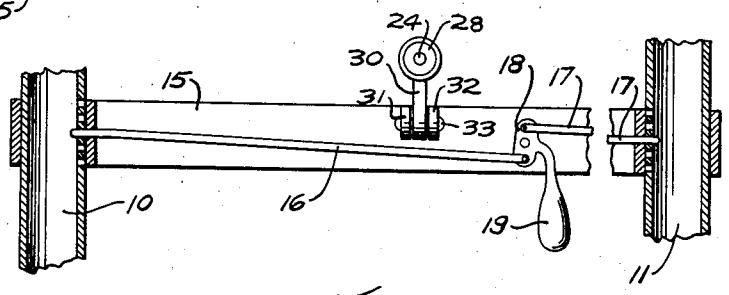


Fig. 6

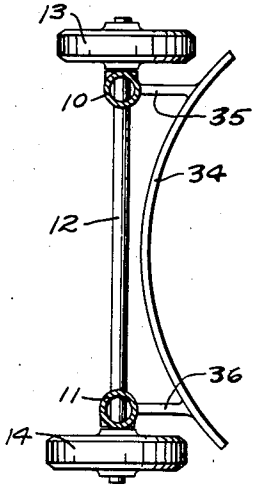


Fig. 4

INVENTOR
WILLIAM T. BISSELL,
BY Minturn & Minturn,
ATTORNEYS.

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2,196,822

UNITED STATES PATENT OFFICE

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BARREL TRUCK

William T. Bissell, Indianapolis, Ind., assignor to Journal Box Servicing Corporation, Indianapolis, Ind., a corporation of Indiana

Application May 1, 1939, Serial No. 270,980

3 Claims. (Cl. 214—65.4)

This invention relates to truck means intended primarily to lift and transport oil drums and the like which often weigh from three to four hundred pounds when filled. The invention, of course, is not limited to the handling of any particular commodity carried in the drums since these drums are commonly employed to hold not only oil but other fluids and even solids. Heretofore it has been a common practice to employ a truck having a lower lip which required the manual lifting of the drum so as to tilt it sufficiently to permit the entrance of that lower truck tongue under the bottom of the drum. This is an exceedingly difficult operation when the drums are shipped in a car and packed in the car without any room for shifting therebetween. In fact one man is not able to place a drum on a truck by himself but requires at least one assistant to work the drum out into a position where it can be lifted.

It is a primary purpose of my invention to provide a truck which may be wheeled up directly to a drum without any element of the truck having to be inserted under the drum, and which will grasp the drum in such a manner that it may be tilted back upon the truck by simply pulling the truck rearwardly by its operating handles.

A further important object of the invention is to provide an exceedingly simple truck that has relatively few parts and that may be operated without the requirement of any skill on the part of the operator. The design of the truck is such that it is in reality a skeleton form and, therefore, is of light weight permitting it to be easily handled not only when loading but also when empty.

These and many other objects and advantages of the invention will become apparent to those versed in the art in the following description of one particular form of the invention as illustrated in the accompanying drawings, in which

Fig. 1 is a side elevation of a structure embodying the invention as initially positioned to engage a drum;

Fig. 2, a side elevation of the same structure in transporting position with the drum thereon;

Fig. 3, a top plan view of the structure in position as indicated in Fig. 1;

Fig. 4, a transverse section on the line 4—4 in Fig. 1;

Fig. 5, a detail on an enlarged scale in section on the line 5—5 in Fig. 3; and

Fig. 6, a detail on a still further enlarged scale in rear elevation and partial section of the lifting bar.

Like characters of reference indicate like parts throughout the several views in the drawings.

I provide a pair of side rails 10 and 11, the upper ends of which are preferably spread apart and curved to form suitable handles. The lower ends of these rails 10 and 11 are mounted upon an axle 12 which extends through the respective rails and carries the wheels 13 and 14 on its outer ends.

A lifting bar 15 is carried between the rails 10 and 11 in spaced relation above the axle 12. This bar 15 may be either mounted in fixed position or to be adjustably spaced from the axle 12 along the rails. Where the truck is to be used upon drums that may vary in height, it is preferable that this bar 15 be of the adjustable type. In the form herein shown, the bar 15 is adjustably positioned along the rails 10 and 11 by having end portions enlarged and bored through to engage over the rails with a sliding fit. While any suitable securing means may be employed to fix the bar 15 at the desired elevation, one such fixing means may constitute a pair of rods 16 and 17 each having their outer ends sliding through a hole in the portion of the bar which surrounds its respective rail to extend on through into a selected hole of a series provided in the rail. The inner ends of the rods 16 and 17 are pivotally connected to a bracket 18 that is pivoted at its central point. An operating handle 19 extends from the bracket 18 and is preferably weighted so as to normally swing into a downwardly extending position wherein both rods 16 and 17 are carried outwardly into their rail engaging positions.

On the forward side of the rail 15 is centrally positioned a drum engaging foot 20, herein shown as being spaced forwardly from the bar 15 by a spacer 21 welded to or integrally formed with both the bar 15 and the foot 20. Preferably the foot 20, while of short transverse length, is curved to conform in general to the curvature of the cylindrical portion of the drum to be handled.

Referring to Fig. 1, the bar 15 is lifted and secured in that position wherein the foot 20 may be brought up against the underside of the top cover retaining ring 22 of the drum 23 to have the rails 10 and 11 inclined to the drum so as to space the wheels 13 and 14 at a distance outwardly from the base of the drum. With the truck in this position, the opposite side of the drum 23 is engaged to hold the drum against the foot 20. This is accomplished by means of a rod

24 which is rockably carried by the bar 15 to extend across the top of the drum 23 to divide into a pair of arms 25 and 26, outer ends of each of which are formed to be downturned and slightly rearwardly turned in the nature of hooks to engage over the ring 22.

The rod 24 extends centrally over the bar 15 slidingly through a sleeve 27 and therebehind to have its rear end screw-threadedly engaged by a nut 28. To keep the arms 25 and 26 from swinging around toward a vertical plane, the rod 24 is provided with a guide pin 29 to extend upwardly through a slot provided through the sleeve 27. The sleeve 27 carries an arm 30 which extends downwardly from its under side to enter between a pair of ears 31 and 32 extending rearwardly from the bar 15, where the arm 30 is rockably engaged by a pin 33 passing through the ears 31 and 32 and the arm. The arms 25 and 26 may thus be controlled on the control nut 28. The outer hooked arms may be brought back into engagement with the drum ring 22 by running the nut 28 up on the rod 24 as may be required. Ordinarily no further adjustment is required by the nut 28 once the arms 25 and 26 have been initially set since slight variations between the hooked ends of these arms and the foot 20 may be compensated for by further tilting of the side rails 10 and 11.

With the truck thus brought up to the drum 23, the operator may then grip the upper ends of the rails 10 and 11 and pull rearwardly thereon while he pushes forwardly on the axle 12 with one of his feet. This action brings the wheels 13 and 14 inwardly toward the drum 23 while at the same time the drum is tilted back toward the truck to have the vertical load initially taken on the foot 20. A lower cradle bar 34 is provided across the lower ends of the rails 10 and 11 above the axle 12, against which bar 34 the lower portion of the drum 23 may bear. By reason of the curvature of the bar 34 conforming substantially to that of the drum, the drum 23 will have no tendency to roll sideways from the truck after it is brought over into the position as indicated in Fig. 2. It is to be observed that when the truck is pushed by its lower end toward the drum 23 from the position indicated in Fig. 1, there will be a lifting action on that side of the drum adjacent the truck so that the drum 23 may then be swung back over the truck as the truck wheels are carried on ahead. As indicated in Fig. 4, the cradle bar 34 in the form herein shown is supported from the rails 10 and 11 by the respective legs 35 and 36.

While I have herein shown and described my invention in the one particular form, it is obvious that structural changes may be employed without departing from the spirit of the invention and I, therefore, do not desire to be limited to that precise form beyond the limitations as may be imposed by the following claims.

I claim:

1. In a hand truck, a pair of spaced apart rails terminating by their upper ends in handles, supporting wheels at the lower ends of the rails, an upper bar extending transversely between and engaging said rails, a forwardly extending foot carried by said bar, a rod rockably carried by the bar to extend forwardly of said foot, spaced apart downturned hooks on the outer end of the rod, and a lower bar extending across and carried by said rails, means for adjustably interengaging said bar with said rails at selected positions therealong, and means for adjusting the extension of said hooked ends from said bar.

2. In a hand truck for a metal drum having a laterally protruding ring therearound at its top edge, a pair of spaced apart rails terminating in handles at their upper ends, an axle carried by the lower ends of the rails, wheels on the axle, an arcuate top bar carried by and between said rails sufficiently high to have its top edge engage the under side of said drum ring when said rails are sloped toward the drum with the wheels spaced outwardly from the base of the drum, a member hingedly supported between said rails to swing vertically above and forwardly of said bar for engagement with the forward side of said ring, means for adjusting the length of the last member to regulate its engagement with the ring, a lower arcuate bar carried by said rails and located and formed for engagement with the drum at a distance above its base.

3. In a truck for transporting drums or barrels having an upper rib, a handle structure, supporting wheels at the lower end of the structure, an upper foot carried by the structure for drum contact under said rib, a member carried by the structure to extend across the top of the drum and engage thereover, and a lower cradle carried by said structure to support the lower part of the drum by contact with the side wall thereof, said handle structure comprising a pair of spaced apart rails and a top bar between the rails, to which bar said upper foot is attached, a tie bar interconnecting said rails back of said top bar, said top bar being secured to and extended forwardly of the tie bar, and said member having a sleeve through which it passes hinged to said tie bar, and a nut screw-threadedly engaging the member and abutting the end of the sleeve.

WILLIAM T. BISSELL.