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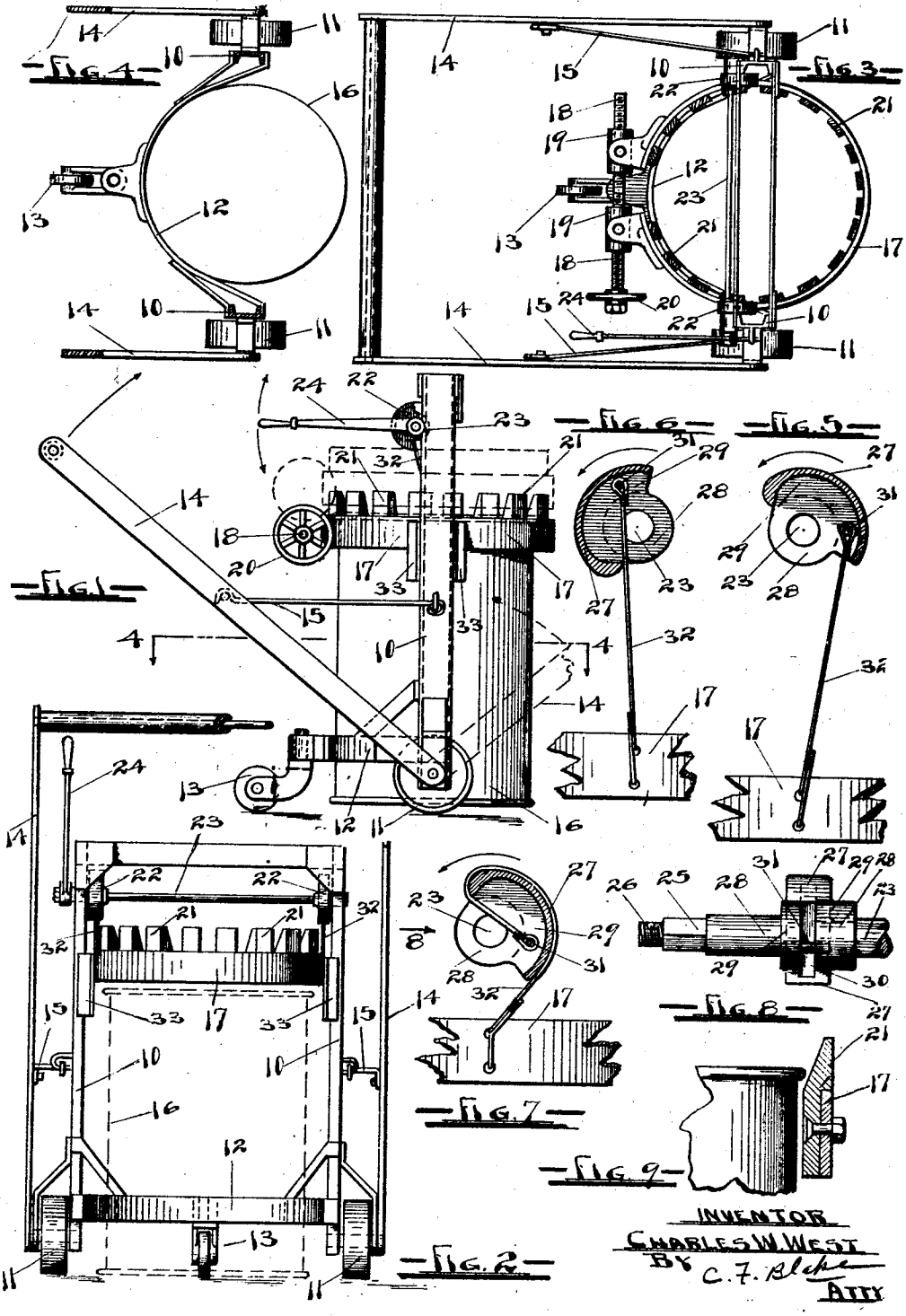
C. W. WEST

TRUCK

Filed May 5, 1923

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# UNITED STATES PATENT OFFICE.

CHARLES W. WEST, OF TIGARD, OREGON.

## TRUCK.

Application filed May 5, 1923. Serial No. 636,951.

*To all whom it may concern:*

Be it known that I, CHARLES W. WEST, a citizen of the United States, residing at Tigard, county of Washington, State of Oregon, have invented certain new and useful Improvements in Trucks, of which the following is a specification.

My invention relates to trucks in general, and particularly to trucks adapted for handling the iron drums that are commercially used for the transportation of oil and the like. The object of my invention is to provide such a truck as will lift and hold the filled drum securely raised a short distance from the ground in a position to be easily transported upon the truck.

I accomplish this object by means of the construction illustrated in the accompanying drawing, which is a part of this application for Letters Patent, like characters of reference indicating like parts throughout the several views thereof, and in which:

Fig. 1 is a side elevation of my truck with a drum held therein in position for transportation.

Fig. 2 is an end elevation of the same, with the drum shown in dotted lines upon the ground previous to being raised.

Fig. 3 is a plan view of the truck.

Fig. 4 is a sectional plan view upon line 4—4 of Fig. 1.

Fig. 5 is a detail sectional elevation of the lifting cam upon an enlarged scale, and showing the band clamp in lowermost position.

Fig. 6 is a view similar to Fig. 5 but showing the band clamp in position for carrying the raised drum.

Fig. 7 is a view similar to Figs. 5 and 6 but showing the band clamp in its uppermost position.

Fig. 8 is a view of the lifting cam from the direction of the arrow 8 of Fig. 7.

Fig. 9 is a fragmentary view of the drum and a section of the clamping band.

In general my truck consists of a truck body having mounted thereupon a vertically movable band clamp adapted to engage and hold the drum, means of elevating the band clamp, and means embodying a novel lifting cam adapted to hold the drum in raised position and to lift the band clamp above the drum as the latter stands upon the ground before or after being lifted.

The truck body consists of a pair of upright members 10 being conveniently steel channels as shown in the drawing. Mounted upon the lower ends of said members 10 are wheels 11. A substantially semicircular yoke 12 is secured upon the lower ends of the members 10 extending rearward therefrom, and forming an abutment to contact with the drum as the truck is wheeled up thereto, thus positioning the drum within the truck. A castor wheel 13 is mounted upon said yoke centrally of the truck. A handle 14 is provided for conveniently transporting the truck manually, said handle being most conveniently pivoted upon the axles of the wheels 11 and high enough to swing over the top of the members 10, so that the truck may be either pushed by the handle extending towards the rear as shown in full lines in Fig. 1 or pulled by the handle extending towards the front as shown in dotted lines in Fig. 1. Hooks 15 are provided to brace the handle 14 to the upright members 10.

To grasp the drum 16 for the purpose of raising it I provide a band clamp 17 operated by a right and left hand threaded screw 18 mounted upon the ends of said band 17 by trunnioned nuts 19 and operated manually by a hand wheel 20, as shown in Fig. 3. The band 17 is conveniently lined with blocks 21 of wood or similar material, and to allow the blocks 21 to disengage themselves readily from the flange of the drum the upper ends of the blocks are beveled, as shown in detail in Fig. 9.

To raise the band 17 I provide a pair of novel cams 22 mounted above the band 17 upon the members 10 by suitable boxes, and connected by a shaft 23. A hand lever 24 is mounted upon one of said cams 22 to operate them. A convenient method of mounting said lever is by supplying a squared end 25 upon one of said cams to receive the hub of the lever, and securing the lever thereupon by a nut threaded upon an extension 26 of the cam, as shown in Fig. 8.

The function of the cams 22 is three fold, first to lower the band 17 so it may engage the drum, second to raise the drum and hold it securely in raised position, third to raise the band 17 above the drum when the truck is idle. These three functions are illustrated in detail in Figs. 5, 6 and 7.

The cams are constructed with a substantially semicircular peripheral rim 27 connected to their hubs 28 by parallel sides 29 spaced apart one from the other, each side being connected to one of the hubs, and thus

leaving a space 30 between said sides. A pin 31 is mounted in said sides 29 and crosses the space 30, and upon this pin is secured the cable 32 for raising the band 17, one cable being adjacent one of the members 10 and the other cable being adjacent the other member 10. Guides 33 are provided attached to the band 17 and embracing the members 10 to guide the band in its travel.

The operation of my truck is as follows: The truck is wheeled up to the drum until the drum contacts with the yoke 12 and is thus properly positioned within the truck body to receive the band 17. The lever 24 is then turned until the cams 22 are in the position shown in Fig. 5 and the band 17 in its lowermost position and embracing the upper end of the drum. The band 17 is then clamped upon the drum by means of the hand wheel 20. The lever 24 is then turned until the cams 22 assume the position shown in Fig. 6. The drum is thus automatically suspended upon the truck, because the cables 32 have passed beyond the center of the shaft 23 and the weight of the drum is tending to rotate the cams 22 counter-clockwise, or in the direction of the arrow of Fig. 6, which rotation is rendered impossible by reason of the rim 27 of the cams contacting with the cables 32, as shown in Fig. 6. Thus a simple movement of the lever 24 raises the drum and locks it in raised position. The drum may then be transported upon the truck to any desired destination. To lower the drum to the ground again the lever 24 is rotated clockwise thus returning the cams to the position of Fig. 5 and lowering the drum, whereupon the band 17 is released from the drum by means of the hand wheel 20. The band 17 is then raised clear of the top of the drum by rotating the lever 24 counter-clock-wise until the cams assume the position shown in Fig. 7, whereupon the band 17 will have been raised to its uppermost position above the top of the drum, as shown in Fig. 2.

My device may be made of any size, and constructed of any materials deemed convenient and suitable for a device of this character, and while I have illustrated and described a form of construction and arrangement of parts found desirable in materializing my invention, I wish to include in this application all mechanical equivalents and substitutes that may fairly be considered to come within the scope and purview of my invention as defined in the appended claim.

Having disclosed my invention so that others may be enabled to construct and to use the same, what I claim as new, and desire to secure by Letters Patent is:

In a truck for handling drums: drum grasping mechanism; and cams to operate said mechanism, each of said cams consisting of a pair of hubs, a rim, and sides spaced apart one from the other and connecting said rim with said hubs, and an anchor pin mounted in said sides and spanning said space; and flexible members secured to said pin and to said grasping mechanism; and means to operate said cams.

In witness whereof I claim the foregoing as my own I hereunto affix my signature at Portland, county of Multnomah, State of Oregon, this 30th day of April, 1923.

CHARLES W. WEST.