March 31, 1931. T. S. TRULLINGER 1,798,565

TRUCK FOR LIFTING AND TILTING ARTICLES

Filed July 30, 1929 2 Sheets-Sheet 1

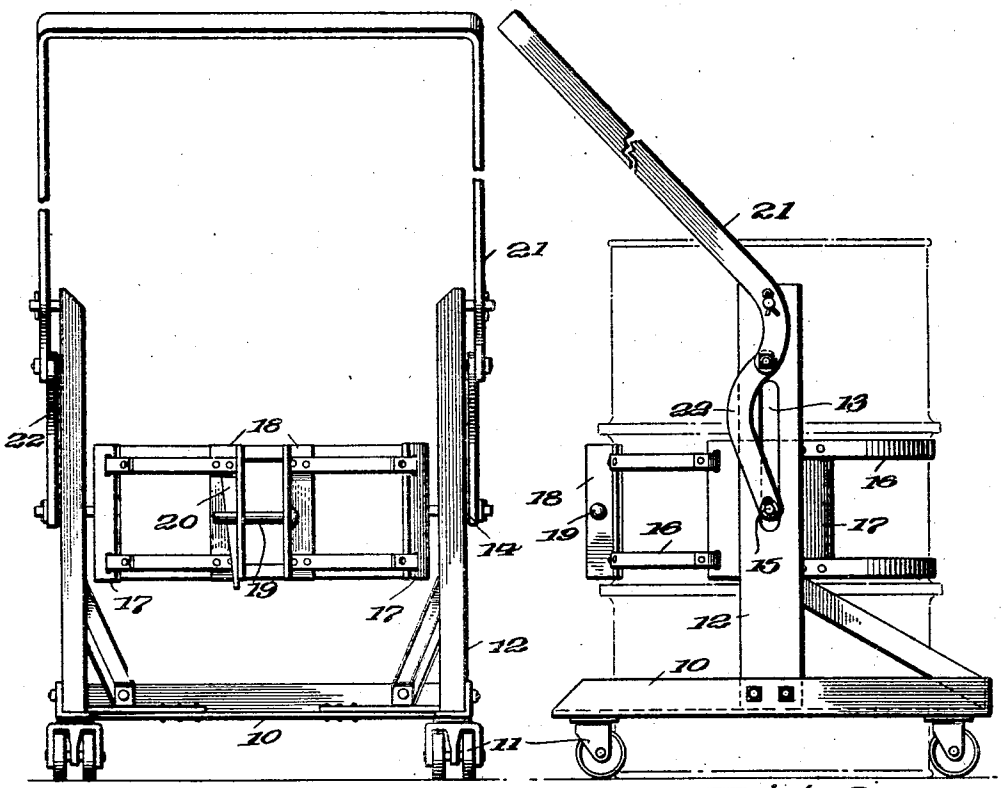


Fig. 1. Fig. 2.

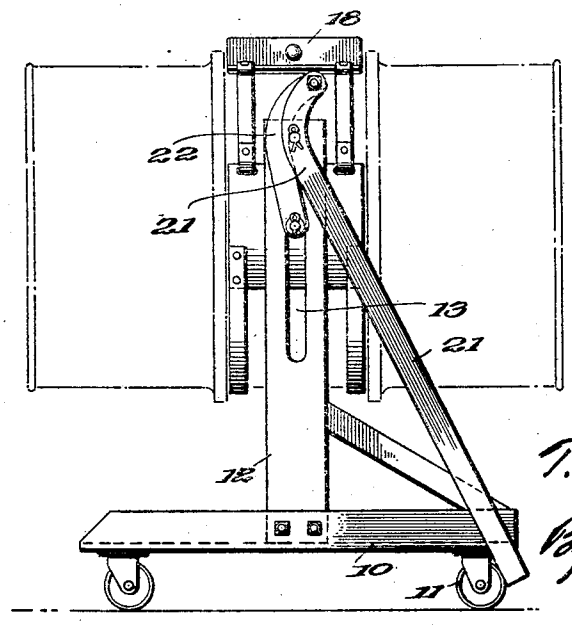


Fig. 3.

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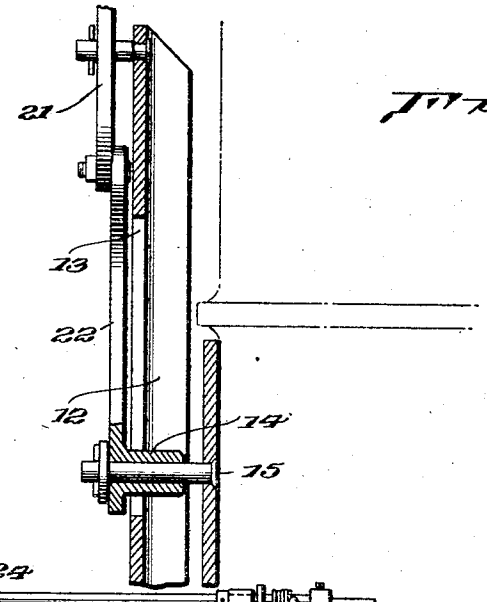


Fig. 4.

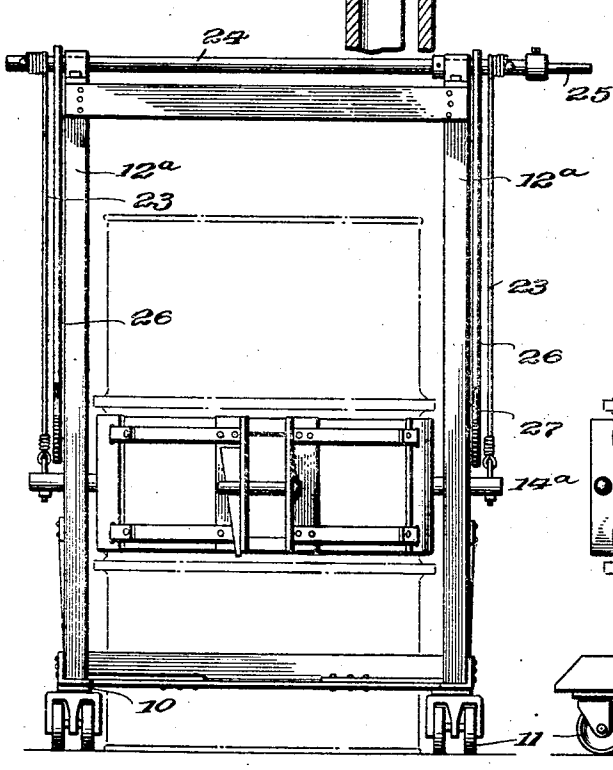


Fig. 5

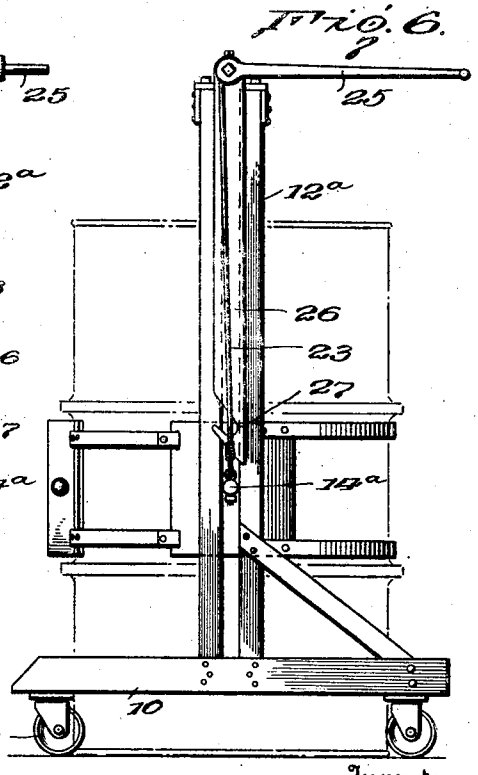


Fig. 6.

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UNITED STATES PATENT OFFICE

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TRUCK FOR LIFTING AND TILTING ARTICLES

Application filed July 30, 1929. Serial No. 382,206.

This invention relates to improvements in trucks for lifting and tilting articles and is especially designed for elevating and tilting barrels.

One object of the invention is to provide a lifting and tilting truck of simple but sturdy construction, its simplicity being such that it can be produced at a comparatively low cost.

In the preferred form of the invention it is also contemplated that a barrel may be lifted by a movement of the operating parts which movement, in and of itself will lock the barrel, so to speak, in elevated position until manually released so that it is a simple matter for one attendant to handle the barrel both to elevate it and tilt it for any purpose desired.

With these and other objects in view the invention consists in certain details of construction and combinations and arrangements of parts, all as will hereinafter be more fully described and the novel features thereof particularly pointed out in the appended claims.

In the accompanying drawings:

Figure 1 is a front elevation of a truck embodying the present improvements, the barrel clamping member being shown partly open.

Fig. 2 is a side elevation of the truck with the parts shown in the position they occupy when embracing a barrel to be elevated, the barrel being indicated in outline,

Fig. 3 is a similar view with the barrel elevated and tilted,

Fig. 4 is a detail vertical sectional view of the bearing for the barrel clamp,

Fig. 5 is a front elevation of a modified form of truck and

Fig. 6 is a side elevation of the truck shown in Fig. 5.

In the preferred form of truck there are a pair of base members 10 suitably supported on rollers 11 whereby it may be propelled wherever desired. Extending upwardly from each base member 10 is a vertically disposed standard 12 having therein a vertically disposed slot 13. Projecting through each slot is a bearing member 14, the two bearings pivotally supporting a barrel encircling clamp by means of trunnions 15 on said clamp projecting into said bearings. This barrel encircling clamp, may, so far as the present invention is concerned, take various forms but preferably it consists of a band having two sections 16 hingedly connected to a body portion 17. Each of sections 16 has a flange 18 thereon and supported in one of said flanges is a bolt 19 adapted to project through the other flange 18, the projecting end portion of said bolt being slotted to receive a wedge 20 whereby the band may be clamped around a barrel, it being understood that practically all metallic barrels of the present day are formed with intermediate annular ribs or projections between which the band may be positioned.

Various mechanisms may be utilized for elevating the bearings 14 with the barrel supported thereon but preferably this elevating mechanism consists of levers 21 pivoted intermediate their ends on the standards 12, said levers being connected at one end by a transverse band bar and having their opposite ends offset laterally, as shown in Figs. 2 and 3. These offset end portions of levers 21 are connected to the bearings 14 by links 22, the links being pivotally attached at both of their ends to said parts. As shown in Figs. 2 and 3, the pivotal centers of levers 21 are vertically alined with the bearing members 14 and the links 22 are of angular shape or offset to correspond with the offsets in said levers. With this arrangement, when the handle ends of the levers 21 are depressed for the purpose of elevating a barrel supported between the standards by bearings 13, the other end of each lever and the connected end of each of the links 22 pass through and to the opposite side of the vertical plane in which the bearings 14 and pivotal centers of said links are located. Under these circumstances it is impossible for the barrel to drop and the attendant, after moving the levers to this position, can release the same so that he has both hands free to manipulate or tilt the barrel which is, at that time, fully elevated.

In the form of apparatus shown in Figs. 5 and 6, the bearings 14^a for the clamp trunnions are suspended by cables 23 from a transversely extending shaft 24 journaled at the upper ends of standards 12^a, the cable

being adapted to be taken up by being wound around said shaft when the latter is rotated by crank handle 25. In this construction the barrel is retained in its elevated position by means of hook-shaped members 26 pivoted on shaft 24 and provided with recesses 27 for receiving the bearings 14ª after the barrel has been elevated. These hook-shaped members swing freely on the shaft and drop under the bearings 14ª when the latter are elevated as will be understood. However, to position the bearings 14ª in the recesses in said hook-shaped members the barrel must be slightly lowered after the hooks have dropped under said bearings. Likewise, before the barrel can be again lowered, it must be slightly elevated to disengage the hook members from said bearings.

What I claim is:

1. In a device of the character described, the combination of a pair of standards each provided with a vertically disposed slot, members in said slots for rotatably supporting a barrel between said standards, a lever pivoted on each standard, and links connecting said levers and barrel supporting members for raising and lowering the latter, the handle portion of the lever and the connections between said links and levers being positioned at the same side of the pivotal centers of the levers when the barrel supporting members are elevated.

2. In a device of the character described, the combination of a pair of standards each formed with a vertically disposed slot, a lever pivoted on each standard, a link pivotally attached to each lever, bearings on said link projecting through said slots and vertically alined with the pivotal centers of said levers, and means for rotatably supporting a barrel on said bearings, the pivotal connections between said links and levers being movable to one side of the pivots of said levers to lower said bearings in said slots and movable to the opposite side to elevate said bearings.

3. In a device of the character described, the combination of a pair of standards each formed with a vertically disposed slot, a lever pivoted intermediate its ends on each standard, each lever having a laterally offset end portion, an angularly shaped link pivotally attached to the offset end of each lever, bearings on said links projecting through said slots, said bearings being in vertical alinement with the pivotal centers of said levers, and a barrel clamp journaled in said bearings.

4. In a device of the character described, a portable base, a pair of standards rigidly mounted on said base, a lever pivoted on said standards and having offset end portions, a barrel clamping member, and connections between said member and the offset portions of said lever whereby the barrel clamps may be raised and lowered, the connection with the offset end of the lever being located at the same side of the pivotal centers of the levers as the handle portions of said levers when the barrel clamp is elevated.

5. In a device of the character described, a portable base, a pair of standards rigidly mounted on said base, a U-shaped member having offset ends pivoted on said standards and constituting a lever, means adapted to be clamped around a barrel, and a pair of links connecting the offset ends of said U-shaped member and said barrel clamping means whereby the barrel clamps may be raised and lowered, the connection with the offset end of the lever being located at the same side of the pivotal centers of the levers as the handle portions of said levers when the barrel clamp is elevated.

THADDEUS S. TRULLINGER.