

April 16, 1940.

J. E. MILLER

2,197,587

HAND TRUCK

Filed July 31, 1939

2 Sheets-Sheet 1

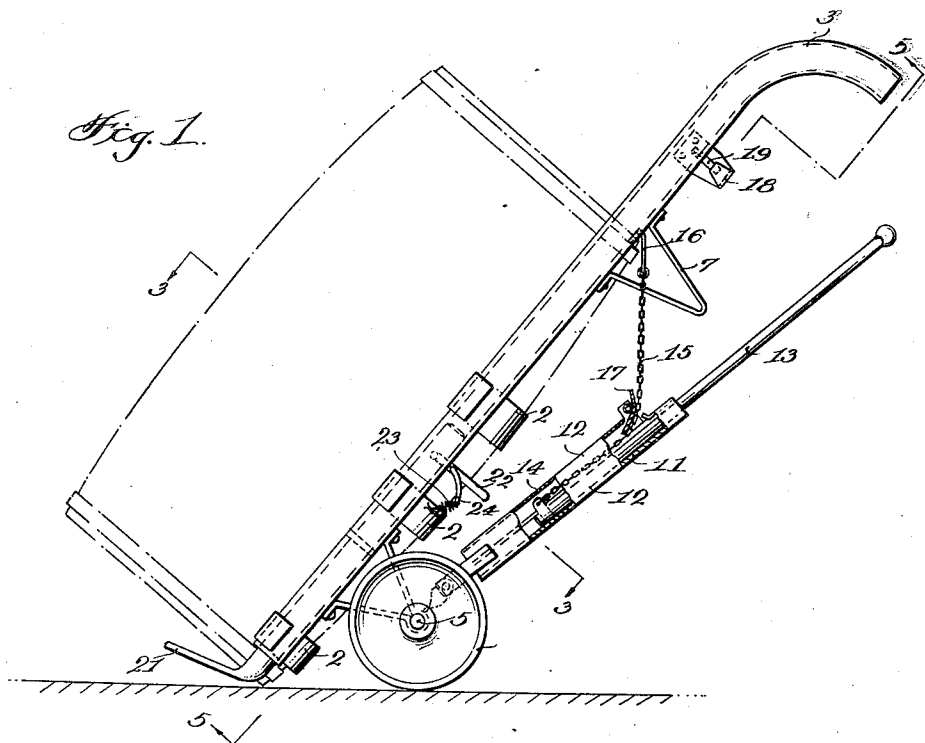
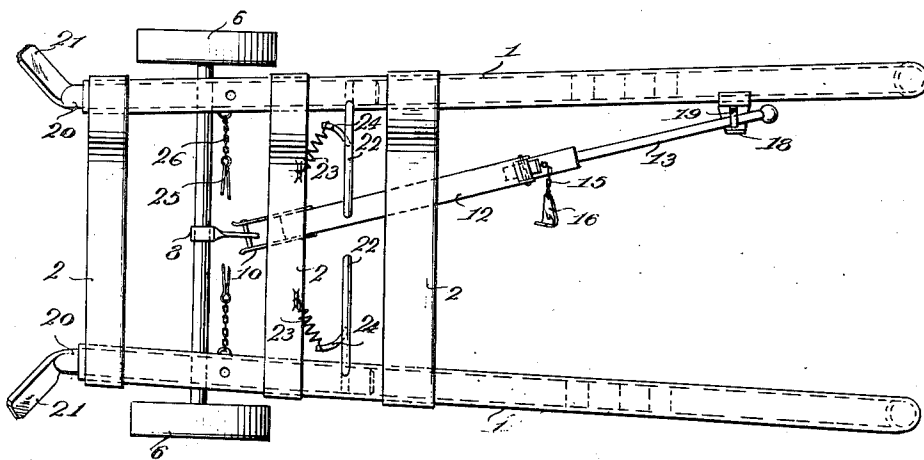


*Fig. 2.*

James E. Miller

INVENTOR

BY *Victor G. Evans & Co.*

ATTORNEYS

April 16, 1940.

J. E. MILLER

2,197,587

HAND TRUCK

Filed July 31, 1939

2 Sheets-Sheet 2

Fig. 3.

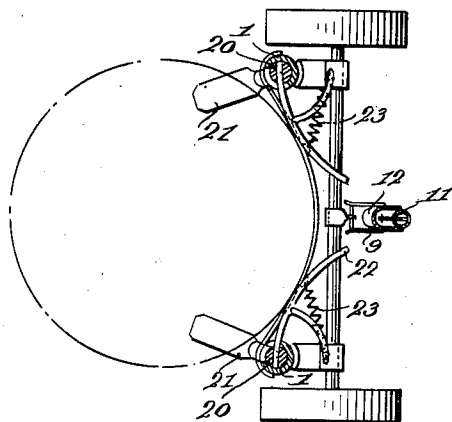


Fig. 4.

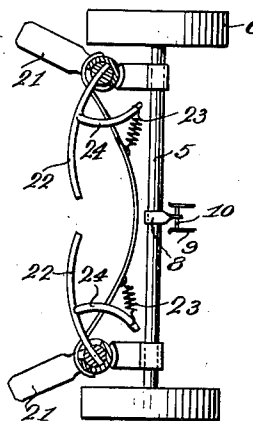


Fig. 5.

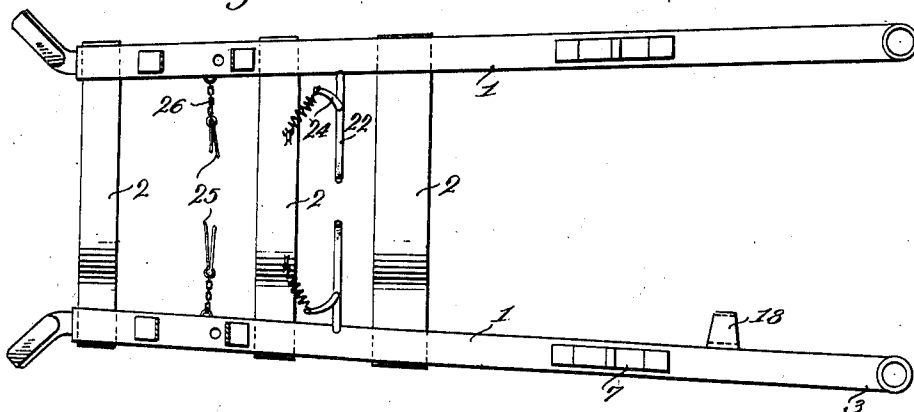
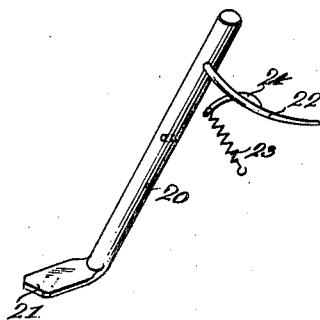


Fig. 6.

James E. Miller  
INVENTOR  
By Victor J. Evans & Co.  
ATTORNEYS

## UNITED STATES PATENT OFFICE

2,197,587

## HAND TRUCK

James E. Miller, Sherman, Tex.

Application July 31, 1939, Serial No. 287,650

2 Claims. (Cl. 214—65.4)

This invention relates to hand trucks, and its general object is to provide a truck that not only includes means for tilting a barrel or other heavy article, in loading the same on the truck to be carried thereby, as disclosed by my Patent Number 2,160,556, dated May 30, 1939, but the truck which forms the subject matter of the present invention includes movable supporting means for the article and which are normally held and urged out of the path of the article, until the latter is tilted, and thence are automatically moved below the article by the weight of the latter, for supporting the same on the truck, with the result it will be seen that by the use of the tilting means and the movable supporting means that an article can be readily loaded on the truck, as well as unloaded therefrom, with minimum effort on the part of the user.

A further object is to provide a hand truck of the character set forth, that is simple in construction, inexpensive to manufacture, and extremely efficient in operation, use and service.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:

Figure 1 is a side elevation of the truck which forms the subject matter of the present invention, with a barrel loaded and supported thereon.

Figure 2 is a top plan view with the barrel removed and the parts in normal position.

Figure 3 is a sectional view taken approximately on line 3—3 of Figure 1, looking in the direction of the arrows.

Figure 4 is a similar view, with the barrel removed and the parts in normal position.

Figure 5 is a sectional view taken approximately on line 5—5 of Figure 1, looking in the direction of the arrows.

Figure 6 is a perspective view of one of the article supporting means removed from its frame member.

Referring to the drawings in detail, the reference numeral 1 indicates side frame members for the body of my truck and 2 the cross members which are bowed in the form shown, to act as a seat for the barrel, as will be apparent and have their ends welded or otherwise secured to the side frame members in bridging relation thereto.

The upper ends of the side members 1 are curved to provide handles 3 and secured to the underside of the frame members 1 adjacent to the lower ends thereof are bearing brackets 4 having mounted therein an axle 5 for the wheels 6, while secured to the underside of the frame members 1 adjacent to the handles, are legs 7 of the usual type.

The article tilting means in the form shown, includes a mounting bracket 8 fixed to the axle and having pivotally secured thereto for free lateral movement through the medium of hinge ears 9 and a pivot pin 10, an elongated housing including a tubular rear section 11 and a front section 12. Mounted for slidable movement in the tubular section 11 is a lever 13 providing a handle and secured to the inner end of the lever 13 is a lug 14 that extends therefrom for movement in a slot extending longitudinally of the forward portion of the tubular section, for the disposal of the lug within the front section 12, as best shown in Figure 1. The lug has one end of a chain 15 connected thereto for movement in the front section 12 and the opposite end of the chain has a hook 16 connected thereto for disposal about the end of a barrel or for association with any heavy article for loading the same on the truck.

It will be obvious that movement of the lever 13 inwardly of the tubular section 11 will draw the chain within the front section or compartment 12, and the chain is held against outward movement by a catch plate 17 pivotally secured between its ends at the upper end of the front section 12 and extending therein for the chain to ride thereon, but when the chain is disposed at an angle as shown in Figure 1, it will move the catch plate into clamping engagement therewith, thus preventing outward movement of the chain and holding the same taut and the barrel or article on the truck against casual removal or displacement.

I provide a keeper for the tilting means when the latter is not in use, and the keeper in the form as shown includes a hook 18 secured to a side member 1 for receiving the handle or lever 13 therein and is held accordingly by a leaf spring 19. The lever 13 has a knob formed on the outer end thereof to facilitate its use, as will be apparent.

The side frame members 1 are of tubular formation and the supporting means for the barrel or other article when mounted on the truck, each include a shank 20 rotatably mounted in the side members 1 and extending through the lower ends

thereof, the extending portions being flattened to provide what may be termed blades 21 disposed substantially at right angles to the shanks, as best shown in Figure 6. The side frame members are slotted transversely for a portion of their circumference, as best shown in Figures 3 and 4, and secured to the shanks 20 for disposal through the slots, are arcuate arms 22 directed inwardly from the frame members 1 and arranged in the path of a barrel when loading the same on the truck, the arms being urged forwardly by coil springs 23 having their end convolutions connected to a cross frame member 2, and the outer ends of extensions 24 formed on the arms 22.

It will be obvious from Figure 4 that the arcuate arms 22 are normally disposed in a forward position and urged and held accordingly by the coil springs 23, and when so disposed the blades 21 are directed at a lateral outward angle with respect to the truck for disposal out of the path of the barrel when tilting the latter by the use of the tilting means. However, when the barrel is tilted rearwardly to be loaded on the truck, it will engage the arcuate arms 22 and move the latter against the action of the springs and such will result in the rotation of the shanks 20 and the movement of the blades 21 below the barrel for engaging and supporting the lower end thereof, as shown in Figure 3.

If desired, the blade members 21 can be held in their operative position, as best shown in Figure 3, or in other words against automatic movement, and for that purpose I provide pins 25 connected to the side frame members 1 by chains 26, the pins being adapted for disposal through openings and bores arranged for registration and disposed in the side frame members 1 and shanks 20 respectively.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What I claim is:

1. A hand truck comprising a handled wheeled frame including tubular side members and bowed cross members secured to and bridging the side members, article supporting means including shanks mounted for rotation in the lower portions of the side members and having flat lower ends providing blades for disposal into and out of operative position with respect to the underside of the article, said side members having slots extending circumferentially thereof, arms secured to the shanks and extending through the slots for disposal in the path of the article for the latter to engage the same for moving the blades into operative position, extensions formed on the arms, coil springs connected to the frame and the extensions for urging and holding the blades to and in normal position, and article tilting means carried by the frame for moving the article into engagement with the arms.

2. A hand truck comprising a handled wheeled frame including tubular side members and bowed cross members secured to and bridging the side members, article supporting means including shanks mounted for rotation in the lower portions of the side members and having flat lower ends providing blades for disposal into and out of operative position with respect to the underside of the article, said side members having slots extending circumferentially thereof, arms secured to the shanks and extending through the slots for disposal in the path of the article for the latter to engage the same for moving the blades into operative position, extensions formed on the arms, coil springs connected to the frame and the extensions for urging and holding the blades to and in normal position, said shank having transverse bores therein and the side members having openings for registration with the bores, and pins connected to the side members and receivable in the bores and openings for holding the blades into their operative position.

JAMES E. MILLER.