Feb. 12, 1929. 1,701,951

R. B. HOLT

COSTUMER LADDER TRUCK

Filed May 10, 1927

Fig. 1

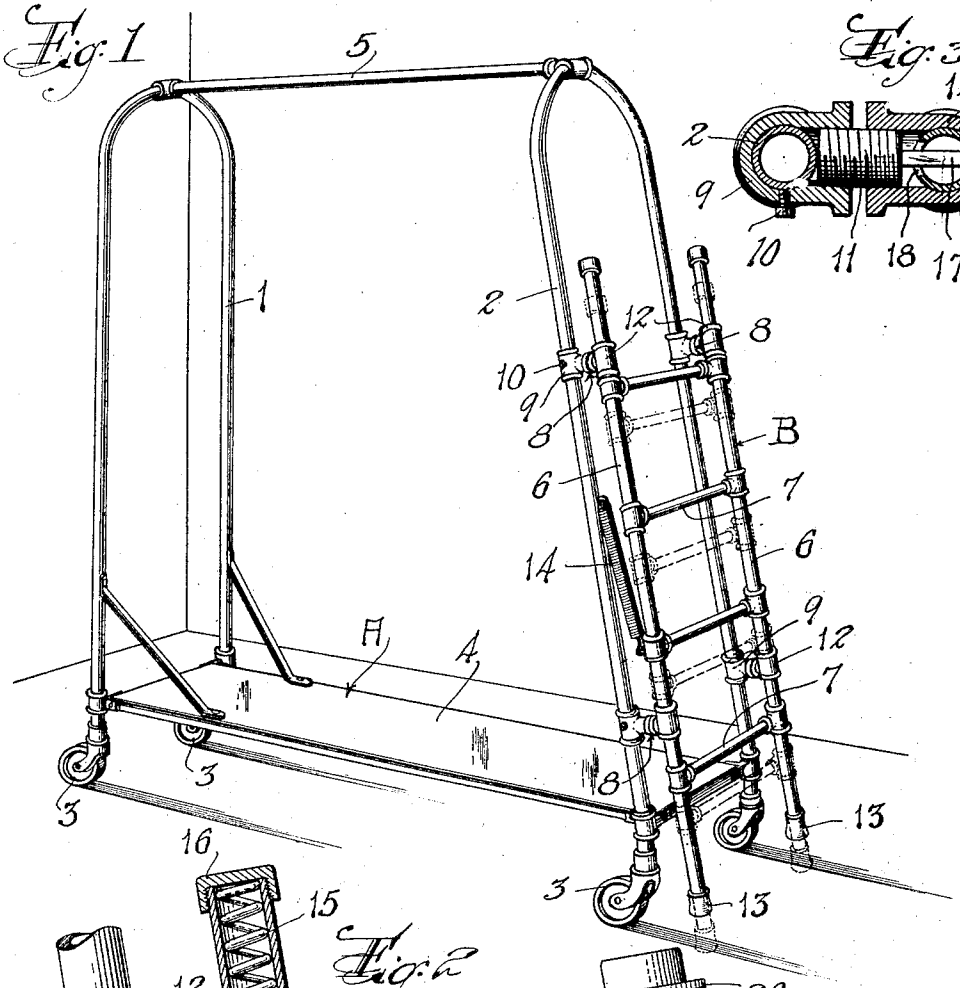


Fig. 3

Fig. 2

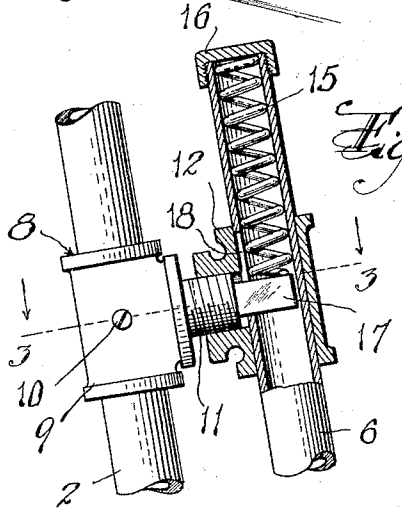
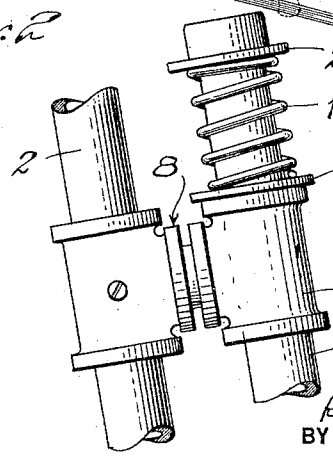


Fig. 4



INVENTOR
Raymond B. Holt,
BY Everett Rook,
ATTORNEYS.

Patented Feb. 12, 1929. 1,701,951

UNITED STATES PATENT OFFICE.

RAYMOND B. HOLT, OF BLOOMFIELD, NEW JERSEY, ASSIGNOR TO FACTORY SERVICE EQUIPMENT CO., A CORPORATION OF NEW JERSEY.

COSTUMER LADDER TRUCK.

Application filed May 10, 1927. Serial No. 190,182.

This invention relates to a combined costumer and truck such as is used in department stores for transporting and supporting garments during marking in the marking room and in removing the garments from the marking room to the sales rooms. These trucks are also used in conveying fur coats and the like from collecting desks or departments to the fur storage department. In such fur storage departments it is customary to hang the garments on racks, which are disposed in superposed tiers, and to enable the clerk to hang the garments on the upper tiers or racks ladders are necessary. According to the present practice step-ladders are sometimes used as are also rolling ladders movable in the aisles between the racks. Much difficulty is encountered by the ladders forming obstructions to the passage of trucks through the aisles, and due to the fact that the ladders are frequently located at points remote from where it is desired to use them.

One object of the invention is to provide a combined costumer truck and ladder wherein the ladder is permanently attached to the truck so as to be always immediately accessible to the handler of the truck and normally disposed in an out-of-the-way position.

Another object is to provide such a combined costumer and ladder truck in which the ladder is adjustably mounted and is normally in spaced relation to the floor so as to in no manner obstruct or hinder movement of the truck, the ladder being forced into tight frictional engagement with the floor when the operator steps upon the ladder, so that the ladder serves to fix or hold the truck against movement on the floor and the truck serves to support the ladder in upright position, both the truck and the ladder being immovable relatively to the floor and to each other so that the load bar of the truck is always accessible from the ladder, and accidents averted.

Other objects are to provide a costumer-ladder truck wherein the ladder is mounted in guides at each end of the truck for vertical sliding movement and normally held in spaced relation to the floor by springs or the like which yield under the weight of a person on the ladder to permit the ladder to be forced in contact with the floor; to provide such a device or apparatus embodying novel and improved details of construction, and to obtain other results and advantages as will appear from the following description.

Referring to the accompanying drawings, in which corresponding and like parts are designated throughout the several views by the same reference characters,

Figure 1 is a perspective view of a combined costumer truck and ladder embodying my invention;

Figure 2 is an enlarged view partially in section and partially in side elevation of a modified form of bracket for mounting the ladder upon the costumer truck;

Figure 3 is a horizontal sectional view, taken on the line 3—3 of Figure 2, and

Figure 4 is a side elevation similar to Figure 2, showing another modified form of the means for mounting the ladder on the truck.

Specifically describing the illustrated embodiment of the invention, the reference character A designates a costumer truck comprising substantially vertical end pieces or uprights 1 and 2 which are preferably in the form of inverted U-shaped pipes having casters 3 mounted in their lower ends. A platform 4 is fixedly secured to the uprights 1 and 2 adjacent their lower ends, and the uprights are connected at their upper ends by a load supporting cross-bar 5. One upright, in the present instance the upright 2, is preferably somewhat inclined inwardly over the platform as shown in Figure 1 of the drawings, and serves as a support for a ladder B.

The ladder B is preferably formed of light material, such as pipe, and includes stiles 6 and cross-bars or rungs 7. The stiles are preferably spaced apart a distance substantially equal to the distance between the arms of the upright 2, and each stile is slidable in a pair of brackets 8. These brackets are each shown as consisting of a T-fitting 9 secured to the corresponding arm of the upright 2 in any suitable manner as by a cross-pin 10. The fitting 9 is connected by a nipple 11 to a similar fitting 12 which slidably receives the cor-

responding stile 6 of the ladder. The stiles 6 are preferably provided with feet 13 of rubber or other friction-producing material. The ladder is normally influenced upwardly on the upright 2 so as to hold the feet 13 in spaced relation to the floor, by a tension spring 14, the upper rung abutting the upper brackets 8 to serve as stops for limiting such upward movement. The tension of the spring 14 is such that when a person steps upon a rung of the ladder, the ladder is slid downwardly in the brackets 8 and the feet 13 forced into tight frictional engagement with the floor.

It will be understood from the foregoing that the truck A serves as a stable support or base for the ladder, the inclination of the upright 2 locating the ladder so that a person may comfortably work thereon in removing garments from the cross-bar 5 to another rack. The tight engagement of the feet of the ladder with the floor when a person is mounted on the ladder holds the truck, which is in effect a wheeled base, against movement, and the attachment of the ladder to the truck makes it always accessible to the handler of the truck and at a working position relative to the truck, so that the inconvenience of finding the ladder and then positioning it in proper relation to the truck and ensuring against movement of the truck, as is now common, are obviated.

In Figure 2 of the drawings is shown a construction wherein the spring 14 is eliminated and the ladder is normally influenced into its uppermost position by a compression spring 15 interposed between a cap 16 on the upper end of each of the stiles and a lug 17 projecting through a slot 18 in the stile from the nipple 11. The construction of the bracket for mounting the ladder on the truck is otherwise the same as that above described. Obviously, the ladder stiles may slide downwardly against the influence of the spring 15, the slot 18 riding over the lug 17, and the spring 15 will return the ladder to its uppermost position.

Another form of mounting for the ladder is shown in Figure 4 of the drawings wherein a compression spring 19 surrounds the upper end of each stile and is interposed between a washer 20 beneath the cap 16 and another washer 21 above the T-fitting 12. The function of the spring 19 is the same as that of the spring 15.

Obviously while the truck A serves to transport articles, in the broader aspects of the invention the truck constitutes a wheeled support and transporting device for the ladder B; many modifications and changes may be made in the details of construction and use of the invention without departing from the spirit or scope thereof. Therefore, I do not desire to be understood as limiting myself except as required by the following claims when construed in the light of the prior art.

Having thus described the invention, what I claim is:

1. A device of the character described, comprising a wheeled base having an upright thereon, a ladder vertically movably mounted on said upright and adapted to contact at its lower end with a floor or like support upon downward movement to hold said wheeled base and upright against movement on the floor, and means for normally holding said ladder with its lower end spaced from the floor.

2. A device of the character described, comprising a wheeled base having an upright thereon, a ladder vertically movably mounted on said upright and adapted to contact at its lower end with a floor or like support upon downward movement to hold said wheeled base and upright against movement on the floor, and means for actuating and normally holding said ladder with its lower end spaced from the floor.

3. The device set forth in claim 2 wherein the last-mentioned means is yieldable under the weight of a person on the ladder.

4. The device set forth in claim 2 wherein the last-mentioned means is a spring connected between said upright and said ladder.

5. A device of the character described, comprising a wheeled base having an upright thereon, a ladder including stiles, brackets secured to said upright and slidably receiving the stiles of said ladder so that the ladder is movable up and down in said brackets and is adapted to contact at its lower end with a floor or the like, and means for normally holding said ladder with its lower end spaced from the floor.

6. A device of the character described, comprising a wheeled base having an upright thereon, a ladder including stiles, brackets secured to said upright and slidably receiving the stiles of said ladder so that the ladder is movable up and down in said brackets and is adapted to contact at its lower end with a floor or the like, and means interposed between said brackets and the stiles of said ladder for actuating said ladder upwardly and normally holding it with its lower end spaced from the floor.

7. The combination with a truck including a wheeled frame having uprights at each end and a horizontal load-supporting cross-bar connecting the upper ends of said uprights, one of said uprights being inclined inwardly and upwardly, of a ladder vertically movably mounted on said inclined upright and adapted to contact at its lower end with a floor or like support, and means for normally holding said ladder out of contact with the floor, the truck serving to support and transport the ladder in proper working relation to the load-supporting bar of the truck and the ladder cooperating with the truck to hold both the truck and the ladder fast against

movement when a person is mounted upon the ladder.

8. A device of the character described, comprising a wheeled base having an upright thereon, a ladder including stiles, brackets secured to said upright and slidably receiving the stiles of said ladder so that the ladder is movable up and down in said brackets and is adapted to contact at its lower end with a floor or the like, and a compression spring interposed between one of said brackets and the corresponding stile of said ladder for actuating said ladder upwardly and normally holding it with its lower end spaced from the floor, said spring being yieldable downwardly under the weight of a person on said ladder.

RAYMOND B. HOLT.