W. A. TYRRELL.

CONVERTIBLE TABLE AND TRUCK.

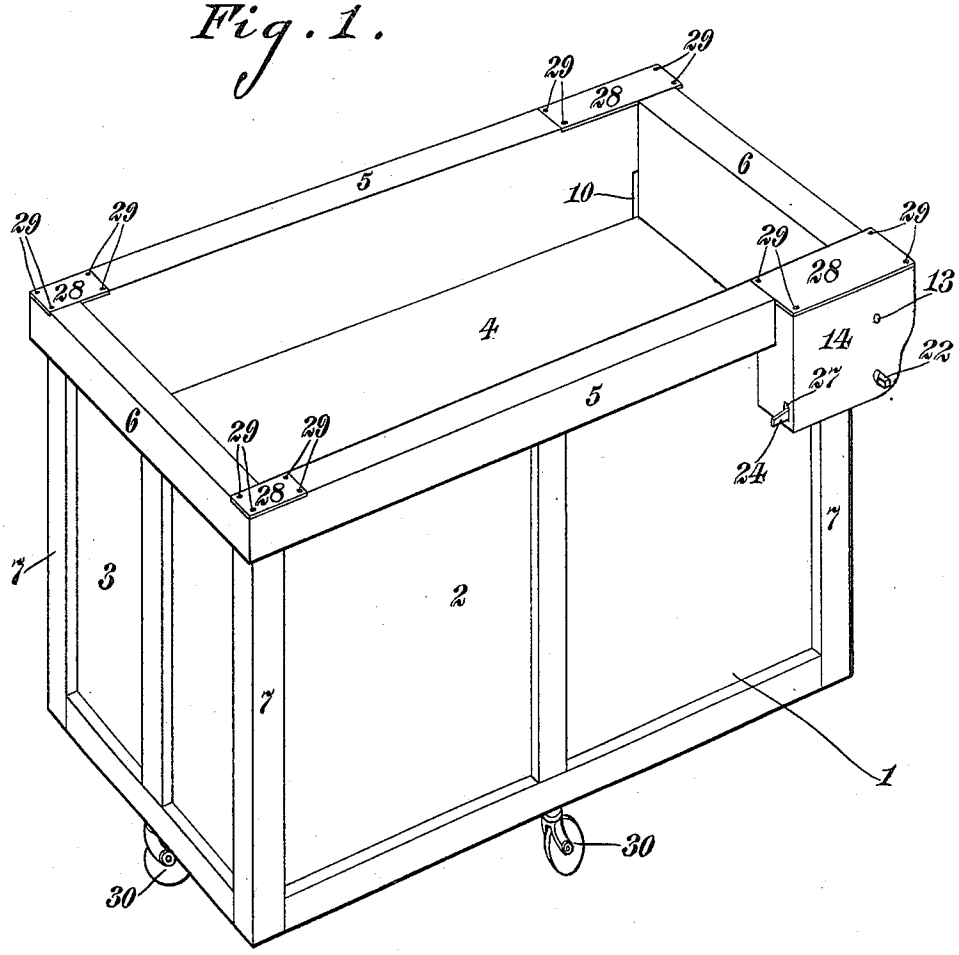
APPLICATION FILED MAY 3, 1913.

1,144,622.

Patented June 29, 1915.

5 SHEETS—SHEET 1.

Fig. 1.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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5 SHEETS—SHEET 2.

Fig. 2.

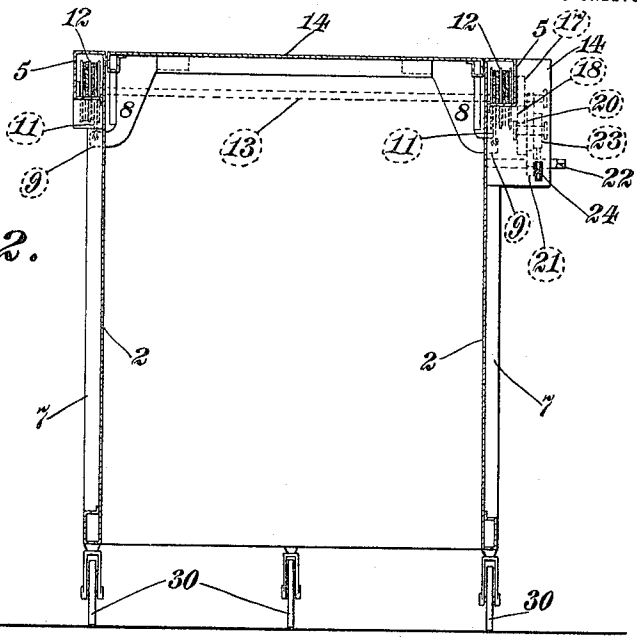
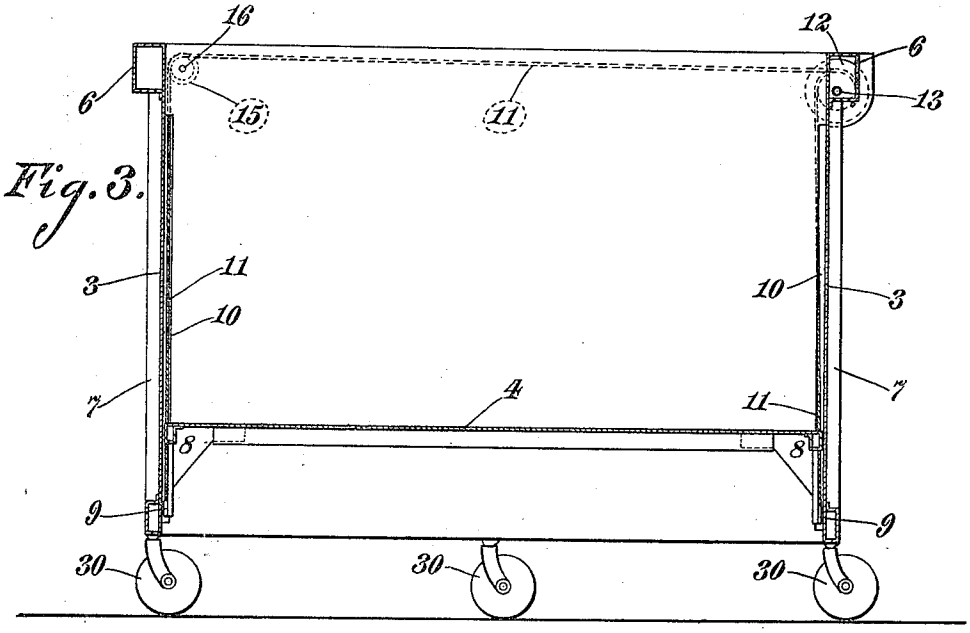


Fig. 3.



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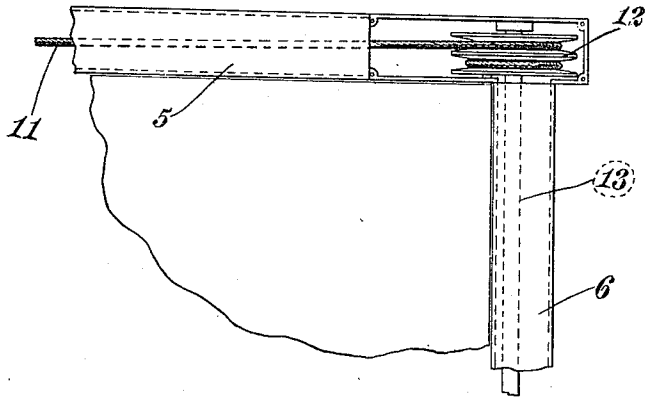


Fig. 4.

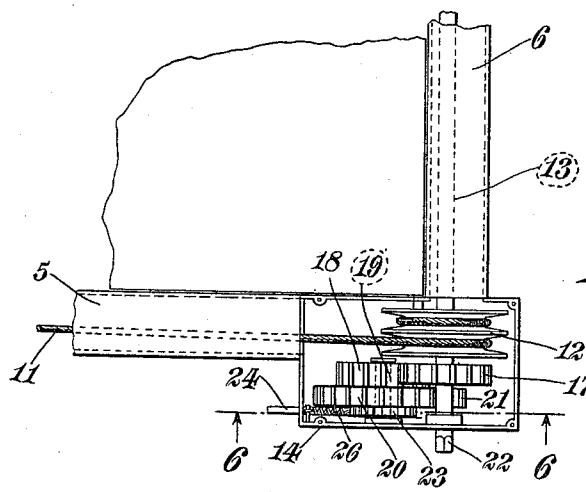


Fig. 5.

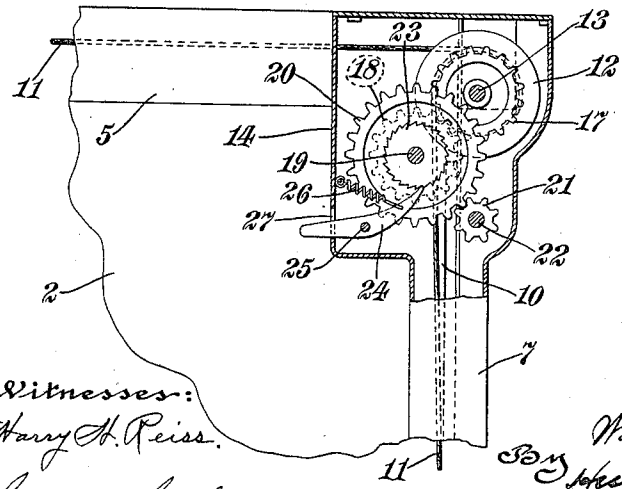


Fig. 6.

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5 SHEETS—SHEET 4.

Fig. 7.

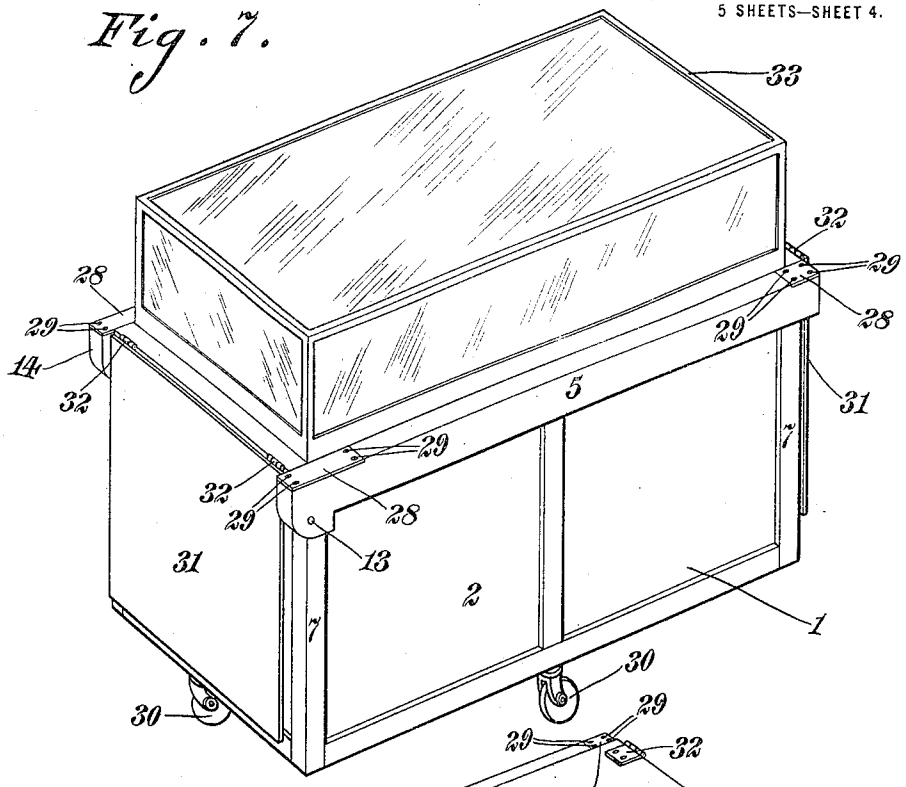
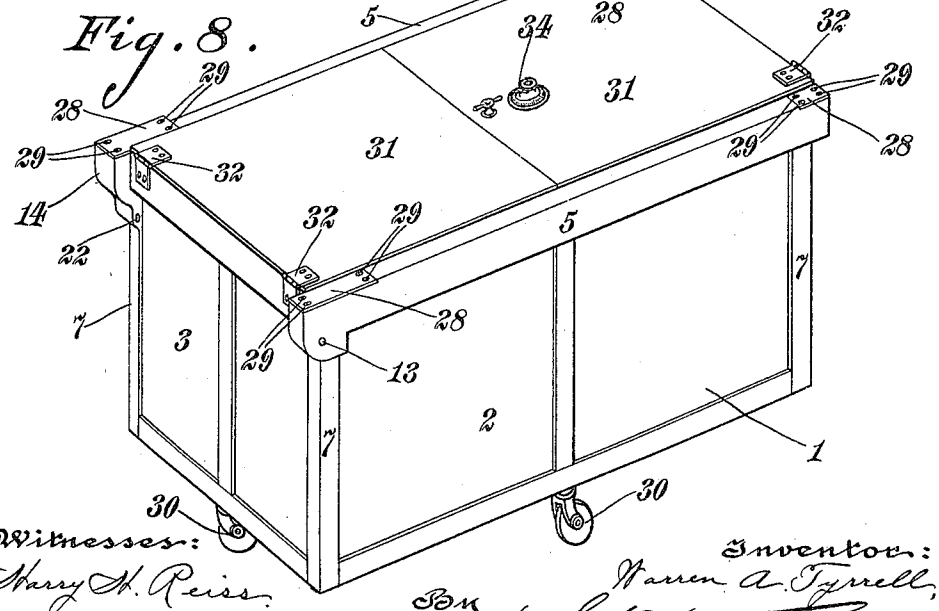


Fig. 8.



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5 SHEETS—SHEET 5.

Fig. 11.

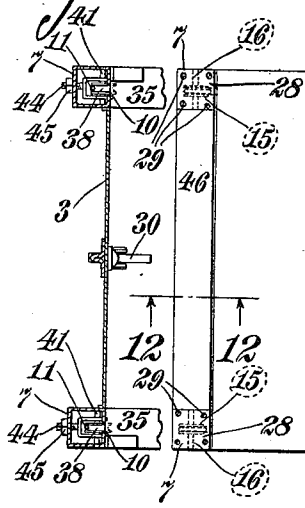


Fig. 9.

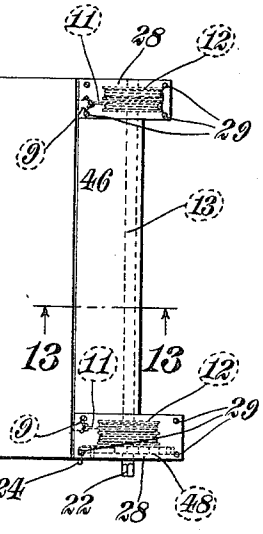


Fig. 12.

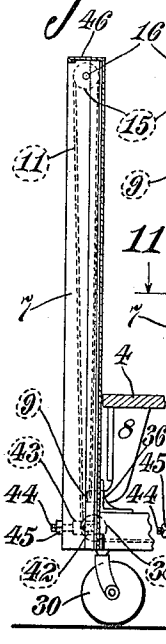


Fig. 10.

Fig. 13.

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UNITED STATES PATENT OFFICE.

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CONVERTIBLE TABLE AND TRUCK.

1,144,622. Specification of Letters Patent. Patented June 29, 1915.

Application filed May 3, 1913. Serial No. 765,228.

To all whom it may concern:

Be it known that I, WARREN A. TYRRELL, a citizen of the United States, residing at the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Convertible Tables and Trucks, of which the following is a specification.

It is customary in department stores, wholesale houses, and the like to mark or tag the goods or articles before they are distributed to the several departments, in which same are to be sold. This marking or tagging is usually done in a receiving room or department where the goods or articles are loaded upon marking tables, on which same are marked or tagged with the proper prices, after which the marked or tagged goods or articles are removed from these tables and loaded into box or other trucks, by means of which they are delivered to the several sales departments.

It is the primary object of the present invention to provide a convertible table and truck, which is designed so that same can be converted from a marking table into a truck after a quantity of goods or articles has been marked or tagged with the proper prices, and can be used to convey the marked or tagged goods or articles to the several departments, thus obviating the necessity of loading the marked or tagged goods or articles into separate trucks.

With this object in view, the present invention consists in the provision of a convertible table and truck having a vertically-movable platform, which, when raised, constitutes the top of a table, and, when lowered, constitutes the bottom of a box or truck, in which things may be conveyed from one place to another or may be stored and locked therein for safe keeping.

Further, the present invention consists of the novel features of construction and arrangement of parts hereinafter more fully described and pointed out in the claims.

In the accompanying drawings forming part of this specification, in which like numbers of reference denote like parts wherever they occur, Figure 1 is a perspective view of a convertible table and truck embodying the present invention, showing the movable platform lowered slightly; Fig. 2 is a transverse sectional view of same, showing the movable platform raised to its highest position to constitute the top of a table; Fig. 3 is a longitudinal sectional view of same, showing the movable platform lowered to constitute the bottom of a box or truck; Figs. 4 and 5 are top plan views of two of the corner portions of the device, with the corner plates removed to expose the platform raising and lowering mechanism; Fig. 6 is a sectional view on the line 6—6, Fig. 5; Fig. 7 is a perspective view of the device provided with covers for closing the top, showing the covers open and a show-case supported on the movable platform; Fig. 8 is a perspective view of same with the covers closed over the top and provided with a lock; Fig. 9 is a top plan view of the convertible table and truck with open sides; Fig. 10 is a side elevation of same; Fig. 11 is a sectional view on the line 11—11, Fig. 10; Fig. 12 is a sectional view on the line 12—12, Fig. 9; and Fig. 13 is a sectional view on the line 13—13, Fig. 9.

In the drawings, 1 represents the casing which is preferably formed of sheet metal, though it may be formed of wood or other suitable material, if so desired. The casing has an open top, and the sides 2 and the ends 3 of the casing extend substantially vertically and form the walls of a rectangular space, in which a horizontally-disposed and vertically movable platform 4 is located, the sides and ends of which platform touch or nearly touch the inner faces of the sides 2 and ends 3, respectively, of the casing. Each side 2 of the casing has a hollow member 5 extending longitudinally of the top of same, and each end 3 has a hollow member 6 extending longitudinally thereof, which members 5 and 6 may be formed integrally with said side and end, respectively, or secured thereto by any suitable means. The corner posts 7 of the casing are preferably hollow and communicate with the members 5 and 6.

Each corner portion of the platform 4 is provided with a bracket 8, which is preferably secured to the lower side of the platform. An arm 9 borne by said bracket extends through a vertical slot 10 in the side

2 adjacent to an end 3 of the casing, as best seen in Figs. 2 and 3, which slot communicates with the interior of a corner post 7. Said arm 9 of bracket 8 is fastened to the lower end of a wire rope, cord, chain, or any other suitable flexible member 11 by means of which the platform is supported, there being as many flexible members 11 as brackets 8. The flexible members 11 that support one end of the platform 4 extend upwardly through the hollow posts 7 at one end of the casing, and are wound on a pair of double-grooved pulleys 12 to which the upper ends of said flexible members are fastened, said pulleys being rigidly mounted on a shaft 13, which is arranged to extend longitudinally through the hollow member 6 at the same end of the casing. Said shaft 13 is journaled at one end in a side of the hollow member 5 on one side of the casing and at the other end in a boxing or casing 14, which may be formed integrally with or secured to the other side of the casing 1. The flexible members 11 that support the other end of the platform 4 extend upwardly through the other corner posts 7 and pass over a pair of pulleys 15 and then extend through the hollow members 5 on the sides 2 of the casing 1, being, also, fastened at their upper ends to the pulleys 12, respectively, on which same are adapted to wind. Said pulleys 15 are revolubly mounted on a pair of pins 16, which pins are supported by the sides of the hollow members 5, respectively.

A gear-wheel 17 rigidly mounted on shaft 13 meshes with a gear-wheel 18, which is revolubly mounted on a pintle 19, which is secured to a wall of the boxing or casing 14. A relatively large gear-wheel 20, also, revolubly mounted on the pintle 19 is secured to the gear-wheel 18 so as to rotate therewith, and receives its power from a pinion 21 rigidly mounted on an operating shaft 22, which is journaled in the walls of the boxing or casing 14. One end of the shaft 22 projects from the boxing or casing 14, and is preferably angular in cross-sectional configuration to allow a crank (not shown in the drawings) to be fitted thereon for the purpose of rotating same. A ratchet-wheel 23 is, also, revolubly mounted on the pintle 19 and is secured to the gear-wheel 20 so as to rotate therewith, a pawl or dog 24, which is pivoted at 25 to a wall of the boxing or casing 14, being held in engagement with the ratchet-wheel 23 by a spring 26 or other suitable means, in order to prevent retrograde movement of said gear-wheel. By this arrangement, whenever the shaft 22 is rotated clockwise, Fig. 6, the pinion 21 will rotate the shaft 13 in the same direction through the medium of the gear-wheels 20, 18, and 17, and will thereby cause the pulleys 12 to wind up the flexible members 11, with the result of raising the platform. The pawl or dog 24 prevents retrograde movement of the gear-wheel 20 and thereby causes the flexible members 11 to support the platform. One end of the pawl or dog 24 extends through a slot 27 in a wall of the boxing or casing 14 so that said pawl or dog can be moved out of engagement with the ratchet-wheel 23 to permit retrograde movement of the gear-wheel 20, when the shaft 22 is rotated counter-clockwise, Fig. 6, to cause the flexible members 11 to unwind from the pulleys 12, thereby allowing the platform to descend. The boxing or casing 14 and the members 5 are preferably open above the pulleys 12 and 15 and are provided with cover plates 28, which are held in place by screws 29 or other suitable means, so that said plates can be removed to afford access to said pulleys, when so desired.

The casing 1 is provided with casters or rollers 30, which may be located under the middle of the sides and ends, as depicted in the drawings, or may be located elsewhere under the casing, said casters or rollers being preferably of the swiveled type. By this arrangement, the casing can be readily moved from place to place in an obvious manner.

In practice, when the device is used as a marking table in a department store, wholesale house, or the like, the platform 4 is raised, as hereinabove described, until its upper surface is substantially flush with the upper faces of the members 5 and 6 as shown in Fig. 2, thereby becoming the top of the table, or, if desired, said platform may be left slightly below the level of the upper faces of said members. A plurality of these devices may be placed in a row in a receiving room or department, and the goods or articles to be marked or tagged are loaded on the platforms 4 of same. After a quantity of goods or articles on a platform has been marked or tagged with the proper prices, the platform is lowered as hereinabove described, with the result of lowering the marked goods or articles into the interior of the casing 1 and converting the device into a box or truck, in which the marked or tagged goods or articles are then conveyed to the proper sales departments or elsewhere. It will be evident that, while a quantity of goods or articles are being marked or tagged on the platform 4, the latter can be lowered a little at a time to keep the top of the pile of goods or articles on same at a convenient working level for the person doing the marking or tagging.

In order to protect the goods or articles after same have been lowered into the interior of the casing 1 by the platform 4, the casing 1 may be provided with a cover 31, or a plurality of such covers, as shown in

Figs. 7 and 8, in which each end 3 of the casing has a cover 31 fastened thereto by means of hinges 32 or the like. These covers 32 are arranged to close the top of the casing 1, as depicted in Fig. 8, and, when the casing is open, said covers will depend beside the ends 3, respectively, as illustrated in Fig. 7.

While the convertible table and truck hereinabove described is particularly intended for use in department stores, wholesale houses, and the like, yet, it should be understood that same may be used in jewelry stores and the like. It is customary in jewelry stores each day to collect the valuable jewelry from the several show-cases and to lock same in a vault or safe over night, but this may be obviated by the use of the convertible table and truck in the following manner. A show-case 33 may be supported on the platform 4 or, if desired, the latter may constitute the bottom of the show-case, so that, when the platform is raised, the show-case will be displayed above the casing 1, as shown in Fig. 7, and when the platform is lowered, the show-case will be lowered into the casing sufficiently to allow the covers 31 to be closed, as depicted in Fig. 8, and to be locked by a combination or other lock 34. By this arrangement, the show-case 33 and its contents can be stored and locked in the casing 1 for safe keeping, after which the latter may either be left in its place in the store or same may be moved into a vault and locked therein. If desired, the casters or rollers 30 may be omitted entirely, and the sides or ends of the casing 1 that are exposed to the aisles may be decorated in any suitable manner.

In order to allow goods or articles that are longer than the width of the platform 4, such as long bolts of cloths, etc., to be loaded on said platform and lowered thereon, the sides 2 of the casing 1 may be omitted entirely, as depicted in Figs. 9 to 13, inclusive. In this construction, the lower ends of the corner posts 7 are connected to a pair of hollow side members 35 by brackets 36 or other suitable means, which members are connected by a cross-piece 37 or a plurality of such cross-pieces. The arms 9 of the brackets 8 extend through vertical slots 10 in the corner posts 7, and are attached to the lower ends of the flexible members 11, as hereinabove described. The flexible members 11 that support one end of the platform 4 pass over the pulleys 15 on the pins 16, which are supported within the upper parts of the corner posts 7 adjacent to the same end of the platform, and extend downwardly through said corner posts, then pass under a pair of pulleys 38 within the lower parts of said corner posts and extend through the hollow side members 35, thence pass under a pair of pulleys 39, which pulleys are revolubly mounted on pins 40 supported in the lower parts of the other corner posts and extend upwardly through the latter to the pulleys 12 on the shaft 13. The other flexible members 11 extend direct from the pulleys 12 to the arms 9 of the brackets 8 on the other end of the platform. Each pulley 38 is revolubly mounted on a pin 41, which projects through slots 42 in the walls of a post 7, a member 43 being attached to said pin and bearing a bolt 44, which extends through an opening in said post and has a nut 45 fitting thereon, which nut affords a means for adjusting said pulley, in order to level the platform 4. It will be observed that the hollow members 6 are, also, omitted, and each end 3 has its upper portion 46 bent outwardly, one of the portions 46 being bent so as to cover or partly cover the shaft 13. An internal gear-wheel 47 on the shaft 13 receives its power from the pinion 21 on the shaft 22, said gear-wheel 47 having ratchet-teeth 48 on its periphery, with which the pawl or dog 24 engages to prevent retrograde movement of the shaft 13.

Many changes in the arrangement and construction may be made without departing from the spirit and scope of the present invention.

I claim:

1. The combination of a body having an opening at its top and vertical slots in the walls of same, hollow members connecting the ends of same, a vertically movable platform within said body having extensions which protrude through the slots in the walls of said body, a revoluble member supported by one end of said body, and flexible members wound on said revoluble member and attached to the extensions of said platform, one pair of said flexible members being arranged to extend through said hollow members.

2. The combination of a body having an opening at its top and vertical slots in its walls adjacent to the corners thereof, hollow members connecting the ends of the body, a vertically movable platform within said body having extensions which protrude through the slots in the walls of said body, a revoluble member supported horizontally on one end of said body, and flexible members wound on said revoluble member and attached to the extensions of said platform, one pair of said flexible members being arranged to extend through said hollow members.

3. The combination of a body having an opening at its top and vertical slots in its walls adjacent to the corners thereof and hollow corner posts communicating with the slots, hollow members connecting the corner posts, a vertically movable platform within

said body having extensions at the corners thereof, which extensions protrude through the slots in the walls of said body into the corner posts, a revoluble member supported horizontally by said casing, and flexible members wound on said revoluble member arranged to extend into the corner posts and being attached to the extensions of said platform, one pair of said flexible members being arranged to extend through said hollow members.

4. The combination of a body having an opening at its top and vertical slots in its walls adjacent to the corners thereof and hollow corner posts communicating with the slots, the sides and ends of said body having hollow members extending longitudinally thereof, a vertically movable platform within said body having corner extensions which protrude through the slots in the walls of the body into the corner posts, a revoluble member extending through the hollow member on one end of the body, a pair of pulleys revolubly supported in the hollow side members adjacent to the other end of the body, and flexible members wound on said revoluble member and being attached to the extensions of said platform, one pair of said flexible members extending from said revoluble member into the corner posts at one end of the body, and the other pair of said flexible members extending from said revoluble member into the hollow side members and then passing through the latter and over said pulleys into the corner posts at the other end of the body.

5. The combination of a frame having an opening at its top and having hollow members, each of said hollow members having a vertical slot therein, a vertically movable platform within the frame, means carried by the platform and extending through the slots into the hollow members, means arranged within said hollow members for raising and lowering said platform including a shaft revolubly supported by one end of said frame, pulleys on said shaft, pulleys revolubly supported by the other end of said frame, and flexible members arranged within the hollow members secured at one end to the pulleys on said shaft and at their lower ends to the means carried by the platform, one pair of said flexible members being arranged to pass over said second mentioned pulleys.

6. The combination of a frame having an opening at its top, and having hollow members, a vertically movable platform within same, means for raising and lowering said platform arranged within said hollow members including a shaft revolubly supported by said frame, pulleys on said shaft, flexible members arranged in said hollow members and secured at one end to said pulleys and at their lower ends to said platform, and a pair of adjustable pulleys with which a pair of said flexible members engages.

7. The combination of a frame having an opening at its top and hollow members connecting the ends of same, a vertically movable platform within said frame, means for raising and lowering said platform including a revoluble member supported by said frame, and flexible members secured at one end to said revoluble member and at their lower ends to said platform, one pair of said flexible members being arranged to extend through said hollow members.

8. The combination of a frame having an opening at its top and hollow members on the sides and ends thereof, a vertically movable platform within said frame, means for raising and lowering said platform including a revoluble member which extends through the hollow member on one end of said frame, and flexible members secured at one end to said revoluble member and at their lower ends to said platform, one pair of said flexible members extending through the hollow members at the sides of said frame.

9. In a device of the type set forth, a frame consisting of spaced hollow vertical corner posts, there being vertical slots provided in said corner posts, and spaced hollow horizontal side members which connect said posts, a vertically movable platform, brackets depending from the corners of the platform and having arms which extend through said slots provided therefor in the corner posts and into the latter, a shaft journaled in the upper ends of the corner posts at one end of the frame, pulleys adjacent the upper ends of the corner posts at the opposite end of the frame, flexible members engaged with the pulleys and with the platform and passing through the last named corner posts and through the side members, and flexible members connected to the platform and leading directly to the shaft and connected to the latter.

10. In a device of the type set forth, a frame having an opening at its top and hollow members constituting corner posts, said posts having a vertical slot provided therein, a vertically movable platform in the frame, downwardly and outwardly projecting bracket arms carried by the platform and extending through the post slots and terminating within the hollow posts, a rotatable element at one end of the frame adjacent the top thereof, pulleys located at the upper portion of the other end of the frame, a pair of flexible members arranged within the hollow corner posts connected at one end to the rotatable element and leading directly to the bracket arms on one end of the platform and having their opposite ends connected thereto, and a second pair of flexible members arranged within the hollow

corner posts connected to the bracket arms carried by the opposite end of the platform and engaged with said pulleys and also connected to the rotary element, all of the operating mechanism for raising and lowering the platform being arranged within the hollow corner posts.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

WARREN A. TYRRELL.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."