Aug. 15, 1961 C. C. OLSON 2,996,151

DUMB WAITER

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FIG. 1

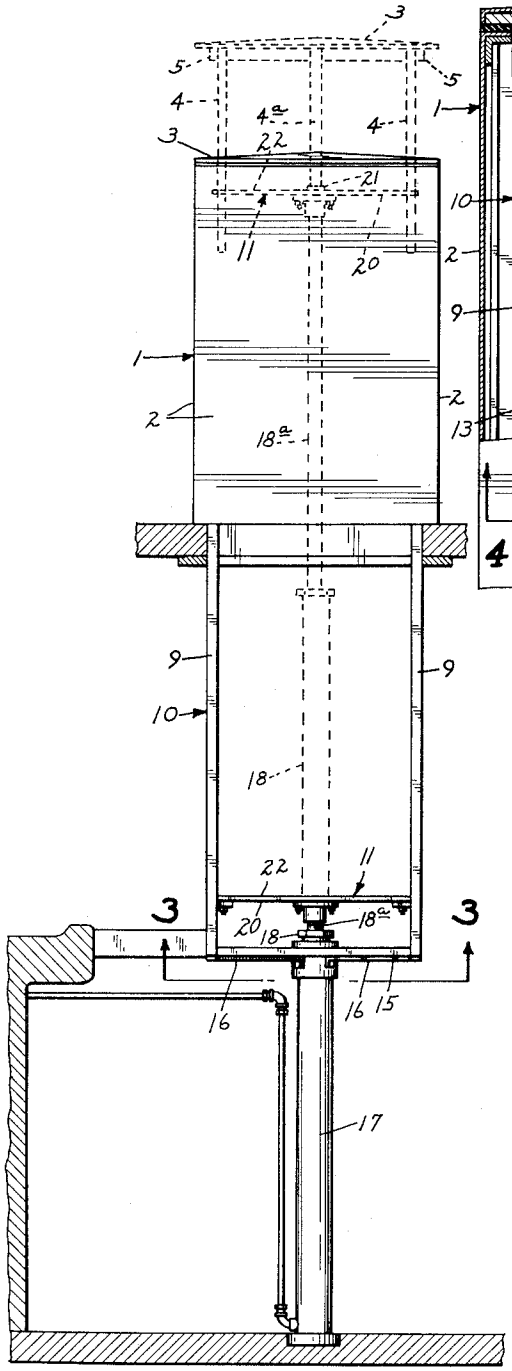


FIG. 2

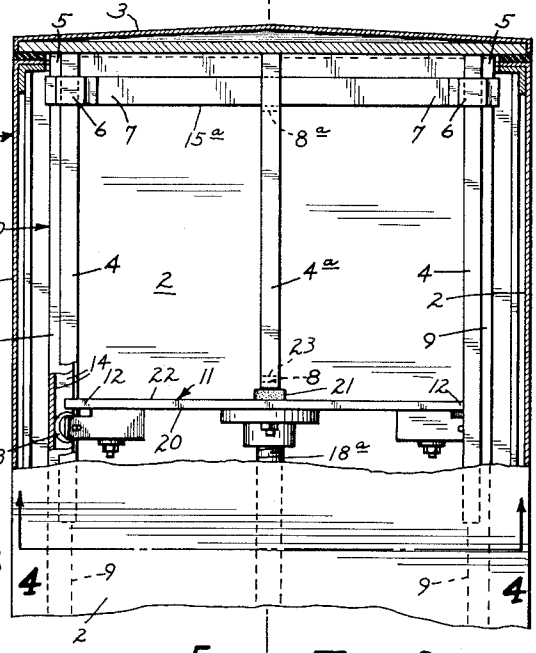
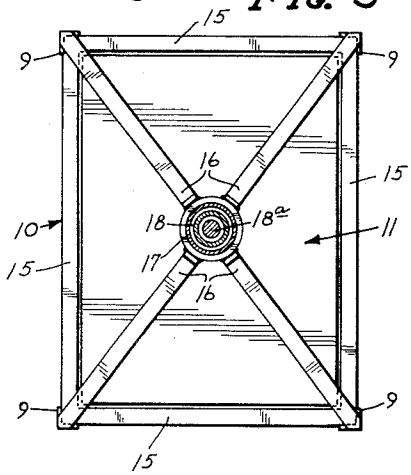


FIG. 3



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FIG. 4

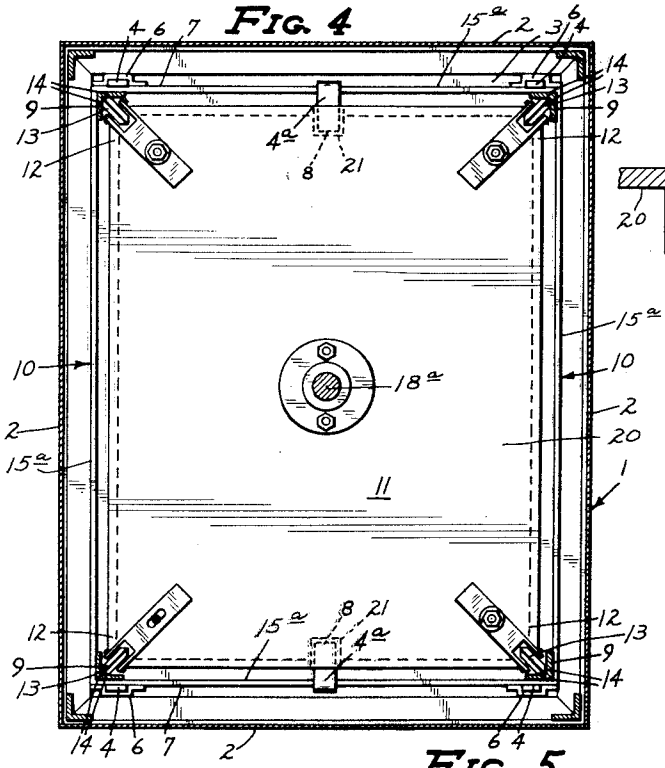


FIG. 6

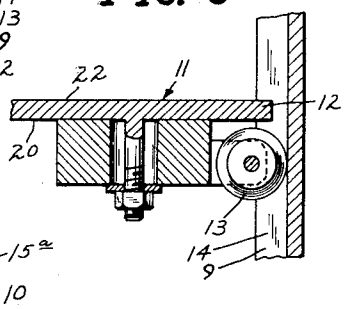
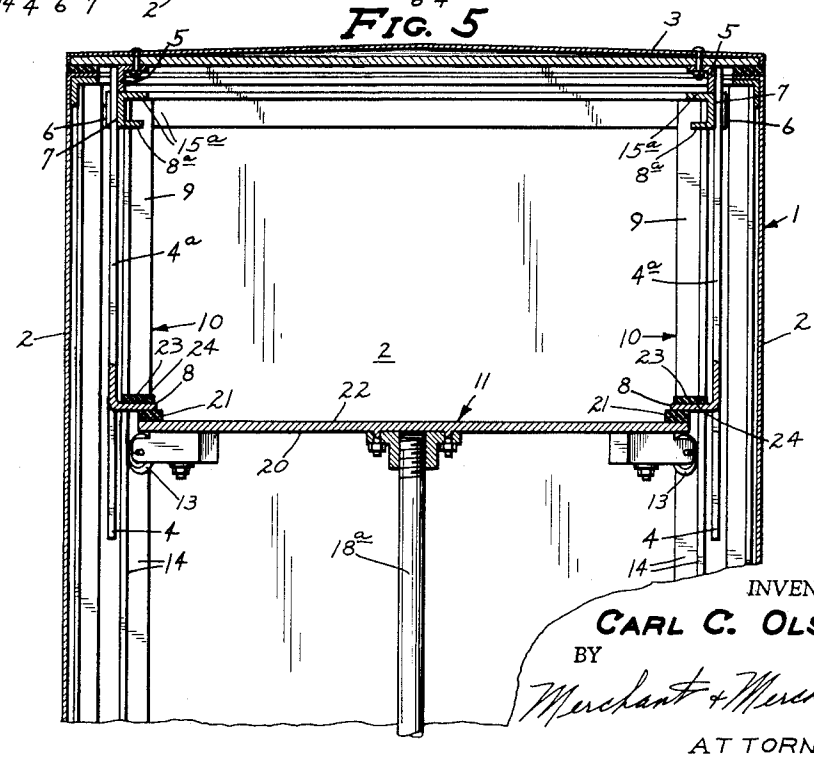


FIG. 5



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2,996,151

# DUMB WAITER

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3 Claims. (Cl. 187—3)

This invention relates generally to equipment for restaurants, bars and the like, and more particularly to improved apparatus for elevating food and beverages to the different floors or levels of such establishments. This invention is therefore particularly useful in such an establishment which has two or more floors or levels, or in one having a dining room on one level and a bar on another.

As its primary object, this invention comprehends a serving apparatus or dumb waiter which includes as an element thereof, a floor mounted bottomless cabinet having a lid or top which covers the cabinet when the serving platform is positioned below the cabinet, but which top is raised above the cabinet by the serving platform when said platform is positioned substantially in the plane of the top portion of said cabinet.

A further object of my invention is the provision of a dumb waiter the visible portions of which are extremely pleasing in appearance and in which the cabinet portion is constructed to harmonize with the surrounding fixtures of the establishment so as not to distract in any way from the neat appearance of the establishment.

Other objects of my invention are inherent in the provision of a dumb waiter which is comparatively simple in construction and mode of operation, which may be inexpensively maintained in working condition and which is highly efficient in the vindication of its purpose.

The above and still further objects of my invention will become apparent from the following detailed specification, appended claims and attached drawings.

Referring to the drawings wherein like characters indicate like parts throughout the several views:

FIG. 1 is a view in side elevation, some parts broken away and some parts shown in section;

FIG. 2 is an enlarged elevational view of the upper portion of the structure with the lifting platform in its initial top raising position;

FIG. 3 is a view in horizontal section taken on the line 3—3 of FIG. 1;

FIG. 4 is a view in horizontal section taken on the line 4—4 of FIG. 2;

FIG. 5 is a view in fragmentary vertical section taken on the line 5—5 of FIG. 2; and

FIG. 6 is an enlarged fragmentary detailed sectional view of one of the guide rollers and its associated parts.

Referring with greater particularity to the drawings, the reference numeral **1** represents generally a floor mounted cabinet having aligned openings in its upper and lower end portions. The cabinet **1** has vertically disposed side walls **2** and a vertically removable top **3**. The top **3** is generally rectangular and has four corner legs **4** depending from the corner portions **5** of said top **3**, which corner legs **4** are slidably received within corresponding guide brackets **6** mounted on the outer surface **7** of the frame members **15***a*. Spaced intermediate said corner legs **4** are at least two other legs **4***a* which are formed at their lower ends to define horizontally turned enlarged feet **8**. The feet **8** are functionally located to actuate the vertical movement of said top **3**, as will hereinafter be explained.

Associated with and projecting through said cabinet **1** are four corner frame members **9** which form a part of the entire frame denoted generally by the reference numeral **10**. These corner frame members **9**, which are



preferably and as shown fabricated from angle iron, form a guideway for the vertical raising and lowering movements of the lifting platform **11**. The generally rectangular lifting platform **11**, which is of smaller dimensions than the spacing of the corner frame members **9**, is provided at each of its corners **12** with guide rollers **13** which slidably engage the inner surfaces **14** of said corner frame members **9**.

The lower portion of said frame **10** comprises side frame members **15** horizontally spaced between said corner frame members **9** and the upper portion of said frame comprises corresponding side frame members **15***a*. Centrally spaced within said side frame members **15** and secured by horizontal web members **16** is a vertically disposed fluid pressure operated piston-cylinder **17** equipped with a plunger rod **18**. The top of said cylinder **17** is disposed substantially in the plane of the lower portion of said frame **10**. The upper end **19** of the plunger rod **18**, which plunger rod preferably and as shown includes a smaller upper plunger rod **18***a*, is secured to the bottom **20** of said platform **11**. Connected to said cylinder **17** is a fluid pressure means, not shown, for operating said cylinder **17**.

When my invention is installed so that the cabinet **1** is mounted on the floor of one level of the establishment and the frame **10** depends into the room below, a serving apparatus is provided which is extremely simple and efficient to operate. With platform **11** disposed at its lower limit of movement, the articles to be transported are placed on the platform **11** and the means for imparting pressure to the cylinder **17** is actuated. The platform **11**, with its guide rollers **13** slidably engaging the corner frame members **9**, is raised to a position inside the cabinet. When the platform **11** reaches the feet **8**, which lie in the path of travel of the platform **11**, the contact is cushioned by the shock absorbers **21** which are secured on the upper side **22** of said platform **11** in underlying relationship to said feet **8**. The continuing upward movement of said platform **11** raises the top **3** from engagement with the cabinet **1**. When the platform **11** and the top **3** reach the upper limit of movement as defined by the feet **8** making contact with tabs **8***a* secured to said side frame members **15***a*, the contact is cushioned by another set of shock absorbers **23** which are secured on the upper side **24** of said feet **8**. In this position, the top **3** is canopied in overlying relationship with the platform **11** and the cabinet **1**. When it is desired to lower the platform **11** the above process is reversed and the top **3** returns to overlying engagement with said cabinet **1** and the platform **11** is returned to its original lower position by lowering the pressure in said cylinder **17**.

This invention has been thoroughly tested and found to be completely satisfactory for the accomplishment of the above objects; and while I have shown a preferred embodiment thereof, I wish it to be specifically understood that same is capable of modification without departure from the scope and spirit of the appended claims.

What I claim is:

1. In a dumb waiter, a floor mounted cabinet having aligned openings in its upper and lower end portions, a frame associated with said cabinet and projecting therethrough and therebelow, said frame including a plurality of elongated generally vertically disposed angle frame members one each disposed at each of the corners of said cabinet, said angle frame members cooperating to form a guideway, a generally rectangular lifting platform disposed within said guideway and mounted and guided therein for vertical raising and lowering movements from a position remote from and below said cabinet to a position adjacent the opening in the top portion thereof, suitable supporting structure disposed

in the level below the floor upon which said cabinet is mounted, means including a reciprocating fluid pressure operated motor interposed between said lifting platform and said supporting structure for selectively moving said lifting platform between said positions thereof, a removable generally rectangular top on said cabinet, means mounting and guiding said top for limited vertical movement from a position in engagement with said cabinet to a position spaced thereabove, said last mentioned means comprising corner legs and other intermediate legs which depend from said top, guide brackets mounted on said cabinet for slidably receiving said corner legs, and enlarged feet formed on the the lower ends of said intermediate legs, said feet lying in the path of travel of and being engageable with said platform during final upward movement of said platform within said cabinet whereby said top is elevated to form a canopy over said platform after said final upward movement and is lowered to a cabinet closing position during initial downward movement of said platform.



2. The structure defined in claim 1 in which said lifting platform is mounted and guided within said guideway by means of a plurality of guide rollers one each adjustably secured by suitable bracket means to each of the corners of said lifting platform.

3. The structure defined in claim 2 in which said feet are provided with compressible bumpers on the top portion thereof, said bumpers being engageable with said cabinet adjacent said upper opening when said top reaches its final upward movement, and in which compressible bumpers are also provided between said feet and the portion of said platform underlying said feet.

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