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SLIDING DOOR CABINET

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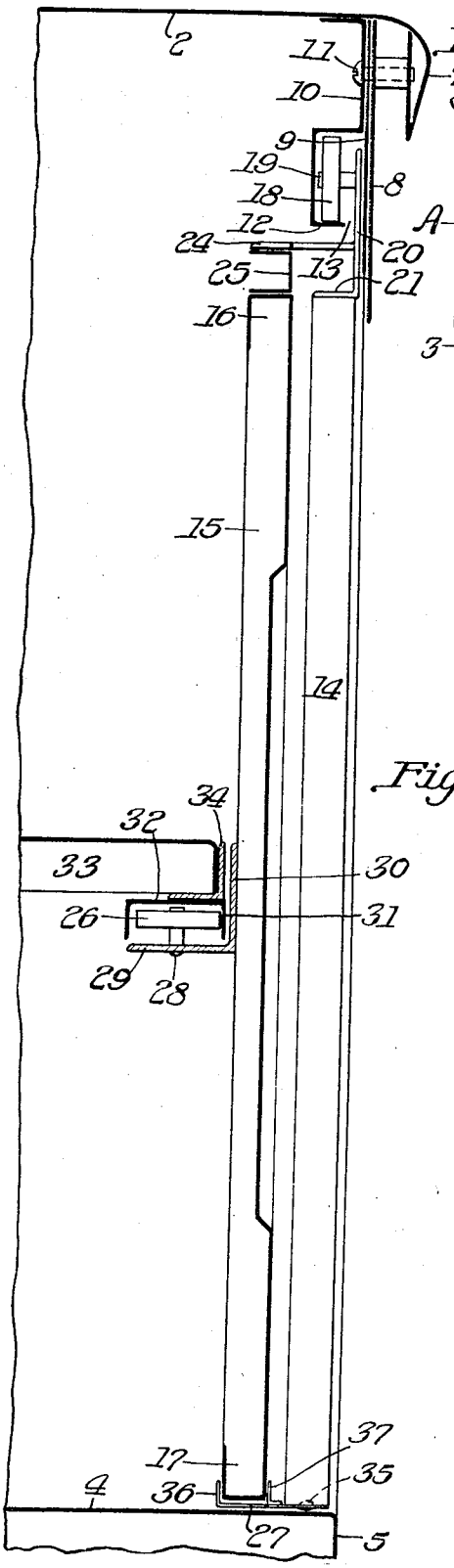



Fig. 2.

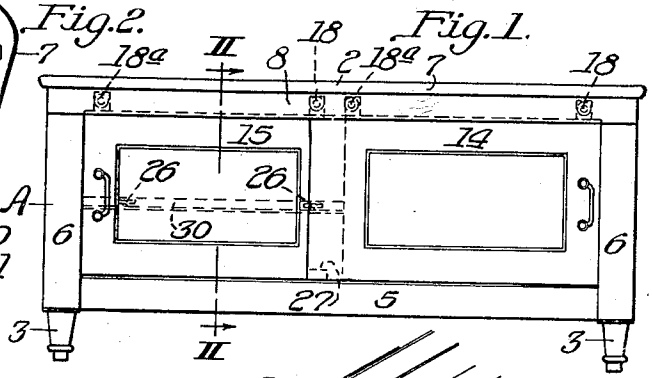



Fig. 1.

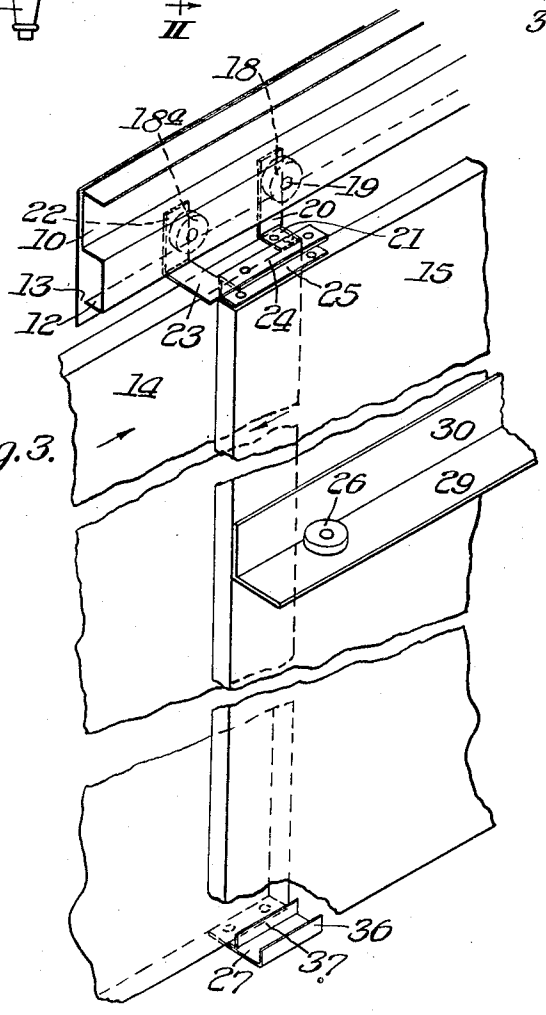



Fig. 3.

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## SLIDING DOOR CABINET

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10 Claims. (Cl. 312—189)

My invention relates to improvements in the class of sliding door cabinets or the like.

The features of the improvement reside in means for mounting a pair of overlapping doors on the front framing of a container of the cabinet or cupboard type whereby each may move longitudinally independent of the other, together with means for preventing outward movement, and in suspended clearance over the bottom or floor of the casing.

One preferred embodiment of the invention is illustrated in the accompanying drawing in which:—

Fig. 1 is a view in front elevation of a cabinet provided with a pair of front sliding doors embodying my invention;

Fig. 2 is an enlarged partial vertical section through the front portion thereof on the line II—II of Fig. 1;

Fig. 3 is a perspective detail view from the rear partially broken away showing sectional portions of the front and rear door members in overlapping relation with their cooperating parts.

In the drawing, A represents a complete cabinet, cupboard or other container, in the present instance having a covering service top 2, supported above the ordinary floor level by the usual legs or standards 3, one at each corner. The entire structure is preferably made of sheet or plate metal for strength, sanitation, and increased interior capacity, although portions or all of it may obviously be made of wood or other suitable material.

The cabinet is provided with a bottom floor 4 extending outwardly to the front edge and bent downwardly as at 5 forming the lower longitudinal panel. The corner portions 6 are also preferably of sheet or plate metal, flush with panel 5 connected therewith and with other portions of the framing construction in any suitable manner, as by welding or riveting.

The top 2 is preferably rounded downwardly, providing the outwardly extending ornamental coping 7 backwardly of which is the top panel 8 in front of an inner reinforcing wall 9. Fixedly connected with one or more of such upper front wall members is the supporting bracket 10 connected by a series of screws or bolts 11, which also engage the inner portion of the coping 7. Bracket 10 extends rearwardly and downwardly and is provided with an outwardly extending flange 12 terminating inside of plate 9 with an intervening clearance opening 13 for the door hangers.

The pair of doors, which are of sheet or plate metal, comprise the outer door 14 and the inner door 15 of substantial thickness, made of a continuous blank having central ornamental paneling and box-shaped upper edges 16 and similar lower edges 17, such construction being continuous around the opposite ends of each door.

Flange 12 constitutes a continuous superimposed trackway for supporting wheels 18—18 of the front door 14, and 18*a*—18*a* of the rear door 15. When both doors are closed as in Fig. 1, the inner wheel 18 of front door 14 longitudinally endwise thereof, is located beyond the inner supporting wheel 18*a* of rear door 15 so as to allow for movement of either door from its outer extended closed position, inwardly toward and alongside the other door.

The wheels 18 and 18*a* being in alinement, are supported in such a manner on each door as to prevent interference and with ample supporting strength. Thus wheel 18 of outer door 14 is pivotally mounted by pin 19 outwardly from a bracket 20 which extends downwardly and is connected by a right angled flange 21 to the top of door 14. Roller or wheel 18*a* of inner door 15 is supported in the same manner, a vertical plate 22 extending downwardly and bent at right angles to provide the horizontal connection 23 and then extended longitudinally by arm 24 and secured to a supporting bracket 25 of channel form, riveted or otherwise secured to the inner upper edge of rear door 15.

By thus arranging the adjacent supporting wheels 18 and 18*a*, the bracket of the latter is elevated sufficiently above the upper edge of companion door 14 to prevent any interference and with proper working clearance. Bracket 22—23—24 is made of an angle sheet or plate metal blank, and when thus fixedly secured by its continuously plane base 23—24 to the elevating bracket 25 provides a rigid rolling support for the inner end of the rear door. The opposite companion rollers 18 and 18*a* at the outer ends of the pair of doors are carried by similar brackets 20 and 22 respectively, but without the problem of avoidance of interference, it being understood that one door or the other may be moved inwardly to the full extent of the closed door position distance between each particular roller 18 and 18*a*, in opening either door by inward movement.

For the purpose of restraining both doors against outer movement, the inner door 15 is provided with a restraining roller 26, while the bottoms of both doors are in slidable restraining relation by means of the grooved bracket 27

secured to the lower edge and extending inwardly of outer door 14 underneath inner door 15.

Roller 26 is pivotally mounted by stud 28 upwardly above flange 29 of an angle strip 30 secured to the inner face of door 15 as in Fig. 2. For the purpose of providing a retaining runway for wheel 26, two such wheels being preferably provided for the inner door, I provide the longitudinal trackway 31 which may be the flange of an angle or channel strip 32. The latter is secured along underneath the front lower edge of a shelf member 33, as by angle 34. Shelf 33 extends outwardly to within a short distance of the inner face of the inner door and is of the usual construction and a standard element of the type of cabinets involved.

Bracket 27 consists of an angle plate secured by riveting at 35 or otherwise to the bottom edge of outer door 14 having an inner terminal retaining flange 36 and an outer supplemental flange 37 providing between them a freely sliding retaining guideway for the lower edge of the inner door 15. As thus constructed the inner door is continuously restrained against outward movement by engagement of rollers 26 in their trackway, while the sliding engagement between the bottoms of the two doors ensures against outward movement of the outer door, both doors being freely movable longitudinally in either direction for opening or closing.

It will be observed that bracket 27, being located slightly above the surface of bottom 4 and without contact therewith, nevertheless makes a substantially tight closure and without the necessity of any supplemental guides affixed to or projecting from the floor itself. In this manner the floor 4 is continuously smooth clear out to the outer edge 5, facilitating cleansing and easily maintaining the cabinet in sanitary condition. This is a feature of advantage in adapting the invention to use with garage doors and the like.

The construction and operation of the invention will be readily understood and appreciated by all those familiar with the general class of sliding door cabinets, and it provides a simple, strong, convenient and continuously serviceable construction at low cost.

Having described my invention, what I claim is:

1. In a cabinet having a front opening and provided with an upper single trackway, a pair of overlapping front doors provided with rollers carried by the trackway, means slidably connecting the bottoms of the doors, and additional means confining the inner door to longitudinal movement.

2. In a cabinet having a front opening and provided with an upper single trackway, a pair of overlapping inner and outer front doors provided with rollers carried by the trackway, means slidably connecting the bottoms of the doors, a trackway behind the middle portion of the inner door, and a co-operating element on the inner door engaging said trackway.

3. In a cabinet having a front opening and provided with an upper single trackway, a pair of overlapping inner and outer front doors provided with rollers carried by the trackway, means slidably connecting the bottoms of the doors, a trackway behind the middle portion of the inner door, and a co-operating roller on the inner door engaging said trackway.

4. In a cabinet having a front opening and provided with an upper single trackway, a pair of overlapping front doors provided with rollers carried by the trackway, a bracket on the bottom of one door having retaining flanges slidably engaging the bottom of the other door, and additional means confining the inner door to longitudinal movement.

5. In a cabinet having a front opening and provided with an upper single trackway, a pair of overlapping inner and outer front doors provided with rollers carried by the trackway, a bracket on the bottom of the outer door having retaining flanges slidably engaging the bottom of the inner door, an inner trackway intermediate the height of the inner door and a roller on the inner door engaging said trackway.

6. In combination with a cabinet having an upper wall above a front opening, an inner trackway supported on the upper wall, a pair of overlapping doors each having supporting brackets provided with rollers engaging the trackway, the roller of one door at its overlapping end being located inwardly beyond the roller of the other to prevent interference in moving either door towards the other.

7. In combination with a cabinet having an upper wall above a front opening, an inner trackway supported on the upper wall, a pair of overlapping doors each having supporting rollers engaging the trackway, a supporting bracket for each roller secured to the top of each door, the roller bracket of one door extending upwardly across the other door to prevent interference.

8. In combination with an upper supporting trackway, a pair of overlapping doors having upper edges on a substantially common plane, an L shaped bracket secured to the top of one door having a roller engaging the trackway and an L shaped bracket secured to the top of the other door extending across above the top of the first named door for clearance and provided with a roller in alinement with its roller.

9. In combination with an upper supporting trackway, a pair of overlapping doors having upper edges on a substantially common plane, an L shaped bracket secured to the top of one door having a roller engaging the trackway, an L shaped bracket secured to the top of the other door extending across above the top of the first named door for clearance and provided with a roller in alinement with its roller, and a connecting bar therefor between the clearance bracket and its door.

10. In combination with a continuous upper trackway, a pair of overlapping doors supported therefrom by their upper edges, one door having a directly connected bracket provided with a roller engaging the trackway, and the other door having a bracket extending across the top of the first named door for clearance and provided with a roller in alinement with its roller.

JOHN EDWARD GLOEKLER.