April 20, 1926. 1,581,776

O. A. ALTSCHUL

SERVICE DOOR

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Fig. 1.

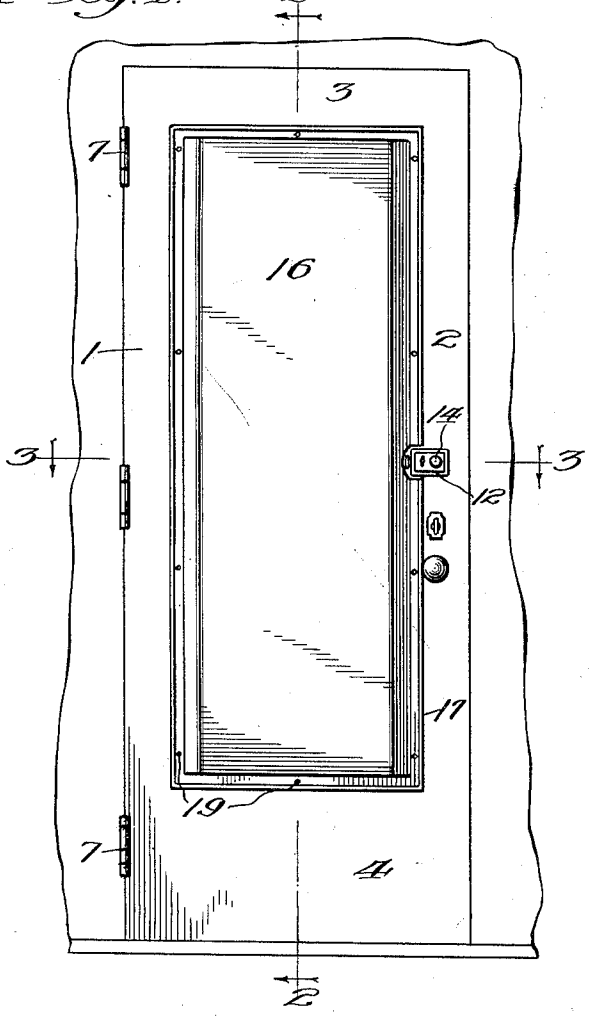


Fig. 2

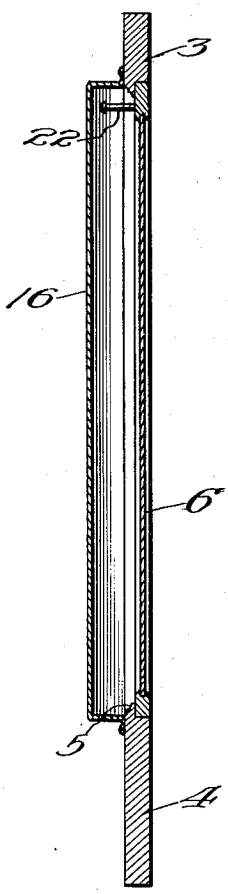
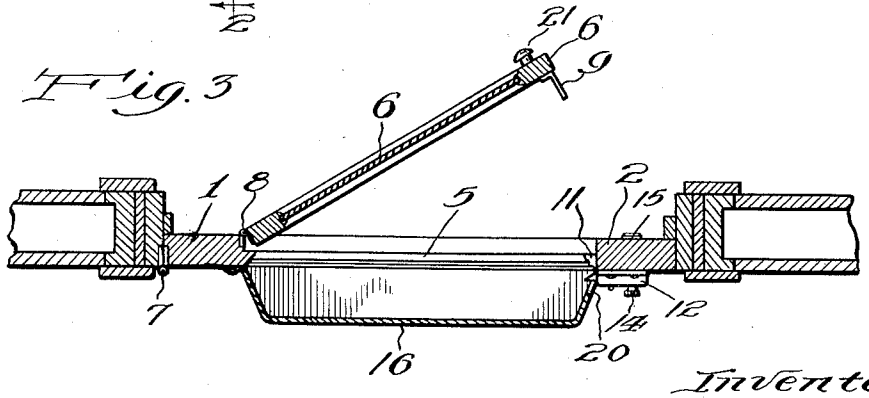


Fig. 3



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Fig. 4.

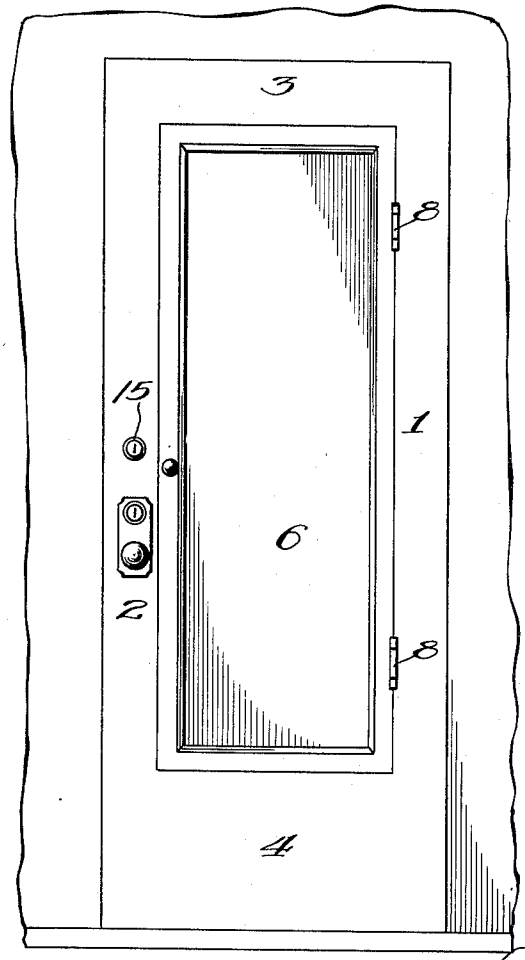


Fig. 5.

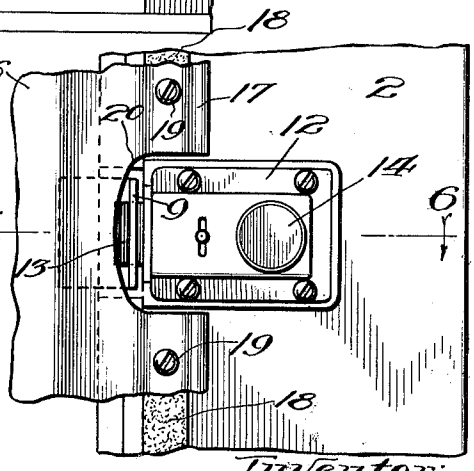
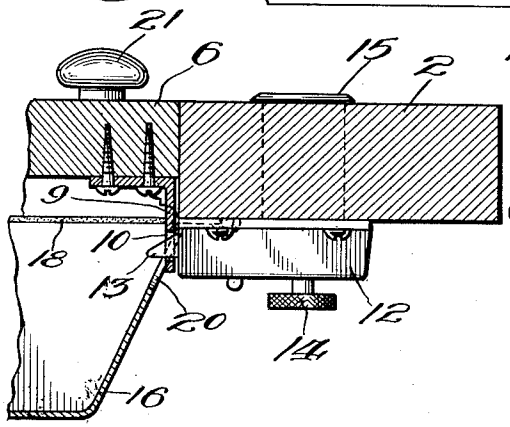


Fig. 6.



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Patented Apr. 20, 1926. 1,581,776

UNITED STATES PATENT OFFICE.

OTTO A. ALTSCHUL, OF CHICAGO, ILLINOIS.

SERVICE DOOR.

Application filed August 16, 1924. Serial No. 732,388.

To all whom it may concern:

Be it known that I, OTTO A. ALTSCHUL, a citizen of the United States, residing in Chicago, county of Cook, State of Illinois, have invented a certain new and useful Improvement in Service Doors, and declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

The present invention relates to doors such as are now used to some extent for the outer doors in the rooms of hotels, into which clothing or other articles may be deposited by the occupant of the room to be removed by an attendant without gaining access into the room. The object of the present invention is to produce a door of this kind of simple construction.

Doors of the kind under consideration have heretofore been provided with two auxiliary doors enclosing between them a compartment or chamber; one of the auxiliary doors being for the use of the occupant and the other for the use of an attendant positioned outside of the room to which the door leads. This necessitates a special construction for the main door in order to give it the requisite strength to resist sagging, it requires hard ware, including two sets of hinges, for the two auxiliary doors, and the door as a whole is therefore cumbersome and expensive. Furthermore, unless special locking provisions are made, it is possible that the attendant may gain access to the room by being able to open the inner as well as the outer auxiliary door.

Viewed in one of its aspects, my invention may be said to have for its object to produce a simple and novel door of the type under consideration having only a single auxiliary door, the chamber being provided by the displacement of the central panel of an ordinary door out of the plane of the latter; the panel serving not only as a structural strength-giving element, but positively preventing anyone from passing through the main door without opening the latter.

In carrying out my invention, I employ a main door of the type having a large central panel bounded by four stiles. Instead of a fixed central panel, I substitute an auxiliary door adapted to be on the outer side of the main door when the latter is hung. On the inner side of the main door I place a panel in the form of a shallow pan, preferably of metal, fastened at its edges to the stiles of the main door around the panel opening in the latter. A simple latch is provided for locking the auxiliary door; this latch being operable from the inner side by a suitable knob or handle, and from the outer side by a key. When the occupant desires to gain access to the compartment in the door, he simply swings the main door open into the room and then opens the auxiliary door; the auxiliary door extending partially across the opening for the main door, and serving as a screen between the room and the corridor. When an attendant desires to gain access to the compartment in the door, he simply unlocks the auxiliary door from the outside and swings it open.

The various features of novelty whereby my invention is characterized will hereinafter be pointed out with particularity in the claims; but, for a full understanding of my invention and of its objects and advantages, reference may be had to the following detailed description taken in connection with the accompanying drawings, wherein:

Figure 1 is an elevation of the inner side of a door arranged in accordance with my invention, a fragment of the surrounding door frame being shown; Fig. 2 is a section through the door taken approximately on line 2—2 of Fig. 1; Fig. 3 is a section, on a somewhat enlarged scale, taken approximately on line 3—3 of Fig. 1; Fig. 4 is a view similar to Fig. 1, showing the outer side of the door; Fig. 5 is a view on an enlarged scale showing a fragment of the inner side of the door at the point where the latch is located and Fig. 6 is a section taken approximately on line 6—6 of Fig. 5.

Referring to the drawings, 1 and 2 represent the vertical stiles and 3 and 4 the top and bottom stiles of a single panel door, these stiles forming a rectangular frame having a large central opening. This opening, in the ordinary door, is filled with a panel that fits in grooves cut into the inner edges of the stiles. Instead of employing grooves in the stiles, I cut away that portion of each stile that in the ordinary door forms the outer side wall bounding the groove, leaving on the inner side of the door a bead-like continuous projection 5 that re-

duces the effective opening through the door to a size slightly less than it is in the outer half of the door. In this panel opening, abutting against the bead or rib 5, I hang an auxiliary door 6 which may be made of a large central panel surrounded by a narrow frame. When the auxiliary door is closed, the outer side of the main door does not differ in appearance to any appreciable extent from an ordinary single panel door of the same size and design. The auxiliary door is hinged on the edge corresponding to the hinged edge of the main door; but, while the hinges 7 of the main door are so disposed that the latter swings inwardly, the hinges 8 for the auxiliary door are so arranged that the auxiliary door swings outwardly.

At the free vertical edge of the auxiliary door is fastened a plate 9 projecting inwardly at right angles thereto and having a hole 10 therein near its free end. The rib or bead 5 is cut away, as indicated at 11 in Fig. 3, permitting this plate to swing inwardly past the same when the auxiliary door is closed. On the inner side of the stile carrying the lock and the knob for the main door is placed a latch device 12, which may be an ordinary night latch having a bolt 13 adapted to pass through the hole 10 in the locking plate 9 on the auxiliary door. This night latch may be operated from the inner side of the main door by means of a suitable knob or handle 14. A tumbler device or other suitable fitting 15 extends through the main door to the outer side so that, upon the insertion of a key in the device 15, the auxiliary door may be unlocked from the outside and swing outward by grasping knob 21.

On the inner side of the main door is fastened a panel in the form of a shallow pan 16, preferably of sheet metal, slightly larger than the panel opening in the main door, so as completely to cover this opening. The broad vertical face of the panel, is preferably flat as are also the top and bottom sides, whereas the two long vertical sides may be inclined somewhat for the sake of neatness. While the pan may be attached in any suitable way, I prefer to provide it with a laterally-projecting flange 17 extending around the mouth thereof; this flange being parallel with the inner surfaces of the door stiles. In order to prevent the transmission of vibrations directly from the wood to the metal, I prefer to place between the flange 17 and the door stiles a layer of felt 18 or other sound-deadening cushioning material. After the pan has been placed in position, with the cushioning element between its flange and the door stiles, it may conveniently be fastened in place by means of screws 19 passing through the flange and into the wood of the main door. Instead of making the flange on the pan flat, it is preferably made in the form of a rounded trough the concave side of which is directed toward the door. This not only strengthens the exposed edge of the sheet metal and prevents them from being damaged, but it also permits the substantial concealment of the cushioning material, since the extreme edge of the flange may be brought quite near to the surface of the stiles, as long as it remains out of contact with such surface.

As best shown in Figs. 5 and 6, a small section is cut out of the side wall of the pan in the vicinity of the latch, to provide a hole 20 into which both the plate 9 on the auxiliary door and the bolt 13 may project.

In Fig. 3 the auxiliary door is shown as having been opened from the outside, and it will be seen that the main door opening is still closed as completely as it would be by an ordinary door. This is the condition existing during the time an attendant is placing articles in or removing them from the compartment enclosed between the panel 16 and the auxiliary door. When the occupant of the room wishes to gain access to this compartment, the main door is swung in the clockwise direction as viewed in Fig. 3, so that the auxiliary door when it is open to the same extent as shown in Fig. 3, lies in and closes the greater portion of the main door opening and thus serves as a screen between the room and the corridor.

The auxiliary door may be provided near the top with a hook 22 or other supporting member, projecting into the compartment in the device, on which articles of clothing may be hung. Thus clothing may be placed in or removed from the compartment without the necessity of reaching into the compartment.

While I have illustrated and described with particularity only a single preferred form of my invention, I do not desire to be limited to the exact structural details thus illustrated and described; but intend to cover all forms and arrangments which come within the definitions of my invention constituting the appended claims.

I claim:

1. In combination, a main door having a large central stationary panel displaced out of the plane of the door to produce a recess in one side of the door, an auxiliary door hinged to the main door to form a closure for the said recess, a member secured to the auxiliary door near one of the edges at a point remote from the hinged edge and projecting into the rear portion of the recess when the auxiliary door is closed, said member having an opening therein near its free end, a manually-operable latch secured to the main door on the opposite side from that on which the auxiliary door is mounted, said latch having a bolt adapted to enter the open-

ing in said member on the auxiliary door to lock the latter in its closed position, and there being a keyhole for permitting the latch to be operated by a key from the side of the main door on which the auxiliary door is mounted.

2. In combination, a main door having a large central stationary panel displaced out of the plane of the door to produce a recess in one side of the door, an auxiliary door hinged to the main door to form a closure for said recess, a keeper secured to the auxiliary door and positioned in the recess when the auxiliary door is closed, a latch secured to the main door and cooperating with the said keeper to lock the auxiliary door in its closed position, and means for operating said latch from either side of the main door.

3. In combination, a main door composed of a body member in the form of an open frame, a sheet metal member in the form of a shallow pan larger than the opening in the frame and having a marginal flange extending around the same, a layer of cushioning material arranged between said flange and the said body member, fastening means passing through said flange into the said body member, and an auxiliary door fitted in the opening in and lying in the plane of said body member.

4. The combination with the doorway for a room, of a main door hingedly mounted in said doorway to swing into the room, a compartment forming structure permanently secured to the inner side of the main door, said main door and compartment forming structure having registering openings formed therein, whereby access to the compartment must be had from the outer side of the main door, and an auxiliary door carried by the main door to control access to the compartment, said auxiliary door being hinged on the edge corresponding to the hinged edge of the main door but to swing outwardly in respect to the said room to permit being moved into a position to obstruct the doorway when the main door is open.

In testimony whereof, I sign this specification.

OTTO A. ALTSCHUL.