

May 14, 1940.

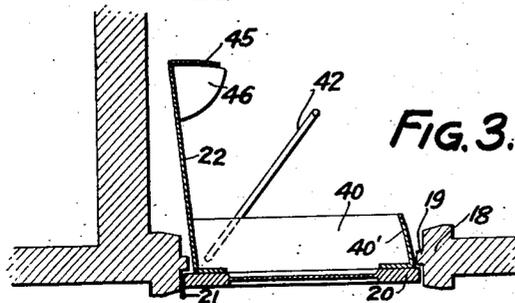
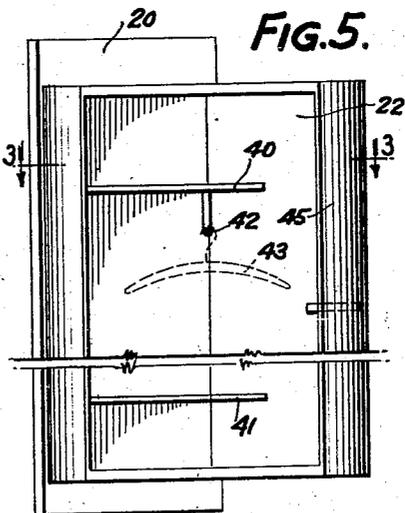
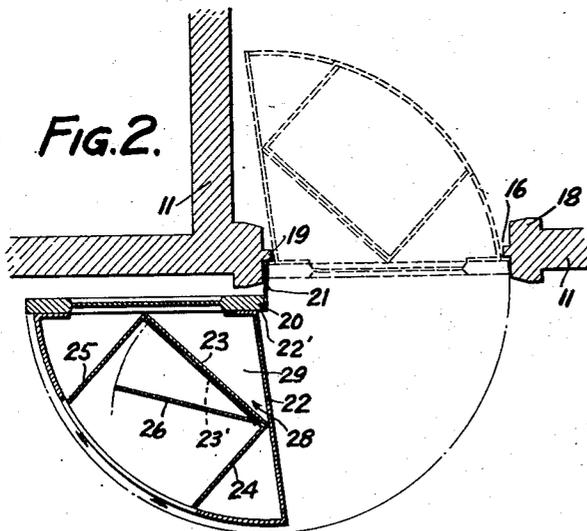
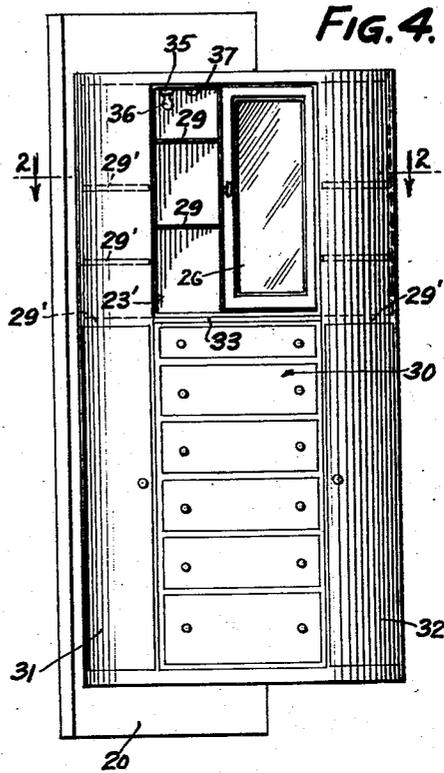
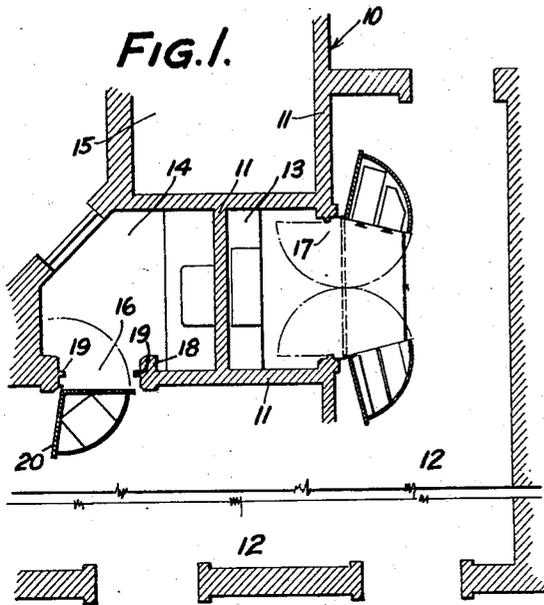
F. P. PLATT ET AL

2,200,934

SPACE GAINING STRUCTURE FOR BUILDING CONSTRUCTIONS

Filed July 28, 1938

2 Sheets-Sheet 1



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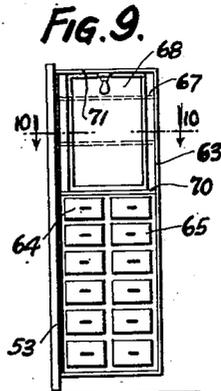
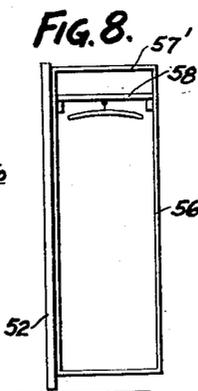
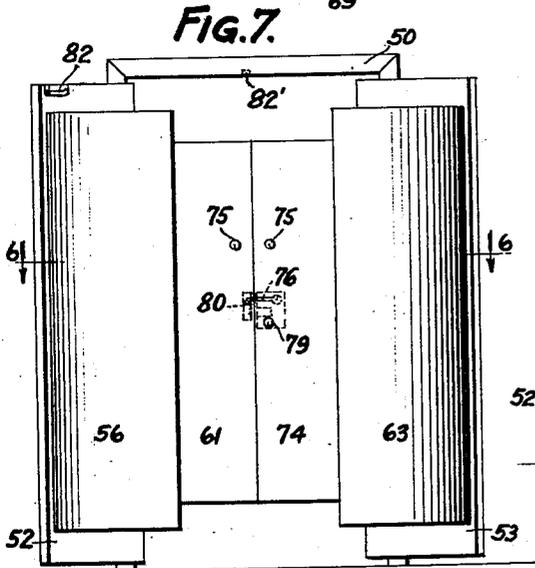
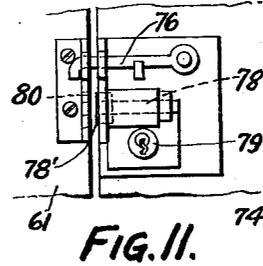
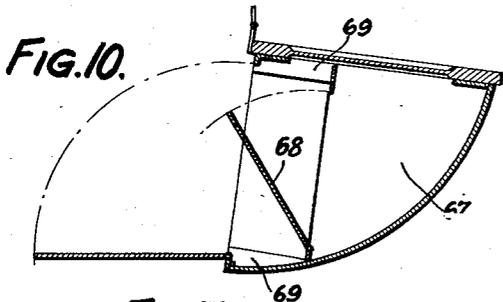
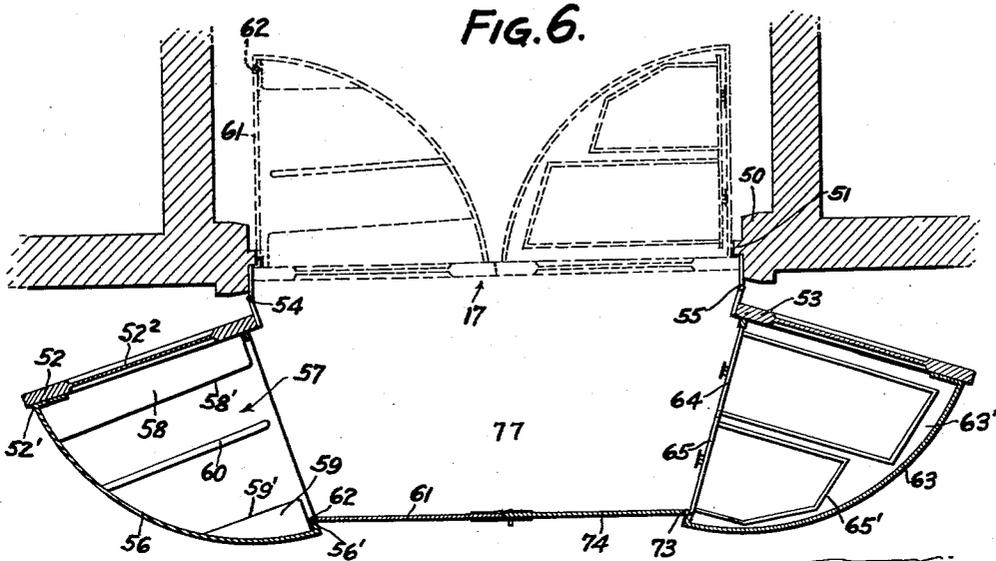
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SPACE GAINING STRUCTURE FOR BUILDING CONSTRUCTIONS

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2 Sheets-Sheet 2



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SPACE GAINING STRUCTURE FOR BUILDING CONSTRUCTIONS

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4 Claims. (Cl. 20—1.11)

The present invention relates to improvements in building constructions and more particularly to structures designed to effect great economies in room space, to provide ample safe storage facilities for articles of apparel, and other personal effects of a room's occupant, to provide an auxiliary dressing compartment for a room or chamber, and to provide such combined structure as will replace much of the common bedroom or other room furniture such as bureaus, cabinets, dressing tables and the like.

Such structures are particularly adaptable for use in hotels, inns and small apartments and are designed to be mounted in place of the customary closet doors, or interconnecting doors between chambers, without requiring reconstruction of the frames for such customary doors.

The structures particularly adapted for use with closets are of a compound, double door type and, in addition, are provided with auxiliary closing members or doors whereby when the double doors are swung into open position, the auxiliary closure members may be swung to bridge the space between the double doors to form a closed-off compartment in the room which serves as a temporary dressing chamber or as a storage chamber for luggage or other personal belongings of the room's occupant. This compartment is adapted to be locked off from the main chamber by locking of the auxiliary doors. An individual key for the said compartment forming doors is provided for the room's occupant, of which no duplicates or master keys are available to the domestic help or hotel service. Thus, without locking the room door the occupant may store his personal belongings in the said compartment in safety and without fear of pilfering on the part of household or hotel help having access to the main chamber for cleaning and other purposes. Likewise the closed-off compartment serves as a temporary dressing chamber when there are other occupants in the room. The main double doors, too, may be locked in closed position to secure safe storage of the belongings of the room's occupant in the closet.

With the above and other objects of our invention in view as will hereinafter appear, our invention comprises the novel arrangement, combination and construction of parts hereinafter more fully described and claimed.

In the accompanying drawings forming part of this specification, and in which similar reference characters denote corresponding parts:

Figure 1 is a sectional partial top plan view of building construction illustrating the application

both of our novel double door space-gaining structure applied to closet space, and of our novel space-gaining structure applied in the place of a door between interconnecting rooms;

Fig. 2 is an enlarged sectional partial top plan view of that part of the structure of Fig. 1 illustrating the substitute structure mounted in the interconnecting passageway between two chambers, the detail structure being that taken along line 2—2 of Fig. 4 and viewed in the direction 10 of the arrows;

Fig. 3 is a view similar to Fig. 2, illustrating an alternative form of substitute structure in place in an interconnecting passageway between two chambers, the section being taken along line 3—3 of Fig. 5 and viewed in the direction of the arrows;

Fig. 4 is a partial front vertical elevation of the substitute compound structure shown sectionally in Fig. 2;

Fig. 5 is a broken partial front vertical elevation of the substitute compound structure shown sectionally in Fig. 3;

Fig. 6 is an enlarged sectional partial top plan view of that part of Fig. 1 illustrating the novel substitute compound double door structure for use in place of a closet door, said double door structure being shown in open position with the auxiliary closure members or doors forming a temporary dressing chamber or storage compartment, the section being taken along line 6—6 of Fig. 7 and viewed in the direction of the arrows;

Fig. 7 is a front vertical elevation of the structure of Fig. 6;

Figs. 8 and 9 respectively are vertical elevational views of the left and right hand portions of the compound double door structure viewed from the inside of the temporary chamber;

Fig. 10 is a cross section along line 10—10 of Fig. 9; and

Fig. 11 is a detail view illustrating locking mechanism for the auxiliary closure members of Fig. 6.

Referring to the drawings, 10 denotes in diagrammatic outline, the wall structure of a building dividing the partitioning walls 11 thereof dividing the building into a living room 12, closet 13, a second room or kitchen 14, and another chamber 15. An interconnecting passageway or doorway 16 leads from the living room 12 to the room or kitchen 14, and a similar doorway 17 gives access to the closet 13 from the said living room 12.

The doorway 16 is provided with any usual type of door frame 18 or may have a door frame of any desired construction. The frame is provided

with oppositely, inwardly extending abutment strips 19 and a door 20 is hingedly mounted to the frame as at 21. Extending obliquely from the door 20 adjacent the hinged door edge and the full length or a substantial length of the door is a side wall 22. The said side wall is offset inwardly at 22' from the hinged door edge sufficiently to provide room for the abutment strip 19 on the hinged side of the door frame when the door is closed, and the width of said side wall 22 is so admeasured as to permit the free movement of said wall 22 through the doorway during the opening and closing of the door 20.

In the angular space between the side wall 22 and the door 20 novel partitioning is provided constituting the vertical rear partition 23 extending diagonally between said door and said side wall 22, and the two vertical side partitions 24 and 25 respectively whose outer edges are admeasured to extend outwardly to the arc of a circle concentric with the point of rotation about the hinge point 21 of the door and whose radius is not greater than that from said hinge point to the outer edge of the side wall 22. Thus when the door is swung on its hinges, the side wall 22 and the vertical partitions 24 and 25 freely pass through the doorway and permit free opening and complete closing of the door. The upper portion of the rectangular chamber formed by the partitions 23, 24 and 25 may be provided with a hinged mirror 26 of any desired type, which latter serves to close an opening 23' in the partition 23 behind which, in the corner space 28 between side wall 22 and door 20, suitable shelving 29 may be provided. The lower portion of the said rectangular passageway may support a chest of drawers 30. The sector spaces formed respectively between the partition 24 and the side wall 22, and the partition 25 and the door 20, at their upper portions are provided with open shelves 29' and the lower portions of said sector spaces below the lowermost shelves 29' may be closed off by hinged curved doors 31 and 32 respectively to form compartments for umbrellas, canes, golf clubs and other articles having considerable length. A horizontal partition 33 in the rectangular passageway above the drawer chest serves as a table top. The outer edges of the shelves are shaped and admeasured to curve concentric with the circle arc hereinbefore mentioned so as not to interfere with the opening and closing of the door. A suitable outlet 35 for a lamp 36 may be conveniently arranged in a top wall 37 of the rectangular chamber or elsewhere as desired.

This compound door structure, if in the doorway or passageway between room or kitchen 14 and living-room 12, may serve effectively as a kitchen cabinet and china closet, being accessible to the kitchen when the door is closed without requiring entry into the living-room by the kitchen help. Also, being of compact, neat and pleasing appearance, it will not be objectionable when the door 20 is opened and said cabinet extends into the living-room during service of a meal therein. If room 14 is a bedroom the structure may serve as a combination bureau, dressing table or the like. However, if the room 14 is other than a kitchen, it may be desirable to replace the cabinet door construction hereinbefore described by a compound wardrobe door construction. Such structure is illustrated in Figs. 3 and 5. Herein the door 20 and side wall 22 are of the same type dimensions and arrangements as in the first modification. The

partitions 24, 25 and 26 forming the shelving and the drawer chest of the first modification, however, are omitted and in place thereof suitable means for the storage of apparel is provided. This means, in the embodiment shown, comprises the upper shelf 40 near the top of the door 20 arranged parallel to the said door with its outer side edge 40' curved along an arc whose radius does not exceed the distance from the hinge pivot point 21 to the outer side edge of the side wall 22. This shelf serves as a hat shelf. A similarly shaped shelf 41 is arranged near the bottom of the door and serves as an open footwear shelf.

A clothes hanger bar 42 is suitably mounted below the hat shelf 40. This bar 42 extends from the corner junction between the door 20 and side wall 22 and preferably along the plane of the angle bisector of the space between said door and said side wall and serves to support clothes hangers 43 or the like.

The side wall 22 has an auxiliary wall 45 extending laterally therefrom and in curvilinear direction along the hereinbefore described arc. This auxiliary wall of any desired width extends the full or part of the length of said side wall as desired, and forms a shelf corner space in which suitable shelves 46 are arranged, serving as repositories for minor articles of apparel, hand bags and the like.

In effect this last described structure forms an open in-a-door wardrobe closet and is particularly advantageous in small quarters for example in an apartment having a living room and one bed chamber. When the door is opened into the living room, guests may deposit their hats on the shelf 40, coats on the hangers 43, and hand bags on the shelves 46. When the door structure is in the closed position of Fig. 3, the open closet space is in the bedroom and only the face of the door 20 is visible in the living room. Vice versa, when the door is open the open closet space extends into the living room, and being fully illuminated by the lights thereof greatly facilitates the quick selection of their personal belongings by the departing guests. It is obvious that such open closet structure is a convenience to the room occupant, too, eliminating dark closets. Being compact, considerable space in the room also is saved.

The novel compound structure particularly adapted as a substitute for a closet door is illustrated in Figs. 1 and 6 to 11 inclusive.

The doorway 17 has a door frame 50 of usual type or of any desired type mounted therein. This frame has oppositely, inwardly extending abutment strips or shoulders 51 serving to limit inward rotation of the compound structure now to be described.

Two half section doors 52 and 53 are hingedly mounted to opposite sides of the door frame as at 54 and 55. These doors are of usual construction or any desired construction and are so admeasured in respective widths as to meet at the center of the doorway 17 when closed in usual and well known manner.

Door 52 is provided with a curved wall 56 attached to the door trim 52' adjacent its outer edge. This curved wall extends vertically substantially the full length of the panelling 52² of the said door or may, if desired, extend the full door length. Laterally the said wall curves inwardly toward the hinged side of the door on an arc whose radius is not greater than the horizontal distance from the hinge to the outer edge

of the door trim 52'. Preferably the radius of curvature is somewhat less than the maximum allowable to allow for adequate clearance in opening and closing of this door as will be hereinafter described. The said curved wall has a width which extends for approximately 90 degrees along the said arc of curvature but may be somewhat more or somewhat less depending upon the shape of the wall partition structure forming the closet space.

The curved space or chamber 57 formed by said wall serves as wardrobe space. Conveniently arranged therein are the shelf 58 extending parallel to the door 52 and the shelf 59 arranged as a chord of the arcuately curved wall for any suitable purpose. In the form shown, the free edges 58' and 59' of the shelves 58 and 59 are arranged parallel to each other and a suitably supported rack bar 60 supported and extending from the said curved wall 56 in the central plane between the planes of said two free edges and parallel thereto serves for hanging clothes hangers (not shown). A top wall 57' prevents access to the chamber 57 from the top. The entrance to the curved space or chamber 57 which extends from the free end 56' of curved wall 56 to the hinged side of the door 52, is adapted to be closed off by an auxiliary door or screen 61 or the like which is hinged as at 62 to the said curved wall. This auxiliary door may extend the full height of the said curved wall or for part of the height thereof as shown in Fig. 7. A suitable lock 75 is provided so that when the said door is closed and locked the contents of the chamber 57 are safe against pilfering even though the main door 52 is open.

The second half section door or closure member 53 which is hinged at 55 to the doorway frame 50, has a curved wall 63 identical in shape, size and degree of curvature with curved wall 56, forming the curved space 63' similar to that of curved space 57. A suitably arranged chest of drawers is provided in the lower portion of the curved space and as shown in Fig. 9 comprises a double vertical row of drawers 64 and 65. The long drawers 64 are shown rectangular in section and the shorter drawers 65 have side walls 65' shaped to conform to the curved wall 63. Above the drawer chest, suitable shelving 67 is provided in the curved space 63', the said shelving being set back from the outer vertical plane of the drawers 64 and 65. A hinged mirror 68 serves to close off part or all of the said shelving if desired, suitable partitioning (not shown) being arranged to achieve either of these effects in well known manner.

Side shelves 69 may be arranged along the door 53 and the curved wall 63 in the space fronting the set back shelving 67 for minor personal articles such as combs, cosmetic jars, etc. A horizontal partition 70 serves as a table top. The upper end of the space 63' is topped by a wall 71 for a purpose to be presently described. A suitably wired lamp is supported from the under side of said wall 71. Hinged at 73 to the free end of the curved wall 63 and adapted to close off entirely the internal structures in said curved chamber or space 63' is an auxiliary door 74 which extends the full height or part of the height of said door 53 and curved wall 63 as shown in Fig. 7 and whose width is so admeasured as to bridge the space between the free end of said wall 63 and the inner hinged end of the door 53. This auxiliary door is also provided with a lock 75 so that when the said door is closed and locked

the contents of the chamber 63' are safe against pilfering even though the main door 53 is open.

The doorway 17, of course, must be carefully planned and dimensioned in proportion to the closet space available so that the curved chambers 57 and 63' will rest completely concealed therein when the main doors are in the closed position illustrated in dotted lines in Fig. 6. The curvature of the said walls 56 and 63 permits free opening of the two main doors 52 and 53 independently of each other and the dimensions of the said two auxiliary doors is such that when the said main doors are swung open on their hinges to the position shown in full lines in Fig. 6, the said auxiliary doors or screens 61 and 74 can be swung open from their closed position and may be latched together by a suitable latch 76 of any desired type to form the temporary closed off compartment 77 extending into the room in front of the closet space 13 as shown in Figs. 6 and 7. The two latched auxiliary doors may be suitably locked in latched open position so that access to the compartment can be had only by unlocking of the locked auxiliary doors. Thus the room's occupant may safely leave the room while the chambermaid, for example, is cleaning the main room without fear of loss of articles, or may occupy the said temporary compartment without fear of unwanted intrusion while completing his or her toilet and while the main room is being cleaned.

The locking hardware necessary for the various structures hereinbefore described may be of well known types. For the modifications of Figs. 1-5 inclusive the doors or closure members 20 may be equipped with the usual types of handle operated catch locks and suitable key operated locks or "Yale" locks or the like.

Similar types of locks may be used on the main doors of Figs. 6-11 inclusive. In addition to the latch 76, means 78, 80 for holding and locking the auxiliary doors in the open locked position of Figs. 6 and 7 are provided and may comprise a lock of the "Kiel" type such as is illustrated, for example, in the U. S. Patent No. 1,790,422 dated January 27, 1931 and issued to John Holtzman.

One of the two outer main doors or closure members of the modification of Figs. 6-11 inclusive, is equipped with a spring detent member 82 adapted to engage a catch member 82' mounted in the door frame 50 so that when the said two main doors are in closed locked position shown in dotted lines in Fig. 6, the two main doors cannot be pulled into the open position of the figure without first unlocking them, opening the door not held against rotation by the detent member, and releasing said detent member from engagement with its catch member.

The hinges used for the mounting of all the doors and particularly those of the said auxiliary doors are preferably of the limit type in that the extent of rotation of the doors in the opening direction is limited to a fixed amount which is so admeasured as to give a rigid temporary compartment structure in the open position shown in Figs. 6 and 7.

It is of course understood that any suitable locks extant, any suitable latch mechanisms or hinge mechanisms or other hardware for effecting the desired results of any of the modifications of our invention herein described are contemplated for use therewith and that those described in particular herein are by way of example only. Likewise it is to be understood that the wardrobe, cabinet and storage space con-

structions herein described, while representing practical embodiments of our invention are not to be considered as the only structures within the scope and spirit of our invention. The structures of the various embodiments may be modified to meet the requirements of any particular set of circumstances that may arise in building construction where space gaining is desirable, being dependent primarily upon the use to which a room or closet is to be put.

The structures herein defined and those contemplated within the scope of the appended claims are substantially balanced with respect to the hinges supporting them from their respective doorways. This results from the angular disposition of the defining walls of the storage chambers formed by the doors and side walls of the various modifications, and by the fact that the hinges are located substantially at the apices of the respective storage chambers.

The invention is not to be considered as limited to the exact details shown and described. All forms thereof as come within the scope of the appended claims are intended to be covered thereby. Where the expression "prevent access" is used in this application, and in the annexed claims, and more particularly with reference to the function of the supplementary doors 61 and 74 in the position shown in Figs. 6 and 7, it will be understood that the expression quoted is not intended to be limited to constructions in which it is absolutely impossible for an intruder to crawl under or climb over the supplementary doors. This will, of course, depend upon the height of these doors, the closeness with which they approach the floor level, and the construction of the wall and ceiling above. Our intention is to refer to constructions in which access to the storage compartment is made inconvenient or difficult and to this extent ordinary pilferage is discouraged or prevented.

We claim:

1. In building construction, the combination of a fixed door frame defining an entrance to an enclosed space, a main door hingedly mounted upon one lateral jamb of, and adapted when in closed position to fit within, said frame, wall members secured to said main door and defining an enclosed storage compartment having a portion extending out of the plane of said door into said enclosed space when said door is seated in the frame, said storage compartment being adapted to pass through the door frame as said door is opened and having an access opening in a face thereof other than the face which is most remote from the hinge mounting of the main door, a supplementary door hingedly mounted at one of its edges upon a portion of the storage compartment which is remote from the hinge mounting of the main door and serving normally to close said access opening, and means to which an opposite edge of said supplementary door may be latched adapted to cooperate with said supplementary door to prevent access to said storage compartment when the main door is open.

2. In building construction, the combination of a fixed door frame defining an entrance to an enclosed space, main doors hingedly mounted upon the opposite lateral jambs of, and adapted when in closed position to fit within, said frame, a

storage compartment comprising wall members secured to at least one of said main doors and adapted to extend into said enclosed space when said door is in closed position and to pass through said frame as said door is opened, said compartment having an access opening in a face thereof other than the face which is most remote from the hinge mounting of the main door, a supplementary door hingedly mounted at one of its edges upon a portion of said storage compartment remote from the main door hinge and adapted normally to close said access opening, and means supported by the other main door to which an opposite edge of said supplementary door may be latched when the first-mentioned main door is open whereby said supplementary door and said other main door prevent access to said storage compartment when said first-mentioned main door is in open position.

3. In building construction, the combination of a fixed door frame defining an entrance to an enclosed space, main doors hingedly mounted upon the opposite lateral jambs of, and adapted when in closed position to fit within, said frame, storage compartments comprising wall members secured to each of said main doors and adapted to extend into said enclosed space when said door is in closed position and to pass through said frame as said door is opened, each storage compartment having an access opening in a face thereof other than the face which is most remote from the hinge mounting of the respective main door, supplementary doors hingedly mounted at one of their respective edges upon a portion of each of said storage compartments which is remote from the hinges of the main door to which said compartment is secured and adapted normally to close the access opening of their respective compartments, and complementary latching means upon the opposite edges of said supplementary doors adapting said edges to be secured to each other when the main doors are open whereby said supplementary doors prevent access to said compartments, when said main doors are in open position.

4. In building construction, the combination of a fixed door frame defining an entrance to an enclosed space, a main door hingedly mounted upon one lateral jamb of, and adapted when in closed position to fit within, said frame, wall members secured to said door and defining an enclosed storage compartment having a portion extending out of the plane of said door into said enclosed space when said door is seated in the frame, said storage compartment being adapted to pass through the door frame as said door is opened and having an access opening in a face thereof other than the face which is most remote from the hinge mounting of the main door, a supplementary door hingedly mounted at one of its side edges upon a portion of said wall members remote from the hinges of said main door, adapted normally to close said access opening, and means to which an opposite edge of said supplementary door may be latched adapted to cooperate with said supplementary door in preventing access to said storage compartment when the main door is open.

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