

Aug. 20, 1963

M. J. McKINNEY

3,100,916

COMBINATION WALL STORAGE SLIDING DOORS AND FRAME

Filed July 5, 1962

2 Sheets-Sheet 1

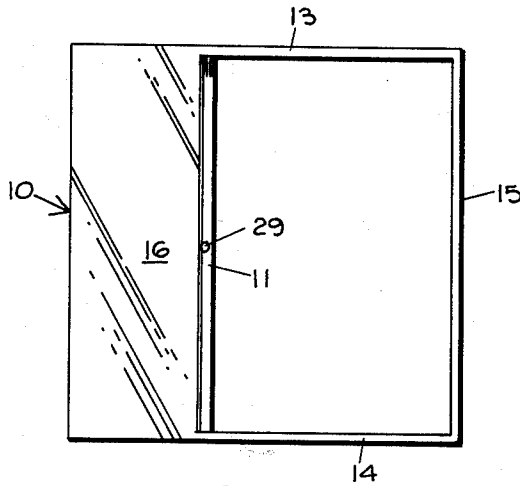


FIG. 1

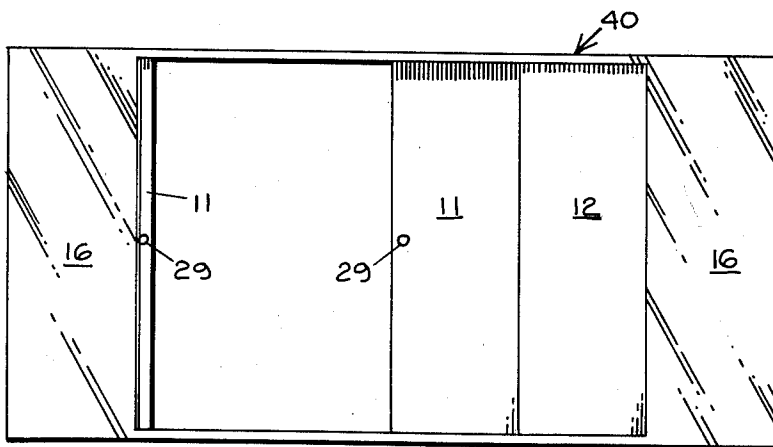


FIG. 6

INVENTOR

MICHAEL J. McKINNEY

BY

Salvatore G. Militaro,
attorney

Aug. 20, 1963

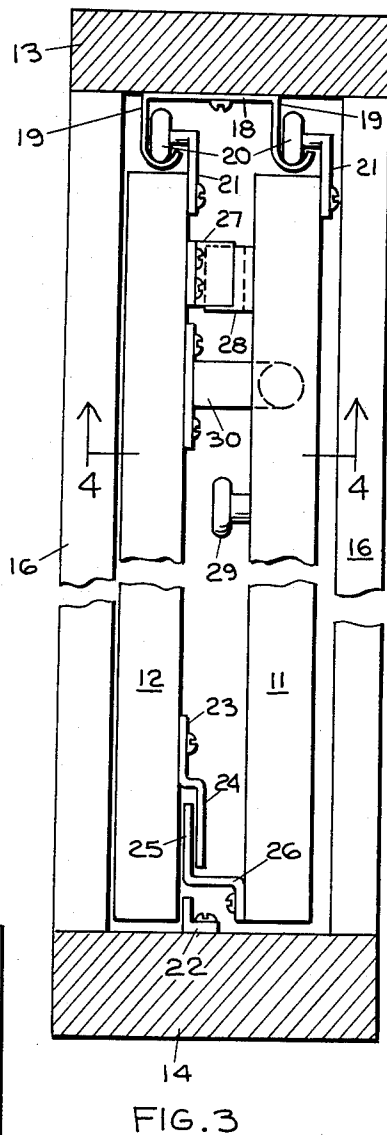
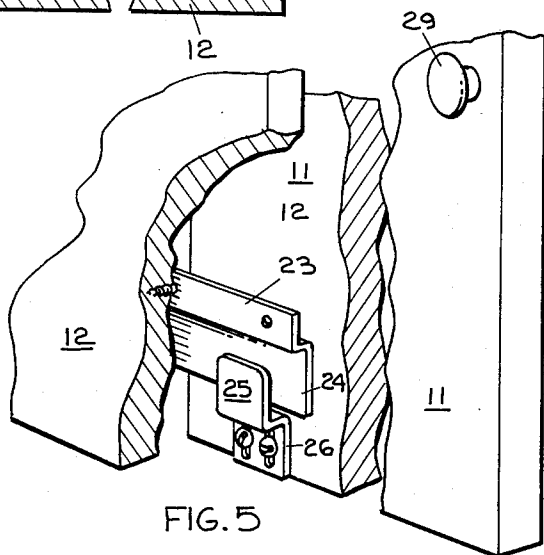
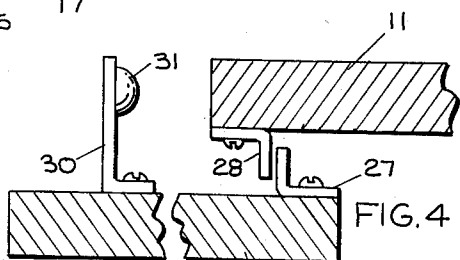
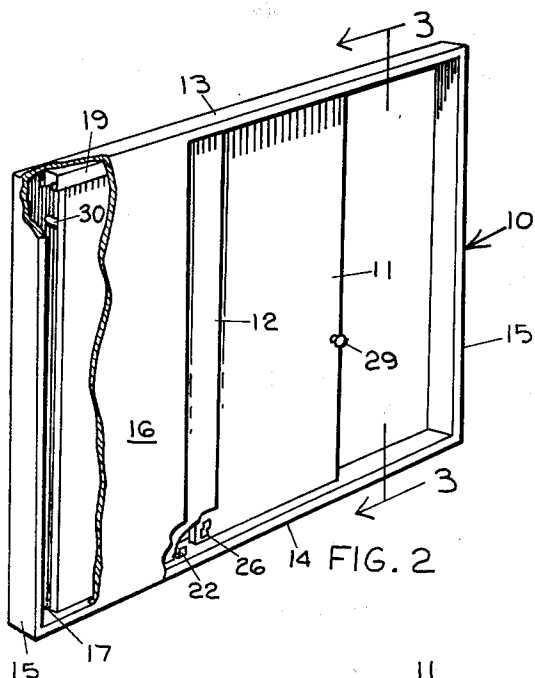
M. J. McKINNEY

3,100,916

COMBINATION WALL STORAGE SLIDING DOORS AND FRAME

Filed July 5, 1962

2 Sheets-Sheet 2



INVENTOR
MICHAEL J. McKINNEY
BY
Salvatore G. Militano
attorney

1

3,100,916

COMBINATION WALL STORAGE SLIDING DOORS AND FRAME

Michael J. McKinney, 14635 NE. 5th Ave.,
North Miami, Fla.

Filed July 5, 1962, Ser. No. 207,526
3 Claims. (Cl. 20-19)

This invention relates to building structures and is more particularly directed to a combination wall storage sliding doors and frame.

A principal object of the present invention is to provide a door frame and sliding doors wherein the frame is provided with a pocket for receiving the doors so that the opening therethrough will be as large as the width of the door frame less the pocket.

Another object of the present invention is to provide a combination wall storage sliding doors and frame wherein the doors are suspended, consequently no tracks are required on the floor of the door frame yet the doors cannot swing away from each other or become out of alignment with the door frame and pocket.

A further object of the present invention is to provide a combination wall storage sliding doors and frame wherein sliding movement of one of the sliding doors effects the movement of the other to open or close the doors.

A still further object of the present invention is to provide a combination wall storage sliding doors and frame which is simple and compact in construction, economical in cost and extremely simple to erect as a unit in a building.

A still further object of the present invention is to provide a combination wall storage sliding doors and frame having a pocket at each end of the frame and an extremely large opening therebetween closed off by two pairs of doors, each pair to be stored in each of the pockets.

With these and other objects in view, the invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawings forming a part of this specification, with the understanding, however, that the invention is not confined to any strict conformity with the showing of the drawings but may be changed or modified so long as such changes or modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

In the drawings:

FIGURE 1 is a front elevational view of a combination wall storage sliding doors and frame having a set of two sliding doors constructed in accordance with my invention and the doors shown in their open position.

FIGURE 2 is a perspective view thereof with parts broken away and the doors shown in their partially closed position.

FIGURE 3 is a vertical cross sectional view taken along the line 3-3 of FIGURE 2.

FIGURE 4 is a fragmentary cross sectional view taken along the line 4-4 of FIGURE 3.

FIGURE 5 is a detailed perspective view partially broken away of the lower portion of the sliding doors showing the interengaging slide brackets.

FIGURE 6 is a front elevational view of a double set of sliding doors for closing off an extremely large opening with one set of doors shown in an open position and the other set shown in their closed position.

Referring to the drawings wherein like numerals are used to designate similar parts throughout the several views, the numeral 10 refers to a door frame of my combination wall storage sliding doors and frame while the numerals 11 and 12 refer to the rear and front sliding doors respectively.

The frame 10 consists of a header 13 and sill 14 joined

2

at their ends to upright members or stiles 15. At one end of the frame 10, wall members 16 are fastened to each side of the frame to form a pocket 17. The pocket 17 and the doors 11 and 12 are each substantially the same width so that the pocket 17 will receive the doors 11 and 12 as is explained in detail hereinafter.

Mounted on the lower surface of the header 13 is a fixture 18 having a pair of spaced apart tracks 19 for receiving rollers 20 that are mounted on brackets 21 secured to the upper surfaces of the doors 11 and 12. The doors 11 and 12 are suspended with the bottom edges of the doors 11 and 12 in close proximity to the sill 14 of the frame 10 thereby obviating the necessity of tracks on the sill 14. A door guide 22 for the front sliding door 12 is secured to the sill 14 at the position of the pocket 17 in proximity of the right edge of the wall members 16 as viewed by FIGURE 2. The door guide 22 is always in approximate contact with the front sliding door 12 in all of its positions from its closed to its completely opened position to prevent the door 12 from swinging out of alignment with the pocket 17.

Means are provided to maintain the sliding doors 11 and 12 in close proximity to each other comprising an elongated slide bracket 23 fastened to the inner surface of the sliding door 12 at its lower edge portion. The slide bracket 23 has a flange portion 24 positioned in spaced relation to the surface of the door 12 for receiving a finger 25 of a small bracket 26 which is fastened to the outer surface of the rear door 11. The bracket 26 is positioned at the left edge of the door 11, which part is nearest to the pocket 17. To prevent the brackets 23 and 26 from sliding away from each other, companion stop or arresting members 27 and 28 are mounted on adjacent surfaces of the front and rear sliding doors 11 and 12 respectively. The stop member 27 is secured to the right edge of the door 11 while the stop member 28 is secured to the left edge of the door 12 and both of the stop members 27 and 28 are so aligned that they will engage each other when the rear door 11 has been withdrawn from the pocket 17. Then, a continued sliding movement of the rear sliding door 11 will cause the front sliding door 12 to slide out of the pocket 17.

A door knob 29 is mounted on the front surface of the rear sliding door 11 at the right edge thereof. To permit access to the door knob 29 when both doors 11 and 12 have been withdrawn into the pocket 17, a bumper bracket 30 is fastened to the inside surface of the front sliding door 12. The bracket 30 is provided with a resilient bumper 31 which is engaged by the left edge of the door 12. The bracket 30 is positioned a few inches from the left edge of the front door 11 so that when the rear door 11 is slid to a position behind the front door 12 during the process of opening the doors, the door knob 29 will always be accessible and not be positioned behind the front door 12 as best shown by FIGURE 1.

In the normal use of my combination wall storage sliding doors and frame 10, to open the doors the knob 29 is grasped and the rear door 11 pulled out of the pocket 17. The rear door 11 will slide along until the stop member 28 engages the stop member 27. Then the front sliding door 12 will slide together with the rear door 11 until they arrive at their closed position. To gain access through the door frame 10, the knob 29 is again grasped and the rear sliding door 11 is forced to the left causing that door alone to slide to the left. When the resilient bumper 31 has been engaged by the rear door 11, then the front sliding door 12 will begin to slide into the pocket 17 simultaneously as the rear sliding door 11 slides toward the pocket 17. A continued sliding of the rear door 11 to the left will bring the sliding doors 11 and 12 to their pocketed position which is the open position as shown by FIGURE 1.

3

In FIGURE 6 there is shown a combination wall storage sliding doors and frame 40 which is approximately twice the size of the sliding doors and frame 10 shown and described hereinabove. The sliding doors and frame 40 is identical in construction with that of the sliding doors and frame 10 except that there is a second pocket 17 on the other end of the frame 40 with two more sliding doors 11 and 12. The sliding doors and frame 40 have the same fixtures and brackets as the sliding doors and frame 10, operates in the same manner but provides an opening in the frame 40 twice the size of the frame 10. Since their construction and operation are similar, the above discussion concerning the sliding doors and frame 10 of FIGURE 1 applies to the sliding doors and frame 40 shown by FIGURE 6.

Having disclosed my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. A combination wall storage sliding doors and frame comprising a frame having a header, a sill and a pocket at one end, a pair of tracks mounted in parallel relation on the lower surface of said header, a pair of doors, rollers mounted on said doors and extending above said doors, said rollers of each of said doors rotatably positioned in said tracks placing one door behind the other, a door knob mounted on said one door adjacent to an edge portion furthest removed from said pocket and said frame, an elongated bracket mounted on the inner surface adjacent to a bottom edge of said other door, said elongated bracket having a flange portion positioned in spaced relation to the surface of said other door, a bracket mounted on said one door adjacent said other edge portion, said bracket having a finger portion engaging said flange portion for permitting relative slidable movement of said doors, stop members mounted on an upper portion of each of said sliding doors in alignment with each other, one stop member being mounted at said other edge of said one door while said other stop member being mounted at an edge portion furthest removed from said pocket whereby upon the engagement of said stop members, sliding movement of said one sliding door in one direction will cause a sliding movement of said other of said doors, and a bumper member mounted on the upper portion of the other of said sliding doors for engagement by said one of said sliding doors whereby upon the sliding of said one of said sliding doors in the opposite of said one direction, said bumper becomes engaged by said one of said sliding doors then said other of said sliding doors is made to slide in the direction of said pocket.

2. A combination wall storage sliding doors and frame comprising a frame having a header, a sill and a pocket at one end, a pair of tracks mounted in parallel relation on the lower surface of said header, a pair of doors, rollers mounted on said doors and extending above said doors, said rollers of each of said doors rotatably positioned in said tracks placing one door behind the other, a door knob mounted on said one door adjacent to an edge portion furthest removed from said pocket in said frame, an elongated bracket mounted on the inner surface adjacent to a bottom edge of said other door, said elongated bracket having a flange portion positioned in spaced relation to the surface of said other door, a bracket mounted

4

on said one door adjacent said other edge portion, said bracket having a finger portion engaging said flange portion for permitting relative slidable movement of said doors, stop members mounted on an upper portion of each of said sliding doors in alignment with each other, one stop member being mounted at said other edge of said one door while said other stop member being mounted at an edge portion furthest removed from said pocket whereby upon the engagement of said stop members, sliding movement of said one sliding door in one direction will cause a sliding movement of said other of said doors, and a bumper member mounted on the upper portion of the other of said sliding doors for engagement by said one of said sliding doors whereby upon the sliding of said one of said sliding doors in the opposite of said one direction, said bumper becomes engaged by said one of said sliding doors then said other of said sliding doors is made to slide in the direction of said pocket and a guide member mounted on said sill in said pocket substantially engaging said other of said sliding doors.

3. A combination wall storage sliding doors and frame comprising a frame having a header, a sill and pockets at each end, a pair of tracks mounted in parallel relation on the lower surface of said header, a plurality of pairs of doors, rollers mounted on said doors and extending above said doors, said rollers of each of said doors rotatably positioned in said tracks placing one door of each of said pair of doors behind the other door, a door knob mounted on said one door adjacent an edge portion furthest removed from their respective pockets in said frame of each of said pair of doors, an elongated bracket mounted on the inner surface adjacent a bottom edge of said other door of each of said pair of doors, said elongated bracket having a flange portion positioned in spaced relation to the surface of said other door, a bracket mounted on said one door adjacent said other edge portion of each of said pair of doors, said bracket having a finger portion engaging said flange portion for permitting relative slidable movement of said doors, stop members mounted on an upper portion of each of said sliding doors in alignment with each other whereby upon the engagement of said stop members of each of said pair of doors, sliding movement of said one sliding door in one direction will cause a sliding movement of said other of said doors of each of said pair of doors, and a bumper member mounted on the upper portion of the other of said sliding doors for engagement by said one of said sliding doors of each of said pair of doors whereby upon the sliding of said one of said sliding doors in the opposite of said one direction, said bumper becomes engaged by said one of said sliding doors of each of said pair of doors then said other of said sliding doors is made to slide in the direction of said pocket.

References Cited in the file of this patent

UNITED STATES PATENTS

643,307	Schmitt	Feb. 13, 1900
1,648,851	Lapin	Nov. 8, 1925
2,833,346	Preston	May 6, 1958
2,929,115	Beckstrom	Mar. 22, 1960
3,064,723	Paillard et al.	Nov. 20, 1962