Oct. 6, 1925. 1,556,281

J. BOHNET

GARAGE DOOR

Filed Jan. 18, 1923

FIG. 3.

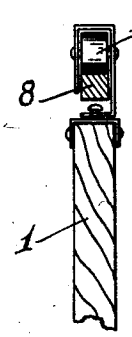


FIG. 1.

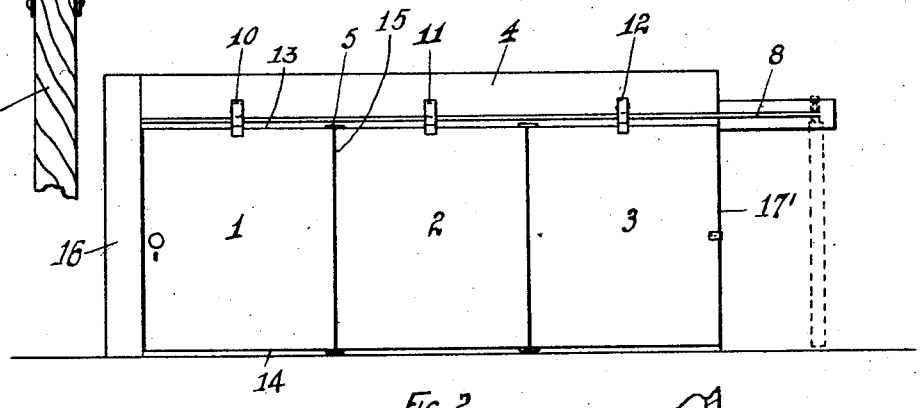


FIG. 2.

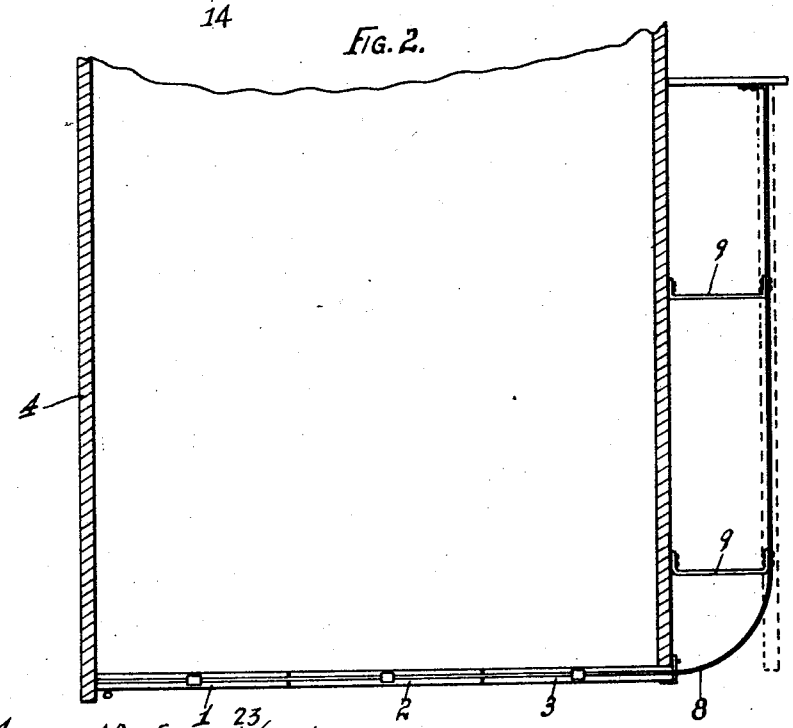
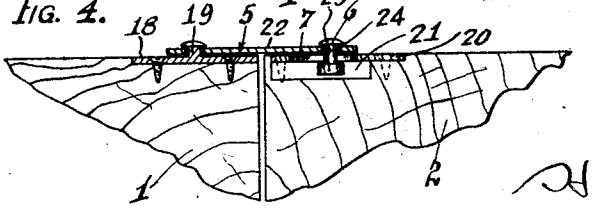


FIG. 4.



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UNITED STATES PATENT OFFICE.

JOHN BOHNET, OF HAYWARD, CALIFORNIA.

GARAGE DOOR.

Application filed January 18, 1923. Serial No. 613,447.

To all whom it may concern:

Be it known that I, JOHN BOHNET, a citizen of the United States, residing at Hayward, in the county of Alameda and State of California, have invented certain new and useful Improvements in Garage Doors, of which the following is a specification.

My invention is an improved garage door.

The object of my invention is to provide a garage door which, in the open position, extends along the side of the garage. This construction requires less space to open the doors than is necessary with the hinged construction, and it also precludes the possibility of the doors closing at an inopportune moment.

My invention pertains to the type of garage or other doors which are mounted on a track, the whole door comprising a series of individual panels, each having their supporting rollers, preferably mounted about the center of the panel. Each panel is connected at its upper and lower edge by a type of hinge which allows a leading panel to draw away from a following panel when turning a corner in the track. The track is constructed as is the common practice, extending across the opening in the garage, and having a curve whereby the track leads along the side of the garage, and thus moves the door completely out of the way.

In the specification in which my invention is illustrated:

Figure 1 is a front elevation of my garage doors.

Figure 2 is a plan view of the same.

Figure 3 is a fragmentary sectional view showing the supporting roller.

Figure 4 is a fragmentary sectional view of the door coupling hinge.

Referring more particularly to the drawing, a plurality of panels 1, 2 and 3 are arranged across the front of the garage 4. The adjacent edges of the panels are hinged together by hinges 5, one of the pins 6 of said hinge being slidable in a slot 7 to permit the panels to turn at an angle, without binding the edges.

The panels 1, 2 and 3 are hung from a rail 8 which is mounted across the front of the garage, and along one side, the rail being spaced from the side to allow for an easy turning angle at the corner, and suitable brackets 9 support the rail at the side.

Supporting rollers 10, 11 and 12 are pivoted at the center of the panels 1, 2 and 3 respectively, and engage the rail 8. The doors are thus hung from the supporting rail and the pivoted rollers allow the panels to swing at an angle to said rollers in turning the corner of the garage.

The hinge connecting the panels comprises the following details: Each of the panels 1, 2 and 3 may be considered as having an upper edge 13 and a lower edge 14 with abutting side edges 15, except at the end panels 1 the side edge 16 abuts against the garage wall, and the side edge 17 of the panel 3 closes the opposite wall of the garage opening. The hinge 5, having reference particularly to Figure 4 comprises a plate 18 with a stud 19, said 19 integral therewith, the plate being bolted or fastened by screws to the upper edge 13 or lower edge 14 of a panel. In this figure it is shown connected to the panel 1. The panel 2 is shown with a plate 20 having the slot 7, and below this slot a recess 21 is cut in the upper edge and lower edge of a panel. A plate 22 is swivelly mounted on the stud 19, and has rigidly secured thereto the pin 6, this latter having enlarged head 23 in the recess 21 in the panel and a shank 24 sliding through the slot 7.

The manner of operation of the garage door is as follows:

Presuming it is desired to open the door, the panel 3 would naturally be pulled and would thereby draw away from the panel 2. This is allowable by the pin 6 sliding in the slot 7. The panels will therefor readily pass around the curve in the track 8 shown in Figure 2. If the garage door is opened by pushing on the panel 1, the various panels will be shoved into close contact at their side edges 15, and when the rollers swing around the corner of the track, the hinge plate 22 will swivel and the pin 6 will function to transmit the pressure to the panels 3 and 2. The main characteristic of the particular hinge 5 is the longitudinal sliding relation of the pin 6 in the slot 7 of the plate 20 which is connected to one of the panels, and that the hinges are on the top and bottom edges of the panels.

My invention is not to be confused with various types of folding doors which are mounted on tracks having rollers supporting the panels directly over the center of each panel, nor is my invention to be confused with garage doors sliding on tracks

having hinges on the side edges of the panels merely allowing them to operate as an ordinary hinge in passing around a corner.

Having described my invention, I claim:

1. A sliding door comprising a plurality of panels, a supporting roller for each panel, a track on which said rollers operate, hinges secured to the upper and lower edges of contiguous panels having a plate pivotally connected to the edge of one panel and having a slidable connection with a holding device on the opposite panel edge, said sliding connection being substantially along the edge of the panel.

2. A sliding door comprising a plurality of panels, a supporting roller connected to the center of each panel, a track on which said rollers operate, hinges secured to the upper and lower edges of contiguous panels and having a plate with a stud thereon connected to the panel edge, a plate pivoted thereto to swing in a horizontal direction, and a pin and socket connection to the edge of the contiguous panel, said slot allowing longitudinal movement along the edge of the panel.

3. A sliding door comprising a plurality of panels, a supporting roller connected to the center of each panel, a track on which said rollers operate, hinges secured to the upper and lower edges of contiguous panels, each hinge having a plate with a stud thereon connected to a panel edge, a plate pivoted on said stud to swing in a horizontal direction and having a pin extending downwardly, a plate secured to the edge of a contiguous panel and having a slot therein, extending lengthwise of the length of the panel, and said pin extending through said slot to allow relative movement of said panels.

In testimony whereof I affix my signature.

JOHN BOHNET.