To all whom it may concern:

Be it known that I, Ellis J. G. Phillips, a citizen of the United States, and a resident of Aurora, in the county of Kane, State of Illinois, have invented certain new and useful Improvements in Means for Supporting Sliding Doors, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to means for supporting sliding doors and particularly to the type of door known as a right angle door adapted to be moved about the corner of a room from position closing a door-opening in one wall into position along an adjacent wall. It is one of the objects of my invention to provide a right angle door construction of this type which is capable of being moved from one wall to the other with a provision of a minimum of space at the corner for such turning movement of the door, the desired result being accomplished by means of making the door in sections and supporting it in such a manner as to make the opening operation practical. It is another object of my invention to provide for supporting the two sections of the door at their point of connection in such a manner that the edges of the doors shall be kept out of contact with the wall of the room, the arrangement at the same time being such that the doors when standing along the adjacent wall after an opening operation shall be in close proximity to the wall. It is another object of my invention to provide new and improved means for securing together two or more doors of this type so as to attain the objects above set forth. It is another object of my invention to improve devices of this type in sundry details hereinafter pointed out. The preferred means by which I have accomplished my several objects are illustrated in the accompanying drawings and are hereinafter specifically described.

That which I believe to be new and desire to cover by this application is set forth in the claims.

In the drawings:

Figure 1 is a top view of a door and means for supporting the same embodying my improvements, being shown in position upon a building, a fragmentary portion of the walls of which is shown in section;

Fig. 2 is an inside face view of the doors shown in Fig. 1 when in alinement with each other along either side of the building;

and

Fig. 3 is an enlarged detail, being substantially a section taken on line 3—3 of Fig. 2.

Referring to the several figures of the drawings in which corresponding parts are indicated by the same reference characters:

10 indicates two adjacent walls of a building providing a doorway 11. 12 indicates a track of any suitable type extending along one of the walls, about the corner and along the adjacent wall, the track being supported by brackets 13 of any suitable type.

Two doors 14—15 are connected together by means of hinges 16, the pivot pins 17 of which are located back from the edge of the door 15. For the purpose of gaging the position of the hinge 16 relative to the doors 14—15 in order to insure that the pivot pin 17 shall be in the proper position, a tongue 18 is upset from one leaf of each of the hinges 16 adapted to occupy a suitable recess cut in the edge of the door 14.

For supporting the doors 14—15 from the track 12 carriages 19—20 of any suitable type are pivotally connected with the doors near their edges so as to be adapted to turn on vertical axes relative to the doors. A third carriage 21 is pivotally connected to the forward edge of the door 15 by means of a bracket 22 extending beyond the edge of the door 15 whereby the carriage 21 is adapted to turn upon a vertical axis located at the forward edge of the door 15, or even slightly in advance of the forward edge of the door 15 as shown in the drawings.

By reason of having the door in sections pivotally connected together, such sectional door is adapted to move about the corner from one wall to another without being extended any great distance into the room, thus making it possible to utilize the major portion of the room space for storage purposes without interfering with the opening operation. By reason of having the vertical axis of the carriage 21 located in advance of the pivot pin 17 of the connecting hinges 16, the forward edge of the door 15 and the rear edge of the door 14 are kept well out of contact with the wall as the doors are moved about the corner. By the provision of means for holding the edges of the doors out of objectionable contact with the walls, I am enabled to place the track 12 in such posi—
tion as to insure that the doors when standing along the wall out of operative closing position shall be in close proximity to the wall, thus taking up a minimum of space.

5 It will be understood that in practice the lower ends of the doors will be provided with guiding means of any suitable type if the use of such means is considered desirable, but it is believed to be unnecessary to show or describe such means herein.

While I have shown my improved supporting means in connection with two doors only, connected together at their adjacent edges, it will be understood that I do not desire to limit myself to the use of two doors only, but that my invention is applicable to any other suitable number of doors hinged together in series with the requisite number of carriages for supporting and controlling such doors, and my claims are to be construed accordingly.

What I claim as my invention and desire to secure by Letters Patent, is—

1. The combination of a track extending along a doorway, about the corner, and along the adjacent wall, two doors hinged together, a carriage mounted on said track connected with one of said doors adjacent to one edge thereof adapted to turn on a vertical axis relative thereto, and a second carriage mounted on said track and pivotally connected with said door beyond its opposite edge adapted to turn on a vertical axis located beyond the edge of the door.

2. The combination of a track extending along a doorway, about the corner, and along the adjacent wall, two doors, hinges, pivotally connecting said doors together, being located on the faces of said doors away from the wall and having their pivotal axes located between the edges of one of said doors, and carriages mounted on said track and pivotally connected with one of said doors adapted to turn on vertical axes relative to said door.

3. The combination of a track extending along a doorway, about the corner, and along the adjacent wall, two doors pivotally connected together on a vertical axis in rear of the forward edge of the rear door, a carriage mounted on said track and pivotally connected with the rear door near its rear edge so as to turn on a vertical axis relative thereto, a second carriage mounted on said track and pivotally connected with the rear door near its forward edge so as to turn on a vertical axis in advance of the forward edge of said door, and a third carriage pivotally connected with the forward door near its forward edge so as to turn on a vertical axis relative thereto.

4. The combination of a track extending along a doorway, about the corner, and along the adjacent wall, two doors hinged together on a vertical axis, a carriage mounted on said track connected with one of said doors adjacent to one edge thereof adapted to turn on a vertical axis relative thereto, and a second carriage mounted on said track connected with one of said doors near the edge thereof to which the other door is hinged and adapted to turn upon a vertical axis relative to the door upon which it is mounted, the vertical axis upon which said doors are hinged together being located between the vertical axis of said second carriage and the opposite edge of the door upon which said second carriage is mounted.

5. The combination of a track extending along a doorway, about the corner, and along the adjacent wall, two doors hinged together on a vertical axis in rear of the forward edge of the rear door, a carriage mounted on said track and pivotally connected with the rear door near its rear edge so as to turn on a vertical axis relative thereto, and a second carriage mounted on said track and pivotally connected with said door near its opposite edge adapted to turn relative to the door on a vertical axis positioned in advance of the vertical axis upon which said doors are hinged together.

ELLIS J. G. PHILLIPS.