

No. 682,427.

Patented Sept. 10, 1901.

A. J. RICKER.  
TRACK FOR SLIDING DOORS.

(Application filed Apr. 13, 1901.)

(No Model.)

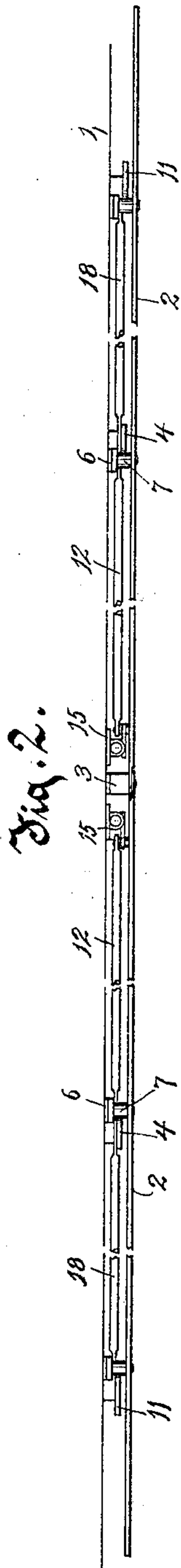
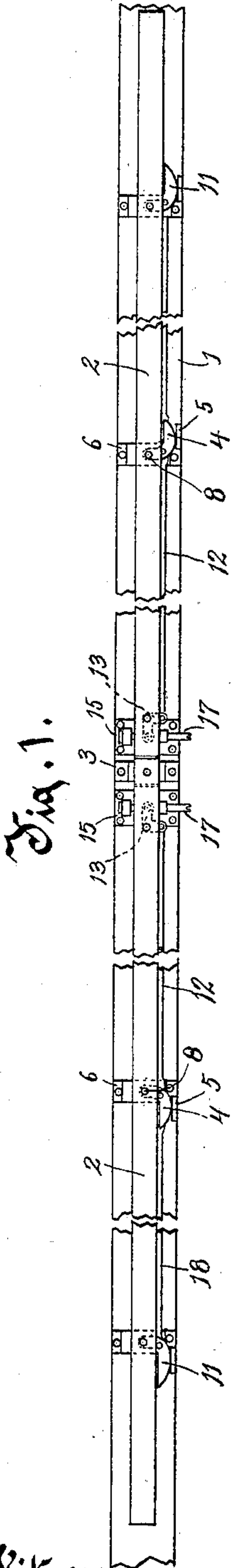


Fig. 3.

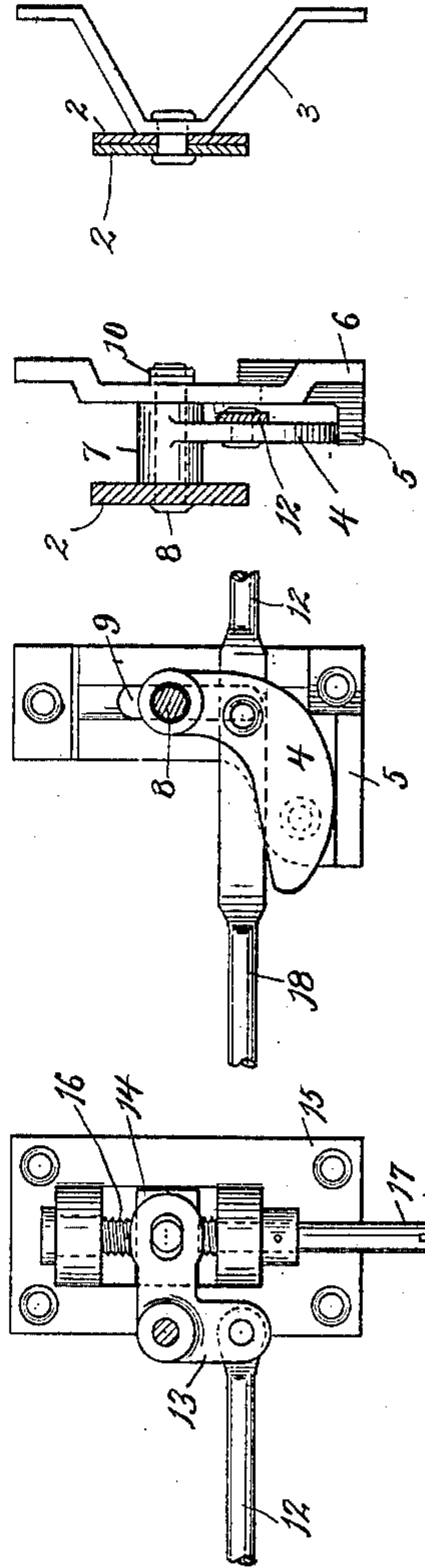


Fig. 4.

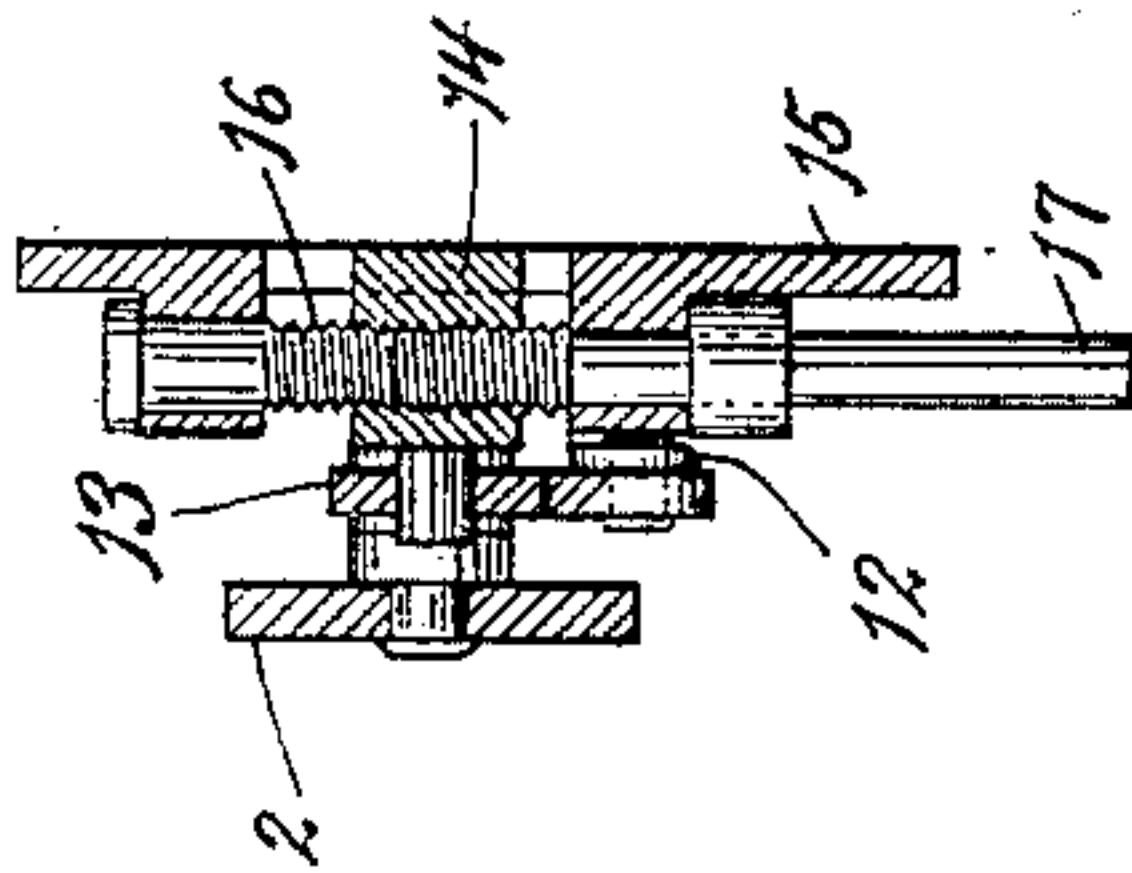


Fig. 5.

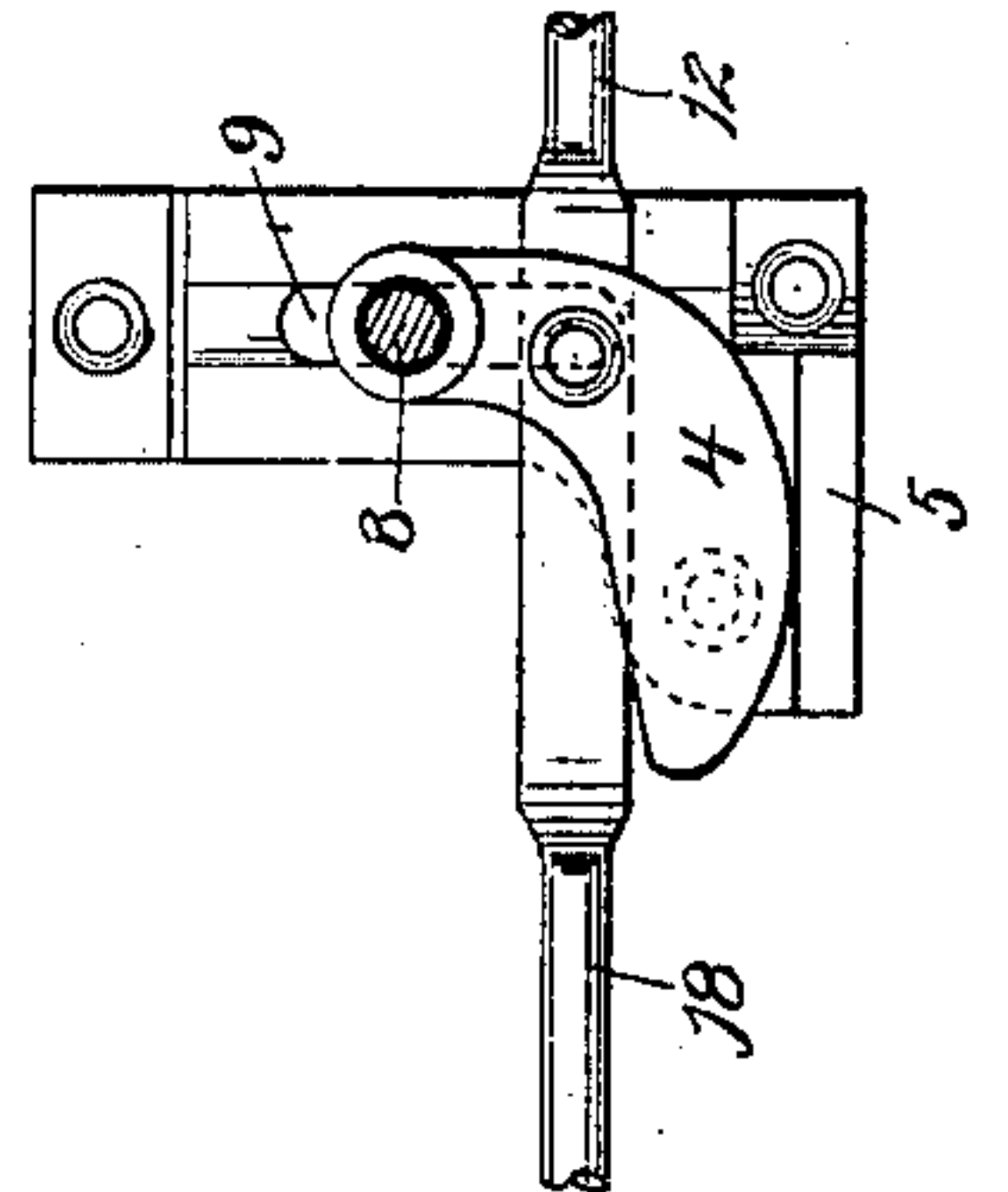


Fig. 6.

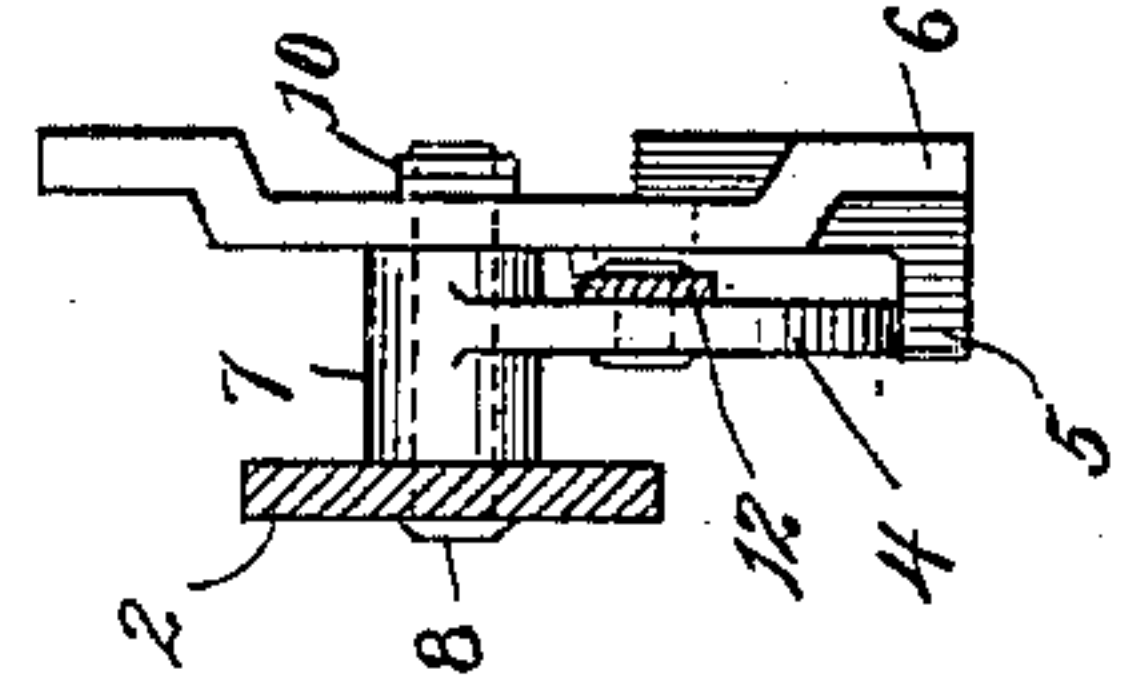
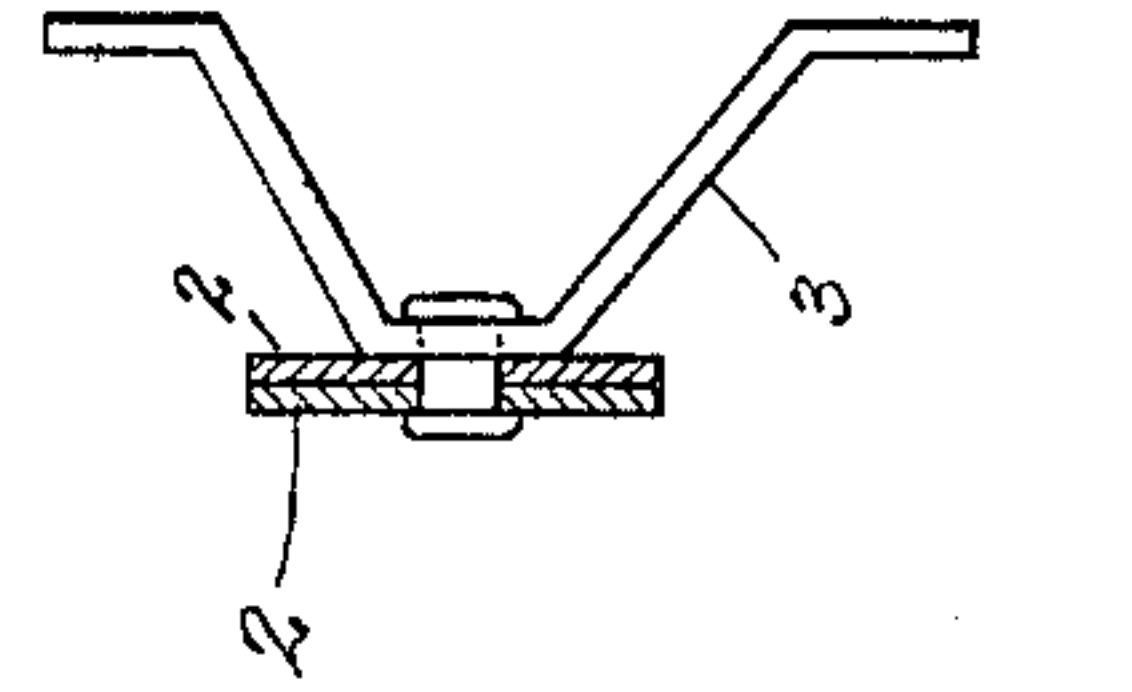


Fig. 7.



Witnesses.

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# UNITED STATES PATENT OFFICE.

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## TRACK FOR SLIDING DOORS.

SPECIFICATION forming part of Letters Patent No. 682,427, dated September 10, 1901.

Application filed April 13, 1901. Serial No. 55,605. (No model.)

*To all whom it may concern:*

Be it known that I, ADOLPH J. RICKER, residing at South Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new and useful Improvement in Tracks for Sliding Doors, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention relates to improvements in tracks adapted for the support and travel thereon of doors in buildings.

The object of the invention is chiefly to provide a track having means by which the track can be adjusted vertically either to aline it in horizontal position or to such desirable position as is required for properly supporting the door or doors that are to travel thereon.

The invention consists of the track, including the adjusting devices and their combinations, as herein described and claimed, or the equivalents thereof.

In the drawings, Figure 1 is a side elevation of my improved track, the track being broken away and parts being omitted for convenience of illustration. Fig. 2 is a top plan view of so much of the track and related devices as is shown in Fig. 1. Fig. 3 is a detail of devices for actuating and controlling the means for raising and lowering and thereby adjusting the track. Fig. 4 is a vertical section of the devices shown in Fig. 3. Fig. 5 is a detail of the means employed for raising and lowering the track. Fig. 6 is an end elevation of the devices shown in Fig. 5, the track and the connecting-rod being in section. Fig. 7 is a detail of a track-supporting bracket.

In the drawings, 1 represents a joist or analogous part of a building or frame on which the track is shown as supported.

My improved track is more commonly employed with two sliding doors that when closed come together edge to edge at the vertical center of a doorway, and I have therefore shown my invention as consisting of two rails forming a track, which two rails 2 overlap each other at their abutting ends and are pivoted on a bracket 3, so as to be capable of swinging on that pivotal point verti-

cally. The bracket is to be secured to the joist or any analogous support. At a distance from the pivotal support of these rails forming the track each rail is provided with one or more devices for supporting and raising and lowering the rail. In the drawings each rail is shown as provided with a cam 4, which is in the general form of a curved or bent swinging arm, one extremity of which is pivoted to the rail 2 and the other extremity of which has a lower curved edge eccentric to its pivotal point, forming a cam, which rests on a horizontal ledge 5, which is a part of a bracket 6, which bracket is adapted to be secured to a suitable support and in the drawings is shown as secured to the joist 1. The cam 4 at its pivotal extremity is advantageously made in the form of a hub 7, and a pin 8 passes through the rail 2, the hub 7, and through a vertical slot 9 therefor in the bracket 6. The bracket 6 is offset medially from its plane of support, providing room for a washer 10 on the bolt 8 at the under side of the bracket, the construction being such that the bolt can slide vertically in the slot 9. When a rail 2 is of such length as to require it, one or more additional cams 11 are provided at greater distances from the pivotal bracket 3 than the cam 4. These more distant cams 11 are each mounted on the rail 2 and in a bracket 6, substantially as the cam 4 is mounted, and each has a curved eccentric edge substantially like the curved eccentric edge in cam 4, except that on these more distant cams 11 the cam has eccentricity of greater length, whereby it is adapted to correspondingly raise or lower the rail 2 at its correspondingly greater distance from the pivotal bracket 3, to which the rail is pivoted. In the drawings only one additional cam 11 is shown in connection with each rail 2; but others may be employed, if desired.

For swinging the cam 4, whereby the rail 2 is raised or lowered, the cam is connected medially by a rod 12 to one arm of a bell-crank lever 13, axled at its angle on the track 2, the other arm of which bell-crank is provided with a slot into which a stud-pin projects, which stud-pin is fixed on a block 14, which block is fitted to travel vertically in a slot therefor in bracket 15, the bracket being



adapted to be secured to a fixed support, which, as shown in the drawings, may be the joist 1. A screw 16, revoluble but non-movable endwise in bearings therefor in ears on the bracket 15, turns by its thread through the block 14, whereby the block can be raised and lowered in the bracket. The screw 13 is provided with a stem 17, having a driver recess or cut in its end transversely for conveniently rotating it. The cam 4 is connected to the cam 11 by a rod 18, a continuation of rod 12, whereby the cams 4 and 11 are moved concurrently by the tilting of the bell-crank 13. If additional cams are employed similar to cams 4 and 11, they are to be connected by similar rods, so as to be adapted to be actuated homogeneously.

It will be observed that each rail 2 is pivoted at one extremity to a fixed support and that the cams 4 and 11 are so mounted and connected to the rail that they are adapted when swung to raise or lower the distant end of the rail and correspondingly its intermediate parts. It will also be noted that in the drawings two rails are shown forming a continuous track, which rails overlap each other at their abutting ends and have a common pivot. This is a desirable construction in those instances where two folding doors are employed which close together against each other centrally of the doorway. In such form of construction of the track the track devices, including the bell-cranks 13 for actuating the cams 4 and 11 for raising or lowering the track, are located near the abutting pivoted extremities of the rails 2, so as to be readily accessible for adjusting the rails.

The cam 4 and also the cam 11 are both desirable on each rail, the cams to be so located that when the door is slid back or open the cams will be directly under the two wheels of the hangers on the door, as sliding doors are usually mounted with two wheels each.

What I claim as my invention is—

1. A track for a sliding door, comprising a rail pivoted at one extremity on a fixed support, a cam pivoted on the rail at a distance from said pivotal support, a bracket provided with a ledge on which the cam rests, a bell-

crank pivoted on the rail and connected to said cam, and means for tilting the bell-crank.

2. In combination, a track-rail adapted to be pivoted and thereby supported at one end, a bracket provided with a ledge, a cam pivoted on the rail at a distance from its pivotal point and adapted to bear eccentrically on said ledge, and means for actuating and holding said cam.

3. In combination, a track-rail adapted to be pivoted and thereby supported at one end, a bracket provided with a ledge, a cam pivoted on the rail at a distance from its pivotal point and adapted to bear eccentrically on said ledge, a bell-crank pivoted on said rail, a bracket adapted to be secured to a fixed support, a screw rotatable but non-movable endwise in said bracket, a block on and movable by the thread of the screw and provided with a pin that enters a slot in one arm of said bell-crank, and a rod connecting the other arm of said bell-crank to said cam.

4. In combination, a track-rail adapted to be pivoted and thereby supported at one end, a bracket provided with a ledge and a slot, a cam pivoted on the rail at a distance from its pivotal point and adapted to bear eccentrically on said ledge its pivot being movable in said slot in said bracket, and means for actuating and holding said cam.

5. In combination, a track, comprising two rails abutting ends of which are pivoted on a common pivot, swinging cams pivoted on the rails at a distance from the pivotal point of the rails, brackets having ledges on which the cams rest and slots in which the pivots of the cams are movable, bell-cranks pivoted on the rails near their pivotal extremities, rods connecting the cams to the bell-cranks, revoluble screws non-movable endwise, and blocks on the screws and provided with pins entering slots therefor in the bell-cranks.

In testimony whereof I affix my signature in presence of two witnesses.

ADOLPH J. RICKER.

Witnesses:

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RANDOLPH KNOLL.