

1,065,164.

Patented June 17, 1913.

Fig. 1.

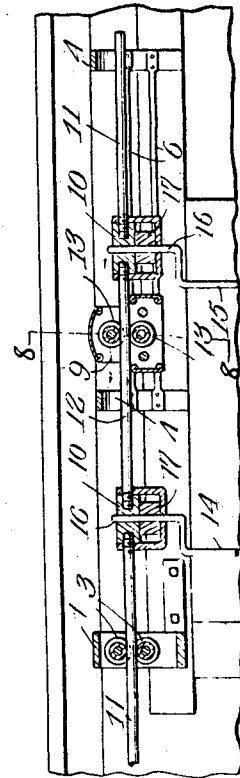
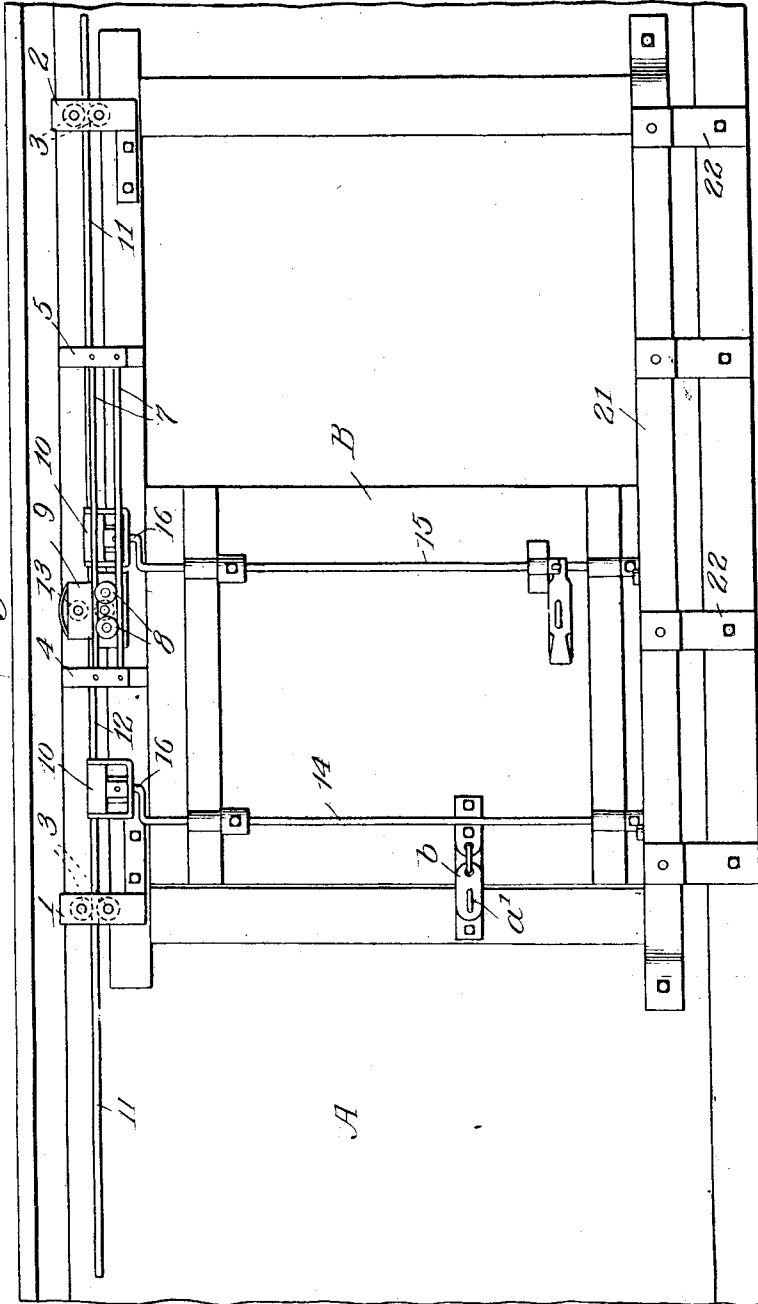
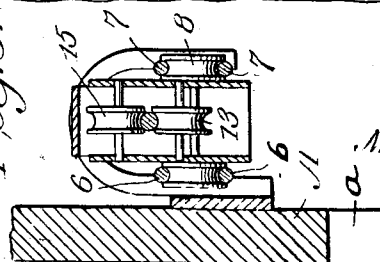


Fig. 2.

Fig. 3.



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DOOR-HANGER.

1,065,164.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MICHAEL MOCK, a citizen of the United States, and a resident of Beeville, in the county of Bee and State of Texas, have invented a new and Improved Door-Hanger, of which the following is a specification.

My present invention relates to sliding doors, and more particularly to car doors, my object being to provide a door, the movement of which will be free and easy. To this end, I propose a door having upper supporting stirrups carrying roller guided members and connected by a member which is movable freely through a roller carriage having a limited movement on the door frame.

My invention will, it is thought, be clearly understood from the following description in which reference is made to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is an elevation of the side of a car, illustrating the practical application of my improved door thereto; Fig. 2 is an elevation, partly in section, of the upper portion of the door and the car side; and Fig. 3 is a detail sectional view, on an enlarged scale, taken through the suspension carriage on the line 8—8 of Fig. 2.

Referring now to these figures, the side A of a car is indicated as provided with a door opening *a* and a door B which is slidable along the car side in order to cover and uncover the said door opening, the car side A, and the door B having the usual staple *a'* and hasp *b* whereby the door may be locked and sealed in its closed position.

In accordance with my invention, the car side A is provided with brackets 1 and 2 which are bolted thereto above its door opening *a* and upon opposite sides of said door opening, the said brackets supporting superposed rollers 3. Between the brackets 1 and 2, and in substantially the same plane therewith are inverted U-shaped brackets 4 and 5 which are bolted to the car side A in spaced relation and which are connected by longitudinal pairs of side bars 6 and 7, the bars of each pair being in superposed relation whereby to constitute a track and to receive the adjacent side rollers 8 of a movable carriage 9, the ends of which carriage are open.

The door B is suspended through any

suitable means from its upper supporting stirrups 10, into the outer sides of which stirrups are threaded the inner ends of outwardly projecting longitudinal guide bars 11, these guide bars extending between the rollers 3 of the car brackets 1 and 2 whereby the door may be guided in its sliding movement. In a like manner, the ends of an intermediate guide bar 12 are threaded into the inner sides of the stirrups 10 and thus connect the stirrups, this latter guide bar extending, as shown particularly in Figs. 2 and 3, through the carriage 9 and between inner superposed rollers 13 within said carriage. Thus the door in its sliding movement is effectively guided by the outer bars or members 11 and the car carried roller brackets 1 and 2 and is as effectively balanced and supported for free and easy movement by the inner bar or member 12 and the moving carriage 9, it being understood that the latter is limited in its travel by the brackets 4 and 5 through which the stirrups 10 may however pass. So far as now described, my improved door and its means of suspension are equally adaptable for cars, barns, stables, and in fact any structure where the use of a sliding door of the present character is either necessary or expedient.

The stirrups 10 are connected to the door by means of vertical shafts 14 and 15, and I provide the lower portion of the car side with a member 21 which is rigidly supported by brackets 22, in spaced relation to the car side, and adjacent the lower edge of the door to prevent the latter from swinging away from the car side.

I claim:—

1. The combination with a door frame having supporting members above and at opposite sides of its door opening, and provided with a movable carriage above its door opening and between said supporting members, of a door having upper supporting stirrups, guide members secured to and projecting outwardly from said stirrups and through the supporting members, and a guide member connecting said stirrups and extending through said carriage.

2. The combination with a door frame and the like having roller brackets above its door opening and juxtaposed tracks mounted between said brackets, of a carriage mounted to travel on said tracks, a door

having supporting stirrups, guide members
extending outwardly from said stirrups and
movable through said roller brackets, and a
guide member connecting the said stirrups
5 and movable through said movable carriage.

3. The combination with a door frame
and the like having rigid brackets above its
door opening and on opposite sides thereof,
each of said brackets having superposed
10 rollers, brackets between said first named
brackets and juxtaposed tracks carried by
the last mentioned brackets and each com-
prising superposed rods, of a carriage hav-

ing side rollers mounted between the said
track rods and having central superposed 15
rollers, a door having supporting stirrups
and movable between the superposed rollers
of the first mentioned brackets, and a guide
rod connecting the said stirrups and mov-
able between the superposed central rollers 20
of the carriage.

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Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."