(No Model.)

E. PRESCOTT.

HANGING DOOR.

No. 259,716. Patented June 20, 1882.

Fig. 1

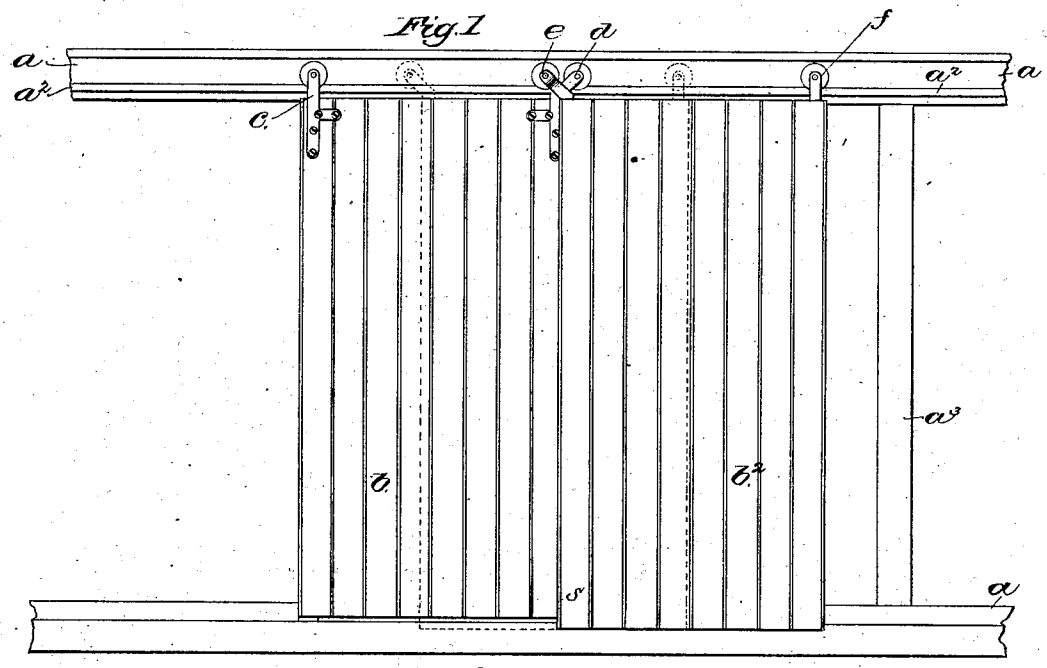


Fig. 2.

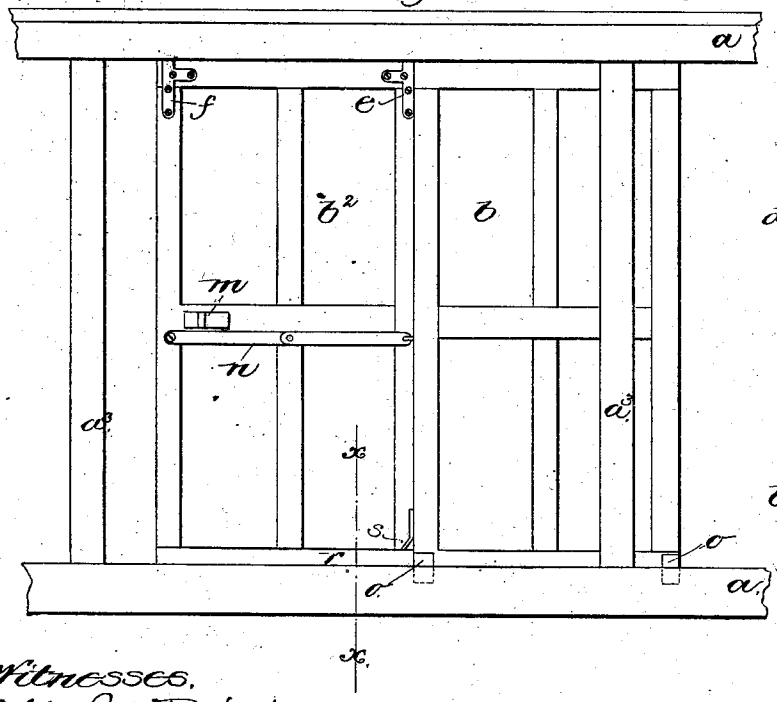


Fig. 4.

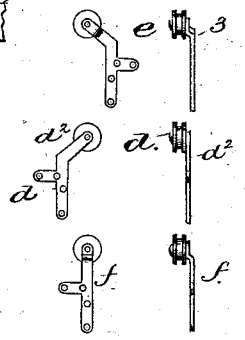
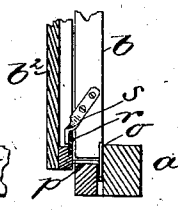


Fig. 3.



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UNITED STATES PATENT OFFICE.

EDWIN PRESCOTT, OF ARLINGTON, MASSACHUSETTS.

HANGING DOOR.

SPECIFICATION forming part of Letters Patent No. 259,716, dated June 20, 1882.

Application filed April 3, 1882. (No model.)

To all whom it may concern:

Be it known that I, EDWIN PRESCOTT, of Arlington, county of Middlesex, State of Massachusetts, have invented an Improvement in Hanging Doors, of which the following description, in connection with the accompanying drawings, is a specification.

Pier-houses, freight-houses, &c., into which cargoes or loads of freight are to be discharged or from which they are to be removed are provided with long doorways closed by one or more series of doors, each series being separated from the other series by a space, or having a space near them into or opposite which one or more doors of the series may be slid to form an open space opposite the hatchway of the vessel or car-door. The doors used are hung by means of ordinary roller-hangers, which run on a track at the side of the building.

With sliding doors hung, as described, on a track opposite open spaces in the side of the building, the space between the doorways and constituting the side of the building is unavailable for door-space, for the doors, when moved on the track to leave an open space, are moved opposite the said permanent walls of the building. Hence a vessel or car must have its hatchway or door right opposite one of the door-spaces.

One object of my invention is to so mount the doors that I may make openings at any point along the side of the building, and of greater or less length as compared with the length of the building, and according to the width and number of doors in each series, as will be described.

The doors may all be placed at the outside or inside of the building on a single track; or part of the doors may be inside and part outside the building on suitable tracks.

In this my invention, if a single track is used, I arrange the doors in a series, placing two or more doors in each series, preferably, however, two doors to each series, and I have so contrived the roller hangers or supports which run on the track that one door of each series of doors may overlap and nearly pass its mate, so that I may slide one of each series of doors on the track to overlap its mate, and may also slide the overlapped doors in either direction on the track, thus leaving an open space at any part of the side of the building nearly half as wide as the whole length of the building. By placing part of the series of doors on separate tracks I may give yet greater open space, as will be obvious.

Figure 1 represents in side elevation a sufficient portion of a side of a building to represent my invention, the said figure representing one series of doors. Fig. 2 is an opposite side view of Fig. 1; and Fig. 3 is a sectional detail on the dotted line $x\ x$, Fig. 2, to show the stays at one end of the door; and Fig. 4 represents in side and edge view three of the hangers, to be referred to, the said figure showing their particular shapes, whereby one door is enabled to overlap its mate.

In the drawings I have considered it unnecessary to show more of the side of the building a than sufficient to support the track a^2, which latter will be of sufficient length to permit the doors b b^2 to be moved the desired distance.

The door b, nearest the studs or posts a^3 of the building, has at one corner a roller-hanger, c, which may be of any usual construction; but the roller-hanger d, at the opposite corner of the said door b, has the sheave-bearing end of its shank so shaped or bent, as at d^2, as to place the roller beyond the edge of the door, as shown in Fig. 1.

The door b^2, the so-called "mate" for the door b, is supported at one corner by a roller-hanger, e, the shank of which is bent, as shown in Fig. 4, so as to place the roller of the said hanger beyond the edge of the door b^2, as in Fig. 1, and the said shank is also so bent in an opposite direction, as shown at 3, Fig. 4; or the said hanger is so contrived that its roller or sheave runs on the track a^2 between the hangers c d.

In Fig. 1 I have shown the two hangers d e adapted to cross each other at equal angles; but it is obvious I might gain good results by leaving the shank of one of the said hangers d or e straight, and putting a greater bend in the other, so that one could cross the other when the doors are closed. The hanger f, at the opposite corner of the door b^2, will have its shank so shaped or the said hanger will be so connected with the door in such manner

as to throw the said door away from the line of the posts a^3.

If it is desired to open a space in the side of a building covered by a series of doors constructed and mounted as herein provided for, either of the doors b or b^2 may be moved separately or both together, one door overlapping the other, as shown by the dotted lines in Fig. 1, the said dotted lines showing, however, the door b^2 as but partially lapped over door b. Each series or pair of doors supported in like manner along the side of a building may be overlapped, and each overlapped pair may be moved on the track a^2 in either direction until the proper opening or door-space is gained at the desired place.

To obviate the lapping of one door of a series or pair of doors so far over the other as to strike the rollers or sheaves together, I have provided the door b^2 with a stop, m, to strike the edge of door b, and to prevent the passage of one of said doors too far past the edge of the other when the doors are closed I have provided a stop, n, herein shown as composed of two links (see Fig. 2) pivoted together and to each door.

To prevent the lower end of the door b from being moved outward from the line of posts a^3, the said door is provided with one or more stays, o, arranged to travel with the said door in or on a suitable guide.

The door b^2 has one or more stays, p, suitably bent to enter or engage the guide, which co-operates with the stay o.

The two doors b b^2 will preferably have their ends kept together by a metal cleat, r, connected with door b^2, and a finger, s, extended behind the said cleat, Fig. 3.

If desired, the inner side of the said cleat r may be provided with one or more suitable projections near its ends, to be struck by the finger s, thus forming stops and obviating the employment of the stops m n, previously described.

I claim—

1. The combination, with a single track, of two overlapping doors having their hangers arranged to run on the said track, to operate substantially as and for the purposes set forth.

2. The single track, a series or pair of doors, and hangers to support them from the said track and permit one door to overlap its mate, combined with a stop to regulate the extent of the lap of one door over the other, substantially as described.

3. The single track, a series or pair of doors, and hangers to support them from the said track and permit one door to overlap its mate, combined with a stop to prevent the passage of one door of the series or pair of doors from the other and the contact of their rollers or sheaves, substantially as described.

4. The door b^2, the cleat r, door b, and finger s, combined with a stay and a guide therefor, to prevent the movement of the doors outward from the line of posts, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWIN PRESCOTT.

Witnesses:
G. W. GREGORY,
B. J. NOYES.