No. 767,668. PATENTED AUG. 16, 1904.

H. C. SMITH.

TRACK FOR SLIDING DOORS.

APPLICATION FILED JAN. 21, 1904.

NO MODEL.

Fig. 1.

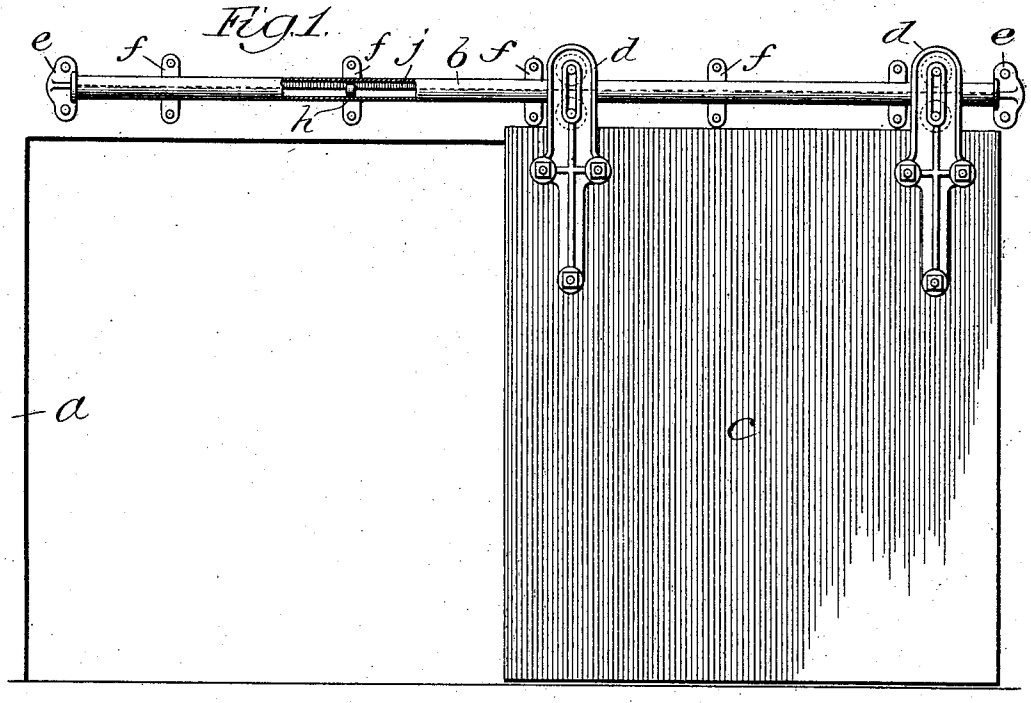


Fig. 2.

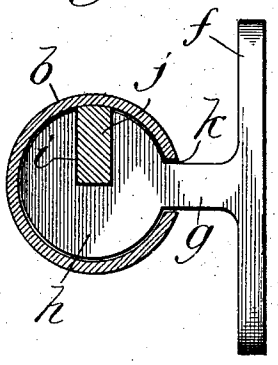


Fig. 3.

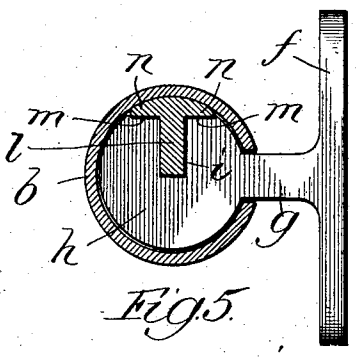


Fig. 4.

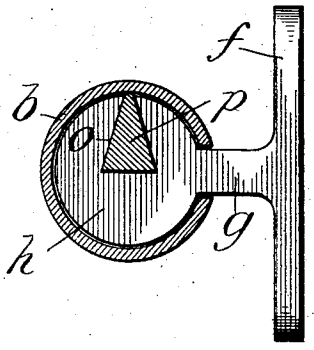
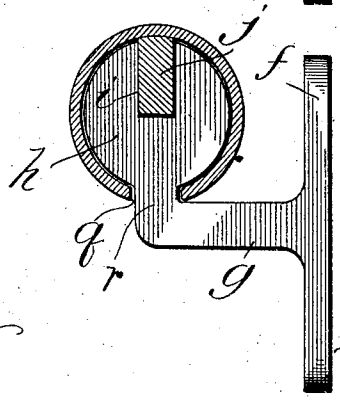


Fig. 5.



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No. 767,668. Patented August 16, 1904.

UNITED STATES PATENT OFFICE.

HENRY C. SMITH, OF CHICAGO, ILLINOIS.

TRACK FOR SLIDING DOORS.

SPECIFICATION forming part of Letters Patent No. 767,668, dated August 16, 1904.

Application filed January 21, 1904. Serial No. 189,982. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. SMITH, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new, useful, and Improved Track for Sliding Doors, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in which corresponding letters of reference in the different figures indicate like parts.

The object of my invention is to provide a track and suitable bracket-supports therefor which may be applicable to sliding doors, and more particularly to that class of sliding doors which are made of unusual weight—such, for example, as fire-doors, in which the action of heat is an element to be considered.

To these ends my invention consists in the combination of elements hereinafter more particularly described, and definitely pointed out in the claims.

In the drawings, Figure 1 is a front elevation of a sliding door supported by means of a track and brackets embodying the features of my invention. Fig. 2 is an enlarged transverse vertical sectional view of said track, showing one of the supporting-brackets therein; and Figs. 3, 4, and 5 are like views showing modifications of said invention.

Referring to the drawings, *a*, Fig. 1, represents the wall of a building having a doorway therein, as shown, above which is located a track (generally designated by *b*) adapted to support a sliding door *c*, which may be suspended therefrom by means of hangers *d* of any well-known form.

Rigidly attached to the wall by means of bolts or screws are end brackets *e e*, which are fitted to the ends of the track, and a series of intermediate supporting-brackets, (generally designated by *f*.) Each of said brackets is provided with an arm *g* for supporting the track away from the wall, upon the end of which arm is formed a head *h*, adapted to fit or contact with and to be inserted within the interior of the tubular track *b*. In addition to being formed to contact with the interior of the tubular portion of the track, so as to support the same, the head of each of said brackets is provided with a recess or notch *i*, Fig. 2, upon the top thereof, which notch is preferably made in the form shown in said figure to receive and serve as a seat for a supplemental or reinforcing bar *j*, which rests within said notch and is extended longitudinally throughout the length of the tubular portion *a* with its upper face or edge in contact with the interior of said tube. Said reinforcing-bar is preferably rounded upon its upper face to fit the upper interior surface of said tube, as shown.

I do not confine myself to any particular shape in cross-section of the tube *b*, which is slotted, preferably in the rear, as shown at *k*, for the reception of the bracket-arm *g*; nor do I limit the cross-sectional contour of the bar to any particular form. For example, in Fig. 3 I have shown a T-shaped reinforcing-bar *l*, in which the upper face is rounded. In this construction the upper part of the head *h* is cut away, as shown at *m m*, to provide for the lateral flanges *n n* of the bar. In Fig. 4 the head is provided with a dovetailed notch *o* to receive a correspondingly-shaped bar *p*. It is obvious that any other cross-sectional form of bar may be utilized without departing from the principle involved—viz., that of supplying an independent reinforcement to the interior of a tubular track.

In Fig. 5 I have placed the slotted opening *q* at the bottom instead of in the rear of the track and have bent the arm *g* upwardly, as shown at *r*.

The advantage of my improvement is that the supplemental bar serves to give vertical support to the tread of the track, while the tube within which it is placed renders the track strong laterally.

The device is especially important in connection with fire-doors. In case of fire the relatively thin metal tube tends to collapse readily when heated. On the other hand, the heavier metal bar is not only less likely to collapse under corresponding conditions, but being inclosed within the tube is actually protected thereby and serves to amply sustain the latter, which of itself would frequently give way.

Having thus described my invention, I claim—

1. A track for sliding doors consisting of a tubular structure supported by means of brackets having contact with the interior thereof, in combination with an independent longitudinal supporting-bar sustained by said brackets, and located within said tubular structure.

2. The combination with a tubular track for sliding doors, of supporting-brackets having heads arranged to project within the interior of said tubular track, and a reinforcing-bar supported in notches formed within said heads, the upper faces of said bar being in supporting contact with the inner upper surface of said tubular track.

In testimony whereof I have signed this specification, in the presence of two subscribing witnesses, this 30th day of December, 1903.

HENRY C. SMITH.

Witnesses:

D. H. FLETCHER,

C. E. JORDAN.