No. 816,309. PATENTED MAR. 27, 1906.

E. F. FITZPATRICK.

FIREPROOF FIXTURE.

APPLICATION FILED MAR. 31, 1906.

FIG. 1.

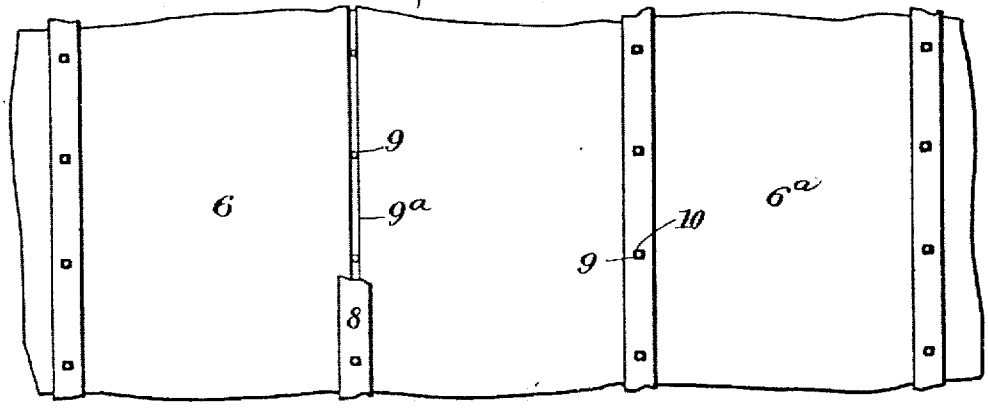


FIG. 2.

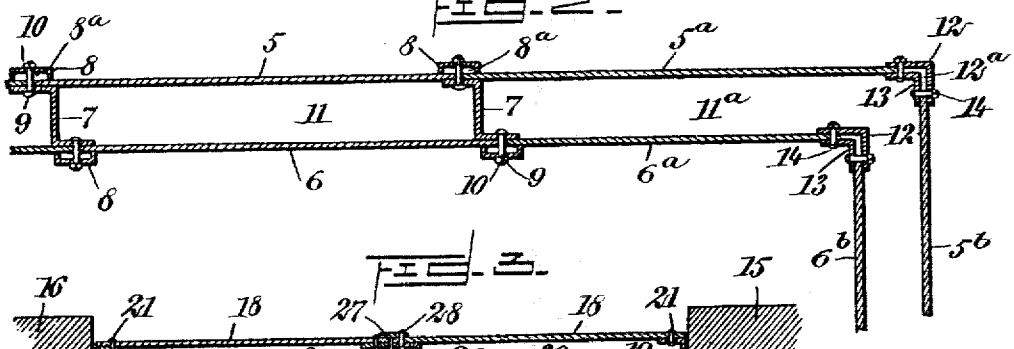
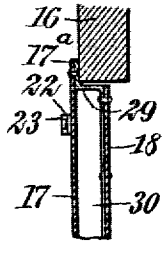


FIG. 3.

FIG. 4.



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FIREPROOF FIXTURE.

No. 816,309. Specification of Letters Patent. Patented March 27, 1906.

Application filed March 31, 1905. Serial No. 253,051.

To all whom it may concern:

Be it known that I, EUGENE F. FITZPATRICK, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Fireproof Fixture, of which the following is a full, clear, and exact description.

My invention relates to fireproof fixtures—such as partitions, blinds, doors, walls, and the like—my more particular purpose being to provide an inclosed air-space, sometimes designated as a "vacuum," which acts as a non-conductor of heat.

Incidental to this purpose my invention further consists in certain constructional details and combinations of parts hereinafter described, and pointed out in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a fragmentary front elevation showing a partition equipped with my invention. Fig. 2 is a horizontal section showing the manner of securing and spacing the front and back walls. Fig. 3 is a horizontal section through a pair of shutters equipped with my invention, and Fig. 4 is a vertical section through one of the shutters.

A number of separate plates 5 5^a 6 6^a of sheet metal, preferably iron, are connected together by means of Z-bars 7 of the form shown. The plates 5 5^a are in alinement with each other, as indicated in Fig. 2, and are connected together by angle-strips 8, each provided with an air-space 8^a and held against the adjacent plates by means of bolts 9, provided with nuts 10. Between the pairs of plates 5^a 6^a are spaces 11 11^a, filled with air, which serves as a non-conductor of heat. Angle-irons 12 13 are secured upon opposite sides of the plates 5^a 6^a and are used for connecting these plates with other plates 5^b 6^b, so as to form angles, as indicated at the right of Fig. 2. Bolts 14 are employed for the purpose of connecting the angle-plates together adjacent to the edges of the plates 5^a 6^a 5^b 6^b. The angle-plates are separated by air-spaces 12^a. In the construction just described every part which would otherwise be liable to transmit the heat in case of a fire is prevented from so doing by virtue of one or more air-spaces. Even the joints are as far as possible provided with air-spaces.

It will be noted that as the plates 5 5^a 6 6^a may be made of different widths and of different heights the partition indicated in Fig. 2 may be lengthened, shortened, widened, or narrowed at will. It will also be noted that each Z-bar 7 serves as a post and also as a fastening for the bolts 9 as well as acting in the capacity of a subpartition separating adjoining air-spaces, such as 11 11^a. No bolt-holes are necessary, for the reason that the plates 5 5^a and the plates 6 6^a do not abut each other edgewise, but are disposed in juxtaposition upon opposite sides of the bolts 9 and are separated by a space representing the thickness of such a bolt. It is this space or crack (indicated in Fig. 1 at 9^a) which is covered by the strip 8.

In Fig. 3 a pair of shutters are shown. The walls of the building are shown at 15 16 and the front and back plates of the shutter are shown at 17 18. These plates are paired, as shown, and connected by Z-bars 19 20, held in position by means of bolts 21. Hinge members 22 are mounted upon hinge-bearings 23 and secured to the front plate 17 by means of bolts 24. A flange 25 is secured by bolts 26 upon one of the front plates 17, and similarly a flange 27 is secured by bolts 28 upon one of the back plates 18, as will be understood from Fig. 3. The top of each shutter, as shown in Fig. 4, is closed by a Z-bar 29, the upper portion of which is riveted to the upper edge 17^a of the front plate, the back plate 18 being riveted upon the lower portion of the Z-bar 29. Each shutter contains an air-space 30.

Shutters made as above described are comparatively light, each consisting of a composite hollow shell provided with an air-space, and owing to the shape of the Z-bars 19 20 each shutter fits snugly around the corner of the wall 15 16, upon which it is free to swing, as indicated in Fig. 3.

It is impracticable to describe all of the various forms in which my invention may be used. Suffice it to say that I do not limit myself to the construction above described, and many forms differing slightly therefrom may be employed without departing from the spirit of my invention.

Having now described my invention, I

claim as new and desire to secure by Letters Patent—

1. A shutter, comprising a front plate and a back plate, Z-bars mounted upon opposite sides of said shutter, fastening members for detachably securing said Z-bars to said front and said back plates, and means for mounting said shutter.

2. In a shutter, the combination of a front plate and a back plate, Z-bars disposed oppositely to each other and intermediate of said plates, one of said Z-bars having the angular conformity of a wall, and a hinge member connected with one of said plates and with said wall for enabling said shutter to swing as a door.

3. In a shutter, the combination of a front plate and a back plate, members disposed upon opposite edges of said shutter and spacing said plates apart, and a Z-bar mounted within the top edge of said shutter and secured to one of said plates, said Z-bar having a portion for partially overlapping a wall above said door.

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

EUGENE F. FITZPATRICK.

Witnesses:
WALTON HARRISON,
EVERARD BOLTON MARSHALL.