

A. BEYRLÉ.  
METAL COVERED DOOR.  
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1,173,091.

Patented Feb. 22, 1916.

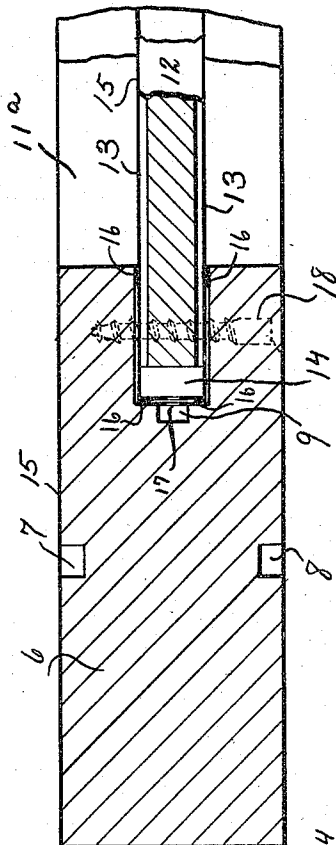


Fig. 2

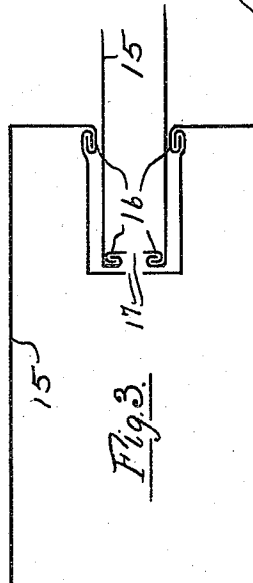


Fig. 3

Fig. 5

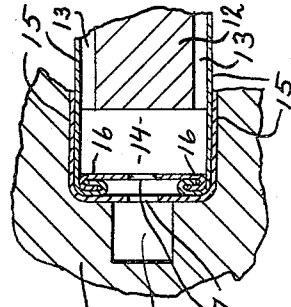


Fig. 4

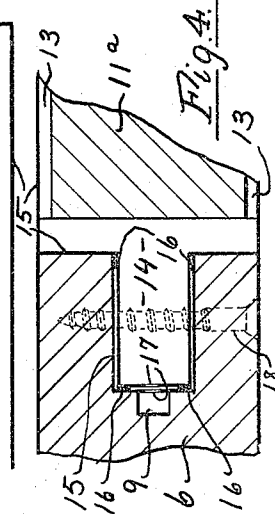
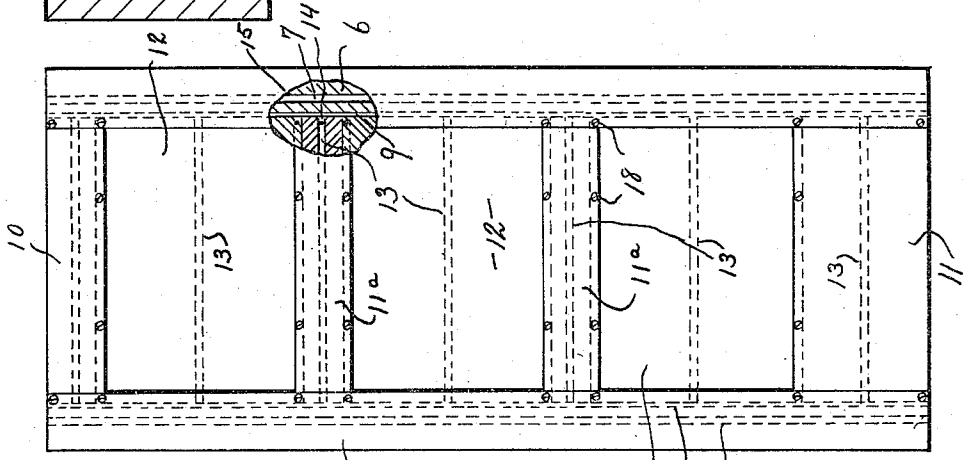


Fig. 1

WITNESSES.  
Frank Waterfield  
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INVENTOR  
ANDREW BEYRLÉ.  
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# UNITED STATES PATENT OFFICE.

ANDREW BEYRLER, OF LOS ANGELES, CALIFORNIA.

## METAL-COVERED DOOR.

1,173,091.

Specification of Letters Patent.

Patented Feb. 22, 1916.

Application filed July 11, 1914. Serial No. 850,394.

*To all whom it may concern:*

Be it known that I, ANDREW BEYRLER, a citizen of the United States, residing at the city of Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Metal-Covered Doors, of which the following is a specification.

My invention relates to a door in which the wooden portions are covered by sheet metal before being assembled and the object thereof is to provide a door of that class in which all the wooden parts shall be entirely incased in metal before the parts are assembled and when the parts are assembled they shall be held against separation by heat of less intensity than that required to melt the metal surrounding the wooden parts.

A further object is to provide thorough ventilation for the wooden parts thereby avoiding dry rot of the wood or the accumulation of gas under the metal casing in case of fire.

In the drawings forming a part of this application, Figure 1 is a side elevation with parts in section of a three panel door without the hardware, of my improved construction. Fig. 2 is an enlarged cross section of one of the door stiles and a longitudinal section of a fragment of a panel on the line of the vent channels and a fragment of a cross rail in elevation. Fig. 3 is a diagrammatic view of the metal casing showing the connection between the panel and stile. Fig. 4 is a fragment of a stile and rail showing the joint therebetween. Fig. 5 is an enlarged fragmentary view showing the connection of the horizontal and vertical channels.

In the construction of my improved door the wooden stiles 6 are preferably formed in the usual manner except that longitudinal ventilating channels 7, 8 and 9 are provided as best shown in Fig. 2. The top rails 10 and bottom rails 11, cross rails 11<sup>a</sup> and the panels 12 have longitudinal vent channels 13 in both sides which are connected at the ends by transverse channels 14. Before being assembled the wooden parts of the stiles, top, bottom and cross rails and panels are exteriorly covered with sheet metal 15. The meeting portions of the metal covering are preferably lock seamed and the seams between the stiles, rails and panels are preferably located as shown in Fig. 3 at 16. When the wooden parts of the door are covered with sheet metal, the metal covers the

ventilating channels and suitable holes 17 are made in the metal to connect the channels of the rails and panels with the vertical channels 9 in the edges of the stiles. The parts of the door are then assembled and held in a press while screws 18 are put in place to hold the parts together. The metal contacts with the screws like a nut on a bolt. As shown by the screws in dotted lines in Figs. 2 and 4 these screws pass through the edges of the stiles and cross rails and panels close to the lock seams and thereby securely hold the parts together. The doors will be provided with suitable hardware to hold them in the door openings and the door casings will be provided with a metal covering in those buildings desiring the best fire protection. The ventilating channels can be omitted but I prefer their use as they provide a ready means for the escape of gas in case of fire.

Should a fire break out in a building of a class A or B structure the doors can be closed and the fire will be confined to such room, as the doors would prevent the fire from spreading. As the metal which incloses the wood entirely surrounds the same and is locked thereon it is obvious that it is impossible to burn the wood within such metal because the metal prevents the oxygen from combining with the carbon of the wood.

While I have described the method of covering the various parts of a door with metal it will be obvious that the same construction may be used for covering other wooden material for use in other parts of a building, as where partitions are formed of paneled frames.

Having described my invention what I claim is:

1. In a sheet metal covered door a stile member having a groove therein and provided with one piece of sheet metal covering the stile on the ends, faces and outer edges thereof and another piece of sheet metal covering the faces of said groove in the edge of the stile, said two pieces of sheet metal being lock seamed together within the said grooves.

2. In a sheet metal covered door the combination of a marginal frame comprising side stiles having grooves therein and upper and lower rail members, each of the members comprising said frame having a piece of sheet metal covering the exterior surface when positioned; and a second piece of sheet

metal covering the faces of said grooves therein, said pieces of metal as to each member being lock seamed together within said grooves.

- 5 3. A sheet metal covered door comprising wooden stiles, cross rails and panels, each of the stiles and cross rails being covered by pieces of metal, said metal covering all the exterior surfaces when positioned and the  
10 surfaces of the grooves in said members, the metal pieces of each member being lock seamed together said seams being within the

grooves and the several members being united by screws passing through and into the overlapping portions of the various members. 15

In witness that I claim the foregoing I have hereunto subscribed my name this 23 day of June, 1914.

ANDREW BEYRLER. 20

Witnesses:

G. E. CARPHAM,  
FRANK WATERFIELD.

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