July 25, 1933. J. G. DUDLEY 1,919,419

DOOR

Filed Oct. 2, 1930

Fig. 1.

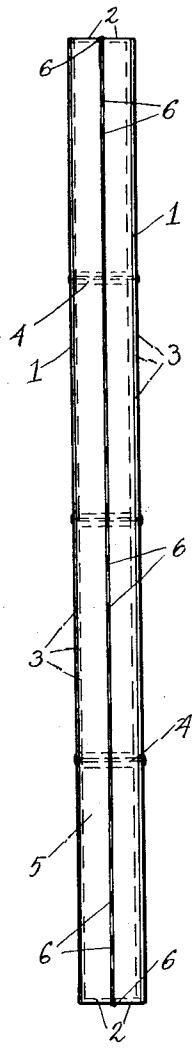


Fig. 2.

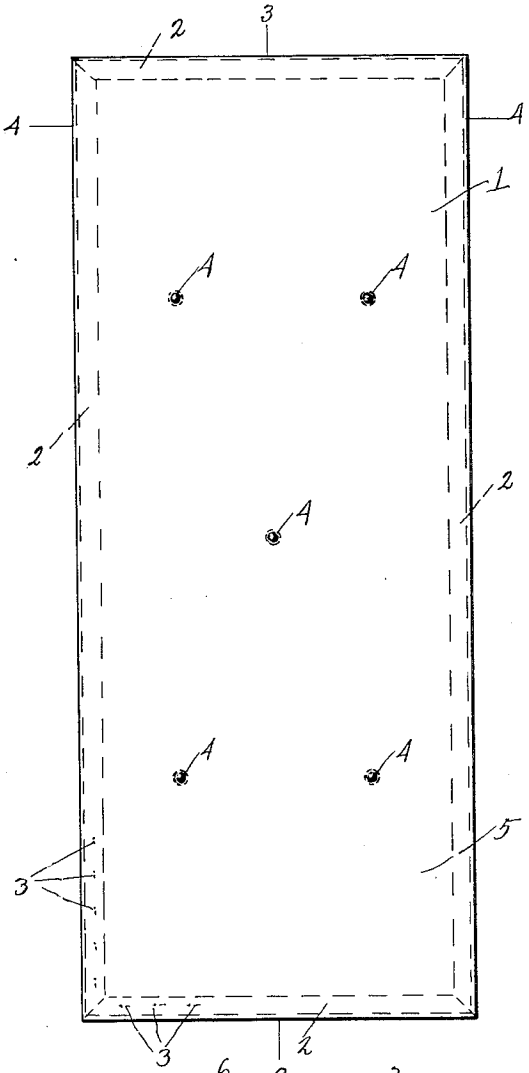
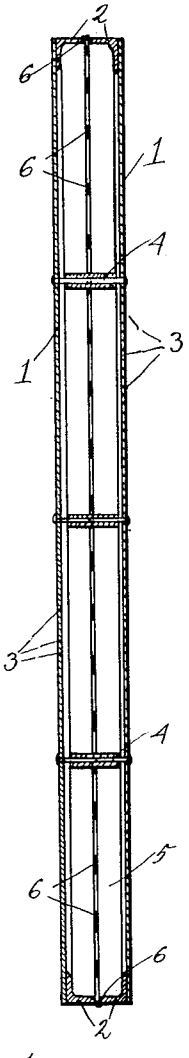


Fig. 3.



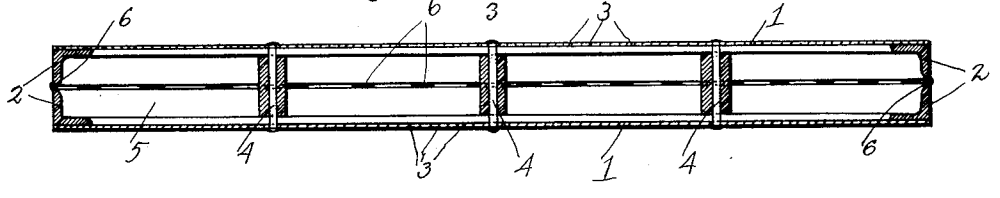


Fig. 4.

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Patented July 25, 1933 1,919,419

UNITED STATES PATENT OFFICE

JAMES G. DUDLEY, OF NEW YORK, N. Y.

DOOR

Application filed October 2, 1930. Serial No. 485,853.

My invention relates to hollow metallic doors which are filled with insulation against heat, cold and sound.

It has for its objective an improved method of construction whereby the machine operations as well as the labor time of fabrication and assembly necessary to produce the component elements may be reduced, and thereby the cost of manufacture may be lowered.

A further objective is to secure these results with the minimum of weight consistent with requisite rigidity.

A still further object is the making of the door in two substantially similar vertical halves permanently joined at the vertical free meeting edges of the angle or other equivalent structural frames carrying the respective front and back panels of the door.

Other objects and advantages of the present invention will be apparent from the following description, reference being had to the accompanying drawing wherein the preferred form of embodiment of the invention is clearly shown, and wherein similar numerals of reference denote similar parts throughout the several views.

Figure 1 represents a side elevation of the door.

Fig. 2 represents a front elevation view of the door.

Fig. 3 is a transverse vertical section of the door taken on the line 3—3 of Fig. 2.

Fig. 4 is an enlarged sectional view taken on the line 4—4 of Fig. 2.

The construction of the invention is substantially and preferably as follows:

1 is one of the opposite identical sheet panels or sides of the door composed of single sheets of metal anchored to their respective carrying frames by spot welds 3, and of identical angle sections. Anchored to each panel by welds are metal means 4 for spacing the sheet panels apart and anchoring same the one to the other so as to resist pressure inward or outward.

Prior to the assembly of the two halves of the completed door, heat cold and sound insulation is interposed therebetween substantially filling the hollow space 5 so formed. Final assembly of the door is secured by abutting the free edges of the frames 2 and anchoring the same, the one to the other, by autogenous welding 6 in a continuous seam, or at sufficient intervals to secure the requisite structural strength supplemented by cement for closing the remaining gaps; or the assembly may be accomplished in any other convenient manner.

As my invention is in some of its aspects generic, I do not limit myself to the particular construction shown and described, but also contemplate the employment of such equivalents as fairly fall within the scope of the claims.

In this connection I may state that the door may be constructed without the included insulation, or even without the said spacers 4. Also that any metals or combination of metals may be used as well as any strength of frame sections to secure rigidity found to be necessary or desirable.

Therefore it should be understood that I may make various changes in the form, proportion, size and detail of the structure shown and described, and the number and position of certain elements used, without departing from the spirit of the invention.

I claim:

1. A hollow metallic door made of two substantially similar frames and two attached and substantially similar panels, and means for anchoring the panels one to the other, with the free edges of the metallic frames abutting and coinciding.

2. A hollow metallic door comprising two sheet metal face panels, a metallic frame anchored to one face of each panel adjacent its peripheral edges and normal thereto, and means for uniting the said carrying frames at their free edges.

3. A hollow door comprising two substantially similar sheet metal face panels, two substantially similar metallic angle frames each having one leg thereof anchored to one face of the panel adjacent the panel edges with the free leg normal to and flush with the panel edge, and means uniting the two carrying frames at their free edges into a continuous peripheral band.

JAMES G. DUDLEY.