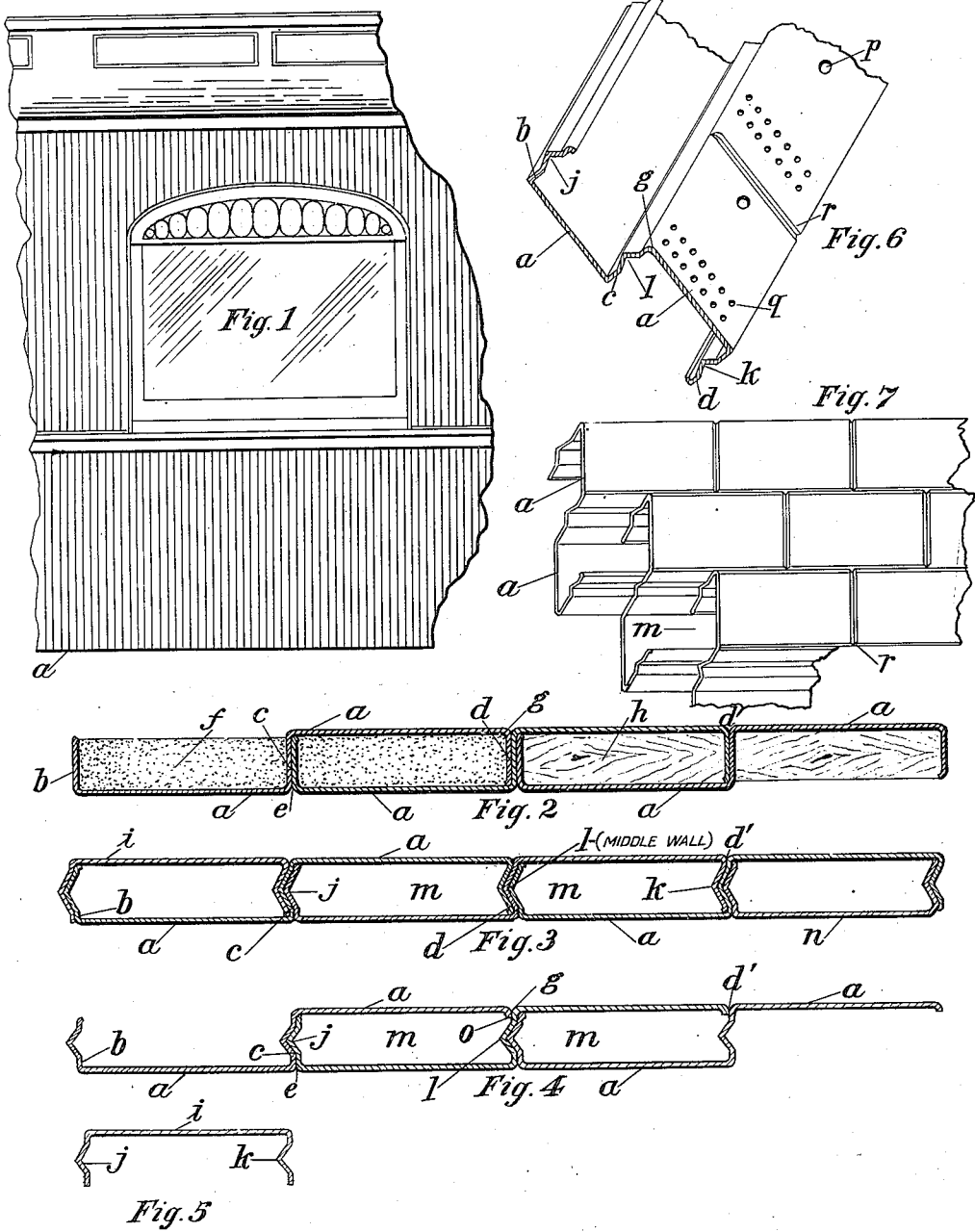


994,116.

Patented June 6, 1911.



WITNESSES:

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CAR-SHEATHING.

994,116.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM J. BOYER, a citizen of the United States, residing in the city and county of Denver, State of Colorado, have invented a new and useful Improvement in Car-Sheathing, which improvement is fully set forth in the following specification and accompanying drawings.

My invention relates to certain improvements in metallic car sheathing, and has for its object to provide a simple device for sheathing railway and other cars, wagons and the like, it can also be used for partitions, wainscoting, flooring, etc., for buildings, etc.

The sheathing is preferably made of sheet steel, pressed into the desired shapes, and is particularly advantageous wherever fire proofing of cars, buildings, etc., is desired.

My invention consists of forming or pressing a piece of sheet metal (preferably steel) into a cellular form, approximating the letter S, which has two parallel walls which are connected by a center transverse integral wall, with a transverse integral wall on the end of each parallel wall, which completes the sectional shape embodying my invention.

The object is to provide a wall built of hollow or tubular sections, which is accomplished by fitting together two or more of the sections described by placing one section over the other telescope fashion and fitting the transverse walls of one section into the cells of another continuously until the entire wall is completed, the cells of each section forming one half of the completed tubular section. Of course each section is fastened to the frame of the car or other structure by screws, rivets, or other suitable means. These screws, etc., are entirely obscured from view when the sections are assembled, being covered by the outer wall of the tube. The wall now being a series of tubular sections perfectly and substantially interlocked, the tubular sections may be used for ventilating and heating by suitably perforating them.

To more plainly state the nature of my invention I will say that the preferred shape of the sheathing sections is that of the letter S, as it provides both a front and back wall and three transverse side walls, in one piece. This shape may be slightly modified by leaving off one of the end transverse walls and still retaining the essential features of my

invention, as shown in Figure 4 of the drawings. This arrangement does not alter the tubular formation of the wall in the least, the only difference is that only two walls separate each section, instead of three, as shown in Figs. 2 and 3 of the drawings. The three wall arrangement is preferable, however, as it adds greater strength at the joints, with little additional weight.

When necessary I provide a filler for the tubes to more thoroughly insulate against heat, cold and sound. This filling may be of felt, concrete or other plastic material, or it may be made of wood conforming to the interior shape of the tubes or sections. To fasten the loose ends of the various sheathing sections, and to prevent them from getting out of alinement by the vibration of a moving car, I provide the side or transverse walls with interlocking tongues and grooves, preferably V shaped, but any other shape may be used if found more convenient. This arrangement prevents the sections from inward or outward movement when fitted and applied to the wall of a car or other structure.

My invention may also be used for wainscoting in buildings and to imitate tiling on the walls and floors of bathrooms and the like. When so used I press a small groove in the face of the sheathing at intervals about the length of a piece of tiling or brick to resemble a joint, and when the sheathing is applied the joints are broken so as to resemble tiling. I also plate or enamel the sheathing with any suitable material to imitate a glazed tile or brick. This arrangement makes a fire proof as well as an ornamental wall, and the tubes may be so arranged, by properly perforating, so as to both heat and ventilate the room.

With these and other objects in view, my invention consists in the features, details of construction, and combination of parts as will be described in connection with the accompanying drawings, and more particularly pointed out in the claim.

Similar letters of reference indicate corresponding parts in all figures.

Fig. 1, is an elevated view of a railway car showing my improved sheathing as applied to the exterior wall of the car. The letter "A" represents the sheathing.

Fig. 2, is a sectional view showing three pieces of the metallic sheathing embodying my invention, as they appear when assembled.

bled. The letter "a" represents the front and back walls of the sheathing. Letter "b" represents one of the transverse end walls, and letter "c" the center transverse wall, which connects the front and back parallel walls. Letter "d" represents the other transverse end wall. It will be seen that when the various sections are assembled there are three transverse walls between each section as shown in the center of Fig. 2 and also in Fig. 3. "d'" represents the spaces between the various sections which are very small when used for flooring, as Fig. 2 is more particularly intended to represent. Letter "f" represents a filler or insulation made of felt or any sort of plastic material such as concrete, asbestos or the like. Letter "g" represents rounded or beveled shoulders or corners which form a small bead or groove between the sections when assembled side by side. Letter "h" represents a wood filler used for stiffening or insulating purposes. The various sections when assembled form a tubular wall built up of S shaped cellular sections.

While the transverse walls in Fig. 2 are shown as being straight, it is obvious that they may be made angular without departing from the scope of my invention. The spaces between the sections, letter "d'" may be filled with solder or any other suitable filler when a smooth unbroken surface is desired, or the joints may be brazed together.

Fig. 3, is a sectional view of another form of metallic sheathing embodying my invention, showing the several sections and parts of sections assembled and as would appear when applied to a car or other structure. Letter "i" represents a part of a section which is used for closing the ends of the assembled sections and completing the tubular arrangement of the walls. This part of a section is made by cutting off one of the end transverse and one of the parallel front or back walls, making the shape to approximate the letter U. Letter "j" represents a V shaped tongue formed in one of the end transverse walls. Letter "k" represents a groove formed in the other end transverse wall. Letter "l" represents a tongue formed in the center transverse wall which serves the purpose of both a tongue and a groove when the sections are fitted together and the tongues and grooves interlocked. It will be seen that these single or U shaped sections may also be assembled so as to form a tubular wall in the same manner as the S shape sections, by telescoping one section over the side walls of two of the other sections in continuation. Letter "m" represents the interior of the tube formed by fitting two or more of the cellular sections together telescopic fashion. Letter "n" represents a part cut from an S shaped section, which may be used as a key by fitting

in between the walls of the end sections, and by removing this key the screws or fastenings of the adjoining sections may be removed and the section taken apart, and so on until the whole wall is removed.

Fig. 4, is a sectional view of a modified form of metallic sheathing embodying my invention, and is the same in all essential features as that shown in Fig. 3, the only difference being that one of the end transverse walls is cut off at letter "O", thus leaving only two walls between the sections, instead of three as in Fig. 3.

Fig. 5, is a sectional view of a part of one of the cellular S shaped sections of metallic sheathing embodying my invention, which is used to form the tube at the end or commencing sections as shown in Fig. 3. These part sections are made by cutting off one of the parallel and one of the end transverse walls.

Fig. 6, is a perspective view of a section of cellular S shaped metallic sheathing embodying my invention. Letter "p" represents holes punched in the wall "a" for screws or rivets to fasten to the walls of a car or other structure. Letter "q" represents holes punched in wall "a" for the purpose of ventilating or heating. Letters b, c and d represent the transverse walls, and letters j, l, and n the tongues and grooves, letter g the rounded corners.

Fig. 7, is a perspective view of cellular S shaped metallic sheathing used as tiling for side walls or floors of bathrooms and the like, embodying my invention. Letters a, a, represent the front and back walls. Letter r represents a small groove pressed into the walls a, a, at intervals to imitate the spaces or joints between the tiling bricks.

As will be noted from the drawing the tubular sections when applied to the frame of a car body, or against a wall, extend outwardly at a right angle thereto, this being due to the fact that the transverse and center walls of the sections extend in planes at right angles to the other walls of the section making up the sheathing and abut against each other in straight lines. The advantage of this construction is that the outer wall of the last tubular connection is brought flush with the end of the car body or wall which it covers, and extends at a right angle therefrom, thus avoiding the necessity of making end sections of narrow or unusual shape in order to complete the cellular structure at such end.

Having described my invention, what I claim as new and desire to secure by Letters Patent of the United States is as follows:

A section of metallic sheathing substantially S-shape in cross-section, having transverse center and end walls of equal width, each provided with a longitudinal bend extending in the same direction and present-

ing a tongue on one side of said walls, and
a groove on the other side thereof, said
walls extending at right angles from the
other walls of the section, whereby when a
5 plurality of said sections are assembled the
transverse wall of one section may be placed
against the transverse wall of another sec-
tion, thereby insuring against the movement

of the front and back walls toward and
from one another and causing said trans- 10
verse walls to extend at right angles to the
surface which they cover.

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Witnesses:

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