No. 863,779. PATENTED AUG. 20, 1907.

E. G. BUDD.

METALLIC PARTITIONING.

APPLICATION FILED NOV. 22, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

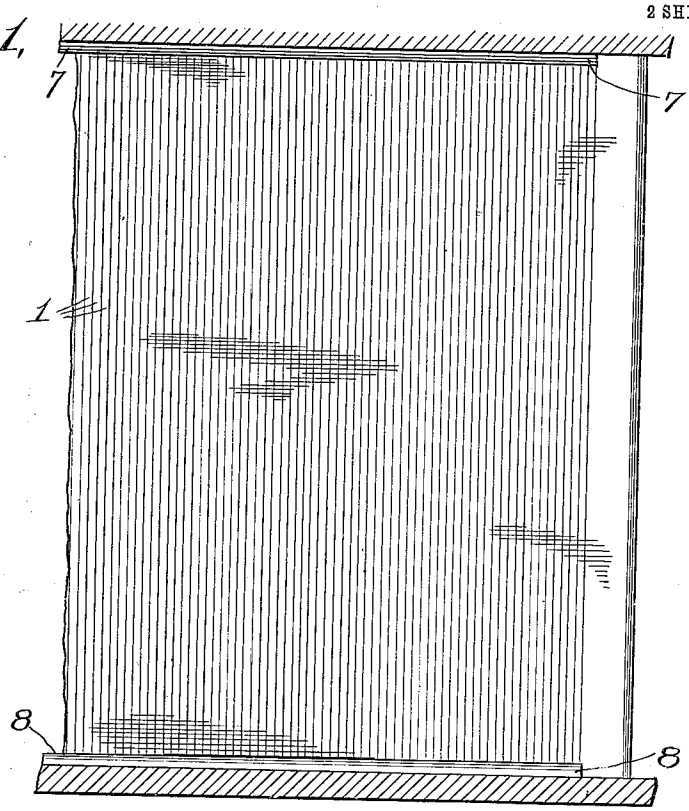
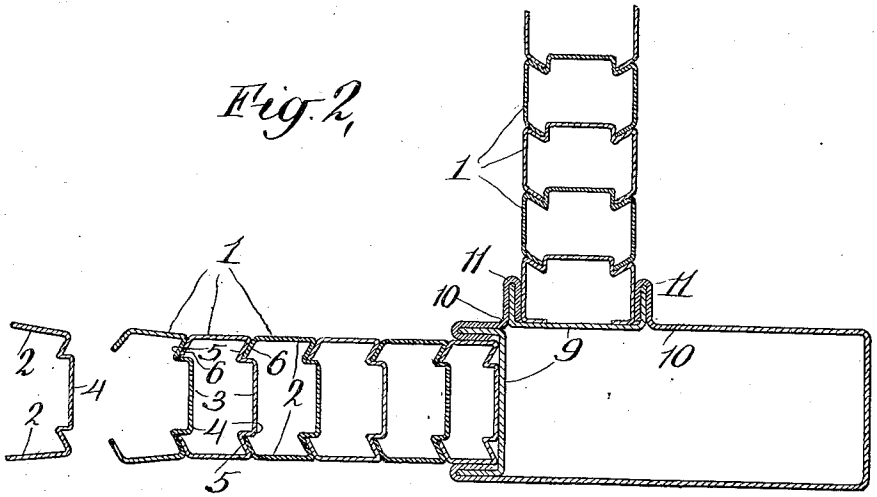


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3,

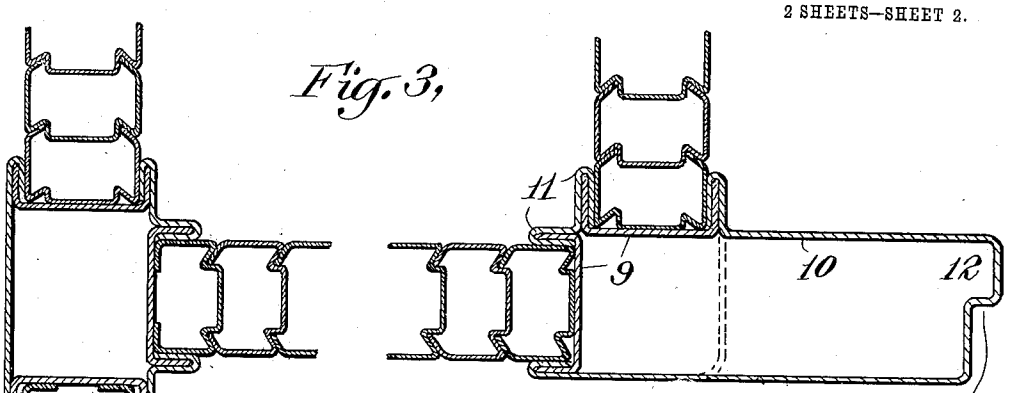


Fig. 4,

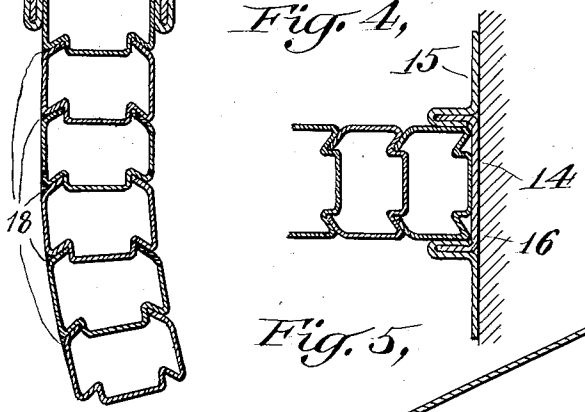


Fig. 5,

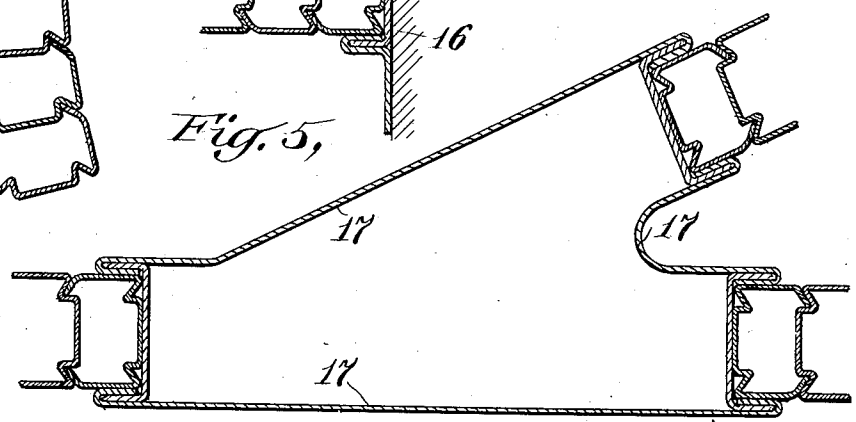
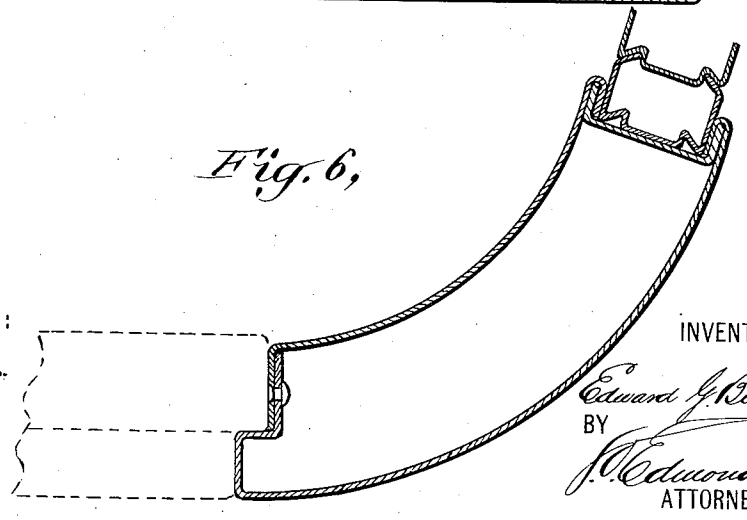


Fig. 6,



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UNITED STATES PATENT OFFICE.

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METALLIC PARTITIONING.

No. 863,779. Specification of Letters Patent. Patented Aug. 20, 1907.

Application filed November 22, 1906. Serial No. 344,622.

To all whom it may concern:

Be it known that I, EDWARD G. BUDD, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Metallic Partitioning, of which the following is a specification.

This invention relates to metallic partitioning for use in the construction of buildings, cars and the like under any conditions making the use of metal desirable, as for instance, when it is important that the structure be fire-proof.

While the field of utility of my invention is in no way limited, it is particularly well adapted for use in the construction of fire-proof railway cars in the partitions between the several compartments, aisles, etc.

One object of the invention is to provide a partitioning possessing flexibility so that it can be used in a variety of different relations, as in the erection of straight and curved walls, and to this end, the partitioning is made of a plurality of sections which can be assembled in various angular positions one relative to another, so that the complete partition will be straight if all the sections are in alinement and curved if each of them is arranged at a slight angle to the next adjacent one.

Other objects of the invention are to provide a partitioning which possesses considerable strength, which is inexpensive to construct and which is of attractive appearance. For these purposes, the several sections are made of sheet-metal, preferably steel, and pressed to the requisite shape and they are so formed that they fit snugly together with the joints between adjacent sections showing but faintly. If desired, these joints may be entirely concealed.

Another object of the invention, and one which is of great importance, is to provide a partitioning so constructed that freedom from reverberation is, so far as is possible, obtained. This characteristic of a metallic partition becomes of considerable importance in the construction of fire proof parlor and drawing room railway cars, as in such cars, every effort must be made to reduce the noises occasioned by the movement of the car upon the rails as much as is possible. Freedom from reverberation is, to a very high degree, attained by the use of the sectional construction above referred to for the reason that the sections of the partition are of comparatively small width, and extending between the side walls of each section is an integral transverse wall which serves as a brace holding the side walls against vibration. In furtherance of the object of obtaining freedom from reverberation, the sections of the partitioning may be so constructed and assembled that the side walls of each section are placed under a constant tension which assists considerably in holding the side walls against vibration. This sectional partitioning, in addition to being flexible, fire-proof, strong and free from reverberation, permits of great variation in arrangement and in combining with metallic moldings, corner-posts and sections of a different configuration to work out an attractive design.

The preferred embodiment of my invention is illustrated in the accompanying drawings in which

Figure 1 is an elevation of my improved partitioning, Fig. 2 is a transverse section showing a form of corner-post, Fig. 3 is a similar view showing other forms of corner-posts, Fig. 4 is a section showing a corner-post for joining the partition to a wall, and Figs. 5 and 6 are sections showing other forms of corner-posts.

Referring to the drawings, the partitioning is shown as consisting of a plurality of sections 1, each arranged in alinement and interlocked with the sections adjacent thereto. Each section is made of sheet-metal, preferably steel, pressed into form to provide side walls 2, 2 which are parallel and spaced apart by an amount equal to the width of the partition, and an integral transverse wall 3 connecting them at one edge thereof. The transverse wall 3 has a tongue 4 formed therein and the parts 5, 5 thereof joining this tongue to the side walls 2, 2 are inclined somewhat to the general plane of the transverse wall. At its opposite edge the section is open, integral inwardly bent flanges 6, 6 being formed at these edges of the side walls 2, 2 substantially parallel to the parts 5, 5. The several sections, thus constructed, are assembled by inserting the tongue 4 of each section into the opening between the flanges 6, 6, of the adjacent section and pressing the sections together until the parts 5, 5 and 6, 6 are in hard engagement. Preferably the sections are so formed that the adjacent edges of the flanges 6, 6, are separated by a distance slightly greater than that which is to separate them, when they are assembled in their final positions, this being done by so forming the sections that the side walls thereof diverge slightly in the direction of the flanges 6, as indicated at the left of Fig. 2 where two unassembled sections are shown. The flanges 6 are bent at the proper angle to the side walls but are separated by the greater amount due to the divergence of the side walls. When thus constructed, the act of pressing the sections together carries the inclined flanges 6 into engagement with the inclined walls 5 and, because of this inclination, the pressure on the sections causes the flanges to ride over the walls 5 until their adjacent edges are in hard engagement with the sides of the tongues or tenons 4 at the points where the latter join the walls 5. This movement of the flanges 6 on walls 5 draws the side walls 1 toward each other until, when the movement of flanges 6 is arrested, the walls 1 lie parallel to each other. By drawing the side walls 1 together in this

manner, against the tension of the metal, they are put under a constant tension which assists materially in holding them against vibration such as would reverberate sound. By assembling the sections in this manner, only very slight depressions are formed along the lines of junction of adjacent sections as indicated in Fig. 1. If desired, these lines of junction may be completely concealed. This is preferably done by filling the slight depressions at the joints of adjacent sections with any suitable material, as solder, metal filler, wax or a cement composition, which when applied may be scraped down to a surface flush with the side walls 1. Such a filler is indicated at 18, Fig. 3.

In Fig. 2, the sections are shown as assembled in alinement to produce a straight wall or partition. However, by arranging each section at a slight angle to the next adjacent one, a curved wall is produced, as shown in Fig. 3, no change in the construction of the sections being necessary for this purpose. In installing a partition, a sufficient number of the sections may be interlocked in the manner above described and suitable moldings, preferably of pressed sheet-metal, secured to the floor and ceiling in position to lie against one side of the partition when the latter is erected. The partition may then be bowed somewhat and its ends positioned against the corner-posts, walls or other parts between which the partition is to extend. Then by pressing the bowed partition up against the molding, the sections thereof are pressed firmly together, and it may be held in this position by securing moldings to the floor and ceiling against the opposite side of the partition. Such moldings are indicated at 7 and 8 in Fig. 1.

In Fig. 2 is shown a corner-post with which two of the partitions join. This post is also of pressed sheet-metal and its dimensions may be varied to suit convenience and the conditions of use. At the points where the partitions join, pairs of outwardly extending walls are formed spaced apart by such a distance that the end sections of the partitions fit tightly between them. Preferably, the corner post consists of strips 9 of U-shaped cross-section, one for each partition, and strips 10 having folds 11 at their edges extending over the flanges at the edges of the strips 9. The shape of the strips 10 intermediate the folds 11 determines the configuration of the corner-post as will be seen by a comparison of the posts shown in Fig. 2 and at the right of Fig. 3. The post indicated by the dotted lines in Fig. 3 is similar to the post of Fig. 2 except that it is smaller and that shown in full lines is also similar to the post of Fig. 2 except that it is shaped to form a jamb for a door. It will be seen that the strip 10 in Fig. 3 is bent to provide an outwardly extending portion 12 and a wall 13, the latter of which forms a stop for a swinging door. The corner-post at the left of Fig. 3 has three pairs of outwardly extending walls similar to the two pairs shown in Fig. 2, to provide for the junction of three of the partitions.

In Fig. 4 is shown a means for joining a partition to a wall of a construction different from the sectional partitions. It consists of a U-shaped strip 14, similar to the strips 9, and strips 15 having folds formed therein taking over the flanges at the edges of strip 14 and having outwardly extending portions which may be secured to the wall 16 in any suitable manner.

In Fig. 5 is shown a corner-post which may be used at the junction of three partitions, two of which lie in the same plane and the third at an acute angle thereto. This post is similar to that shown at the left of Fig. 3 except as to the shape of the pieces 17 intermediate the partitions. The opposite sides of a corner-post may be curved, as shown in Fig. 6, when two partitions or a partition and a door join at somewhat of an angle.

The post of Fig. 6 is arranged to join a partition and a door and has a jamb formed at one edge as above described in connection with the post at the right of Fig. 3, the door being indicated by the dotted lines.

It will be seen that because of the sectional construction of the partitioning, it may be built up in any suitable lengths, the sections fit tightly together, the joints between adjacent sections show but faintly or are entirely concealed, as desired, the partition is strong and fire proof and is inexpensive to manufacture. Also this partitioning is elastic so that it can be used to form a curved or straight partition. Because of its sectional formation, it can be used in many different ways; the sections can extend horizontally or vertically, sections of a different cross-section can be inserted at intervals and moldings can be combined therewith at the top and bottom and at an intermediate point to give it an attractive appearance. Moreover, freedom from reverberation of sound is obtained with this form of partitioning as the great number of transverse walls extending between the side walls at frequent intervals hold those walls against vibration and the side walls are placed under a constant tension for the same purpose.

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

1. A metallic partitioning comprising a plurality of partition sections, each consisting of sheet-metal and having oppositely-disposed side walls and a transverse wall integral with and connecting the same, said sections being assembled with the corresponding side walls of the several sections forming a substantially unbroken wall on each side of the partition and the transverse walls bracing the side walls against vibration, substantially as described.

2. A metallic partitioning comprising a plurality of partition sections, each consisting of sheet-metal pressed into form to provide side walls and a transverse wall integral with and connecting the same, said sections being assembled with the side walls of adjacent sections in substantial alinement and each section being interlocked with and capable of angular movement relatively to the sections adjacent thereto, substantially as described.

3. A metallic partitioning comprising a plurality of partition sections, each formed of pressed sheet-metal and having oppositely disposed side walls and a transverse wall integral therewith, said sections being assembled with the side walls of adjacent sections in substantial alinement, substantially as described.

4. A metallic partitioning comprising a plurality of partition sections, each formed of pressed sheet-metal and having oppositely disposed side walls and a transverse wall integral therewith and each interlocked with and capable of angular movement relatively to the sections adjacent thereto, substantially as described.

5. A metallic partitioning comprising a plurality of partition sections, each formed of pressed sheet-metal and having oppositely disposed side walls and a transverse wall integral therewith, the transverse walls of said sections being formed to interlock each section with the section adjacent thereto, substantially as described.

6. A metallic partitioning comprising a plurality of partition sections, each consisting of sheet-metal pressed into form to provide substantially parallel side walls and

an integral transverse wall connecting the same, and the transverse wall of each section having means thereon for connecting the section to the next adjacent section, substantially as described.

7. A metallic partitioning comprising a plurality of partition sections, each consisting of pressed sheet-metal and having substantially parallel side walls and a transverse wall integral therewith, said transverse walls being formed to effect dove-tail joints between adjacent sections, substantially as described.

8. A metallic partitioning consisting of a plurality of metallic partition sections, each having substantially parallel side walls, a transverse wall connecting the same at one edge thereof and consisting of a tongue and parts joining the tongue to said side walls, and inwardly bent flanges at the opposite edges of said side walls corresponding to said parts, substantially as described.

9. A metallic partitioning consisting of a plurality of metallic partition sections, each having substantially parallel side walls, a transverse wall connecting the same at one edge thereof and consisting of a tongue and inclined parts joining the tongue to said side walls, and inwardly bent flanges at the opposite edges of said side walls parallel to said inclined parts and corresponding in size thereto, substantially as described.

10. A metallic partitioning comprising a plurality of partition sections, each consisting of sheet-metal pressed to provide substantially parallel side walls and an integral transverse wall connecting the same at one edge thereof, the opposite edge of the section being open, and the transverse wall of each section having a part thereon adapted to enter said opening in the edge of another section, substantially as described.

11. A metallic partitioning comprising a plurality of partition sections, each consisting of sheet-metal pressed to provide substantially parallel side walls, an integral transverse wall connecting the same at one edge thereof, and inwardly extending portions integral with said side walls at the opposite edges thereof, the transverse wall of each section having a part formed therein adapted to enter the opening between the inwardly extending portions of an adjacent section, substantially as described.

12. A metallic partitioning comprising the combination of a plurality of partition sections, each consisting of sheet-metal pressed into form and interlocked with the sections adjacent thereto, and a molding on each side of said sections at the ends thereof, substantially as described.

13. A metallic partitioning comprising the combination of a plurality of partition sections, each formed of pressed sheet metal and having substantially parallel side walls and a transverse wall integral therewith, and a molding on each side of said sections at the ends thereof, substantially as described.

14. A metallic partitioning comprising the combination of a plurality of partition sections, each formed of pressed sheet-metal and having substantially parallel side walls and a transverse wall integral therewith, and a part at the end of said sections having a pair of parallel walls extending outwardly therefrom and spaced apart by the width of said sections, substantially as described.

15. A metallic partitioning comprising the combination of a plurality of partition sections, each formed of pressed sheet-metal and having substantially parallel side walls and a transverse wall integral therewith, and a part at the end of said sections consisting of a sheet-metal strip of U-shaped cross-section and sheet-metal strips having folds at the edges thereof extending over the edges of said strip, substantially as described.

16. A metallic partitioning comprising the combination of a plurality of partition sections, each formed of pressed sheet-metal and having substantially parallel side walls and a transverse wall integral therewith, and a post at the end of said sections formed of pressed sheet-metal and having at one side thereof a pair of outwardly extending parallel walls spaced apart by the width of the sections and at another side a projection forming a door jamb, substantially as described.

17. A metallic partitioning comprising a plurality of partition sections, each consisting of sheet-metal pressed into form and interlocked with the sections adjacent thereto, and a filler concealing the joints between adjacent sections along the lines of engagement thereof, substantially as described.

18. A metallic partitioning comprising a plurality of partition sections, each consisting of sheet-metal pressed to provide substantially parallel side walls and an integral transverse wall connecting the same, said sections being assembled edge to edge, and a filler concealing the joints between adjacent sections at the abutting edges thereof, substantially as described.

19. A metallic partitioning comprising a plurality of sheet-metal partition sections having substantially parallel side walls assembled edge to edge with said side walls under tension, substantially as described.

20. A metallic partitioning comprising a plurality of partition sections, each consisting of sheet-metal pressed to provide substantially parallel side walls and an integral transverse wall connecting the same, said sections being assembled edge to edge with said side walls under constant tension serving to prevent vibration thereof, substantially as described.

21. In a partitioning, a corner-post consisting of a U-shaped strip of sheet-metal and a strip of sheet-metal bent to provide a fold at one edge extending over one of the sides of said U-shaped strip and parts forming the side walls of the post, substantially as described.

22. In a partitioning, a corner-post consisting of a U-shaped strip of sheet-metal and a strip of sheet-metal pressed to provide folds at its lateral edges, each adapted to overlie one side of such U-shaped strip, and parts intermediate said folds forming the side walls of the post, substantially as described.

23. In a partitioning, a corner-post consisting of a U-shaped strip of sheet-metal and a strip of sheet-metal pressed to provide a fold at one edge extending over one of the sides of said U-shaped strip, parts forming the side walls of the post, and a projecting portion on one of said side walls forming a door jamb, substantially as described.

24. In a partitioning, a corner-post consisting of a U-shaped strip of sheet metal and a strip of sheet-metal pressed to provide folds at its lateral edges, each adapted to overlie one side of such U-shaped strip, and parts intermediate said folds forming the side walls of the post, the opposite side walls of the post being curved laterally, substantially as described.

This specification signed and witnessed this 17th day of November, 1906.

EDWARD G. BUDD.

Witnesses:
P. J. TUCKER,
M. GETZ.