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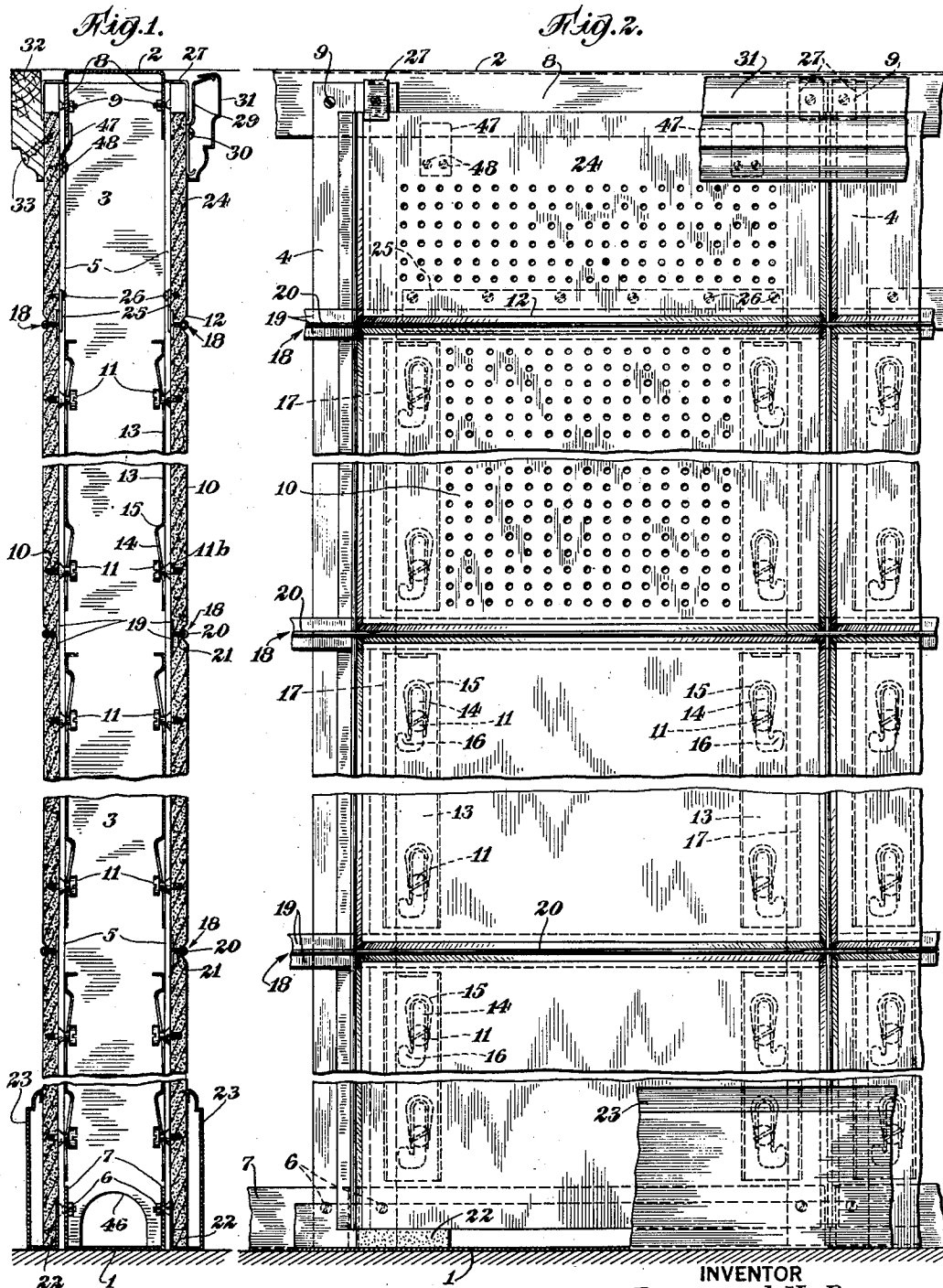
R. V. PARSONS

2,010,412

WALL STRUCTURE

Filed Jan. 29, 1932

3 Sheets-Sheet 1



INVENTOR  
Raymond V. Parsons.  
BY *D. V. Hahstead.*  
ATTORNEY

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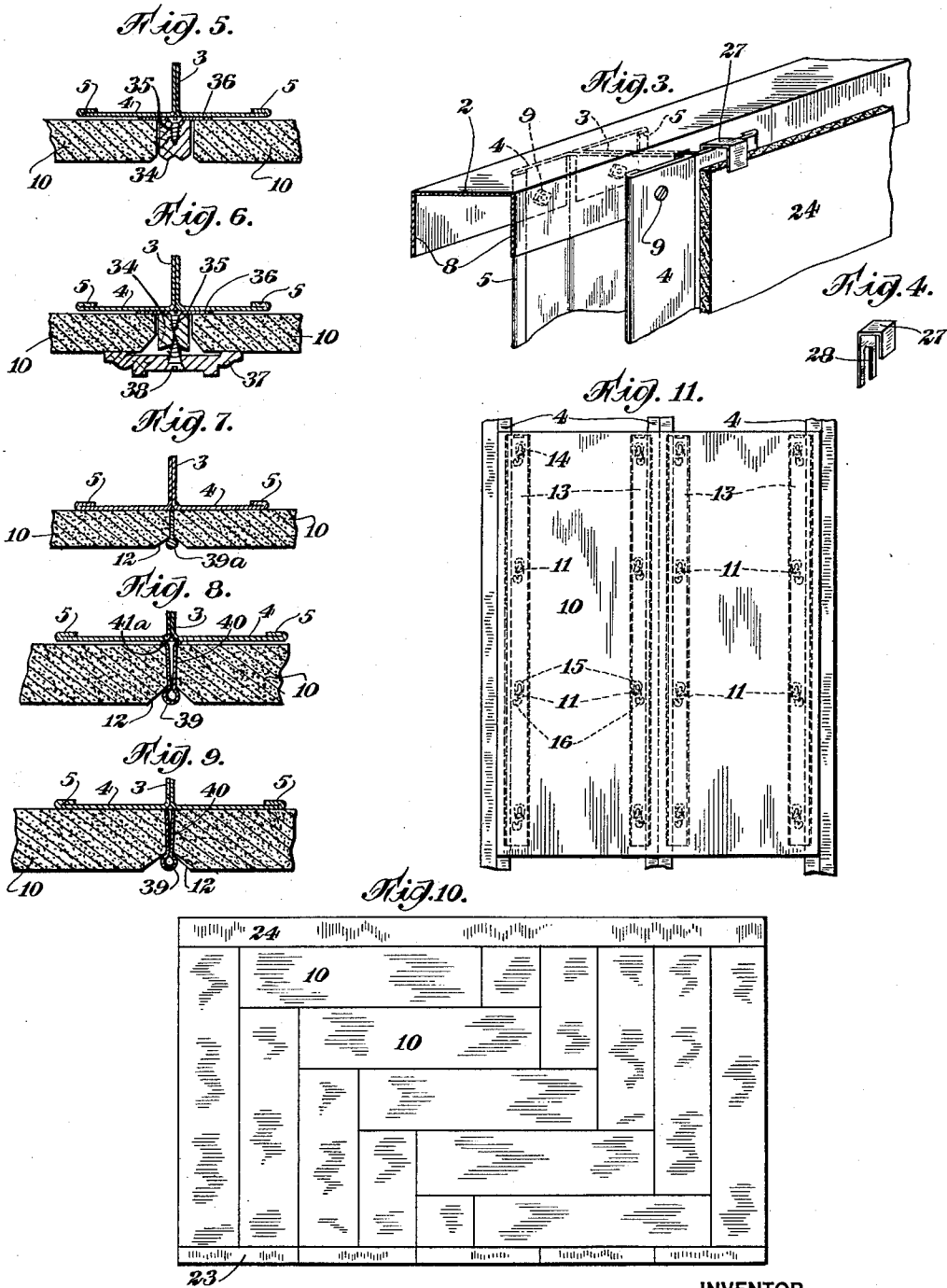
R. V. PARSONS

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WALL STRUCTURE

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3 Sheets-Sheet 2



INVENTOR  
Raymond V. Parsons.  
BY *D. M. Halstead*  
ATTORNEY

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R. V. PARSONS

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WALL STRUCTURE

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3 Sheets-Sheet 3

*Fig. 12.*

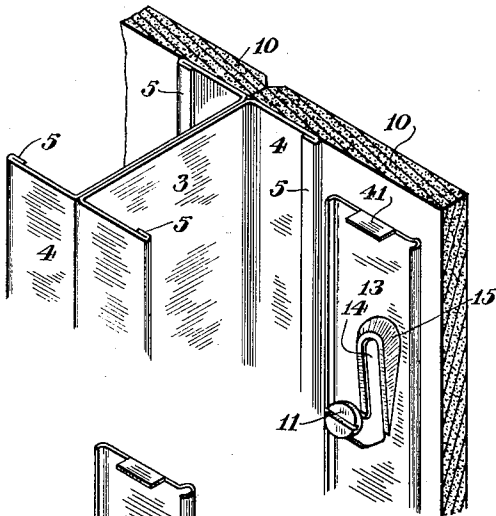


*Fig. 13.*

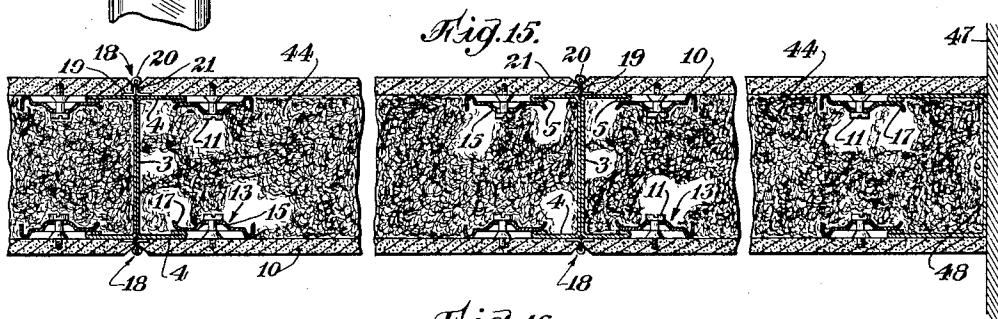
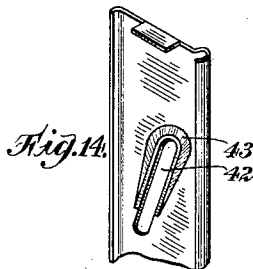
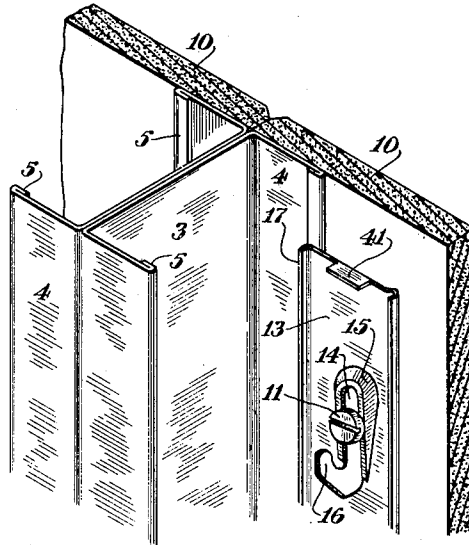
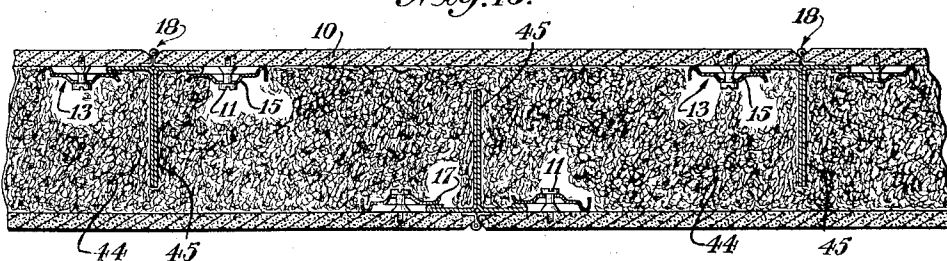


*Fig. 16.*



INVENTOR  
*Raymond V. Parsons.*  
BY *D. H. Halstead.*  
ATTORNEY

## UNITED STATES PATENT OFFICE

2,010,412

## WALL STRUCTURE

Raymond V. Parsons, New York, N. Y., assignor  
to Johns-Manville Corporation, New York,  
N. Y., a corporation of New York

Application January 29, 1932, Serial No. 589,723

14 Claims. (Cl. 72-46)

This invention relates to a wall structure, and particularly to one comprising discrete units of facing or finishing material. A preferred embodiment of the invention is a building partition comprising a supporting substructure and units of stone-like material attached to the supporting substructure by concealed securing means.

The objections to plastered walls, and particularly to plastered partitions in office buildings, are widely recognized. Thus, the owner of an office building frequently finds it expensive and inconvenient to move plaster partitions, to suit the changing needs of the occupants of the building, or to obtain access to electrical conduits, telephone cables, or the like in the interior of such a partition.

Unitized structures have been proposed as substitutes for plaster walls or partitions. To these, also, there are disadvantages. Many of the unitized structures are flimsy, contain light-weight panels or facing units that are easily set in vibration by sound waves, and have cracks between the various units, through which air may circulate. When the cracks are closed by a cementitious material, such as plaster applied over the units, the wall may vibrate as a whole and thereby give very poor sound insulating properties to the structure. In many cases, the fasteners which secure the units of facing material to the substructure are visible, as, for example, nails or screws driven through the units and into rearwardly disposed studding. In some cases, the fasteners proper are placed behind the units of facing material but are made accessible by means of perforations or other visible markings of the unit. In still other cases, the fasteners, or the means by which access to them is secured, are covered by a coating of plaster which protects them from view. Such use of plaster does not obviate the inconvenience or the undesired acoustical effect thereof, both of which a preferred wall structure should avoid. A further expedient which has been used, to avoid visible securing means, is the application of a glue to the back of a facing unit and then adhesively securing the unit to a supporting substructure.

An object of the present invention, in one embodiment thereof, is to provide a new type of wall or partition for buildings, comprising standardized preformed studs and facing units which may be assembled or erected in a building, with a minimum amount of labor and inconvenience and without the need of plastering to close the joints or conceal fastening members, and which

may be completely dismantled and then reassembled or erected without appreciable loss of constituent parts. A further object is to provide such a wall of satisfactory sound insulating qualities. Another object is to provide a multiple unit wall comprising assembled units of facing material with an expansion joint between adjoining units, said expansion joint being adapted to close the crack between the units without uniting the various units into a structure adapted to vibrate as a whole. Another object is to provide a filling for such a wall that will damp sound vibrations and, suitably, provide also effective thermal insulation. A further object is to construct such a wall of relatively large facing units and to secure them to a supporting substructure by securing means that are completely concealed from view and are adapted to hold the units not only at corners, but also at intermediate points, firmly against the supporting substructure. Another object is to provide an interior finish for buildings, in standardized unit form, which may be painted or decorated before installation in the building wall, that is, prefinished, so that no painting or decoration need be applied after the wall has been erected. Other objects and advantages will appear from the detailed description that follows.

The invention is illustrated in the drawings, in which

Fig. 1 shows a vertical cross section of a wall assembly that represents a preferred embodiment of the invention.

Fig. 2 represents a front view of a wall assembly similar to that shown in section in Fig. 1.

Fig. 3 shows in some detail a perspective view of that portion of an assembly at the top of a partition constructed in accordance with the invention.

Fig. 4 shows a perspective view of a U-shaped clip adapted to be slipped over an edge of the frieze strip of facing material and an edge of the flange face of a studding.

Fig. 5 shows a longitudinal section of a portion of one face of a wall and a part of the supporting substructure, illustrating a structure in which the sealing member between two adjacent facing units is of wood.

Figs. 6-9 are similar views showing different modifications of the sealing member.

Fig. 10 is a diagrammatic front view showing a modified form of arrangement of rectangular units of facing material in a wall assembly.

Fig. 11 is a front view of a portion of a wall assembly constructed in accordance with the in-

vention and illustrating a modification in which the facing unit is maintained in contact with the supporting substructure not only along the two vertical edges of the unit, but also at intermediate positions.

Fig. 12 is a perspective view showing a unit of facing material provided with a fastening element (screw or bolt) attached to its backside and a clamping strip provided with a slot, engaging the stem of said fastening element, with the clamping strip in release position with respect to an adjacent I-stud.

Fig. 13 is a perspective view illustrating the method of attachment of a unit of facing material to the edge of the flange face of a metal I-stud, by the means illustrated in Fig. 12 but with the clamping strip in engagement with the edge of a flange face of the studding.

Fig. 14 shows a modification of the slot in the clamping strip.

Fig. 15 shows a horizontal cross section of a hollow partition structure in which the space between the facing units, on the two sides of the supporting substructure, is filled with a material adapted to damp vibrations of the wall.

Fig. 16 shows a horizontal sectional view of a similar partition structure in which the I-studs of Fig. 15 are replaced by T-studs faced alternately in opposite directions and so arranged that any given studding is in contact with only one face of the wall, whereby the transmission of vibrations through the wall by means of the studding is minimized. The studding supporting one face of the wall, in this structure, is independent of that supporting the other face.

In the various figures, like reference characters denote like parts.

There is illustrated a wall assembly comprising a floor plate or channel sill 1, a channel ceiling head plate 2, upright metal studding in the form of I-beams with web member 3, flange faces 4, and crimped or turned over edges 5. The studding, or I-beam, is attached at the lower end to the floor plate, in conventional manner, as by means of screws or bolts 6 inserted through countersunk holes in the flange face of the studding and holes registering therewith in the upwardly extending flanges 7 of the channel sill. At the upper end, the I-stud is attached, as by means of bolts 9, to the downwardly extending flanges 8 of the head plate. The web member of the upright I-studs may be cut away at the lower ends to leave a space 46 suitable for receiving electrical or other conduits. Over this supporting substructure there are maintained facing units (units of finishing material) 10, by securing means which are concealed in the finished wall. These securing means include, for example, the clamping member or strip 13 and a bolt or screw 11 provided with a head and a stem. The stem may be threaded and screwed tightly into a preformed hole in the back of the unit of facing material. Also, the stem may have a shoulder 11-b which, in the finished assembly, rests on one side against the back of a unit of facing material, and, on the other side, against the clamping strip 13. These fastening elements are engaged in the assembly by means of a plurality of slots 14 in the clamping strip 13. The slots in the clamping strip may be provided with embossed edges 15, which are sloped in longitudinal section, that is, have the rear edges of the slot incline with respect to the general plane of the clamping strip, and suitable also with a side extension or portion 16, constituting one end of said slot, which is nearer to

the edge of the clamping strip than the other end of the slot, whereby the clamping strip or member may be caused to slide over or recede from an edge of the flange face of the studding by changing the position of the fastening element in the slot, as illustrated in Figs. 12 and 13. The edge 17 of the clamping strip may be turned up slightly to permit it the more readily to slide over or engage the edge 5 of the flange face of the studding. Also, the other edge of the clamping strip may be turned back to give a strip of cross section roughly that of a channel, for the purpose of making the clamping strip more resilient and resistant to transverse bending.

The facing units may have beveled edges 12.

The joint between adjacent facing units may be closed, in such manner as to provide reduced passages for circulation of air, by an independent sealing or separator member 18 which, in a preferred embodiment of the invention, is one-piece and has a portion back of the facing units and also a portion in front of the facing units that are each wider than the space between the facing units, and has a web member extending through the space between the facing units. Thus, the sealing member may consist of a T-shaped piece of metal with the flanges 19 of the T placed behind and fitting snugly against two adjacent facing units, a web member 21, and a small bead 20 at the exposed edge of the T in front of the said units, whereby accidental slippage of the T-shaped member out of position is prevented and the sealing member tends to maintain adjacent units of facing material in alignment and reinforces horizontal joints between the panels. The separator member is disposed between the edges of adjacent panels and is independent of the panels, that is, not secured directly thereto.

While the wall structure is designed to rest upon a floor, the leveling bars or members 22 may be inserted under the edges of the facing units for purposes of leveling on an uneven support or for convenience in the installation of the base boards 23, which may be metal base boards or others of conventional pattern and mode of attachment.

At the upper edge of one side at least of the wall or partition there is inserted a finishing strip 24, hereafter referred to as the frieze strip. This strip may be of the same material as the other facing units but is preferably attached in such manner, on one side of the wall at least, that it may be removed from a forward position, thereby permitting access to the upper end of the clamping strip 13 and the interior of the wall or partition. Thus, the frieze strip 24 may be maintained in position at its lower edge by means of lugs or the metal bar or flange 25, attached to the back of the lower edge of the frieze strip, as by the screws 26 and projecting over the said lower edge of the frieze strip and also over and behind the supporting upper edge of the immediately underlying facing unit. At its upper edge the frieze strip is maintained in position, against the flange face of the studding, by means of a U-clip 27 which is engaged by slipping over the upper edge of the frieze strip and an end of a flange face of the supporting studding. This clip may have a slot 28 in the back leg thereof, to permit the clip's slipping past the bolt 9 which secures the upper end of the studding to a flange of the channel ceiling head plate.

After the frieze strip is secured in place, the U-clip described may be concealed from view by attaching a molding clip 29, by means of a screw 30, to the upper portion of the frieze strip and

then inserting a conventional metal molding 31 over the molding clip 29. Or, the U-clip may be concealed by means of a molding strip 32 which may be attached by the screw 33 to the frieze strip.

In the modification shown in Fig. 5 a sealing strip of different pattern from that described previously is used to close the space or to provide ornamentation between the adjacent facing units.

Thus, the sealing strip 34 may be of wood and may be maintained in position by means of the screw 35 which passes through a hole in a rearwardly disposed metal plate 36 and into the wood.

Or, the sealing strip may take the form illustrated in Fig. 6, in which a covering plate 37 extending completely over the joint is attached by means of screw 38 to the wood strip 34 above referred to, or the form of a metal strip with head 39a, illustrated in Fig. 7.

Modifications of the sealing strip which may be readily inserted from the front are illustrated in Figs. 8-9. These sealing members may consist of resilient metal strips provided with a bead 39 and flexible legs 40, suitably with outturned heels 41a, adapted to engage themselves by spring action behind the units of facing material.

The modified forms of sealing strips shown in Figs. 5-9 are not preferred at this time. On the other hand, the T-form, Figs. 1 and 2, is preferred, in part, because of its strong but resilient locking action on the edges of the sheets and of other features that will be discussed later.

It will be noted that the embossed edges of the slots in the clamping strip may be wedged tightly between the head of the bolt or screw 11, the edge of the flange face of the studding, and back of the facing unit. The clamp may be driven into this wedging position, as by pounding with a hammer on the lug 41, at the upper end of the clamping strip. This lug 41 (see Figs. 12 and 13) may be used also as a means of engagement of a tool for lifting the strip from the clamping position, that is, for lifting the strip until the fastening elements 11 occupies a position in a leg or side extension of the slot at position 16 or the lower end of the slot 42 (Fig. 14), whereby the clamping strip is caused to recede from the flange face of the studding.

A modification of the slot is illustrated in Fig. 14, in which the length of the slot 42 is at an angle to the length of the clamping strip, whereby the two ends of the slot are spaced at different distances from the edge of the clamping strip which, in the finished assembly, engages an edge of an I-stud. The slot has the embossed edge 43.

In Fig. 15 there is shown a longitudinal section of a hollow partition constructed as described and comprising supporting rigid metal studding and stone-like discrete facing units 10 on both sides of the partition. The facing units define a space between them, which may be filled with a material 44 adapted to damp sound vibrations of the facing units, as, for example, with asbestos fibers, mineral wool, or other material which en masse is non-vibratory and which is suitably incombustible and light in weight.

In Fig. 16 is shown a similar structure in which the studs 45 are T's and are not continuous from one face of the wall to the other. The filling of vibration damping material, coupled with the fact that independent studs are used for the facing units of either side of the partition and are unattached to the facing units of the other side, that is, are in contact with only one face of the wall, minimizes the transmission of sound vibra-

tions through the studding, from one face of the wall to the other.

In the structures shown in Figs. 15 and 16 the filling of vibration damping material may be omitted if its effect is not desired.

In Fig. 10 there is illustrated diagrammatically one of the numerous patterns in which the facing units may be arranged. The figure shows that the units 10 may be arranged with their longer dimensions either vertical or horizontal, for example. When the units are very extensive in a longitudinal direction, it is desirable that they should be supported not only along the vertical edges, as illustrated in Fig. 2, but also at intermediate positions, as illustrated in Fig. 11.

The channels are suitably constructed of 16-gage cold rolled steel, with flanges one inch wide and back or web member  $2\frac{3}{8}$  inches wide. The studs may consist each of two  $1\frac{1}{4}$  inch by 3 inch, 20-gage channel irons bolted together at their backs, to form light but rigid I-beams.

The base boards may be of the same material as the facing units, as, for example, asbestos and cement board, and may be applied in a usual manner, as by screws. Or the base boards may be the metal structure described.

The method of assembling a wall or partition from the parts described should be evident from the description that has been given. However, the following additional statements describing an optional method may be of interest.

The various parts may be preformed and provided with the necessary holes and other features or accessories, before the assembly is begun. The studs are first laid on the floor and attached, at what is to be the upper end in the finished assembly, to the channel ceiling head plate and, at the other end, to the channel sill. The assembly is then erected and the channel sill is bolted, screwed, or otherwise attached to the floor at the place which is to be the base of the partition. The end studding of the assembly are then plumbed and the channel ceiling head plate bolted or otherwise attached in conventional manner to the ceiling above. Next, the facing units are equipped with the fastening elements or bolts 11 and the clamping strips. The first facing unit applied may well be at a lower corner of the partition. When this unit has been clamped against the studs, sealing members may be applied to its two exposed edges, and additional facing units installed, beginning either at one side or above the first unit. When the units have been erected to within a few inches, suitably 6 inches, of the ceiling, then the frieze strip is inserted, with the flange or lugs along the lower edge of the unit engaged behind the top edge of the immediately underlying unit of facing material and with the U-clip, which has been described, slipped over the top edge of the frieze strip and also over the upper end of the flange face of the studding. Since the flange face of the studding has its edges turned back or crimped, there is left a small slit or narrow space between the back of the flat portion of the flange face of the studding and the channel ceiling head plate, when the flange face of the studding is outside the flanges of the channel, as illustrated in Fig. 3. In this slot the back leg of the U-shaped clip may be engaged with danger of slipping to one side of the face of the studding eliminated. The molding and the base board may then be installed in conventional manner. It will be understood that the clamping strips on any facing unit are pushed or driven into clamping position before the next

overlying unit is inserted in the wall. The clamping strip may be manipulated by hand, if necessary, to bring the various slots of the clamping strip into position for moving the strip into the clamping position.

At the junction of a dividing partition wall with another wall 47, Fig. 15, or with another partition or at the end of a partition, a channel iron 48, similar to the ceiling and floor channel plates, may be erected; the flanges thereof are turned towards the partition and inside the flange faces of the last studding, to which flange faces the flanges of the channel plate are secured, as by screws. Or, the channel may take the place of the last studding, in which case the clamping strip on the adjacent facing units engage the edges of the flanges of the channel, as illustrated in Fig. 15.

The facing units are preformed and may be also prefinished, as by painting, veneering, or, in some cases, papering, before the wall is assembled. In installing the clamping strips on the inside face or back of the facing units, clamping strips are laid on the top of the facing units, and the stems of large head machine bolts or screws are inserted through the preformed slots in the clamping strips and then screwed firmly into preformed holes in the facing material until the flange or shoulder on the stem of the machine bolt rests against the inside face of the facing unit. The thus equipped facing units are next place against the metal studs, lined into their predetermined positions, each row of clamping strips is raised from its resting or release position on the machine bolts or screws and shifted so that the flange of the clamping strip rests upon an inside face of a flange or a metal stud. Then the clamping strip is pushed or driven down until the desired tension between the head of the machine screw or bolt and the embossed slot is obtained.

When the clamping strip is released, as by being pulled upward, the fact that the lower end of the slot is nearer the engaging edge of the clamping strip than is the other end of the slot causes the clamping strip to recede from the edge of the studding. Also, during this releasing of the clamping strip, the shoulder 11b on the stem of the fastening element, such as the machine screw above referred to, coacts with the sloping edge of the slot and causes the clamping strip to recede from the facing unit, whereby loosening of the clamp is facilitated.

To disassemble a partition or wall constructed as described, it is only necessary to remove the moulding, as with a screw driver, raise the U-clip above the edge of the frieze strip, and then lift frieze strip out of position. Once this is done, the concealed clamping strip becomes accessible and the remainder of the partition may be disassembled. The thus obtained parts are not injured by having been assembled and disassembled and are available for use, as in a different location where such an assembly may be desired.

When it is desired to have one side of the wall assembly so constructed that the wall cannot be taken down or unlocked from that side, as is the case when the assembly is a partition between an office and a more or less public hallway, the U-clip which engages the upper edge of the frieze strip in the structure described may be supplemented, in one side of the assembly, by a lug 47 extending behind the lower edge of a flange of the ceiling head plate and attached to the upper part of the frieze strip or unit, as by the

screw 48 (Fig. 1) which is accessible only from the other side of the assembly. In such a case, disassembly of the structure is possible only when undertaken initially, that is, begun, from the side in which the U-clip has not been substituted as described.

The facing units may consist of any of a large number of materials. The composition which is preferred at this time is an asbestos wall-board, made by mixing asbestos fibers with Portland cement and water, shaping the mixture into boards or panels, compressing the shaped articles, and allowing them to set. Such a product in  $\frac{1}{2}$  inch thickness weighs about 5 pounds per square foot. Other compositions may be used. Such other compositions are preferably heavy and stone-like. Other materials that may be used are glass plates, sheet metal, preferably sufficiently thick to be rigid and heavy, enameled sheet metal, metal encased boards, mirrors set in panels, pre-formed cement composition boards, and the like.

It is evident that the facing units may be of various sizes. For instance, if the studs are on 24 inch centers and the room is 11 feet 6 inches high, a single facing unit approximately 24 inches wide by 11 feet long may be erected vertically to leave a 6 inch opening between the top of the facing unit and the ceiling. In this case the clamping strip may run the full length of the facing unit, with slots spaced throughout the length of the clamping strip, each slot engaging the inside face of the head of a machine screw or bolt. The fact that the clamping strip is resilient and at the same time resistant to permanent bending or distortion makes it possible to hold the facing unit firmly along the face of the studding, along substantially the entire edge of the facing unit.

Wall structures made in accordance with this invention have a number of important features.

Such a wall, and I use the word "wall" to include partition, has desirable acoustical properties. The heavy units of stone-like material, such as the asbestos and cement facing units, are not readily set in vibration by sound waves. The units may be imperforate, that is, have no perforations in connection with the means for securing the units to the substructure.

The sealing member or expansion joint between the various units allows for expansion or contraction of the units, without leaving undesirable large spaces for the passage of air or causing cracking, as would be the case if the joints were sealed with plaster. In addition, this member conceals any irregularity of edges of the panels and makes possible the decorative treatment of the joints. Further, the sealing members, particularly the T-shapes, being one-piece, from front to back, being locked between the edges of adjacent facing units, and having enlargements or widened portions fitting snugly in front and also behind the facing units, serves also to keep the units in alignment and the structure more stable than it would be otherwise. Such a member is to be distinguished from a compound clip of little holding power in which a forward portion may be yieldably engaged in a rear portion.

Another important feature of the invention, in a preferred embodiment thereof, is the fact that the sealing member, while closing the joint, does not unite the various facing units into a whole that may vibrate as an integral diaphragm. In

the finished wall the facing units remain unattached to and out of contact with each other, that is discrete, in distinction to the condition which prevails when the panels abut or contact with each other or when the cracks in a wall assembly are closed by a cementitious material which attaches itself to the edges of the facing units and makes a more or less integral wall facing, adapted to vibrate as a whole.

The advantage of having all fastening means rearwardly disposed with respect to the facing units and concealed from view should be evident from the standpoint of appearance of the finished structure. The fastening or securing means have other advantages in addition to being concealed. The sloping edges of the slots make possible a wedging action to secure the facing units firmly against the edges of the flanges of the studs. The clamping strips, which are suitably of thin metal, are resistant to shearing stress and bending, as well as resilient, because of their dished or formed cross section, which may approximate that of a channel iron.

The ease of assembly is an important advantage of the structure. All parts may be factory fabricated and sized. Actual time study tests have shown that partitions of this nature may be erected very quickly and taken down even more quickly, without injury to the parts. Thus, a partition of the class described may be erected at the rate of 30 square feet per man/hour.

The space 46 (Fig. 1) in the lower end of the studding permits the ready installation of electrical conduits, telephone cables and the like.

Since the wall is hollow, that is, has a space between the units constituting the two faces of the wall, a filling material may be used to advantage. When the filling material used is a light-weight, porous material, such as mineral wool, rock wool, asbestos fibers, or diatomaceous earth, effective thermal insulating walls are produced. Also, such materials, giving inelastic masses, are effective vibration damping materials. Thus, while sound waves striking the wall would be largely deflected initially, because of the difficulty of setting in vibration the heavy facing units on a rigid support, any vibration set up would be effectively damped or deadened by contact of the faces with the inelastic filling behind such units.

When it is desired to convert the structure containing a fibrous or other filling that is permeable to sound waves, into one that is sound absorbing, this may be done readily, as by substituting all or part of the facing units described by units perforated at close intervals, that is, in a manner to admit incident sound. Sufficient sound absorption for many purposes is obtained when the facing units of the frieze strip are perforated, as indicated in the units 49 (Fig. 2). These may be supplemented by other closely perforated facing units 50. Such a wall is effective not only in sound absorbing but also thermal insulating, the one filling, such as mineral wool, serving both to absorb sound and minimize the flow of heat. With a three inch filling of mineral wool between the two faces of the hollow wall, there may be made a structure with heat transmission of less than 0.1 British thermal unit per square foot per hour per 1° F. temperature difference between the hot and cold faces of the wall and with sound absorption in excess of 80% of that incident upon the perforated units. The two-fold utility of the filling makes possible that the wall may be light in weight, as well as easily

assembled from preformed units or disassembled, in addition to the other desirable features mentioned.

The term "imperforate" as used herein refers to the absence of holes or other means of access, through the facing units, to the rearly disposed securing means.

Since the details given are for the purpose of illustration and not limitation of the invention, it is intended that the invention should be limited only by the terms of the claims.

What I claim is:

1. A wall of minimized tendency to vibrate as a whole comprising a supporting substructure, preformed stone-like facing units supported in non-contacting relationship to each other upon the substructure, and independent separator members disposed between the edges of adjacent panels, closing the joint therebetween, and minimizing the transmission of vibration between adjacent panels.

2. A wall of minimized tendency to vibrate as a whole comprising a supporting substructure, preformed stone-like units supported on either side of the substructure, lying in the two faces of the wall, and defining a space between the said faces, vibration-damping material of the type of a fibrous filling disposed within the said space and in contact with the panels, and independent separator members disposed between the edges of adjacent panels in one of the said faces.

3. A wall comprising preformed stone-like discrete facing units and independent studs, supporting the facing material on either side thereof, the studs supporting the units on one face of the wall being unattached to the facing units of the other side of the wall, whereby the transmission of sound vibrations through the wall is minimized.

4. In a building wall comprising preformed facing units, a supporting substructure including studs with flanged faces, and securing means for maintaining the facing units on the substructure, the improvement including securing means comprising a fastening element attached to the back of a facing unit and a clamping member provided with a slot slidably engaging the fastening element and having a portion slideably engaging an edge of the flanged face of a stud.

5. In a building wall comprising preformed facing units, a supporting substructure including studs with flanged faces, and securing means for maintaining the facing units on the substructure, the improvement including securing means comprising a fastening element provided with a head and with a stem attached to the back of a facing unit and a clamping member provided with a slot slidably engaging the stem of the fastening element and having a portion engaging an edge of the flanged face of a stud, the said slot having an embossed edge adapted to be wedged tightly behind the head of the said element.

6. In a building wall comprising preformed facing units, a supporting substructure including studs with flanged faces, and securing means for maintaining the facing units on the substructure, the improvement including concealed securing means comprising a fastening element provided with a head and with a stem attached to the back of a facing unit and a clamping member provided with a slot slidably engaging the stem of the fastening element and having a portion engaging an edge of the flanged face of a stud, the said slot having an embossed edge

adapted to be wedged tightly behind the head of the said element and the two ends of the slot being at different distances from the side edges of the clamping member, whereby the clamping member may be caused to slide over or recede from an edge of the flanged face of the stud.

7. A clamping member suitable for use in an assembled wall including supporting studs with flanged faces, facing units, and a plurality of pins attached to the back of each of the said units, the said clamping member comprising a metal strip, of formed cross section, provided with a plurality of slots with sloping edges adapted to engage the said pins and having an edge portion adapted to engage a flanged face of a stud, whereby the clamping member is adapted to maintain the facing unit firmly against the face of the stud along substantially the entire length of the facing unit.

8. A wall assembly comprising a supporting substructure including studs with flanged faces, preformed facing units, fastening pins provided each with a head and a stem attached to the back of a facing unit, and clamping strips provided each with a slot with embossed edges sloped in longitudinal section and slidably engaging a stem of one of the said pins, the stems of the fastening pins having each, means disposed adjacent to a facing unit adapted to cause the clamping strip, in being released, to recede from the facing unit.

9. A building wall assembly including a floor plate, a ceiling head plate, upright metal studs engaged at either end by the said plates and having each flanged faces, preformed facing units, fastening elements secured each to the back of one of the facing units, and clamping strips disposed behind the facing units and engaging each at least one of the said fastening elements and also an edge of the flanged face of a stud.

10. A building wall assembly including a floor plate, a ceiling head plate, upright metal studs engaged at either end by the said plates and having each a web member and flanged faces, preformed facing units, fastening elements secured each to the back of one of the facing units, clamping strips disposed behind the facing units and

engaging each at least one of the said fastening elements and also an edge of the flanged face of a stud, and a frieze strip removably secured over the uppermost portion of the assembly.

11. In the structure described in the preceding claim, the improvement comprising a substantially U-shaped clip adapted to be engaged by slipping over the top edge of the frieze strip and the end of a flanged face of a stud, whereby the frieze strip is maintained against the face of the stud and in alignment with the facing units of the lower portion of the wall.

12. In the structure described in claim 10, the improvement comprising a metal lug secured to the lower portion of the back of the frieze strip and projecting behind the upper edge of the immediately underlying facing unit, and a substantially U-shaped clip engaged over the top edge of the frieze strip and the end of a flanged face of a stud, whereby the frieze strip is maintained against the face of the stud and in alignment with the lower facing units.

13. A partition assembly of the class described comprising a supporting substructure, facing units, means for maintaining the facing units on the two sides of the supporting substructure, and a frieze strip or the like that is removable from a forward position on one side only of the partition, whereby there is provided a partition that may be disassembled initially from that one side only.

14. A partition assembly of the class described comprising a supporting substructure, facing units, means for maintaining the facing units on the two sides of the supporting substructure, to form the lower portion of the partition, a frieze strip, fastening means secured at one part to the lower portion of the frieze strip and at another part engaged behind the face of the said lower portion of the partition, and means holding the frieze strip at an upper part thereof against the said substructure, the said assembly being adapted to be disassembled only by removing first the frieze strip, and the frieze strip being removable from a forward position on one side only of the said partition.

RAYMOND V. PARSONS.