June 27, 1967 J. D. LINCOLN 3,327,448

TWO-PIECE UPPER MOLDING

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FIG. 1

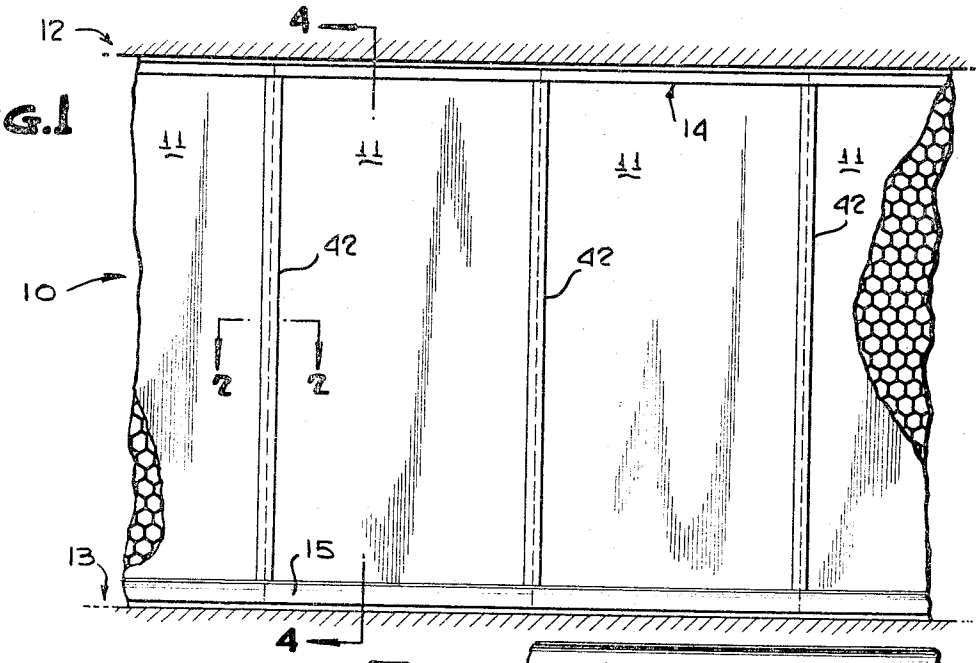
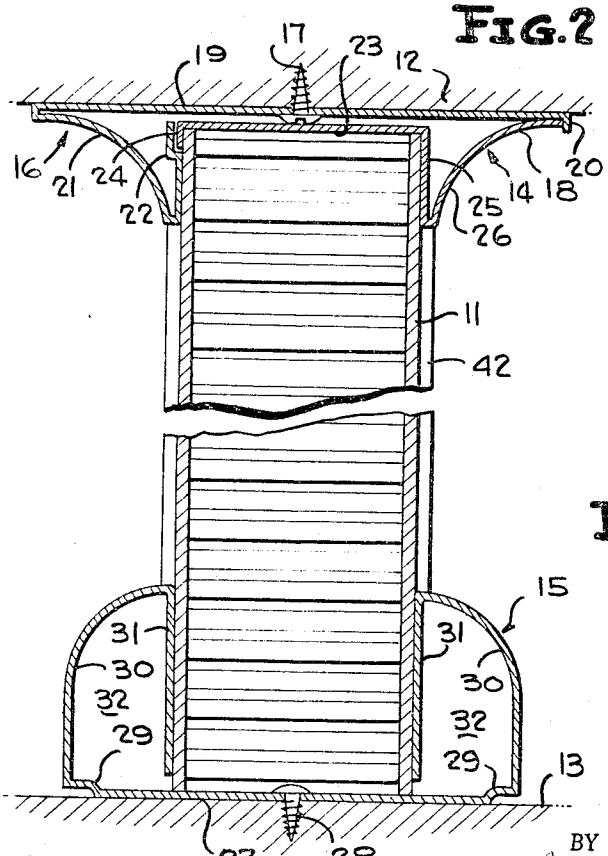


FIG. 2



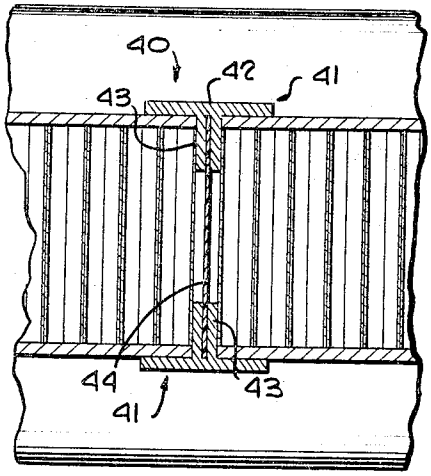


FIG. 3

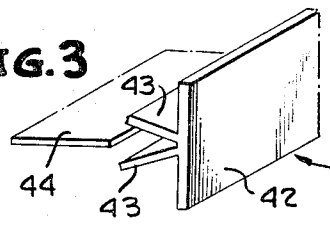


FIG. 4

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TWO-PIECE UPPER MOLDING

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FIG. 5

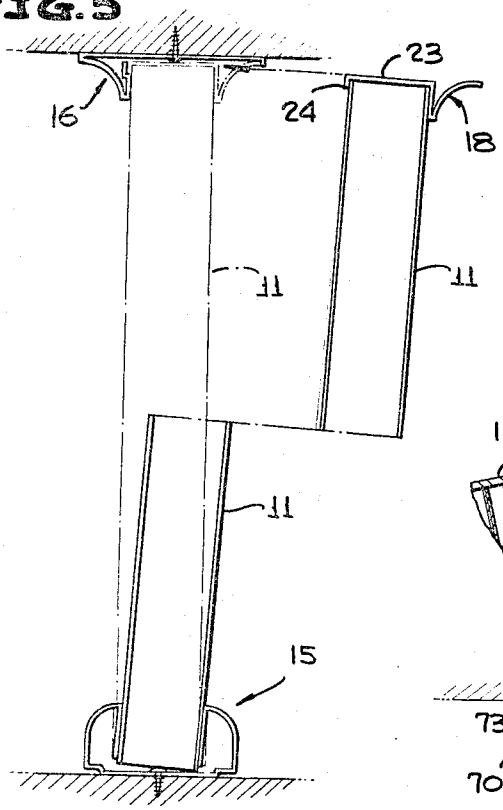


FIG. 8

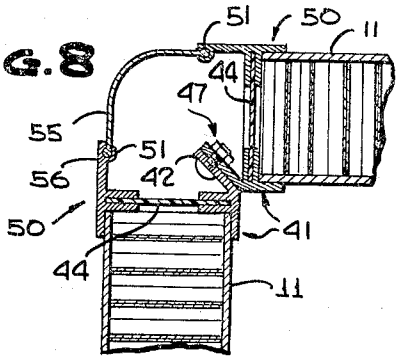


FIG. 9

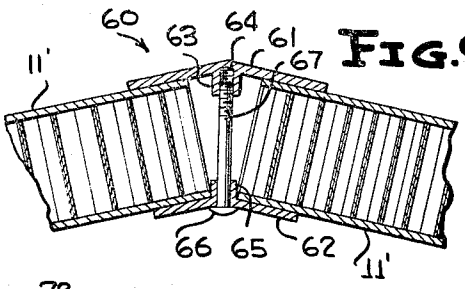


FIG. 10

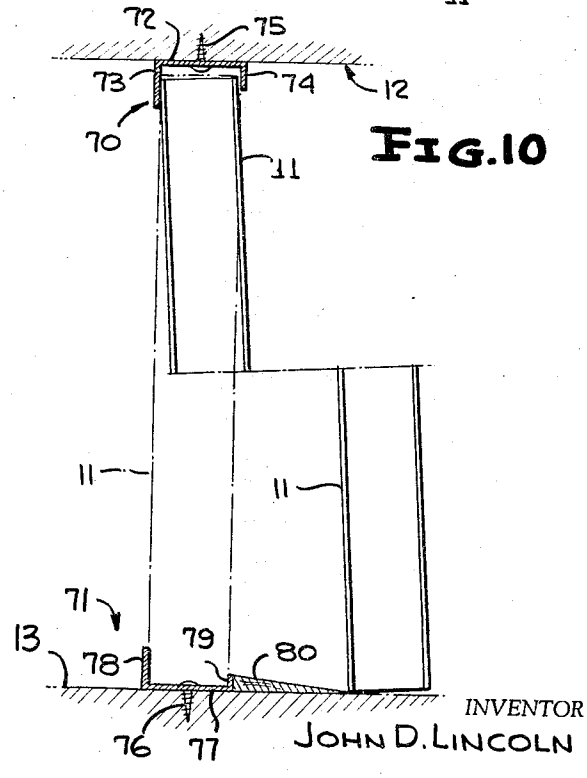
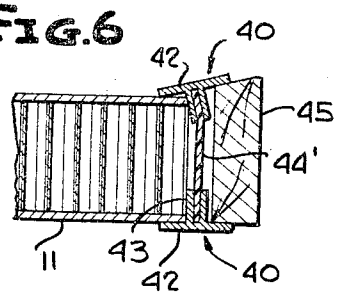


FIG. 6



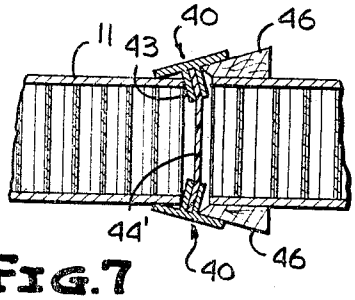


FIG. 7

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TWO-PIECE UPPER MOLDING

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Filed June 28, 1963, Ser. No. 291,414
2 Claims. (Cl. 52—732)

This invention relates to an improved metal molding formation for holding honeycomb wall panels, and in particular to novel ceiling and floor moldings for wall panels.

An object of this invention is to provide novel moldings for a floor and ceiling for fixedly positioning wall panels thereto.

With the above and other objects in view that will hereinafter appear, the nature of the invention will be more clearly understood by reference to the following detailed description, the appended claims and the several views illustrated in the accompanying drawings:

In the drawings:

FIGURE 1 is a fragmentary elevational view of a wall constructed of a plurality of wall panels held in vertical alignment by floor and ceiling molding, and adjacent panels being connected by a seam cover-strip.

FIGURE 2 is a horizontal cross-sectional view taken along line 2—2 of FIGURE 1 and illustrates the I-shaped seam cover-strip connecting together a pair of adjacent panels.

FIGURE 3 is a fragmentary perspective view of one T-shaped section of the I-shaped cover-strip shown before the section is joined to a flexible or resilient web section.

FIGURE 4 is a vertical cross-sectional view taken along the line 4—4 of FIGURE 1 and illustrates a two-piece molding attached to the ceiling and a one-piece molding attached to the floor for vertically securing a wall panel, intermediate panel portions being broken away.

FIGURE 5 is a side elevational view of a partly raised wall panel illustrating one manner of positioning the wall panel in place.

FIGURE 6 is a fragmentary view of a panel and a wedge and illustrates one form of preparing the panel and seam cover-strip for shipment from the factory.

FIGURE 7 is a fragmentary view of a pair of adjacent wall panels, a seam cover-strip and a pair of wedges and illustrates one manner of spreading the flanges of the cover-strip to facilitate the joining of adjacent panels.

FIGURE 8 is a fragmentary horizontal cross-sectional view of a corner formed by adjacent wall panels and illustrates one manner of securing the panels together and one form of corner closure piece having bulbed edges snapped into receiving slots in a seam cover-strip.

FIGURE 9 is a fragmentary cross-sectional view of a shallow inverted V-shaped roof section formed of panels, and a modified form of a seam cover-strip.

FIGURE 10 is a fragmentary vertical cross-sectional view similar to FIGURE 4 and illustrates a different form of floor and ceiling moldings and a small wedge member for facilitating the placement of the bottom of a wall panel into the floor molding.

Referring to the drawings in detail, FIGURE 1 shows a portion of a wall **10** formed of a plurality of honeycombed wall panels **11** which are held in a vertical plane between a ceiling **12** and a floor **13** by an upper or ceiling molding **14** and a base or floor molding **15**.

The upper molding **14** and base molding **15** are shown in more detail in FIGURE 4. It will be seen that the upper molding **14** is of two-piece sectional construction having a fixed section **16** secured to the ceiling **12**, by screws **17** or similar securing means, and a separate section **18** carried by the wall panel **11**.

The fixed section **16** of the upper molding **14** is formed of a flat central portion **19**, in abutting relation with the ceiling **12**, and extends the entire width of the molding **14**. A short end catch portion **20** depends from one edge of the flat central portion **19**, and the opposite edge of the flat central portion **19** is provided with a depending arcuate section **21** which has at the lower end thereof an upwardly directed inwardly turned stop-piece **22** as is shown in FIGURE 4 the stop-piece **22** is integral with the depending arcuate section **21** and is reversely turned and extends toward the flat central portion **19** so as to lie closely adjacent to the wall panel **11**.

The separate section **18**, carried by the wall panel **11**, is formed of a central flat portion **23** having a short depending bumper **24** at one edge thereof and a depending piece **25** having an upwardly curved arcuate snap-section **26** as shown in FIGURE 4, the depending piece **25** is integral with the central flat portion **23** and extends downwardly therefrom. The snap-section **26** is integral with and extends upwardly and outwardly from the depending piece **25** for engagement with the catch portion **20**. Engagement of the snap-section **26** with the catch portion **20** precludes lateral movement of the wall panel **11** and maintains it in the desired location.

It is to be understood that the molding **14** is not limited in its use to an upper molding but may obviously be used as a base molding or be disposed in a vertical plane so as to cooperate with a vertical edge of a wall panel. To this extent, the terminology used in defining the molding **14** is subject to interpretation.

The base molding **15** is formed of one-piece construction and is shaped to receive the lower end of the wall panel **11**. The base molding **15** has a flat base portion **27** which is secured to the floor **13** by screws **28** or similar securing means. At opposed edges of the flat base portion **27** a small space or recess is provided for tile or carpet or other floor covering by inwardly deforming the molding **15** at the portions **29**. Extending upwardly from the portions **29** are curved outer pieces **30** which terminate at inwardly turned depending end portions **31**. As is clearly shown in FIGURE 4, the curved outer pieces **30** and depending end portions **31** form a pair of cavities **32** disposed on opposite sides of the wall panels **11**. The cavities **32** provide convenient conduits for electric wires and the like.

In a completed partition or wall **10**, the seams between the top ends of the wall panels **11** and the ceiling **12** are covered by the two-piece upper molding **14** as is shown in FIGURE 4. In a similar manner, the seams between the bottom ends of the wall panels **11** and the floor **13** are covered by the base molding **15**, as shown at the bottom of FIGURE 4. The base molding **15** is secrewed or otherwise secured to the floor **13** along layout lines for the wall **10**, and in a similar manner, the fixed section **16** of the upper molding **14** is secured to the ceiling **12** directly above the base molding **15**, as shown in FIGURES 4 and 5. The section **18** of the upper molding **14** is placed over the top end of the wall panel **11** before erection, so that when the wall **10** is moved to its full vertical position, the section **18** snaps into interlocking relationship with the fixed section **16** attached to the ceiling **12**. This interlocking relationship of the two sections of the upper molding **14** retains the wall **10** in its erected position.

It is readily apparent that the upper molding **14** and base molding **15**, just described, are useful in the erection of walls which are either of unitary construction or are formed of a plurality of panels such as the wall panels **11**. The moldings may be made out of any suitable resilient material such as thin gage stainless steel, some of the plastics known in the art, or tempered aluminum.

In forming the wall **10** from a plurality of wall panels

11, it becomes desirable to provide a cover strip for the seam line formed by the vertical edges of adjoining panels 11. A novel cover strip for this purpose is shown in FIGURES 1 through 3.

The I-shaped seam cover strip 40 is formed of a pair of T-shaped sections 41 which are preferably made of extruded aluminum but, of course, may be made of other suitable materials. Each T-shaped section has a flange portion 42 and a pair of legs 43 integrally connected to a central section of the flange, as is shown best in FIGURE 3. The legs 43 of the pair of T-shaped sections 41 are secured to a flexible film or web 44. This web 44 may be made of Mylar, or rubber, or a suitable elastomer, or of two plies of kraft paper with an intermediate of polyethylene, and is clamped or otherwise secured between the legs 43, as shown in FIGURE 2.

As shown in FIGURES 1 and 2, the seam cover strip 40 extends between the upper molding 14 and the base molding 15 and is disposed between and connects adjacent the wall panels of the wall 10.

The film or web 44 is secured into the T-shaped sections 41 prior to the erection of the wall 10. The extruded cover strip 40, as shown in FIGURE 3, can be produced in any predesignated length. Likewise, the film or web 44 can be slit to a selected width which can be readily calculated once the thickness of the wall panel 11 is known.

Illustrated in FIGURE 6 is a convenient form of preparing a panel 11 and its associated cover strip 40 for shipment from the factory to the job site. The wall panel 11 is inserted into one side of the cover strip 40 between the flanges 42 and on one side of the legs 43. A wedge 45, formed of wood or any other suitable material, is inserted between the flanges 42 on the other side of the legs 43 from the panel 11. If rubber, or other elastomer, is used to make the film or web such as the web 44', placement of the wedge 45 will stretch the web 44' such that its elasticity will cause the cover strip 40 to snugly grip the panel 11 and wedge 45.

Illustrated in FIGURE 7 is one way of connecting two adjacent wall panels 11 with the seam cover strip 40. The wall panel 11 at the left of FIGURE 7 has the cover strip 40 placed over one edge. Then the panel 11 at the right side of the figure is inserted into the cover strip 40 with the aid of small tapered wedges 46. After the contact with the legs 43, the wedges 46 are removed and the elasticity of the web 44' causes the cover strip 40 to snugly embrace the adjoining pair of wall panels 11.

In FIGURE 8 there is shown a fragmentary section of a corner formed by a pair of wall panels 11 at a right angle to each other. It is necessary to the construction of such a corner that various changes be made to the seam cover strip 40 previously described. A pair of adjoining T-sections 41 have one portion of the flanges 42 bent at a 45° angle and these portions are secured together by a threaded nut and bolt assembly 47. Modified T-sections 50 are attached to the film or web 44 and engage the opposite sides of the wall panels 11 from the T-sections. The corner is completed by connecting a closure plate 55 between the pair of T-sections 50.

As shown in FIGURE 8, the closure plate 55 is provided at its opposite sides with bulbed edges 56. These bulbed edges 56 are snapped into mated receiving slots formed in the T-sections 50 at the bifurcated end portions 51.

Illustrated in FIGURE 9 is a modified form of seam cover strip 60 which is particularly useful in securing together a pair of adjacent panels 11' which are disposed at an angle to each other. As shown, a pair of panels 11' are joined to form a shallow inverted V-shaped roof section. The cover strip 60 comprises a top plate 61 and a bottom plate 62. The top plate 61 is bent at a central portion thereof to the desired angle and is provided with a hollow cylindrical socket 63 which has internal screw threads 64 therein. The bottom plate 62 is bent at a central portion thereof to form an angle corresponding to the angular shape of the top plate 61. The central portion of the bottom plate 62 is provided with an upstanding cylindrical socket 65 having a smooth bore therethrough and is adapted to receive a fastening bolt 66 which has screw threads 67 which are adapted to cooperate with the threads 64 of the socket 63.

Illustrated in FIGURE 10 is a modified form of ceiling molding 70 and floor molding 71. The molding 70 is composed of flat plate 72 and has depending flanges 73 and 74 integral with the plate 72 to form a cavity for receiving the top portion of the panel 11. The molding 70 is attached to the ceiling 12 by screws 75 or other securing means.

In alignment with and disposed below the ceiling molding 70 is a floor molding 71 which is secured to the floor by screws 76. The molding 71 is composed of a flat plate 77 which has upstanding flanges 78 and 79 at opposed sides of the plate 77 to form a cavity for receiving the lower portion of the panel 11.

In order to assemble the panel 11 with the moldings 70 and 71, the top of the panel is manually inserted into the cavity of the ceiling molding 70. The bottom of the panel 11 is then brought adjacent to the floor molding 71.

A tapered wedge 80 is placed adjacent to the molding 71 and is of a height equal to or slightly in excess of the height of the upstanding flange 79. Thus, it is an easy matter for a worker to slide the bottom edge of the panel up over the flange 79 and place the panel into the cavity formed by the molding 71 without any damage being done to the flange 79.

As shown in FIGURE 10, the flanges 74 and 79 are shorter than the flanges 73 and 78. It is obvious that the height of the panel 11 must be smaller than the distance between the floor and ceiling to accommodate the swinging of the panel into place without it being jammed therebetween. The top left corner of the panel 11 is engaged with and restrained from lateral movement by the depending flange 73 while the worker slides the panel up the tapered wedge 80 and places the panel in the cavity of the floor molding. The depending flange 74 is long enough that the top right edges of the panel is above the lower edge of the flange 74 when the panel is in its assembled position, thus, the panel is held against inadvertent movement.

While preferred forms and arrangement of parts have been shown in illustrating the invention, it is to be clearly understood that various changes in details and arrangement of parts may be made without departing from the spirit and scope of the invention, as defined in the appended claims.

I claim:

1. A two-piece molding assembly for use in mounting a wall panel, said molding comprising a first piece having a flat central portion extending the full width of said first piece, a depending section integral with said first piece and extending downwardly and inwardly from one edge of said flat central portion, a stop-piece integral with said depending section and being reversely turned and extending toward said flat central portion, and a catch portion integral with said flat central portion and extending from the other edge thereof; a second piece comprising a central flat portion for being disposed closely adjacent to said flat central portion, a bumper integral with and extending from one edge of said central flat portion and located adjacent said stop-piece, a depending piece integral with said central flat portion and extending downwardly therefrom, and a snap-section integral with and extending upwardly and outwardly from said depending piece for engagement with said catch portion.

2. A molding as defined in claim 1 wherein said bumper, said central flat portion and said depending piece define means for receiving an edge portion of said wall panel.

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