Feb. 3, 1970 G. W. THOMAS 3,492,935

VENTILATING CEILING

Filed April 9, 1962 2 Sheets-Sheet 1

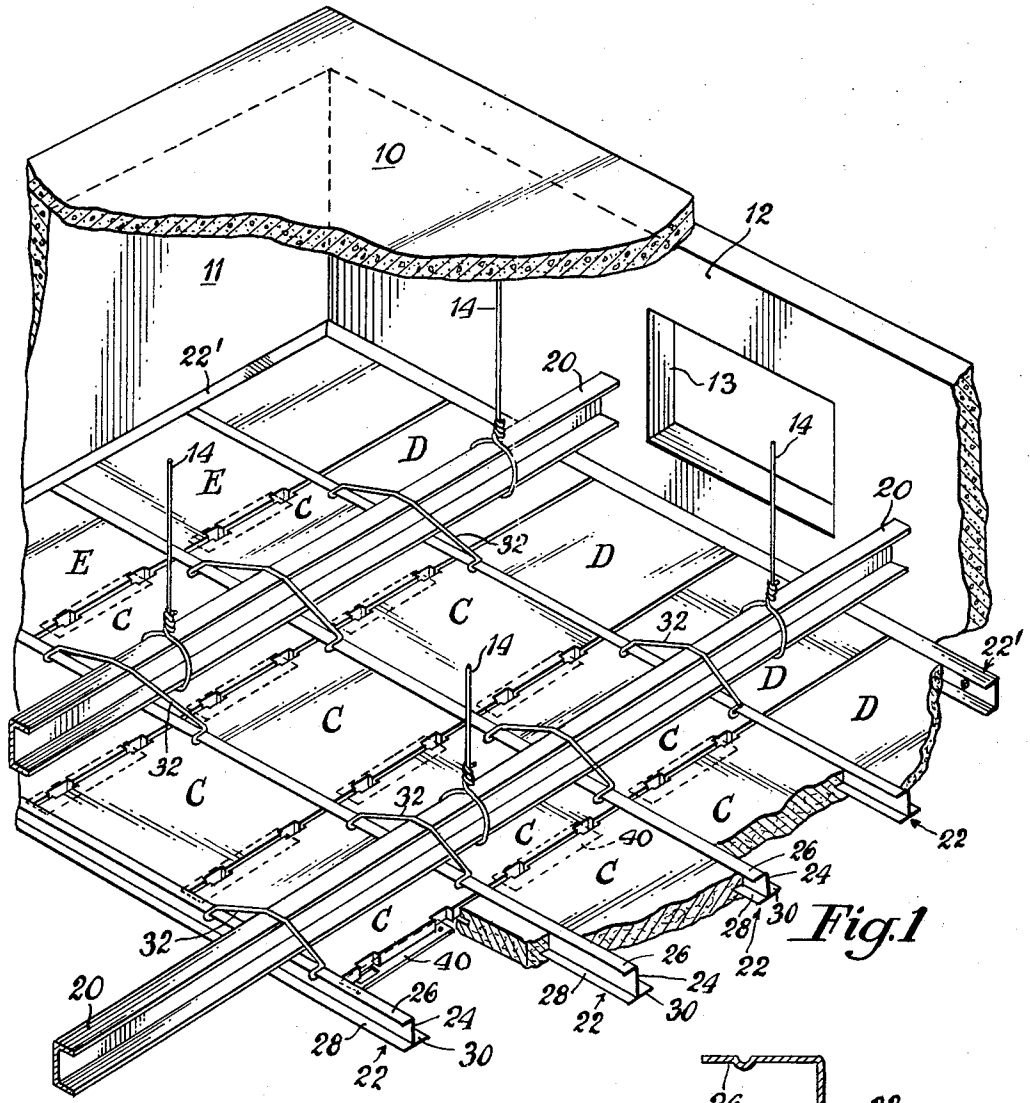

Fig. 1

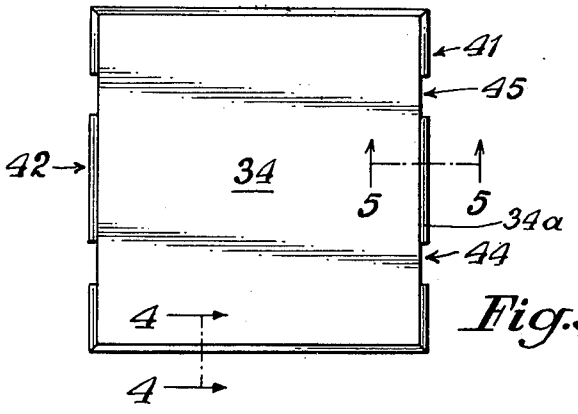

Fig. 3

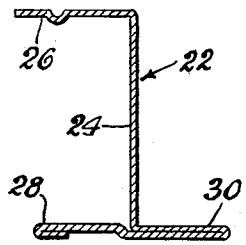

Fig. 2

Inventor
George W. Thomas

by W. Bartlett Jones,
Attorney

Feb. 3, 1970 G. W. THOMAS 3,492,935

VENTILATING CEILING

Filed April 9, 1962 2 Sheets-Sheet 2

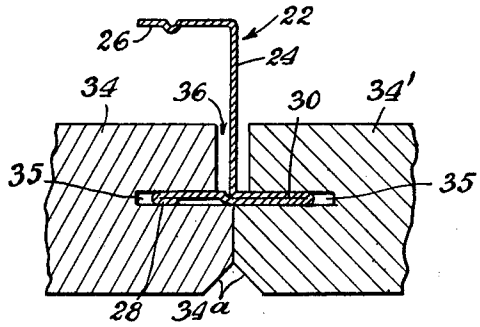

Fig.4

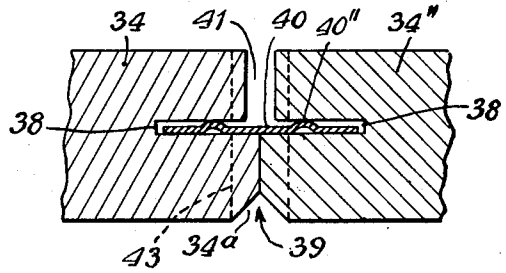

Fig.5

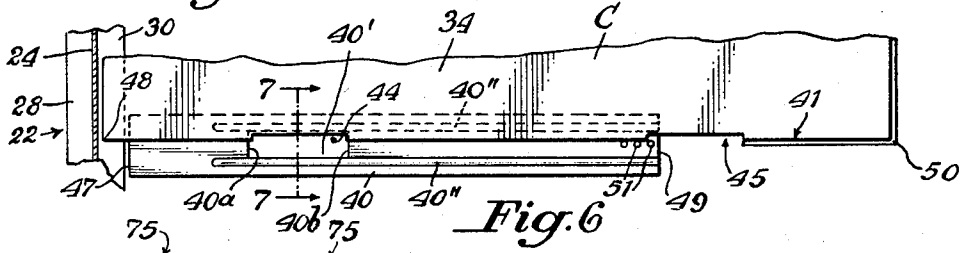

Fig.6

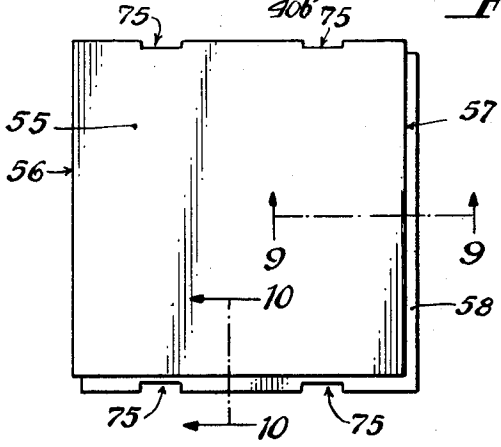

Fig.8

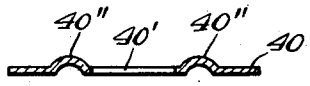

Fig.7

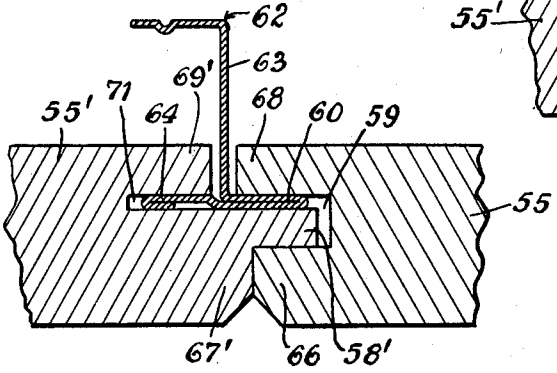

Fig.9

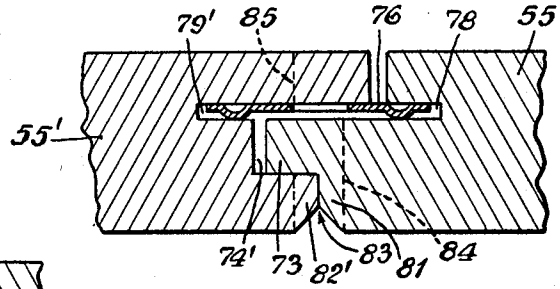

Fig.10

Inventor
George W. Thomas
by W. Bartlett Jones,
Attorney

United States Patent Office

3,492,935
Patented Feb. 3, 1970

3,492,935

VENTILATING CEILING

George W. Thomas, Minneapolis, Minn., assignor to Conwed Corporation, a corporation of Delaware

Filed Apr. 9, 1962, Ser. No. 186,261
Int. Cl. F24f 13/08
U.S. Cl. 98—40 22 Claims

ABSTRACT OF THE DISCLOSURE

A ceiling ventilation system in which an air plenum is formed between an upper permanent ceiling or deck and a lower suspended ceiling. The lower ceiling is formed by a plurality of abutting ceiling panels supported by a suspension system suspended from the upper permanent ceiling. Air is admitted to the space below the panels by providing cut out portions where the panels abut one another and valving is obtained by inserting spline pieces which slidingly engage kerfs formed in the abutting panels.

The present invention relates to ventilating ceilings, and in particular, to a ceiling through which the degree of ventilation may be controlled.

Ventilating ceilings are old and are commonly suspended ceilings behind which is a plenum chamber into which a duct discharges ventilating air under pressure for passage through openings in the ceiling, as exemplified by Germonprez No. 2,291,220 and Erickson No. 2,781,557.

The present invention relates to such a ceiling made of tile or so-called ceiling board of sizes such that a large plurality of such panels or units composes the ceiling. These units are commonly supported by a series of parallel runners depending from above. These runners are provided with horizontal flanges which support the units, either by setting an edge of a unit on a flange or by entering a flange in a kerf in an edge-face of the unit. In some installations, such a supporting flange is used on four edges of a rectangular unit. In others, it is used on two opposite parallel edges, in which case the remaining edges oppose similar edges of adjacent units. The better installations have opposing kerfs in these opposing edges, and a common spline in the kerfs to seal the joint and aline the faces.

There are numerous ways of rendering the units suitably open for ventilating, and in connection with them, various ways of damping or valving the passage through the ceiling.

It is an object of the present invention to provide a controlled ventilating ceiling in which the passage through the ceiling is located at one or more edges of the unit through notches in an edge.

It is a further object of the invention to use a spline in kerfs and across the joined edges of abutting units as a valve for the passage through an abutting tile and to provide for sliding the spline for valving action.

In particular, it is an object of the invention to provide square tile units to be assembled into a ventilating ceiling.

A further object of the invention is the provision of a

longitudinally slidable valve spline tailored to the location of the notched passageway in the edge of a tile unit.

Various other and ancillary objects and advantages of the present invention will appear from the following description and explanation of the several embodiments thereof shown in the accompanying drawings, in which:

FIG. 1 is a fragmentary perspective view of a corner of a tile ceiling as it provides the bottom of a plenum chamber.

FIG. 2 is a cross-section of a mounting runner for the tile shown in FIG. 1.

FIG. 3 is a plan view of a tile face.

FIG. 4 is a fragmentary enlarged cross-section of a joint between two tiles of FIG. 3 as taken on the line 4—4 of FIG. 3.

FIG. 5 is a fragmentary enlarged cross-section of a joint between two tiles of FIG. 3 as taken on the line 5—5 of FIG. 3 showing a valve spline within the joint.

FIG. 6 is an enlarged fragmentary plan view of the back of a tile of FIG. 3 showing one edge of the tile with a valve spline in place.

FIG. 7 is a cross-section of the valve spline taken on line 7—7 of FIG. 6.

FIG. 8 is a view similar to FIG. 3 showing the back of a tile having complementary tongues and grooves.

FIG. 9 is a cross-section of a joint between two tiles of FIG. 8 taken on the line 9—9 of FIG. 8 showing the manner of suspension.

FIG. 10 is an enlarged fragmentary cross-section of a joint between two tiles of FIG. 8 taken on the line 10—10 of FIG. 8 showing a valve spline in place.

The invention modifies a conventional spline which is located in opposing kerfs in the abutting edges of two adjacent ceiling units. Such units may be large panels, for example 2 x 4 feet or smaller units, such as conventional 12 x 12-inch square tile units. To simplify the explanation, the units will be referred to as tile, such as the square tile shown in the drawings.

Tiles mounted so as to use splines as referred to above are in parallel lines of alined tiles, suitably supported by a series of overhead runners parallel to the lines, with adjacent tiles of each line in abutting relation with hidden splines spanning the joint. Where the runners are such that portions thereof obstruct the ends of the kerfs in which the splines reside, it is necessary to provide a spline shorter than the separation distance of the runners in order to slide the spline as a valve. This also calls for certain limitations with respect to the edgewise extent of ventilating notches and the locations thereof where it is desired to provide for full closure and full opening of the passageway through a notched edge. Where units larger than square tile provide abutting spline-connected edges, there is more leeway in designing the related parts.

Since the dimensions are more important in the case of abutting tile squares as illustrated, the invention is explained by reference to such without any intention to limit the invention short of its scope as expressed in the appended claims.

FIG. 1 represents a corner of a ventilating ceiling construction having an upper ceiling 10, shown as made of concrete, with two side walls 11 and 12, in one of which

is an inlet opening 13 for ventilating air. A lower tile ceiling completes a plenum chamber into which inlet opening 13 discharges. The lower ceiling at its edges is supported by mounting means secured to the walls and inwardly from the edges by runners in part at least suspended from the ceiling 10 by wires 14.

One way to suspend the tile ceiling is to provide a series of parallel channel runners 20, presenting a common plane when carried by the wires 14. The spacing of the runners is not critical. Below said plane and to the underside of the channel runners is a crossing series of parallel runners 22, the spacing of which is determined by the tile dimensions. Runners 22 each have a vertical web 24, upper and lower right-angle flanges 26 and 28 on one side of the web, and a flange 30 forming an inverted T with web 24 and flange 28. As shown, in FIG. 2, the runners 22 may be made of sheet metal, the detail of such construction being omitted in FIG. 1.

The upper flange 26 of T-runner 22 lies against the lower flanges of channel runners 20. A spring wire clip 32 over runner 20 has ends underlying upper flange 26, thus mounting the runners. At the side walls 11 and 12, channel-form runners 22' have their channel bottoms secured to walls 11 and 12, and have their lower channel sides underlying and supporting the tiles.

FIG. 3 shows the exposable face of a conventional square tile 34, two edges of which have been notched for the present invention. FIGS. 4 and 5 are enlarged cross sections showing how tile 34 is mounted in the ceiling of FIG. 1. FIG. 4 shows the edges of two adjacent tiles 34 and 34' supported by the T-runner 22. The tiles 34 and 34' have their lower bevelled edges in abutting relation. The edge-faces adjacent the web 24 have kerfs 35 parallel to the ceiling face of the tile in which kerfs are the supporting flanges 28 and 30. Above the kerfs, the edges are cut back slightly at 36 to accommodate web 24.

FIG. 5 shows the same tile 34 and a tile 34'', both having abutting bevelled edges 34^a, each with a kerf 38, and a spline 40 in common in the two kerfs. Above the kerfs the edge faces are cut back from the joint line 39 as shown at 41 so that the edges shown can be mounted as in FIG. 4 by turning it 90°. With fissured tile, such turning pertains to the final ceiling pattern.

The present invention as embodied in the conventional tile 34 provides notches inwardly from at least one of the edges having a spline joint. The tiles designated D have no notches and the tiles designated C have notches in their opposite edges carrying splines. The tiles designated E have notches in only one edge if they are the same size as tiles D. However, they may be tiles C with one notched edge cut away.

In FIG. 3, the tile 34 represents tiles C, the notched edges being designated 41 and 42. Since the two edges are identically notched, but one will be described. Edge 41 appears in cross-section in FIG. 5, in which the dotted line 43 designates the plane of the inner faces of notches 44 and 45. The plane 43 is preferably alined with the inner edge of the bevel 34^a for aesthetic appearance in the finished ceiling. The kerf 38 extends inwardly beyond the plane 43. FIG. 5 also shows that two notched edges abut, and FIG. 1 shows that the joints between two tiles C and between tiles C and E have opposing notches, each providing a passage through the tile from face to face, and when opposed, providing a merged passage across the joint.

FIG. 6 shows an advantageous relationship between dimensions of the notched edge 41 and of the spline 40. FIG. 6 shows the spline 40 in one of two tiles C, the other tile C being removed. Spline 40 is shown as it lies in the kerf of tile 34 in position substantially fully to open the passages through notches 44 and 45. Notch 44 is open by virtue of open area within the side edges of spline 40 preferably as a hole 40' therein. The spline end 47 is slightly inward from the nearest corner 48 of the tile 34 and substantially at the edge of a flange of a runner in the kerf at the adjacent edge of the tile. The spline 40 is shown as having been slid to the position shown to open notch 44. The distance from spline end 47 to the opening 40' is at least as great as the dimension of notch 44 along the edge of the tile, so that in sliding spline 40 to the right, the opening 44 may be closed. This requires that spline 40 be sufficiently short so that the other end 49 is slightly inward from corner 50 by the width of a flange 28 or 30 to permit closing notch 44. In the position shown in FIG. 6, the end 49 projects slightly into open notch 45, and has a series of small openings 51 inwardly from the end as means exposed in notch 45 and accessible from below the tile for engagement by a tool or pick to slide the spline. Where the spline functions for two opposing notches, the openings 51 may be in the center of the spline as shown.

As shown, both notches 44 and 45 are fully open, except for the short projecting end 49 of the spline. When the spline 40 is moved to close notch 44, it will also close notch 45. Thus, for a structure to open and close both notches at the same time by sliding a spline 40 in a path restricted to the length of the notched edge, there are limitations to the maximum length of the notches along the joint where only two notches are provided, and where the locations of the notches in each tile are such that in an assembly of alined tiles each resulting line of notches has equally spaced notches for aesthetic symmetry.

In each tile the centers of the two notches are spaced apart by a distance which is one-half the dimension of the notched edge as seen from the ceiling face, said edge having a length which is the span from joint to joint. The distance from the center of each notch to the nearest end of said notched edge is one-quarter the dimension of said notched edge. Since the opening 40' in the spline is preferably such as to fully open slot 44, its length dimension between edges 40^a and 40^b is preferably the same as the length dimension of the notch along the notched edge. In order to close notch 44, the length dimension of the notch 44 may not be longer than the distance between the edges 40^a and end 47 of the spline, which length is variable so long as end 47 clears a mounting flange 28 or 30. The opening 40' may be longer in the direction of its edge 40^b, but the extra length performs no function when it is longer, and when the end 47 is to be located as described with reference to tile corner 48. If the opening 40' is longer toward the spline-end 47, then the notch 44 must be shorter in order fully to close the notch by the area of the spline between opening edge 40^a and spline end 47.

FIG. 7 shows the cross-section of spline 40. It is of thin metal rigidified by two longitudinal ribs 40'' which readily dig into the side walls of the kerfs to give slight frictional resistance to sliding the spline. The spline also functions to aline the tiles containing it. As shown in FIG. 6, the exposed edge of the spline 40 is continuous from end to end alongside the opening 40'. The opening 40' is preferably a hole as shown between the two ribs rather than being a recess inwardly from the edge of the spline located within the tile 34.

The invention may also be embodied in tile having conventional tongue-and-groove joints, as exemplified in FIGS. 8, 9 and 10.

FIG. 8 represents the back of a tile 55 of which edges 56 and 57 are complementary with tongue 58 and groove 59 (FIG. 9). Tongue 58 is thinner than the width of groove 59 to provide space above the tongue for housing flange 60 of Z-runner 62 having vertical web 63 and also flange 64. FIG. 9 shows tile 55 at the right and a similar tile 55' joined and suspended by runner 62. The parts are similarly numbered, being prime-numbers on tile 55'. The tiles abut at the ceiling face at their lower edge portions 66 and 67'. The upper edge portions 68 and 69' are spaced apart to accommodate runner-web 63. A kerf 71 housing flange 64 is formed by an inner extension of

the upper face of tongue 58' and it underlies upper edge portion 69'.

The remaining pair of opposite edges of tile 55 also have complementary edges, having tongue 73 for entry into groove 74' (FIG. 10). These tongue-and-groove edges abut without suspension, and are provided with ventilating notches all designated 75 in FIG. 8.

Both edges have kerfs for a valve spline 76, such as shown in FIG. 7. Tile 55 has kerf 78, the lower face of which extends the upper face of tongue 73. The tile 55' has kerf 79', the upper face of which extends the upper face of groove 74'. The lower edge portions of the joined tiles, namely 81 and 82', abut forming joint line 83, at which the edges are bevelled. Dotted lines 84 and 85' mark the depth of the notches in the joined edges. The spline may be moved in the same way as described with respect to FIGS. 1 to 7, the same dimensions as to the notches and spline being retained.

It is not essential that every ventilating ceiling be constructed to close every notch provided in its tiles, but where it is preferred to close the passage through any one notched edge, the notches and the spline, when dimensioned as described, will permit such closure.

For symmetry and for convenience in assembling tile, each notched edge is identical and such that in adjacent tiles the notches oppose each other. By this arrangement, the described opening 40' in the spline 40 is sufficiently wide to control the two merged passages of two abutting tiles, to close them, substantially fully to open them, or to valve them by intermediate positions of the spline.

A ceiling assembled from the tiles described below a plenum chamber as shown in FIG. 1, is adjusted differently according to circumstances. The absence of ventilating notches near the walls avoids streaking the walls. Adjacent the inlet opening 13 the notches are less open than farther away, with adjustments to equalize the downflow over the entire ceiling where such is desired.

In large areas, it may be desired to have one end or corner at a different condition than elsewhere, and adjustment may be made accordingly. As requirements change, adjustments may be altered.

The ceilings made as described above have concealed suspensions, and because the notches are small and narrow the splines are not noticeable.

The present invention, therefore, is directed to a ventilating ceiling as a combination, and as sub-combinations to a tile with one or a pair of notched edges, and to a cooperating spline, as shown and with departures as suggested, all within the scope of the appended claims.

I claim:

1. A ventilating ceiling comprising two adjacently mounted ceiling panels having bodies substantially impervious to unobstructed flow of air therethrough, said two panels having edges substantially in mutual contact in abutting relation, at least one of said panels having a notch in its said abutting edge extending inwardly and from face to face of the panel thereby forming a passage through which air may flow from face to face of the panel, said two abutting edges having opposing kerfs in their edge faces parallel to their ceiling faces, and a substantially flat elongated valve spline of length less than the lengths of the opposing kerfed edges, said spline being slidable longitudinally in said opposing kerfs to control the opening of said passage.

2. A ceiling according to claim 1 in which both of said abutting edges are notched, and in which said spline is movable to control the passages through both notched edges.

3. A ceiling according to claim 1 in which both of said abutting edges are notched with at least one notch in one panel opposing a notch in the other panel thereby forming a single passage through the joined panels, and in which said valve spline is movable to control the opening of said single passage.

4. A ceiling according to claim 1 in which the kerf in said notched edge and the spline therein extend inwardly from the edge of the notched edge at least as far as the depth of said one notch, said spline having valving portions located so that in one position of the spline it closes the passage in said one notch.

5. A ventilating ceiling comprising a row of alined rectangular ceiling panels each having a body substantially impervious to unobstructed flow of air therethrough, the opposite alined edges of said panels having mounting kerfs in a common plane parallel to the ceiling faces of the panels, fixed mounting flanges for said alined panels extending toward each other and located in said kerfs, said panels including a pair of adjacent panels having adjacent edges substantially in mutual contact in abutting relation, at least one of said abutting edges of one panel being identically notched with two identical notches therein forming a passage through said panel from face to face thereof, the distance from center to center of the two notches being twice the distance from the center of each notch to the nearest corner of the said panel, the two abutting edges of said adjacent panels having opposing spline-receiving kerfs in their edge faces in the said common plane, a valve spline slidable longitudinally in said opposing kerfs to control the opening of said passage at the abutting edges, each said notch having its opening along the abutting edge of an extent which is no greater than the distance of the notch inwardly from the outer edge of the nearest one of said mounting flanges, said spline having but one valve opening therein of dimension along the length of the spline which is at least as great as that of said opening of the notch at the edge of the panel, said valve opening being inward from one end of the spline by a distance which is at least as great as the dimension of the valve opening along the spline and no greater than the said distance of the notch from said nearest mounting flange, whereby the first passage at a first notch may be fully opened and closed by sliding the spline, the other end of the spline having an end portion entering and covering a minor portion of the adjacent passage at the second notch when the valve opening in the spline is in full register with said first passage, said end portion of the spline having means engageable from beneath the ceiling and accessible through said second passage for effecting movement of the spline.

6. A ceiling according to claim 5 in which said abutting panels each have two mutually opposing notches whereby their respective passages merge across the joint between the panels, and in which said opening in the spline has a width spanning the joint.

7. A ceiling according to claim 5 in which said opening in the spline is inward from said end of the spline by the same distance that the notch is inward from said nearest mounting flange.

8. A ceiling according to claim 5 in which the depth of the spline-receiving kerf is at least as deep as the notches whereby said spline may close the merged passages.

9. A ceiling panel for a ventilating ceiling having a body substantially impervious to unobstructed flow of air therethrough, said panel having an edge thereof notched inwardly thereby forming a passage through the panel from face to face thereof, said edge having a kerf in the face of said edge parallel to the exposable ceiling face of the panel, said kerf being at least as deep as the deepest notch in the notched edge, and said kerf being adapted to house half the width of a substantially flat elongated valve spline of length less than the length of the kerfed edge for longitudinal sliding of the spline in the kerf and in an opposing kerf of an abutting panel to valve the passage through said panel.

10. A ceiling panel according to claim 9 in which said kerf is deeper than the deepest notch in said notched edge.

11. In a combination a ceiling panel for a ventilating ceiling having a body substantially impervious to unob-

structed flow of air therethrough, said panel having a notch in an edge thereof extending inwardly and forming a passage through the panel from face to face thereof, said edge having a kerf in the face of said edge parallel to the exposable ceiling face of the panel, and said kerf extending inwardly beyond the inner edge of said notch, and a valve-spline for said kerf, said spline being a relatively thin elongated member a plurality of times longer than its width and being adapted to enter and slide in said kerf and to extend therefrom, said spline having an opening through the body thereof inwardly from an end for controlling the passage through said notch.

12. A ventilating ceiling comprising two adjacently mounted ceiling panels having bodies substantially impervious to unobstructed flow of air therethrough, said two panels having edges substantially in mutual contact in abutting relation, at least one of said panels having a notch in its said abutting edge extending inwardly and from face to face of the panel thereby forming a passage through which air may flow from face to face of the panel, said two abutting edges having opposing kerfs in their edge faces parallel to their ceiling faces, and a valve spline slidable longitudinally in said opposing kerfs to control the opening of said passage, said spline being a substantially flat elongated member having an opening for register with said notch in the panel, the opening in said spline being inwardly from an end of the spline by a distance at least equal to the length of the notch, said spline having a length sufficiently less than the length of the joint between said panels to permit the spline to be moved to bring said opening in the spline into and out of register with said notch.

13. A ventilating ceiling comprising two adjacently mounted alined ceiling panels having bodies substantially impervious to unobstructed flow of air therethrough, said two panels having edges substantially in mutual contact in abutting relation, at least one of said abutting edges having two identical notches extending inwardly and from face to face of the panel thereby forming two passages through which air may flow from face to face of the panel, the distance from center to center of the notches being twice the distance from the center of each notch to the nearest end of the notched edge, said two abutting edges having opposing kerfs in their edge faces parallel to the ceiling faces, and a valve spline slidable longitudinally in said opposing kerfs to control the openings of said passages, said spline being a substantially flat elongated member having an opening positioned to register with a first one of said two notches, the opening in said spline being inwardly from a first end thereof by a distance at least equal to the length of said first notch, said spline having a length less than the length of the joint between said two panels and such that when the opening in the spline is out of register with said first notch the other end of the spline extends over the distance between the two notches substantially to the nearest edge of the second notch, whereby the spline is movable so that the two end portions of the spline close the two notches.

14. A ventilating ceiling comprising two adjacently mounted ceiling panels having bodies substantially impervious to unobstructed flow of air therethrough, said two panels having edges substantially in mutual contact in abutting relation, at least one of said panels having a notch in its said abutting edge extending inwardly and from face to face of the panel thereby forming a passage through which air may flow from face to face of the panel, said two abutting edges having opposing kerfs in their edge faces parallel to their ceiling faces, and a valve spline slidable longitudinally in said opposing kerfs to control the opening of said passage, said spline being a substantially flat elongated member having a body portion for closing said notch in the panel and an end portion for positioning to open the notch, said spline having a length substantially less than the length of the joint between said panels to permit the spline to be moved to bring said body portion of the spline into and out of the area of said notch.

15. A ceiling panel provided with a kerf at an edge portion thereof, said kerf extending into said panel in a direction substantially parallel to the exposed surface of said panel, said edge portion being provided with at least one passageway extending from the exposed surface through the opposite surface thereof, said passageway being located closer to the edge of said panel than is the bottom of said kerf, and a support member therefor having a flat portion adapted to fit into and frictionally engage said panel kerf, said flat portion being provided with at least one aperture therethrough, and said support member being of lesser longitudinal extent than said kerfed edge of said panel whereby said flat portion may be slidably adjusted within said kerf to valve said passageway.

16. A ventilating ceiling comprising in combination as the lower boundary of a plenum chamber, a suspension grid for mounting a plurality of ceiling panels, said grid including parallel T-runners each having panel supporting horizontal flanges, ceiling pannels between adjacent runners supported by the flanges thereof, said panels including at least one pair of adjacent panels having abutting edges at right angles to said supporting runners, said abutting edges having opposing kerfs parallel to their ceiling faces, and at least one of said abutting edges having a ventilating aperture through the panel at a location between the bottom of its kerf and its edge, and a combination valving and supporting spline positioned in said opposing kerfs and slidable therein, said spline being sufficiently shorter than said abutting edges for sliding to valve the passage through said aperture.

17. The structure of claim 15 wherein said support member has a second flat portion coplanar with and coextensive with said flat portion, said second flat portion being adapted for frictional engagement in a kerf of an adjoining panel.

18. A ventilating ceiling having two fixedly supported panels with their respective edges in coplanar abutting relation, said edges having opposing kerfs extending the length of said edges, said panels having opposite each other apertures over the area of the respective kerf extending from face to face of the panels, and a single spline valve frictionally slidable in said two opposing kerfs, said spline valve simultaneously effecting selective opening and closing of said opposite apertures and regulating the movement of air between the spaces on opposite sides of said panels.

19. A ventilating ceiling having two fixedly supported panels with their respective edges in coplanar abutting relation, said edges having opposing kerfs extending the length of said edges, each of said panels having an aperture over the area of its kerf extending from face to face of the panel, and a single spline valve frictionally slidable in said two opposite kerfs, said spline valve simultaneously effecting selective opening and closing of said two apertures and regulating the movement of air between the spaces on opposite sides of said panels.

20. A ventilating ceiling having two fixedly supported panels with their respective edges in coplanar abutting relation, said edges having opposing kerfs extending the length of said edges, each of said panels having two spaced apertures over the area of its kerf extending from face to face of the panel, the apertures in each panel being opposite the apertures in the other panel, and a single spline valve frictionally slidable in said two opposite kerfs, said spline valve simultaneously effecting selective opening and closing of said apertures and regulating the movement of air between the spaces on opposite sides of said panels.

21. In combination a ventilating ceiling panel provided with a kerf at an edge portion thereof, said kerf extending into said panel in a direction substantially parallel to the exposed surface of said panel, at least one ventilating

passageway extending from the exposed surface of said panel through the opposite surface thereof in the vicinity of said edge of said panel, said passageway being located at least in part closer to the edge of said panel than is the bottom of said kerf, a support therefor having a flat portion slideably and frictionally engaged in said panel kerf, and said support member being of lesser longitudinal extent than said kerfed edge of said panel whereby said flat portion may be slideably adjusted longitudinally within said kerf to valve said passageway.

22. The combination of claim **21** in which said flat portion is provided with at least one aperture therethrough.

References Cited

UNITED STATES PATENTS

2,781,557	2/1957	Ericson	98—40
2,807,993	10/1957	Erickson	98—40
2,920,357	1/1960	Ericson	98—40
3,103,868	9/1963	Kodaras	98—40

WILLIAM E. WAYNER, Primary Examiner

U.S. Cl. X.R.

52—303, 496

UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,492,935 February 3, 1970

George W. Thomas

It is certified that error appears in the above identified patent and that said Letters Patent are hereby corrected as shown below:

Column 6, line 74, "In a combination" should read -- In combination --. Column 8, line 22, "pannels" should read -- panel --. Column 9, after line 13 insert the following claim:

23. In a ventilating partition construction, a plurality of elongated support members, provided with longitudinally extendi flanges, said support members being arranged in fixed, spaced, substantially parallel relation; a plurality of panels disposed intermediate said support members and having first marginal portions thereof in supporting engagement with said flanges, said panels having at least one second marginal portion thereof disposed intermediate said support members kerfed and transversely apertured, and an apertured spline disposed within a said kerfed second marginal portion, the length of said spline being substantially less than the length of the kerf in which said spline is disposed, said spline being slidably movable within said kerf for selective registration of the apertured portion of the spline and the apertured portion of a said kerfed second marginal portion for regulation of the movement of air from one side of said partition to the opposite side thereof.

In the heading to the printed specification, line 7, "22 Claims" should read -- 23 Claims --.

Signed and sealed this 17th day of November 1970.

(SEAL)
Attest:

EDWARD M.FLETCHER,JR.
Attesting Officer

WILLIAM E. SCHUYLER, JR.
Commissioner of Patents