

Description

The invention relates to a panel carrier and to a grid system for such panels.

The prior art has provided various types of panel arrangements incorporating elongated spaced apart panels which are connected by various forms of panel carriers to a suitable structure. Many panel carriers presently on the market are unduly complex. In addition, most panel carriers presently in use are not suitable for use as replacements for existing carriers.

Carrier adapters are known which fit over a horizontal flange on an existing ceiling carrier or a support member having a horizontal flange. In particular US Patent 4157000 to Sutter shows a mounting device for a ceiling member. The device is an elongated adapter strip with tabs punched out of a horizontal portion of the adapter. The tabs secure decorative panels to inverted T-shaped ceiling grid support assemblies. The adapter has a C-shape which clips onto a horizontal flange of the existing grid.

The Sutter type clip however is arranged so the weight of the decorative panels causes the C-shape to open thus loosening the connection to the grid. Furthermore there is no positive prevention of the clip being moved off the grid. Further Sutter does not touch or give a solution for the issue of a possible interference of transverse grid supporting member with adapter(s) when the adapters are used with cross-linking grid supports. Such grid support assemblies are mostly used for several ceiling types to meet building requirements in respect of fire resistance and strength or as part of tile grid ceilings supporting the tile elements. This problem does not occur if a plurality of adapters are used that each have a length to fit inbetween subsequent transverse grid members such as known in US 4361996 to Smith. Such construction requires a large number of short length adapters and makes installing cumbersome and labourious.

According to one aspect of the present invention there is provided an adapter member for attaching ceiling panels to a support member of a ceiling constructions which includes;

(a) a ceiling support grid including main support members and cross support member, said cross support members extending transverse to the main support members at a given pitch relative to one another, said support members each including at least one laterally extending lower part, having a longitudinally extending lower surface of a given width and a lateral longitudinally extending free edge;

(b) a plurality of ceiling elements; and

(c) adapter members for connecting the elements to support members of the support grid;

said adapter member including an elongate body portion for parallel engagement with the lower surface of the main support member, upwardly directed arm means bent over and extending above the body portion to define clip

means for attaching the adapter member to the longitudinal free edge of the main support member and downwardly directed ceiling element attaching means, for engagement with the ceiling elements, characterised in that the arm means include a plurality of first flange portions spaced along one side of the adapter member, the spacing between the first flange portions being correlated with said given pitch and dimensions of the cross support members, so that said first flange portions do not coincide with said cross support members in that the side of the adapter member body portion opposite said one side has upturned spaced further flange portions extending along the opposite longitudinal side of the support member, so as to limit any transverse movement of the adapter member with respect to the support member, in that the spaces between the further flange portions are positioned so as to correlate with the pitch of the cross-support members connected to the support member at the relevant side, and in that the spaces between the further flange portions are each dimensioned to accommodate the width of any such cross-support member with little or no play in the longitudinal direction of the adapter member.

With such a construction of adapter member, one can easily and safely fit the adapter member to the main support members of the ceiling support grid and use adapter members of considerable length including a length equal to or exceeding the length of the relevant support member and the careful positioning of the first flange portions so that they do not coincide with the cross supports enables one easily to fit the adapter without having to carry out any subsequent cutting operations which are both time consuming and give rise to the opportunity of damage to the adapter member.

The use of downwardly directed ceiling element attaching means for engaging with the ceiling elements allow the element to be attached to the ceiling support member in a way not interfering with the clip clamping action.

Preferably the elongate body portion has a width at least equal to the width of the lower surface of the support member to which the adapter member is to be attached. The further flange portions extending along the opposite longitudinal side of the support member from said arms, serve to limit or prevent any lateral movement of the adapter member with respect to the main support member.

The further flange portion can thereby readily stop the connector member accidentally being disengaged from the support member. This effect is further improved if the spacing between the further flange portion co-relates with the pitch of the cross support member connected to the relevant side of the support member, said further flange portions being dimensioned snugly to accommodate any such support member with little or no play in the longitudinal direction of the adapter member.

The number of further flange portions can be

the same as the first flange portions but is preferably greater than the number of first flange portions, some of the further flange portions then being arranged immediately opposite the first flange portions and other further flange portions being arranged therebetween, as considered longitudinally of the body portion.

With this arrangement the adapter member can be adjusted lengthwise with respect to the support member to vary the position of the engaging means with respect to that support member and still be fixedly held in such selected position.

It will be appreciated that the adapter member of the present invention can be used with a wide variety of different support members provided that these support members each have at least one laterally extending lower part having a longitudinally extending lower surface and a lateral longitudinally extending free edge.

Preferably the support members with which the adapter of the present invention is to be used are of inverted T-cross section but an L-cross section, an I-cross section, a top hat cross section and many other suitable cross sections in which, in essence, a horizontal flange extends laterally to have a free edge may be employed.

Adaptation of the distribution of ceiling elements over the surface to be covered is therewith possible in a limited way. If the adapter member is for use with a ceiling construction in which the pitch of a series of standard United States (or European) inverted T-shape cross section cross members is one foot (or 30 cms), or a multiple thereof, the centre-on-centre distance of the spaces between the further flange portions is preferably two inches (or 5 cms). Furthermore, the centre-on-centre distance of the spaces between the first flange portions is preferably four inches (or 10 cms).

The spacing between the adjacent first flange portions is preferably substantially greater than the longitudinal dimensions of the first flange portions.

According to another aspect of the present invention there is provided a suspended ceiling comprising a support grid including main support members and cross support members of inverted T-shape, a plurality of ceiling elements and a plurality of adapter members according to the invention connecting the ceiling elements to the support members.

In order that the present invention may more readily be understood, the following description is given, merely by way of example, reference being made to the accompanying drawings, in which:-

Figure 1 is a perspective view from one side of a portion of one embodiment of ceiling grid having an adapter of the invention in place;

Figure 2 is a side view of the adapter;

Figure 3 is a top view of the adapter of Figure 2; and

Figure 4 shows the cross sectional configuration of the adapter along the lines IV-IV indicated in Figure 3, shown in position on a support member.

Referring to Figure 1 there is shown part of a

support grid having support grid main support members 1 and cross support members 2. Each of the support members has a bottom portion 3 with a longitudinally extending lower surface 4. The bottom portions also include a longitudinal side-ways extending free edge 5. An adapter 6 is used to connect a plurality of ceiling elements 7 to the support grid and thereby support the ceiling elements 7. The adapter is shown in more detail in Figures 3, 4 and 5. The adapter 6 has an elongated body portion 8 which engages and is parallel to lower surface 4. The adapter has an upwardly directed arm means in the form of first flange portions 9 which bend over body portion 8 to define a clip means for attaching the adapter 6 to the free edge 5. The adapter 6 also has downwardly directed ceiling element attachment means in the form of holding flange portions 10 punched out of laterally central portions of the adapter 6 and spaced along the length thereof. Holding flange portions 10 have ceiling element engaging means 11 in the form of arms which engage the ceiling element. Alternatively they could engage only one edge of a ceiling element, with another of the engaging means engaging the other element-edge, dependable on the type of ceiling element and/or engaging means, as are common to the art.

The first flange portions 9 are spaced along the length of the adapter. The spaces are correlated with the pitch or location and dimension of the cross support members 2 such that the first flange portions 9 do not interfere with the cross support 2. This spacing may be advantageously chosen so that the first flange portions are spaced by a dimension greater than the dimension of the flange portions 9 itself in the longitudinal direction. This size may be chosen as four inches for a standard US grid system or 10 cms for a standard European grid system, where the separation of adjacent cross members is one foot or a multiple thereof, or another dimension, such as 30 cms appropriate to local practice can of course be selected.

The adapter 6 is preferred to have a width at least equal to the width of bottom portion 3 of the support member. As shown in Figure 2, the adapter 6 has further flange portions 12 which are on the side opposite the first flange portions. The further flange portion 12 is upturned and limits the transverse movement of the adapter relative to the support member. The further-flange portions 12 are also spaced. Preferably this spacing is dimensioned so cross supports 2 are snugly accommodated in the spaces with little or no play in the longitudinal direction of the adapter 6 as shown in Figure 2. The centre-on-centre spacing of the further flanges is two inches for a standard US grid system or 5 cms for a standard European grid system where the separation of adjacent cross members is one foot or 30 cms respectively or a multiple thereof, or another appropriate dimension depending on local practice.

Preferably, the spacing of the first flange portions and further flange portions is such that a plurality of spaces between further flange portions

occur along the length between two adjacent first flange portions. It is further preferred to have the transverse position of each first flange portion coincide with that of a further flange portion.

The adapter may be stiffened by providing a plurality of ridges 13 extending along its length.

Claims

1. An adapter member (6) for attaching ceiling panels (7) to a support member (1) of a ceiling construction which includes;

(a) a ceiling support grid including main support members (1) and cross support members (2), said cross support members (2) extending transverse to the main support members (1) at a given pitch relative to one another, said support members each including at least one laterally extending lower part (3), having a longitudinally extending lower surface (4) of a given width, and a lateral longitudinally extending free edge (5);

(b) a plurality of ceiling elements (7); and

(c) adapter members (6) for connecting the elements to support members of the support grid; said adapter member (6) including an elongate body portion (8) for parallel engagement with the lower surface (4) of the main support member (1), upwardly directed arm means (9) bent over and extending above the body portion (8) to define clip means for attaching the adapter member (6) to the longitudinal free edge (5) of the main support member (1) and downwardly directed ceiling element attaching means (10), for engagement with the ceiling elements, characterised in that the arm means (9) include a plurality of first flange portions (9) spaced along one side of the adapter member (6), the spacing between the first flange portions being correlated with said given pitch and dimensions of the cross support members (2), so that said first flange portions (9) do not coincide with said cross support members (2) in that the side of the adapter member body portion (8) opposite said one side has upturned spaced further flange portions (12) extending along the opposite longitudinal side of the support member, so as to limit any transverse movement of the adapter member with respect to the support member, in that the spaces between the further flange portions are positioned so as to correlate with the pitch of the cross-support members (2) connected to the support member at the relevant side and in that the spaces between the further flange portions (12) are each dimensioned to accommodate the width of any such cross-support member (2) with little or no play in the longitudinal direction of the adapter member.

2. An adapter member according to claim 1, characterised in that over the length of a space between two adjacent first flange portions (9) on the one side of the adapter member there are a plurality of the spaces between further flange portion over the the corresponding length at the other side of the adapter member.

3. An adapter member according to claim 1 or 2, characterised in that the spacing between adjacent

first flange portions is substantially greater than the dimension of each of said flange portions in the longitudinal direction of the adapter member.

4. An adapter member according to any preceding claim and for use with a ceiling construction in which the pitch of subsequent standard inverted T-shaped cross-support members is one foot or 30 cms of a multiple thereof, characterised in that the centre-on-centre distance of the spaces between the further flange portions is two inches or 5 cms.

5. An adapter member according to any one of claims 1 to 3 claim and for use with a ceiling construction in which the pitch of subsequent standard inverted T-shaped cross-support members is one or 30 cms or a multiple thereof, characterised in that the centre-on-centre distance of the first flange portions is four inches or 10 cms.

6. An adapter member according to any preceding claim, characterised in that the longitudinal position of each first flange portion (9) coincides with that of one of said further flange portions (12).

7. An adapter member according to any preceding claim, characterised in that the downwardly directed ceiling elements attaching means include a plurality of holding flange portions (10) spaced along the full length of the elongated adapter member at locations different from any of the first flange portions (9), and in that each of said holding flange portions have engaging means (11) for holding at least one of the edges of a ceiling element (7).

8. A suspended ceiling comprising a support grid including main support members and cross-support members of inverted T-shape, a plurality of ceiling elements and a plurality of adapter members for connecting the elements to support members of the support grid, the adapter members being in accordance with any preceding claim.

9. A suspended ceiling according to claim 8, characterised in that the elongated body portion (8) of the or each adapter member (6) has a width at least equal to the width of the lower part (3) of the support members.

Patentansprüche

1. Ein Anschlußstück (6) für die Anbringung von Decken-Paneelen (7) an einem Trägerelement (1) einer Deckenkonstruktion, enthaltend:

(a) ein Deckenträgergitter mit Hauptträgerelementen (1) und Querträgerelementen (2), wobei die genannten Querträgerelemente (2) sich in einem bestimmten Abstand im Verhältnis zueinander quer zu den Hauptträgerelementen (1) erstrecken und die genannten Trägerelemente jeweils wenigstens einen seitlich verlaufenden unteren Teil (3) mit einer in Längsrichtung verlaufenden unteren Fläche (4) einer bestimmten Breite und eine seitlich in Längsrichtung verlaufende freie Kante (5) aufweisen,

(b) eine Vielzahl von Deckenelementen (7) und
(c) Anschlußstücke (6) für den Anschluß der Elemente an den Trägerelementen des Stützgitters, wobei das genannte Anschlußstück (6) einen

occur along the length between two adjacent first flange portions. It is further preferred to have the transverse position of each first flange portion coincide with that of a further flange portion.

The adapter may be stiffened by providing a plurality of ridges 13 extending along its length.

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(a) a ceiling support grid including main support members (1) and cross support members (2), said cross support members (2) extending transverse to the main support members (1) at a given pitch relative to one another, said support members each including at least one laterally extending lower part (3), having a longitudinally extending lower surface (4) of a given width, and a lateral longitudinally extending free edge (5);

(b) a plurality of ceiling elements (7); and

(c) adapter members (6) for connecting the elements to support members of the support grid; said adapter member (6) including an elongate body portion (8) for parallel engagement with the lower surface (4) of the main support member (1), upwardly directed arm means (9) bent over and extending above the body portion (8) to define clip means for attaching the adapter member (6) to the longitudinal free edge (5) of the main support member (1) and downwardly directed ceiling element attaching means (10), for engagement with the ceiling elements, characterised in that the arm means (9) include a plurality of first flange portions (9) spaced along one side of the adapter member (6), the spacing between the first flange portions being correlated with said given pitch and dimensions of the cross support members (2), so that said first flange portions (9) do not coincide with said cross support members (2) in that the side of the adapter member body portion (8) opposite said one side has upturned spaced further flange portions (12) extending along the opposite longitudinal side of the support member, so as to limit any transverse movement of the adapter member with respect to the support member, in that the spaces between the further flange portions are positioned so as to correlate with the pitch of the cross-support members (2) connected to the support member at the relevant side and in that the spaces between the further flange portions (12) are each dimensioned to accommodate the width of any such cross-support member (2) with little or no play in the longitudinal direction of the adapter member.

2. An adapter member according to claim 1, characterised in that over the length of a space between two adjacent first flange portions (9) on the one side of the adapter member there are a plurality of the spaces between further flange portion over the the corresponding length at the other side of the adapter member.

3. An adapter member according to claim 1 or 2, characterised in that the spacing between adjacent

first flange portions is substantially greater than the dimension of each of said flange portions in the longitudinal direction of the adapter member.

4. An adapter member according to any preceding claim and for use with a ceiling construction in which the pitch of subsequent standard inverted T-shaped cross-support members is one foot or 30 cms of a multiple thereof, characterised in that the centre-on-centre distance of the spaces between the further flange portions is two inches or 5 cms.

5. An adapter member according to any one of claims 1 to 3 claim and for use with a ceiling construction in which the pitch of subsequent standard inverted T-shaped cross-support members is one or 30 cms or a multiple thereof, characterised in that the centre-on-centre distance of the first flange portions is four inches or 10 cms.

6. An adapter member according to any preceding claim, characterised in that the longitudinal position of each first flange portion (9) coincides with that of one of said further flange portions (12).

7. An adapter member according to any preceding claim, characterised in that the downwardly directed ceiling elements attaching means include a plurality of holding flange portions (10) spaced along the full length of the elongated adapter member at locations different from any of the first flange portions (9), and in that each of said holding flange portions have engaging means (11) for holding at least one of the edges of a ceiling element (7).

8. A suspended ceiling comprising a support grid including main support members and cross-support members of inverted T-shape, a plurality of ceiling elements and a plurality of adapter members for connecting the elements to support members of the support grid, the adapter members being in accordance with any preceding claim.

9. A suspended ceiling according to claim 8, characterised in that the elongated body portion (8) of the or each adapter member (6) has a width at least equal to the width of the lower part (3) of the support members.

Patentansprüche

1. Ein Anschlußstück (6) für die Anbringung von Decken-Paneelen (7) an einem Trägerelement (1) einer Deckenkonstruktion, enthaltend:

(a) ein Deckentränergitter mit Hauptträgerelementen (1) und Querträgerelementen (2), wobei die genannten Querträgerelemente (2) sich in einem bestimmten Abstand im Verhältnis zueinander quer zu den Hauptträgerelementen (1) erstrecken und die genannten Trägerelemente jeweils wenigstens einen seitlich verlaufenden unteren Teil (3) mit einer in Längsrichtung verlaufenden unteren Fläche (4) einer bestimmten Breite und eine seitlich in Längsrichtung verlaufende freie Kante (5) aufweisen,

(b) eine Vielzahl von Deckenelementen (7) und

(c) Anschlußstücke (6) für den Anschluß der Elemente an den Trägerelementen des Stützgitters, wobei das genannte Anschlußstück (6) einen



länglichen Körper (8) für den parallelen Eingriff mit der unteren Fläche (4) des Hauptträgerelements (1) enthält, weiterhin nach oben gerichtete Armvorrichtungen (9), die über den Körper (8) gebogen sind und oberhalb desselben verlaufen, um Klammervorrichtungen für die Anbringung des Anschlußstücks (6) an der freien Längskante (5) des Hauptträgerelements (1) zu bilden, sowie nach unten gerichtete Deckenelement-Anschlußvorrichtungen (10) für den Eingriff mit den Deckenelementen, dadurch gekennzeichnet, daß die Armvorrichtungen (9) eine Vielzahl erster Flanschteile (9) enthalten, die entlang einer Seite des Anschlußstücks (6) in Abständen angebracht sind, wobei der Abstand zwischen den ersten Flanschteilen auf die genannte feste Abstandsteilung und die Abmessungen der Querträgerelemente (2) so abgestimmt ist, daß sich die genannten ersten Flanschteile (9) nicht mit den genannten Querträgerelementen (2) decken, daß die Seite des Anschlußstück-Körperteils (8), die der genannten Seite gegenüberliegt, über nach oben gerichtete und in Abständen angeordnete weitere Flanschteile (12) verfügt, die sich entlang der gegenüberliegenden Längsseite des Trägerelements erstrecken, um so jede Querbewegung des Anschlußstücks im Verhältnis zum Trägerelement zu begrenzen, daß die Abstände zwischen den weiteren Flanschteilen so angeordnet sind, daß sie mit der Teilung der Querträgerelemente (2), die am Trägerelement auf der betreffenden Seite angeschlossen sind, in Wechselbeziehung stehen und daß die Zwischenräume zwischen den weiteren Flanschteilen (12) jeweils so bemessen sind, daß sie die Breite jedes dieser Querträgerelemente (2) mit nur geringem oder gar keinem Spiel in Längsrichtung des Anschlußstücks aufnehmen.

2. Ein Anschlußstück nach Anspruch 1, dadurch gekennzeichnet, daß über die Länge eines Zwischenraums zwischen zwei angrenzenden ersten Flanschteilen (9) auf der einen Seite des Anschlußstücks eine Vielzahl der Zwischenräume zwischen dem weiteren Flanschteil über die entsprechende Länge auf der anderen Seite des Anschlußstücks vorhanden sind.

3. Ein Anschlußstück nach Anspruch 1 oder 2, dadurch gekennzeichnet, daß der Abstand zwischen angrenzenden ersten Flanschteilen im wesentlichen größer ist als die Abmessung jedes der genannten Flanschteile in Längsrichtung des Anschlußstücks.

4. Ein Anschlußstück nach einem der vorherigen Ansprüche und für den Einsatz mit einer Deckenkonstruktion, bei der die Teilung aufeinanderfolgender Standard-Querträgerelemente in Form eines umgekehrten T einen Fuß oder 30 cm oder ein Vielfaches davon beträgt, dadurch gekennzeichnet, daß der Mittenabstand der Zwischenräume zwischen den weiteren Flanschteilen zwei Zoll oder 5 cm beträgt.

5. Ein Anschlußstück nach einem der Ansprüche 1 bis 3 und für den Einsatz mit einer Deckenkonstruktion, bei der die Teilung aufeinanderfolgender Standard-Querträgerelemente in umgekehrter T-Form einen Fuß oder 30 cm oder ein

Vielfaches davon beträgt, dadurch gekennzeichnet, daß der Mittenabstand der ersten Flanschteile vier Zoll oder 10 cm beträgt.

6. Ein Anschlußstück nach einem der vorherigen Ansprüche, dadurch gekennzeichnet, daß sich die Längsposition jedes ersten Flanschteils (9) mit derjenigen eines der genannten weiteren Flanschteile (12) deckt.

7. Ein Anschlußstück nach einem der vorherigen Ansprüche, dadurch gekennzeichnet, daß die nach unten gerichteten Befestigungsvorrichtungen für die Deckenelemente eine Vielzahl von Halteflanschteilen (10) einschließen, die sich in Abständen über die gesamte Länge des länglichen Anschlußstücks an Stellen erstrecken, die von allen Positionen der ersten Flanschteile (9) abweichen, und daß jedes der genannten Halteflanschteile Eingriffsmittel (11) zur Befestigung wenigstens einer der Kanten eines Deckenelements (7) besitzt.

8. Eine Hängendecke mit einem Trägergitter, enthaltend Hauptträgerelemente und Querträgerelemente in umgekehrter T-Form, eine Vielzahl von Deckenelementen und eine Vielzahl von Anschlußstücken für die Anbringung der Elemente an den Trägerelementen des Trägergitters, wobei die Anschlußstücke mit jedem der vorherigen Ansprüche übereinstimmen.

9. Eine Hängendecke nach Anspruch 8, dadurch gekennzeichnet, daß der längliche Körperteil (8) des Anschlußstücks bzw. jedes Anschlußstücks (6) eine Breite aufweist, die wenigstens der Breite des unteren Teils (3) der Trägerelemente entspricht.

Revendications

1. Élément adaptateur (6) pour fixer des panneaux de plafond (7) à un élément de support (1) d'une construction de plafond, qui comprend:

(a) un treillis de support de plafond comportant des éléments principaux de support (1) et des éléments transversaux de support (2), les éléments transversaux de support (2) s'étendant transversalement aux éléments principaux de support (1) suivant un pas donné les uns par rapport aux autres, les éléments de support comprenant chacun au moins une partie inférieure s'étendant latéralement (3) ayant une surface inférieure s'étendant longitudinalement (4) de largeur donnée, et un bord latéral libre s'étendant longitudinalement (5);

(b) une multitude d'éléments de plafond (7); et

(c) des éléments adaptateurs (6) pour relier les éléments aux éléments de support du treillis de support;

l'élément adaptateur (6) comportant un corps allongé (8) pour contact parallèle avec la surface inférieure (4) de l'élément principal de support (1), des moyens de bras dirigés vers le haut (9), repliés et s'étendant au-dessus du corps (8) pour définir des moyens d'attache afin de fixer l'élément adaptateur (6) au bord longitudinal libre (5) de l'élément principal de support (1) et des moyens (10) de fixation d'élément de plafond,



dirigés vers le bas, pour contact avec les éléments de plafond, caractérisé en ce que les moyens de bras (9) comportent une multitude de premières parties à rebord (9) espacées les unes des autres sur un côté de l'élément adaptateur (6), l'espace-ment entre les premières parties à rebord étant lié au pas donné et aux dimensions des éléments, transversaux de support (2), de sorte que les premières parties à rebord (9) ne coïncident pas avec les éléments transversaux de support (2), en ce que le côté du corps, (8) de l'élément adaptateur opposé audit côté comporte d'autres parties à rebord (12) espacées les unes des autres, retournées vers le haut, qui s'étendent le long du côté longitudinal opposé de l'élément de support, de manière à limiter tout déplacement transversal de l'élément adaptateur par rapport à l'élément de support, en ce que les espaces entre les autres parties à rebord sont situés de manière à être en corrélation avec le pas des éléments transversaux de support (2) reliés à l'élément de support au côté approprié et en ce que les espaces entre les autres parties à rebord (12) sont chacun dimensionnés de manière à tenir compte de la largeur d'un quelconque élément transversal de support (2) avec un faible jeu, voire aucun jeu, dans le sens longitudinal de l'élément adaptateur.

2. Elément adaptateur selon la revendication 1, caractérisé en ce que sur la longueur d'un espace entre deux premières parties à rebord contiguës (9) sur le premier côté de l'élément adaptateur, il y a une multitude d'espaces entre d'autres parties à rebord sur la longueur correspondante à l'autre côté de l'élément adaptateur.

3. Elément adaptateur selon la revendication 1 ou 2, caractérisé en ce que l'espacement entre les premières parties à rebord contiguës est sensiblement supérieur à la cote de chacune des parties à rebord dans le sens longitudinal de l'élément adaptateur.

4. Elément adaptateur selon l'une quelconque des revendications précédentes et pour emploi avec une construction de plafond dans laquelle le pas des éléments suivants transversaux de sup-

port, standard, en forme de T inversé, est de 30 cm ou un multiple de 30 cm, caractérisé en ce que la distance de centre à centre des espaces entre les autres parties à rebord est de 5 cm.

5. Elément adaptateur selon l'une quelconque des revendications 1 à 3, et pour emploi avec une construction de plafond dans laquelle le pas des éléments suivants transversaux de support, standard, en forme de T inversé, est de 30 cm ou un multiple de 30 cm, caractérisé en ce que la distance de centre à centre des premières parties à rebord est de 10 cm.

6. Elément adaptateur selon l'une des revendications précédentes, caractérisé en ce que la position longitudinale de chaque première partie à rebord (9) coïncide avec celle de l'une desdits autres parties à rebord (12).

7. Elément adaptateur selon l'une quelconque des revendications précédentes, caractérisé en ce que les moyens de fixation d'éléments de plafond dirigés vers le bas comprennent une multitude de parties à rebord de maintien (10) espacées les unes des autres sur la totalité de la longueur de l'élément adaptateur allongé à des emplacements différents de l'une quelconque des premières parties à rebord (9), et en ce que chacune des parties à rebord de maintien comporte des moyens d'engagement (11) pour maintenir au moins l'un des bords d'un élément de plafond (7).

8. Plafond suspendu comprenant un treillis de support comportant des éléments principaux de support et des éléments transversaux de support en forme de T inversé, une multitude d'éléments de support et une multitude d'éléments adaptateurs pour les relier aux éléments de support du treillis de support, les éléments adaptateurs étant en conformité avec l'une quelconque des revendications précédentes.

9. Plafond suspendu selon la revendication 8, caractérisé en ce que le corps allongé (8) de l'élément adaptateur (6) ou de chaque élément adaptateur (6) a une largeur au moins égale à la largeur de la partie inférieure (3) des éléments de support.

