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SUSPENDED CEILINGS

This invention relates to suspended ceilings, and more particularly relates to a runner for use in constructing a suspended ceiling grid; by means of such a grid, ceiling boards and panels, and fittings such as light fittings, can be supported between the runners of the grid beneath supporting structure of a building. An example of one such runner and grid system is described in patent specification No. 2 145 752A.

In one of its aspects the invention provides a composite runner suitable for use in constructing a suspended ceiling grid, the runner comprising a primary section and a capping section which embraces a base portion of the primary section so as to cover the base portion as viewed from beneath the runner, the capping section being secured by means of engagement of the capping section with side walls of the base portion.

Such a composite runner construction enables a decorative finish to be given to the bottom of the runner (which will remain visible from beneath in an installed ceiling) in an improved manner. The capping section can be of a lighter construction than a load-bearing primary section, and may be formed from pre-decorated stock. Each section may be formed in one piece from metal strip, the primary section being, for example, of galvanised steel and the capping section of pre-painted aluminium.

In a preferred construction, top edges of outwardly upturned bottom margins of depending portions of the primary section, providing the side walls of the base portion, provide longitudinally-extending shoulders of the base portion which resist removal of

the capping section. The capping section may be provided with longitudinally-extending ribs which engage above the shoulders. Lateral spring tension in the base portion of the primary section, and/or in the capping section across the base portion, is to be preferred, the ribs of the capping section snapping into place over the shoulders of the base portion in pressing the capping section on to the base portion in assembling the runner.

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The capping section preferably comprises an upper portion in the form of channel to receive and embrace the base portion of the primary section, the channel side walls engaging the side walls of the base portion to secure the capping section. Outer side walls of the capping section are in a preferred construction provided by masking portions turned outwardly and downwardly from the tops of the side walls of the upper section, the outer side walls extending down to a position spaced well below the upper portion, and bottom margins of the masking portions being turned inwardly towards one another (i.e. generally laterally inwardly of the section).

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There now follows a description, to be read with reference to the accompanying drawing, of a composite runner which illustrates the invention by way of example.

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The single drawing is an end view of the runner.

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A composite runner for use in constructing a suspended ceiling grid comprises a primary section 10, formed from galvanised steel strip, and a capping section 12 formed from pre-painted aluminium strip. The material from which the capping section 12 is

formed is significantly thinner than that from which the primary section 10 is formed, the latter being essentially the load-bearing component of the composite construction and the former being largely (though not solely) a decorative component.

The primary section 10 is formed from a single length of metal strip, folded down the middle on to itself, to form conventional head bulb 14 and central web 16 portions of the section. At the bottom of the double-leaf web portion 16 (considering the section in its normal orientation in use) the two portions of strip are each turned to extend horizontally outwardly from the web and then vertically downwards to form, respectively, top wall portions 18 and 20 and inner portions 22 and 24 of side walls of a base portion 26 of the section. Outwardly upturned bottom margins 28 and 30 of the two depending portions of the strip partly overlap the inner portions 22 and 24 of the base side walls to provide outer portions of the side walls. The top edges so presented, of the upturned margins 28 and 30, provide continuous shoulders 32 and 34 of the base portion 26 which extend longitudinally of the section. The base portion 26 so constructed is of an inverted channel form centred on the web portion 16 of the section.

The capping section 12, also formed from a single length of metal strip, comprises an upper portion 36 in the form of channel to receive and embrace the base portion 26 of the primary section; the channel is defined by a flat, horizontal, bottom wall 38 and vertical side walls 40 and 42 which engage the side walls of the base portion 26 to secure the cladding section. The side walls 40 and 42 of the channel are both bulged inwardly of the channel (i.e. laterally of

the section) to provide continuous ribs 44 and 46 which extend longitudinally of the section. In the assembled runner, the ribs 44 and 46 are engaged above the shoulders 32 and 34 of the base portion 26 of the primary section to resist removal of the capping section.

Outer side walls 48 and 50 of the capping section 12 are provided by masking portions of the strip which are turned outwardly and vertically downwardly from the tops of the side walls 40 and 42 of the upper portion 36, the outer walls extending down to a position spaced well below the bottom wall 38 of the upper portion 36; the outer side walls 48 and 50 extend down to approximately twice the depth of the channel side walls 40 and 42. Bottom margins 52 and 54 of the masking portions are turned from the bottoms of the outer side walls to extend horizontally inwardly (towards one another) as masking bands, hems 56 and 58 of the bottom margins being turned back over upper surfaces of the masking bands to hide the edges of the strip.

Residual spring tension, laterally of the capping section 12 and of the base portion 26 of the primary section 10, assists in retention of the capping section in the assembled runner. As formed, and in a relaxed condition of the section, the two leaves of the web 16 of the primary section diverge slightly from one another as they extend down from the head bulb 14. Upon assembling the capping section 12 on to the base portion 26 of the primary section, the channel side walls 40 and 42 (and in particular the ribs 44 and 46) cause the base portion 26 to be squeezed laterally and the two leaves of the web 16 to be brought together. As the capping section is pressed fully home, the

ribs 44 and 46 snap into place over the shoulders 32 and 34. Even after the ribs have so snapped into place, there remains tension across the assembly tending to urge the leaves of web 16 together.

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A suspended ceiling grid can be constructed in a conventional manner utilising such composite runners, the capping section 12 of each runner covering the base portion 26 of the structural primary section, and providing a decorative finish to the bottom of the runner which remains visible from beneath in an installed ceiling.

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CLAIMS

1. A composite runner suitable for use in
5 constructing a suspended ceiling grid, the runner
comprising a primary section and a capping section
which embraces a base portion of the primary section so
as to cover the base portion as viewed from beneath the
runner, the capping section being secured by means of
10 engagement of the capping section with depending side
walls of the base portion.
2. A composite runner according to claim 1 in which
downwards removal of the capping section is resisted by
15 engagement of projecting features of the capping
section above longitudinally-extending shoulders of
the side walls.
3. A composite runner according to claim 2 in which
20 the shoulders are provided by top edges of outwardly
upturned bottom margins of depending portions of the
primary section forming the side walls of the base
portion.
4. A composite runner according to either of claims 2
25 and 3 in which the projecting features of the capping
section comprise longitudinally-extending ribs.
5. A composite runner according to any one of claims
30 1 to 4 in which the capping section comprises an upper
portion in the form of channel to receive and embrace
the base portion of the primary section, the channel
side walls engaging the side walls of the base portion
to secure the capping section.

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6. A composite runner according to claim 5 in which outer side walls of the capping section are provided by masking portions turned outwardly and downwardly from the tops of the channel side walls, the outer side walls extending down to a position spaced well below the upper portion.

7. A composite runner according to claim 6 in which bottom margins of the masking portions are turned inwardly towards one another laterally of the section.

8. A composite runner constructed and arranged substantially as hereinbefore described with reference to the accompanying drawing.

