Claims

1. An elongated section for construction structures, the elongated section comprising a plurality of sides that enclose a core of the elongated section, each pair of sides of the plurality of sides defining a respective corner of the elongated section, each side of the plurality of sides comprising:

a first retaining channel and a second retaining channel adjacent to the respective corner of the elongated section, the first and second retaining channels being a mirror image of each other;

each retaining channel configured for engaging a respective retaining member for supporting a structural panel between the retaining members; and

each retaining channel comprising:

a channel slot extending perpendicularly into the side, the channel slot for engaging a first end of a front face of the respective retaining member; and

a channel end opposite to the channel slot for engaging a second end of a rear face of the respective retaining member,

wherein the first end engaged into the channel slot holds the front face and enables compression of the rear face towards the front face and enables releasing of the compression to move the rear face away from the front face, thereby engaging the second end in the channel end.

2. The elongated section according to claim 1, wherein the channel end comprises a notch for engaging with a hook of the second end of the respective retaining member.

3. The elongated section according to claim 1 or 2, wherein the elongated section comprises four corners and four mutually perpendicular sides, such that each pair of the mutually perpendicular sides is defined by a respective one of the four corners.

4. The elongated section according to any one of claims 1 to 3, wherein the sides are identical to each other.

5. The elongated section according to any one of claims 1 to 4, wherein the core is hollow.

6. A construction structure comprising:

the elongated section according to any one of claims 1 to 5;

a first retaining member for engaging with the first retaining channel of the elongated section, the first retaining member comprising:

the first end for engaging with the channel slot of the first retaining channel; and

the second end opposite to the first end, the second end for engaging with the channel end of the first retaining channel.

7. The construction structure according to claim 6, further comprising a second retaining member for engaging with the second retaining channel of the elongated section, the second retaining member comprising:

the first end for engaging with the channel slot of the second retaining channel; and

the second end opposite to the first end, the second end for engaging with the channel end of the second retaining channel.

8. The construction structure according to claim 6 or 7, wherein each retaining member comprises:

a front face comprising the first end extending downwardly from the front face for engaging with the respective channel slot; and

a rear face parallel to and integral with the front face, the rear face comprising the second end opposite to the first end, the second end extending downwardly from the rear face for engaging with the respective channel end.

9. The construction structure according to claim 8, wherein the front face comprises a recess for accommodating a resilient element.

10. The construction structure according to claim 8 or 9, wherein the first end comprises roughened surfaces.

11. The construction structure according to claim 6 or 7, wherein each retaining member comprises:

a front face comprising the first end extending downwardly from the front face for engaging with the respective channel slot; and

a side face perpendicular to and integral with the front face, the side face comprising the second end opposite to the first end, the second end extending sideways from the front face for engaging with the respective channel end.

12. The construction structure according to claim 11, wherein the front face comprises a first recess for accommodating a resilient element.

13. The construction structure according to claim 11 or 12, wherein the front face comprises a second recess for accommodating a fastener.

14. The construction structure according to any one of claims 11 to 13, wherein the first end comprises roughened surfaces.

15. The construction structure according to any one of claims 6 to 14, further comprising the structural panel supported between the retaining members.

16. A computer program comprising computer executable instructions that, when executed by a processor, cause the processor to control an additive manufacturing apparatus to manufacture a product comprising the elongated section according to any one of claims 1 to 5.

17. A method of manufacturing a product via additive manufacturing, the method comprising:

obtaining an electronic file representing a geometry of the product wherein the product comprises the elongated section according to any one of claims 1 to 5; and

controlling an additive manufacturing apparatus to manufacture, over one or more additive manufacturing steps, the product according to the geometry specified in the electronic file.

5