CLAIMS

1. A connector for connecting together first and second elongate members, each of the members comprising an open channel extending along the member, the channel having an opening along one side of the member and being partially enclosed by a lip extending along the opening, the connector comprising:

   a first end portion shaped to fit into the channel of the first member via one end of the first member; and

   a second end portion shaped to permit its insertion into the channel of the second member via the opening when the connector is in a first rotational position with respect to the second member, the second end portion comprising a first engagement structure which is shaped to engage with the lip of the second member when the inserted connector is rotated within the channel from the first rotational position into a second rotational position with respect to the second member, characterised in that

   the cross section of the second end portion is generally rectangular, and at least two opposite edges of the connector along at least a portion of its length are bevelled to permit rotation of the second end portion within the channel.

2. A connector according to claim 1, wherein the second end portion is dimensioned to be trapped within the channel by the lip when the connector is rotated within the channel.

3. A connector according to claim 1, wherein the first engagement structure comprises a groove which is shaped and positioned to engage with the lip when the connector is inserted into the channel and rotated from the first rotational position into the second rotational position.

4. A connector according to claim 3, wherein the groove extends around at least a portion of the connector at a distance from an end of the connector substantially equal to the depth of the channel.

5. A connector according to any preceding claim, wherein the cross section of the first end portion is dimensioned to substantially match the internal cross section of the channel.

6. A connector according to any preceding claim, wherein the cross section of the second end portion has a first dimension which is less than or equal to the width of the opening to the channel and a second dimension perpendicular to the first dimension which is greater than the width of the opening to the channel.

7. A connector according to claim 6, wherein the second dimension is substantially equal to the internal width of the channel, such that the second end portion of the connector substantially fills the width of the channel when the connector is in its second rotational position.

8. A connector according to any preceding claim, wherein the first and second elongate members are C channels.

9. A connector according to any preceding claim, wherein the angular displacement of the second rotational position from the first rotational position is 90^0.

10. A connector according to any preceding claim, wherein the second end portion is engageable with the channel via a cut out in a face of the second member opposite to the face in which the opening is provided.

11. A connector according to any preceding claim, wherein the engagement structure comprises a tapered slot which is shaped and positioned to engage with the lip when the connector is inserted in to the channel and rotated from the first rotational position to the second rotational position, the tapered shape serving to guide the lip as it enters the notch into a narrow portion of the slit which grips both sides of the lip.

12. A connector according to claim 11, wherein two notches are provided, one in each of two opposite edges of the connector.

13. A connector according to any preceding claim, wherein the first end portion and the second end portion have substantially the same shape.

14. A connector according to any preceding claim, wherein the connector comprises a channel or cavity for permitting electrical wiring to pass through a joint, formed by the connector, between the first and second members.

15. A connector according to any preceding claim, wherein one or both of the first end and the second end of the connector have a radiused or chamfered leading edge to facilitate insertion into the first and/or second elongate members.