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(54) **Engaging assembly for a floor covering, in particular floor trim assembly**

(57) An engaging assembly (10) for a floor covering, the engaging assembly comprising a first engaging member (12) for engaging a floor, and a second engaging member (14) for engaging a floor covering. The first engaging member comprises a first securing formation (16), and the second engaging member comprises a second securing formation (18). The first and second securing formations are co-operable with each other to allow the first engaging member to be connected to the second engaging member.

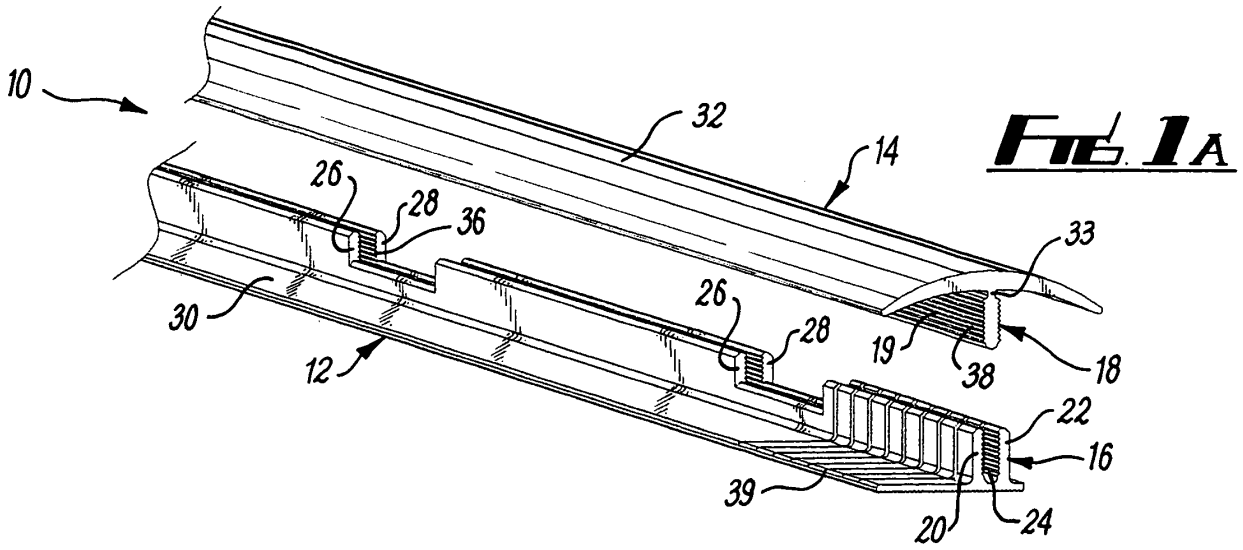


FIG. 1A

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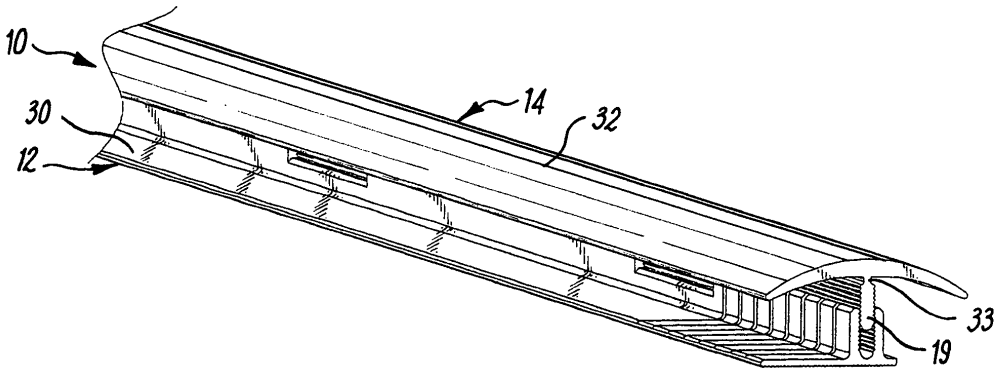


FIG. 1B

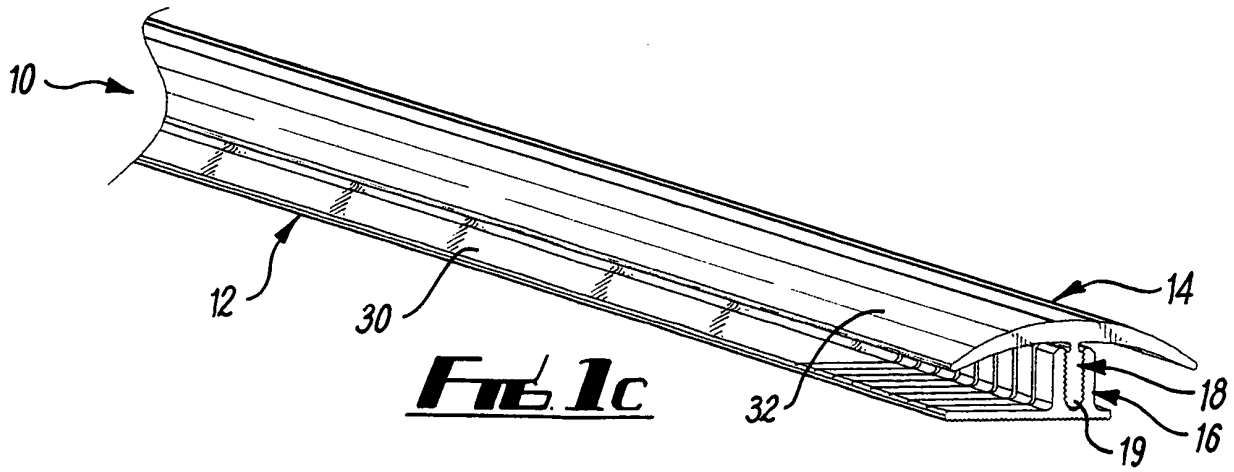


FIG. 1C

Description

[0001] This invention relates to engaging assemblies for floor coverings. In particular, but not exclusively, the invention relates to floor trim assemblies.

[0002] Known floor trim assemblies for use as an edging around laminated flooring, or to bridge the gap between adjacent areas of flooring comprise several different components and packages requiring more display space from the retailer and a more informed choice by the consumer. This gives potential for the consumer to select a product which is dimensionally incompatible with the consumer's flooring. This can often be off putting to customers.

[0003] According to one aspect of this invention, there is provided an engaging assembly for a floor covering, the engaging assembly comprising a first engaging member for engaging a floor, and a second engaging member for engaging a floor covering, the first engaging member comprising a first securing formation, and the second engaging member comprising a second securing formation, wherein the first and second securing formations are co-operable with each other to allow the first engaging member to be connected to the second engaging member.

[0004] The engaging assembly may comprise a floor trim assembly.

[0005] Preferably, the first and second securing formations are configured to allow direct co-operation with each other. Preferably, the first and second securing formations are configured to allow the first and second securing formations to engage one another directly, wherein the first engaging member can be secured to the second engaging member by means of said direct engagement.

[0006] The engaging assembly may comprise a connecting element to connect the first engaging member to the second engaging member. The connecting element may comprise a lower intermediate securing formation co-operable with the first securing formation.

[0007] The lower intermediate securing formation may be configured to allow direct co-operation with the first securing formation. Preferably, the lower intermediate securing formation is configured to allow the lower intermediate securing formation to engage the first securing formation directly, wherein the connecting element can be secured to the first engaging member by way of said direct engagement.

[0008] The connecting element may comprise an upper intermediate securing formation co-operable with the second securing formation.

[0009] The upper intermediate securing formation may be configured to allow direct co-operation with the second securing formation. Preferably, the upper intermediate securing formation is configured to allow the upper intermediate securing formation to engage the second securing formation directly, wherein the connecting element can be secured to the second engaging member by way of said direct engagement.

[0010] The upper intermediate securing formation may be co-operable with a lower intermediate securing formation on a further connecting element,

[0011] The lower intermediate securing formation on the further connecting element may be configured to allow direct co-operation with the upper intermediate securing formation on the first mentioned connecting element. Preferably, the lower intermediate securing formation on the further connecting element is configured to allow it to engage the upper intermediate securing formation on the first mentioned connecting element directly, wherein the first mentioned connecting element can be secured to the further connecting element by way of said direct engagement.

[0012] The further connecting element may include an upper intermediate securing formation, which may be co-operable with the second securing formation on the second engaging member. The upper intermediate securing formation on the further connecting element may be configured to allow direct co-operation with the lower securing formation on the second engaging member. Preferably, the upper intermediate securing formation on the further connecting element is configured to allow it to engage the lower intermediate securing formation on the second engaging member directly, wherein the further connecting element can be secured to the second engaging element by way of said direct engagement.

[0013] The first engaging member may be elongate and may comprise a transversely extending elongate foot member. Preferably, the foot member extends from the first securing formation, and may be elongate, conveniently extending the length of the first engaging member.

[0014] At least one end region of the first engaging member may comprise a plurality of weakness lines to enable an end portion of the first engaging member to be removed.

[0015] Both end regions of the first engaging member may comprise a plurality of said weakness lines to allow an end portion at each end region of the first engaging member to be removed. This has the advantage in the preferred embodiment of allowing the desired amount of end portion to be removed from one or both ends of the first engaging member to enable the first engaging member to be the desired length.

[0016] The second engaging member may be elongate, and may comprise a cover portion to engage a floor covering. The cover portion may be elongate and may extend on opposite sides of the second securing formation. Strengthening means may be provided on the cover portion to strengthen the cover portion. The strengthening means may comprise a plurality of ribs, each extending transversely across the cover portion. Preferably, the cover portion has an upper face which may be convexly curved.

[0017] The first engaging member may define a rebate configured so as to allow the rebate to receive a connecting member. Preferably, the engaging assembly defines a plurality of said rebates, which may be arranged in succession along the first engaging member, Preferably, the

rebates are spaced from one another.

[0018] The first securing formation may comprise a pair of opposed walls, which may define a recess therebetween. The walls are preferably elongate and the recess may be a channel.

[0019] The, or each, rebate may be defined in the walls. Preferably the rebates in one wall are aligned with the rebates in the opposite wall.

[0020] The second securing formation may comprise a projection. The projection may be elongate. The projection may be configured to allow it to be received in the aforesaid recess of the first securing formation. Preferably, the projection is configured to allow it to be a tight fit in the recess.

[0021] The aforesaid upper intermediate securing formation may comprise a pair of opposed walls, which may define a recess therebetween. The walls of the upper intermediate securing formation may be elongate, and the recess may be a channel.

[0022] The aforesaid lower intermediate securing formation may comprise a projection. The projection of the lower intermediate securing formation may be configured to allow it to be received in the recess of the first securing formation and/or in the recess of the upper intermediate securing formation. The projection of the lower intermediate securing formation may be configured to allow it to be received in the aforesaid recess at a rebate.

[0023] The second securing formation and the lower intermediate securing formation may comprise a plurality of outwardly extending serrations to engage the first securing formation or to engage the upper intermediate securing formation, to secure the securing formations together.

[0024] The first securing formation and the upper intermediate securing formation may comprise a plurality of inwardly extending serrations to engage the second securing formation or the lower intermediate securing formation.

[0025] In the preferred embodiment, the dimensions of the components, namely first engaging member, the second engaging member and each connecting element may be selected so that different arrangements of the components provides a different range of heights. Preferably, the upper limit of the range of heights of a first arrangement is the lower limit of a range of heights of a second arrangement. The upper limit of the range of heights of the second arrangement may be the lower limit of the range of heights of a third arrangement. The upper limit of the range of heights of the third arrangement may be the upper limit of the range of heights of a fourth arrangement.

[0026] An embodiment of the invention will now be described by way of example only, with reference to the accompanying drawings, in which

Figs 1 A to 1C show a floor engaging assembly in which the first and second engaging members are secured directly to each other;

Figs 2A to 2C show the floor engaging assembly in which connecting elements are used to connect the first engaging member to the second engaging member, in which the connecting elements are arranged in first positions;

Figs 3A to 3C show the floor engaging assembly in which the first and second floor engagements are connected to each other by connecting elements in second positions;

Figs 4A to 4C show the floor engaging assembly in which the first and second floor engaging members are connected to each other by a plurality of pairs of connecting elements arranged in first positions;

Fig 5 shows an underside view of the second engaging member.

[0027] Referring to Figs 1A to 1C, there is shown a floor engaging assembly 10 comprising a first engaging member 12, and a second engaging member 14. The first engaging member 12 comprises an elongate first securing formation 16 and an elongate foot 30 extending transversely from the first securing formation 16 along its length. The second engaging member 14 comprises an elongate second securing formation 18, and an elongate cover 32 provided on top of the second securing formation 18 and extending along its length on either side of the second securing formation 18. The second securing formation 18 comprises a projection 19. The cover 32 is connected to the second securing formation 18 by a narrow neck portion 33, the purpose of which is explained below.

[0028] The first securing formation 16 comprises a pair of opposed walls, 20, 22, which define therebetween an elongate channel 24. The walls 20, 22 define a plurality of rebates 26, 28 at spaced regions along the respective walls 20, 22. The purpose of the rebates 26, 28 is explained below. The elongate foot 30 engages the floor. The purpose of the floor engaging assembly 10 is to engage a flooring such that the flooring is held underneath the cover 32.

[0029] Each end region of the first engaging member 12 includes a plurality of lines of weakness 39 extending transverse to the main axis of the first engaging member 12. These lines of weakness 39 allow end portions of the first engaging member 12 to be broken off to allow a user to provide a first engaging member 12 of a desired length.

[0030] Figs 1A to 1C show the application of the invention where height of the flooring held by the cover 32 is between substantially 6¾mm to substantially 11¼mm. For example, in Fig 1C, the projection 19 is fully received by the first securing formation 16, whereby the cover 32 can hold flooring having a height of substantially 6%mm. Fig 1 B shows the situation where the projection 19 is only partially received by the first securing formation 16, whereby the cover 32 can hold flooring having a height

of substantially 11¼mm. The inwardly extending serrations 36 on the walls 20, 22 engage the outwardly extending serrations 38 on the projection 19.

[0031] Referring to Figs 2A, 2B and 2C, there is shown the floor engaging assembly 10, in which connecting elements 40 are provided. The connecting elements 40 allow the cover 32 to be able to engage flooring having a height of between substantially 11¼mm to substantially 15¾mm. As can be seen, the connecting elements 40 comprise a lower intermediate securing formation 42 comprising a projection 44 having a plurality of outwardly extending serrations 46 thereon. The projection 44 is slightly shorter than the projection 19, thereby enabling the connecting element 40 to be received in the rebates 26, 28 and the intermediate projection 44 being received in the region of the channel 24 between the rebates 26, 28.

[0032] The connecting element 40 also includes an upper intermediate connecting formation 48, comprising a pair of opposed walls, 50, 52 each having a plurality of inwardly extending serrations 54 thereon. A channel 56 extends between the walls 50, 52. The upper intermediate securing formation 48 is configured to receive therein the projection 19 such that the outwardly extending serrations 38 on the projection 19 engage the inwardly extending serrations 54 on the walls 50, 52. As can be seen, Fig 2B shows the position of the second engaging member 14 when the projection 18 is received only partially in the channels 56 of the connecting elements 40.

[0033] Fig 2C shows the position where the projection 18 is fully received in the channel 56 in the connecting elements 40.

[0034] Figs 3A to 3C show an application of the embodiment described above which is similar to that shown in Figs 2A to 2C, with the exception that the connecting elements 40 are received by the first securing formation 16 in the main regions of the walls 20, 22 adjacent longitudinally to the rebates 26, 28.

[0035] Fig 3B shows the position in which the projection 19 is fully received in the channels 56 of the connecting elements 40, In this arrangement, the cover member 32 can receive flooring having a height of substantially 15¾mm. Fig 3C shows the position where the projection 19 is only partially received in the channel 56 and the cover 32 can engage a flooring of substantially 20¼mm.

[0036] Referring to Figs 4A to 4C, there is shown a further arrangement of the floor engaging assembly 10, in which a pair of connecting elements 40 are arrange one on top of the other at each rebate 26, 28. The projection 44 of the top connecting element 40 in the channel 56 of the bottom connecting element 40. The projection 18 of the second floor engaging member 14 is received in the channel 56 of the top connecting elements 40, and the projection 44 of the bottom connecting element 40 is received in the channel 24 at the rebates 26, 28.

[0037] Fig 4B shows the situation where the projection 18 of the second engaging member 14 is only partially received in the channel 56 of the top connecting element 40. In this position, the cover member 32 can receive flooring having a height of substantially 24¾mm. Fig 4C shows the position where the projection 18 is fully received in the channel 56 of the top connecting element, and the cover member 32 can receive flooring having a height of substantially 20¼mm.

[0038] Fig 5 shows an underside of the second engaging member, and as can be seen, the projection 18 extends lengthwise of the second engaging member 14, and the cover member 32 is provided on its underside with a plurality of strengthening ribs 60, which extend across the cover member 32.

[0039] As described above, the cover 32 is connected to the projection 19 by a narrow neck portion 33. This allows the cover to be tilted to one side or the other, in the event that the flooring on opposite sides of the engaging assembly 10 is of different heights.

[0040] There is thus described a floor engaging assembly which can accept a large range of height of flooring, from substantially 6¼mm up to 24¾mm with a minimum number of different components. The preferred embodiment has the advantage that it comprises a plurality of components, namely the first engaging member 12, the second engaging member 14 and a plurality of connecting elements 40 that can be arranged in a plurality of different arrangements. These arrangements cover a range of heights. Where the range of heights of one arrangement reaches its upper limit, the range of heights of another arrangement has its lower limit. This provides the advantage that the retailer only needs to sell a single packaged product and the consumer cannot buy a product that is incompatible with the consumer's flooring.

[0041] Various modifications can be made without departing from the scope of the invention.

[0042] Whilst endeavouring in the foregoing specification to draw attention to those features of the invention believed to be of particular importance it should be understood that the Applicant claims protection in respect of any patentable feature or combination of features hereinbefore referred to and/or shown in the drawings whether or not particular emphasis has been placed thereon.

Claims

1. An engaging assembly for a floor covering, the engaging assembly comprising a first engaging member for engaging a floor, and a second engaging member for engaging a floor covering, the first engaging member comprising a first securing formation, and the second engaging member comprising a second securing formation, wherein the first and second securing formations are co-operable with each other to allow the first engaging member to be connected to the second engaging member.

2. An engaging assembly according to claim 1 wherein

the first and second securing formations are configured to allow direct co-operation with each other, to allow the first and second securing formations to engage one another directly, wherein the first engaging member can be secured to the second engaging member by means of said direct engagement.

3. An engaging assembly according to claim 1 or 2 wherein the engaging assembly comprises a connecting element to connect the first engaging member to the second engaging member, the connecting element may comprise a lower intermediate securing formation co-operable with the first securing formation.

4. An engaging assembly according to claim 3 wherein the lower intermediate securing formation is configured to allow direct co-operation with the first securing formation to allow the lower intermediate securing formation to engage the first securing formation directly, wherein the connecting element can be secured to the first engaging member by way of said direct engagement.

5. An engaging assembly according to claim 3 or 4 wherein the connecting element comprises an upper intermediate securing formation co-operable with the second securing formation.

6. An engaging assembly according to claim 5 wherein the upper intermediate securing formation may be configured to allow direct co-operation with the second securing formation, to allow the upper intermediate securing formation to engage the second securing formation directly, wherein the connecting element can be secured to the second engaging member by way of said direct engagement.

7. An engaging assembly according to claim 6 wherein the upper intermediate securing formation is co-operable with a lower intermediate securing formation on a further connecting element.

8. An engaging assembly according to claim 7 wherein the lower intermediate securing formation on the further connecting element is configured to allow direct co-operation with the upper intermediate securing formation on the first mentioned connecting element, to allow said lower intermediate securing formation on the further connecting element to engage the upper intermediate securing formation on the first mentioned connecting element directly, wherein the first mentioned connecting element can be secured to the further connecting element by way of said direct engagement.

9. An engaging assembly according to claim 7 or 8 wherein the further connecting element includes an upper intermediate securing formation, which is co-operable with the second securing formation on the second engaging member.

10. An engaging assembly according to claim 9 wherein the upper intermediate securing formation on the further connecting element is configured to allow direct co-operation with the lower securing formation on the second engaging member, to allow said upper intermediate securing formation on the further connecting element to engage the lower intermediate securing formation on the second engaging member directly, wherein the further connecting element can be secured to the second engaging element by way of said direct engagement.

11. An engaging assembly according to any preceding claim wherein the first engaging member is elongate and comprises a transversely extending elongate foot member.

12. An engaging assembly according to Claim 11 wherein the foot member extends from the first securing formation, and is elongate, extending the length of the first engaging member.

13. An engaging assembly according to any preceding claim wherein at least one end region of the first engaging member comprises a plurality of weakness lines to enable an end portion of the first engaging member to be removed.

14. An engaging assembly according to claim 13 wherein both end regions of the first engaging member comprise a plurality of said weakness lines to allow an end portion at each end region of the first engaging member to be removed.

15. An engaging assembly according to any preceding claim wherein the second engaging member is elongate, and comprises a cover portion to engage a floor covering.

16. An engaging assembly according to claim 15 wherein the cover portion is elongate and extends on opposite sides of the second securing formation.

17. An engaging assembly according to claim 16 wherein strengthening means are provided on the cover portion to strengthen the cover portion, the strengthening means comprise a plurality of ribs, each extending transversely across the cover portion.

18. An engaging assembly according to claim 15, 16 or 17 wherein the cover portion has an upper face which is convexly curved.

19. An engaging assembly according to any preceding

claim wherein the first engaging member defines a rebate configured so as to allow the rebate to receive a connecting member.

20. An engaging assembly according to claim 19 wherein the engaging assembly defines a plurality of said rebates, which are arranged in spaced succession along the first engaging member.

21. An engaging assembly according to any preceding claim wherein the first securing formation comprises a pair of opposed walls, which define a recess therebetween,

22. An engaging assembly according to claim 21 wherein the walls are elongate and the recess is a channel,

23. An engaging assembly according to any of claims 19 to 22 wherein the, or each, rebate is defined in the walls., and the rebates in one wall are aligned with the rebates in the opposite wall.

24. An engaging assembly according to any preceding claim wherein the second securing formation comprises a projection.

25. An engaging assembly according to claim 24 wherein the projection is configured to allow it to be received in the aforesaid recess of the first securing formation.

26. An engaging assembly according to claim 25 wherein the projection is elongate and is configured to allow it to be a tight fit in the recess.

27. An engaging assembly according to claim 5 wherein the aforesaid upper intermediate securing formation comprises a pair of opposed walls, which define a recess therebetween.

28. An engaging assembly according to claim 27 wherein the walls of the upper intermediate securing formation are elongate, and the recess is a channel.

29. An engaging assembly according to claim 27 or 28 wherein the aforesaid lower intermediate securing formation comprise a projection, and the projection of the lower intermediate securing formation is configured to allow it to be received in the recess of the first securing formation and/or in the recess of the upper intermediate securing formation.

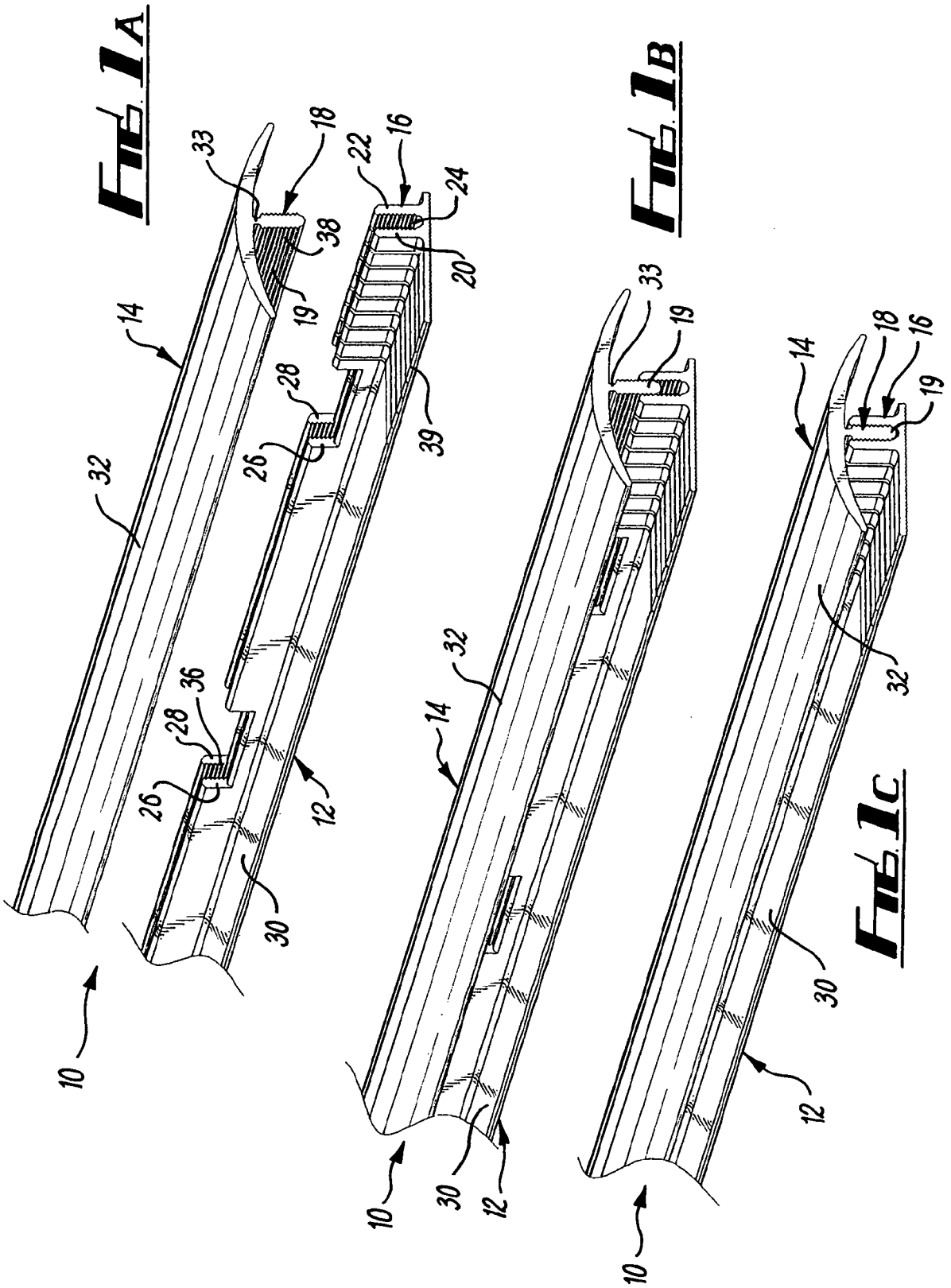
30. An engaging assembly according to claim 29 wherein the projection of the lower intermediate securing formation may be configured to allow it to be received in the aforesaid recess at a rebate.

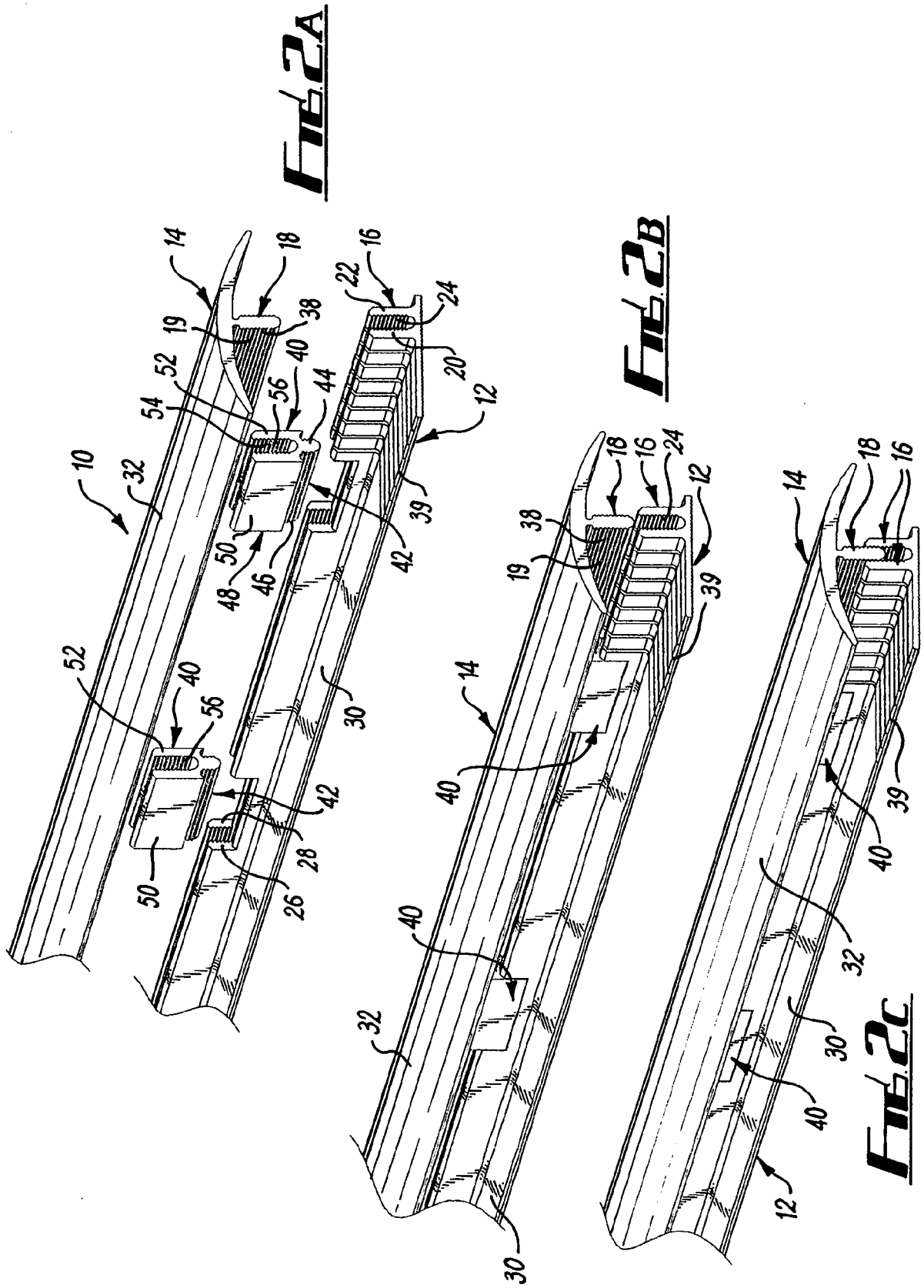
31. An engaging assembly according to claim 29 or 30 wherein the second securing formation and the lower intermediate securing formation comprise a plurality of outwardly extending serrations to engage the first securing formation or to engage the upper intermediate securing formation, to secure the securing formations together.

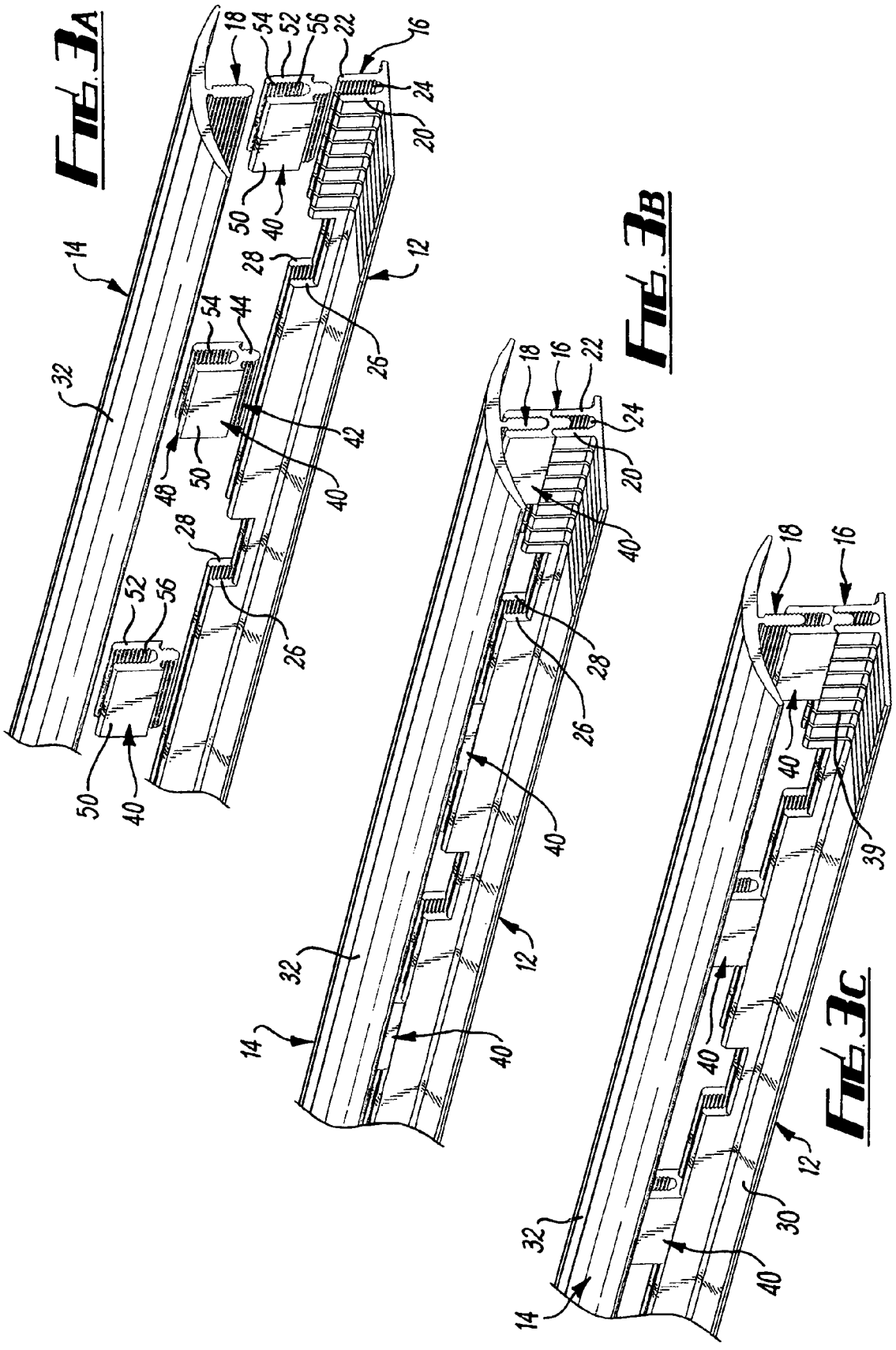
32. An engaging assembly according to claim 31 wherein the first securing formation and the upper intermediate securing formation comprise a plurality of inwardly extending serrations to engage the second securing formation or the lower intermediate securing formation.

33. An engaging assembly for a floor covering substantially as herein described with reference to the accompanying drawings.

34. Any novel subject matter or combination including novel subject matter disclosed herein, whether or not within the scope of or relating to the same invention as any of the preceding claims.


FIG. 1A
FIG. 1B
FIG. 1C
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FIG.2A
FIG.2B
FIG.2C


FIG. 3A
FIG. 3B
FIG. 3C

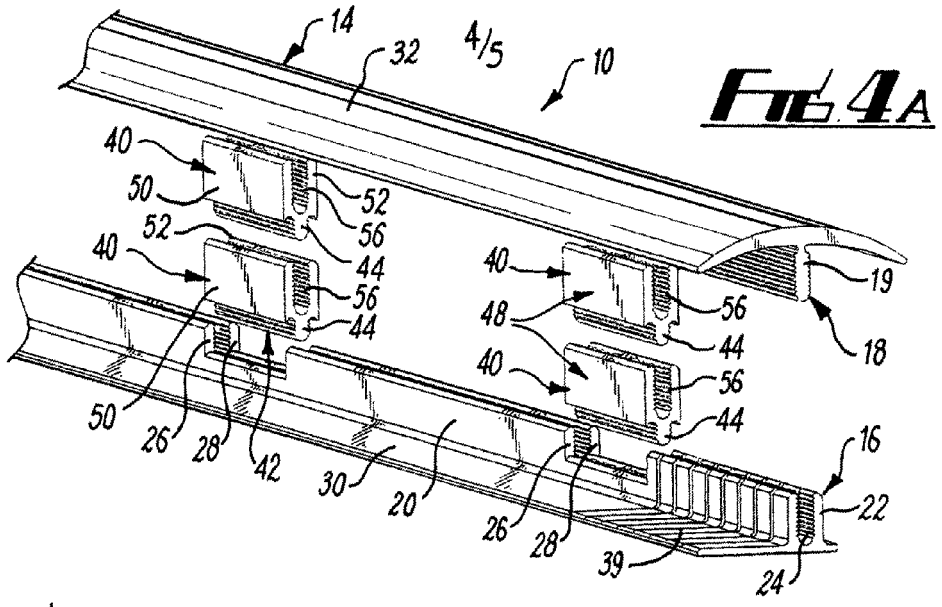


FIG. 4A

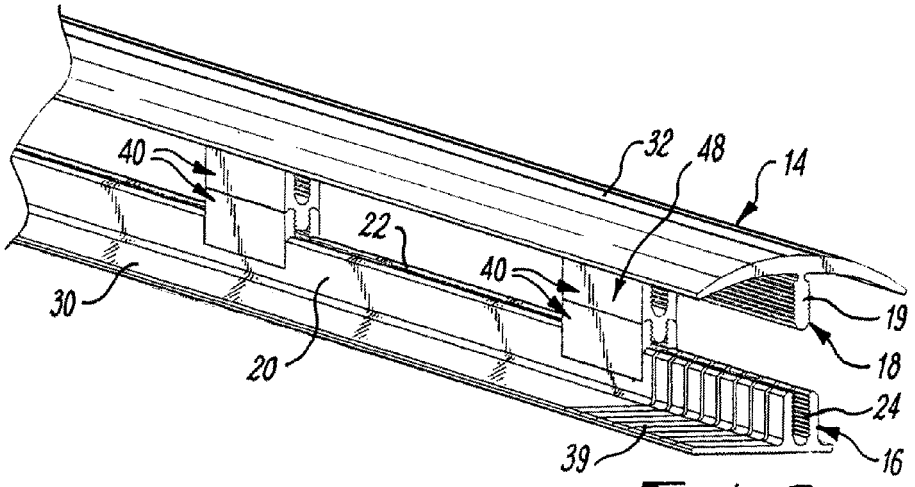


FIG. 4B

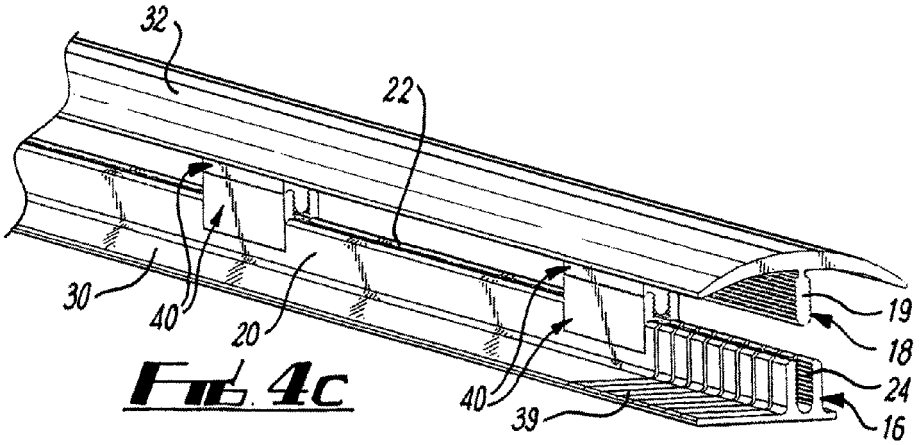


FIG. 4C

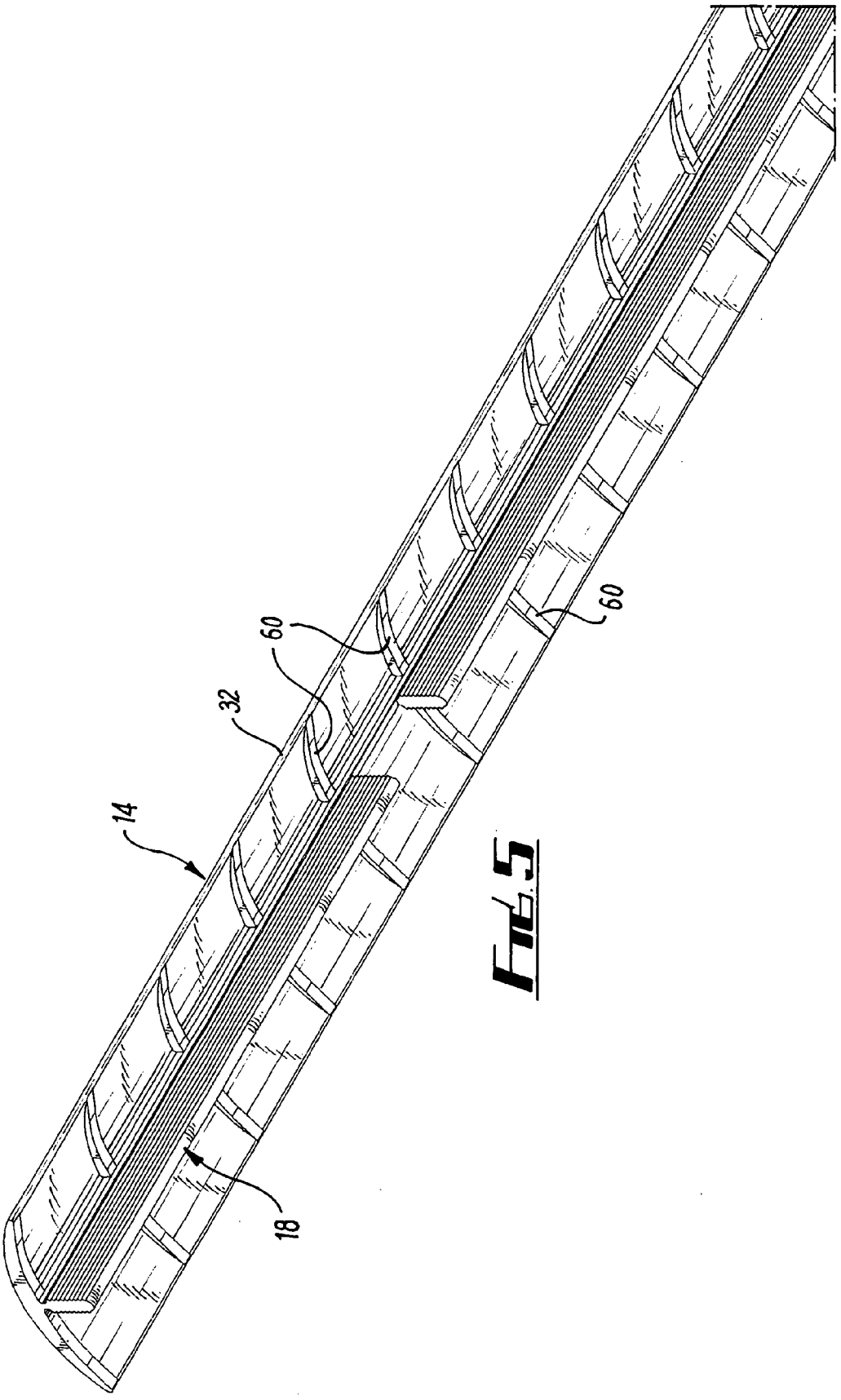


FIG. 5

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EUROPEAN SEARCH REPORT

Application Number
EP 05 25 8072

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	* paragraph [0024] - paragraph [0052] * * figures *		

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	* page 5, paragraph 2 - page 6, paragraph 7 * * figures *		

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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	16 May 2006	Bouyssy, V

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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EUROPEAN SEARCH REPORT

Application Number
EP 05 25 8072

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