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Amended claims in accordance with Rule 86 (2) EPC.

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(54) **Notched single-edge thinning scissors**

(57) A notched single-edge thinning scissors (B) is disclosed to have chamfered edges (151,152,153) formed in the notched blade (12) between the hair contact side (15) of the notched blade and the left sidewall (141), right sidewall (142) and bottom wall (143) of each notch (14), and between the cutting edges (17) of the teeth (13) of the notched blade and the left and right sidewalls (141,142) of each notch (14) for supporting the hair not to be cut during trimming.

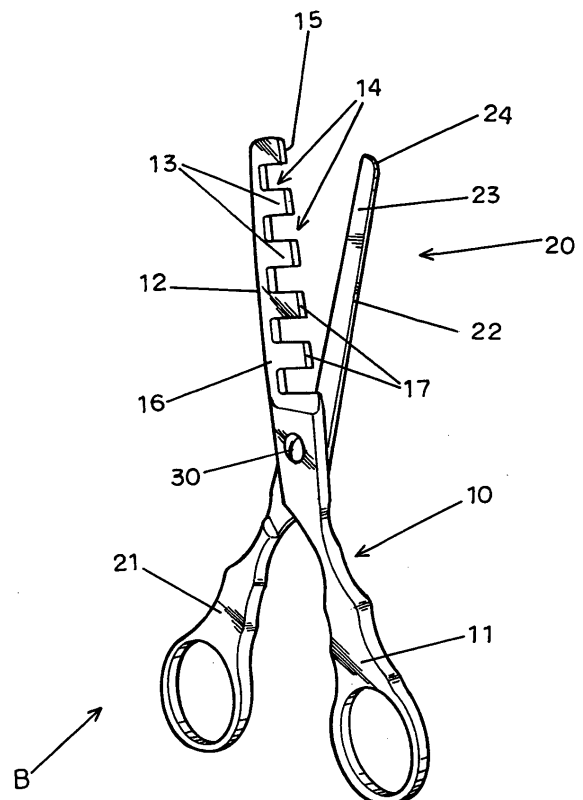


Fig.5

Description

BACKGROUND OF THE INVENTION

1. Field of the Invention

[0001] The present invention relates to scissors and more particularly, to a notched single-edge thinning scissors that has chamfered edges formed in the notched blades around the notches for supporting the hair not to be cut without causing damage to the hair not to be cut.

2. Description of the Related Art

[0002] A conventional notched single-edge thinning scissors **A** (see FIGS. 1 and 2) is comprised of a first scissors member **100** and a second scissors member **200** pivotally connected together with a pivot **300**. The first scissors member **100** has a handle (ring handle) **101** at one end and a blade **102** at the other end. The blade **102** has a contact side **106**, a distal side **107**, and a notched edge formed of teeth **103** and notches **104**. The width of the notches **104** is designed subject to the amount of the hair not to be cut during trimming (the design shown in FIG. 1 has relatively wider notches; the design shown in FIG. 2 has relatively narrow notched). Each tooth **103** has a cutting edge **105**. The second scissors member **200** has a handle **201** at one end and a blade **202** at the other end. The blade **202** is a cutting blade having a cutting side **203** and a distal side **204** opposite to the cutting side **203**. When closing the thinning scissors **A**, the cutting side **203** of the blade **202** of the second scissors member **200** is moved over the cutting edges **105** of the teeth **103** and the contact side **106** of the blade **102** of the first scissors member **100** to cut the hair. This design of notched single-edge thinning scissors is still not satisfactory in function. Because the intersected areas between the contact side **106** and distal side **107** of the blade **102** and the left and right sidewalls and bottom walls of the notches **104** are aligned in line **X** (see FIGS. 3 and 4), the hair not to be cut may be jammed in line **X**, i.e., in the intersected areas between the contact side **106** and distal side **107** of the blade **102** and the left and right sidewalls and bottom walls of the notches **104** during trimming, thereby causing damage to the hair not to be cut.

SUMMARY OF THE INVENTION

[0003] The present invention has been accomplished under the circumstances in view.

[0004] It is the main object of the present invention to provide a notched single-edge thinning scissors that eliminates the drawback of the aforesaid prior art design.

[0005] To achieve this and other objects of the present invention, the notched single-edge thinning scissors comprises a first scissors member and a second scissors member pivotally connected together with a pivot. The

first scissors member and the second scissors member each have a handle at one end thereof and a blade at an opposite end thereof. The blade of the first scissors member has a contact side, a distal side opposite to the contact side, and a notched edge formed of teeth and notches. Each tooth has a cutting edge. The blade of the second scissors member has a cutting side and a distal side opposite to the cutting side. The notches of the blade of the first scissors member define with the blade of the second scissors member a hair receiving space. Each notch has a left sidewall, a right sidewall, and a bottom wall. The contact side and distal side of the blade of the first scissors member each have first chamfered edges, second chamfered edges and third chamfered edges respectively connected to the left sidewall, right sidewall and bottom wall of each notch. The blade of the first scissors member has a plurality of chamfered edges formed in the intersected areas between the cutting edges and the left and right sidewalls of each notch.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006]

FIG. 1 is a plain view of a notched single-edge thinning scissors according to the prior art.

FIG. 2 is a plain view of another notched single-edge thinning scissors according to the prior art.

FIG. 3 is a sectional view taken along line R-R of FIG. 1.

FIG. 4 is a sectional view taken along line P-P of FIG. 1.

FIG. 5 is a perspective view of a notched single-edge thinning scissors according to the present invention.

FIG. 6 is a perspective view in an enlarged scale a part of the present invention.

FIG. 7 is a sectional view taken along line F-F of FIG. 11.

FIG. 8 is a sectional view taken along line E-E of FIG. 6.

FIG. 9 is similar to FIG. 7 but showing the blades of the two scissors members moved relative to each other.

FIG. 10 is similar to FIG. 8 but showing the blades of the two scissors members moved relative to each other.

FIG. 11 corresponds to FIG. 6 but viewed from another side.

FIG. 12 is a perspective view in an enlarged scale of a part of the present invention showing chamfered edges formed in the intersected areas between the cutting edges and the left and right sidewalls (I).

FIG. 13 is a perspective view in an enlarged scale of a part of the present invention showing chamfered edges formed in the intersected areas between the cutting edges and the left and right sidewalls (II).

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0007] Referring to FIGS. 5 and 6, a notched single-edge thinning scissors **B** in accordance with the present invention is shown comprised of a first scissors member **10** and a second scissors member **20** pivotally connected together with a pivot **30**. The first scissors member **10** has a handle (ring handle) **11** at one end and a blade **12** at the other end. The blade **12** has a notched blade having a contact side **15**, a distal side **16** opposite to the contact side **15**, and a notched edge formed of teeth **13** and notches **14**. The teeth **13** each have a cutting edge **17**. The second scissors member **20** has a handle (ring handle) **21** at one end and a blade **22** at the other end. The blade **22** is a cutting blade having a cutting side **23** and a distal side **24** opposite to the cutting side **23**. When closing the thinning scissors **B**, a hair receiving space **C** is defined between the notches **14** of the blade **12** of the first scissors member **10** and the blade **22** of the second scissors member **20** (see FIGS. 6 and 11). Each notch **14** has a left sidewall **141**, a right sidewall **142**, and a bottom wall **143**. The contact side **15** of the blade **12** has a first chamfered edges **151**, second chamfered edges **152** and third chamfered edges **153** respectively connected to the left sidewall **141**, right sidewall **142** and bottom wall **143** of each of the notches **14** (see FIG. 7). The distal side **16** of the blade **12** has a first chamfered edges **161**, second chamfered edges **162** and third chamfered edges **163** respectively connected to the left sidewall **141**, right sidewall **142** and bottom wall **143** of each of the notches **14** (see FIG. 8). When closing the thinning scissors **B**, the cutting side **23** of the blade **22** of the second scissors member **20** is moved over the cutting edges **17** of the teeth **13** and the contact side **15** of the blade **12** of the first scissors member **10** to cut the hair (see FIG. 6).

[0008] When trimming the hair, the blades **12**, **22** of the two scissors members **10**, **20** are moved relative to each other in proximity, and the cutting side **23** of the blade **22** of the second scissors member **20** is continuously maintained in contact with the cutting edges **17** and the contact side **15**, and therefore the cutting side **23** and the cutting edges **17** of the blade **12** of the first scissors member **10** work to cut the hair. The cut-off hair **H** falls along the cutting edges **17** (see FIG. 9). At this time, the notches **14** and the hair receiving space **C** receive the hair not to be cut **H1**. During trimming, the hair not to be cut **H1** being received in the notches **14** and the hair receiving space **C** is maintained in "sliding" contact with the chamfered edges **151~153** and the chamfered edges **161~163**, preventing damage (see FIGS. 9 and 10).

[0009] Referring to FIGS. 12 and 13, chamfered edges **171** are formed in all intersected areas between the cutting edges **17** and the left and right sidewalls **141**, **142** of the notches **14** (see FIG. 12) or in the bottom side of each intersected area between the cutting edges **17** and the left and right sidewalls **141**, **142** of the notches **14**

(see FIG. 13) for supporting the hair not to be cut **H1** during trimming.

[0010] As indicated above, by means of the chamfered edges **151~153**, **161~163**, **171**, the hair not to be cut **H1** being received in the notches **14** and the hair receiving space **C** is maintained in "sliding" contact with the chamfered edges **151~153**, **161~163**, **171**, and therefore the hair not to be cut **H1** can smoothly be moved away from the thinning scissors **B** without damage during trimming.

[0011] Although a particular embodiment of the invention has been described in detail for purposes of illustration, various modifications and enhancements may be made without departing from the spirit and scope of the invention.

Claims

1. A notched single-edge thinning scissors comprising a first scissors member and a second scissors member pivotally connected together with a pivot, said first scissors member and said second scissors member each having a handle at one end thereof and a blade at an opposite end thereof, the blade of said first scissors member having a contact side, a distal side opposite to said contact side, and a notched edge formed of teeth and notches, said teeth each having a cutting edge, the blade of said second scissors member having a cutting side and a distal side opposite to said cutting side, said notches of the blade of said first scissors member defining with the blade of said second scissors member a hair receiving space, each said notch having a left sidewall, a right sidewall, and a bottom wall; wherein the contact side and distal side of the blade of said first scissors member each have first chamfered edges, second chamfered edges and third chamfered edges respectively connected to the left sidewall, right sidewall and bottom wall of each said notch.
2. The notched single-edge thinning scissors as claimed in claim 1, wherein the blade of said first scissors member has a plurality of chamfered edges formed in the intersected areas between said cutting edges and the left and right sidewalls of each said notch.
3. The notched single-edge thinning scissors as claimed in claim 1, wherein the blade of said first scissors member has a plurality of chamfered edges formed in a bottom side of each intersected area between said cutting edges and the left and right sidewalls of each said notch.

Amended claims in accordance with Rule 86(2) EPC.

1. A notched single-edge thinning scissors (**B**) comprising a first scissors member (**10**) and a second scissors member (**20**) pivotally connected together with a pivot (**30**), said first scissors member (**10**) and said second scissors member (**20**) each having a handle (**11**, **21**) at one end thereof and a blade (**12**, **22**) at an opposite end thereof, the blade (**12**) of said first scissors member (**10**) having a contact side (**15**), a distal side (**16**) opposite to said contact side (**15**), and a notched edge formed of teeth (**13**) and notches (**14**), said teeth (**13**) each having a cutting edge (**17**), the blade (**22**) of said second scissors member (**20**) having a cutting side (**23**) and a distal side (**24**) opposite to said cutting side (**23**), said notches (**14**) of the blade (**12**) of said first scissors member (**10**) defining with the blade (**22**) of said second scissors member (**20**) a hair receiving space (**C**), each said notch (**14**) having a left sidewall (**141**), a right sidewall (**142**), and a bottom wall (**143**) ;

characterized in that the contact side (**15**) of the blade (**12**) of said first scissors member (**10**) each have first **rounded** chamfered edges (**151**), second **rounded** chamfered edges (**152**) and third **rounded** chamfered edges (**153**) respectively connected to the left sidewall (**141**), right sidewall (**142**) and bottom wall (**143**) of each said notch (**14**) within said hair receiving space (**C**) and also the distal side (**16**) of the blade (**12**) of said first scissors member (**10**) each have first rounded chamfered edges (**161**), second rounded chamfered edges (**162**) and third rounded chamfered edges (**163**) respectively connected to the left sidewall (**141**), right sidewall (**142**) and bottom wall (**143**) beyond the cutting edges (**17**).

2. The notched single-edge thinning scissors (**B**) as claimed in claim 1, **characterized in that** the blade (**12**) of said first scissors member (**10**) has a plurality of **rounded** chamfered edges (**171a**) formed in the intersected areas between said cutting edges (**17**) and the left and right sidewalls (**141**, **142**) of each said notch (**14**).

3. The notched single-edge thinning scissors (**B**) as claimed in claim 1, **characterized in that** the blade (**12**) of said first scissors member (**10**) has a plurality of **rounded points of intersection** (**171b**) formed in a bottom side of each intersected area between said cutting edges (**17**) and the left and right sidewalls (**141**, **142**) of each said notch (**14**).

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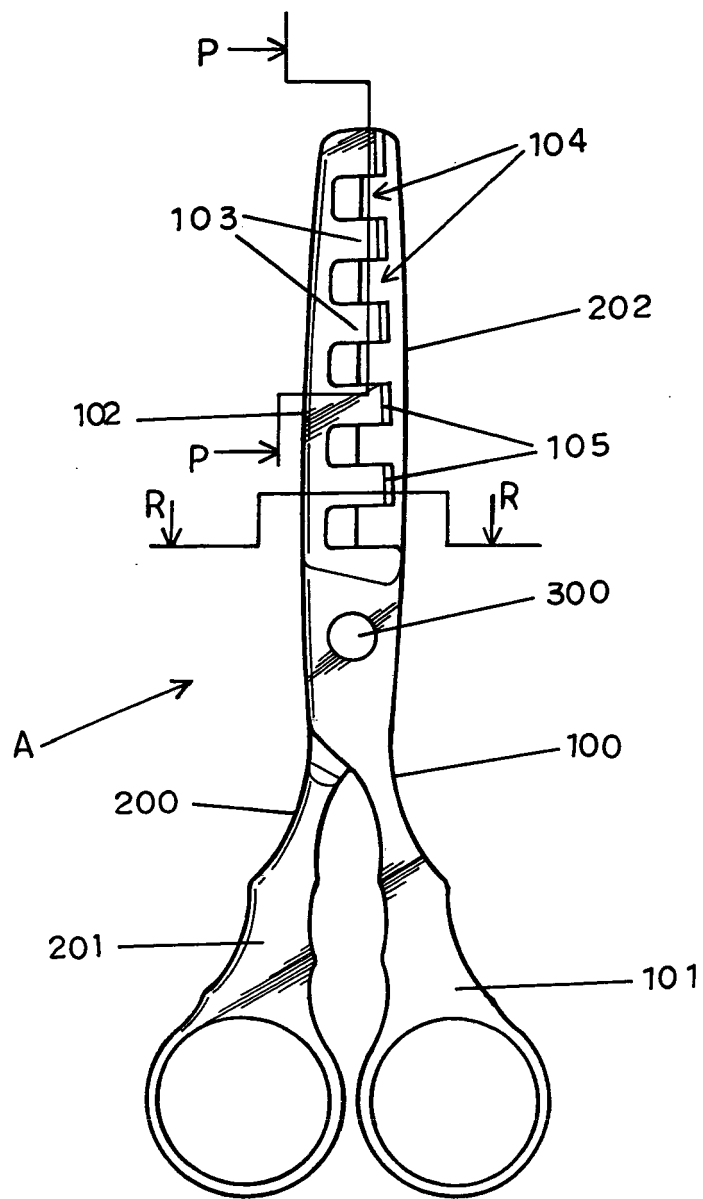


Fig.1(Prior Art)

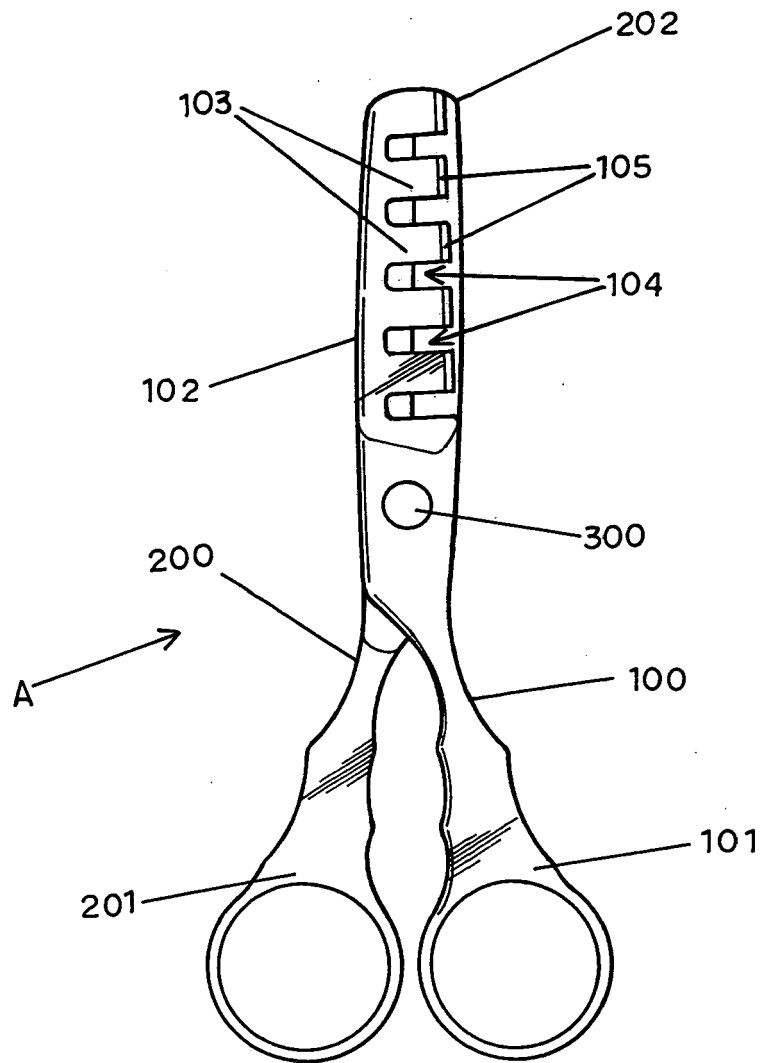
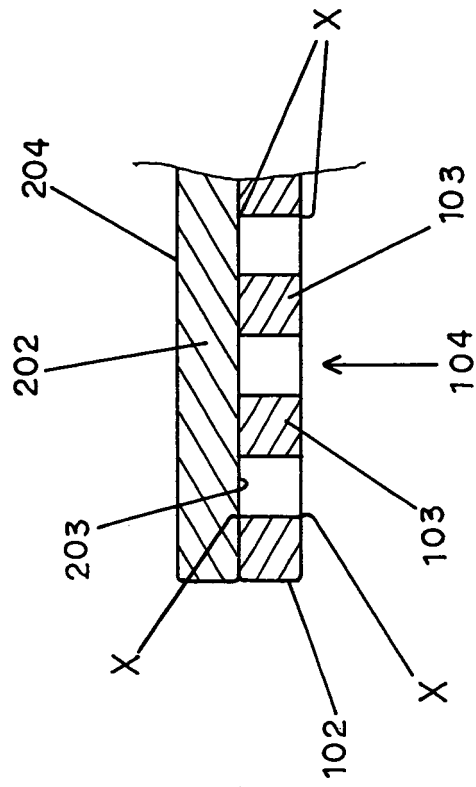
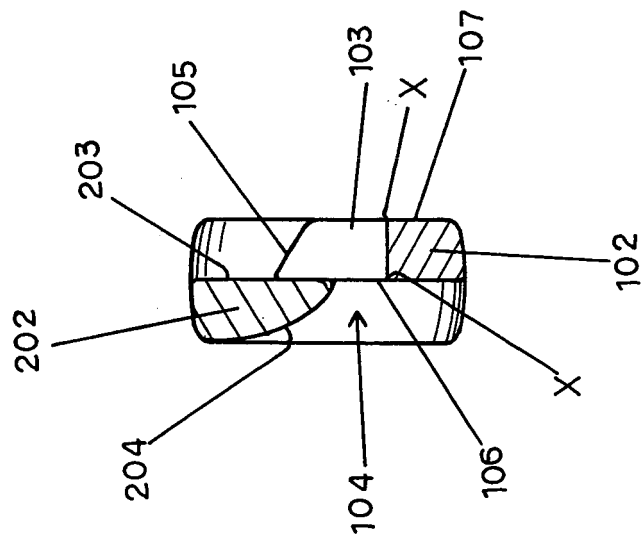


Fig.2(Prior Art)



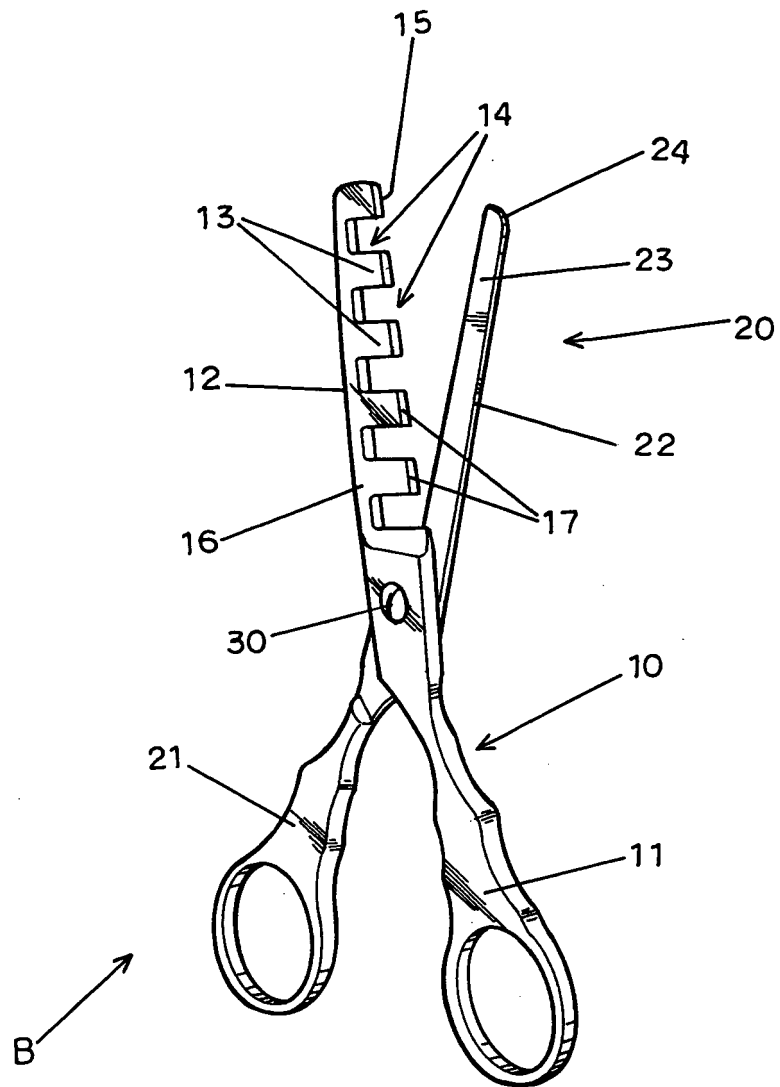


Fig.5

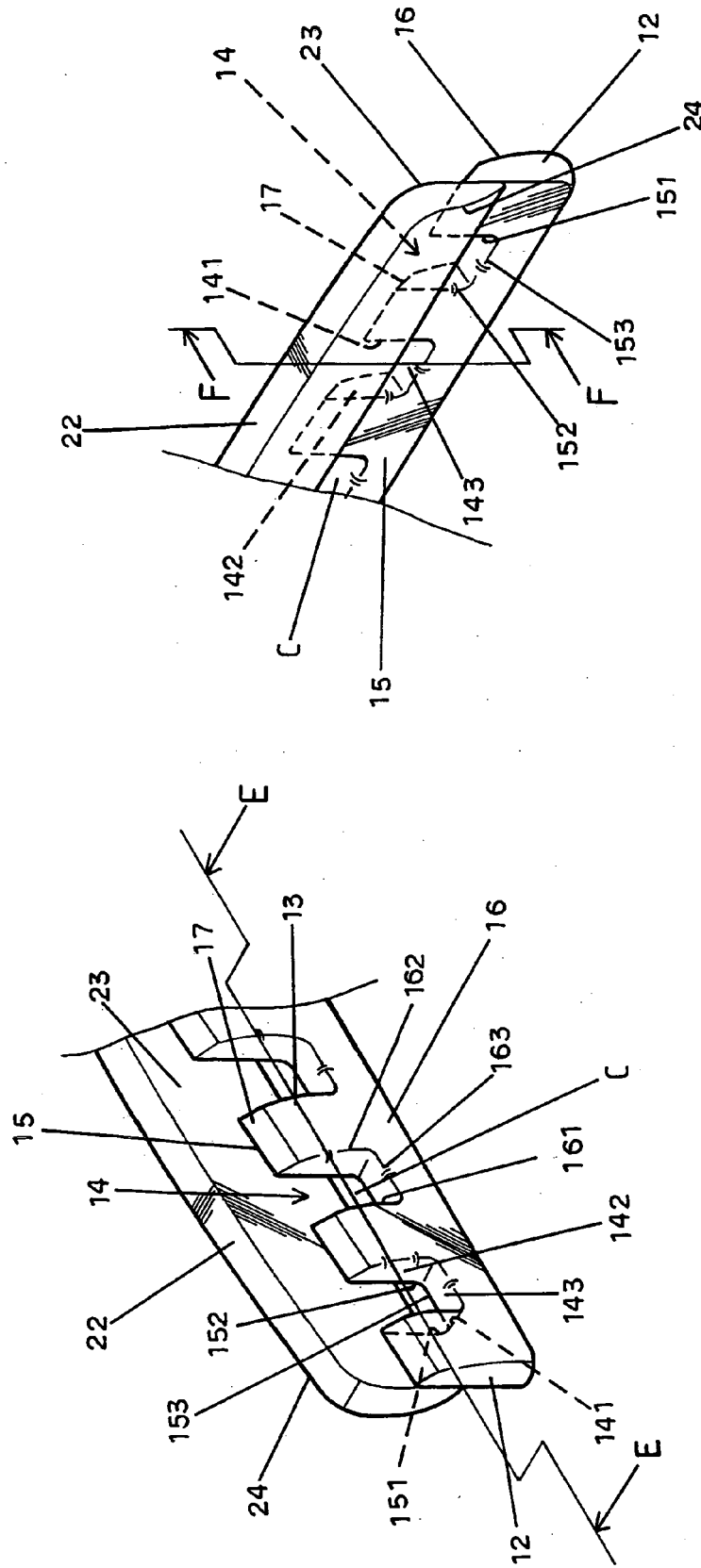


Fig.6

Fig.11

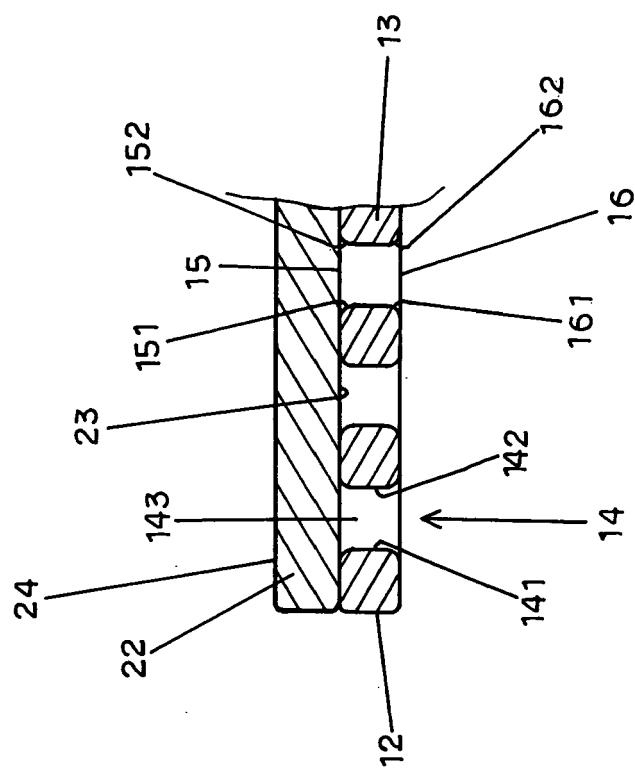


Fig. 7

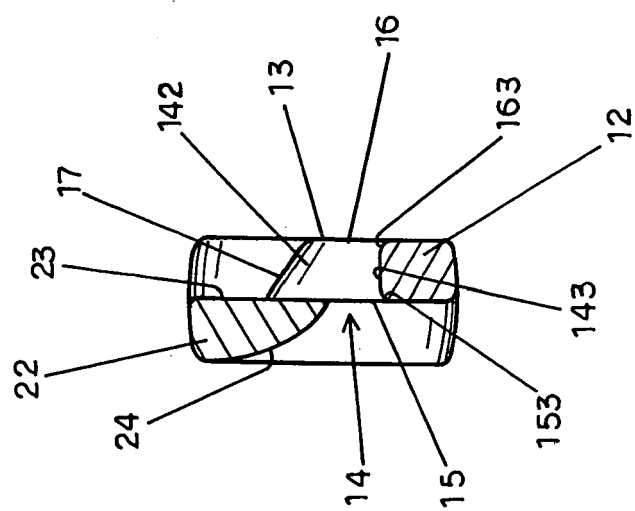


Fig. 8

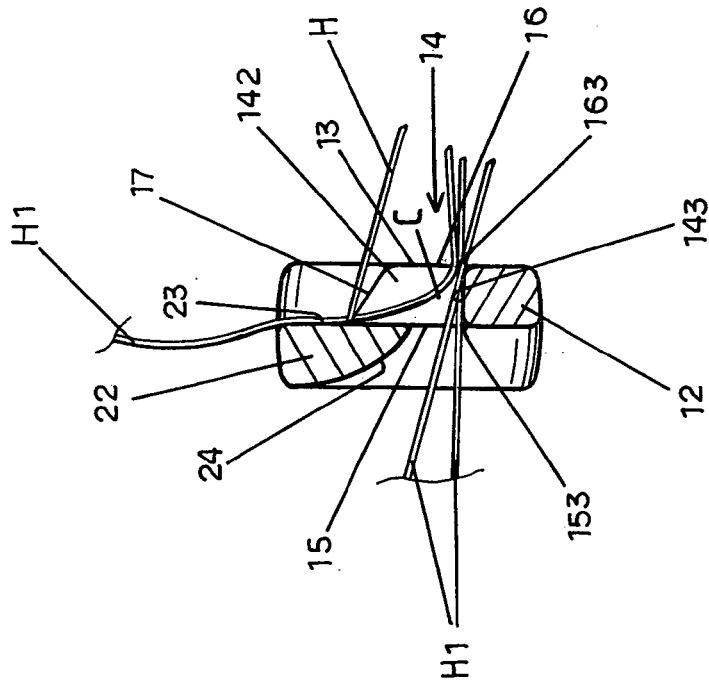


Fig.9

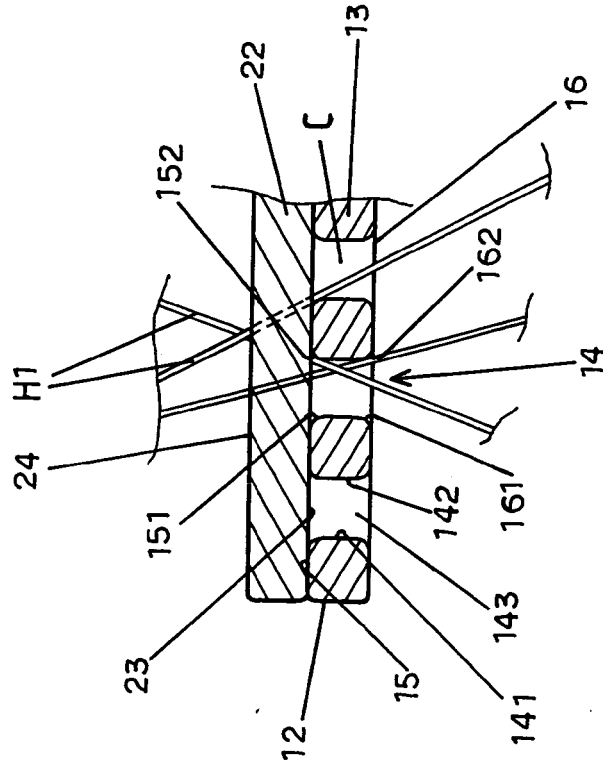
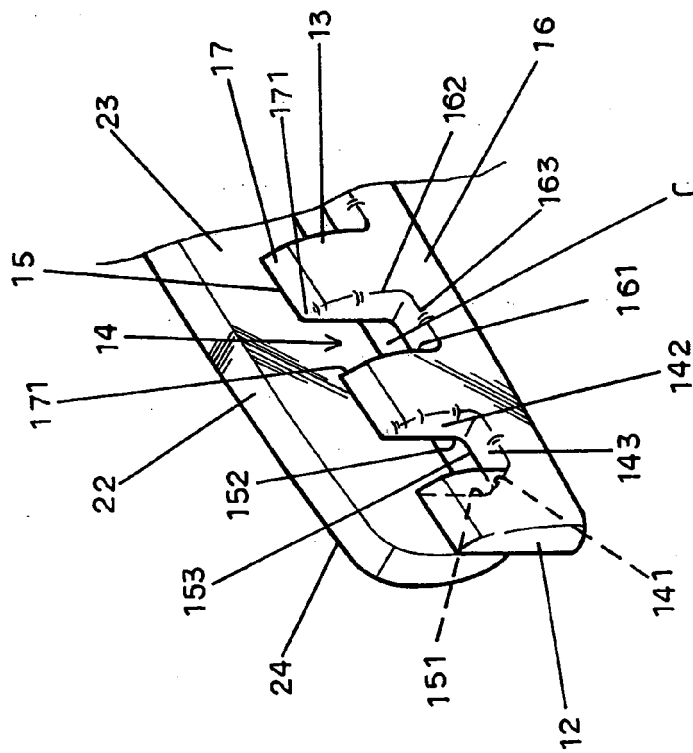
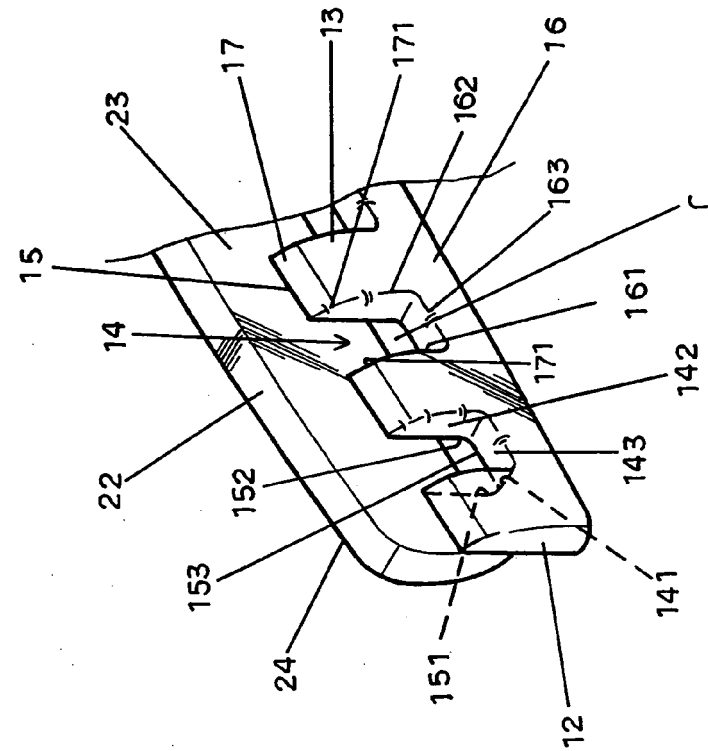


Fig.10





European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 04 36 0086

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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A	DE 36 03 036 A1 (HIRAKAWA, HACHIRO; HIRAKAWA, HACHIRO, SAKAI, OSAKA, JP) 14 August 1986 (1986-08-14) * page 3 - page 4; figures 1-10 *	1	
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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 10 February 2005	Examiner Maier, M
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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