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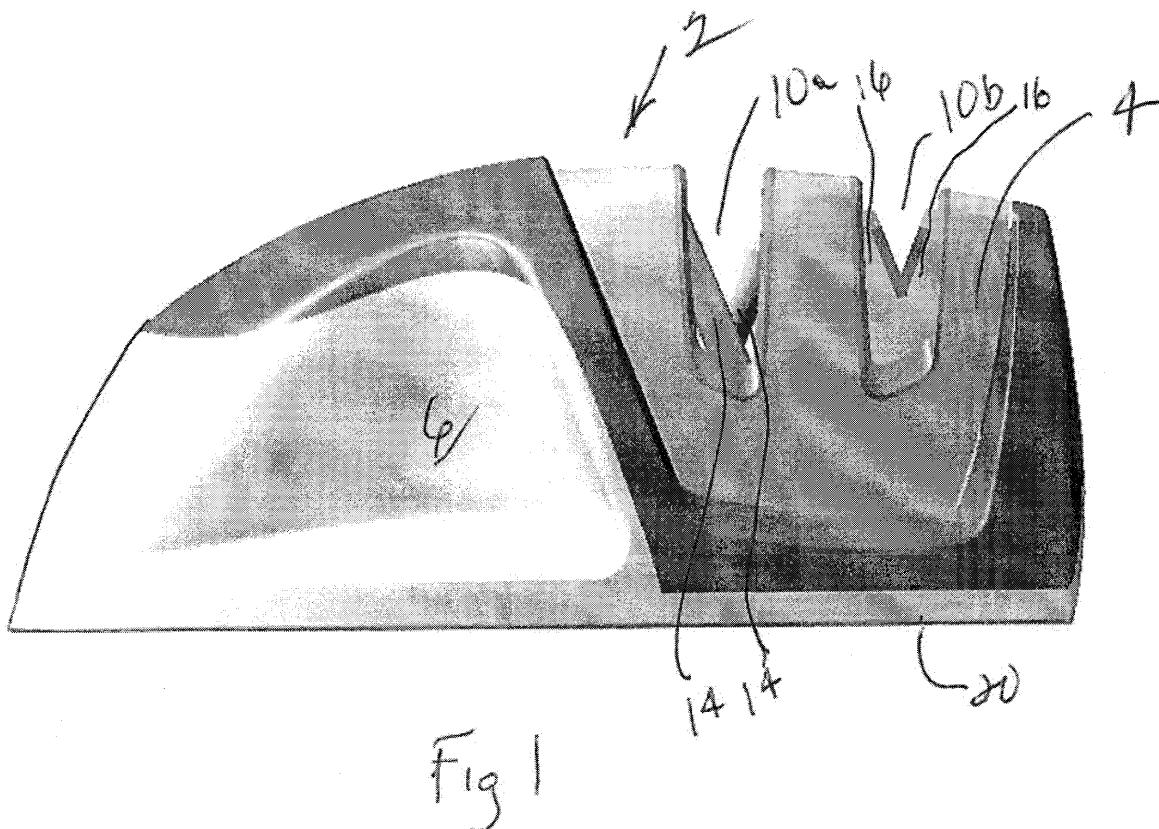
(30) Priority: 14.03.2008 US 69649 P

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(54) **Two step abrasive sharpener**

(57) An abrasive sharpener having a housing supporting a pair of sharpening slots having abrasive elements mounted therein. The bottom of the housing is formed with an open V-shaped groove for supporting the housing on the edge of a table, bench and the like. The

bottom further includes a pair of flat bottom surfaces separated by the V-shaped groove for supporting the housing on a flat surface. The V-shaped groove is opened ended and extends along an axis generally perpendicular to the direction that a knife edge and the like is pulled through either slot for sharpening.



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Description

BACKGROUND OF THE INVENTION

[0001] This application claims priority to provisional application, S. N. 61/069,649 filed March 14, 2008.

Field of the Invention

[0002] This invention relates to abrasive sharpeners, and more particularly, more particularly, to a two-step abrasive sharpener having a bottom V-shaped groove.

Summary of the Prior Art

[0003] It is well known to use sharpeners for knives having two steps of sharpening, namely a course grind and fine sharpening grind. One problem associated with such sharpeners occurs when a sharpening operation is performed on a surface, such as a table or counter. During the normal sharpening stroke through abrasive elements, the blade of the knife being sharpened often strikes the counter to damage the already sharpened blade and the counter. Such damage requires the user to repeat the sharpening of the blade. Therefore, it is desirable in the prior art to provide an abrasive sharpener capable of avoiding impact between the knife being sharpened and the sharpener support surface.

SUMMARY OF THE INVENTION

[0004] It is therefore an objective of the invention to provide an improved two-step sharpener that avoids impact between the sharpener support surface and the blade being sharpened. The sharpener here employs two abrasive stations created by crossed carbide abrasive blades and crossed ceramic rods. The base of the sharpener of the invention includes a V-shaped open groove on which the sharpener base can be supported on the edge of a counter and the like during a sharpening operation. Such a positioning of the sharpener further provides for a more natural, comfortable sharpening stroke by an individual.

An object of the invention is an abrasive sharpener comprising:

a body having at least one sharpening slot, at least one abrasive sharpening element being mounted in said slot, and said body having a bottom for contacting a support surface during sharpening, and said bottom is formed with an open V-shaped configuration.

[0005] Preferably, the V-shaped configuration of said bottom of said housing forms a pair of angularly arranged support surfaces.

[0006] Preferably, said V-shaped configuration is

formed by an open V-shaped groove.

[0007] Preferably, said V-shaped groove is open-ended.

[0008] Preferably, the bottom of said housing includes a pair of flat lower surfaces, said flat lower surfaces being separated by said V-shape groove.

[0009] Preferably, the V-shaped groove extends along an axis generally perpendicular to said at least one sharpening slot.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010]

Fig. 1 is a front elevational view of two step abrasive sharpener of the invention;

Fig. 2 is an end elevational view of the sharpener of Fig. 1;

Fig. 3 is an bottom plan view of the sharpener of Fig. 1; and

Fig. 4 is an opposite end elevational view of the sharpener of Fig 1.

DESCRIPTION OF THE PREFERRED EMBODIMENT

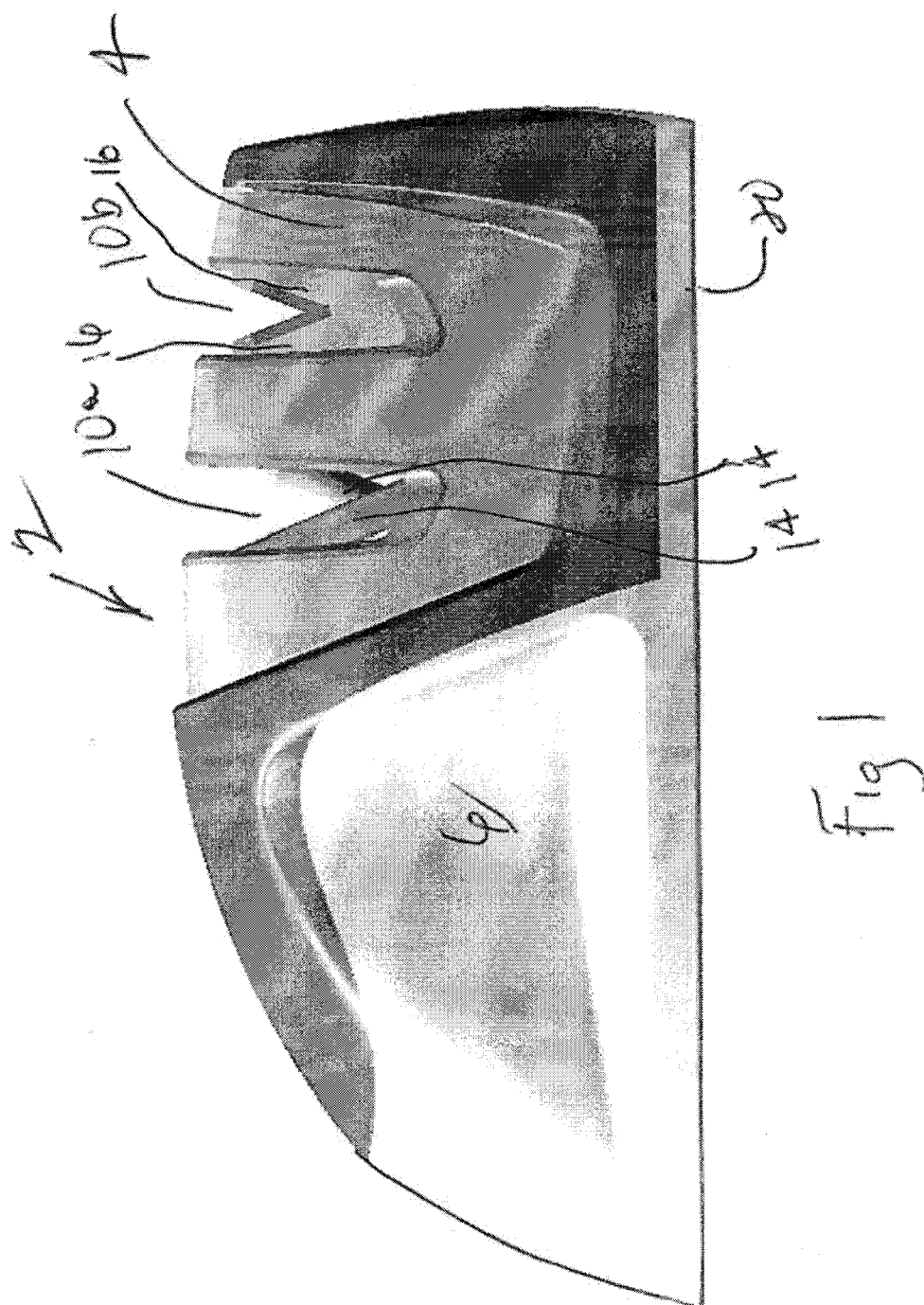
[0011] Referring now to Figs. 1-4, there is illustrated the two-step abrasive sharpener of the invention, generally designated by reference numeral 2. The sharpener 2 has a housing 4 formed with opposite concave cut-out portions 6 (Figs. 1 and 2) to provide handle areas to permit a user to grasp and support the sharpener 2 while sharpening a knife. A pair of upper slots 10a, 10b (Fig 1) are created in upper portion 12 of housing 4 and respectively have V-slots in the form of a pair of crossed ceramic abrasive rods 14 and a pair of crossed carbide abrasive blades 16. The abrasive rods 14 and the abrasive blades 16 are respectively mounted in slots 10a and 10b in a conventional manner well known in the art. The rods 14 provide a fine sharpening cut for straight or serrated edges as the blade is pulled through slot 10a, while blades 16 perform a more course sharpening cut to a blade. The blade having an edge being sharpened is pulled across the housing in either slots 10a or slot 10b for sharpening while the handle areas 6 are manually gripped.

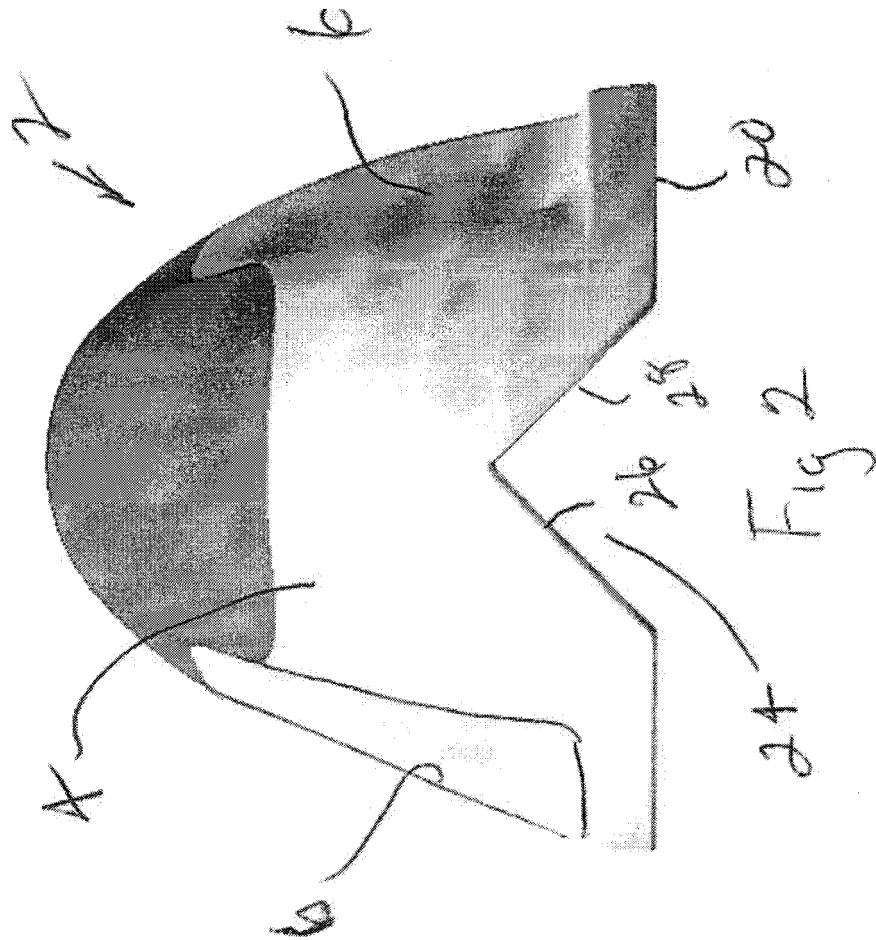
[0012] The bottom 20 of housing 4 has a pair of spaced flat base surfaces 22 extending the length of housing 4. The flat surfaces 22 are centrally separated by a V-shaped open groove or slot 24 that extends the length of base 4 generally perpendicular to the direction of movement of the blade being sharpened through slots 10a or 10b and has open ends as seen in Figs 1-3. The V-groove 24 includes a pair of sloped flat surfaces 26 and 28 lying at a selected angle, such as 90° to each together, and the surfaces 26 and 28 are of generally equal widths that are alternatively arranged to bear directly against a support surface (not shown) such as a table, counter, bench or the like, at its edge during a sharpening operation. Either surface 26 or surface 28

may be used to contact the edge of the support surface as desired. It should be apparent that the base is supported on either surfaces 26 or surface 28 of groove 24 as the sharpener 2 bears against the counter or table edge while the sharpener 2 is held by the user in one hand. The user can then move a knife (not shown) through a selected slot 10a or slot 10b with the other hand. Because of the positioning of the sharpener 2 at the edge of the table or counter, damaging contact between a knife and a counter during a sharpening stroke is avoided. Further, a more natural, comfortable sharpening stroke for the user occurs as a result of sharpener being on the edge of the counter or table. The sharpener 2 can also be supported on a flat surface by housing surfaces 22 in an orientation flat on a table, bench, counter, and the like.

Claims

1. An abrasive sharpener comprising
 - a body having at least one sharpening slot, at least one abrasive sharpening element being mounted in said slot, and
 - said body having a bottom for contacting a support surface during sharpening, and
 - said bottom is formed with an open V-shaped configuration.
2. The abrasive sharpener according to Claim 1 wherein said V-shaped configuration of said bottom of said housing forms a pair of angularly arranged support surfaces.
3. The abrasive sharpener according to Claim 2 wherein said V-shaped configuration is formed by an open V-shaped groove.
4. The abrasive sharpener according to Claim 3 wherein said V-shaped groove is open-ended.
5. The abrasive sharpener according to Claim 4 wherein said bottom of said housing includes a pair of flat lower surfaces, said flat lower surfaces being separated by said V-shape groove.
6. The abrasive sharpener according to Claim 4 wherein said V-shaped groove extends along an axis generally perpendicular to said at least one sharpening slot.





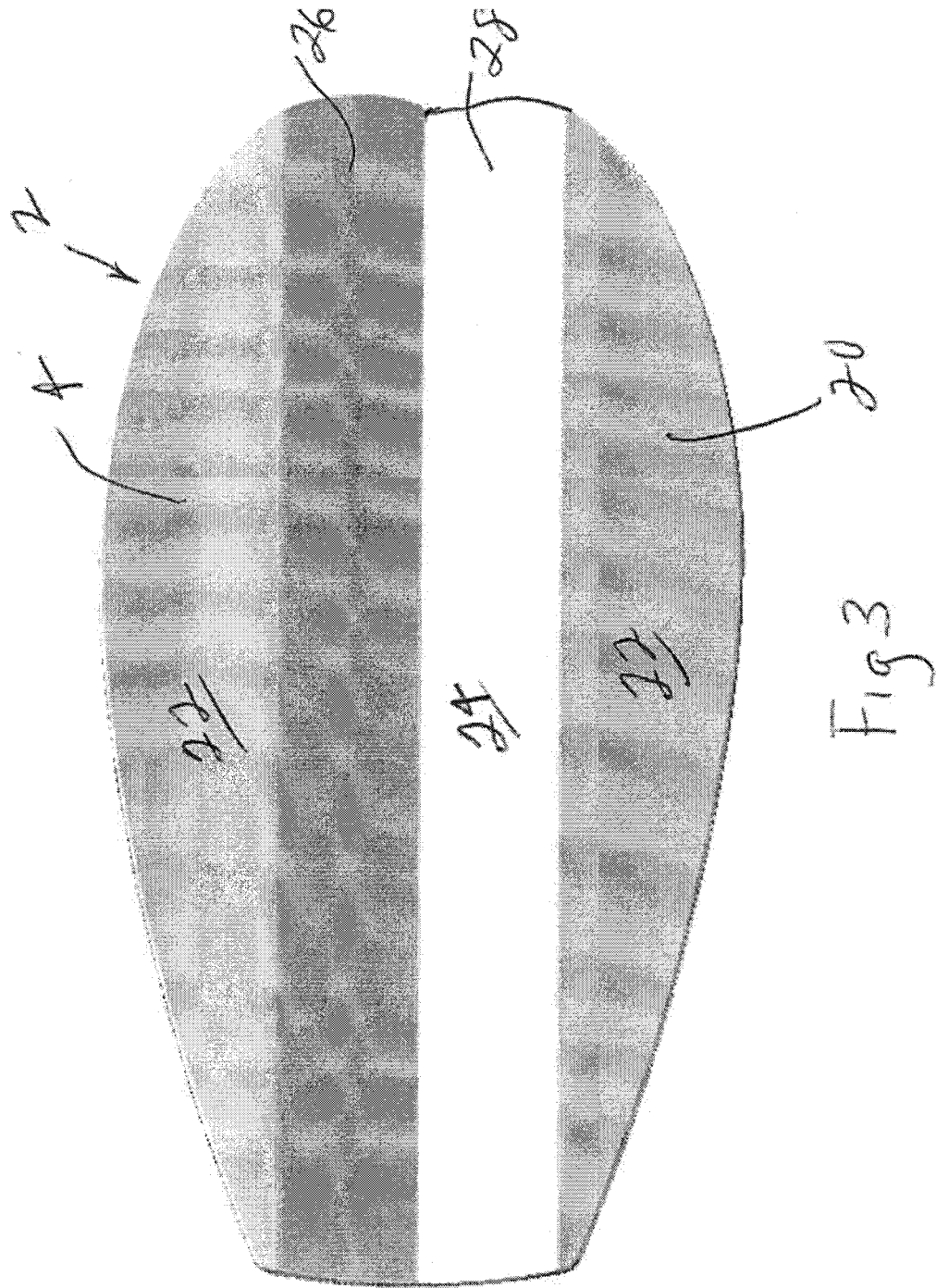
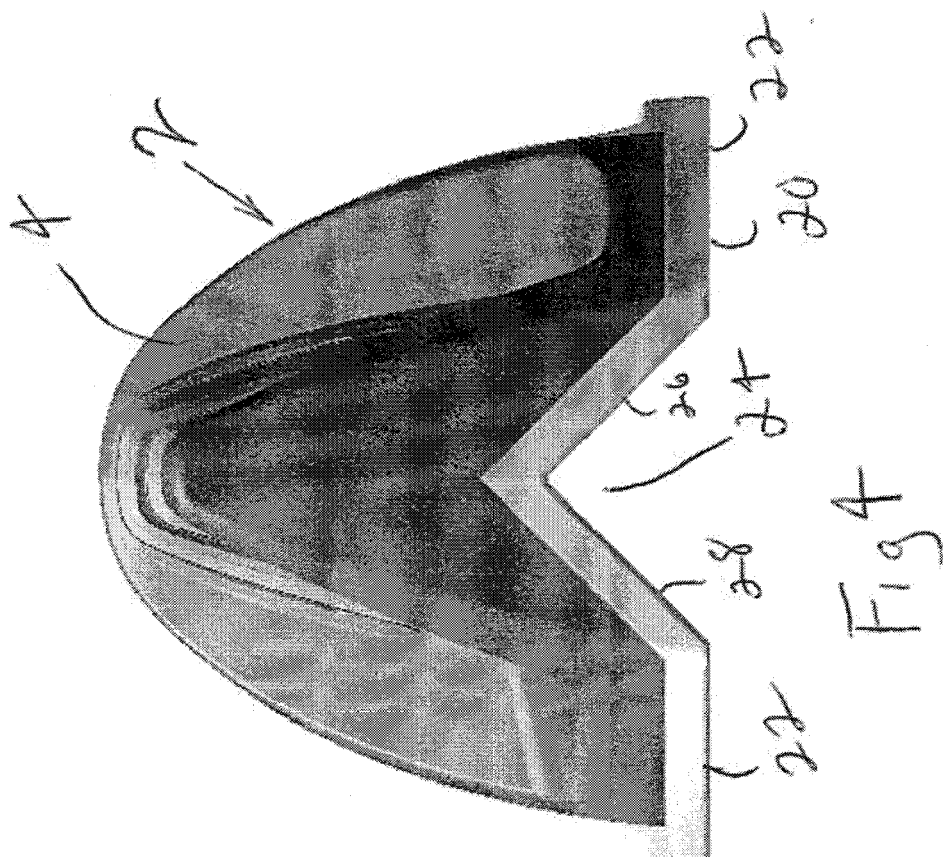


Fig 3





EUROPEAN SEARCH REPORT

Application Number
EP 09 15 5284

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US D 299 308 S1 (CORNING GLASS WORKS) 10 January 1989 (1989-01-10) * figures 1-6 * -----	1-6	INV. B24D15/06
			TECHNICAL FIELDS SEARCHED (IPC)
			B24D
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 23 June 2009	Examiner Janzon, Mirja
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p>			

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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 09 15 5284

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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23-06-2009

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US D299308	S1	10-01-1989	NONE

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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