(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 15 May 2003 (15.05.2003)

PCT

(10) International Publication Number WO 03/039284 A1

(51) International Patent Classification⁷: A43B 23/00

(21) International Application Number: PCT/US02/35509

(22) International Filing Date:

5 November 2002 (05.11.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

10/007,676 5 November 2001 (05.11.2001) US

(71) Applicant (for all designated States except US): DEER STAGS, INC. [US/US]; 17th Floor, 1414 Avenue of the Americas, NY 10019 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): WEISS, Howard [US/US]; 630 First Avenue, Apt. 12B, NY 10016 (US).

(74) Agent: LIPTON, Robert, S.; Lipton, Weingerger & Husick, 201 North Jackson Street, P.O. Box 934, Media, PA 19063-0934 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,

GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.

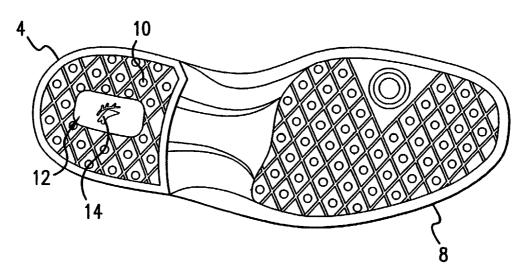
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

[Continued on next page]

(54) Title: SHOE AND METHOD FOR SHOWING INDICIA



(57) Abstract: The invention includes an apparatus and method for displaying indicia, such as a logo or trademark, on a shoe (2). A window (12) is provided in the shoe. Indicia (14) appear on a removable member (16) and are displayed through the window.



WO 03/039284 A1



— of inventorship (Rule 4.17(iv)) for US only

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

0 00,000 20 .

WO 03/039284 PCT/US02/35509

SHOE AND METHOD FOR SHOWING INDICIA BACKGROUND OF THE INVENTION

Priority Claim

This Application claims the benefit of U.S. Patent Application No.

5 10/007,676 filed on November 5, 2001.

Field of the Invention

The invention relates to footwear and particularly to the display of indicia, such as logos or trademarks, on an item of footwear. The invention is a shoe having a transparent window. Indicia appear on a removable member engaging an interior surface of the shoe and are visible through the transparent window.

A method of practicing the invention also is provided.

Description of Related Art

The footwear business is highly competitive and the display of indicia is commercially desirable. For the purposes of this application, "indicia" mean markings conveying items of information or of decoration. Examples of indicia include logos, trademarks, colors, patterns and artworks. "Identifying indicia" may be used to identify a make or model of shoe or to identify a manufacturer. The term "shoe" means any item of footwear, including without limitation a shoe, boot, athletic or adventure footwear, ski boots, and other similar items.

Modern materials and manufacturing techniques make possible innovation in the display of indicia on a shoe. A shoe may display indicia in any of a number of ways, including printing, embossing, embroidering, through the use of an applique, through the use of a molded shape, and many others. The prior art teaches a transparent air bladder incorporated into the heel or sole of a shoe having indicia located in the interior of the air bladder or incorporated permanently into the structure of the shoe. In the prior art shoe, the indicia are visible through the air bladder. The present invention differs from the prior art in that the indicia are viewed through a window in the shoe, not through an air bladder. Also, the indicia of the present invention appear on a removable member and are not printed on the air bladder or otherwise incorporated

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

2

31 permanently into the structure of the shoe.

Summary of the Invention

The present invention provides for the display of indicia in a shoe. A window is provided in the shoe communicating from an interior surface of the shoe to an exterior surface of the shoe. Indicia appear on a removable member that engages the interior surface of the shoe. The indicia of the removable member are aligned with the window so that the indicia are displayed to an observer through the window. The indicia may be identifying indicia to commercially distinguish the shoe from other makes or models of shoes or to distinguish the shoe from the shoes of other manufacturers.

The use of a removable member allows great flexibility in the use and display of indicia on a shoe. A manufacturer may, for example and without limitation, inexpensively adjust the indicia to reflect local market conditions or languages, to vary the indicia seasonally, to provide private labeling for a retailer, to provide personalized or monogrammed shoes, or to provide any other marking that a consumer may find desirable. The use of the removable member allows a manufacturer, retailer, or other interested person to inexpensively create shoes that, for example, commemorate a special event, affiliation, person, place or product. Indicia appearing on the removable member and displayed in the window may be used to identify any person, item, group, or interest of any kind.

52 **Brief Description of the Drawings**

- 53 Fig. 1 is a side view of a shoe.
- 54 Fig. 2 is a bottom view of a shoe.
- 55 Fig. 3 is a side view of an insole.
- 56 Fig. 4 is a bottom view of an insole.
- 57 Fig. 5 is a sectional view of a shoe.
- 58 Fig. 6 is a rear perspective view of an alternative embodiment.
- 59 Fig. 7 is a sectional view of an alternative embodiment.

Description of an Embodiment

 Referring to Fig. 1, a shoe 2 has a heel 4, an upper 6 and a sole 8. From Fig. 2, the heel 4 has an exterior surface 10. A window 12 appears in the heel 4. The window 12 is composed preferably of a transparent or semi-transparent polymer forming a durable, water tight seal with heel exterior surface 10.

Indicia 14 are visible to a consumer through the window 12. The indicia 14 may be identifying indicia 14 that convey information such as to identify a make, model or manufacturer of the shoe. The indicia 14 may be decorative or may comprise any marking that a consumer may find commercially desirable.

Indicia 14 appear on a removable member 16 (Figs. 3, 4). The removable member 16 is placed in the shoe 2 so that indicia 14 are visible through window 12.

The removable member 16 comprises indicia-bearing member 18 bonded to an insole 20. The indicia-bearing member 18 preferably is composed of a resilient material to cushion the foot and to reduce damage to the window 12 resulting from contact between window 12 and indicia-bearing member 18. The preferred material for the indicia-bearing member 18 is a high-memory sponge. An example of such sponge is "Poron®" sold be Rodgers Corporation, which is located in Connecticut. The indicia-bearing member 18 preferably is of a color contrasting to the color of the sole 8. In one embodiment, the indicia-bearing member 18 is yellow in color while the sole 8 is black. The particular indicia 14 and the colors used are a matter of choice to be selected by the designer and are not a part of the invention. The insole 20 preferably also is composed of a resilient material to increase comfort of the wearer.

Fig. 5 is a cross-section of shoe 2 with insole 20 and indicia-bearing member 18 installed. Heel 4 of shoe 2 defines a heel interior surface 22 and a heel exterior surface 10. Window 12 communicates between the heel interior surface 22 and heel exterior surface 10. When the insole 20 and indicia-bearing member 18 are inserted into shoe 2, indicia 14 are displayed through window 12 to a consumer.

WO 03/039284 PCT/US02/35509

The heel interior surface 22 (Fig. 5) defines a heel interior volume 24. When the insole 20 and indicia-bearing member 18 are installed in shoe 2, the indicia-bearing member 18 intrudes into the heel interior volume 24. The intrusion of the indicia-bearing member 18 into the heel interior volume 24 serves to locate the indicia 14 with respect to the window 12. The indicia 14 preferably are located close enough to the window 12 for ready observation of the indicia 14 by a consumer. The indicia 14 are located at a pre-selected depth from the window 12 to provide a commercially attractive appearance.

While a window 12 communicating through heel 4 is the embodiment described above, other configurations are contemplated by the invention. Window 12 may communicate between any shoe interior surface 26 and any shoe exterior surface 28. For example, window 12 may appear in sole 8 and communicate between sole exterior surface 30 to sole interior surface 32. Window 12 may appear in tongue 34 and communicate between a tongue interior surface 36 and a tongue exterior surface 38. Window 12 may appear in upper 6 and communicate between an upper interior surface 40 and an upper exterior surface 42.

In the event that a window 12 location other than the heel 4 location is selected, a removable member 16 appropriate to the window 12 location also is selected. When a window 12 communicates through an upper 6, a removable member 16 adapted to display indicia 14 through said window 12 is selected. Likewise, when a window 12 communicating through a tongue 34 or a sole 8 is selected, a removable member 16 adapted to display indicia 14 through the window 12 in the tongue 34 or the sole 8 is selected. Without limitation, a removable member 8 in the situation of a window 12 through an upper 6 or tongue 34 may take the form of an insert or shoe liner. A removable member 16 in the situation of a window 12 through a sole 8 may comprise an insole 20.

Indicia 14 include any markings or objects applied to the indicia-bearing member 18 using any means of the art, including without limitation printing, embossing, casting, painting, cutting, carving, burning, melting and molding.

WO 03/039284 PCT/US02/35509

Indicia may include contained gases or liquids and may include artificial lights.

Indicia 14 also include insertion of objects of any type into heel interior volume
24 for display through window 12.

An alternative embodiment is illustrated by Figs. 6 and 7. Window 12 appears in a shoe counter 44 corresponding to the portion of the upper 6 adjacent to the posterior of heel 4. Window 12 communicates between a counter interior surface 46 and a counter exterior surface 48. Indicia 14 appear on an upward extending portion 50 of alternative insole 52. The upwardly extending portion 50 extends upward from heel 4 so that indicia 14 appearing on the upwardly extending portion 50 are visible through window 12. The location of indicia 14, window 12 and upwardly extending portion 50 may be selected by the designer. Upwardly extending portion 50 may extend above counter 44. Indicia 14 may be embossed or recessed into upwardly extending portion 50 so that indicia 14 appear at a preselected distance from window 12 to achieve an aesthetic effect.

The flexibility of the present invention allows inexpensive personalization of said indicia 14 by a manufacturer, retailer, consumer or other interested person. Indicia 14 of any type, such as a monogram, sports team logo, image of a favored motor vehicle, political or religious affiliation, names of loved ones or any information whatsoever may be displayed. A manufacturer may provide supplies to a consumer to personalize the indicia 14 displayed by the removable member 16.

The method of the present invention comprises providing a window 12 communicating from a shoe interior surface 26 to a shoe exterior surface 28 and providing a removable member 16 engaging the shoe interior surface 26, the removable member 16 bearing indicia 14, the indicia 14 being visible through said window 12.

Many different embodiments of the above invention are possible. This application is intended to address all possible embodiments and is limited only as described in the following claims:

PCT/US02/35509

6

I claim:

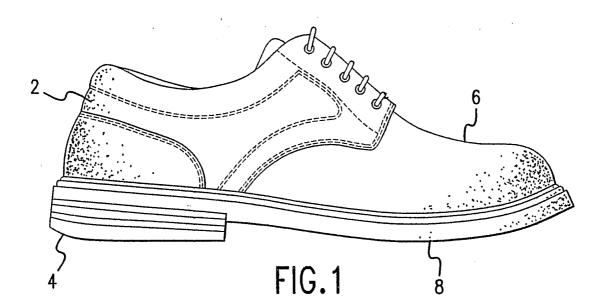
1

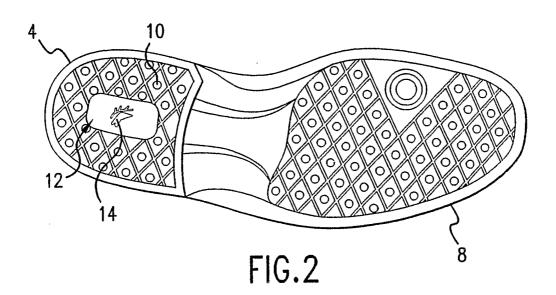
- An apparatus comprising: 1 1.
- a shoe having a shoe interior surface and a shoe exterior 2 a.
- 3 surface; and
- a window communicating between said shoe interior surface 4 b.
- 5 and said shoe exterior surface; and
- a removable member engaging said shoe interior surface; and 6 b.
- 7 indicia appearing on said removable member, said indicia being
- aligned with said window such that said indicia may be observed through 8
- 9 said window.
- The apparatus of claim 1, said window being comprised of a 2. 1
- transparent or substantially transparent polymer. 2
- The apparatus of claim 2, said shoe interior surface being a heel 1 3.
- interior surface, said shoe exterior surface being a heel exterior surface said 2
- window communicating between said heel exterior surface and said heel 3
- 4 interior surface.
- The apparatus of claim 3, said removable member comprising: 1 4.
- an insole engaging said shoe interior surface; and 2 a.
- an indicia-bearing member bonded to said insole. 3 b.
- The apparatus of claim 4, said heel interior surface defining a heel 1 5.
- interior volume, said indicia-bearing member extending into said heel interior 2
- 3 volume.
- The apparatus of claim 5, said window being bonded to said heel 1 6.
- exterior surface such that said window forms a substantially water-tight seal 2
- with said heel exterior surface. 3
- The apparatus of Claim 1, said indicia comprising identifying indicia. 1 7.
- The apparatus of claim 2, said shoe having a sole, said sole having a 1 8.

- 2 sole interior surface and a sole exterior surface, said window communicating
- 3 between said sole interior surface and said sole exterior surface.
- 9. The apparatus of claim 2, said shoe having an upper, said upper 1
- 2 having an upper interior surface and an upper exterior surface, said window
- 3 communicating between said upper interior surface and said upper exterior
- 4 surface.
- 1 10. The apparatus of claim 2, said shoe further comprising a tongue, said
- 2 tongue having a tongue interior surface and a tongue exterior surface, said
- 3 window communicating between said tongue interior surface and said
- 4 tongue exterior surface.
- 1 The apparatus of claim 2, said removable member being adapted to
- 2 allow personalization of said indicia.
- 1 12. An apparatus comprising:
- 2 a shoe having a counter, a counter interior surface and a a.
- 3 counter exterior surface:
- 4 b. a window communicating between said counter interior surface
- and said counter exterior surface; 5
- 6 c. an alternative insole engaging said counter interior surface;
- 7 d. indicia appearing on said alternative insole, said indicia being
- aligned with said window such that said indicia may be observed through 8
- 9 said window.
- 1 13. The apparatus of claim 12, said window being comprised of a
- 2 transparent or substantially transparent polymer.
- 1 14. The apparatus of claim 13, said window being bonded to said shoe
- 2 exterior surface such that said window forms a substantially water-tight seal
- 3 with said counter exterior surface.
- 1 15. The apparatus of claim 14, said alternative insole having an upwardly
- extending portion, said indicia appearing on said upwardly extending portion. 2
- 1 16. A method for displaying indicia on a shoe comprising:

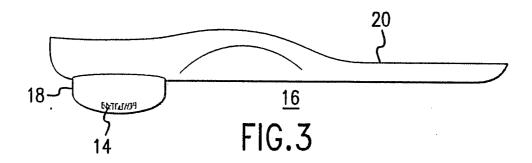
- a. providing a window in said shoe,
- b. providing a removable member exhibiting indicia,
- 4 c. aligning said removable member and said shoe so that said
- 5 indicia are displayed in said window.
- 1 17. The method of claim 16 further comprising:
- a. said window communicating between a shoe interior surface
- 3 and a shoe exterior surface,
- 4 b. said removable member comprising an insole and an indicia-
- 5 bearing member bonded to said insole.
- 1 18. The method of claim 17 further comprising:
- 2 a. said shoe having a heel,
- b. said window communicating through said heel.







2/4



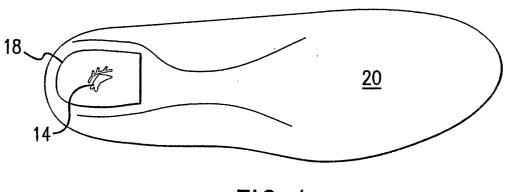
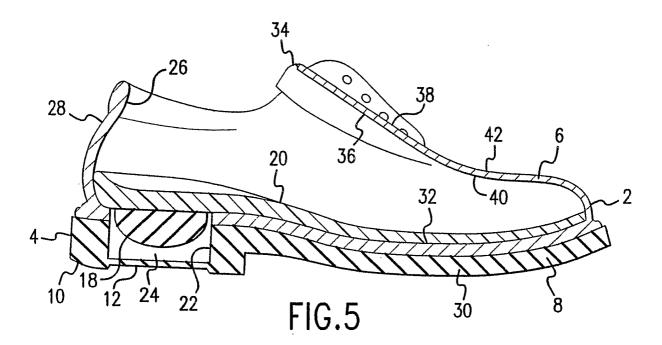
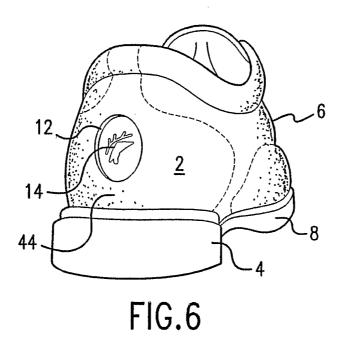


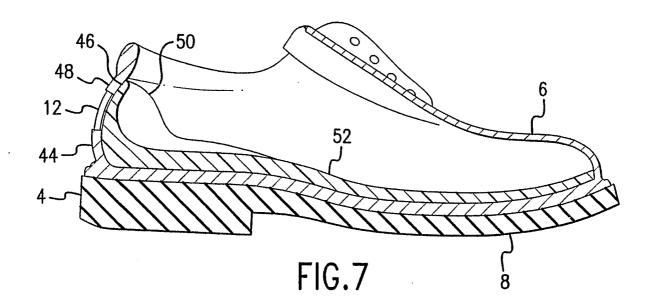
FIG.4

3/4









INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/25509

IPC(7) US CL According to	SSIFICATION OF SUBJECT MATTER		
US CL According to	4 40D 00 (00		
According to	: A43B 23/00 : 35/132 136 137 82 112 42 44 25B 28	24B 25B 25 B24064	
रे. हाहा	: 36/132, 136, 137, 83, 112, 43, 44, 25R, 28, 3 o International Patent Classification (IPC) or to both in	34R, 35R, 3/; D2/964	
1.1171	LDS SEARCHED	national classification and IPC	
U.S. : 3	ocumentation searched (classification system followed 36/132, 136, 137, 83, 112, 43, 44, 25R, 28, 34R, 35	l by classification symbols) R, 37; D2/964	
ocumentati one	ion searched other than minimum documentation to th	ne extent that such documents are	included in the fields searched
one			
Electronic da BRS Text sea	ata base consulted during the international search (nar arch	me of data base and, where practi-	cable, search terms used)
DOC	CUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where	appropriate, of the relevant passa	ges Relevant to claim No
X	US 5,367,795 A (IVERSON et al.) 29 November 1	1994, entire document.	1-2, 7-11 and 16
X	LIC 4 952 275 A (CANOCIA LA LA CANOCIA LA CA		
Λ	US 4,852,276 A (SAVOCA et al.) 01 August 1989, entire document.		1
X	US 4,712,314 A (SIGOLOFF) 15 December 1987, entire document.		1-3 and 7-11
Y			
I			16
			ļ
ļ			1
1			
İ			
į			
İ			
	·		
Further	documents are listed in the continuation of Box C.	See patent family and	nex.
	documents are listed in the continuation of Box C.	See patent family and	
Sį	pecial categories of cited documents:	"T" later document published date and not in conflict w	after the international filing date or priorit
S _I		"T" later document published date and not in conflict wi principle or theory underl	after the international filing date or priorit
Si document of particu	pecial categories of cited documents: t defining the general state of the art which is not considered to be lar relevance	"T" later document published date and not in conflict wi principle or theory underl	after the international filing date or priorit ith the application but cited to understand ying the invention evance; the claimed invention cannot be
Since the second of particution of particution of particution of partier approximately second or	pecial categories of cited documents: I defining the general state of the art which is not considered to be lar relevance plication or patent published on or after the international filing date	"T" later document published date and not in conflict wi principle or theory underl	after the international filing date or priorit th the application but cited to understand ying the invention evance; the claimed invention cannot be at be considered to involve an inventive ste
Solution Sol	pecial categories of cited documents: I defining the general state of the art which is not considered to be lar relevance plication or patent published on or after the international filing date which may throw doubts on priority claim(s) or which is cited to	"T" later document published date and not in conflict with principle or theory underly document of particular relations considered novel or cannowhen the document is taken	after the international filing date or priority that the application but cited to understand tying the invention evance; the claimed invention cannot be to be considered to involve an inventive steps alone
Solution Sol	pecial categories of cited documents: I defining the general state of the art which is not considered to be lar relevance plication or patent published on or after the international filing date which may throw doubts on priority claim(s) or which is cited to the publication date of another citation or other special reason (as	"T" later document published date and not in conflict with principle or theory underly document of particular relations considered novel or cannowhen the document is taked "Y" document of particular relations."	after the international filing date or priorit the the application but cited to understand tying the invention evance; the claimed invention cannot be to be considered to involve an inventive steen alone evance; the claimed invention cannot be evance; the claimed invention cannot be
Si document of particu " earlier app " document establish t specified)	pecial categories of cited documents: I defining the general state of the art which is not considered to be lar relevance plication or patent published on or after the international filing date which may throw doubts on priority claim(s) or which is cited to the publication date of another citation or other special reason (as	"T" later document published date and not in conflict wi principle or theory under! "X" document of particular rel considered novel or cannowhen the document is take "Y" document of particular rel considered to involve an i combined with one or mo	after the international filing date or priorit, the application but cited to understand the the application but cited to understand the syling the invention evance; the claimed invention cannot be to be considered to involve an inventive steen alone evance; the claimed invention cannot be inventive step when the document is the other such documents, such combination.
Signature of document of particu "earlier app "document establish to specified)	pecial categories of cited documents: I defining the general state of the art which is not considered to be lar relevance plication or patent published on or after the international filing date which may throw doubts on priority claim(s) or which is cited to the publication date of another citation or other special reason (as	"T" later document published date and not in conflict wi principle or theory under! "X" document of particular rel considered novel or cannowhen the document is take "Y" document of particular rel considered to involve an i	after the international filing date or priority that the application but cited to understand the typing the invention evance; the claimed invention cannot be to be considered to involve an inventive steen alone evance; the claimed invention cannot be evance; the claimed invention cannot be the number of the focument is the other such documents, such combination
Si document of particu " earlier app " document establish t specified) " document document document	pecial categories of cited documents: I defining the general state of the art which is not considered to be lar relevance plication or patent published on or after the international filing date which may throw doubts on priority claim(s) or which is cited to the publication date of another citation or other special reason (as	"T" later document published date and not in conflict wi principle or theory under! "X" document of particular rel considered novel or cannowhen the document is take "Y" document of particular rel considered to involve an i combined with one or mo	after the international filing date or priority that the application but cited to understand to the invention evance; the claimed invention cannot be to be considered to involve an inventive steen alone evance; the claimed invention cannot be inventive step when the document is reacher such documents, such combination skilled in the art
Sq. document of particu earlier apq document establish t specified) document document priority da	pecial categories of cited documents: I defining the general state of the art which is not considered to be alar relevance plication or patent published on or after the international filing date which may throw doubts on priority claim(s) or which is cited to the publication date of another citation or other special reason (as referring to an oral disclosure, use, exhibition or other means published prior to the international filing date but later than the	"T" later document published date and not in conflict with principle or theory underly document of particular relations when the document is take "Y" document of particular relations when the document is take "Y" document of particular relations document with one or mobeling obvious to a person "&" document member of the	after the international filing date or priorit, the the application but cited to understand the sying the invention evance; the claimed invention cannot be to be considered to involve an inventive steen alone evance; the claimed invention cannot be enventive step when the document is reother such documents, such combination skilled in the art
" document of particu " earlier app " document establish t specified) " document document priority date of the acc	pecial categories of cited documents: I defining the general state of the art which is not considered to be clar relevance plication or patent published on or after the international filing date which may throw doubts on priority claim(s) or which is cited to the publication date of another citation or other special reason (as referring to an oral disclosure, use, exhibition or other means published prior to the international filing date but later than the ate claimed ctual completion of the international search	"T" later document published date and not in conflict with principle or theory underly document of particular released in the document is taked to the document of particular released to involve an incombined with one or most being obvious to a person	after the international filing date or priorit, the the application but cited to understand the typing the invention evance; the claimed invention cannot be to be considered to involve an inventive steen alone evance; the claimed invention cannot be enventive step when the document is reother such documents, such combination skilled in the art same patent family
Square specified) " document of particu " earlier app " document establish t specified) " document priority date of the accument January 20	pecial categories of cited documents: I defining the general state of the art which is not considered to be clar relevance plication or patent published on or after the international filing date which may throw doubts on priority claim(s) or which is cited to the publication date of another citation or other special reason (as referring to an oral disclosure, use, exhibition or other means published prior to the international filing date but later than the ate claimed Ctual completion of the international search 203 (15.01.2003)	"T" later document published date and not in conflict wiprinciple or theory underly document of particular relations when the document is take "Y" document of particular relations when the document is take "Y" document of particular relations document with one or mobeing obvious to a person "&" document member of the second document member of the second document member of the second document member of the second document member of the second document documen	after the international filing date or priority that the application but cited to understand to the priority tying the invention evance; the claimed invention cannot be to be considered to involve an inventive steen alone evance; the claimed invention cannot be enventive step when the document is reother such documents, such combination skilled in the art same patent family
" document of particu " earlier app " document establish t specified) " document priority da te of the act	pecial categories of cited documents: I defining the general state of the art which is not considered to be clar relevance plication or patent published on or after the international filing date which may throw doubts on priority claim(s) or which is cited to the publication date of another citation or other special reason (as referring to an oral disclosure, use, exhibition or other means published prior to the international filing date but later than the ate claimed Ctual completion of the international search 203 (15.01.2003) Alling address of the ISA/US	"T" later document published date and not in conflict with principle or theory underly adocument of particular relevant considered novel or cannowhen the document is take "Y" document of particular relevant considered to involve an incombined with one or mosphered polytous to a person document member of the second particular relevant processes and particular relevant processes	after the international filing date or priorit, the the application but cited to understand the typing the invention evance; the claimed invention cannot be to be considered to involve an inventive steen alone evance; the claimed invention cannot be enventive step when the document is reother such documents, such combination skilled in the art same patent family
" document of particu " earlier app " document establish t specified) " document priority date of the act January 20 time and ma Box Box	pecial categories of cited documents: It defining the general state of the art which is not considered to be lar relevance plication or patent published on or after the international filing date which may throw doubts on priority claim(s) or which is cited to the publication date of another citation or other special reason (as referring to an oral disclosure, use, exhibition or other means published prior to the international filing date but later than the attendance citual completion of the international search 203 (15.01.2003) Atiling address of the ISA/US Immissioner of Patents and Trademarks PCT	"T" later document published date and not in conflict wiprinciple or theory underly document of particular relations when the document is take "Y" document of particular relations when the document is take "Y" document of particular relations document with one or mobeing obvious to a person "&" document member of the second document member of the second document member of the second document member of the second document member of the second document documen	after the international filing date or priorit, the the application but cited to understand the typing the invention evance; the claimed invention cannot be to be considered to involve an inventive steen alone evance; the claimed invention cannot be enventive step when the document is reother such documents, such combination skilled in the art same patent family
" document of particu " earlier app " document establish t specified) " document priority date of the act January 20 ame and ma Box Wash	pecial categories of cited documents: I defining the general state of the art which is not considered to be clar relevance plication or patent published on or after the international filing date which may throw doubts on priority claim(s) or which is cited to the publication date of another citation or other special reason (as referring to an oral disclosure, use, exhibition or other means published prior to the international filing date but later than the ate claimed Ctual completion of the international search 203 (15.01.2003) Itiling address of the ISA/US Immissioner of Patents and Trademarks	"T" later document published date and not in conflict with principle or theory underly adocument of particular relevant considered novel or cannowhen the document is take "Y" document of particular relevant considered to involve an incombined with one or mosphered polytous to a person document member of the second particular relevant processes and particular relevant processes	after the international filing date or priority that the application but cited to understand to ying the invention evance; the claimed invention cannot be to be considered to involve an inventive steen alone evance; the claimed invention cannot be enable evance; the claimed invention cannot be enventive step when the document is reother such documents, such combination skilled in the art same patent family onal search report