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(11)

EP 0 738 486 A1

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:
23.10.1996 Bulletin 1996/43

(51) Int Cl.⁶: **A47B 91/02, A47B 13/02**

(21) Application number: **96201013.8**

(22) Date of filing: **16.04.1996**

(84) Designated Contracting States:
AT DE ES FR GB IT

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(30) Priority: **20.04.1995 IT MI950280 U**

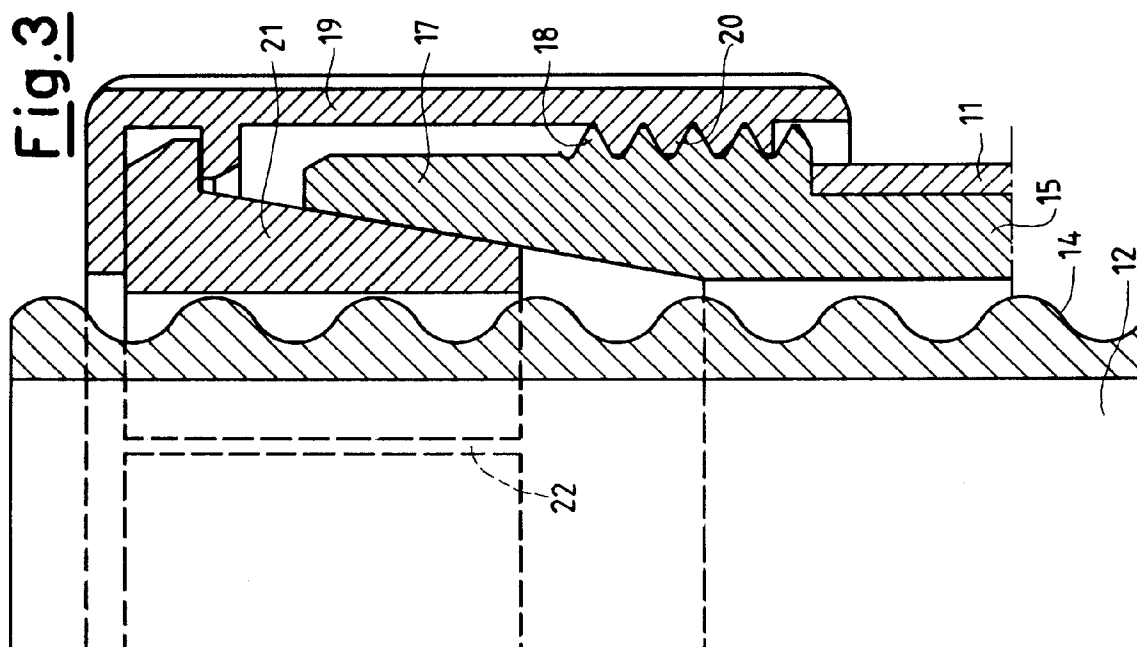
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(54) **Extensible leg with safety lock mechanism, in particular for furniture peninsulae**

(57) An extensible leg, in particular but not exclusively for, furniture peninsulae, comprises, in combination: a first tube (11) and a second tube (12) screw-threaded in (14) and screwed on a screw-threaded sleeve (15) integral with an end of said first tube (11).

Between said tube (12) and said sleeve (15) a locking means (21,19) is provided which can be shifted between a first position in which said tubes (11,12) can be screwed on each other, and a second position in which said tubes (11,12) are stably locked in their mutual position.



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Description

The present invention relates to an extensible leg, in particular, but not exclusively, for furniture peninsulae, equipped with a typical safety lock means.

Those skilled in the art are well aware of the existence of extensible legs for furniture peninsulae which are formed by two tubular telescoping portions which can be locked at different heights by means of a bayonet coupling.

In addition to the above, that tubular portion which is designed to rest on floor is also equipped with a fine adjustment-levelling device (commonly referred to as "adjusting foot"), used to compensate for very small level differences, for example deriving from floor irregularities.

Extensible legs of this type display two drawbacks.

A first drawback is represented by the relatively low safety level offered by the system, because the lock secured by the bayonet coupling is labile: in fact, in order to release said lock a rotation is in fact sufficient -- even an inadvertent rotation, for example during a leg cleaning, or caused by a child -- of either tubular portion relatively to the other, causing a sudden downwards falling of the supported peninsula, with evident risk of physical damage to possibly present people.

Another drawback derives from the need for also equipping the extensible leg with a fine adjustment-levelling means ("adjusting foot"). This additional implement increases the product cost, and not always is appreciable from an aesthetical viewpoint.

The purpose of the present invention is of obviating the drawbacks which affect the prior art, by providing an extensible leg, in particular for furniture peninsulae, which, besides being provided with an extremely safe system for locking the leg at the desired height, does not require any additional devices for fine adjustment-levelling.

The above purpose is achieved by an extensible leg showing the characteristics recited in the appended claims.

The structural and functional characteristics of the invention and its advantages over the prior art will be evident from a study of the following disclosure, made by referring to the accompanying drawings, which display an exemplifying embodiment of extensible leg realized according to the innovative principles of the same invention.

In the drawings:

Figure 1 is a partially sectional elevation view illustrating a leg according to the present invention locked at the desired height and in an extended condition;

Figure 2 shows a view similar to Figure 1, but illustrating the same leg in its shortest condition; and Figures 3 and 4 are two sectional views of two details, on an enlarged scale, illustrating the lock

mechanism according to the present invention in its leg unlocking and locking positions, respectively.

In the drawings, the leg according to the present invention is generally indicated with the reference numeral (10) and is structurally formed by a first tubular element (11) with a free end designed to rest on the floor, and a second tubular element (12), interlinked with the first tubular element (11), with a free end designed to be fastened by means of a flange means (13) to a table top (not represented in figures), e.g., the peninsula of a furniture piece.

In greater detail, the second tubular element (12) is provided with a screw-thread as shown in (14) and gets screwed on a sleeve (15) displaying a screw-thread in (16), integral with the first tubular element (11).

Said sleeve (15) is furthermore provided with an extended portion (17) protruding from the tubular element (11) and externally screw-threaded in (18) (Figures 3 and 4).

On said extended portion (17) a locking ring-nut (19) screw-threaded in (20) gets imeshed; with a split lock element of conical shape (21) being translatably, but not rotatably, constrained to said ring-nut (19). Said split lock element of conical shape (21) is split in (22) and is wedged in between said second tubular element (12) and the complementary internal surface of the extended portion (17) of the sleeve (15) integral with said first tubular element (11).

From the above disclosure made by referring to the accompanying figures, it will be clear that the extensible leg according to the present invention, thanks to the screw-thread coupling between both tubular elements (11), (12) and with the split lock element of conical shape (21) in the position of Figure 3, can be adjusted at the desired height with a fine enough adjustment action without any risks for said tubular elements (11), (12) undergoing any undesired mutual translation.

Additionally to the above, when it has reached the desired height and adjustment condition, the system can be stably locked, in positive mode, by rotating the ring-nut (19) in that direction which will cause the split lock element of conical shape (21) to translate to its position as shown in Figure 4, in which it is wedged in between the tubular element (12) and the sleeve (15).

Of course, in order to unlock the system, it is enough that the ring-nut (19) is rotated in opposite direction to the preceding locking rotation direction.

Thus, the purpose recited in the preamble to the disclosure, of providing an extensible leg with safety locking system at the desired height and in which a fine enough adjustment having the purpose of levelling and compensating for possible small floor unevennesses, can be performed with no need for providing said leg with a further adjustment device (adjusting foot), is achieved.

Claims

1. Extensible leg, in particular but not exclusively for, furniture peninsulae, characterized in that it comprises, in combination: a first tube (11) and a second tube (12) screw-threaded in (14) and screwed on a screw-threaded sleeve (15) integral with an end of said first tube (11), with between said tube (12) and said sleeve (15) a locking means being provided which can be shifted between a first position in which said tubes (11), (12) can be screwed to each other, and a second position in which said tubes (11), (12) are stably locked in their mutual position.
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2. Leg according to claim 1, characterized in that said locking means is constituted by a split lock element of conical shape (21) which can be driven to translate between both said positions by means of an external ring-nut (19) inmeshed on said sleeve (15).
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3. Leg according to claim 2, characterized in that said split lock element of conical shape (21) enters the existing gap between the screw-thread (14) of said second tube (12) and an internal complementary surface of said sleeve (15).
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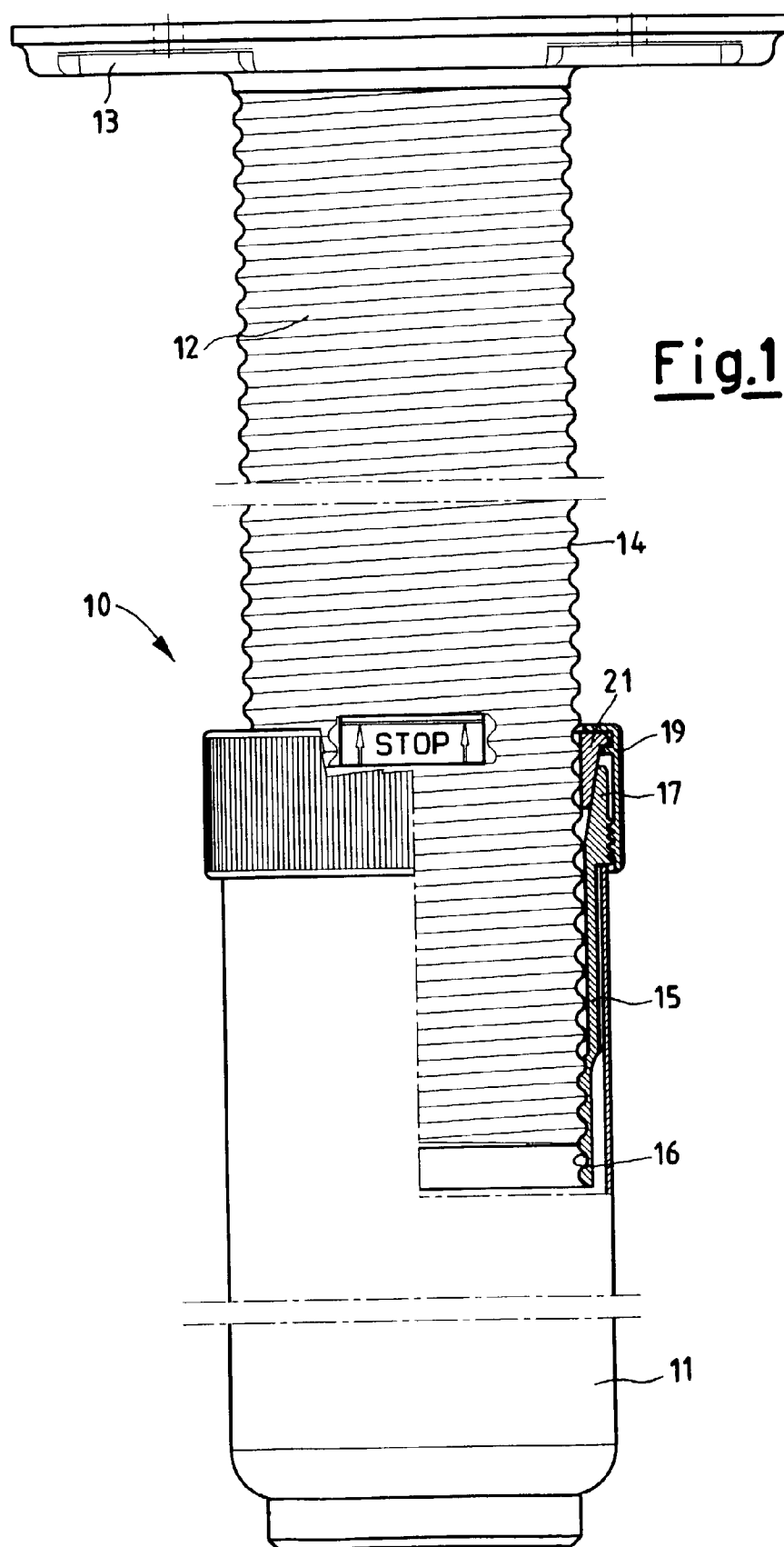
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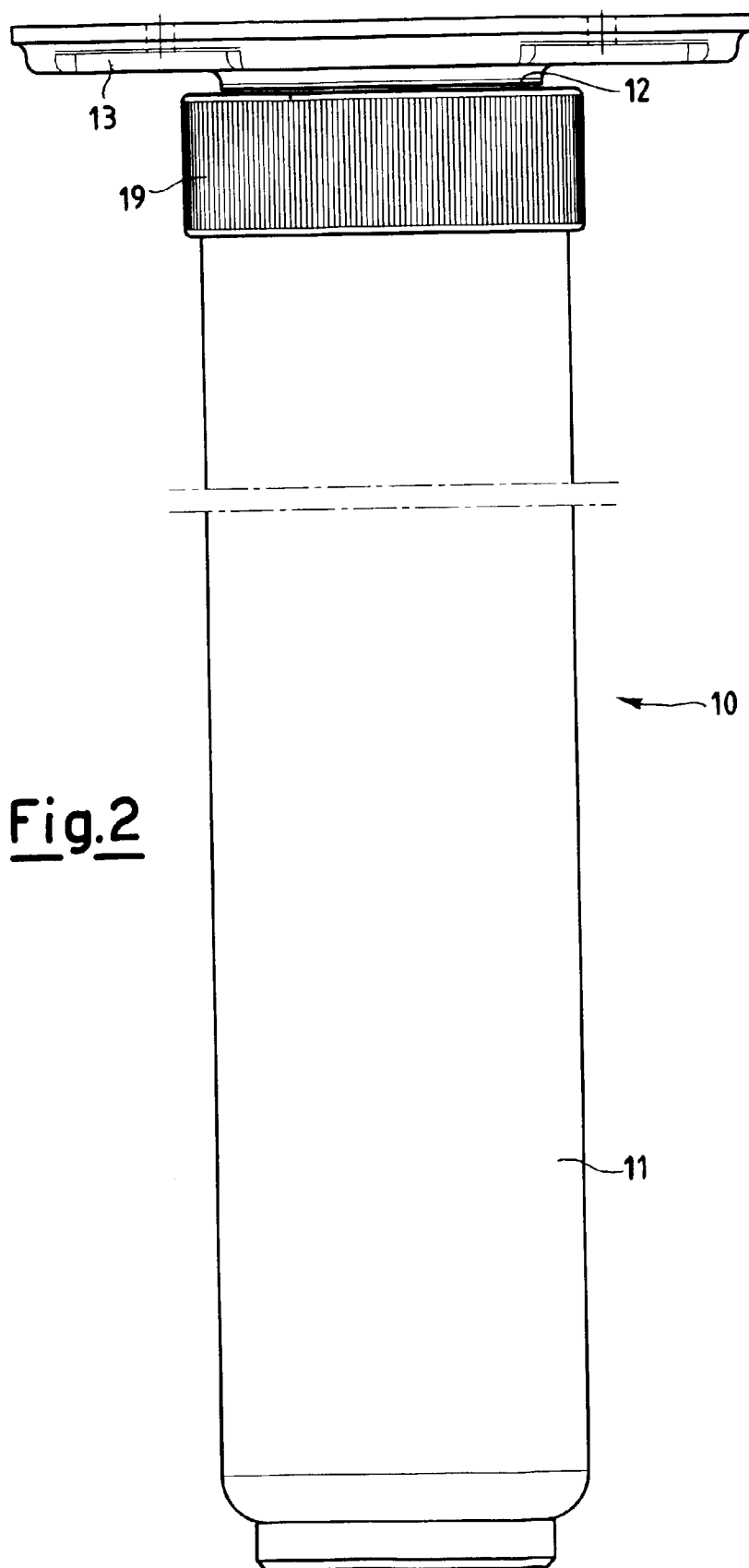
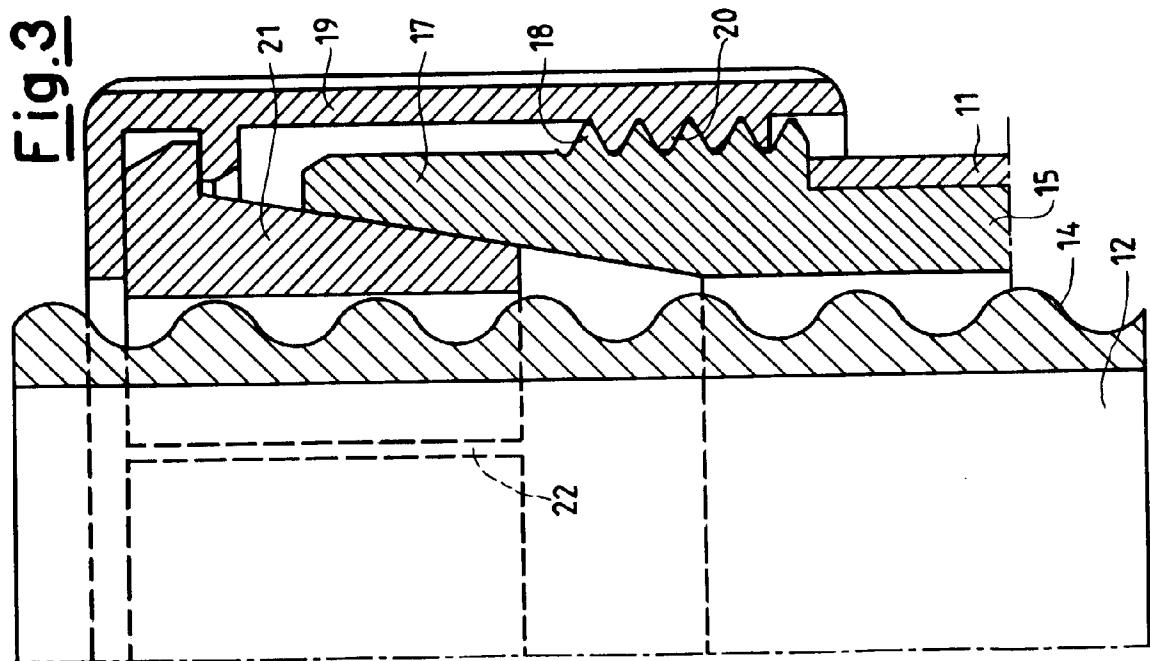
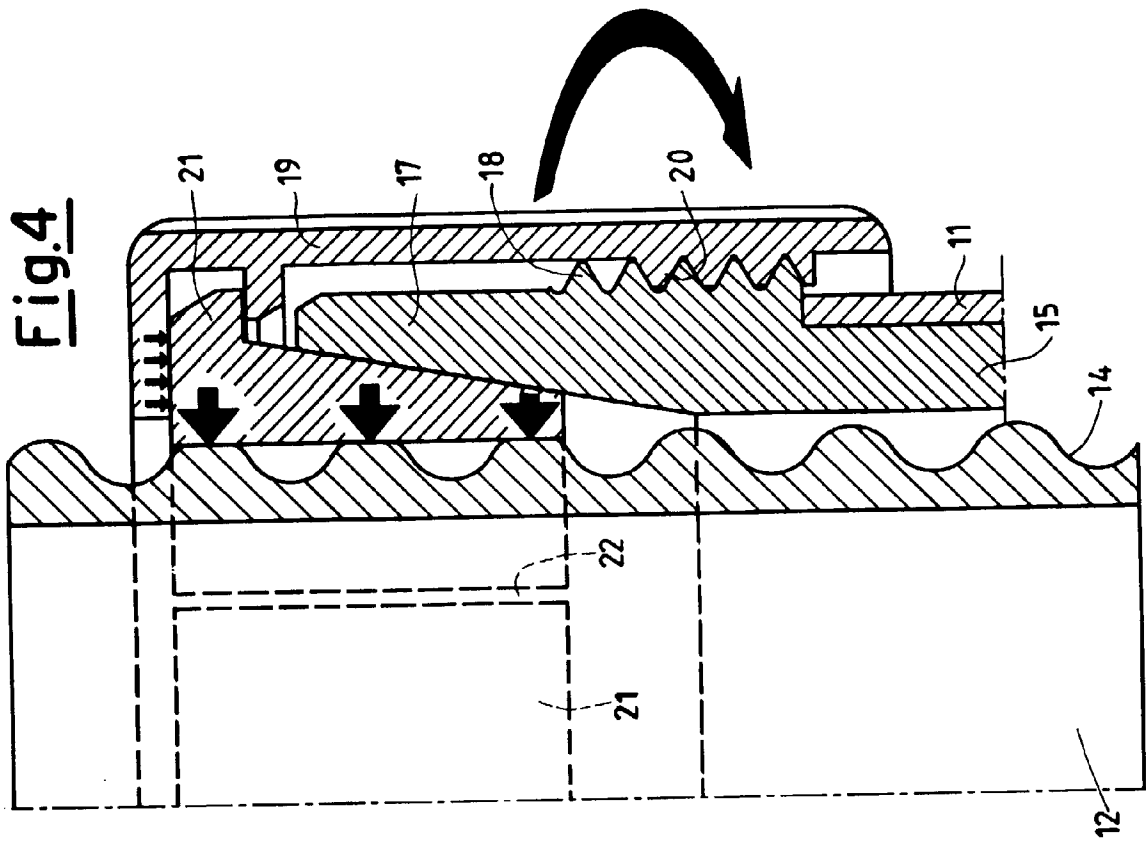


Fig.2





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EUROPEAN SEARCH REPORT

Application Number

DOCUMENTS CONSIDERED TO BE RELEVANT			EP 96201013.8
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 6)
X	EP - A - 0 455 262 (MANART S.R.L.) * Totality *	1, 2	A 47 B 91/02 A 47 B 13/02
A	US - A - 3 104 493 (C.R. NALLE) * Column 1, lines 22-29; column 2, line 22 - column 3, line 33; fig. 1-5 *	1	
A	US - A - 3 150 853 (A. LISBIN) * Column 2, lines 12-22, 45-50; fig. 1, 2 *	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl. 6)
			A 47 B 13/00 A 47 B 91/00
The present search report has been drawn up for all claims			
Place of search VIENNA		Date of completion of the search 20-06-1996	Examiner VELINSKY-HUBER
<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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