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(54) **Nail clippers**

(57) Specially designed for toenails and in order to avoid the need to get the hands at the same level as the feet which can present a problem for elderly persons or people with physical problems, comprised of a normal nail clipper (1) whose lower arm is joined to a bracket (3) that extends in a long tubular arm (4) with a cross

piece at the end (5), an arm wherein there is a bar (10) in turn ending in an upper handle (6), so that said bar can act on the upper branch of the nail clippers (1) operated at a distance, causing the closing thereof during the cutting action. A magnifying glass (16) mounted on the tubular arm (4) aids the vision in the work zone of the nail clippers.

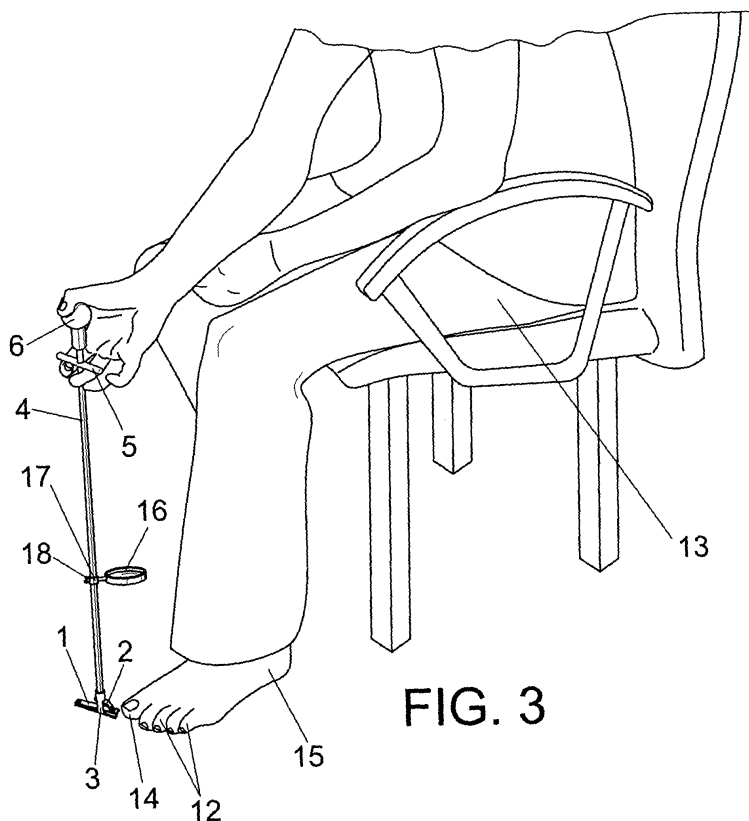


FIG. 3

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Description

OBJECT OF THE INVENTION

[0001] The present invention relates to nail clippers that are specifically designed for cutting toenails and is especially suitable for elderly persons and people with physical difficulties, who may find it difficult to get into the normal position necessary to cut toenails using a conventional nail clipper.

[0002] The special feature of the nail clippers is that they are joined to a long arm with means that allow the user to cut toenails in an upright sitting or even in a slightly leaning standing position without needing to bend his/her back.

BACKGROUND OF THE INVENTION

[0003] Common knowledge will tell you that a conventional nail clipper is comprised of two arms and that one end of the arms is fixed with a rivet or similar element, whose arms tend to diverge at the opposite end, hold the corresponding blades so that near the diverging end there is a transversal pin that limits the divergence of the arms, and a lever for manual operation is placed on this pin which closes the nail clipper by pressing on it and thus the nail is cut when placed between the blades of each arm.

[0004] Using nail clippers to cut toenails requires the user to get into a specific position that is uncomfortable, harmful for the body, etc., since that posture requires the user to curve or bend his/her back to be able to put his/her hands at the same level as his/her feet, and lift one of his/her legs whilst his/her weight shifts onto the other.

[0005] Obviously, for people who are physically able or young, this procedure does not present a problem, but in the case of people with physical difficulties or elderly persons, it is practically impossible for them to cut their own toenails and they have to ask others to carry out the procedure for them.

DESCRIPTION OF THE INVENTION

[0006] The nail clippers herein presented have been designed to resolve said problem, based on the fact that one of the arms of the nail clippers is joined to a bracket which extends in long straight arm with a handle at the end, whereby one can handle the extended nail clippers at said end of the bracket, for which purpose said arm has an axial step wherein a bar which acts to push the handle of the nail clipper, situated between the two arms of the bracket, is movable, so that, in the inoperative position the arm of the nail clipper with its operating lever, in its natural open position, pushes on the housed bar, designed for axial movement, in the interior of the tubular arm, all this so that said tubular arm, before reaching the free end, includes a cross piece, which

works in conjunction with a handle positioned at the end, on whose handle an axial screw is located that fits in the concave guide channel of the key slot provided for the purpose in the external part of the aforementioned arm, said handle or grip having a groove on its upper part to support the user's thumb, so that when he/she is using the nail clippers he/she will just have to hold the arm using the cross piece, place his/her thumb on the top of the handle, and push on its groove, which implies the downward movement of the axial bar and therefore the pushing action on the end thereof on the nail clipper lever and thus the closing of the blades to produce the cutting of the corresponding toenail.

[0007] The pressing end of the movable bar is provided with a suitable plastic bushing to minimise friction, so that the repositioning of the aforementioned push bar is caused by the tendency of the nail clippers to open. The key slot in which the screw fits is positioned radially in the push handle, so that it is not only the means that allow the movement in one direction or another of the internal bar to which the upper handle is joined, but also so that it provides the movement limits in one direction or another of the aforementioned bar, all this with the feature that the position of the hollow or upper groove of the handle to support the thumb, with regard to the guide channel of the key slot and therefore with regard to the screw, it is such that its orientation will be in accordance with the optional working position of the nail clippers.

[0008] According to another of the characteristics of the invention, it has been provided that, on said tubular arm and with the possibility of adjustable positioning, a magnifying glass is positioned which aids viewing the work zone of the nail clipper.

[0009] For the magnifying glass to have adaptable positioning, the aforementioned can include a bushing which is moveable along the tubular arm and can be fixed thereto, in any position, using a keep pin and a support plate.

DESCRIPTION OF THE DRAWINGS

[0010] To complement the description herein and in order to aid the better understanding of the characteristics of the invention, according to a preferred embodiment thereof, a set of drawings has been included as an integral part of said description wherein the following has been represented in an illustrative, non-limiting manner:

Figure 1 Shows a representation according to a perspective of the nail clipper unit object of this invention, showing the exploded view of the push bar with its corresponding handle.

Figure 2 Shows a front elevation view of the nail clippers of the invention in resting position, whereby the position of use is shown by dotted lines.

Figure 3 Shows a practical application of the nail clippers represented in the previous figures, whereby there is a person sitting in an upright position cutting his/her toenails.

PREFERRED EMBODIMENT OF THE INVENTION

[0011] In the light of the figures described, and especially figures 1 and 2, you can see how the nail clipper of the invention is comprised of conventional nail clipper (1), formed in the normal way with two arms (1) and (1') riveted together at one end, whilst at the opposite end with blades they diverge, close to the blade end there being a pin that limits the opening or divergence of the arms (1) and (1'), and whereon is placed the corresponding operating lever (2) for the nail clipper, whose arms are labelled with numbers (1) and (1'). Said nail clippers are joined to a bracket (3), a join which is performed via the ends of said bracket (3) on the lower arm or branch (1'), said bracket (3) extending into a long arm or tubular bar (4), totally straight and finishing off, near to the end, in a cross piece (5) for manual handling. From this cross piece there is a grip or handle (6) whose external side has an ample concave groove (7), whilst on the side there is a screw (8) that positions and slides along a guide channel (9) for a key slot designed for the purpose in the external part of the aforementioned tubular bar or arm (4), so that through the grip or handle (6) one can push the aforementioned, after gripping the cross piece (5) with the fingers and pushing on the groove (7) of said handle (6), and achieve the downward motion of a bar (10) constructed for the purpose of axial and internal movement of the tubular arm (4), said bar ending in a plastic or similar cap (11), which rests on the related operating lever (2) of the nail clipper (1-1'), since this lever (2) is placed between the branches of the bracket (3), and the end of the bar (10) is placed thereon which is pushed upwards constantly by the very nature of the nail clipper to be in its open position as is conventional.

[0012] Based on these characteristics, the nail clipper is operated as stated above, i.e. by pushing the groove (7) on the handle (6) with the thumb, which involves the corresponding downward movement of the bar (10) that will push on the lever (2) of the nail clipper, closing the blades of the aforementioned nail clipper and thus cutting the nail that had been placed between the blades. All this can be done with the person keeping their back straight both in a sitting and standing position.

[0013] By making the guide channel (9) constituent of the key slot and therefore the positioning of the guide channel (9) screw (8), which sets the movement limits of the screw and therefore the push bar (10), it has an appropriate position with respect to the groove (7) in the handle (6) intended for those purposes, with the aim that when the user grips the handle (5) with his/her fingers (12), the thumb (14) of said user (13) is correctly positioned on the groove (7), according to the optimum work-

ing position for the nail clipper.

[0014] Figure 3 specifically shows the practical application of said nail clipper with a user or person (13) sitting in an upright position whilst cutting the nails on one of his/her toes (15).

[0015] To complement the aforementioned structure, the nail clippers have been designed to incorporate a magnifying glass (16) as well, mounted with the possibility of positional adjustment on the arm or tubular bar (4) and provided for said purpose with a movable bushing (17) on said arm and can be fixed thereto with the aid of a support plate (18), so that the magnifying glass (16), which is conveniently positioned with respect to the nail clipper (1), will avoid possible problems of vision given the marked distance between the user's eyes and the work zone of the nail clipper.

[0016] Obviously this magnifying glass (16) is an optional element, which may or may not accompany the rest of the nail clipper.

Claims

1. Nail clippers, designed for people with physical back problems or elderly persons to be able to cut their toenails, **characterized in that** it is comprised of a long straight, rigid arm which has a bracket at one end to which a conventional nail clipper is joined, whereby said bracket is joined to one of the arms of said nail clipper, whilst the lever thereof is positioned between the two branches of the bracket; having been provided that said straight, rigid arm should be tubular and wherein a bar is axially placed for axial movement, to push the corresponding lever of the nail clipper, a bar which has a handle or grip on the opposite end, incorporating a cross piece for manual grip before the aforementioned handle; with the additional feature that the movements of the push bar are limited by the stops that determine the ends of a guide channel which acts as a key slot placed at the upper, end part of the rigid arm, in whose key slot or guide channel a radial screw is mounted laterally on the handle or push bar.
2. Nail clippers, according to claim 1, **characterized in that** the end of the push bar that acts on the lever of the nail clippers is provided with a cap to minimize friction due to axial movement of said bar.
3. Nail clippers, according to claim 1, **characterized in that** the handle provided at the free end of bar wherein the movable arm is axially mounted, has a deep groove on the end for the positioning of the user's thumb to allow the pressing and corresponding movement of the bar, whereby the aforementioned groove is designed so that the groove is conveniently positioned with regards the screw that fits in the guide channel of the key slot, to achieve the

optimal working position for the nail clipper.

4. Nail clippers, according to the preceding claims, **characterized in that** it has the option to include a magnifying glass, removably mounted on the straight, rigid arm in conjunction with a bushing which slides along said arm aided by a keep pin with a moving slide plate.

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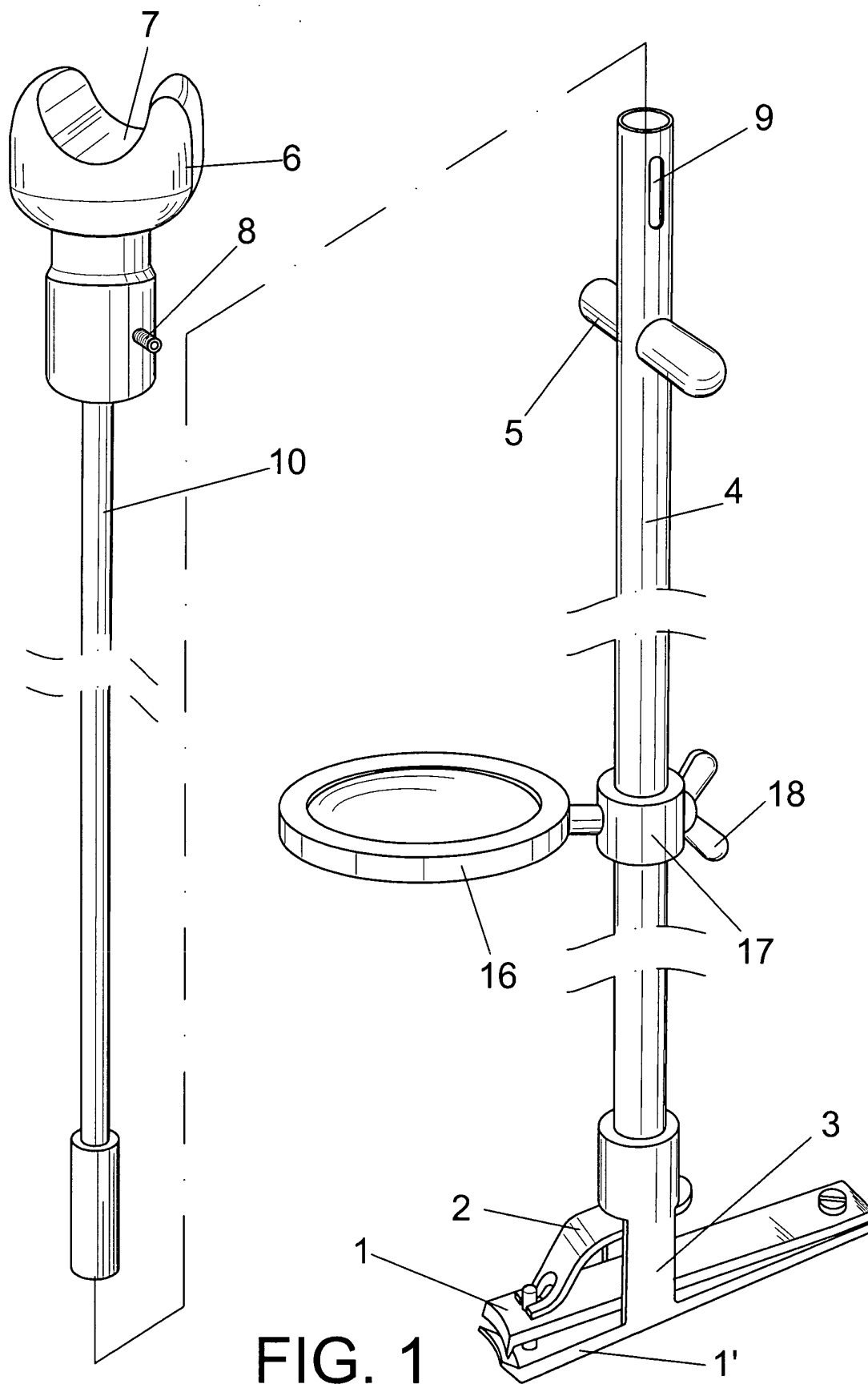


FIG. 1

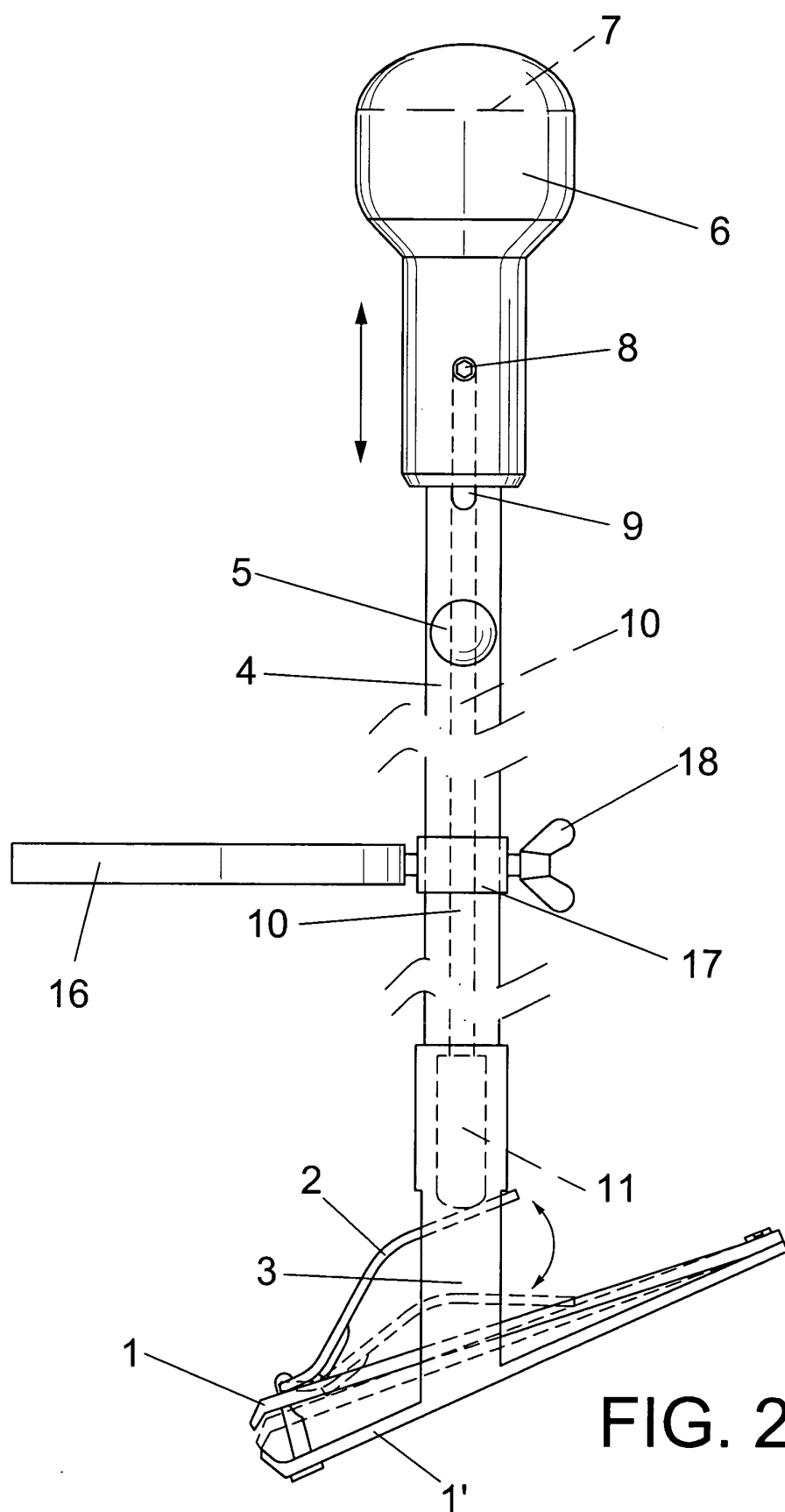


FIG. 2

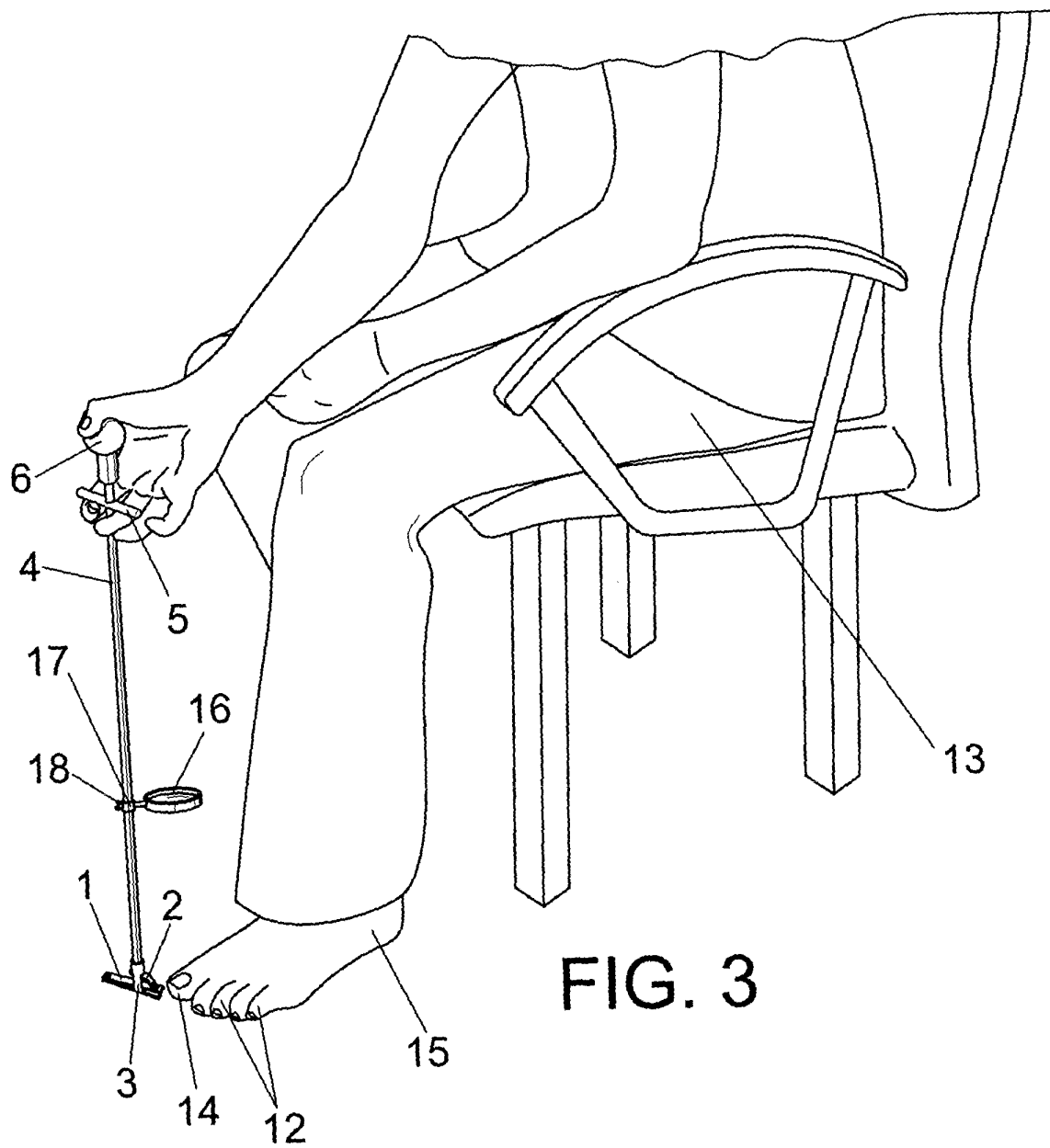


FIG. 3



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EUROPEAN SEARCH REPORT

Application Number
EP 05 38 0125

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	DE 202 13 500 U (BÖHRS HORST) 21 November 2002 (2002-11-21) * page 1, line 1 - line 7 * * page 3, line 7 - line 30; figures *	1-4	A45D29/02
X	GB 2 375 044 A (RUSSELL SULLMAN) 6 November 2002 (2002-11-06) * paragraphs [0001], [0006]; claims; figures *	1-4	
X	US 2002/092170 A1 (ANCTIL RENE) 18 July 2002 (2002-07-18) * paragraphs [0028] - [0033]; claims; figures *	1-4	
X	US 4 847 994 A (DUNN JR) 18 July 1989 (1989-07-18) * column 2, line 12 - line 55; claims; figures *	1-4	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			A45D
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 23 September 2005	Examiner Acerbis, G
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
ON EUROPEAN PATENT APPLICATION NO.**

EP 05 38 0125

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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23-09-2005

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