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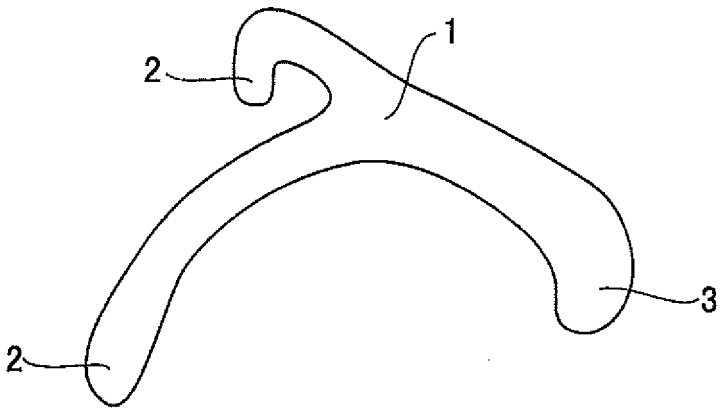
(54) **CHEEK-THINNING INSTRUMENT**

(57) It is an object of the present invention is to provide a cheek-thinning instrument which is designed to thin cheeks by an exercise of the entirety of facial muscles, to burn off fat of sagging cheeks. In particular, the cheek-thinning instrument comprises a shaft and a pair of pushing parts which can be inserted into an oral cavity between an upper gum and inner surfaces of the right and left cheeks, or between a lower gum and the right and left cheeks, and which can apply a load to the entirety of facial muscles by an opening and closing exercise of lips while the shaft is being pulled upward or downward of face.

Fig.1



EP 2 022 540 A1

Description

FIELD OF INVENTION

[0001] The present invention relates to a cheek-thinning instrument designed to burn off fat of a face, in particular of sagging cheeks, by a muscular exercise of the entirety of facial muscles.

DESCRIPTION OF THE RELATED ART

[0002] Conventional face-slimming tools, for example the one disclosed by Japanese published unexamined application JP-A-2003-135 624, are known for inserting a spring-assisted cheek-slimming tool, which expands the mouth of a user horizontally, and then the user makes exercises to close the tool using his buccinator muscles, applying a load to his cheeks or the entire face.

[0003] However, the face-slimming tool as described in the above Japanese published unexamined application JP-A-2003-135 624 is designed to burn off the fat by muscle exercise with the tool being held between the lips. Therefore, the tool exercises peripheral muscles of the lips, e.g. the buccinator muscles, while providing a small amount of exercise effect to the levator anguli oris muscles, the zygomaticus major muscles and the depressor anguli oris muscles, all of which work to tone up the face.

[0004] The cheek-thinning instrument of the present invention comprises a shaft and a pair of pushing portions which can be inserted into between an upper gum and right and left cheeks, or between a lower gum and the right and left cheeks. It can apply a load to the entirety of facial muscles, in particular the levator anguli oris muscles, the zygomaticus major muscles and the depressor anguli oris muscles, all of which work to tone up the face, by opening and closing exercise of lips while the shaft is being pulled upward or downward of a face.

[0005] The term "the entirety of facial muscles" expressed in the present invention means the above-mentioned levator anguli oris muscles, the zygomaticus major muscles and the depressor anguli oris muscles, and further include risorius muscles in central cheeks as well as buccinator muscles, forehead muscles and jaw muscles.

[0006] Therefore, the present invention is as follows:

(1) A cheek-thinning instrument which comprises a shaft and a pair of pushing portions which can be inserted into an oral cavity between an upper gum and inner surfaces of right and left cheeks, or between a lower gum and the right and left cheeks, and which can apply a load to the entirety of facial muscles by opening and closing exercise of lips.

(2) The cheek-thinning instrument according to the above item (1), wherein the cheek-thinning instrument has an interconnection which interconnects the shaft with the pushing portions.

(3) The cheek-thinning instrument according to the above items (1) or (2), wherein a finger grip part is formed at the shaft.

(4) The cheek-thinning instrument which comprises a shaft, a pair of pushing portions which can be inserted into an oral cavity between an upper gum and inner surfaces of the right and left cheeks, or between lower gum and the right and left cheeks, and an interconnection which interconnects the shaft with the pushing portions, and which can apply a load to the entirety of facial muscles.

SUMMARY OF THE INVENTION

[0007] The present invention provides various effects which are explained in detail below.

(1) The cheek-thinning instrument comprises a pair of pushing portions which can be inserted into between an upper gum and the right and left cheeks or between a lower gum and the right and left cheeks, therefore it can be placed between a gum and cheeks with ease, and it can apply a load to the desired muscles with ease by pulling a shaft with fingers. Specifically, it can apply a load directly to the entirety of facial muscles by opening and closing exercise of lips while the shaft is being pulled upward or downward of the face.

(2) According to the above item (1), the pushing portions are placeable in an oral cavity regardless of the upper or lower part thereof; therefore the cheek-thinning instrument can apply a load individually to the levator anguli oris muscles, the zygomaticus major muscles or the depressor anguli oris muscles, all of which work to slim the cheeks and remove wrinkles, while the shaft is being pulled, allowing opening and closing exercise of the lips.

(3) According to the above item (1), the pushing portions can be put near the desired muscle(s) to slim, and by applying a load directly to the levator anguli oris muscles, the zygomaticus major muscles and the depressor anguli oris muscles, all of which work to slim the sagging cheeks, these muscles are exercised locally and effectively burning off the fat thereof. Therefore the entire cheeks can be slimmed.

(4) According to the above item (1), by placing the cheek-thinning instrument of the present invention in the upper and lower portions behind the lips, and by pulling the finger grip part with fingers upward or downward of the face to apply a load individually to desired muscles while pursing up the lips and cheeks, the entirety of facial muscles can be exercised.

(5) Claim 2 provides the same effects as the above items (1) to (3).

(6) Claim 3 provides the same effects as the above items (1) to (3), and because it has the finger grip part for the fingers to grip around, the application of a load can be made more easily.

BEST MODE FOR CARRYING OUT THE INVENTION

[0008] A first embodiment of the present invention will be described with reference to FIGS. 1 to 3.

[0009] A pair of prong-shaped pushing portions 2 is formed at one end of an elongated shaft 1. A finger grip part 3 is provided at the other end to help the fingers to grip around. The shape of the shaft 1 is preferably either bent or curved. With a bending or a curvature provided thereof, it can easily apply a load to the entirety of facial muscles, in particular the levator anguli oris muscles, the zygomaticus major muscles and the depressor anguli oris muscles, by opening and closing exercise of lips while the shaft 1 is being pulled upward or downward of a face.

[0010] The shaft 1 can be made of any kind of material such as metal or wood for example. However, it is preferably made of plastic including polypropylene, urethane, elastomer, etc. in terms of easy processability such as integral-moldability. Further preferably, tips of the pushing portions 2 are made of a smooth-surfaced and elastic material, such as rubber or silicone, which deforms a little under a load.

[0011] This is to prevent interior of the oral cavity from being hurt when a load is applied on the entirety of facial muscles, in particular the levator anguli oris muscles, the zygomaticus major muscles or the depressor anguli oris muscles, when opening and closing exercise of the lips with the shaft 1 being pulled upward or downward of the face, wherein the tips of the pushing portions 2 are inserted between the right and left inner cheek surfaces 4 and a lower gum 6.

[0012] Still further preferably, the shaft 1 is made of a bowable and elastic material, such as rubber or silicone, which unbends or uncurves a little under a load so as not to hurt the interior of the oral cavity. Because it is formed by such a material, the pushing portions 2 and the shaft 1 can be deformed without hurting the interior of the oral cavity.

[0013] The two prong-shaped pushing portions 2 formed as described above, are placed between the right and left inner cheek surfaces 4 and an upper gum 6 near the right and left levator anguli oris muscles 8 and the zygomaticus major muscles 9, followed by closing of the upper and lower teeth, grabbing the finger grip part 3 with fingers 7 to apply a load upward on the levator anguli oris muscles 8 and the zygomaticus major muscles 9, thereby doing exercise of opening and closing the lips and entire cheeks repeatedly.

[0014] The same is applicable to exercise the depressor anguli oris muscles 10: the pushing portions 2 are placed between the inner cheek surfaces 4 and the lower gum 6 near the right and left depressor anguli oris muscles 10, followed by closing of the upper and lower teeth, grabbing the finger grip part 3 with fingers 7 to apply a load upward to the depressor anguli oris muscles 10, doing exercise of opening and closing the lips and entire cheeks repeatedly.

[0015] A second embodiment of the present invention will be described with reference to FIGS. 4A and 4B, and is distinguished from the first embodiment by the fact that the shaft 1 is not integrally made, but has a hinge 12 at its central portion as shown in FIG. 4A. Thus, the cheek-thinning instrument is foldable at shaft 1, as shown in FIG. 4B, into a compact configuration when it is not in use. The above-described structure has the same advantages as the first embodiment.

[0016] It is also possible that, instead of having the hinge 12 provided therein, the shaft 1 can be separated in two to be interconnected with each other with a screw when it is in use; and when it is not in use, it can be folded by loosening the screw. It is further possible to provide a mechanical joint, as shown in FIG. 5, wherein a convex portion 13 is inserted into a concave portion 14 for interconnecting same. When it is not in use, the mechanical joint can be disconnected to divide the instrument into two parts for compact storage.

[0017] A third embodiment of the present invention will be described with reference to FIG. 6, and is distinguished from the first embodiment by the fact that the pushing portions 2 and the shaft 1 are interconnected with an interconnection 11. The above-described structure provides the same advantages as the first and the second embodiments.

[0018] A fourth embodiment of the present invention will be described with reference to FIG. 7, and is distinguished from the third embodiment that the finger grip part 3 is formed in a ring shape. The above-described structure provides the same advantages as the first and the second embodiments.

[0019] Specifically, as long as the tips of the pushing portions 2 of the present invention are made of a smooth-surfaced and elastic material, such as rubber or silicone, which deforms a little under a load so as not to hurt the interior of the oral cavity when a load is applied to the entirety of facial muscles, in particular the levator anguli oris muscles, the zygomaticus major muscles and the depressor anguli oris muscles, by opening and closing exercise of the lips while the shaft is gripped with fingers and being pulled upward or downward of the face, the pushing portions 2 are neither limited to the shapes described in FIGS. 1 to 6 nor to the aforementioned materials. However, the material of the pushing portions 2 needs to be free of harmful heavy metals, and preferably is sterilizable by boiling water or the like.

[0020] The shaft 1 of the present invention can apply a load to the entirety of facial muscles, in particular the levator anguli oris muscles 8, the zygomaticus major muscles 9 and the depressor anguli oris muscles 10, by opening and closing exercise of the lips while the shaft 1 is gripped with fingers and being pulled upward or downward of the face.

[0021] The shaft 1 can be made of any kind of material such as metal or wood for example.

[0022] However, it is preferably made of plastic including polypropylene, urethane, elastomer, etc. in terms of

easy processability such as integral-moldability. It is neither limited to the shapes described in FIGS. 1 to 6 nor to the aforementioned materials. Further preferably, the shaft 1 is either bent or curved so that it can easily apply a load to the entirety of facial muscles, in particular the levator anguli oris muscles, the zygomaticus major muscles and the depressor anguli oris muscles, by opening and closing exercise of lips while the shaft lis being pulled upward or downward of the face.

[0023] Still further preferably, it is made of a bowable and elastic material, such as rubber or silicone, which unbends or uncurves a little under a load so as not to hurt the interior of an oral cavity. Still further preferably, it has a finger grip part 3 which helps the fingers to grip around easily. The finger grip part 3 is neither limited to the shapes described in FIGS. 1 to 6 nor to the aforementioned materials.

[0024] In the present invention, it is also possible that the pushing portions 2 and the shaft 1 are interconnected by the interconnection 11. Because the interconnection 11 is not meant to be put into the oral cavity, any material can be used including plastic, wood and metal. However, it has a mechanical joint mechanism such as a screw to interconnect or joint the pushing portions 2 with the shaft 1.

[0025] The cheek-thinning instrument of the present invention is basically meant to be used in such a manner that the pushing portions 2 are inserted into between an upper gum and the right and left cheeks, or between a lower gum and the right and left cheeks, however, it is also highly effective to use this instrument in such a manner that either the right or the left portion of the pushing portions 2 are put on a risorius muscle or a buccinator muscle, upper and lower teeth being closed, finger grip part 3 being gripped with fingers to apply a load to the risorius muscle or the buccinator muscle where the pushing portions 2 are put on, and do exercise of opening and closing the lips and the entire cheeks repeatedly .

INDUSTRIAL APPLICABILITY

[0026]

(1) The cheek-thinning instrument comprises a pair of pushing portions which can be inserted between an upper gum and the right and left cheeks, or between a lower gum and the right and left cheeks, therefore it can be placed between a gum and cheeks with ease, and it can apply a load to desired muscles with ease by pulling the shaft with fingers. Specifically, it can apply a load directly to the entirety of facial muscles, in particular the levator anguli oris muscles, the zygomaticus major muscles and the depressor anguli oris muscles, by an opening and closing exercise of the lips while the shaft is being pulled upward or downward of face.

(2) According to the above item (1), the pushing portions are placeable in the oral cavity regardless of the upper or lower part of it, therefore the cheek-thinning instrument can apply a load individually to the levator anguli oris muscles, the zygomaticus major muscles or the depressor anguli oris muscles, all of which work to slim the cheeks and remove wrinkles.

(3) According to the above item (1), the pushing portions can be put on the periphery of the desired muscle(s) to slim, and by applying a load directly to the levator anguli oris muscles, the zygomaticus major muscles and the depressor anguli oris muscles, all of which work to slim the sagging cheeks, these muscles are exercised locally and effectively, burning off the fat thereof. Therefore the entire cheeks can be slimmed.

(4) According to the above item (1), by placing the cheek-thinning instrument of the present invention in upper and lower portions behind the lips, and by pulling the finger grip part with fingers upward or downward of the face to apply a load individually to desired muscles while pursing up the lips and cheeks, the entirety of facial muscles can be exercised.

BRIEF DESCRIPTION OF THE DRAWINGS

[0027]

FIG. 1 is a perspective view of a first embodiment of the present invention.

FIG. 2 is an instructional drawing of the first embodiment of the present invention.

FIG. 3 is a drawing illustrating the operation of the first embodiment of the present invention.

FIG. 4A is a perspective view of a second embodiment of the present invention.

FIG. 4B is a perspective view of the second embodiment of the present invention, wherein the shaft is being folded.

FIG. 5 is a perspective view of a third embodiment of the present invention.

FIG. 6 is a perspective view of a fourth embodiment of the present invention.

FIG. 7 is a perspective view of a fifth embodiment of the present invention.

FIG. 8 is an explanatory drawing illustrating various facial muscles.

Claims

1. A cheek-thinning instrument which comprises a shaft and a pair of pushing parts which can be inserted into an oral cavity between an upper gum and inner surfaces of right and left cheeks, or between a lower gum and the right and left cheeks, and which can apply a load to the entirety of facial muscles by an opening and closing exercise of lips while the shaft

is being pulled upward or downward of face.

2. The cheek-thinning instrument according to the claim 1,
wherein the cheek-thinning instrument has an interconnection which interconnects the shaft with the pushing parts.

3. The cheek-thinning instrument according to either claim 1 or 2,
wherein a finger grip part is formed at the shaft.

4. The cheek-thinning instrument which comprises the shaft, a pair of the pushing parts which can be inserted into an oral cavity between an upper gum and inner surfaces of right and left cheeks, or between a lower gum and the right and left cheeks, and an interconnection which interconnects the shaft with the pushing parts, and which can apply a load to the entirety of facial muscles by an opening and closing exercise of the lips while the shaft is being pulled upward or downward of the face.

Fig.1

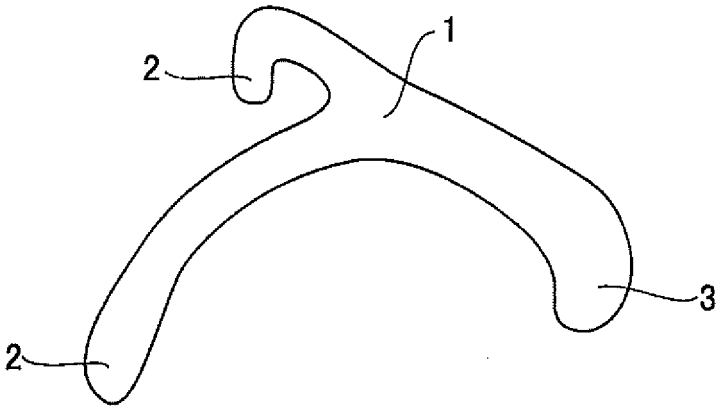


Fig.2

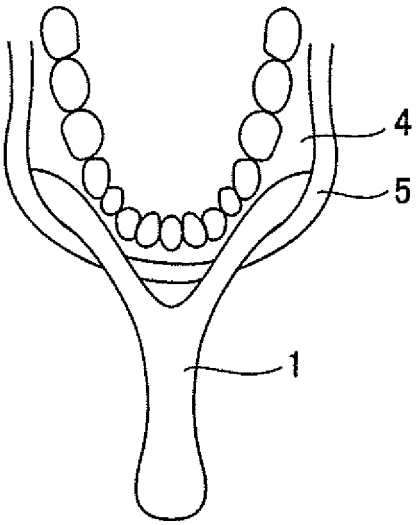


Fig.3

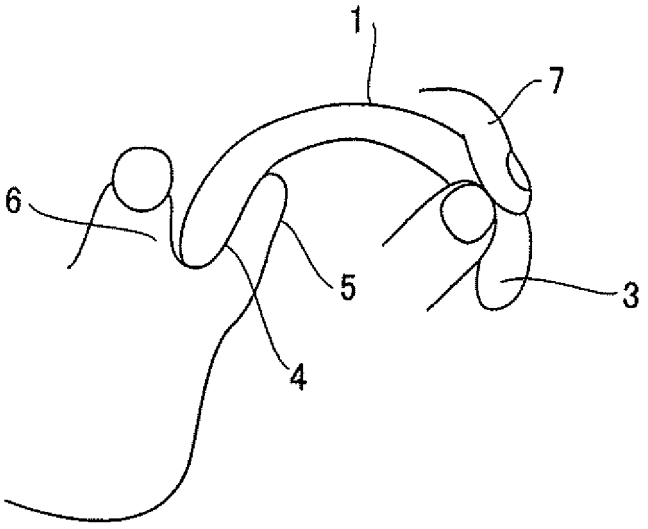


Fig.4A

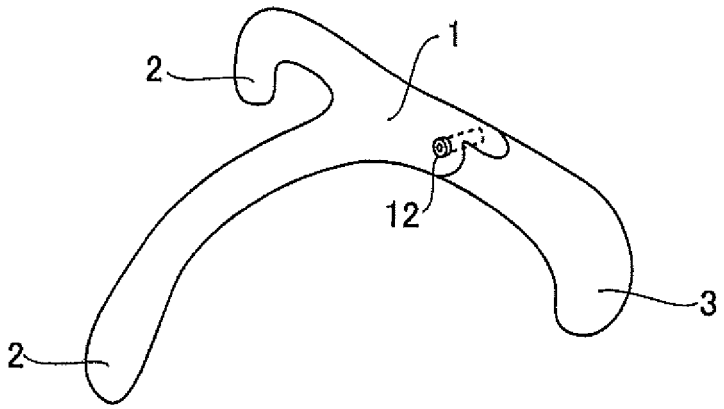


Fig.4B

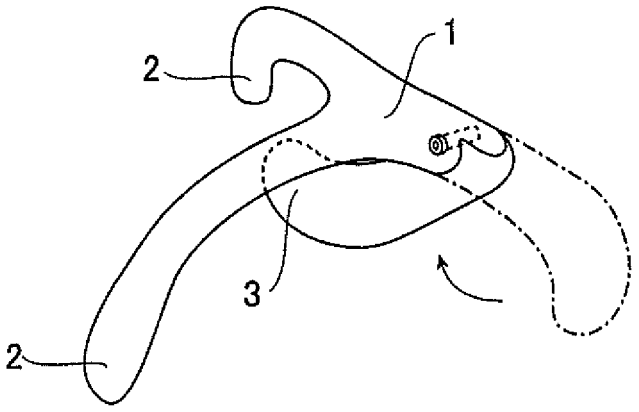


Fig.5

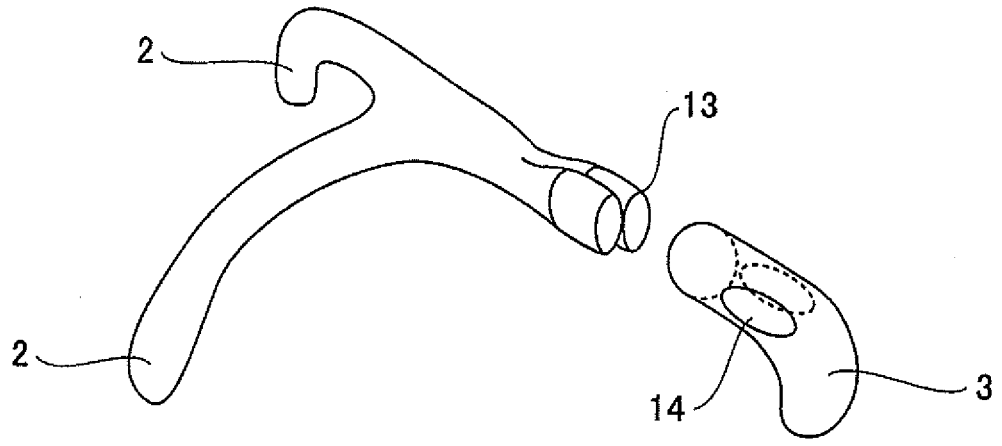


Fig.6

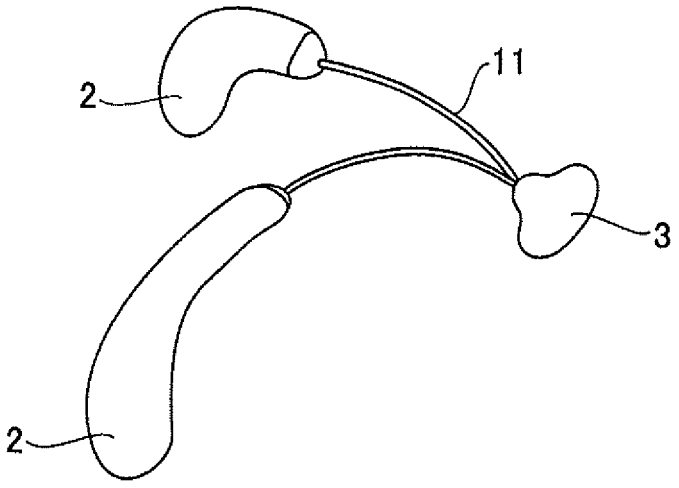


Fig.7

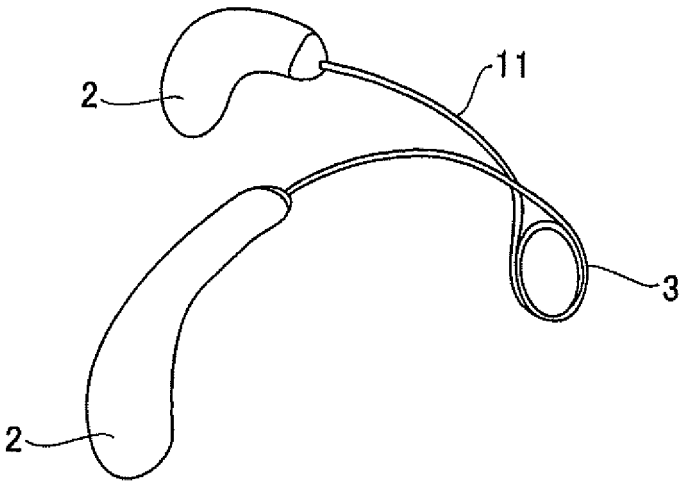
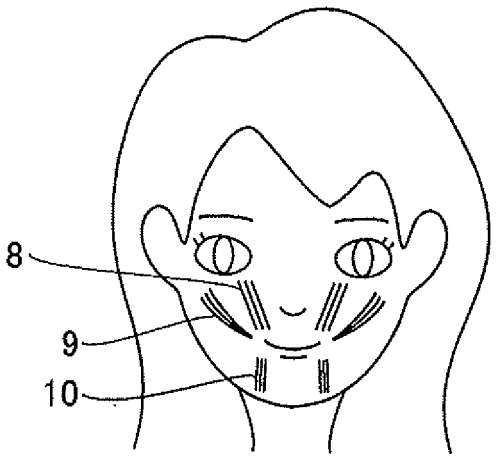


Fig.8



INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP2007/060082

A. CLASSIFICATION OF SUBJECT MATTER
A63B23/03(2006.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
A63B23/03

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Jitsuyo Shinan Koho 1922-1996 Jitsuyo Shinan Toroku Koho 1996-2007
Kokai Jitsuyo Shinan Koho 1971-2007 Toroku Jitsuyo Shinan Koho 1994-2007

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	JP 2000-070404 A (Kabushiki Kaisha Dokuta Eru), 07 March, 2000 (07.03.00), Par. Nos. [0005] to [0008], [0013], [0016]; Figs. 1, 7 & US 6436034 B1	1-2,4 3
Y	US 2001/0034474 A1 (RYAN Bruce P.), 25 October, 2001 (25.10.01), Par. Nos. [0014], [0019]; Fig. 2 (Family: none)	3

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:
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Date of the actual completion of the international search	Date of mailing of the international search report
28 June, 2007 (28.06.07)	10 July, 2007 (10.07.07)
Name and mailing address of the ISA/ Japanese Patent Office Facsimile No.	Authorized officer Telephone No.

Form PCT/ISA/210 (second sheet) (April 2005)

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- JP 2003135624 A **[0002] [0003]**