

|                                          |                                             |
|------------------------------------------|---------------------------------------------|
| SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO |                                             |
| RAD: 13-282522- -10                      | FECHA: 2016-04-11 09:50:00                  |
| DEP: 2020 DIRECCION DE NUEVAS CREACIONES | EVE: 1 REGISTRO/DEPOSITO/CONCESION/DEPOSITO |
| TRA: 2 PATENTES DE INVENCION             | FOLIOS: 4                                   |
| ACT: 519 TRASLADOINFORME                 |                                             |

**DIRECCIÓN DE NUEVAS CREACIONES**

2020  
Bogotá, D.C.,

Abogado(a)/Señor(a)  
CARLOS R. OLARTE GARCIA

**Asunto:** Radicación: 13-282522- -10  
Trámite: 2  
Evento: 1  
Actuación: 519  
Oficio: 4117  
Folios: 4

|                                     |   |            |  |                               |  |
|-------------------------------------|---|------------|--|-------------------------------|--|
| Patente de Invención                | X |            |  | Patente de Modelo de Utilidad |  |
| Vía Nacional                        | X |            |  |                               |  |
| Vía PCT (Fase Nacional)             |   | Capítulo I |  | Capítulo II                   |  |
| No. Solicitud Internacional         |   |            |  |                               |  |
| Fecha de Presentación Internacional |   |            |  |                               |  |

Como resultado del examen de fondo realizado, con fundamento en el Artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se comunica:

**1. Documentos estudiados**

|                   |                                  |                   |
|-------------------|----------------------------------|-------------------|
| Descripción:      | Radicado N° 13-282522-00000-0000 | 02/Diciembre/2013 |
| Reivindicaciones: | Radicado N° 13-282522-00000-0000 | 02/Diciembre/2013 |
| Dibujos:          | Radicado N° 13-282522-00000-0000 | 02/Diciembre/2013 |

**2. Objeto de la invención**

De acuerdo con lo establecido en el numeral 1.2.2.2 del capítulo primero del Título X de la Circular Única para efectos del examen de patentabilidad, se tendrá en cuenta la tasa pagada por la solicitante al momento de comenzar el examen para las reivindicaciones adicionales; esto es que cuando la solicitud contenga más de diez (10) reivindicaciones y no se haya pagado la tasa complementaria, sólo se estudiarán las cubiertas por la tasa pagada. En el presente caso se estudiarán las reivindicaciones 1 a 10 del capítulo reivindicatorio (Radicado N°. 13-282522-00000-0000).

Título de la solicitud: “Sistema para el aseo dental para personas con discapacidad”. (Radicado N°. 13-282522-00000-0000).

El problema planteado en esta solicitud consiste en suministrar un dispositivo que permite ayudar a personas con discapacidad de miembros superiores, el cual permite desarrollar actividades de aseo dental tales como el acceso al dentífrico, cepillado y el

agua para enjuagar la boca.

Para resolver este problema técnico la solicitud en estudio proporciona un dispositivo conformado por una unidad central adosada a la pared, una unidad secundaria adherida al lavamanos encargada de expulsar agua con el acercamiento de la persona y líneas de entrada y salida de agua y energía eléctrica.

El objeto de la presente solicitud se relaciona con la Clasificación Internacional de Patentes (CIP): A46B 15/00.

### 3. De la solicitud de patente

#### Reivindicaciones (Art 30 D 486, Art 22 PCT)

- Se estudian las 10 primeras reivindicaciones toda vez que no se presentó el pago por reivindicación adicional.
- La reivindicación 1 no es clara, ya que se refiere a: “...un sistema flexible de transmisión de movimiento...”, “...un sistema hidráulico de dosificación de agua...” y “...un sistema electrónico que controla el movimiento y suministro hidráulico del dispositivo”. Dichos sistemas se describen de forma general y no definen el dispositivo reclamado. Se sugiere al solicitante describir claramente cada sistema por sus características técnicas estructurales, incluyendo los elementos que componen cada uno de los mismos, además de la relación entre dichos elementos que funcionalmente llegan al efecto técnico propuesto.
- La reivindicaciones 1 y 2 incluyen resultados a obtener, tal y como se describe: la independiente 1: “...tiene al menos un grado de libertad de movimiento el cual permite proyectarse hacia la presencia de una barrera...”. La dependiente 2: “...que permiten la rotación y elevación del cuerpo principal”. Los resultados a alcanzar no definen el producto reclamado, puesto que las reivindicaciones incluirían no sólo la solución propuesta por el solicitante, sino todas las alternativas presentes o futuras que lleguen a ese resultado. Se sugiere reemplazarlo por las características esenciales, estructurales o funcionales, que contribuyen a la obtención de ese efecto.
- Las expresiones “...al menos...”, “...medios para...” (reivindicación 1), “...pluralidad...” (reivindicación 2), “...que permite...” (reivindicaciones 1, 4), “...que permiten...” (reivindicación 2), son relativas y no definen la invención por sus características estructurales y/o funcionales. Se sugiere reemplazarlas por términos, expresiones o rangos concretos.
- Las reivindicación 1 revela características funcionales, tal y como se describe: “...para sanitizar la cámara de lavado”, “...para dosificar agua a la cámara de lavado y al extremo efector...”, “...que dispensa el agua para el enjuague bucal...”, “...que controla el movimiento y suministro hidráulico del dispositivo”. Este tipo de características, aunque explican la relación que hay entre diversas características estructurales y pueden estar incluidas en las reivindicaciones, no definen la invención; por lo tanto no se tienen en cuenta para el estudio de patentabilidad.
- Se sugiere al solicitante incluir entre paréntesis () los números de referencia de cada uno de los elementos que hacen parte de la invención de acuerdo con la numeración empleada en los dibujos, con el fin de hacer más fácil y sencilla la comprensión de la materia objeto reivindicada.

### 4. Determinación del Estado de la Técnica

El estado de la técnica se determinó con base en la fecha de presentación de la solicitud internacional: diciembre 02 de 2013, y no se encontró documento que anticipe

el objeto de esta solicitud.

## 5. Conclusión

Las reivindicaciones 1 a 10 no se encuentran divulgadas en el estado de la técnica, por lo tanto, cumplen con los requisitos de los artículos 16 y 18 de la Decisión 486, sin embargo, se deben tener en cuenta las objeciones realizadas para poder dar un trámite satisfactorio a la solicitud.

En cumplimiento del artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se le indica que debe dar respuesta dentro del término de sesenta (60) días contados a partir de la fecha de notificación de la presente comunicación. En caso de no dar respuesta al presente requerimiento, o si a pesar de la respuesta subsistieran los impedimentos para la concesión, se denegará la patente.

Si como respuesta a este requerimiento el solicitante llegara a modificar: i) el capítulo reivindicatorio, ii) la descripción de la invención a proteger, iii) o presente un nuevo capítulo reivindicatorio, y desee que se realice un nuevo examen de patentabilidad a esta modificación, no deberá pagar la tasa de modificación voluntaria pero sí la correspondiente a la tasa de examen de patentabilidad. En todo caso, el número de requerimientos por no patentabilidad estará supeditado a que el término del estudio de patentabilidad no sea superior a 18 meses, contados desde la publicación de la solicitud de patente de invención. Adicionalmente, se le recuerda al solicitante que si como respuesta a este requerimiento llegara a modificar el capítulo reivindicatorio y éste contenga más de diez (10) reivindicaciones deberá pagar la tasa por reivindicación adicional.

Notifíquese el presente oficio conforme a lo dispuesto en el numeral 5.2, literal e), del capítulo quinto del título primero de la Circular Única No. 10 de 2001.



**JOSÉ LUIS SALAZAR LÓPEZ**  
Director de Nuevas Creaciones (c)

El anterior requerimiento fue notificado por fijación en lista, de fecha 2016-04-19

Elaboró: Ivan Mauricio Ardila Romero

Revisó: Sonia Andrea Diaz Pirazan

IvĂin Ardila

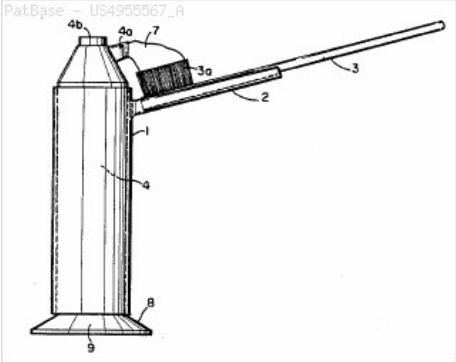
**Search history**

Search 1: automatic (Results 100000)  
Search 2: toothbrush (Results 37984)  
Search 3: disabled person\* (Results 4550)  
Search 4: 2 and 3 (Results 33)

**Title:** **Toothbrush** holder for upright toothpaste dispenser

**Abstract:** Source: US4955567A This invention permits the dispensing of toothpaste onto a standard **toothbrush** using only one hand or limb and intended as an aid to **disabled persons**. The invention includes a toothpaste dispenser grasping member that fits over conventional commercially available upright toothpaste dispensers. A **toothbrush** holding tray is rigidly connected to the top of the toothpaste dispenser grasping member so that the bristles of a **toothbrush** placed on the **toothbrush** holding tray will be located below the nozzle of the toothpaste dispenser. To ensure that the bristles will be located properly under the nozzle, an alternative embodiment includes a **toothbrush** stop positioned on the **toothbrush** holding tray. The toothpaste grasping member may also have an opening in its side to allow one to view the window often placed in upright toothpaste dispenser to show how much toothpaste is left. Yet another embodiment includes a flared skirt rigidly attached to the base of the dispenser grasping member giving a wider footing for greater stability. An actuating lever arm may be pivotally attached to the dispenser grasping member to permit easier depression of the toothpaste dispensing button.

**Classifications:**  
**International (IPC 8-9):** A46B11/06 A46B17/02 B65D35/56 (Advanced/Invention)  
**International (IPC 1-7):** B65D35/56  
**CPC:** A46B11/06 A46B17/02 A46B2200/1066 B65D35/56  
**European:** A46B11/06 A46B17/02 B65D35/56 K46B200/10G  
**US:** 222/156 222/173 222/183 222/192 248/108



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| US4955567 A        | 19900911         | US19890295986      | 19890112         |

**Priority:**  
US19890295986 19890112

**Probable Assignee:** LONGHURST FRANK J  
**Assignee(s):** (std): LONGHURST FRANK J  
**Inventor(s):** (std): LONGHURST FRANK J

**Title:** Chewing and cleaning block for oral teeth

**Abstract:** Source: CN2138482Y The utility model relates to a chewing block for rapidly cleaning an oral cavity and tooth, belonging to the technical field of the health care and the sanitary technology of the oral cavity and the tooth. The utility model is characterized in that chemical articles 3 for cleaning, deodorizing, sterilizing, etc., are arranged in a diaphragm 2. A spongy-shaped colloid 1 is wrapped outside the diaphragm 2. The utility model has the advantages that the chewing block can not injure periodontal muscle tissue. Periodontal diseases can be relieved. The defects of the repeated infection of bacteria on a **toothbrush** and a tooth cup. The chewing block can be used at any time and is not limited by the time. Chewing block is beneficial to be used under special occasions and environments by children, old people, and **disabled persons**.

**Classifications:**  
**International (IPC 8-9):** A61C17/00 A61K9/00 (Advanced/Invention);  
A61C17/00 A61K9/00 (Core/Invention)  
**International (IPC 1-7):** A61C17/00 A61K9/00

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CN2138482 Y        | 19930721         | CN19922030922U     | 19920818         |

**Priority:**  
CN19922030922U 19920818  
**Probable Assignee:** SUN DESHENG  
**Assignee(s):** (std): SUN DESHENG  
**Inventor(s):** (std): DESHENG SUN ; SUN DESHENG

**Title:** **Toothbrush** with toothpaste

**Abstract:** Source: CN2143911Y The utility model relates to a **toothbrush** with toothpaste, comprising a **toothbrush** head, a **toothbrush** cover, a toothpaste tube and a pressing rod. The utility model adopts integrative structure of the **toothbrush** and the toothpaste tube. When used, the **toothbrush** cover is taken off, the pressing rod is pressed, toothpaste in the toothpaste tube is caused to be pressed on the **toothbrush**. If the toothpaste is used up, the toothpaste can be refilled into the toothpaste tube. The utility model, which has the advantages of simple structure, clean dental utensil, convenient use, convenient carrying property, etc., is in particular suitable for a blind person and a **disabled person** who has only one hand.

**Classifications:**  
**International (IPC 8-9):** A46B11/02 (Advanced/Invention);  
A46B11/00 (Core/Invention)  
**International (IPC 1-7):** A46B11/02

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CN2143911 Y        | 19931020         | CN19922037250U     | 19921210         |

**Priority:**  
CN19922037250U 19921210  
**Probable Assignee:** LU ZHICHAO  
**Assignee(s):** (std): LU ZHICHAO  
**Inventor(s):** (std): LU ZHICHAO ; ZHICHAO LU

**Title:** Multifunctional **toothbrush**

**Abstract:** Source: CN2172032Y The utility model relates to a multifunctional **toothbrush** used by a patient or a **disabled person**. The utility model comprises a **toothbrush** head, a handle and a cup. The **toothbrush** head is provided with a passage for flowing water. A cavity chamber which can hold water is arranged in the handle. The lower part of the handle is provided with an advancing mechanism which is composed of a piston, a piston rod, a section of independent circular pipe and a spring. The piston is fixedly connected with the piston rod. The spring is sheathed between the piston and the piston rod. The advancing direction is opposite to the water outlet direction. A patient or a **disabled person** can operate the **toothbrush** with one hand to wash and clean. The utility model increases convenience for usage for a healthy person.

**Classifications:**

**International (IPC 8-9):** A46B11/02 (Advanced/Invention);

A46B11/00 (Core/Invention)

**International (IPC 1-7):** A46B11/02

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CN2172032 Y        | 19940720         | CN19932001845U     | 19930119         |

**Priority:**

CN19932001845U 19930119

**Probable Assignee:** YUAN YUNLONG

**Assignee(s):** (std): YUAN YUNLONG

**Inventor(s):** (std): YUAN YUNLONG ; YUNLONG YUAN

**Title:** Electrically operated **toothbrush** with protective cover

**Abstract:** Source: CN2215902Y The utility model provides a domestic appliance, particularly an electrically operated **toothbrush** with protective cover, composed of a casing, a battery, a switch, a brush head shaft, a brush head and a protective cover of the brush head. The battery, a motor and the switch are arranged in the casing, and the brush head is arranged in the protective cover of the brush head. When the utility model is used, the switch is pushed, and the motor drives the brush head to rotate to brush the teeth. Because the protective cover protects the **toothbrush** head, the utility model plays function to the teeth merely. The tooth brushing is quick, convenient and safe. The utility model is particularly suitable for the older adults, the children and the **disabled persons**.

**Classifications:**  
**International (IPC 8-9):** A61C17/34 (Advanced/Invention);  
A61C17/16 (Core/Invention)  
**International (IPC 1-7):** A61C17/34

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CN2215902 Y        | 19951227         | CN19942036097U     | 19941228         |

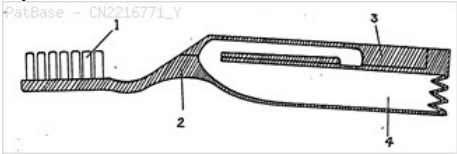
**Priority:**  
CN19942036097U 19941228

**Probable Assignee:** ZHAI CHUNGUI  
**Assignee(s):** (std): ZHAI CHUNGUI  
**Inventor(s):** (std): CHUNGUI ZHAI ; ZHAI CHUNGUI

**Title:** Combination type tooth-brush with tooth-paste stored in it

**Abstract:** Source: CN2216771Y The utility model relates to a combination type tooth-brush with toothpaste, which comprises a tooth-brush head and a tooth-brush neck. The utility model is characterized in that the upper part of a tooth-brush handle is provided with a push type toothpaste transport pipe which moves back and forth, and the inner of the toothpaste transport pipe is provided with a tunnel communicated with a toothpaste storage pipe at the lower part. The structure is very convenient to operate and can conveniently control the extruding output of the toothpaste. The extruded toothpaste is positioned on the top of the brush bristles, which conforms to the tooth brushing habit, and the utility model is convenient to clean. The utility model has the advantages of sanitation and low cost. The toothpaste is stored in an enclosed space, so the toothpaste is not easily contaminated, and the problems of back flowing of the water, overflow of the toothpaste, etc. do not exist. The utility model is widely used in evection, household and traveling, and is suitable for the disabled person to use.

**Classifications:**  
**International (IPC 8-9):** A46B11/02 (Advanced/Invention);  
A46B11/00 (Core/Invention)  
**International (IPC 1-7):** A46B11/02



Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CN2216771 Y        | 19960110         | CN19942048953U     | 19941230         |

**Priority:**  
CN19942048953U 19941230

**Probable Assignee:** CHEN JIARUI

**Assignee(s):** (std): CHEN JIARUI

**Inventor(s):** (std): CHEN JIARUI ; JIARUI CHEN

**Title:** Convenient **toothbrush**

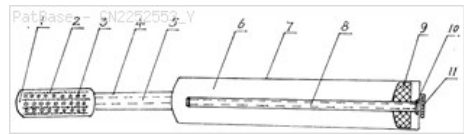
**Abstract:** Source: CN2252553Y The utility model relates to a convenient **toothbrush** which is characterized in that a brush head (1) is provided with a toothpaste discharging hole (3), and a screw rod (8), toothpaste (6) and an extruding block (9) are arranged in a brush holder (7); a turn knob (11) is arranged at the back end of the brush holder (7), and the front end of the brush holder is connected with the brush head (1) through a brush rod (4) with a passageway (5). The turn knob (11) needs only a turn to extrude the toothpaste out of the toothpaste discharging hole (3) of the brush head (1). The utility model has the advantages of convenient use, simplified operation, time saving, small size and portability and is particularly convenient for a **disabled person** using.

**Classifications:**

**International (IPC 8-9):** A46B11/02 (Advanced/Invention);

A46B11/00 (Core/Invention)

**International (IPC 1-7):** A46B11/02



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CN2252553 Y        | 19970423         | CN19962012347U     | 19960606         |

**Priority:**

CN19962012347U 19960606

**Probable Assignee:** LIU XIN

**Assignee(s):** (std): LIU XIN

**Inventor(s):** (std): LIU XIN ; XIN LIU

**Title:** Domestic Utensil with a hand or mouth guard

**Abstract:** Source: GB2342565A A domestic utensil, primarily for a child or a disabled person, such as a piece of cutlery, a toothbrush or a hairbrush has an operative end 1 and a handle end 2 with a stop means or guard 3 adjacent to the operative portion. The guard prevents the user's hand sliding from the handle onto the operative portion and it may also prevent the utensil being entirely pushed into the user's mouth. The guard can be in the form of a flange 4, which may be screwed onto the utensil through an extended portion 6, or the guard could be permanently secured to the handle. The guard may extend round the entire circumference of the handle and may be in the form of a flat disc or a bowl, with its concave surface facing the handle end 2, and the guard may possess holes. The guard may be made of a plastics material and/or a metal and may have a resilient protective edge.

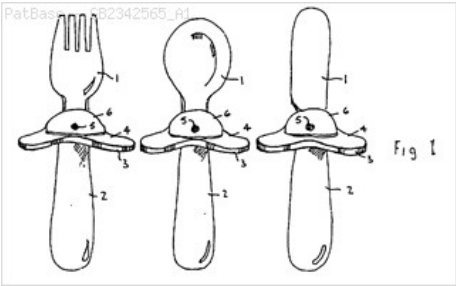
**Classifications:**

**International (IPC 8-9):** A46B5/02 A47G21/02 B26B3/02 (Advanced/Invention);  
A46B5/00 A47G21/00 B26B3/00 (Core/Invention)

**International (IPC 1-7):** A46B5/02 A47G21/02 A47G21/04 B26B3/02

**CPC:** A46B5/02 A47G21/02 B26B3/02

**European:** A46B5/02 A47G21/02 B26B3/02



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| GB2342565 A1       | 20000419         | GB19990019268      | 19990816         |
| GB2342565 B2       | 20030514         | GB19990019268      | 19990816         |
| GB9822566 A0       | 19981209         | GB19980022566      | 19981016         |
| GB9919268 A0       | 19991020         | GB19990019268      | 19990816         |

**Priority:**

GB19980022566 19981016

**Probable Assignee:** MUNRO PAUL M

**Assignee(s):** (std): MUNRO PAUL M ; MUNRO PAUL MARK

**Assignee(s):** PAUL MARK MUNRO

**Inventor(s):** (std): MUNRO PAUL MARK

**Inventor(s):** PAUL MARK MUNRO

**Title:** Automatic toothbrush

**Abstract:** Source: CN2380097Y The utility model relates to an automatic toothbrush, which is composed of a toothbrush body and a box body serving as a toothbrush handle simultaneously. The automatic toothbrush is characterized in that the toothbrush body and the box body form an integral structure; the toothbrush body is hollow and is communicated with the box body; the toothbrush bristle position of the automatic toothbrush is provided with a toothpaste outlet tube; the inside of the box body is provided with a mechanism used for squeezing toothpaste. The utility model has the advantages of simple structure, convenient use, cleanness, sanitation, etc. The utility model is especially suitable for travelers going abroad or disabled persons.

**Classifications:**

**International (IPC 8-9):** A46B11/02 (Advanced/Invention);

A46B11/00 (Core/Invention)

**International (IPC 1-7):** A46B11/02

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CN2380097 Y        | 20000531         | CN19982031204U     | 19980813         |

**Priority:**

CN19982031204U 19980813

**Probable Assignee:** PAN SHANHUI

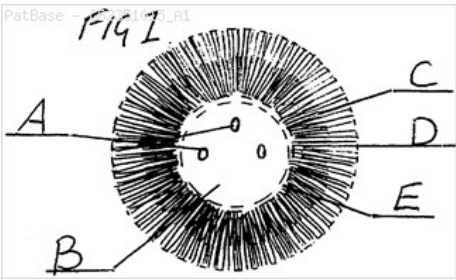
**Assignee(s):** (std): PAN SHANHUI

**Inventor(s):** (std): PAN SHANHUI ; SHANHUI PAN

**Title:** Chewable **toothbrush**

**Abstract:** Source: GB2351015A A chewable **toothbrush** comprises a soft hollow bristle C,D covered sphere B which has toothpaste contained within it, wherein the toothpaste is released through holes A in the spheres outer surface upon the user chewing the sphere. The bristles may be of two different lengths with the shorter inner bristles being arranged in an octagonal pattern (see figure 3). An object of the invention is to provide a brush which does not require the users hands in holding a handle, however an alternative embodiment is described which has a round 'lollipop' like handle for use by children (see figure 4).

**Classifications:**  
**International (IPC 8-9):** A46B11/00 A46B5/02 A46B9/04 (Advanced/Invention)  
**International (IPC 1-7):** A46B11/00 A46B9/04  
**CPC:** A46B5/02 A46B5/023 A46B9/026 A46B11/0041 A46B2200/1066  
**European:** A46B11/00C6C A46B5/02 A46B5/02B A46B9/02D K46B200/10G



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| GB2351015 A1       | 20001220         | GB19990013983      | 19990617         |
| GB2351015 B2       | 20010711         | GB19990013983      | 19990617         |
| GB9913983 A0       | 19990818         | GB19990013983      | 19990617         |

**Priority:**  
GB19990013983 19990617

**Probable Assignee:** KENNEDY PETER

**Assignee(s):** (std): KENNEDY PETER

**Assignee(s):** PETER KENNEDY

**Inventor(s):** (std): KENNEDY PETER

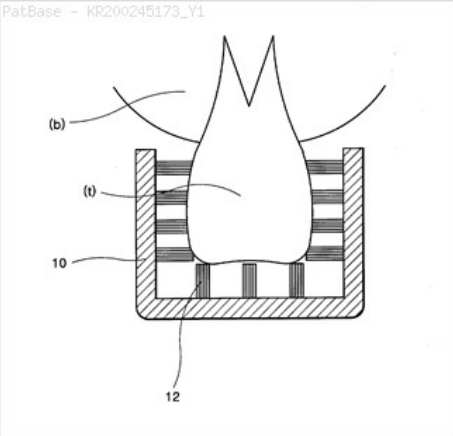
**Inventor(s):** PETER KENNEDY

**Title:** **Toothbrush** (Machine translation)

**Abstract:** Source: KR200245173Y

**Machine translation:** The idea which it sees in end of the handle inclination comes with schedule angle looking downward and it is connected and the center of the inside `outside walls to under trade name large direction curves with inward and the bedspread it puts on but to compose the tooth accommodating department of the comparison softness where each corner is controlled at round, inside minute description tooth accommodating bringing up for discussion if day end of the brush which becomes mouth opinion toward a top when inclination come about under composing doing a **toothbrush** quality, it prevents the fact that the force enters into the wrist, is formed with curve the gingiva which and it follows it will can move softly in order, under upper `the handle it does not move not to be, the tooth and the tooth The foreign material quality which it puts in the gap between easily, it wipes and the possibility of putting out in order to be, as the box, in **toothbrush** quality by the young people flag also the **disabled person** whose of course hand operation is inconvenient is clean familiar from babyhood and easily, it is regarding the **toothbrush** which is the possibility of wiping the tooth. **Toothbrush**

**Classifications:**  
**International (IPC 8-9):** A46B9/04 (Advanced/Non-invention)



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| KR200245173 Y1     | 20011017         | KR20010016224U     | 20010531         |

Title: Electric **toothbrush**

**Abstract:** Source: CN2555008Y The utility model relates to an electric **toothbrush**, and belongs to the technical field of the human life needs section, the personal or household goods division, the large category of brush-like products, the sub-category of brush goods, the large group of brush goods with driven brush bodies and the small group of brush goods with powered brush bodies, according to the International Patent Classification (IPC). The electric **toothbrush** mainly solves the problems that a general **toothbrush** can be only used by hands, so a hand-**disabled person** is inconvenient to use the general **toothbrush**. The electric **toothbrush** mainly consists of a **toothbrush**, a motor, a battery, a switch, a shell and a lead. And the electric **toothbrush** is characterized in that a motor clip is fixed in the middle of the shell; a battery spring is arranged at the lower part of the shell; the lead is welded at the wiring position of the motor. The best proposal to achieve the utility model is that plastic can be used as material, and the basic equipment of a **toothbrush** plant can be used for producing in assembly and in bulk to meet the needs of the daily commodity field, thereby realizing the practical and economic value of the electric **toothbrush**.

**Classifications:**

**International (IPC 8-9):** A61C17/26 (Advanced/Invention);

A61C17/16 (Core/Invention)

**International (IPC 1-7):** A61C17/26

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CN2555008 Y        | 20030611         | CN20022038098U     | 20020703         |

**Priority:**

CN20022038098U 20020703

**Probable Assignee:** YUE DONGYI

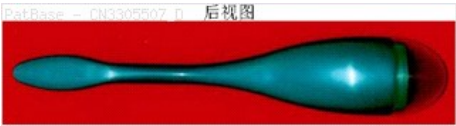
**Assignee(s):** (std): YUE DONGYI

**Inventor(s):** (std): YANG YONG ; YUE DONGYI

**Inventor(s):** DONGYI YUE ; YONG YANG

Title: Disabled person toothbrush (Machine translation)

Classifications:  
Locarno class: 04/02



Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CN3305507 D        | 20030709         | CN20023071056F     | 20021122         |

Priority:  
CN20023071056F 20021122

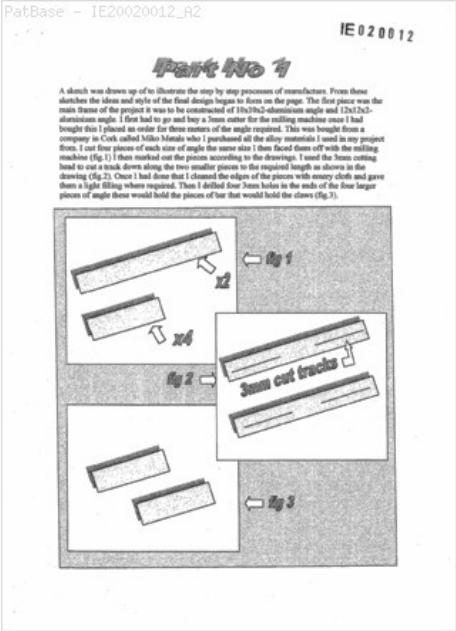
Title: Pot stirrer

**Abstract:** Source: IE20020012A The invention relates to a pot stirrer, built with labour saving, easy to use, safe, and heat resistant qualities in mind. Similar to a milk agitator used in many dairy farms, the pot stirrer will stir a pot of liquid, with the added bonus of doing so while it is cooking, without manual assistance. The pot stirrer was designed with an independent power supply, therefore eliminating the need for an electrical lead. The principle is a bit like an electric toothbrush, in that the device would be put on a cradle to be recharged when not in use. The pot stirrer can be adjusted to suit any width or depth of pot or utensil. This adjustable action is achieved with the use of a spring mechanism. A double clamp system, made up of two 2.5 mm aluminium claws holds the pot stirrer to the pot. A 2 mm tinted perspex blade stirs the liquid, resembling a spatula with slots cut out to allow the liquid to pass through. The motor is mounted on top of a frame and drives the blade by means of a set of gears. The connecting rod between the motor and drive shaft is made of brass. The two metals used in the construction of this design, aluminium and brass, compliment each other and run smoothly. The whole unit, excluding the blade, is encased in a heat resistant plastic cover to protect it from moisture as well as heat, making the device more durable. In summary, this time saving device is safe, durable, and simple to use. Potentially, available in a variety of sizes and colours, the pot stirrer would make an ideal gift for an invalid or a partially disabled person, not to mention the able-bodied chef (or would-be chef), with little time to spend on stirring pots.

**Classifications:**

**International (IPC 8-9):** A47J43/04 (Advanced/Invention);  
A47J43/04 (Core/Invention)

**International (IPC 1-7):** A47J43/04



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| IE20020012 A2      | 20031112         | IE20020000012      | 20020110         |

**Priority:**

IE20020000012 20020110

**Probable Assignee:** KINSELLA BRIAN

**Assignee(s):** (std): KINSELLA BRIAN

**Assignee(s):** BRIAN KINSELLA

**Inventor(s):** (std): KINSELLA BRIAN

**Inventor(s):** BRIAN KINSELLA

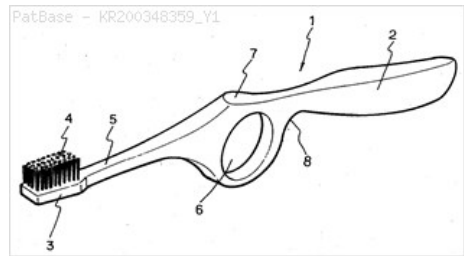
**Title:** Obstacle reference **toothbrush** (Machine translation)

**Abstract:** Source: KR200348359Y

**Machine translation:** The idea which it sees the green onion easily it will yell the possibility of doing in order to be, with the **disabled person** or the child where the hand or the finger is inconvenient with the fact that regarding the **toothbrush**, in order about under forming to insert the index finger, and the hole which to under upper three the circular index finger it inserts more in one part of the handle the green onion branch and the green onion [ci] groove about under forming the children it will not be able to fix the **disabled person** or the **toothbrush** where the hand or the finger is inconvenient easily above and underneath, it will be able to accomplish a **toothbrush** quality in order, it is regarding the obstacle reference **toothbrush**. Is like this and the idea which it sees the wool body (3) being formed in brush (5) it is formed at one side of handle (2), wool body 93) to the **toothbrush** wool (4) from is by a core chaff position **toothbrush** and, the index finger the hole (6) which it inserts is formed in one part of minute description handle (2), the index finger the green onion branch (7) is formed on upper part of the hole (6) which it inserts, the index finger the green onion [ci] groove (8) is formed is to do with feature at one side of the hole (6) which it inserts.

**Toothbrush** and finger, **disabled person** and child

**Classifications:**  
**International (IPC 8-9):** A46B5/02 (Advanced/Invention);  
A46B5/02 (Advanced/Non-invention)



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| KR200348359 Y1     | 20040428         | KR20030036411U     | 20031121         |

**Priority:**  
KR20030036411U 20031121

**Title:** Paste possessing **toothbrush**

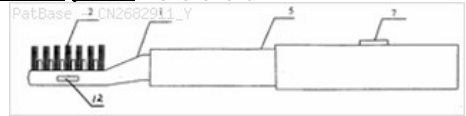
**Abstract:** Source: CN2682911Y The utility model provides a paste possessing **toothbrush**; the interior of the base of the **toothbrush** head of the paste possessing **toothbrush** is cavity; the cavity is connected with the holes in a row of small cylinders on the base; the cavity is connected with the toothpaste tube connected with the back end of the **toothbrush** head; a **toothbrush** cap is buckled on the **toothbrush** head. A toothpaste extruding device is arranged on the **toothbrush** tube; the toothpaste is extruded into the base and out from the small cylinder holes. The paste possessing **toothbrush** of the utility model has convenient carrying, convenient use, simple structure and clean dental article because of the **toothbrush** cap, in particular being convenient to be used for the blind and the **disabled person** with one hand.

**Classifications:**

**International (IPC 8-9):** A46B11/02 (Advanced/Invention);

A46B11/00 (Core/Invention)

**International (IPC 1-7):** A46B11/02



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CN2682911 Y        | 20050309         | CN200320127804U    | 20031217         |

**Priority:**

CN200320127804U 20031217

**Probable Assignee:** LU LESHU

**Assignee(s):** (std): LU LESHU

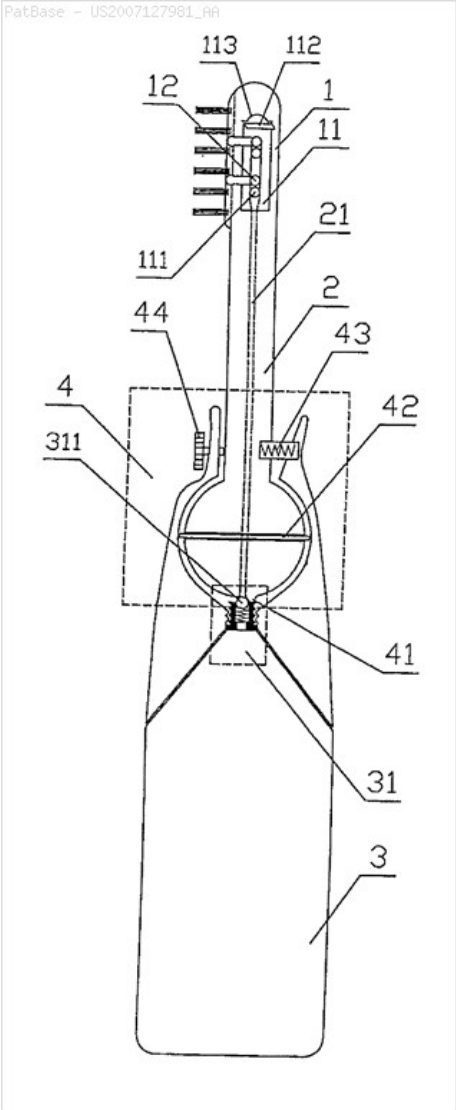
**Inventor(s):** (std): LU LESHU

**Inventor(s):** LESHU LU

Title: **TOOTHBRUSH**

**Abstract:** Source: US2007127981A A **toothbrush** has a **toothbrush** head, a **toothbrush** bar and a toothpaste container. The toothpaste container is a gas-filled container, and a gas nipple is provided at the bottom of the toothpaste container. A pipe channel is provided in the **toothbrush** bar, the toothpaste container is communicated with the **toothbrush** head through the pipe channel via a valve. The **toothbrush** bar is hinged to the toothpaste container by a spherical hinged joint formed by the end of the **toothbrush** bar. The spherical hinged joint controls the valve to discharge toothpaste in the toothpaste container into the pipe channel and the **toothbrush** head. The invention is convenient especially for children, the elder, the blind and the disabled.

**Classifications:**  
**International (IPC 8-9):** A46B11/00 A46B11/02 A47L13/22 (Advanced/Invention); A46B11/00 A47L13/20 (Core/Invention)  
**International (IPC 1-7):** A46B11/00 A46B11/02  
**CPC:** A46B11/0017 A46B2200/1066  
**European:** A46B11/00C5 K46B200/10G  
**US:** 401/190 401/190S 401/275 401/278 401/278P 401/280 401/281 401/282



Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CN100391384 C      | 20080604         | CN200410000827     | 20040117         |
| CN1636483 A        | 20050713         | CN200410000827     | 20040117         |
| US2007127981 AA    | 20070607         | US20050597118      | 20050112         |
| US7625150 BB       | 20091201         | US20050597118      | 20050112         |
| WO05074744 A1      | 20050818         | WO2005CN00036      | 20050112         |

**Priority:**  
CN200320119666U 20031225      CN200410000827 20040117      WO2005CN00036 20050112

**Probable Assignee:** WU YUN FOO

**Assignee(s):** (std): HU RUNFU ; RUNFU HU ; WU YUN FOO

**Inventor(s):** (std): HU RUNFU ; RUNFU HU ; WU YUN FOO

**Agent(s):** ALLEN DYER DOPPELT MILBRATH AND GILCHRIST PA

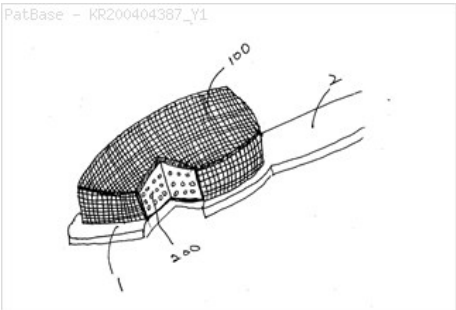
**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

**Title:** There is a possibility of wiping the tooth and the gingiva [chis] watch (Machine translation)

**Abstract:** Source: KR200404387Y

**Machine translation:** The idea which it sees will wipe the tooth and [chis] to under upper three it will remove [su] phone [ci] who is soft a brush part and the [su] phone it will yell and with from the fact that it changes with the watch structure which is cheap hour [su] phone lichen softness which will wipe the tooth is the tooth and [su] phone [ci] and the [su] phone it will yell and the brush part of the **toothbrush** more with the fact that regarding a watch and the watch which is besieging adheres closely and it will be able to remove the foreign material quality of the tooth in the part where the groove of watch is about a green onion in order, existing to be improved in the **toothbrush** and or the finger which is the **toothbrush** price which it uses it puts the **toothbrush** of the thimble format which it uses or brush part from the **toothbrush** of ring format with [su] phone [ci] The [su] it will change with the watch structure which besieges with phone [ci] it will be serviceable and the child or the **disabled person** to be easy there will be a possibility of doing a **toothbrush** quality and not only the tooth cheap the [su] phone which has the strong point which is the possibility also the gingiva and the tongue wiping it will yell and it is and [chis] it is regarding a watch. **Toothbrush** and tooth, tongue and gingiva, [chis] watch and watch

**Classifications:**  
**International (IPC 8-9):** A46B15/00 A46B17/08 (Advanced/Non-invention)  
**International (IPC 1-7):** A46B15/00



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| KR200404387 Y1     | 20051222         | KR20050023108U     | 20050810         |

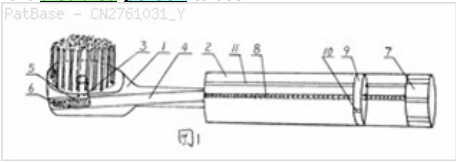
**Priority:**  
KR20050023108U 20050810

**Title:** **Toothbrush** with toothpaste squeezer

**Abstract:** Source: CN2761031Y The utility model relates to a **toothbrush** with toothpaste squeezer comprising a **toothbrush** and the toothpaste. The utility model is characterized in that a toothpaste hole is arranged at the middle part of the **toothbrush** head. A brush handle is a hollow pipe connected with the toothpaste hole on the **toothbrush** head. One end of the toothpaste pipe is provided with an intercommunicating pipe connected with the **toothbrush** handle while the other end is equipped with a rotary end cover. The inner of the end cap connects to one screw rod on which a piston is covered. The utility model has reasonable design, simple structure and convenient operation. When using, rotate the rotary handle and the toothpaste can be squeezed on the **toothbrush** head to brush the teeth. The **toothbrush** with toothpaste squeezer can be operated only with one hand, and is especially convenient for the **disabled person** to use.

**Classifications:**

**International (IPC 8-9):** A46B11/02 (Advanced/Invention);  
A46B11/00 (Core/Invention)



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CN2761031 Y        | 20060301         | CN200520069664U    | 20050106         |

**Priority:**

CN200520069664U 20050106

**Probable Assignee:** REN QIANG

**Assignee(s):** (std): REN QIANG

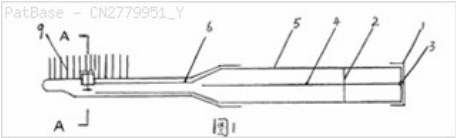
**Inventor(s):** (std): REN QIANG

**Inventor(s):** QIANG REN

**Title:** **Toothbrush** with toothpaste feeder

**Abstract:** Source: CN2779951Y The utility model relates to a **toothbrush** with toothpaste feeder. The problem to be solved is that the quantity of the toothpaste extruded is controllable and can seal the toothpaste tube. The **toothbrush** with toothpaste feeder is characterized in that the transitional connection point of the **toothbrush** head and the **toothbrush** handle is a hollow pipe. The front end of the **toothbrush** handle connects to a catheter which is arranged inside the hollow pipe. A toothpaste hole is arranged at the middle part of the **toothbrush** head and one side of the **toothbrush** bristle. An automatic valve is arranged in the toothpaste hole. The **toothbrush** with toothpaste feeder is provided with simple structure and reasonable design. The toothpaste can be extruded only by rotating the rotatable cover and the quantity of toothpaste extruded is controllable. The toothpaste can seal the toothpaste tube conveniently after it is extruded to prevent the water from getting into the toothpaste tube. This **toothbrush** with toothpaste feeder is suitable for the travelers and the **disabled person** and is convenient to operate and carry.

**Classifications:**  
**International (IPC 8-9):** A46B11/02 (Advanced/Invention);  
A46B11/00 (Core/Invention)



**Family:**

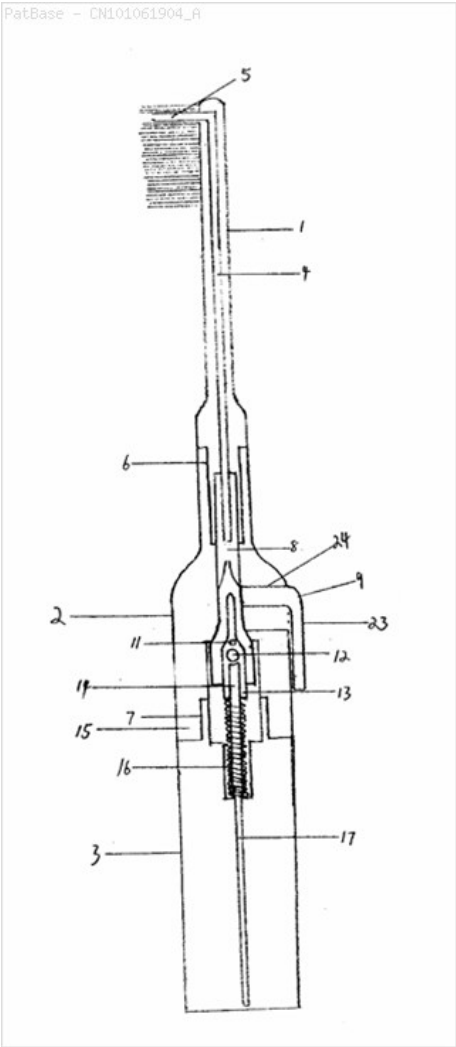
| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CN2779951 Y        | 20060517         | CN200520069413U    | 20050301         |

**Priority:**  
CN200520069413U 20050301  
**Probable Assignee:** CAI SHANSHAN  
**Assignee(s):** (std): CAI SHANSHAN  
**Inventor(s):** (std): CAI SHANSHAN  
**Inventor(s):** SHANSHAN CAI

**Title:** **Toothbrush** with toothpaste fluid

**Abstract:** Source: CN101061904A The invention discloses a **toothbrush** with toothpaste liquid, which is characterized by the following: constituting a closed space with brush head element (1), piston element (2) and toothpaste liquid storing element (3); matching element (1), (2) and (3) at will; using repeatedly; replacing same storing element when the toothpaste used up; replacing same brush head element with old brush head; moving piston element (2) up and down; changing the inner pressure of the storing element (3); flowing the toothpaste liquid into the brush head element (1) from down to up under the function of air pressure; avoiding extravagant of toothpaste. This invention is convenient for popular and **disabled person**.

**Classifications:**  
**International (IPC 8-9):** A46B11/02 (Advanced/Invention);  
A46B11/00 (Core/Invention)



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CN101061904 A      | 20071031         | CN200610078636     | 20060429         |

**Priority:**  
CN200610078636 20060429

**Probable Assignee:** GENG DAN  
**Assignee(s):** (std): GENG DAN  
**Inventor(s):** (std): GENG DAN  
**Inventor(s):** DAN GENG

**Title:** HOLDER

**Abstract:** Source: US2010212115A The present invention is a holder for use by a person such as an infant, elderly person or disabled person to hold a food item or eating utensil such as a spoon, fork or knife. The holder has an elongate handle portion, guard portion and a holding portion. The guard portion is positioned between the handle and the holding portion whereas the holding portion has a recess and a collar surrounding the recess. The collar is resiliently deformable to accommodate and hold the item within the recess.

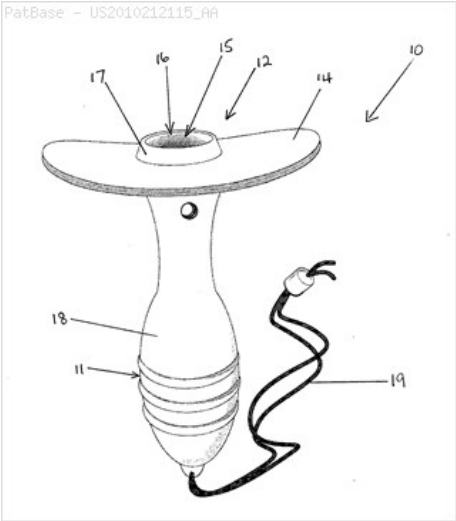
**Classifications:**

**International (IPC 8-9):** A47J43/28 B25G1/00 (Advanced/Invention); A47J43/00 B25G1/00 (Core/Invention)

**CPC:** Y10T16/469 A47J43/28 A47G21/02 A47J45/07

**European:** A47G21/02 A47J43/28 A47J45/07

**US:** 16/422 16/422P



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| AU2008261606 AA    | 20081218         | AU20080261606      | 20080613         |
| US2010212115 AA    | 20100826         | US20080663435      | 20080613         |
| WO08151366 A1      | 20081218         | WO2008AU00837      | 20080613         |

**Priority:**  
AU20070903160 20070613      WO2008AU00837 20080613      AU20080261606 20080613

**Probable Assignee:** ARMSTRONG ALEXANDRA

**Assignee(s):** (std): ARMSTRONG ALEXANDRA

**Assignee(s):** ALEXANDRA ARMSTRONG

**Inventor(s):** (std): ARMSTRONG ALEXANDRA

**Inventor(s):** ALEXANDRA ARMSTRONG

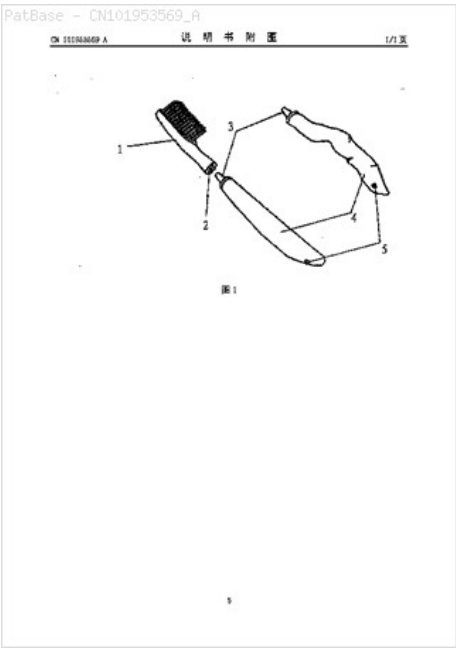
**Agent(s):** SHOEMAKER AND MATTARE LTD; WYNNES PATENT AND TRADE MARK ATTORNEYS

**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

**Title:** **Toothbrush** connected with dentifrice tube

**Abstract:** Source: CN101953569A The invention discloses a **toothbrush** connected with a dentifrice tube. The invention is characterized in that the **toothbrush** comprises a **toothbrush** head and a dentifrice tube connected on the **toothbrush** head, wherein the **toothbrush** head is provided with bristle, the tail end of the **toothbrush** head is provided with an interface, and the **toothbrush** head is internally provided with a pipeline communicating the interface and the bristle; and the dentifrice tube is filled with dentifrice, the head of the dentifrice tube is provided with a joint which is coordinated and communicated with the interface on the **toothbrush** head, and the dentifrice in the dentifrice tube is delivered to the bristle through the joint. By utilizing the **toothbrush**, the dentifrice can be squeezed onto the bristle by squeezing the dentifrice tube, thus the **toothbrush** connected with the dentifrice tube can be used conveniently and be particularly suitable for **disabled person** and travelers to use.

**Classifications:**  
**International (IPC 8-9):** A46B11/02 A46B5/00 (Advanced/Invention)



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CN101953569 A      | 20110126         | CN201010165874     | 20100505         |

**Priority:**  
CN201010165874 20100505

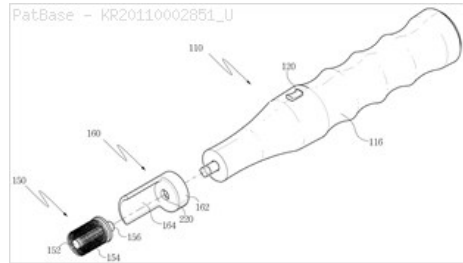
**Probable Assignee:** NANTONG XINYING DESIGN SERV CO  
**Assignee(s):** (std): NANTONG XINYING DESIGN SERV CO ; NANTONG XINYING DESIGN SERVICE CO LTD  
**Assignee(s):** NANTONG XINYING DESIGN SERVICE CO  
**Inventor(s):** (std): JIAN XU ; LU CAO  
**Inventor(s):** XU JIAN ; CAO LU

**Title:** An Electric-Powered **Toothbrush**

**Abstract:** Source: KR20110002851U

**Machine translation:** The idea which it sees is regarding the electromotive **toothbrush**. The idea which it sees the battery is had built-in on the inside, if outer circle the handle main body where the switch which decides the green onion [ci] groove which is formed in groove form in half-circle and the drive yes or no of the electromotive **toothbrush** is had all; It is accommodated on the inside of the minute description handle main body, it follows in fabrication of the minute description switch and the rotary means which includes the deceleration motor which decelerates the rotation speed of the drive motor where the former and reverse rotation of the prorogation are possible and the minute description drive motor; If outer circle with **toothbrush** the **toothbrush** wool is formed with the radiation elder brother, it is formed in minute description **toothbrush** righteousness end and minute description rotary means and rotation possibly, it is combined crisis possibly, **toothbrush** vice- includes re-connection vice- the crimping groove which is combined is formed re-; And minute description connection vice- authorization it is penetrated and the prevention cover which prevents the fact that the couple [le] which is combined in the handle main body and **toothbrush** jealous looks foreign material quality bounce was formed it includes the prevention means which bounces provides the electromotive **toothbrush** the fact that with feature. In compliance with the idea which it sees, with fabrication of the switch which converts the **toothbrush** righteousness rotary direction of the electromotive **toothbrush** conference rotary direction simply with spinning direction or reverse direction, it converts and accomplish a **toothbrush** quality and with, the child, the **disabled person** and the old person back help of the protector without simply there is an effect where the **toothbrush** quality which is proper is possible.

**Classifications:**  
**International (IPC 8-9):** A46B13/00 A46B13/02 A61C17/26 (Advanced/Invention)



**Family:**

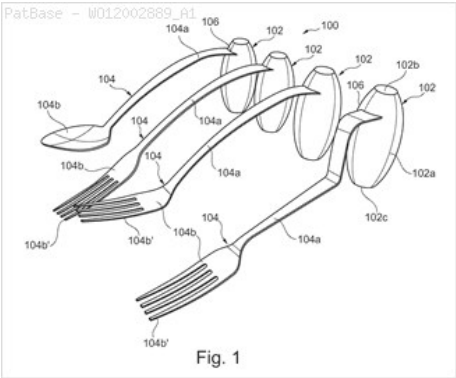
| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| KR20110002851 U    | 20110323         | KR20090012083U     | 20090915         |

**Priority:**  
KR20090012083U 20090915

**Title:** HANDHELD DEVICE WITH A VERTICALLY HOLDING BODY FOR A **DISABLED PERSON**

**Abstract:** Embodiments of a handheld device to be used by a person with one or more of restricted movement of wrist, fingers, shoulders, and elbow are disclosed. In an embodiment, the handheld device includes a handheld utensil fixed onto a lateral surface of a holding body vertically disposed with a top end and a bottom end. The handheld device may also include a supporting member fastened to the holding body at the top and bottom end respectively. In a further implementation, the handheld device may include a guiding member. A first end of the guiding member is connected with one of the ends of the holding body and a second end of the guiding member is disposed freely to enable a personal assistant to guide the handheld utensil for the user.

**Classifications:**  
**International (IPC 8-9):** A46B5/02 A47G21/02 A47G21/04 B25G1/10 B43L15/00 (Advanced/Invention)  
**CPC:** A46B5/025 A47G21/08 B25G1/102 B43K23/004 B43L15/00  
**European:** A46B5/02C A47G21/08 B25G1/10B B43K23/004 B43L15/00



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| WO12002889 A1      | 20120105         | WO2011SE50854      | 20110628         |

**Priority:**

SE20100050707 20100628

**Probable Assignee:** MUUKKI SVERDRUP CAMILLA THERESIA

**Assignee(s):** (std): MUUKKI SVERDRUP CAMILLA THERESIA

**Inventor(s):** (std): MUUKKI SVERDRUP CAMILLA THERESIA

**Agent(s):** HYNELL PATENTTJÄENST AB

**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

**Title:** Electric **toothbrush**

**Abstract:** Source: CN102342865A The invention provides an electric **toothbrush**. According to the invention, an electric rotary **toothbrush** head is arranged on the front end of a **toothbrush** rod. A battery case which can also be used as a **toothbrush** holder is connected to the tail end of the **toothbrush** rod. A button switch used for turning on the rotary **toothbrush** head is arranged on one side on the front part of the battery case. When in use, the button switch is pressed, the power source is conducted, such that the **toothbrush** head can rotate, and teeth can be brushed. The electric **toothbrush** is time saving and effort saving. Therefore, the electric **toothbrush** is especially suitable for **disabled persons** having difficulties getting about.

**Classifications:**

**International (IPC 8-9):** A61C17/26 (Advanced/Invention)

**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CN102342865 A      | 20120208         | CN201010248320     | 20100803         |

**Priority:**

CN201010248320 20100803

**Probable Assignee:** SHANGYUE LI

**Assignee(s):** (std): SHANGYUE LI

**Assignee(s):** LI SHANGYUE

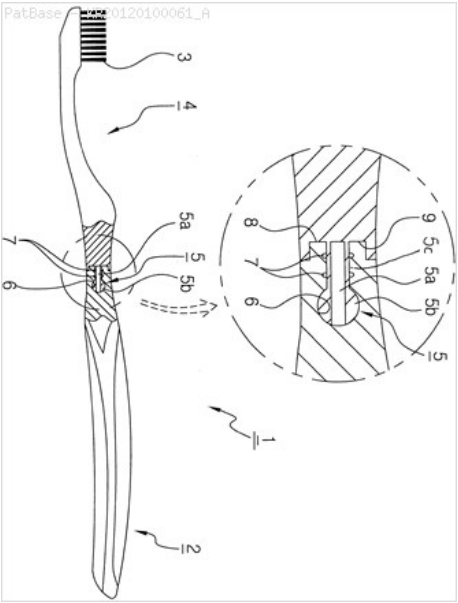
**Inventor(s):** (std): SHANGYUE LI

**Inventor(s):** LI SHANGYUE

Title: **TOOTHBRUSH**

**Abstract:** Source: KR20120100061A PURPOSE: A **toothbrush** is provided to only replace a head unit when bristles of a brush are worn away or damaged and to enable a **disabled person** to brush his or her teeth. CONSTITUTION: A **toothbrush** comprises a handle unit(2), a brush(3), and a head unit(4). In the connector of the head unit and handle unit, a coupling piece(5) and a hanging groove(6) are formed to correspond to each other. One or more fixing rings(7) for preventing rotation are combined with the connector of the coupling piece. A hemi-spherical hanging protrusion(5b) is formed on both sides of the coupling piece. The junctions(8,9) of the head unit and handle unit are formed to be vertical to the longitudinal direction of the **toothbrush**.

**Classifications:**  
**International (IPC 8-9):** A46B5/00 A46B7/04 (Advanced/Invention)



Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| KR101243900 B1     | 20130320         | KR20110018692      | 20110302         |
| KR20120100061 A    | 20120912         | KR20110018692      | 20110302         |

**Priority:**  
KR20110018692 20110302

**Probable Assignee:** NEOB CO LTD

**Assignee(s):** (std): NEOB CO LTD

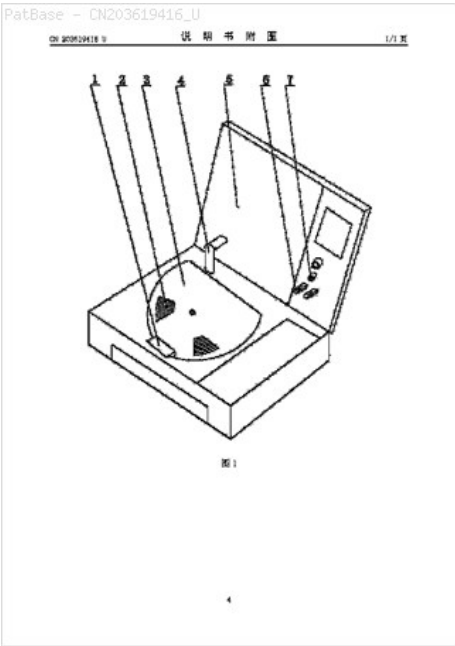
**Assignee(s):** NEOB CO

**Inventor(s):** (std): LEE PAL HYUNG

**Title:** WASHING DEVICE FOR ONE-ARMED **DISABLED PERSON**

**Abstract:** Source: CN203619416U A washing device for a one-armed **disabled person** comprises a washing basin and a mirror frame, and is characterized in that a rubber block is arranged at the front end of the washing basin, scrubbing concave-convex strips are arranged on two sides of the rubber block, a bracket for twisting a towel is arranged at the back of the washing basin, two vertically arranged toothpaste fixing rings are arranged on one side of the mirror frame, and horizontally arranged **toothbrush** carriers are arranged below the toothpaste fixing rings. According to the washing device for the one-armed **disabled person**, the rubber block is arranged at the front end of the washing basin and facilitates rubbing hand washing for the **disabled person**; the scrubbing concave-convex strips are arranged on two sides of the rubber block to facilitate towel rubbing and washing by one hand; the bracket for twisting the towel is arranged at the back of the washing basin, so that the towel can be wound on the bracket to be wrung dry; the vertically arranged toothpaste fixing rings are arranged on one side of the mirror frame, and the horizontally arranged **toothbrush** carriers are arranged below the toothpaste fixing rings, then toothpaste can be squeezed to a **toothbrush** by one hand, and the one-armed **disabled person** can conveniently perform daily washing. The washing device has the characteristics of simple structure and good using effect.

**Classifications:**  
**International (IPC 8-9):** A47K1/02 (Advanced/Invention)



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CN203619416 U      | 20140604         | CN201320698827U    | 20131107         |

**Priority:**  
CN201320698827U 20131107

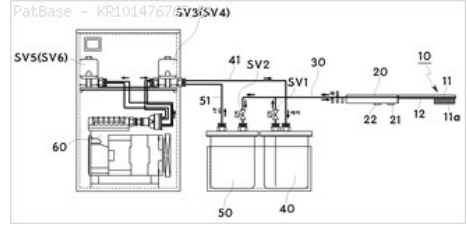
**Probable Assignee:** UNIV JIAXING  
**Assignee(s):** (std): JIAXING UNIV ; UNIV JIAXING  
**Inventor(s):** (std): CHEN ZIWEI ; WANG YIHUA ; YIN XIUFENG ; ZHANG SHENGYA

Title: APPARATUS FOR TOOTH BRUSHING FOR PATIENT

**Abstract:** Source: KR101476767B The present invention relates to an apparatus for tooth brushing for a patient, including: a toothbrush (10); a handle (20); a hose (30); a water supply container (40); a water discharge container (50); a press pump (60); a fifth solenoid valve (SV5) disposed in a suction tube that is connected to the press pump (60) to suction air outside; and a sixth solenoid valve (SV6) disposed in a discharge tube connected to the press pump (60) to discharge the air to the outside. The apparatus may have an integrated shape so that tooth brushing, gargling, and cleaning solution discharge are integrally performed. Water may be supplied through the toothbrush. Thus, the apparatus may allow a senior, a disabled person, or a patient to easily discharge the water in the mouth after tooth brushing is over in a state where the senior, disabled person, or patient is lay down in the bed and thus be comfortable to use by the senior, disabled person, or patient. The toothbrush part may be easily replaced even though a superspeed electric toothbrush having toothbrush that is capable of efficiently removing plaque is used and thus be used by several people. Also, after the toothbrushing is over, the water may be automatically supplied into or discharge from the mouth by the press pump so that the senior, disabled, or patient who has problems with mobility easily brushes teeth. Also, several people may use the water in the water supply container without replacing or cleaning the water supply container to reduce mouth nursing time. Also, the apparatus may have a simple structure to reduce costs of manufacturing and thus be economically feasible.

**Classifications:**

**International (IPC 8-9):** A61C17/02 A61C17/06 (Advanced/Invention)



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| KR101476767 B1     | 20141226         | KR20130156721      | 20131216         |

**Priority:**

KR20130156721 20131216

**Probable Assignee:** UNIV DAEGU IACF

**Assignee(s):** (std): INDUSTRIAL ACADEMIC COOPERATION GROUP DAEGU UNIV ; UNIV DAEGU IACF

**Assignee(s):** ACADEMIC COOPERATION FOUNDATION DAEGU UNIV IND ; INDUSTRY ACADEMIC COOPERATION FOUNDATION DAEGU UNIVERSITY

**Inventor(s):** (std): YOO YOUNG A

Title: HANDICAP **TOOTHBRUSHES**

**Abstract:** Source: KR20150022325A The purpose of the present invention is to provide a **toothbrush** for the handicapped which can be easily held by a **disabled person** who has finger disorder. To this end, the brush comprises: a screw thread protruding unit (2) enlarged in one direction with a brush head (1); a screw thread accommodation unit (3) combined with the screw thread protruding unit (2); and a handle (4) using an elastic material or a rubber material in one direction with the screw thread accommodation unit (3), wherein a metal pin of the handle is embedded. The brush head and the handle can be attached and detached. Accordingly, a user can brush the teeth in accordance with a finger structure of the user with the metal pin formed inside the handle.

**Classifications:**  
**International (IPC 8-9):** A46B5/06 A46B7/04 (Advanced/Invention)



Family:

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| KR20150022325 A    | 20150304         | KR20130100018      | 20130823         |

**Priority:**  
KR20130100018 20130823

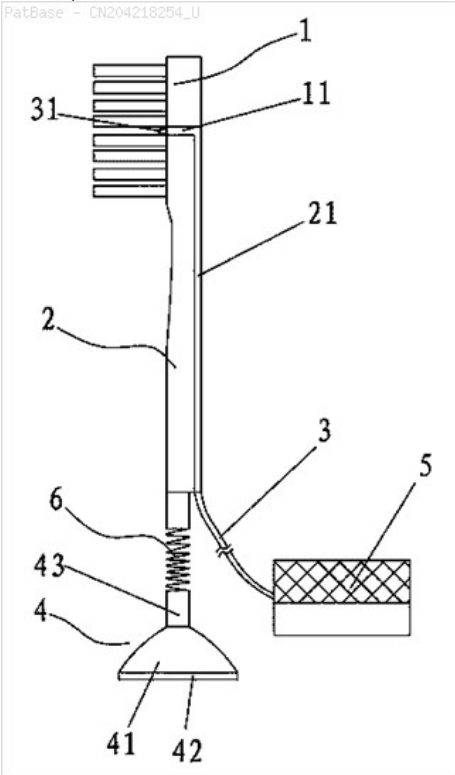
**Probable Assignee:** GWON HYE BIN  
**Assignee(s):** (std): GWON HYE BIN  
**Inventor(s):** (std): GWON HYE BIN

Title: **TOOTHBRUSH** FOR **DISABLED PERSON** WITHOUT HANDS

**Abstract:** Source: CN204218254U The utility model discloses a **toothbrush** for a **disabled person** without hands. The **toothbrush** comprises a brush head, a brush handle, a water intake tube, a sucker base and a foot-operated switch valve for controlling water flow; the tail end of the brush handle is connected with the sucker base by a spring; one end of the water intake tube is arranged on the brush handle and a water outlet of the water intake tube is connected with the brush head; and the other end of the water intake tube is connected with the foot-operated switch valve. The **toothbrush** has a simple structure and is convenient to use; the **toothbrush** can be fixed at a proper position by the sucker base, and the **disabled person** without hands can brush his teeth by himself by rotating his head; a sole puts on the foot-operated switch valve to solve water for washing his mouth and his **toothbrush**; the tail end of the brush handle is connected with the sucker base by the spring and the elasticity of the **toothbrush** is increased; when the **disabled person** brushes his teeth, the brush head is naturally close to his teeth under the action of the elastic force; and the **toothbrush** has good comfort and the brush handle is not easy to break off.

**Classifications:**

**International (IPC 8-9):** A46B13/00 A46B5/00 A46B9/04 (Advanced/Invention)



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CN204218254 U      | 20150325         | CN201420579636U    | 20141009         |

**Priority:**

CN201420579636U 20141009

**Probable Assignee:** LI YUE HANG

**Assignee(s):** (std): LI YUE HANG ; LI YUEHANG

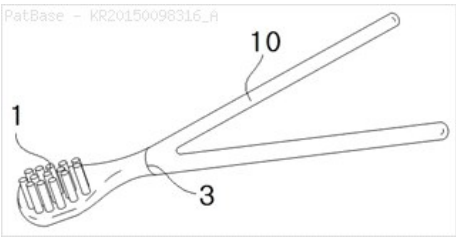
**Inventor(s):** (std): LI YUEHANG

Title: **TOOTHBRUSH** FOR DISABLED

**Abstract:** Source: KR20150098316A The purpose of the present invention is to provide a **toothbrush** for a **disabled person** wherein a user having difficulties in using hands bends two handles freely and inserts the handles to the user's hands to be fit for use. To this end, a general **toothbrush** is provided with a connection unit for connecting two handles extended on one side of a **toothbrush** head wherein each of the two handles is embedded with an iron core and made of an elastic material and a rubber material. Accordingly, the invention provides an easy **toothbrushing** to a user.

**Classifications:**

**International (IPC 8-9):** A46B5/06 (Advanced/Invention)



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| KR20150098316 A    | 20150828         | KR20140019420      | 20140220         |

**Priority:**

KR20140019420 20140220

**Probable Assignee:** SONG MYEONG JI

**Assignee(s):** (std): SONG MYEONG JI

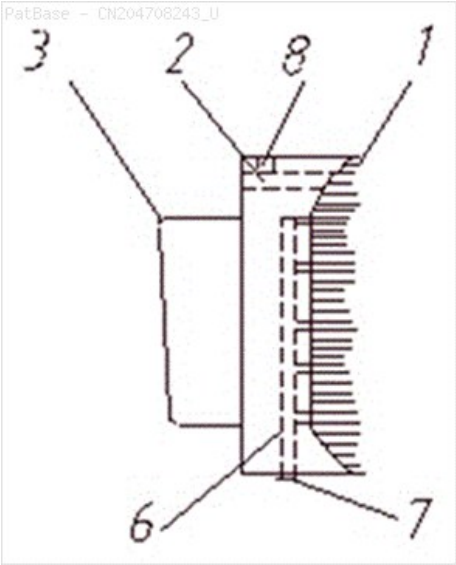
**Assignee(s):** SONG JI

**Inventor(s):** (std): SONG MYEONG JI

**Title:** GLOVES **TOOTHBRUSH** CLEANS TEETH

**Abstract:** Source: CN204708243U The utility model provides a gloves **toothbrush** cleans teeth, still is equipped with the finger -stall including the brush head, and the finger -stall rigid coupling is equipped with the brush hair at the one end of brush head, the other end of brush head, is equipped with the toothpaste chamber in the brush head, is equipped with the toothpaste passageway between toothpaste chamber and the brush hair, and toothpaste passageway intercommunication is passed through with the brush hair in the toothpaste chamber, and the surface of brush head is equipped with the toothpaste filling opening, and toothpaste filling opening and toothpaste chamber intercommunication are equipped with the closing cap on the toothpaste filling opening. The utility model discloses convenient to use, specially adapted trick activity is inconvenient but the patient or the **disabled persons** that have one or several finger can move about avoid relying on other people, and the realization is brushed teeth and is taken care of oneself.

**Classifications:**  
**International (IPC 8-9):** A46B11/02 A46B15/00 A46B5/04 (Advanced/Invention)



**Family:**

| Publication number | Publication date | Application number | Application date |
|--------------------|------------------|--------------------|------------------|
| CN204708243 U      | 20151021         | CN201520416043U    | 20150617         |

**Priority:**  
CN201520416043U 20150617

**Probable Assignee:** LI RUILIU

**Assignee(s):** (std): LI RUILIU

**Assignee(s):** RUI LIU

**Inventor(s):** (std): LI RUILIU