



New connection on: : 20-10-2020 : 23:13:50 - Last disconnection on: : 14-10-2020 : 20:17:35

V 4.0.0.44803(LP, U, linux) (Rev:43856 2017-04-27 09:03:29 +0200#(D201820)) (RPM D201820)

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Database: EPODOC

[EPODOC: SS 1] corneal and knife and blade and angle and side and (inclined or slanting) and surface /ic(A61B17/32 or A61F9/007)

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[SS 1] corneal and knife and blade and angle and side and (inclined or slanting) and surface

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[SS 2] corneal and knife and blade and angle and side and (inclined or slanting)

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[SS 3] corneal and knife and blade and angle and side

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[SS 4] knife and medical and blade and angle and side

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1/38 © EPODOC / EPO

PN - [CN210811384U](#) U 20200623

PR - CN201921578034U 20190920

AP - [CN201921578034U](#) 20190920

DT - I

PA - AFFILIATED HOSPITAL NORTH SICHUAN MEDICAL COLLEGE

TI - Surgical **knife** for neurosurgery

AB - The utility model discloses a scalpel for neurosurgery. The Z-shaped screwdriver comprises a Z-shaped screwdriver rod and a screwdriver handle, one end of the Z-shaped screwdriver rod is inserted into the screwdriver handle in a penetrating mode. One end of the **knife** handle is covered with a cap through threads; a first clamping block is arranged at the other end of the Z-shaped cutter bar; a sliding groove is formed in the other end of the Z-shaped cutter bar; a sliding plate is arranged in the sliding groove; a sliding block corresponding to the sliding groove is arranged on one **side** of the end of the sliding plate. A second clamping block corresponding to the first clamping block is welded to the other **side** of the end of the sliding plate, a tightening bolt is arranged at the other end of the sliding plate, a **blade** is clamped on the first clamping block and the second clamping block, a limiting ring piece is welded to one end of the screwdriver handle in a sleeved mode, and a channel corresponding to the Z-shaped screwdriver rod and the limiting ring piece is formed in the screwdriver handle in a penetrating mode. The whole device can be suitable for blades of various specifications, is provided with a flexible **angle** adjusting mechanism, is convenient for **medical** staff to operate more conveniently and accurately, and has higher use flexibility.

2/38 © EPODOC / EPO

PN - [CN210330683U](#) U 20200417

PR - CN201920885681U 20190613

AP - [CN201920885681U](#) 20190613

DT - I

PA - WANG XIAOGANG

TI - Surgical cutting **knife** for brain tumor

AB - The utility model discloses a surgical cutting **knife** for brain tumor. The tumor surgery cutter comprises a tumor surgery cutter body, a cutter handle, a movable mounting plate and a cutter body. The left **side** of the tumor surgery cutting **knife** is fixedly connected with a **knife** handle; antiskid walls are fixedly connected to the middles of the two sides of the **knife** handle; the right end of the **knife** handle is in lap joint with a movable mounting plate; the left end of the movable mounting plate is fixedly connected with a connecting plug; a cutter is fixedly connected to the front end of the right **side** of the movable mounting plate; the right end of the cutting **knife** is in lap joint with a movable **blade**; the flexibility of the tumor surgery cutting **knife** is further improved; an existing surgical cutting **knife** for brain tumors is poor in flexibility and cannot be movably adjusted. The problem that a certain risk exists due to the fact that the surgical difficulty is improved by medical staff due to the cutting **angle** problem in the actual operation process is solved, the **medical** staff can conveniently and rapidly assemble and disassemble the scalpel handle and the movable installation plate through the insertion groove, the disassembly and assembly performance of the scalpel is reflected, and the scalpel has wide development prospects in the future.

3/38 © EPODOC / EPO

PN - [MX2019002270](#) A 20191105

PR - JP20160166623
20160829; WO2017JP30255
20170824

AP - [MX20190002270](#) 20170824

DT - I

CCI - [A61F9/0133](#)

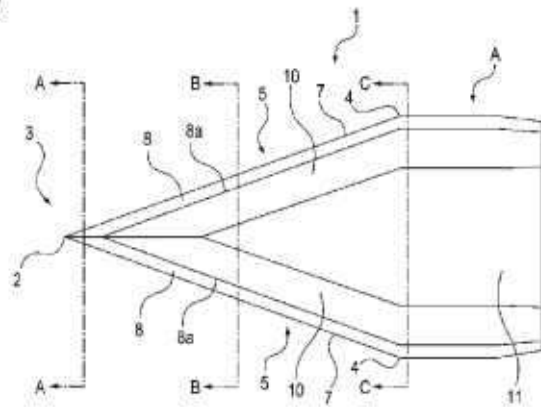
CI - A61B17/3211 (EP)
A61F9/007 (EP)
A61F9/0133 (EP)

PA - MANI INC [JP]

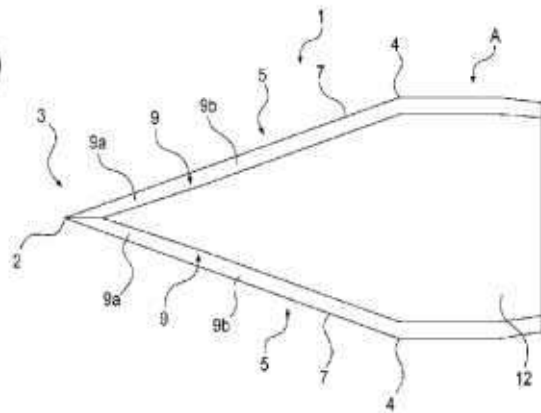
TI - **KNIFE FOR USE IN MEDICAL TREATMENT.**

AB - The purpose of the present invention is to provide a **knife** for use in **medical** treatment, with which it is possible to form an incision which is strongly self-closing. Provided is a **knife (A)**, in which a planar projection shape of a **blade part (1)** is formed in an approximately rhomboid shape, which comprises: a leading end part (3) which includes a pointed end (2) which is formed in a leading end portion and the vicinity of the pointed end (2); a maximum width part (4) which is the widest part; and lateral surface parts (5) which are formed between the leading end part (3) and the maximum width part (4). With a virtual plane (7a) as a boundary, said virtual plane (7a) including edges (7) which are formed along the outer circumference of the **blade part (1)**, an obverse-**side** bevel (8) which configures the edges (7) is formed on the obverse **side** and a reverse-**side** bevel (9) which configures the edges (7) is formed on the reverse **side**. A ratio in the leading end part (3), of an **angle β** which is formed by the virtual plane (7a) and a rear-**side** bevel (9a) to an **angle α** which is formed by the virtual plane (7a) and the obverse-**side** bevel (8), is greater than a ratio in the lateral surface parts (5), of an **angle γ** , which is formed by the virtual plane (7a) and a rear-**side** bevel to the **angle α** which is formed with the obverse-**side** bevel (8).

(a)



(b)



4/38 © EPODOC / EPO

PN - [CN209713066U](#) U 20191203
PR - CN201820896891U 20180611
AP - [CN201820896891U](#) 20180611
DT - I
PA - ZHOU SONGCHUN
TI - Handheld stone needle **knife**
AB - The utility model discloses a handheld stone needle **knife**. The utility model belongs to the field of **medical** care, **knife** body, the **knife** body comprises a first **side** face and a second **side** face adjacent to the first **side** face. Wherein an arc-shaped groove is formed in the first **side** surface, the arc-shaped groove is formed in the direction of the connecting edge of the first **side** surface and the second **side** surface, a cutting edge is formed by the arc-shaped groove surface and the second **side** surface, the width of the cutting edge is 0.5 mm-3 mm, and the included **angle** between the second **side** surface and the first **side** surface is an acute **angle**. According to the handheld stone needle **knife**, the **blade** formed through the radian design of the arc-shaped groove is matched with a certain technique, the purpose of relaxing fascia can be achieved through light contact between the **blade** and the skin by means of ultrasonic waves generated by stone needles, and therefore the fascia of a human body is recovered to be healthy and vigorous.

5/38 © EPODOC / EPO

PN - [CN209650717U](#) U 20191119
PR - CN20192068881U 20190116
AP - [CN20192068881U](#) 20190116
DT - I
PA - YANCHENG YANKANG MEDICAL EQUIPMENT CO LTD
TI - Counter-pressure cutting device of sealing machine
AB - The utility model relates to a counter-pressure cutting device of a sealing machine. Including a machine frame, wherein two roller shafts which are symmetrically arranged are arranged in the rack; a plurality of uniformly arranged pressing cutters are arranged on the roller shaft; a pressing surface is arranged at the top of the pressing cutter; one **side** of the pressing surface is provided with an arc **angle**; **blade** is arranged on the other **side** of the body, an electric heating resistance wire and a concave cavity are arranged in the pressing **knife**; a convex ring is arranged in the concave cavity; a wiring cylinder is arranged in the convex ring; a ball bearing positioned on one **side** of the convex ring is arranged between the wiring cylinder and the roller shaft; first gear is arranged outside roller shaft, synchronous crawler belts are arranged outside the first gears of the two roll shafts; a second gear is arranged in the synchronous crawler belt; continuous heating sealing fusion and cutting edge cutting are achieved by rotating the multiple corresponding pressing cutters on the two roll shafts synchronously in a mutual opposite pressing mode, the pressing cutters are of a detachable structure, replacement is convenient, discharging is smooth, the sealing efficiency of **medical** masks and other packaging bags is improved, and the **medical** mask sealing machine is suitable for large-scale production.

6/38 © EPODOC / EPO

PN - [CN110403644](#) A 20191105
PR - CN201910786379 20190823
AP - [CN201910786379](#) 20190823
DT - I
CI - A61B10/0266 (CN)

- G01N1/04 (CN)

PA - ZHANG FAN

TI - Sampling **knife** for pathology department

AB - The invention belongs to the field of **medical** instruments, in particular to a sampling **knife** for the pathology department. Existing **knife** blades are not **angle**-adjustable such that the **knife** blades cannot cooperate with the **medical** staff when in use and the cutting depth is also hard to control. Thereby, there exist a certain dangerous problems when the **knife** blades are in use. In view of the above problems in the prior art, the invention brings forward the following scheme: the sampling **knife** comprises a **knife** handle; one **side** of the bottom of the **knife** handle is provided with a receiving opening, inside which a **knife blade** is rotatably connected; and a moving groove is arranged on the inner wall of one **side** of the receiving opening. The sampling **knife** of the invention is simple to operate. By moving a pull rod, the **knife blade** can rotate out of the receiving opening, and then a pointer can be conveniently moved. When the sampling **knife** is in use, the **angle** of the **knife blade** can be conveniently adjusted according to the habitual **angle** of the **medical** staff. With the pointer and the scale matching each other, the expected cutting depth is conveniently obtained, and risk factors existing in use can be reduced as much as possible.

7/38 © EPODOC / EPO

PN - [CN209422047U](#) U 20190924

PR - CN201821535308U 20180919

AP - [CN201821535308U](#) 20180919

DT - I

PA - BEIJING XINXING LIANGJINGGUANG MEDICAL BEAUTY HOSPITAL CO LTD

TI - Hallux valgus correction and hallux adduction muscle cut-off **knife** for cosmetic surgery

AB - The utility model provides a hallux valgus correction and hallux adduction muscle cut-off **knife** for cosmetic surgery. The cutting **knife** comprises a handle, a **knife** handle and a **knife** head which are connected in sequence, the **knife** head comprises a **knife** edge part and a telescopic rod which form an obtuse **angle** and are fixedly connected, a first **knife** edge is arranged on the **knife** edge part, sawteeth are arranged on the first **knife** edge, and a second **knife** edge is arranged on the **side**, opposite to the first **knife** edge, of the **knife** edge part. The top end of the **knife** handle is inserted into the bottom end of the handle and sleeved with the bottom end of the telescopic rod. When the cutting **knife** provided by the utility model is used, the saw teeth on the first cutting edge can improve the cutting efficiency of the hallux adductor muscle, so that the operation burden of **medical** personnel is reduced; and an obtuse **angle** is formed between the **blade** part and the telescopic rod, so that **medical** personnel can better observe the condition of an operation area when using the cutting **knife**, and operation can be carried out in a smaller operation incision. The top end and the bottom end of the **knife** handle are respectively provided with a sleeve, the length of the whole **knife** can be adjusted, and the **knife** head part can be replaced.

8/38 © EPODOC / EPO

PN - [CN110151264](#) A 20190823

PR - CN201910571243 20190628

AP - [CN201910571243](#) 20190628

DT - I

CI - A61B17/322 (CN)

CA - A61B2017/00752 (CN)

PA - ZHU SHUGANG

TI - Roll shaft skin-taking **knife** for burnt patients

AB - The invention relates to a roll shaft skin-taking **knife** for burnt patients and belongs to

the technical field of **medical** apparatuses. The roll shaft skin-taking **knife** for the burnt patients comprises a **knife** rest; a fixed supporting frame is arranged on the lower **side** of the **knife** rest; a tensioning regulator is arranged on the left **side** of the **knife** rest; a sliding and tensioning arm is arranged on the lower **side** of the tensioning regulator; an auxiliary telescopic frame is arranged on the left **side** of the tensioning regulator; an auxiliary supporting frame is arranged on the left **side** of the auxiliary telescopic frame; a sliding **knife** holder is arranged in the **knife** rest; a **knife** holder moving sliding groove is formed above the sliding **knife** holder; a skin-taking length limiter is arranged on the left **side** of the **knife** holder moving sliding groove; a **knife** holder fixed casing pipe is arranged on the right **side** of the sliding **knife** holder; a cutter fixing base is arranged on the sliding **knife** holder; a cutter fixing clamping groove is formed on the cutter fixing base; and an elastic pressing wheel frame is arranged on the left **side** of the sliding **knife** holder. The roll shaft skin-taking **knife** for the burnt patients is simple and convenient to operate and use, can flexibly regulate the inclination **angle** of a **blade**, can adjust the skin-taking length according to requirements, can adapt to each part of a body, can guarantee that the skin is in a tensioning state during skin taking and facilitates the skin-taking work of workers.

9/38 © EPODOC / EPO

- PN - [CN209153885U](#) U 20190726
- PR - CN20182115539U 20180629
- AP - [CN20182115539U](#) 20180629
- DT - I
- PA - UNIV LANZHOU
- TI - **Angle**-adjustable scalpel
- AB - The utility model discloses an **angle**-adjustable scalpel in the technical field of **medical** instruments. **Knife** handle, a positioning column is mounted at the middle end of the left **side** of the front surface of the handle; the bottom of the positioning column penetrates through the top of the **knife** handle; a cutter holder is inserted into the left **side** of the cutter handle; a **blade** is inserted into the left **side** of the cutter holder; a first mounting column is connected to the middle end of the left **side** of an inner cavity of the handle; the cutter holder comprises a lower cover plate; the left **side** of the top of the lower cover plate is connected with an upper cover plate; two first mounting column holes are longitudinally formed in the left **side** of the top of the lower cover plate; a second mounting column hole is transversely connected to the middle end of the left **side** of the top of the lower cover plate; according to the scalpel with the adjustable **angle**, the included **angle** between the scalpel **blade** and the scalpel handle can be adjusted according to needs in the operation process, and the success rate of an operation is increased.

10/38 © EPODOC / EPO

- PN - [CN208958269U](#) U 20190611
- PR - CN201821262682U 20180806
- AP - [CN201821262682U](#) 20180806
- DT - I
- PA - WEST CHINA HOSPITAL SICHUAN UNIV
- TI - Pressure sore **knife**
- AB - The utility model discloses a pressure sore **knife**, relates to **medical** equipment, and aims to solve the technical problem of providing a pressure sore **knife** for pressure sore debridement operation. According to the technical scheme, the pressure sore **knife** comprises a **knife** handle and a **knife** head connected to one end of the **knife** handle, the end, away from the **knife** handle, of the **knife** head is a knife point, the **knife** point is in an acute **angle** shape, and cutting edges are arranged on the two acute **angle** edges of the **knife** point; sawtooth-shaped cutting teeth and an arc-shaped **blade** which protrudes towards the outer **side** of the tool bit and is in an arc shape are arranged on the two

sides of the tool bit respectively. The **knife** point is used for picking up necrotic tissue, detecting a tunnel and excising the necrotic tissue around the tunnel. The cutting teeth are used for scratching eschar on necrotic tissue, so that the wound surface is exposed, medication is facilitated, the sawteeth of the cutting teeth are beneficial to scratching hard eschar, and the accuracy and efficiency of scratching eschar are obviously improved. The arc-shaped **blade** is used for excising necrotic tissue, and the arc-shaped **blade** is in an arc-shaped protruding shape, so that cutting operation is facilitated.

11/38 © EPODOC / EPO

- PN - [CN208822738U](#) U 20190507
- PR - CN201820655859U 20180504
- AP - [CN201820655859U](#) 20180504
- DT - I
- PA - ZHANG HONG
- TI - Multifunctional vaginal dilator
- AB - The utility model discloses a multifunctional vaginal dilator, which is applied to the field of gynecological **medical** instruments and comprises an upper dilating **blade**, a grab handle, a lower dilating blade and a handle. The grab handle is meshed with the handle through an expansion fixing structure, and an air suction opening is formed in the front end of the lower expansion **blade**. The air suction opening is communicated to the outer **side** of the bottom of the handle through an air suction pipe arranged in the lower expansion **blade**; the front end of the upper expansion **blade** inclines forward to form an included **angle** alpha of 45-60 degrees and is provided with a blue-light LED lamp bead and a white-light LED lamp bead, and an illumination control circuit is arranged in the upper expansion blade; the lighting control circuit comprises a button cell, a toggle switch and a current-limiting resistor which are connected in series to form a loop; the blue light LED lamp beads and the whitelight LED lamp beads are connected with the current-limiting resistor in parallel. And a wide-**angle** camera lens is arranged on the upper expansion **blade** close to the joint of the upper expansion blade and the lower expansion **blade**. According to the utility model, illumination and imaging observation can be realized at the same time, and smoke generated during an LEEP **knife** operation can be pumped out, so that a better use effect is achieved.

12/38 © EPODOC / EPO

PN - [CN109661206](#) A 20190419

PR - JP20160166623
20160829; WO2017JP30255
20170824

AP - [CN20178052427](#) 20170824

DT - I

CCI - [A61F9/0133](#)

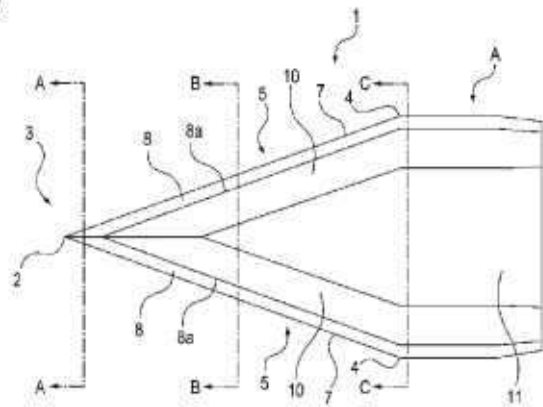
CI - A61B17/3211 (EP)
A61F9/007 (EP)
A61F9/0133 (EP)

PA - MANI INC

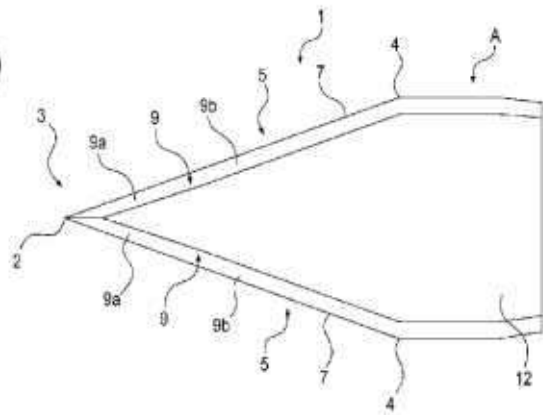
TI - **KNIFE FOR USE IN MEDICAL TREATMENT**

AB - The purpose of the present invention is to provide a **knife** for use in **medical** treatment, with which it is possible to form an incision which is strongly self-closing. Provided is a **knife (A)**, in which a planar projection shape of a **blade** part (1) is formed in an approximately rhomboid shape, which comprises: a leading end part (3) which includes a pointed end (2) which is formed in a leading end portion and the vicinity of the pointed end (2); a maximum width part (4) which is the widest part; and lateral surface parts (5) which are formed between the leading end part (3) and the maximum width part (4). With a virtual plane (7a) as a boundary, said virtual plane (7a) including edges (7) which are formed along the outer circumference of the **blade** part (1), an obverse-side bevel (8) which configures the edges (7) is formed on the obverse **side** and a reverse-side bevel (9) which configures the edges (7) is formed on the reverse **side**. A ratio in the leading end part (3), of an **angle** beta which is formed by the virtual plane (7a) and a rear-side bevel (9a) to an **angle** alpha which is formed by the virtual plane (7a) and the obverse-side bevel (8), is greater than a ratio in the lateral surface parts (5), of an **angle** theta which is formed by the virtual plane (7a) and a rear-side bevel to the **angle** alpha which is formed with the obverse-

(a)



(b)



side bevel (8).

13/38 © EPODOC / EPO

- PN - [CN208628517U](#) U 20190322
- PR - CN201820790188U 20180525
- AP - [CN201820790188U](#) 20180525
- DT - I
- PA - SHENZHEN SHANGAO PRECISION TECH CO LTD
- TI - Mill T type milling cutter of **medical** treatment operation screw
- AB - The utility model discloses a mill T type milling cutter of **medical** treatment operation screw, including type milling cutter body, **blade** holder, handle of a **knife**, tool bit, depressed area, an **angle**, an **angle** upper surface, an **angle side**, the edge of a **knife**, its characterized in that sets up **angle** on milling cutter's tool bit, the edge of a **knife** is vertical lie in an **angle** outwards outstanding **side** and the upper surface at an **angle** form vertically T type, when processing **medical** screw, along with the motion of manipulator, milled the cross trough on the nut of screw after, the screw rod department that shifts continues to mill, until the completion work of milling, whole process does not need the tool changing, the close check product size, and product quality is good, reduces work flow, and work efficiency is high.

14/38 © EPODOC / EPO

- PN - [CN208598480U](#) U 20190315
- PR - CN201820241759U 20180208
- AP - [CN201820241759U](#) 20180208
- DT - I
- PA - MING HUA
- TI - Main and collateral channels needle sword
- AB - The utility model belongs to the technical field of **medical** instrument, concretely relates to main and collateral channels needle sword, it includes: handle of a **knife**, **blade** and tool bit, the one end and the handle of a **knife** of **blade** are connected, and the other end of **blade** is provided with the tangent plane of two slopes, and two tangent planes form the shape portion of carving, the tool bit sets up keeps away from the one end of handle of a **knife** in carving shape portion, and the both sides of tool bit all are provided with right angled triangle's flank, and the hypotenuse of two flanks forms the edge of a **knife**, and one of them right **angle side** of flank is perpendicular with the axis of **blade**. Multiple functions such as this needle sword can reach the acupuncture, reduce pressure, subtract through **blade** and tool bit and open, bloodletting, mediation, and the bone cortex of human apophysis department can be pierce in the design of tool bit in this needle sword to reach the effect of stimulating the circulation of the blood and cause the muscles and joints to relax, simultaneously, thumb that anti-skidding groove on the handle of a **knife** and anti-skidding line all can increase **medical** personnel and the frictional force between forefinger and the handle of a **knife** improve the control degree of **medical** personnel to the needle sword to the security of this needle sword improves.

15/38 © EPODOC / EPO

PN - [AU2017321548](#) A1 20190307

PNFP - AU2017321548 A9 20190502

PR - JP20160166623
20160829; WO2017JP30255
20170824

AP - [AU20170321548](#) 20170824

DT - I

CCI - [A61F9/0133](#)

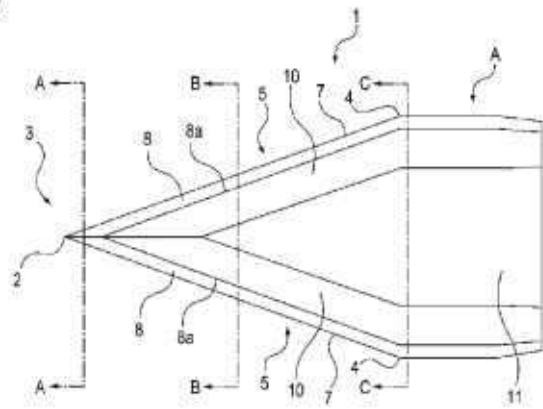
CI - A61B17/3211 (EP)
A61F9/007 (EP)
A61F9/0133 (EP)

PA - (A1)
MANI INC
(A9)
MANI INC [JP]

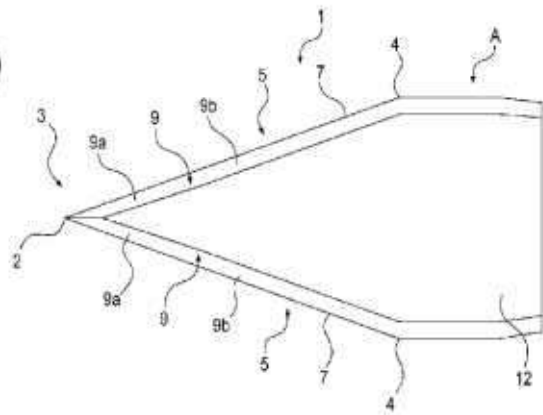
TI - (A1 A9)
Knife for use in medical treatment

AB - (A1 A9)
The purpose of the present invention is to provide a **knife** for use in **medical** treatment, with which it is possible to form an incision which is strongly self-closing. Provided is a **knife** (A), in which a planar projection shape of a **blade** part (1) is formed in an approximately rhomboid shape, which comprises: a leading end part (3) which includes a pointed end (2) which is formed in a leading end portion and the vicinity of the pointed end (2); a maximum width part (4) which is the widest part; and lateral surface parts (5) which are formed between the leading end part (3) and the maximum width part (4). With a virtual plane (7a) as a boundary, said virtual plane (7a) including edges (7) which are formed along the outer circumference of the **blade** part (1), an obverse-**side** bevel (8) which configures the edges (7) is formed on the obverse **side** and a reverse-**side** bevel (9) which configures the edges (7) is formed on the reverse **side**. A ratio in the leading end part (3), of an **angle** β which is formed by the virtual plane (7a) and a rear-**side** bevel (9a) to an **angle** α which is formed by the virtual plane (7a) and the obverse-**side** bevel (8), is greater than a ratio in the lateral surface parts (5), of

(a)



(b)



an **angle** θ which is formed by the virtual plane (7a) and a rear-**side** bevel to the **angle** α which is formed with the obverse-**side** bevel (8).

16/38 © EPODOC / EPO

PN - [CN208577705U](#) U 20190305
PR - CN201820587462U 20180424
AP - [CN201820587462U](#) 20180424
DT - I
PA - ZHEJIANG SORFA LIFE SCIENCE RES CO LTD
TI - Cell scraper that can 180 degrees rotations
AB - The utility model relates to a biological **medical** apparatus technical field specifically discloses a cell scraper that can 180 degrees rotations, including handle of a **knife** (1) and tool bit (2), the one end of handle of a **knife** is equipped with clinoplain (3), it rotates post (4) and spacing (5) to be equipped with to the inner by the outer end on the clinoplain, the tool bit includes **blade** (6) and sets up connecting plate (7) on the **blade**, be equipped with arc wall (8) on the connecting plate, arc wall one **side** on the connecting plate is equipped with arc piece (9), the arc of arc piece and arc wall combines together and forms through -hole (10), rotate the post and rotate the setting in the through -hole, the tip of connecting plate has the part to surpass the tip of arc piece, exceed the part formation of arc piece and spacing interact's blend stop (11) on the connecting plate. The utility model has the characteristics of the **angle** modulation is convenient, the **angle** excursion is wide, convenient operation and to collect the effect better.

17/38 © EPODOC / EPO

PN - [CN208274602U](#) U 20181225
PR - CN201720829336U 20170710
AP - [CN201720829336U](#) 20170710
DT - I
PA - TIANJIN BAODI HOSPITAL
TI - Scalable surgery operation handle of a **knife**
AB - The utility model belongs to the technical field of **medical** instrument a scalable surgery operation handle of a **knife** is disclosed, including **blade** fixed block, interior handle of a **knife**, rack, gear, mounting window mouth, dog, outer handle of a **knife**, its characterized in that: interior handle of a **knife** is metal rectangle entity, and one **side** middle part sets up a rack, and outer handle of a **knife** front end sets up oval **blade** fixed block, outer handle of a **knife** rear end, and the end of rack sets up the dog, and outer handle of a **knife** is the hollow metal rectangle, and its middle part one side sets up the gear, and the afterbody sets up the mounting window mouth, the utility model discloses can adjust random lengths by in certain extent, practice thrift the time of frequent change scalpel, can conveniently adjust length simultaneously, more be fit for the operation position and the **angle** of individual disease, improve the success rate of performing the operation, outer handle of a knife is opened has the mounting window mouth, dog easy to assemble with clear up and maintain, the handle of a **knife** can not break away from when adjusting length in guaranteeing, and is more firm, improves security, more convenient and practical.

18/38 © EPODOC / EPO

PN - [CN207548861U](#) U 20180629
PR - CN201721498447U 20171112
AP - [CN201721498447U](#) 20171112

DT - I
 PA - GUAN YIHONG
 TI - Chinese **medical** herb cutting apparatus
 AB - The utility model discloses a chinese **medical** herb cutting apparatus, the large -scale motor assembly jig comprises an operation bench, the operation panel top is equipped with the install bin, the inside cutting motor that is equipped with of install bin, the output shaft of cutting motor passes through the shaft coupling to be connected with the inside transmission of speed reducer, just the output of cutting motor runs through in the tank wall and bull stick fixed connection of install bin, the bull stick runs through the **blade** disc in the tip fixedly connected with of bearing frame and bull stick, **blade** disc cutting plane perpendicular and the first -class **angle** of horizontal direction are equipped with four cutting knives, the **blade** disc front **side** is equipped with the mount table, beequipped with feeding box and cylinder on the mount table, be equipped with the spout between feeding box and the cylinder. The carousel formula movement track that this cutting device design cutterwas surely made according to the cutting formula, the system power of cutting will reduce with the increase of the level motion weight of cutter along with the medicinal material, reduce the frictional force and the wearing and tearing of medicinal material and **blade** disc and **blade**, ensure that the piece is thick even, the life of extension cutting **knife**, the reduction is to the wearing and tearing of medicinal material.

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PN - [CN207445062U](#) U 20180605
 PR - CN201720217824U 20170307
 AP - [CN201720217824U](#) 20170307
 DT - I
 PA - LI YANAN; NI ZIYAN
 TI - Backteeth alveolar ridge mucosa surgical **blade** and alveolar ridge mucosa scalpel
 AB - The utility model relates to a backteeth alveolar ridge mucosa surgical **blade** and alveolar ridge mucosa scalpel relates to **medical** instrument technical field, and main aim at is convenient for open the backteeth agomphosis district's alveolar ridge mucosa mediad far away operation that has adjacent tooth to block. Have on the first end cutting board of backteeth alveolar ridge mucosa surgical **blade** with the operation on the handle of a **knife** first block portion the second block portion that is connected can dismantle, backteeth alveolar ridge mucosa surgical **blade** second end has the tool bit, the tool bit is buckled from cutting board length direction's tip and is extended, puts the first edge on a **knife** or a pair of scissors on the tool bit second **side**, the **angle** more than or equal to 90degree of buckling between tool bit second **side** and the cutting board is lighter than 130 degrees. Only need grip the less **angle** of operation handle of a **knife** slope for prior art doctor, alright makethe **blade** pointed end arrive at agomphosis district in adjacent tooth near neck in far away, reduced the doctor when doing the operation of alveolar ridge mucosa and cutting since in far away adjacent tooth proximal surface convexity with near in the operation degree of difficulty of the high initiation of adjacent tooth corona.

20/38 © EPODOC / EPO

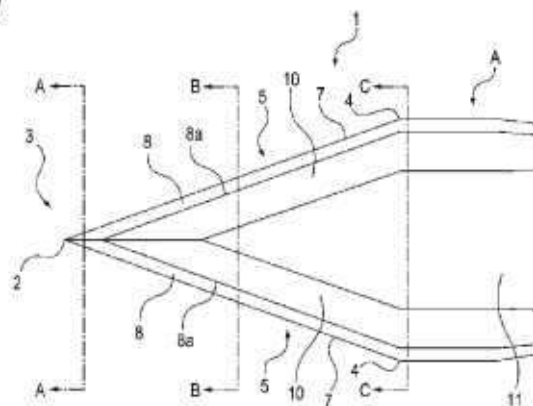
PN - [CN207236860U](#) U 20180417
 PR - CN201720219683U 20170307
 AP - [CN201720219683U](#) 20170307
 DT - I
 PA - LI YANAN; NI ZIYAN
 TI - Backteeth alveolar ridge mucosa surgical **blade** and alveolar ridge mucosa scalpel
 AB - The utility model relates to a backteeth alveolar ridge mucosa surgical **blade** and

alveolar ridge mucosa scalpel relates to **medical** instrument technical field, and main aim at is convenient for open the nearly mediad of the backteeth agomphosis district's alveolar ridge mucosa operation that has adjacent tooth to block. Have on the first end cutting board of backteeth alveolar ridge mucosa surgicalblade with the operation on the handle of a **knife** first block portion the second block portion that is connected can dismantle, backteeth alveolar ridge mucosa surgical **blade** second end has the toolbit, the tool bit is buckled from cutting board length direction's tip and is extended, the cutting board is faced with the first **side** of tool bit, puts the first edge on a **knife** or a pair of scissors on the first **side**, the **angle** less than or equal to 90 degree of buckling between first **side** of tool bit and the cutting board is greater than 50 degrees. Only need grip the less **angle** of operation handle of a **knife** slope for prior art doctor, alright will lack during the regional adjacent tooth corona of grinding one's teeth in sleep accommodates the contained **angle** between tool bit and cutting board, reduced the doctor because the operation degree of difficulty of adjacent tooth proximal surface convexity and the high initiation of corona in near when doing the operation of alveolar ridge mucosa and cutting.

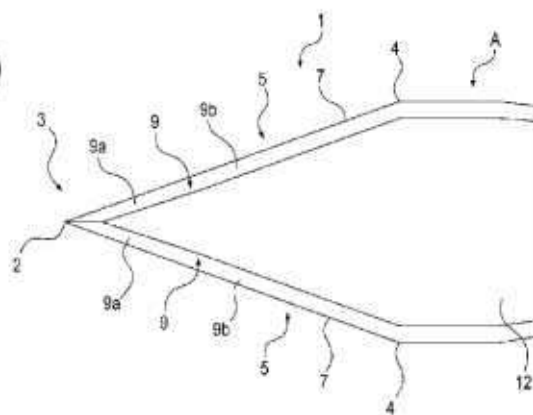
21/38 © EPODOC / EPO

- PN - [JP2018033492](#) A 20180308
- PNFP - JP6457985B B2 20190123
- PR - JP20160166623 20160829
- AP - [JP20160166623](#) 20160829
- DT - I
- CT - *// STSE (A)*
[JP2012231842](#) A 20121129 [A] (KAI CUTLERY CENTER CO)
 [A] -
 * Whole Document *;
[JP2015142650](#) A 20150806 [A] (KAI R&D CENTER CO LTD)
 [A] -
 * Whole Document *;
[JP2005103035](#) A 20050421 [A] (KAI R&D CENTER CO LTD)
 [A] -
 * Whole Document *;
[US5713915](#) A 19980203 [A] (RHEIN MEDICAL INC [US])
 [A] -
 * Whole Document *
- CCI - [A61F9/0133](#)
- CI - A61B17/3211 (EP)
 - A61F9/007 (EP)
 - A61F9/0133 (EP)
- FI - A61B17/3211; A61F9/007
- FT - 4C160/FF05
- PA - (A)
 MANII KK
- TI - (A)
MEDICAL KNIFE
- AB - (A)
 PROBLEM TO BE SOLVED: To provide a **medical knife** that can

(a)



(b)



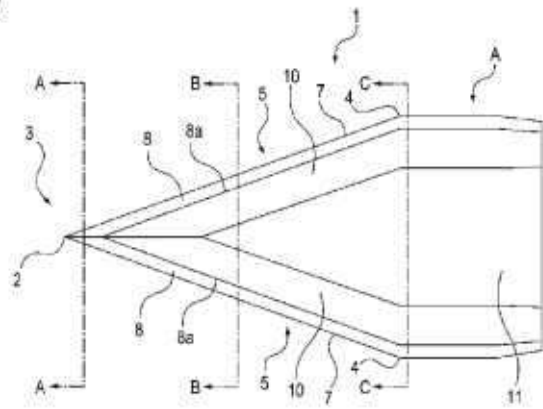
form an incision having high self-closing properties. SOLUTION:

A **knife** A is formed substantially in a lozenge shape comprising a tip 2 with a plane projection shape of a **blade** part 1 formed in the tip portion, a distal end 3 containing the vicinity of the tip 2, a widest maximum width part 4, and a **side** surface part 5 formed between the distal end 3 and the maximum width part 4. Also, a surface **side** slope 8 constituting an edge 7 is formed in the surface **side** and a back **side** slope 9 constituting the edge 7 is formed in the back **side**, respectively, by using a virtual surface 7a including the edge 7 formed along an outer circumference of the **blade** part 1 as a boundary. A ratio of an **angle** β between the virtual surface 7a and a back **side** slope 9a to an **angle** α between the virtual surface 7a in the distal end 3 and the surface **side** slope 8 is larger than the ratio of an **angle** θ between the virtual surface 7a and the back **side** slope to the **angle** α with the surface **side** slope 8 in the **side** surface part 5.

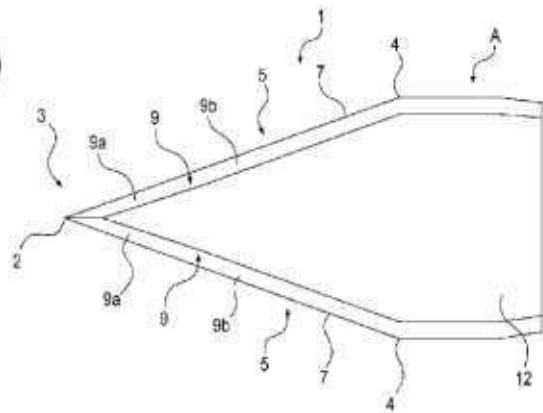
SELECTED DRAWING: Figure 1

- PN - [WO2018043266](#) A1 20180308
- PR - JP20160166623 20160829
- AP - [WO2017JP30255](#) 20170824
- DT - **
- CT - [JP] ISR (A1)
[JP2012231842](#) A 20121129 [A] (KAI CUTLERY CENTER CO)
 [A] 1-3
 *, entire text; all drawings & US 2014/0031847 A1 & WO 2012/147934 A1 & EP 2702954 A1 *;
[JP2015142650](#) A 20150806 [A] (KAI R&D CENTER CO LTD)
 [A] 1-3
 *, entire text; all drawings (Family: none) *;
[JP2005103035](#) A 20050421 [A] (KAI R&D CENTER CO LTD)
 [A] 1-3
 *, entire text; all drawings & US 2005/0070941 A1 *;
[US5713915](#) A 19980203 [A] (VAN HEUGTEN ANTHONY [US], et al)
 [A] 1-3
 *, entire text; all drawings (Family: none) *
- CCI - [A61F9/0133](#)
- CI - A61B17/3211 (EP)
 A61F9/007 (EP)
 A61F9/0133 (EP)
- PA - MANI INC [JP]
- TI - **KNIFE FOR USE IN MEDICAL TREATMENT**
- AB - The purpose of the present invention is to provide a **knife** for use in **medical** treatment, with which it is possible to form an incision which is strongly self-closing. Provided is a **knife** (A), in which a planar projection shape of a **blade** part (1) is formed in an approximately rhomboid shape, which comprises: a leading end part (3) which includes a pointed end (2) which is formed in a leading end portion and the vicinity of the pointed end (2); a maximum width part (4) which is the widest part; and lateral surface parts (5) which are formed between the leading end part (3) and the maximum width part (4). With a virtual plane (7a) as a boundary, said virtual plane (7a) including edges (7) which

(a)



(b)



are formed along the outer circumference of the **blade** part (1), an obverse-**side** bevel (8) which configures the edges (7) is formed on the obverse **side** and a reverse-**side** bevel (9) which configures the edges (7) is formed on the reverse **side**. A ratio in the leading end part (3), of an **angle** β which is formed by the virtual plane (7a) and a rear-**side** bevel (9a) to an **angle** α which is formed by the virtual plane (7a) and the obverse-**side** bevel (8), is greater than a ratio in the lateral surface parts (5), of an **angle** θ which is formed by the virtual plane (7a) and a rear-**side** bevel to the **angle** α which is formed with the obverse-**side** bevel (8).

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- PN - [CN205562247U](#) U 20160907
- PR - CN201620329744U 20160419
- AP - [CN201620329744U](#) 20160419
- DT - I
- PA - LUO YUANFENG
- TI - A paraffin slicer for bio -**medical** treatment
- AB - The utility model discloses a paraffin slicer for bio -**medical** treatment, including section export, feed coarse adjusting button and **blade** counter, the internally mounted of **knife** rest has feed fine setting button, the left rigidity of **knife** rest has control panel, and the right **side** of **knife** rest is provided with alarm device, the top of feed coarse adjusting button is connected with feed fine setting button, feed coarse adjusting button bottom is provided with protects the cutting board, semi -automatic hand wheel is installed on the right **side** of section casing, the below of semi -automatic hand wheel is connected with **knife** rest **angle** adjustment button, the below of **blade** counter is fixed with rotatory flywheel, the **blade** tray is installed to the both sides of **blade** counter, the below rigidity of **blade** tray has the speed regulator. This paraffin slicer is cut into slices to various biological tissue, eager system thin slice that can be fine, and the slice, thin piece is thin and even, organizes the fixity good, can not produce the wrinkle, is favorable to the save to the tissue after the dyeing, can not cause antigenic forfeiture in the tissue.

24/38 © EPODOC / EPO

- PN - [CN205094548U](#) U 20160323
- PR - CN201520823186U 20151023
- AP - [CN201520823186U](#) 20151023
- DT - I
- PA - XIAO JUNHUI
- TI - Multi -functional scalpel of intracardiac branch of academic or vocational study
- AB - The utility model discloses a multi -functional scalpel of intracardiac branch of academic or vocational study, including tool bit and handle of a **knife**, the tool bit is connected with the handle of a **knife** left end through pressing from both sides the sword device, be equipped with vertical scale apart from **knife** tip 1cm department on the tool bit, the back of a **knife blade** department of being close to the **knife** tip is

provided with the drag hook, is provided with horizontal scale along tool bit length direction on the tool bit, the left **side** upper end of handle of a **knife** is provided with the LED lamp, and the left **side** lower extreme of handle of a **knife** is provided with miniature camera, is provided with the wireless transmitting device in the handle of a **knife** left end, and the wireless transmitting device is connected with miniature camera electricity, handle right-hand member overcoat is equipped with the heat-conducting metal cover, is provided with electric heating element in the heat-conducting metal cover, handle right **side** end is provided with LED lamp switch and electric heat switch. This novel structural design is reasonable, convenient to use, and the tool bit is changed conveniently, and the function is various, has improved the success rate of operation greatly, make operation shi doctor sight not have the dead **angle**, avoid the doctor to hold the shortcoming that the handle of a **knife** is cool, produce evidence for calling to account of **medical** malpractice, make the control handle of a **knife** that the doctor can be more stable, prevent the landing.

25/38 © EPODOC / EPO

PN - [JP2016073531](#) A 20160512
 PNFP - JP5827737B B1 20151202
 PR - JP20140207140 20141008
 AP - [JP20140207140](#) 20141008
 DT - I
 FI - A61B17/32&310; A61B17/3211
 FT - 4C160/FF06
 PA - (A)
 NAKAMURA SHOICHI; NIPPON ACP KK
 TI - (A)
MEDICAL KNIFE
 AB - (A)
 PROBLEM TO BE SOLVED: To secure visual field property without hindering an operator's visual field to an affected part at whatever insertion **angle** the operator may place a **blade** body to the affected part. SOLUTION: A **medical knife** 10 comprises: a bar-like grip 1: a **blade** body holder 2 with a **blade** body 3; and a bending part 4 of a curved shape that interconnects the grip 1 and the **blade** body holder 2. The **blade** body holder 2 is a resin molding with an embedded metal **blade** body 8 generally forming a triangle with its back **side** and **blade side**, and is attached to an attachment part 5 provided for the **blade** body holder 2 such that the back **side** becomes perpendicular to the end face of the **blade** body 3 **side** of the bending part 4. SELECTED DRAWING: Figure 1

26/38 © EPODOC / EPO

PN - [CN104997554](#) A 20151028
 PNFP - CN104997554B B 20180615
 PR - CN201510414008 20150715
 AP - [CN201510414008](#) 20150715
 DT - I
 CT - || STSE (A)
[US4745919](#) A 19880524 [X] (BUNDY MARK A [US], et al)
 [X] 1-10
 * 说明书第3栏第17行-第4栏第48行, 附图1-4、9-10 *;
[US4935025](#) A 19900619 [A] (BUNDY MARK A [US], et al)
 [A] 1-10
 * 全文 *;
[US2010125253](#) A1 20100520 [A] (OLSON WILLIAM JOHN [US], et al)
 [A] 1-10

* 全文 *;
[CN102525597](#) A 20120704 [A] (METAL IND RES DEVELOPMENT CT, et al)
 [A] 1-10
 * 全文 *;
 CN203647428U U 20140618 [A] (WANG JIALEI)
 [A] 1-10
 * 全文 *;
[US2014257112](#) A1 20140911 [A] (SIEGEL MARC EVAN [US])
 [A] 1-10
 * 全文 *;
[WO2014145052](#) A1 20140918 [A] (HEALTH RESEARCH INC [US])
 [A] 1-10
 * 全文 *;
 CN204218986U U 20150325 [A] (JIANGSU QIANJING MEDICAL EQUIPMENT CO LTD)
 [A] 1-10
 * 全文 *;
 CN204971505U U 20160120 [R] (HUZHOU MATERNITY & CHILD CARE HOSPITAL)
 [R] 1-4、7-10
 * 权利要求1-4、7-10 *;
 CN201350080Y Y 20091125 [A] (ZHANGHONG LI [CN])
 [A] 1-5
 * 全文 *;
 CN203354573U U 20131225 [A] (ZHANG HUA)
 [A] 1-5
 * 全文 *

CI	- A61B17/32 (CN)
	- A61B17/42 (CN)
CA	- A61B2017/320024 (CN)
	- A61B2017/4216 (CN)
PA	- (A)
	HUZHOU MATERNITY & CHILD CARE HOSPITAL
TI	- (A)
	Cutter for uterus resection operation
AB	- (A)
	The invention belongs to the field of medical apparatus, and relates to a cutter for a uterus resection operation. The cutter comprises a cutter handle and a cutting knife installed on the cutter handle, and is characterized in that the cutting knife comprises a knife back portion and at least one lade portion extending out from the knife back portion towards an outer side for cutting a uterus, wherein the blade portion is spirally arranged along a central axis forming an included angle alpha with the vertical axis of the cutter handle, the included angle alpha is an obtuse angle . The cutter provided by the invention is reasonable in structure and convenient to operate. For the condition that a uterus body is too large to be removed easily, the cutter can efficiently cut up and remove the uterus body, greatly improves the operation efficiency and mitigates the pain of a patient.

27/38 © EPODOC / EPO

PN	- CN104970862 A 20151014
PR	- CN201510360422 20150626
AP	- CN201510360422 20150626
DT	- I
CT	- // STSE (A)

CN2352133Y Y 19991208 [Y] (LI HUILAN [CN])

[Y] 1-2

* 说明书第1页全文, 图1-3 *;

[JP2003038502](#) A 20030212 [A] (MANII KK)

[A] 1-4

* 全文 *;

CN201578338U U 20100915 [A] (JINWU WANG, et al)

[A] 1-4

* 全文 *;

CN202122602U U 20120125 [Y] (XIAOLEI WANG)

[Y] 1-2

* 说明书第14-15段, 图1-2 *;

CN202458597U U 20121003 [Y] (BENCHUN LIU)

[Y] 2-4

* 说明书第14-21段 *;

CN204744334U U 20151111 [R] (FIRST AFFILIATED HOSPITAL SUN YAT SEN UNIV, et al)

[R] 1-4

* 权利要求1-4 *;

CN202458597U U 20121003 [Y] (BENCHUN LIU)

[Y] 2-4

* 说明书第14-21段 *;

CN201602845U U 20101013 [Y]

[Y] 1-2

* 说明书第4-15段、附图 *

- CI - A61B17/3211 (CN)
- CA - A61B2017/00743 (CN)
- PA - FIRST AFFILIATED HOSPITAL SUN YAT SEN UNIV; HEHONG SURGICAL INSTR SHANGHAI CO LTD
- TI - Surgical **knife** handle
- AB - The invention relates to the technical field of **medical** apparatus and instruments and discloses a surgical **knife** handle. The surgical **knife** handle comprises a hand shank, a connecting portion and a limiting groove, wherein the hand shank is connected with the limiting groove through the connecting portion, a **knife blade** is installed on the limiting groove, and a long shaft of the limiting groove and a long shaft of the surgical **knife** handle form a 30-degree **angle** to be bent towards the left **side** or upwards. According to the surgical **knife** handle, the long shaft of the limiting groove where the **knife blade** is loaded and the long shaft of the whole surgical **knife** handle form the 30-degree **angle** to be bent towards the left **side**, so that it is guaranteed that the resection thickness is moderate, meanwhile, the resection can be achieved under occlusion, and the error of resection is reduced; the long shaft of the limiting groove where the **knife blade** is loaded and the long shaft of the whole surgical **knife** handle form the 30-degree **angle** to be bent upwards, and therefore it is guaranteed that when the surgical **knife** handle is used by a right-handed surgeon, the surgical **knife** handle can not deviate towards the right **side** causing the accidental injure on the conduction bundle. The lengthened surgical **knife** handle enables the operation to be more convenient and the resection to be deeper and more thorough.

28/38 © EPODOC / EPO

PN - [CN103706856](#) A 20140409

PR - CN201310684133 20131212

AP - [CN201310684133](#) 20131212

DT - I

CT - // STSE (A)

CN202804304U U 20130320 [A] (CHANGZHOU PREC CARBIDE TOOL CO LTD)

[A] 1-8
 * 全文 *;
[CN103381499](#) A 20131106 [X] (LI SHIQING)
 [] 假定评述的权利要求6
 * 说明书第40段, 附图5 *
 [X] 1-5、7、8;
 CN202845889U U 20130403 [A] (CHANGZHOU XINGQIANG TOOL CO LTD)
 [A] 1-8
 * 全文 *;
[US5704736](#) A 19980106 [A] (GIANNETTI ENRICO R [US])
 [A] 1-8
 * 全文 *;
[CN103381499](#) A 20131106 [X] (LI SHIQING)
 [X] 1-5、7、8
 * 说明书第40段, 附图5 *;
 CN203018815U U 20130626 [A] (QUANZHOU HONGRONG LIGHT INDUSTRY CO LTD)
 [A] 1-8
 * 全文 *

PA - WUXI YUTIAN PREC TOOL CO LTD
 TI - T-shaped **knife** of interbody fusion cage
 AB - The invention relates to the field of **medical** apparatus and instruments and particularly relates to a T-shaped **knife** of an interbody fusion cage. The T-shaped **knife** of the interbody fusion cage provided by the invention is mainly used for processing interbody fusion cages and comprises a cutting edge with a cone structure and a hilt with a cylindrical structure, wherein the cutting edge and the hilt are integrally formed, the cutting edge comprises a front **blade** surface arranged on the front end face, an upper **blade** surface, a lower **blade** surface and a rear **blade** surface connected with the hilt, the rear **blade** surface is arranged to form an included **angle** of 82.5 degrees with the **side** face of the hilt, the upper **blade** surface is arranged to form an included **angle** of 29 degrees with the **side** face of the hilt, and the lower **blade** surface is arranged to form an included **angle** of 29 degrees with the **side** face of the hilt. The T-shaped **knife** of the interbody fusion cage provided by the invention has a reasonable structure, recesses with negative angles can be processed in a machining process of complicated pore cavities by means of the actuate angles arranged between the cutting edges and the hilt, and the recesses are formed for one time, so that the processing efficiency and uniformity are greatly improved, and a large-space straight groove is arranged to ensure easy discharge of cutting chips so as to prolong the service life of the cutter.

29/38 © EPODOC / EPO

PN - [JP2013150675](#) A 20130808
 PNFP - JP6058267B B2 20170111
 PR - JP20120012263 20120124
 AP - [JP20120012263](#) 20120124
 DT - I
 FI - A61B17/32&310; A61B17/3211; A61F9/00&540; A61F9/007&130H
 FT - 4C160/FF05; 4C160/MM21
 PA - (A)
 KAI R&D CENTER CO LTD
 TI - (A)
MEDICAL KNIFE
 AB - (A)
 PROBLEM TO BE SOLVED: To prevent a **blade** part 6 from being carelessly inserted too much at the beginning of insertion to a cornea 35 when forming a **side** port 36 on the

cornea 35 of an eyeball 33, to easily form a form of the **side** port 36 into a trapezoidal shape, and to be excellent in operability by easily setting an opening **angle** 021 formed by both distal end **side** cutting edge parts 21 with each other to be large. SOLUTION: On both sides of a **blade** part 6, **blade** surfaces 9 are formed along cutting edges 10 crossing each other at a pointed end part 12 and extend from the pointed end part 12 to terminating end parts 19. Both cutting edges 10 are sectioned into a distal end **side** cutting edge part 21 and a proximal end **side** cutting edge part 22 by an intermediate part 20 between the pointed end part 12 and the terminating end parts 19. A line segment part 27 connecting both intermediate parts 20 with each other crosses a distal end **side** boundary edge 14 connecting a peak end part 13 at which opposed sides 11 to both proximal end **side** cutting edge parts 22 cross each other and the pointed end part 12 at which both distal end **side** cutting edge parts 21 cross each other, between the pointed end part 12 and the peak end part 13.

30/38 © EPODOC / EPO

- PN - [CN202821473U](#) U 20130327
- PR - CN201220370522U 20120729
- AP - [CN201220370522U](#) 20120729
- DT - I
- PA - NINGBO CITY YINZHOU DISTR QINGLIN MEDICAL EQUIPMENT TECHNOLOGY CONSULTING CO LTD
- TI - Folding **blade** built-in safety operation stitch removing device
- AB - The utility model relates to a **medical** device, in particular to a folding **blade** built-in safety operation stitch removing device. The device consists of a spherical head, a straight **blade**, an outer arc **blade**, a **knife** bar, an inwards inclining **blade** and a **knife** neck, wherein the spherical head is a hemispherical tip; the inwards inclining **blade** is arranged on the inner **side** of a lower opening of the spherical head; the **knife** neck of which the cross section is semicircular is arranged at the lower end of the spherical head; the lower end of the **knife** neck is integrated with the **knife** bar; the longitudinal straight **blade** is arranged at the transverse middle part of the flat **side** surface of the **knife** neck; the upper end of the straight **blade** is connected with the inner end of the inwards inclining **blade**; an acute **angle** is formed between the straight **blade** and the inwards inclining **blade**; the lower end of the straight **blade** is connected with the outer arc **blade**; and the outer arc **blade** is positioned at a connection part between the **knife** bar and the **knife** neck. As the device does not puncture a patient or a doctor in a using process, the safety of operation stitch removing is improved greatly.

31/38 © EPODOC / EPO

- PN - [CN202397558U](#) U 20120829
- PR - CN201120561806U 20111229
- AP - [CN201120561806U](#) 20111229
- DT - I
- PA - YANJUN DOU
- TI - Surgical needle-**knife** special for stenosing tendinitis
- AB - The utility model belongs to the field of **medical** equipment and in particular relates to a surgical needle-**knife** special for stenosing tendinitis. The novel surgical needle-**knife** is characterized in that the needle body of the needle-**knife** has a bending shape; a **blade** vertical to a **knife** bar is arranged on one **side** near the needle head; and **knife** edges are arranged on the front **side** and the rear **side** respectively. The tendon sheath is incised through double-way cutting motion during the surgery, so that the time of the surgery is saved and the success ratio of the surgery is increased. The surgical needle-**knife** special for stenosing tendinitis comprises a handle and the **knife** bar, wherein the handle is arranged at the rear end of the **knife** bar; a knife point is arranged at the front end of the **knife** bar; the middle part of the **knife** bar is bended to form a bending part; the **blade** vertical to the **knife** bar is arranged on one **side**, near the knife point, of the **knife**

bar and is triangular; the front **side knife** edge and the rear **side knife** edge are arranged on the front **side** and the rear **side** of the **blade** respectively; and the front **side knife** edge and the **knife** bar form a 45-degree included **angle**; and the rear **side knife** edge is vertical to the **knife** bar and is straight-line-shaped or inwards-concave-shaped. The surgical needle-**knife** special for stenosing tendinitis has the beneficial effects of simple structure and high success ratio.

32/38 © EPODOC / EPO

- PN - [CN202225237U](#) U 20120523
- PR - CN201120364253U 20110904
- AP - [CN201120364253U](#) 20110904
- DT - I
- PA - MIN LUO
- TI - External auditory canal skin preparation **knife**
- AB - An external auditory canal skin preparation **knife** belongs to the technical field of **medical** treatment and comprises a **knife** handle and a **knife** body, wherein a bulb is arranged inside one end of the **knife** handle and is closed inside the **knife** handle through a thin sheet made of a transparent material, and batteries can be internally arranged in the other end of the **knife** handle; a bulb source switch is arranged at the **side** edge of the **knife** handle; one end of the **knife** body is connected with the **knife** handle through a clamping groove on the thin sheet, and the other end of the **knife** body serves as a transparent hemispherical ear pick with the diameter of 3 to 6 mm; crescent double-layered safety type barbering blades are mounted at the outer **side** of the intersection point of the diameter perpendicular to the opening surface of the hemispherical ear pick and the spherical surface of the ear pick, and the surface of each **blade** faces to the direction of the **knife** handle and forms an **angle** of 15 to 30 degrees with the direction of the **knife** handle; the **knife** handle is cylindrical, is 15 to 18 cm in length and 1 to 2 cm in diameter; and the **knife** body and the crescent double-layered safety type barbering blades are all made of disposable materials, and the **knife** body is cylindrical, made of transparent plastic and is 1 to 14 mm in diameter. The utility model provides a special tool for external auditory canal skin preparation, the operation is convenient, the safety factor is increased, and unnecessary nursing resource is reduced.

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- PN - [CN102105113](#) A 20110622
- PNFP - CN102105113B B 20130227
- PR - WO2009JP61951 20090630; JP20080170024 20080630
- AP - [CN200980125266](#) 20090630
- DT - I
- CT - *// STSE (A)*
[US5536582](#) A 00000000 [X]
 [X] 2-3
 * 第5栏第47-61行,第6栏第22-32行 *;
[JP2002238914](#) A 00000000 [X]
 [X] 1
 * 第27、43段,附图1 *;
[JP2005334054](#) A 00000000 [A]
 [A] 1-3
 * 全文 *
- CCI - [A61B17/3211](#) ; [B26B9/00](#)
- CCA - [A61B2017/00849](#) ; [A61F9/0133](#)
- CI - A61B17/3211 (EP)

CA - B26B9/00 (EP)
 - A61B2017/00849 (EP)
 - A61F9/0133 (EP)

PA - (A B)
 MANI INC

TI - (A B)
Medical edged instrument and method of coating **medical** edged instrument

AB - (A)
 Provided is a **medical** edged instrument reduced in piercing resistance by coating with a silicone. Also provided is a coating method by which a satisfactory silicone coating is formed on a **medical** edged instrument. A **medical** edged instrument (**knife** (A)) having a **blade** part (1) with an edge (3) on the periphery thereof and a shank part (2) is subjected to coating to coat the **blade** part (1) including the edge (3) with a silicone having a thickness of from 25 nanometers to 5 micrometers. While holding the **medical** edged instrument, with the **blade** part (1) lower and the shank part (2) upper, the **blade** part is immersed in a silicone solution so that the **angle** between the upper or lower **side** of the **blade** part and the surface (21) of the silicone solution is 0-90 degrees. Thereafter, the **medical** edged instrument is raised at a rate of 500 mm/min or less while keeping the **angle** in that range to separate the **blade** part from the silicone solution. The **blade** part is then dried at a temperature in range of 100-250 DEG C for 30 minutes or longer. The silicone concentration is 0.2-15 wt.%, and the thickness of the silicone film is regulated by conducting the coating operation once or repeatedly.

34/38 © EPODOC / EPO

PN - [WO2010001889](#) A1 20100107

PR - JP20080170024 20080630

AP - [WO2009JP61951](#) 20090630

DT - **

CT - [JP] ISR (A1)
[JP2002238914](#) A 20020827 [X]
 (MANII KK);
[JP2005334054](#) A 20051208 [X] (KAI
 R&D CENTER CO LTD);
 JPH0770517 A 19950314 [Y]
 (AMERICAN CYANAMID CO);
[JP2004313229](#) A 20041111 [Y]
 (NIPRO CORP)

CCI - [A61B17/3211](#) ; [B26B9/00](#)

CCA - [A61B2017/00849](#) ; [A61F9/0133](#)

CI - [A61B17/3211](#) (EP)

- [B26B9/00](#) (EP)

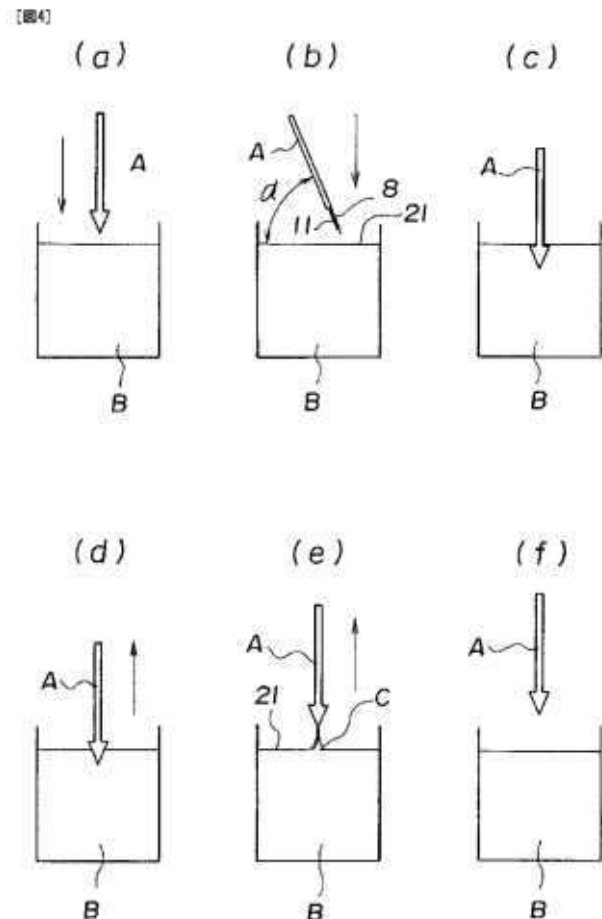
CA - [A61B2017/00849](#) (EP)

- [A61F9/0133](#) (EP)

PA - MANI INC [JP]; YAMAGUCHI AKIO
 [JP]; SAITO MASAHIKO [JP]; OGANE
 KAORU [JP]

TI - **MEDICAL** EDGED INSTRUMENT AND
 METHOD OF COATING **MEDICAL**
 EDGED INSTRUMENT

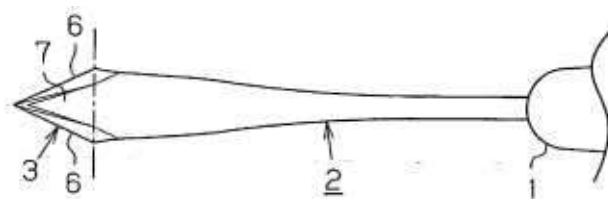
AB - Provided is a **medical** edged
 instrument reduced in piercing
 resistance by coating with a
 silicone. Also provided is a



coating method by which a satisfactory silicone coating is formed on a **medical** edged instrument. A **medical** edged instrument (**knife** (A)) having a **blade** part (1) with an edge (3) on the periphery thereof and a shank part (2) is subjected to coating to coat the **blade** part (1) including the edge (3) with a silicone having a thickness of from 25 nanometers to 5 micrometers. While holding the **medical** edged instrument, with the **blade** part (1) lower and the shank part (2) upper, the **blade** part is immersed in a silicone solution so that the **angle** between the upper or lower **side** of the **blade** part and the surface (21) of the silicone solution is 0-90 degrees. Thereafter, the **medical** edged instrument is raised at a rate of 500 mm/min or less while keeping the **angle** in that range to separate the **blade** part from the silicone solution. The **blade** part is then dried at a temperature in range of 100-250 °C for 30 minutes or longer. The silicone concentration is 0.2-15 wt.%, and the thickness of the silicone film is regulated by conducting the coating operation once or repeatedly.

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- PN - [US2005070941](#) A1 20050331
- PNFP - US7465310 B2 20081216
- PR - JP20030341599 20030930
- AP - [US20040952855](#) 20040930
- DT - *; Rep
- CT - || R141 (A1)
 USD535747S S 20070123 []
 (ISOGIMI KAZUHIKO [JP]);
[US5002565](#) A 19910326 []
 (MCGREGOR WALTER [US]);
[US6547802](#) B1 20030415 []
 (NALLAKRISHNAN RAVI [US], et al);
[US6139559](#) A 20001031 []
 (NORDAN LEE T [US], et al);
[US2001029386](#) A1 20011011 []
 (MATSUTANI KANJI [JP], et al)
- || STSE (B2)
[US5002565](#) A 19910326 []

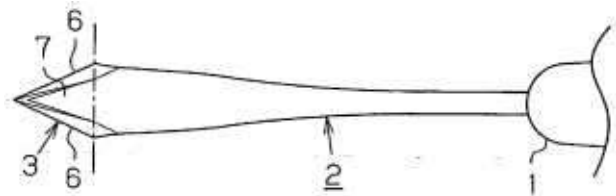


(MCGREGOR WALTER [US]);
[US6139559](#) A 20001031 []
 (NORDAN LEE T [US], et al);
[US6547802](#) B1 20030415 []
 (NALLAKRISHNAN RAVI [US], et al);
 USD535747S S 20070123 []
 (ISOGIMI KAZUHIKO [JP]);
[US2001029386](#) A1 20011011 []
 (MATSUTANI KANJI [JP], et al)

- CCI - [A61F9/0133](#)
 CI - A61F9/0133 (EP)
 PA - (A1)
 KAI R&D CENTER CO LTD [US]
 - (B2)
 KAI & R & D CT CO LTD [JP]
 TI - (A1 B2)
Medical knife
 AB - (A1 B2)
 A section of a first **side** of a **blade**
 between a cutting edge and a
 boundary line forms a cutting
 surface. An **angle** of a section of
 the cutting surface in the vicinity
 of the boundary line with respect
 to a hypothetical plane
 extending from the cutting edge
 and defined between the first
 and second sides of the **blade** is
 larger than an **angle** of a section
 of the cutting surface in the
 vicinity of the cutting edge with
 respect to the hypothetical
 plane. Therefore,
 the **medical knife** has an improved
 configuration such that the
 cutting performance of the **knife**
 is improved.

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- PN - [JP2005103035](#) A 20050421
 PNFP - JP4226429B B2 20090218
 PR - JP20030341599 20030930
 AP - [JP20030341599](#) 20030930
 DT - I
 CCI - [A61F9/0133](#)
 CI - A61F9/0133 (EP)
 FI - A61B17/32&310; A61B17/3211;
 A61F9/00&540; A61F9/007&130H
 FT - 4C060/FF05; 4C160/FF05;
 4C160/MM32
 PA - (A)
 KAI R&D CENTER CO LTD
 TI - (A)



MEDICAL KNIFE

AB

- (A)
PROBLEM TO BE SOLVED: To improve the sharpness of a **medical knife** used as a cutting tool for various operation to incise an organic tissue such as an eyeball by improving the setting of the included **angle**.
- (A)
SOLUTION: The **medical knife** has edged faces 9 and 11 including edges 6a on both front and rear sides of a **blade** and an intermediate face sectioned between the edged faces 9 and 11. Half included angles α_{16} and β_{17} formed by the double-edged face 9 on the front **side** to an assumed face P6 connecting the edges 6a are set so that the angles are larger on an inner **blade** face 17 on the intermediate face **side** than on an outer **blade** face 16 on the edge 6a **side**. A recessed face 9a is formed on the double-edged face 9 by the outer **blade** face 16 and the inner **blade** face 17, and a recessed face is also formed on the intermediate face. As a result, the sharpness of the **medical knife** can be improved.
- (A)
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- PN - [CN2209506Y](#) Y 19951011
- PR - CN19942045170U 19941115
- AP - [CN19942045170U](#) 19941115
- DT - I
- PA - SHEN JIE [CN]
- TI - Disposable preserved skin razor

- AB - The utility model relates to a disposable preserved skin razor, is a **medical** nursing apparatus, particularly a preserved skin razor used for removing hairs of skin of the patient before operation, comprising a **blade**, **knife** holder and a gland. The **blade** and gland are separately provided with round holes and round pistons, and the **blade** can be fixed between the **blade** and gland through the through holes on the **blade**. The intersection **angle** between the **blade** and the **knife** handle is from 60 DEG to 80 DEG. Two ends of the cutting edge of the **blade** of the **knife** frame are provided with flanges, and one relative **side** of the cutting edge of the **blade** is provided with a convex stop opening. The length of the cutting edge is shorter than the **knife** frame, and the vertical clearance between the cutting edge and the hair-coming out long hole is 1.4-2 mm. The utility model has the advantages of safe use, convenient operation, good effect of shaving hairs.

38/38 © EPODOC / EPO

PN - [CN2553745Y](#) Y 20030604

PR - CN20022068571U 20020731

AP - [CN20022068571U](#) 20020731

DT - I

PA - HUANG NAIJIAN [CN]

TI - Anal canal crypt hook **knife**

AB - The utility model relates to an anal canal crypt hook **knife** belonging to the **medical** apparatus and instruments. The utility model is applicable to cut the anal canal crypt which is inflamed and the inner opening of the anal fistula. The utility model is made of metal material and is formed into one unity by a hook **knife**, a **knife** bar and a **knife** handle; wherein the hook **knife** and the **knife** bar is better to form for an included **angle** of 45 DEGS plus or minus 2 DEGS; the inner **side** of the hook **knife** has a **blade**; the hook **knife** and the **knife** bar are integrated into one unity; the rear part of the **knife** bar has an outer worm; the front part of the **knife** handle has an inner worm; and the hook **knife** and the **knife** handle are fixedly connected into one entity through a thread. The utility model is simple to be manufactured and agile and convenient to be used and produce little pain to the patients.