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(54) **A DEPILOTOR**

(57) A depilator includes a depilating head(2) and a depilating head support. The depilating head(2) has two clamping devices on its main shaft(3) radically, so that the depilator can depilate hair twice when the main shaft (3) rotates a circle. The depilating head support has a support body (15). A depilating head locating seat (16)

is settled at the upper ends of two sidewalls of the support body(15). A depilating head pressure roller(17) is removably inserted in the depilating head locating seat (16). The rear end of the depilating head pressure roller (17) is set against a spring piece(18), which is fixed on the support body(15).

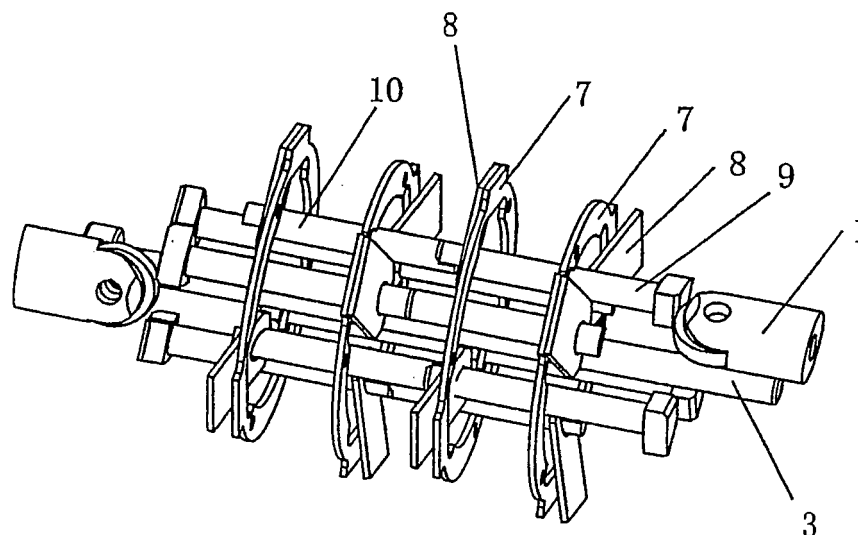


FIG. 2

Description

Technical field

[0001] The present invention relates to improvement of a depilator, particularly to improvement of depilating head and depilating head support.

Background art

[0002] Conventional depilator has a complicated depilating head, which has many connecting parts, is assembled difficultly, has a high production cost, has a low dependability; the depilating head can depilate hair only once when it rotates a circle, which has a low efficiency. Secondly, depilating head support adopts clamping mode of U-shaped stainless steel wire or stainless steel sheet clamping two sides of the supporting body synchronously; productions of different models have different specifications, which need stainless steel wires or stainless steel sheets of different sizes, to result in a high production cost; and above depilating head support is assembled difficultly and is short of necessary adjustment design of clamping pressure.

Summary of the present invention

[0003] To overcome problems of complicated structure and having many connecting parts and difficult assembly and high production cost and low dependability of depilating head of conventional depilator, the present invention provides a depilating head for depilator, which has a simple structure, is assembled easily, has a high work efficiency, has a high dependability.

[0004] To overcome problems of difficult assembly and high production cost and being short of adjustment design of clamping pressure of conventional depilating head support, the present invention provides a depilating head support, which has a compact structure, is assembled easily, is convenient to adjust clamping pressure.

[0005] The present invention adopts technical schemes as follows: the depilating head has two clamping devices on its main shaft radially, so that the depilator can depilate hair twice when the main shaft rotates a circle. The depilator of the present invention comprises pressure roller, depilating head matched with pressure roller. The depilating head comprises main shaft, driver, clamping piece wheel, connecting wheel, fixed clamping piece, removable clamping piece, main handspike, linkage handspike and offsetting spring. Two ends of the main shaft close match with drivers; clamping piece wheels joined by connecting wheel are wedged between aspectant sides of two drivers. Fixed clamping pieces are fixed on the sides of the clamping piece wheels; removable clamping piece matched with fixed clamping piece is removably set on outside of protrudent part of fixed clamping piece. Offsetting spring is set between removable clamping piece and adjacent axis wall. There

are two pairs of main handspikes and linkage handspikes on the main shaft radially; main handspike is connected to linkage handspike and drills through two clamping piece wheels respectively. Sidestep is formed between the main handspike and one end of the linkage handspike; the front end of the sidestep drills through removable clamping piece, the back end of the sidestep presses removable clamping piece; the main handspike drills through the driver from the outside of the driver; the outside end of the main handspike matches with the pressure roll.

[0006] Pressing platform is formed on the outside end matched with the pressure roll of the main handspike; twosided pressure rolls are set of interlaced radially; correspondingly there are two main handspikes, twosided removable clamping pieces matched with fixed clamping pieces are set of interlaced too; so in working two groups of clamping pieces work in double harness. Furthermore, the professional of the present specialty can easily bethink of adopting more than two groups of main handspikes, such as three groups of main handspikes and linkage handspikes and more than two clamping pieces, which has a higher work efficiency.

[0007] Both sides of the clamping piece wheel are fixed with fixed clamping pieces, which are installed with displacement of the removable clamping pieces; two removable clamping pieces on one side of the clamping piece wheel are pushed by the main handspike and linkage handspike drilling through from one side.

[0008] The present invention greatly predigest the structure of depilating head of depilator; when the depilator works two groups of clamping pieces work in double harness, to improve work efficiency, and it has a close structure, is assembled easily, has a high dependability.

[0009] Depilating head support comprises supporting body; an orientation seat of depilating head is fixed on the upside of the supporting body; pressure roll of the depilating head is movably inserted into the orientation seat of depilating head; the rear end of the pressure roller of the depilating head is set against a spring piece, which is fixed on the supporting body.

[0010] The middle part of the spring piece has groove, in which pressure adjusting bolt is set.

[0011] Two-sided pressure rolls of depilating head are set of interlaced at axis.

[0012] The spring piece is reversed 7 shaped; the bottom of the spring piece is fixed on the supporting body by bolt.

[0013] The present invention makes clamping devices of depilating head support be assembled easily; uniform specification can reduce production cost, and has a close structure, is convenient to adjust clamping pressure, has a high dependability.

Brief description of attached drawings

[0014]

Figure 1 is the sketch map of the structure of the present invention.

Figure 2 is the scenograph of the present invention other than driver and clamping piece wheel and connecting wheel.

Figure 3 is the sketch map of work principle of fixed clamping piece and removable clamping piece.

Figure 4 is the sketch map of interlaced installation of the pressure roller.

Figure 5 is the sketch map of the structure of the present invention.

Figure 6 is the planform of the figure 5.

Figure 7 is the sketch map of the structure of the spring piece.

Embodiments

Embodiment 1:

[0015] As shown in figures 1 to 4, the depilator of the present invention comprises pressure roller 1 and depilating head 2 matched with the pressure roller 1. The depilating head 2 comprises main shaft 3, driver 4, clamping piece wheel 5, connecting wheel 6, fixed clamping piece 7, removable clamping piece 8, main handspike 9, linkage handspike 10, and offsetting spring 11. Two ends of the main shaft 3 close match with drivers 4; clamping piece wheels 5 joined by connecting wheel 6 are wedged between the aspectant sides of two drivers 4. Fixed clamping pieces 7 are fixed on the sides of the clamping piece wheels 5; removable clamping piece 8 matched with fixed clamping piece is removably set on outside of protrudent part 12 of fixed clamping piece 7. Offsetting spring 11 is set between the removable clamping piece 8 and adjacent axis walls; the main handspike 9 is connected to linkage handspike 10 and drills through the two clamping pieces wheels 5 respectively. Sidestep 13 is formed between the main handspike 9 and one end of the linkage handspike 10; the front end of the sidestep 13 drills through the removable clamping piece 8, the back end of the sidestep 13 presses the removable clamping piece 8. The main handspike 9 drills through the driver 4 from the outside of the driver 4; the outside end of the main handspike 9 matches with the pressure roll 1; pressing platform 14 is formed on the outside end matched with the pressure roll 1 of the main handspike 9; twosided pressure rolls 1 are interlaced radially. Both sides of the clamping piece wheel 5 are fixed with fixed clamping pieces 7, which are installed with displacement of the removable clamping pieces 8; two removable clamping pieces 8 on one side of the clamping piece wheel 5 are pushed by the main handspike 9 and linkage handspike 10 drilling through from one side. In using the depilator of the present invention, the driver 4 drives the depilating head turn of high-speed; under the pressing of the pressure roll 1 the pressing platform 14 of the main handspike 9 push entad with the linkage handspike 10 to conquer the resistance of the offsetting spring 11; the

main handspike 9 and the sidestep 13 of the linkage handspike 10 push the removable clamping piece 8 to make its underside part swing; the main body of the removable clamping piece 8 joints with the protrudent part 12 of the fixed clamping piece 7 to clamp hair and remove them; when the pressing platform 14 of the main shaft 9 rotates through the pressure roll 1, external pressure disappears, the removable clamping piece 8 and the linkage handspike 10 and the main handspike 9 are repositied, to wait for another duty cycle.

[0016] Twosided pressure rolls 1 of the present invention are set of interlaced at axis, and the removable clamping pieces matched with twosided fixed clamping pieces 7 are set of interlaced too, so in using two clamping pieces work in double harness, when one clamping piece presses close to skin to clamp hair exiguous hair can be removed, and the other clamping piece can remove those long hair.

Embodiment 2:

[0017] Referring to figures 5 to 7, the present invention comprises supporting body 15, an orientation seat 16 of depilating head is fixed on the upside of the supporting body 15, and the fixation mode can be bolt mode. Pressure roll 17 of the depilating head is movably inserted into the orientation seat 16 of depilating head; twosided pressure rolls 17 are set of interlaced at axis; the rear end of the pressure roller 17 of the depilating head is set against a spring piece 18, which is fixed on the supporting body 15. In the present embodiment, the spring piece 18 is reversed 7 shaped; the bottom of the spring piece 18 is fixed on the supporting body 15 by bolt 21. The middle part of the spring piece 18 has groove 19, in which pressure adjusting bolt 20 is set. In working state, the depilating head is set between two sides of the supporting body 15; the pushing pressure of the pressure roll 17 in the supporting body is controlled by spring piece 19; the pressure of the spring piece 19 can be adjusted by adjusting pressure adjusting bolt 21, so the pressure of the clamping piece of the depilating head can be adjusted.

Industry practicability

[0018] The present invention greatly predigest the structure of the depilating head of depilator, when the depilator works two clamping pieces work in double harness, to improve work efficiency, and it has a close structure, is assembled easily, has a high dependability. The present invention makes clamping devices of depilating head support be assembled easily; uniform specification can reduce production cost, and has a close structure, is convenient to adjust clamping pressure, has a high dependability.

Claims

1. A depilator comprising pressure roller, depilating head and depilating head support matched with pressure roller; the depilating head is set on the depilating head support; wherein the depilating head comprises main shaft, driver, clamping piece wheel, connecting wheel, fixed clamping piece, removable clamping piece, main handspike, linkage handspike and offsetting spring; two ends of the main shaft close match with drivers; clamping piece wheels joined by connecting wheel are wedged between aspectant sides of two drivers; fixed clamping pieces are fixed on the sides of clamping piece wheel; removable clamping piece matched with fixed clamping piece is removably set on outside of protrudent part of fixed clamping piece; offsetting spring is set between removable clamping piece and adjacent axis wall; the main handspike is connected to linkage handspike and drills through two clamping piece wheels respectively; sidestep is formed between the main handspike and one end of the linkage handspike; the front end of the sidestep drills through the removable clamping piece, the back end of the sidestep presses the removable clamping piece; the main handspike drills through the driver from the outside of the driver; the outside end of the main handspike matches with the pressure roll.
5 10 15 20 25
2. The depilator according to claim 1, has characters as follows: two or three pairs of main handspikes and linkage handspike are set on the main shaft radially; pressing platform is formed on the outside end matched with the pressure roll of the main handspike; twosided pressure rolls are set of interlaced radially, to form two or three groups of epilation driving devices.
30 35
3. The depilator according to claims 1 or 2, has characters as follows: both sides of the clamping piece wheel are fixed with fixed clamping pieces, which are installed with displacement of the removable clamping pieces; two removable clamping pieces on one side of the clamping piece wheel are pushed by the main handspike and linkage handspike drilling through from one side.
40 45
4. The depilator according to claim 1, has characters as follows: depilating head support comprises supporting body; an orientation seat of depilating head is fixed on the upside of the supporting body; pressure roll of the depilating head is movably inserted into the orientation seat of depilating head; the rear end of the pressure roller of the depilating head is set against a spring piece, which is fixed on the supporting body.
50 55
5. The depilator according to claim 5, has characters as follows: the middle part of the spring piece has groove, in which pressure adjusting bolt is set.
6. The depilator according to claim 4, has characters as follows: twosided pressure rolls are set of interlaced at axis.
7. The depilator according to claim 4, has characters as follows: the spring piece is reversed 7 shaped, the bottom of the spring piece is fixed on the supporting body by bolt.

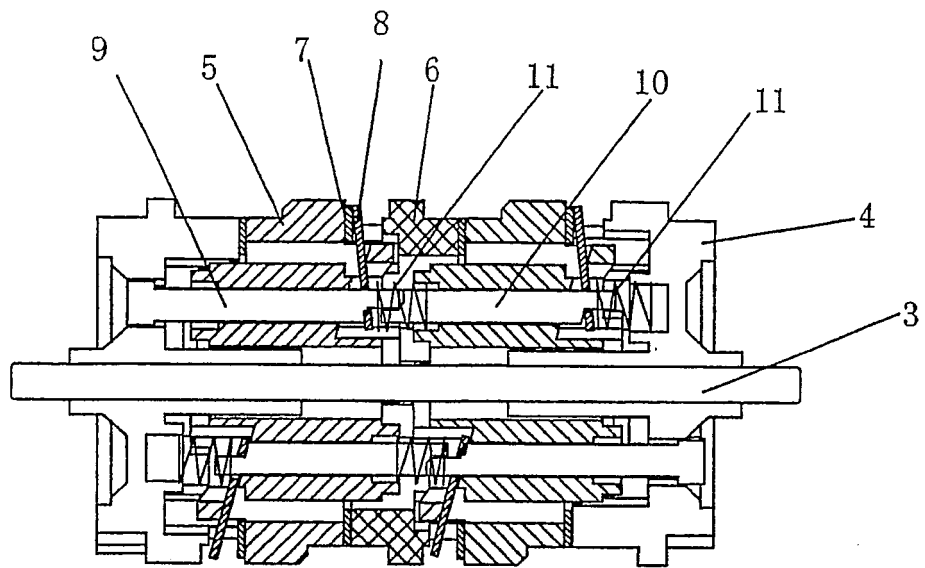


FIG. 1

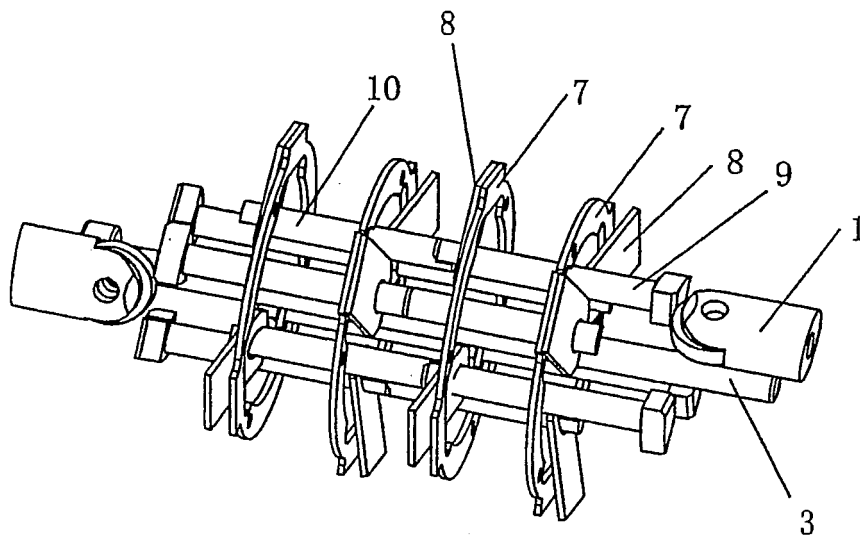


FIG. 2

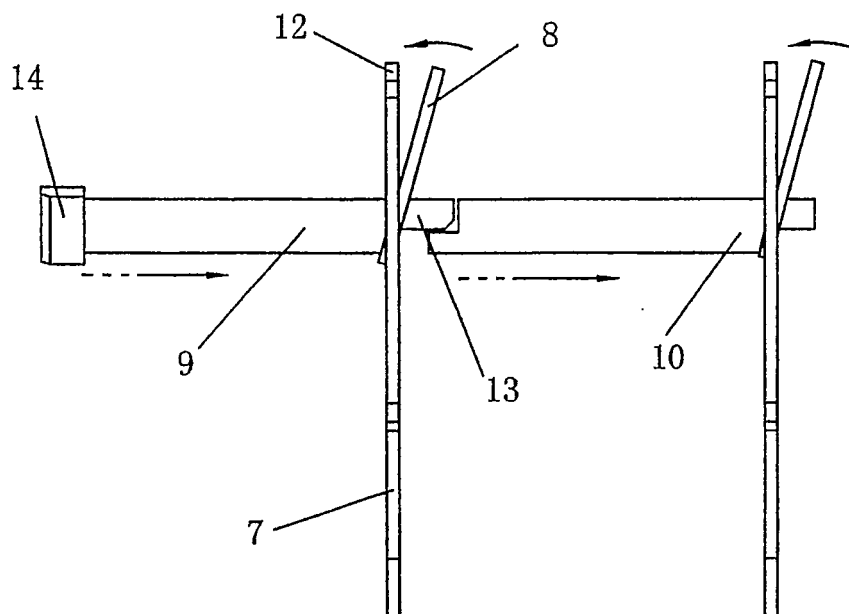


FIG. 3

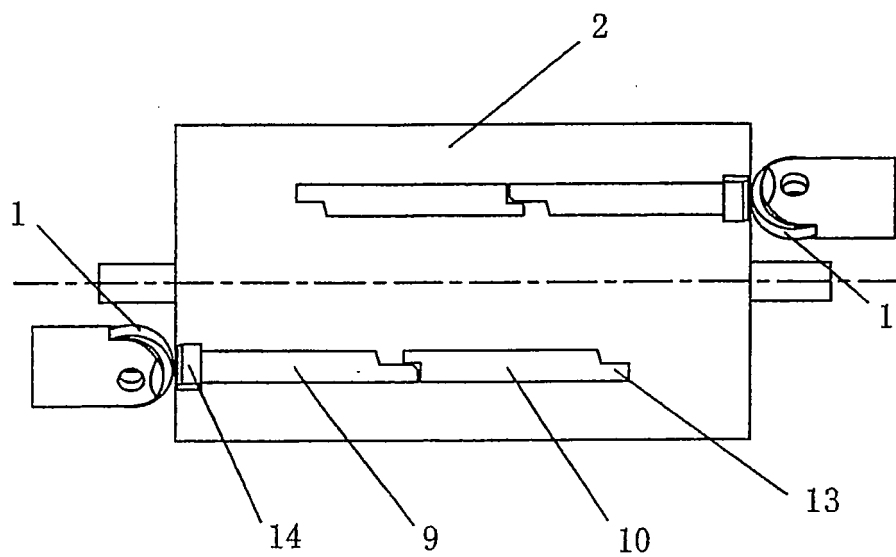


FIG. 4

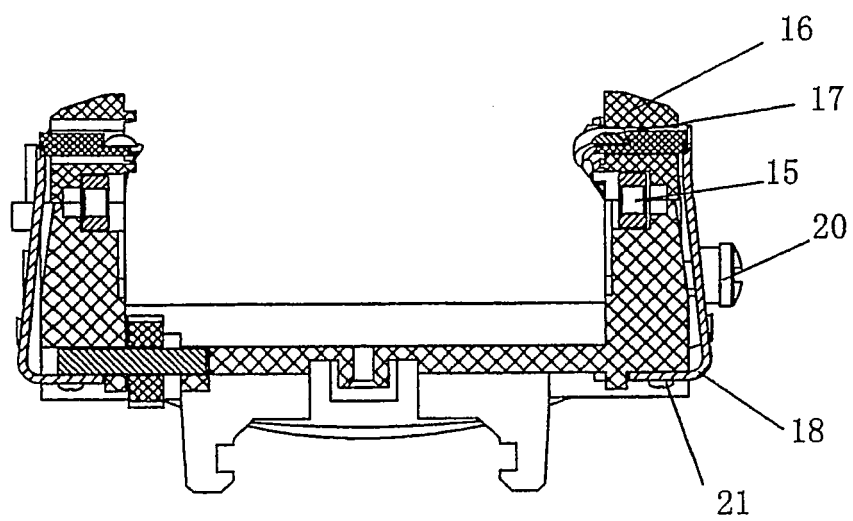


FIG. 5

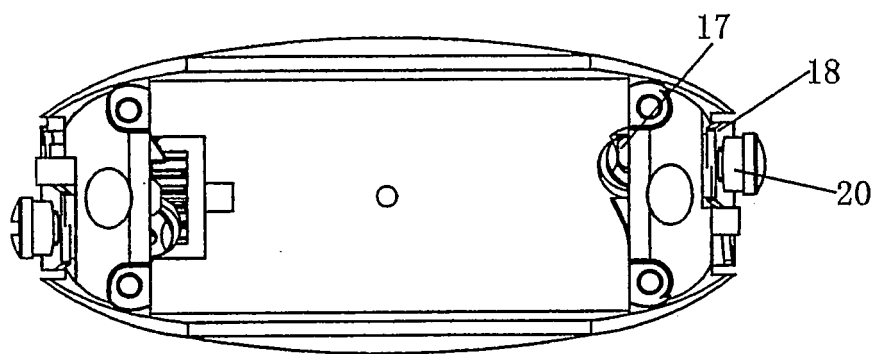


FIG. 6

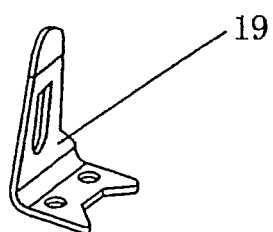


FIG. 7

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2006/000910

A. CLASSIFICATION OF SUBJECT MATTER

A45D26/00 (2006.01) i

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

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC⁸ : A45D26/+

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

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

CNPAT,WPI,EPODOC,PAJ: spring+ shaft+ axi+ cylinder+

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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A	CN1722965A(SEB SA), 18.Jan.2006 (18.01.2006), see the whole document	1-7
A	JP2002-125748A(MATSUSHITA ELECTRIC WORKS LTD), 08.May.2002 (08.05.2002), see the whole document	1-7
A	US6451028B1 (Pedro Sanchez-Martinez et al.), 17.Sep.2002 (17.09.2002), see the whole document	1-7
A	US5207689A (Jacques Demeester), 04.May1993 (04.05.1993) see the whole document	1-7

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

* Special categories of cited documents:

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“O” document referring to an oral disclosure, use, exhibition or other means

“P” document published prior to the international filing date but later than the priority date claimed

“T” later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

“X” document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

“Y” document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

“&”document member of the same patent family

Date of the actual completion of the international search

05.Dec.2006 (05.12.2006)

Date of mailing of the international search report

04 · JAN 2007 (04 · 01 · 2007)

Name and mailing address of the ISA/CN

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INTERNATIONAL SEARCH REPORT
 Information on patent family members

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