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(54) **ROLL PAPER HOLDER**

(57) Taught herein is a roll holder comprising a body and a shaft, the body comprising a left stop-plate, a right stop-plate, and a wall plate; a pair of symmetric to each other runners is disposed on the left stop-plate and the right stop-plate; the front portion of the runner is higher than the end portion thereof; both ends of the shaft are rotably or rollingly attached to the runners at both sides

of the body, respectively; and a protrusion parallel to the shaft is disposed on the body. The invention overcomes disadvantages found in prior art, and provides a roll holder with the help of which rollable material may be cut or torn using one hand only which makes the use very convenient. The solution uses a mobile shaft structure cooperating with a protrusion on the body and combining the slideway with the shaft.

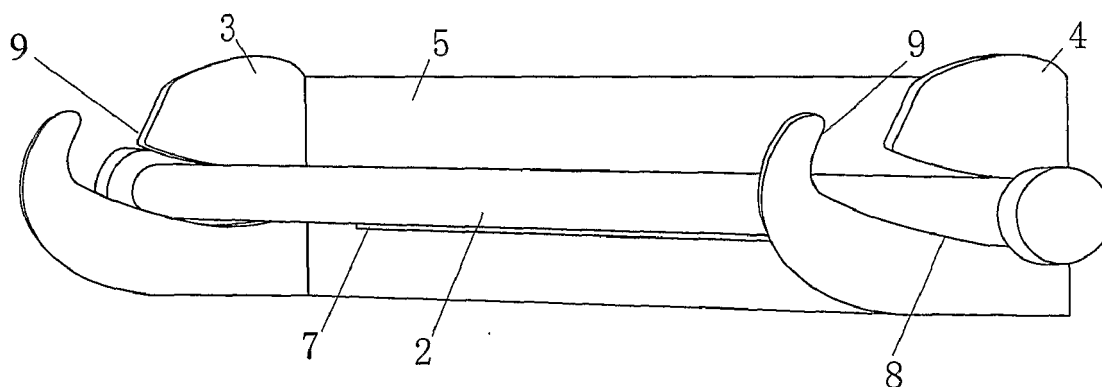


Fig. 5

Description

[0001] The present invention relates to a type of houseware, and particularly to a roll holder for dispensing rolled materials.

[0002] Kitchen materials such as foil, paper, plastic film and so on are generally wrapped around a hollow tube and a tooth-shaped score line is disposed every certain distance thereon. The structure makes it easy to tear the rolled material at the score line after the material is pulled out. The tear is smooth. Because of these characteristics rolled materials are widely used in everyday live. There are various types of roll holders for receiving rolled materials, which are different in appearance, but similar in structure; that is, a shaft of the holder is an elastic telescopic shaft, and as a rolled material is inserted, the shaft passes through the hollow shaft of the roll, and is then fastened on shaft holes at both sides of a body. A common design defect of this kind of roll holder is that the roll will drop out after the rolled material is pulled out to a certain length; additionally the rolled material must be pulled with both hands, which make use somewhat inconvenient.

[0003] To overcome deficiencies of prior art, it is one objective of the invention to provide a roll holder by means of which paper and other materials may be dispensed and thorn off in a one hand operation.

[0004] The invention is implemented as follows. The roll holder comprises a body 1 and a shaft 2. The body 1 comprises a left stop-plate 3, a right stop-plate 4, and a wall plate 5. A pair of runners 6 symmetric with each other is disposed on the left stop-plate 3 and the right stop-plate 4. A front portion 21 of the runner 6 is higher than an end portion 22 thereof. Both ends of the shaft 2 are rotably or rollingly attached to the runners 6 at both sides of the body 1, respectively. A protrusion 7 is disposed on the body 1 parallel to the shaft 2.

[0005] The runner 6 comprises a slideway 8 and a connector 9. An angle formed between the centerline of the connector 9 and that of the slideway 8 is greater than or approximately equal to 90 degrees, so as to prevent the shaft 2 from detaching from the body 1. The shaft 2 is capable of being detached from or attached to the body 1 via the connector 9.

[0006] The runner 6 is a groove 10 with a circularly closed wall. The shaft 2 is an elastic telescopic shaft.

[0007] A roll 11 for holding rolled paper and other materials is disposed on the shaft 2. The width of the roll 11 is less than the distance between the left stop-plate 3 and the right stop-plate 4. The shaft 2 passes through a hollow tube 20 on the roll 11, and is fixed on the body 1 via the connector 9.

[0008] A protruding portion of the protrusion 7 is contacted with a part of an outer edge of the roll 11.

[0009] A stop slideway 19 is disposed at the top of the body 1. The left stop-plate 3 and the right stop-plate 4 are respectively appended on and rollingly attached to the stop slideway 19. The runner is an inner groove 16.

The end portion of the shaft 2 is fastened in and rollingly attached to the inner groove 16.

[0010] A pair of supporting plates 12 are respectively disposed on the left stop-plate 3 and the right stop-plate 4. The distance between a front of the supporting plate 12 and the wall plate 5 is less than that between the connector 9 and the wall plate 5.

[0011] A cover 13 is disposed in front of the roll holder. Both ends of a cover shaft 14 of the cover 13 are rotably attached to a pair of shaft holes 15 at both sides of the front of the supporting plate 12.

[0012] Advantages of the invention include the ability to tear and/or cut a rolled material disposed in the roll holder with one hand only, which is made possible by means of the mobile shaft structure cooperating with the protrusion on the body and combining the slideway with the shaft, which makes the use very convenient.

[0013] Further description will be give below in conjunction with accompanying drawings and embodiments.

[0014] Fig. 1 is a front cross-sectional diagram of a first embodiment of the invention;

[0015] Fig. 2 is a right side view of the embodiment illustrated in Fig.1;

[0016] Fig. 3 is a top plan view of the embodiment illustrated Fig. 1;

[0017] Fig. 4 is a sectional view taken along the line A-A in Fig. 1;

[0018] Fig. 5 is a front perspective view of the embodiment illustrated in Fig. 1;

[0019] Fig. 6 is a side perspective view of a first embodiment of the invention;

[0020] Fig. 7 is a side perspective view of a second embodiment of the invention;

[0021] Fig. 8 is a side cross-sectional view of a second embodiment of the invention;

[0022] Fig. 9 is a back elevational view of a third embodiment of the invention;

[0023] Fig. 10 is a side cross-sectional view taken along the line B-B in Fig. 9;

[0024] Fig. 11 is a side perspective view of a third embodiment of the invention;

[0025] Fig. 12 is a structural view of a fourth embodiment of the invention;

[0026] Fig. 13 is a cross-sectional view taken along the line C-C in Fig. 12;

[0027] Fig. 14 is a cross-sectional view taken along the line D-D in Fig. 12;

[0028] Fig. 15 is a perspective view of a fourth embodiment of the invention;

[0029] Fig. 16 illustrates the position of a new roll installed into a roll holder according to a first embodiment of the invention; and

[0030] Fig. 17 illustrates the position of a depleted roll in a roll holder according to a first embodiment of the invention.

[0031] In the drawings: 1. body; 2. shaft; 3. left stop-plate; 4. right stop-plate; 5. wall plate; 6. runner; 7. protrusion; 8. slideway; 9. connector; 10. groove; 11. roll;

12. supporting plate; 13. cover; 14 cover shaft; 15. shaft hole; 16. inner groove; 17. left half shaft; 18. right half shaft; 19. stop slideway; 20. hollow tube; 21. front portion (front end); 22. back portion (back end).

[0032] First embodiment: Now referring to Figs. 1-6, a roll holder comprises a body 1 and a shaft 2, and the body 1 comprises a left stop-plate 3, a right stop-plate 4 and a wall plate 5. A pair of runners 6 symmetric with each other are disposed on the left stop-plate 3 and the right stop-plate 4; and the front portion 21 of the runner 6 is higher than the end portion 22 thereof. Both ends of the shaft 2 are rotably or rollingly attached to the runners 6 at both sides of the body 1, respectively. A protrusion 7 parallel to the shaft 2 is disposed on the body 1.

[0033] As shown in Fig. 4, the runner 6 comprises a slideway 8 and a connector 9, and an angle between a centerline of the connector 9 and that of the slideway 8 is greater than or approximately equal to 90 degrees, so as to prevent the shaft 2 from detaching from the body 1, which may cause the roll 11 to drop when a rolled material is pulled out of the roll holder. The shaft 2 is capable of being detached from or attached to the body 1 via the connector 9. As shown in Fig. 16, the roll 11 is disposed on the shaft 2, a width of the roll 11 is less than a distance between the left stop-plate 3 and the right stop-plate 4, and the shaft 2 passes through a hollow tube 20 on the roll 11, and is fixed on the body 1 via the connector 9.

[0034] As shown in Figs. 16 and 17, a protruding portion of the protrusion 7 is contacted with a part of the outer edge of the roll 11. Referring to Fig. 6, a pair of supporting plates 12 is disposed on the left stop-plate 3 and the right stop-plate 4, respectively. The distance between a front of the supporting plate 12 and the wall plate 5 is less than that between the connector 9 and the wall plate 5. The cover 13 is disposed in front of the roll holder. Both ends of a cover shaft 14 of the cover 13 are rotably attached to a pair of shaft holes 15 at both sides of the front of the supporting plate 12.

[0035] The first embodiment of the invention operates as follows: as the rolled material is inserted, the shaft 2 passes the hollow tube 20 of the roll 11, and then both ends of the shaft 2 are disposed into the slideway 8 via the connector 9 at both sides of the body 1. It should be noted that a head of the roll 11 is disposed in an outward direction of the body 1. As the rolled material is drawn, the head is pulled in the horizontal direction; at this time the outer edge of the rolled material is not contacted or releasably contacted with the protrusion 7, which makes it easy to pull out the rolled material to a required length. As the rolled material is to be cut or torn, the roll 11 is vertically pulled down; at this time the roll 11 forces the shaft 2 to generate a downward and inward component force, which causes an outer edge of the roll 11 to be tightly contacted with the protrusion 7, and thereby the roll 11 is fastened and the rolled material is easily torn or cut. The process of pulling and tearing or cutting the rolled material from the roll 11 may be done with one hand only.

[0036] Second embodiment: As shown in Figs. 7 and 8, in a second embodiment of the invention, the runner comprises no connector, and a pair of circularly closed grooves 10 symmetrical to each other is disposed on the left stop-plate and the right top-plate. Both ends of the shaft 2 are capable of smoothly sliding on the grooves 10. Meanwhile, the shaft 2 employs a similar telescopic shaft as in prior art solutions for inserting rolled material. In other aspects this embodiment is the same as the first embodiment.

[0037] Third embodiment: Referring to Figs. 9, 10 and 11, in the third embodiment of the invention, a stop slideway 19 is disposed at the top of the body 1, the left stop-plate 3 and the right stop-plate 4 are respectively appended on the stop slideway 19, and slide thereon. The shaft 2 is divided into a left half-shaft 17 and a right half-shaft 18, and a hollow tube 20 of the roll 11 is received between the two half-shafts (not shown). The runner 6 is an inner groove 16, and an end portion of the shaft 2 is rollingly attached to and fastened in the inner groove 16. As shown in Fig. 9, in other aspects this embodiment is the same as the first embodiment.

[0038] Fourth embodiment: As shown in Figs. 12-15, in this embodiment, the left stop-plate and the right stop-plate of the body are two tubes (sticks) with a U-shaped runner 6. The protrusion 7 is disposed between bottoms (namely back ends 22) of the two U-shaped runners 6. In other aspects this embodiment is the same as the first embodiment.

[0039] The invention is not limited to the embodiments described above, and may be embodied in different forms, such as combinations of the aforesaid embodiments, according to the teachings of the invention.

Claims

1. A roll holder, comprising
 - a body (1); and
 - a shaft (2);
 - wherein
 - said body (1) comprises a left stop-plate (3), a right stop-plate (4) and a wall plate (5);
 - a pair of runners (6), symmetric to each other, is disposed one on said left stop-plate (3) and one on said right stop-plate (4);
 - a front portion of said runner (6) is higher than an end portion of said runner (6);
 - both ends of said shaft (2) are rotably or rollingly attached one to each said runner (6) at both sides of said body (1); and
 - a protrusion (7) parallel to said shaft (2) is disposed on said body (1).
2. The roll holder of claim 1, wherein
 - said runner comprises a slideway (8) and a connector (9);
 - an angle between a centerline of said connector (9)

and that of said slideway (8) is greater than or approximately equal to 90 degrees; and
said shaft (2) is capable of being detached from or attached to said body (1) via said connector (9).

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3. The roll holder of claim 2, wherein
said runner (6) is a groove (10) with a circularly closed wall; and said shaft (2) is an elastic telescopic shaft.

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4. The roll holder of claim 1, wherein
a roll (11) is disposed on said shaft (2);
a width of said roll (11) is less than a distance between said left stop-plate (3) and said right stop-plate (4); and
said shaft (2) passes through a hollow tube (20) on said roll (11), and is fixed on said body (1) via said connector (9).

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5. The roll holder of claim 4, wherein a protruding portion of said protrusion (7) is contacted with a part of an outer edge of said roll (11).

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6. The roll holder of claim 1, wherein
a stop slideway (19) is disposed at the top of said body (1);
said left stop-plate (3) and said right stop-plate (4) are appended on and rollingly attached to said stop slideway (19);
said runner is an inner groove (16); and
an end portion of said shaft (2) is fastened in and rollingly attached to said inner groove (16).

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7. The roll holder of claim 2, wherein
a pair of supporting plates (12) is disposed one on said left stop-plate (3) and one on said right stop-plate (4); and
the distance between a front of said supporting plate (12) and said wall plate (5) is less than that between said connector (9) and said wall plate (5).

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8. The roll holder of claim 1, wherein
a cover (13) is disposed in front of said roll holder; and both ends of a cover shaft (14) of said cover (13) are rotably attached to a pair of shaft holes (15) at both sides of said front of said supporting plate (12).

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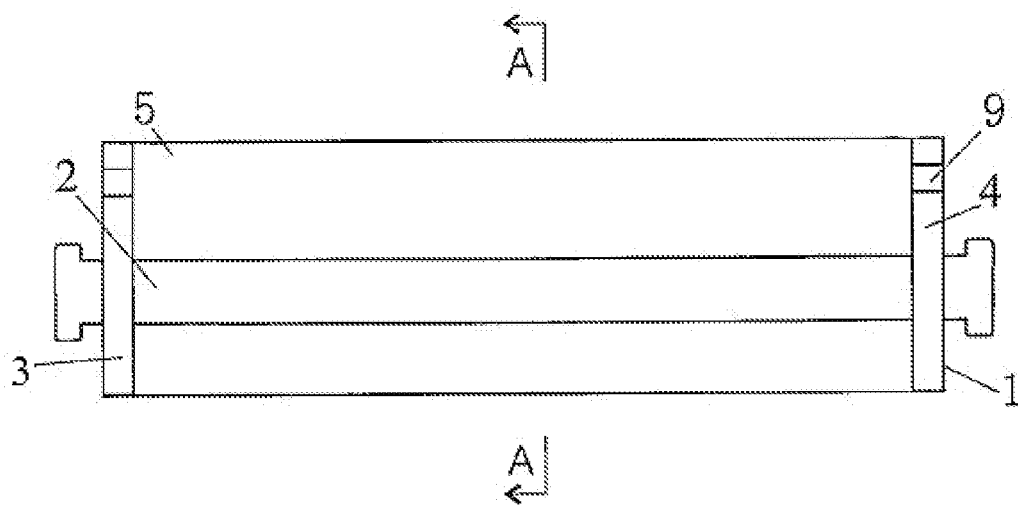


Fig. 1

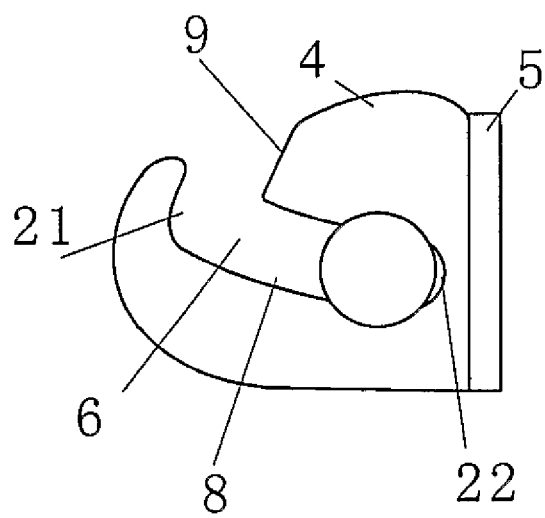


Fig. 2

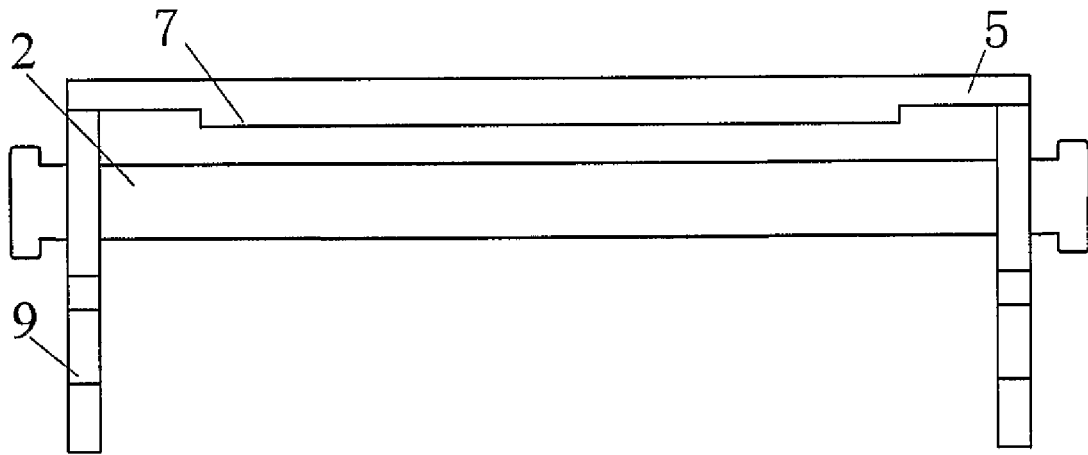


Fig. 3

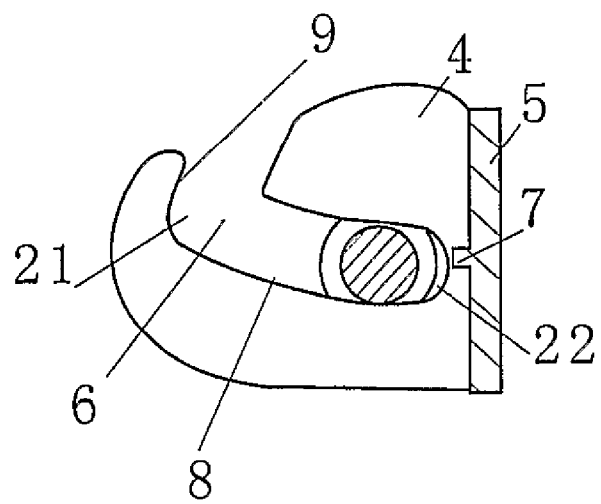


Fig. 4

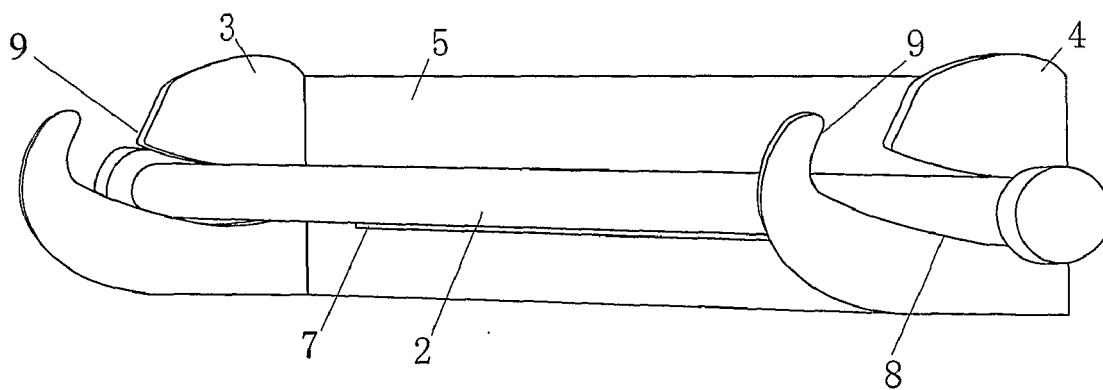


Fig. 5

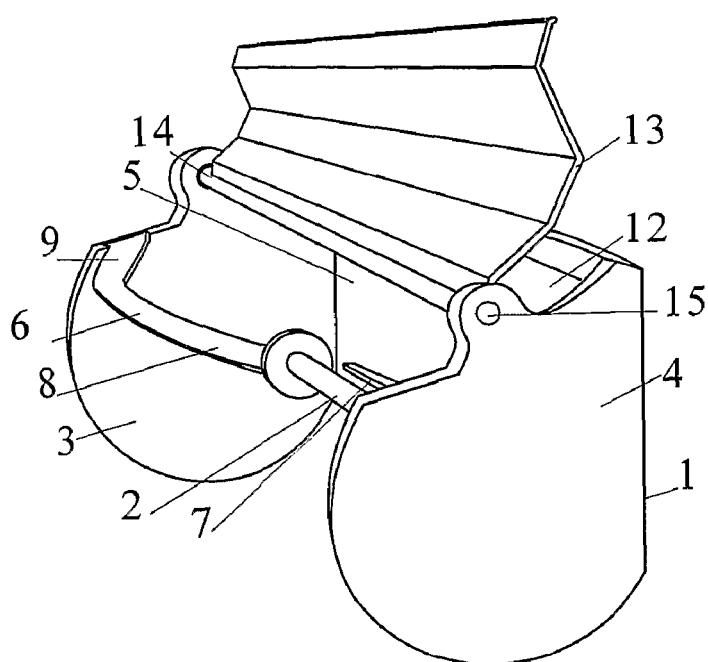


Fig. 6

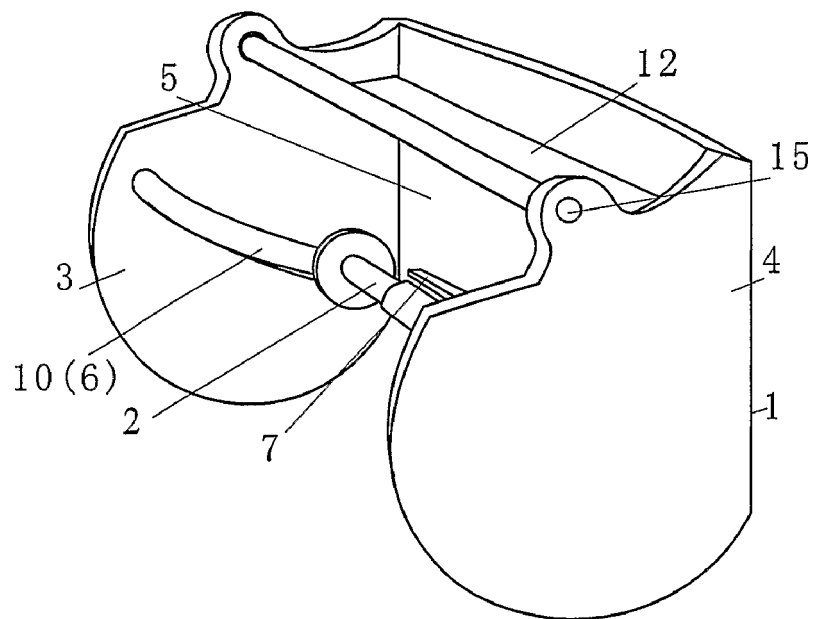


Fig. 7

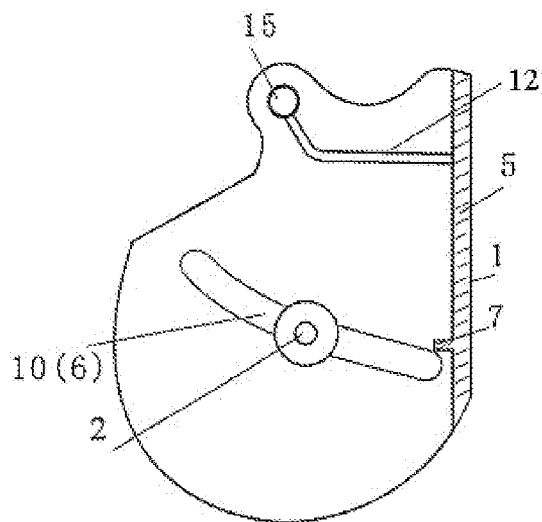


Fig. 8

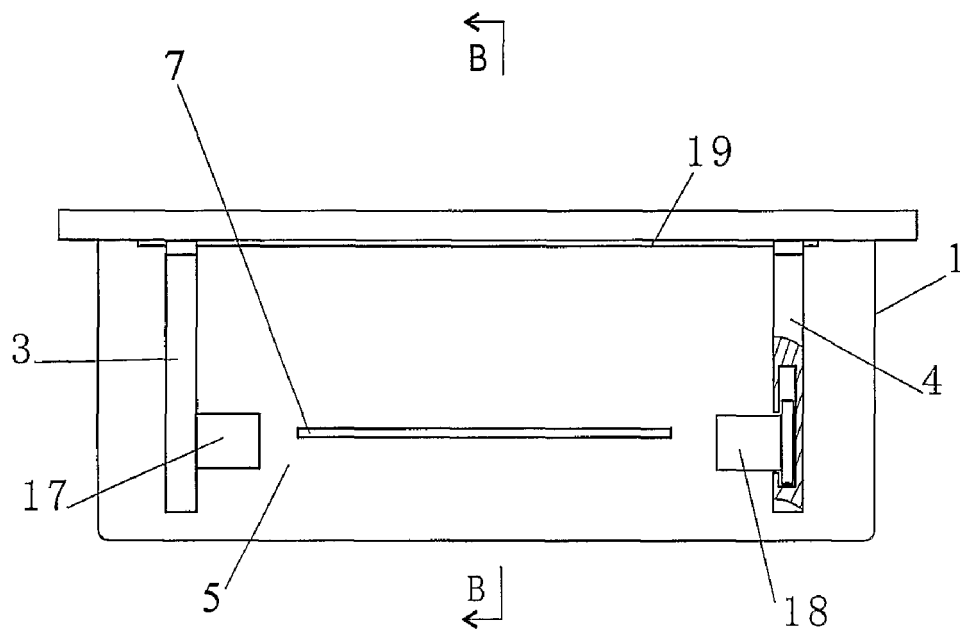


Fig. 9

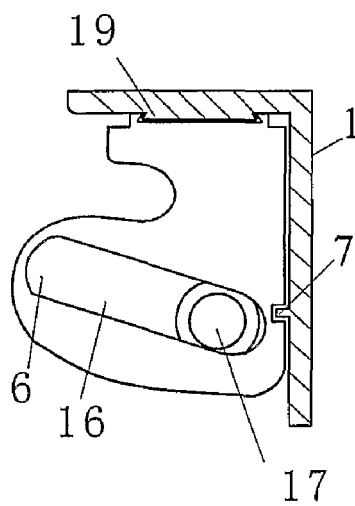


Fig. 10

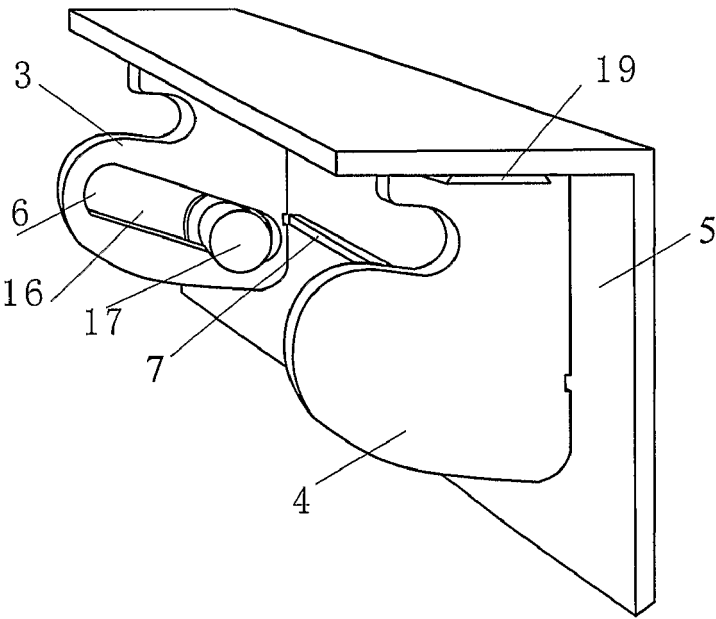


Fig. 11

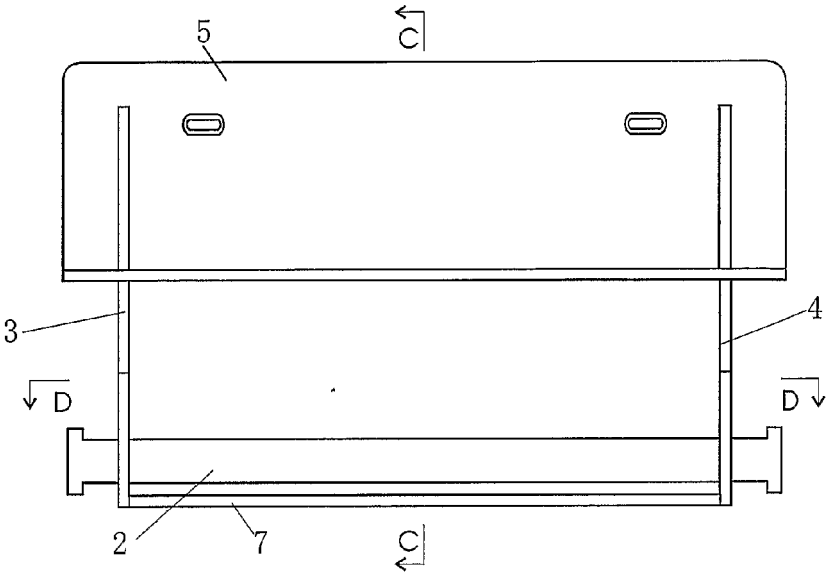


Fig. 12

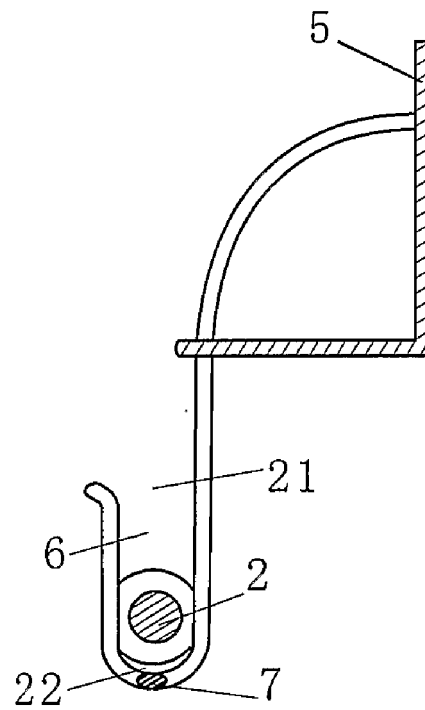


Fig. 13

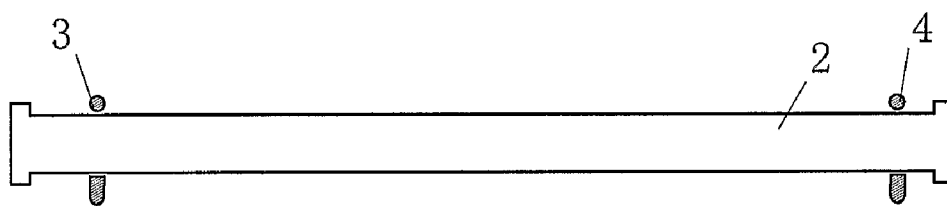


Fig. 14

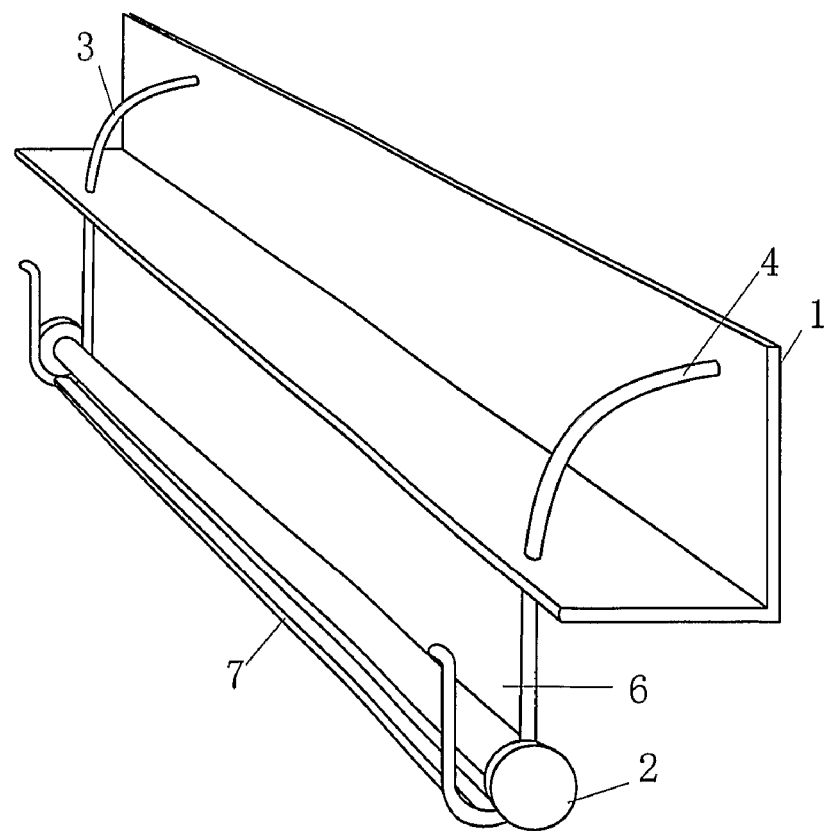


Fig. 15

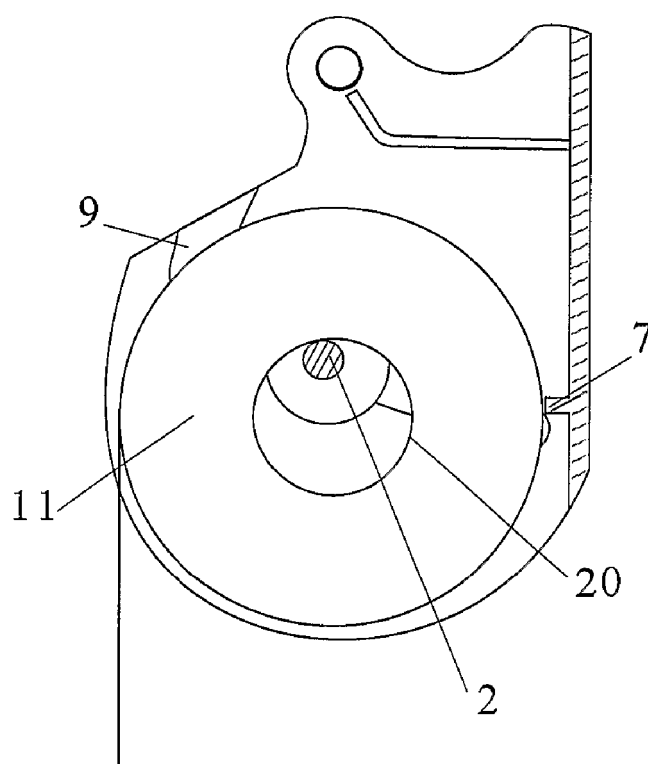


Fig. 16

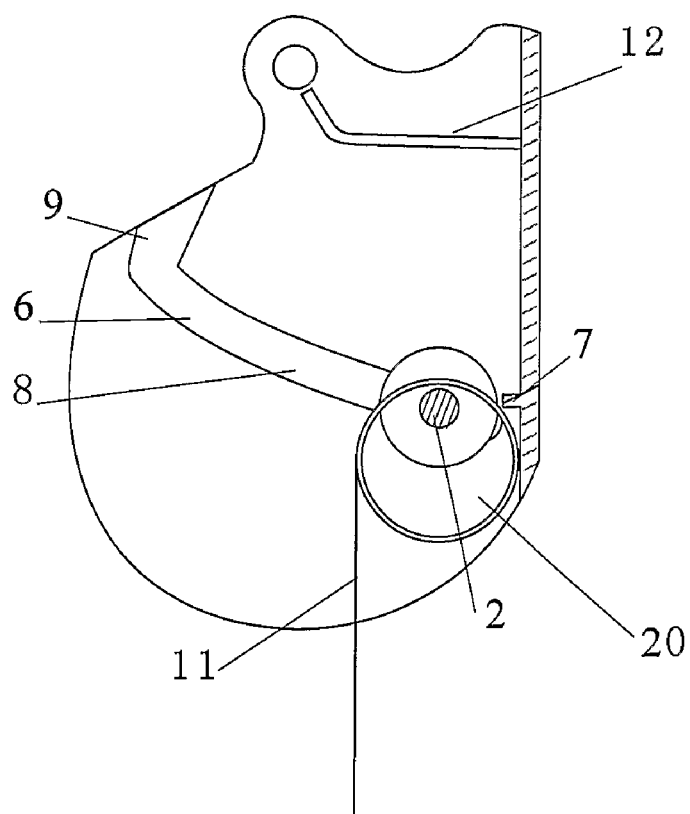


Fig. 17

INTERNATIONAL SEARCH REPORT

International application No.
PCT/CN2005/000643

A. CLASSIFICATION OF SUBJECT MATTER		
IPC ⁷ A47K10/36		
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)		
IPC ⁷ A47K10		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Chinese Patent Documents (1985-)		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
WPI, EPODOC, PAJ, CNPAT cut+, roll+		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	CN, Y, 2190958 (HUANG, Nanhai) 08.Mar.1995 (08.03.1995), lines 17-23, page 3 in the description, Fig.7	1-5, 7, 8
Y	CN, Y, 2220813 (ZHAN, Yitang) 28.Feb.1996 (28.02.1996), lines 9-23, page 2, of the description, Figs. 2, 5	1-5, 7, 8
A	CN, Y, 2214793 (GUO, Rongfa) 13.Dec.1995 (13.12.1995), the whole document	1-8
A	JP, A, 200265503 (SANO TOMIO) 05.Mar.2002 (05.03.2002), the whole document	1-8
A	JP, A, 9299277 (SANADA YUSUKE) 25.Nov.1997 (25.11.1997), the whole document	1-8
A	GB, A, 2294681 (KUO JUNG FA) 08.May.1996 (08.05.1996), the whole document	1-8
☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim (S) or which is cited to establish the publication date of another citation or other special reason (as specified) "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		Date of mailing of the international search report
31.Sep.2005(31.08.2005)		20. OCT 2005 (20.09.2005)
Name and mailing address of the ISA/CN		Authorized officer
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Facsimile No. 86-10-62019451		Telephone No. 86-10-62085829
		

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INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/CN2005/000643

Patent Documents referred in the Report	Publication Date	Patent Family	Publication Date
CN, Y, 2190958	08.MAR.1995 (08.03.1995)	NONE	
CN, Y, 2220813	28.FEB.1996 (28.02.1996)	NONE	
CN, Y, 2214793	13.DEC.1995 (13.12.1995)	NONE	
JP, A, 200265503	05.MAR.2002 (05.03.2002)	NONE	
JP, A, 9299277	25.NOV.1997 (25.11.1997)	NONE	
GB, A, 2294681	08.MAY.1996 (08.05.1996)	NONE	

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