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(54) SANITARY PULL-FILM PAD DEVICE FOR TOILET

(57)A sanitary pull-film pad device for toilet includes a locking peg fixed on front side of toilet bowl, a pull-film pad cover fixed on underside of toilet lid and a number of pull-film pads mounted on the pull-film pad cover. A hollow rope channel is provided at the outer periphery of each pull-film pad. A rope is extended in the hollow rope channel. Two ends of the rope are extended outside from the two ends of hollow rope channel, whereas the middle end of rope is extended outside from middle opening of hollow rope channel and becomes a knot which may be fixed on the locking peg. The pull-film pad cover comprises a loop plate whose contour is the same as the pull-film pad, an outside edge along outer edge extended along the outside of loop plate and an inside circle extended along inside of loop plate.

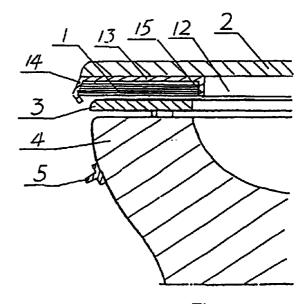


Fig.3

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Description

[0001] Present utility model is related to an accessory for toilet appliance, particularly to sanitary pull-film pad for toilet seat.

[0002] In daily life, toilet is commonly used for defecation. But toilet seat is in direct contact with buttock skin of numerous users, and some users may suffer from scabies or other skin diseases. Toilet seat is not to be cleaned and sterilized each time after usage, and hence infection among people cannot be avoided. Up to now simple and effective means is lacking in improvement of sanitary application of toilet.

[0003] Present utility model is aimed to provide a sanitary pull-film pad for toilet, which would overcome above-mentioned drawback. It is convenient and hygienic to use and can avoid cross infection of disease through toilet.

[0004] Present utility model is implemented as follows:

[0005] A sanitary pull-film pad device for toilet comprises a locking peg fixed on front surface of toilet bowl, a pull-film pad cover fixed on underside of toilet lid and a number of pull-film pads mounted in pull-film pad cover. Each pull-film pad has the same contour as that of toilet seat. At the outer periphery of each pull-film pad is provided with a hollow rope channel, which is open at both sides of rear end of pull-film pad. A middle opening is provided at the front end of pull-film pad for hollow rope channel. A rope is passed through the hollow rope channel with two ends of rope extended out from ends of hollow rope channel, whereas the middle of rope is extended outside from middle opening of hollow rope channel and is formed into a knot to be fixed on the locking peg. The pull-film pad cover comprises a loop-like plate with its contour being the same as that of pull-film pad, the loop-like plate has an outside edge extending first outward and downward then inward and downward along outer periphery of said loop-like plate and an inside edge extending downward along inner oval boundary of said loop-like plate. Said loop-like plate is used for installation of several pull-film pads.

[0006] In said sanitary pull-film pad device for toilet, locking peg may be an extended structure of toilet seat at the front.

[0007] In said sanitary pull-film pad device for toilet; said pull-film pad cover may be an integral part of toilet lid.

[0008] Advantages of present utility model are as follows:

- 1. Pull-film pad is disinfected and sterilized, disposable to prevent infection of disease.
- 2. The shape is similar to toilet seat. Installation and application are simple.
- 3. Because pull-film pad is fixed on toilet seat, its movement along with user' body is prevented.
- 4. Pull-film pad could be made of fragrant material

(paper, plastic film or other light material). Manufacturing cost is low.

[0009] In the following an preferred embodiment of present utility model is depicted in detail with reference to accompanying drawings to more clearly understand the characteristics and advantage of present utility model. In all accompanying drawings same numerals denote same part or structure.

Fig.1 is a schematic view showing a pull-film pad device installed on toilet lid according to present utility model, but without pull-film pad in it.

Fig.2 is a sectional schematic view showing pull-film pad according to present utility model.

Fig, 3 is a partial longitudinal section view of toilet with pull-film pad device according to present utility model.

[0010] Referring to Fig. 1 — 3, a sanitary pull-film pad device according to present utility model comprises a locking peg 5 fixed on front surface of toilet bowl 4, a pull-film pad cover 12 fixed on underside of toilet lid 2 and a number of pull-film pads 1 mounted in pull-film pad cover 12.

[0011] Referring to Fig. 2, each pull-film pad 1 has the same contour as that of toilet seat 3, but its rear end is flat. Pull-film pad 1 has inner film border 6 and outer film border 7. At outer film border 7 is provided hollow rope channel 9, which is open at both sides of rear flat end of pull-film pad 1. A middle opening 11 is provided at the front end of pull-film pad for hollow rope channel 9. A pulling rope 8 is passed through the hollow rope channel 9 with two ends of pulling rope 9 extended out from ends of hollow rope channel 9, whereas the middle of pulling rope is extended outside from middle opening 11 of hollow rope channel 9 and is formed into a knot 10 to be removably fixed on the locking peg 5.

[0012] Referring to Fig. 3, the pull-film pad cover 12 has a loop-like plate 13 with its contour being the same as that of pull-film pad 1 as shown in Fig.1. Loop-like plate 13 has an outside edge 14 extending outward and downward first, then inward and downward along outer periphery of said loop-like plate 13 and an inside edge 15 extending downward along inner oval boundary of said loop-like plate 13. When pull-film pad cover 12 of such structure is installed on underside of toilet lid 2 and toilet lid 2 is closed down, outside edge 14 of pull-film pad cover 12 usually is positioned at outside of periphery of toilet bowl, and inside edge 15 is positioned inside of inner boundary of toilet bowl 4.

[0013] Prior to use, a number of pull-film pads 1 are mounted in pull-film pad cover 12, and both ends of pulling rope 8 of each pull-film pads 1 are fixed to the rear end of toilet; e.g. fixed on the linking rod (not shown in Fig.) which connects and pivots toilet lid 2 with toilet bowl 4. While in use, toilet lid 2 is closed down, and knot 10 of pulling rope in the outermost pull-film pad 1

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mounted in pull-film pad cover 12 is fastened to locking peg 5. Next, toilet lid 2 is opened, and pull-film pad 1 will firmly fixed on toilet seat 3. After usage, knot 10 is removed from locking peg 5, and then used pull-film pad 1 is turned over to rear side. Subsequently another clean pull-film pad 1 is fixed again according to above procedure. When all pull-film pads in pull-film pad cover 12 are used up, all used pads are taken down, and clean pull-film pads 1 mounted.

[0014] In said embodiment, locking peg 5 may be an extended structure of toilet seat 3 at the front. In addition, said pull-film pad cover 12 may be integrated with said toilet lid 2 and made of same material. In short, within the scope of present utility model, present utility model can have many possible improvements and modifications, which will be fall within the protection scope of appended claims.

Claims

- 1. A sanitary pull-film pad device for toilet, comprising a plurality of pull-film pads (1), wherein it further comprises a locking peg (5) fixed on front surface of toilet bowl (4) and a pull-film pad cover (12) fixed on underside of toilet lid (2), said pull-film pad cover 12 has a loop-like plate 13 with its contour being the same as that of pull-film pad (1), said loop-like plate (13) has an outside edge (14) extending outward and downward first, then inward and downward along outer periphery of said loop-like plate (13) and an inside edge (15) extending downward along inner oval boundary of said loop-like plate (13), a plurality of pull-film pads 1, which have the same contour as toilet seat (3), are mounted in pull-film pad cover (12), at outer film border (7) is provided with hollow rope channel (9), which is open at both sides of rear end of pull-film pad (1), a middle opening (11) is provided at the front end of pull-film pad (1) for hollow rope channel (9), a pulling rope (8) is passed through the hollow rope channel (9) with two ends of pulling rope (8) extended out from ends of hollow rope channel (9), whereas the middle of pulling rope is extended outside from middle opening (11) of hollow rope channel (9) and is formed into a knot (10) to be fastened on the locking peg (5).
- 2. A sanitary pull-film pad device for toilet as defined in Claim 1, wherein locking peg (5) is an extended structure of toilet seat (3) at the front.
- 3. A sanitary pull-film pad device for toilet as defined in Claim 1, wherein said pull-film pad cover (12) is integrated with said toilet lid 2.

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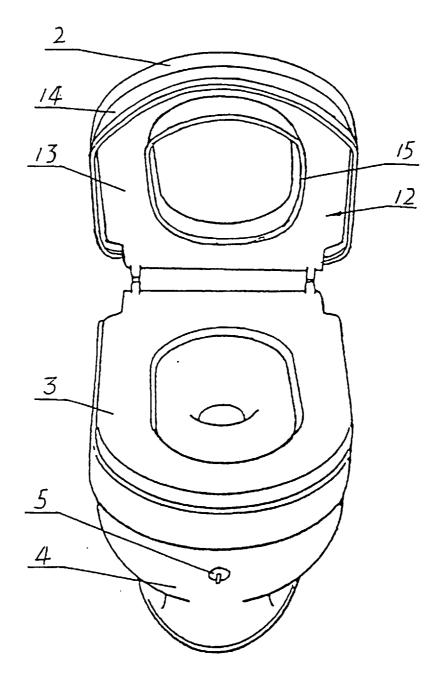


Fig.1

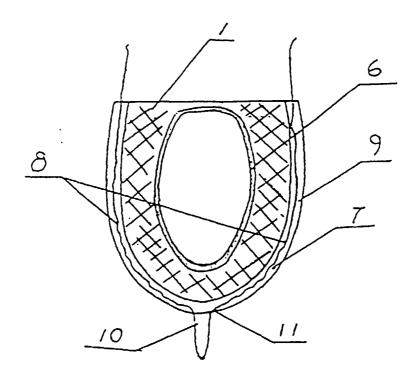
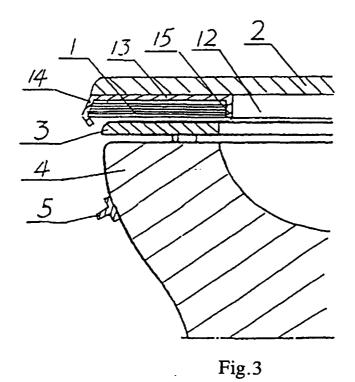


Fig.2



INTERNATIONAL SEARCH REPORT

International application No.
PCT/CN 98/00263

A. CLASSIFICATION OF SUBJECT MATTER						
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	el Patent Classification (IPC) or to both nations	al classification and IPC	·			
B. FIELDS SEARCI		mification members	<u>-</u>			
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	IPC*: A47K 13/1					
Documentation searched	other than minimum documentation to the exter	nt that such documents a	re included in the f	ields searched -		
	Chinese	Patent				
Electronic data base con	suited during the international search (name of	data base and, where pr	acticable, search te	rins used)		
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C. DOCUMENTEN	IS CONSIDERED TO BE RELEVANT					
Category Citation	of document, with indication, where a	ppropriate, of the re	levant passages	Relevant to claim No.		
A CN,Y,	2219663(Zhuang Wanchun) 14 Februar	y 1996(14. 02. 96)	,	1-3		
	whole document	-		<u>1—3</u>		
A ON V	2248531(Yang Yuzhang) 5 March 1997	Y/05 03 07\				
	2248531 (Tang Tuznang) 5 March 1997 Phole document	(VU- VU- 31 /)		1—3		
	2254322(Tang Wanyu) 21 May 1997(2 vhole document	21. 05. 97),		1—3		
II I	2115756(Yang Hua) 16 September 1993	2(16. 09. 92),		1—3		
the v	vhole document	:		_		
A CN,Y,	2212962(Jiang Mei) 22 Novmber 1995	(22. 11. 95).		1 9		
\$ 1	whole document			1—3		
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Further documents are listed in the continuation of Box C. See patent family annex.						
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INTERNATIONAL SEARCH REPORT

Information patent family members

International application No.
PCT/CN 98/00263

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
CN,Y,2219663	14. 02. 96	None	
CN,Y,2248531	05. 03. 97	None	
CN,Y,2254322	21. 05. 97	None	
CN,U,2115756	16. 09. 92	None	
CN,Y,2212962	22. 11. 95	None	

Form PCT/ISA/210(patent family annex)(July 1998)