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<div> <div>(71) Applicants:</div> <div> <ul style="list-style-type: none"> <li>Tognazzi, Giorgio I-16035 Rapallo (IT)</li> <li>Burattini Tognazzi, Gigliola I-16035 Rapallo (IT)</li> </ul> </div> </div>	

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Toilet seat arranged for distributing and placing seat covers made up of paper or similar material

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The invention concerns a toilet seat (1) arranged for distributing and placing seat covers made up of paper or similar material, comprising a board (5), provided with a handle (2), and hinged with a back (3), a plurality of stacked sheets (4), housed within said back (3), in such a way that for each complete lifting of the seat (1) said sheets are singularly taken, characterised in that said seat (1) and said sheets (4) have a substantially squared shape, with rounded corners, and have an inner hole having four right angles (6) with minor resistance lines.

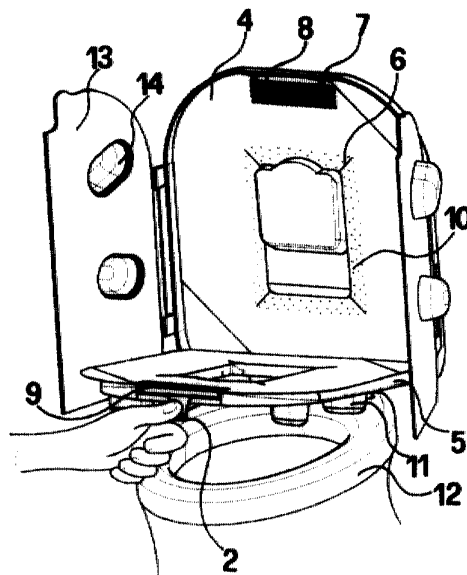


Fig. 4

## Description

**[0001]** The present invention concerns a toilet seat for hygienic utilities, offices and like, arranged for distributing and placing seat covers comprised of paper or other similar material.

**[0002]** Hygiene problem for public premises, or in any case premises visited by many people for a long time is very much felt since many time.

**[0003]** Bigger drawbacks are present when using the toilet by men and women to be seat on the board, the hygienic situation of which cannot be checked.

**[0004]** It is well evident that these are hygienic and sanitary reasons, mainly with the always more diffusion of the contagious diseases.

**[0005]** Solutions available up to day are not surely able to give a solution to the safety and hygiene requirements, mainly comprising suitably shaped sheet made up of a proper material that must be put on the board before seating.

**[0006]** It is well evident that it is a not satisfying solution, since it is not practical and mainly it is not able to provide a safe covering of the board, and thus a complete protection of the same, with the guarantee of a sure hygienical situation.

**[0007]** The same Applicants have already proposed a solution facing the above-mentioned problems, describing them in the European Patent EP 0 303 323, the content of which is hereby incorporated by reference.

**[0008]** In said European patent, a toilet seat for hygienic services is described, hinged with a back, provided with a housing for a plurality of sheets, comprised of paper or other similar material, acting as seat-cover. Said sheets are rubberised in some specific parts, in order to make it possible the self-removal of a single sheet and to ensure an anti-slipping effect while using the seat.

**[0009]** However, the solution claimed in the above mentioned European patent has some drawbacks, mainly due to tearings or micro-tearings of the seat cover sheet, thus jeopardising the hygienic and protective effect.

**[0010]** In view of the above, the Applicants has prepared an innovative solution allowing to solve the above mentioned drawbacks.

**[0011]** Particularly, the solution suggested according to the present invention provides some modifications to the shape of the seat and of the cover sheets, realised in such a way to solve the above mentioned drawbacks, thus preventing the occurrence of damaging of the same seat cover.

**[0012]** It is therefore specific object of the present invention a toilet seat arranged for distributing and placing seat covers made up of paper or similar material, comprising a board, provided with a handle, and hinged with a back, a plurality of stacked sheets, housed within said back, in such a way that for each complete lifting of the seat, said sheets are individually taken, characterised in that said seat and said sheets have a substantially

squared shape, with rounded corners, and have an inner hole having four right angles with minor resistance lines.

**[0013]** Preferably, according to the invention, each sheet has a size slightly bigger than the one of the seat and ha a minor resistance line perpendicular to each one of the four right angles of the inner hole.

**[0014]** Always according to the invention, said back centrally provides a raised shaped body, suitable to engage with the squared shape of the seat cover sheets, in such a way to maintain them in place.

**[0015]** Furthermore, according to the invention, said seat frontally comprises a lifting projecting handle, that, on the coupling base with the seat has one or more adhesive bumpers, preferably replaceable bumpers, a zone treated by latex being provided on the lower side corresponding with each one of said seat cover sheets in such a way that said bumpers and said latex zone are in touch and adhere each other when the seat cover sheet is placed on the seat.

**[0016]** Still according to the invention, said back provides above projecting pins or tines able to maintain in place, within a determined range, the seat cover sheets when taken them singularly by said bumpers.

**[0017]** Further, according to the invention, it is provided a panel covering the sheet stack, hinged to the seat back, said panel being preferably comprised of two symmetrical hemi-parts, laterally hinged.

**[0018]** The present invention will be now described, for illustrative but not limitative purposes, according to its preferred embodiments, with particular reference to the figures of the enclosed drawings, wherein:

figure 1 is a perspective view of the seat of figure 1 in a resting position

figure 2 is a perspective view of the seat of figure 1 during a first opening phase for its use;

figure 3 is a perspective view of the seat of figure 1 during a second opening phase for its use;

figure 4 is a perspective view of the seat of figure 1 during a third opening phase for its use;

figure 5 is a perspective view of the seat of figure 1 during a fourth opening phase for its use; and

figure 6 is a perspective view of the seat of figure 1 during a fifth opening phase for its use.

**[0019]** Coming now to observe all the figures of the enclosed drawings, it is shown a seat 1 according to the present invention, providing a lifting handle 2, frontally projecting.

**[0020]** Said seat 1 further provides a back 3, hinged on the rear, containing a certain number of stacked die cut sheets 4, acting as cover seats, made up of suitable paper or of other material having analogous characteristics.

**[0021]** Said lifting handle 2 provides above a fixing base having the shape of a rectangular plate, housed in a suitable depressed seat provided on the seat, and the

function of which will be described in greater detail in the following.

[0022] Said back 3 has a suitable shape and peripherically provides a rather high edge, defining a cavity housing the cover seat sheet stack placed within said back.

[0023] The shape of the seat according to the invention, as well as of the sheets 4, is substantially rectangular, in such a way to guarantee a complete covering of the board 5, when the sheet 4 is put in the use position shown in figure 4 or 5.

[0024] The quadrangular shape of the sheets, provided with four right angles ensures the sealing of the seat cover sheet 4, said sealing being further guaranteed by the presence of minor resistance lines 6 perpendicular to each one of the four right angles.

[0025] Paper sheet 4 preferably has sizes bigger than the seat 1, in order to obtain inner protective limbs, to cover the inner part of the same seat 1.

[0026] Right angles of the seat 1 are necessary to facilitate the falling of four inner limbs of the seat cover sheet 4, diagonally die cut at the four angles 6, when the user is seated.

[0027] Limbs fallen within the seat 1 are important for the total protection of the user. In fact, seating on an oval seat, with inner, oval shaped, paper sheet, sheet 4 tears in different points and skin of the user is in touch with the seat, thus jeopardising the seat cover function.

[0028] Furthermore, a pair of projecting pins or tines 7 are provided within the edge of the back 3, in such a way to easily replace the sheets 4. Said projecting tines 7 work to keep the sheets 4 when taking the first sheet 4, and their ideal projection for the working of the device can be influenced by the sloping of the back 3 when it is rest to the wall.

[0029] Cover seat die cut sheets 4 are each one treated by application of latex on some parts, namely in the front part, having a rectangular surface to grasp during the step of figure 3, with the adhesive bumpers 9 of the fixing plate of the lifting handle 2, said action ensuring the good positioning of the sheet during the taken and use step.

[0030] Board 5 provides at the bottom four dampening elements 11, that, according to a particular embodiment that, in a particular embodiment, can be higher than the standard ones, in order to space as more as it is possible the skin of the user from the ceramic vase 12 of the toilet.

[0031] Hinge, armrests hinging the back and the handle 2 frontally placed on the seat 1 are preferably comprised of stainless steel, said material being irreplaceable for public hygienic services.

[0032] Laterally with respect to the back 3 of the seat according to the invention, two hemi-parts 13 of a sheet 4 covering panel are hinged, said panel covering the sheets when the seat 1 is lifted, thus protecting them from the urine splashes due to a male user, using the toilet standing.

[0033] Said hemi-parts 13 of the panel are provided

with grooves 14 to house the dampening elements 11.

[0034] The seat 1 according to the invention, when not used, is in the position shown in figure 1.

[0035] Then the two hemi-parts 13 (figure 2) are opened, and acting on the handle (figure 3) to lower the board 5, bringing the same in the use position (figures 4 and 5) with a sheet 4 in the right position. After having used the toilet, sheet 4 is eliminated as shown in figure 6.

[0036] For a new use of the toilet, it will be sufficient to lift again the board 5, so as the adhesive bumper 9 couples with the rubberised portion 8 of the following sheet, bringing it in a use position.

[0037] Once exhausted the stock of sheets 4, it is sufficient to introduce a new stack of sheets 4 in the back of the seat 1.

[0038] The present invention has been described for illustrative but not limitative purposes, according to its preferred embodiments, but it is to be understood that modifications and/or changes can be introduced by those skilled in the art without departing from the relevant scope as defined in the enclosed claims.

## Claims

1. Toilet seat arranged for distributing and placing seat covers made up of paper or similar material, comprising a board, provided with a handle, and hinged with a back, a plurality of stacked sheets, housed within said back, in such a way that for each complete lifting of the seat, said sheets are singularly taken, **characterised in that** said seat and said sheets have a substantially squared shape, with rounded corners, and have an inner hole having four right angles with minor resistance lines.
2. Toilet seat according to claim 1, **characterised in that** each sheet has a size slightly bigger than the one of the seat and has a minor resistance line perpendicular to each one of the four right angles of the inner hole.
3. Toilet seat according to one of the preceding claims, **characterised in that** said back centrally provides a raised shaped body, suitable to engage with the squared shape of the seat cover sheets, in such a way to maintain them in place.
4. Toilet seat according to one of the preceding claims, **characterised in that** said seat frontally comprises a lifting projecting handle, that, on the coupling base with the seat has one or more adhesive bumpers, preferably replaceable bumpers, a zone treated by latex being provided on the lower side corresponding with each one of said seat cover sheets in such a way that said bumpers and said latex zone are in touch and adhere each other when the seat cover sheet is placed on the seat.

5. Toilet seat according to one of the preceding claims, **characterised in that** said back provides above projecting pins or tines able to maintain in place, within a given range, the seat cover sheets when taken them singularly by said bumpers. 5
6. Toilet seat according to one of the preceding claims, **characterised in that** it is provided a panel covering the sheet stack, hinged to the seat back, said panel being preferably comprised of two symmetrical hemi-parts, laterally hinged. 10
7. Toilet seat according to each one of the preceding claims, substantially as illustrated and described. 15

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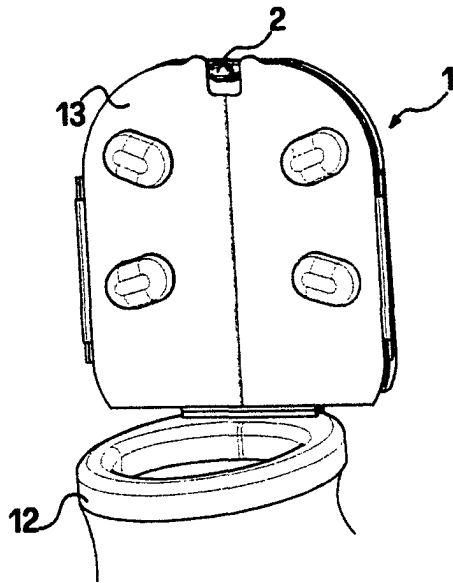


Fig. 1

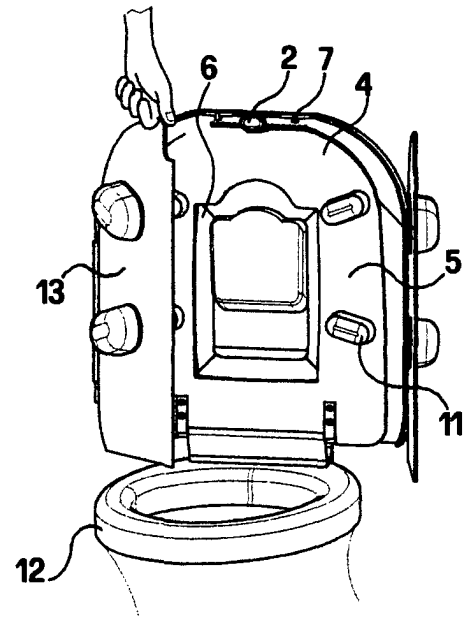


Fig. 2

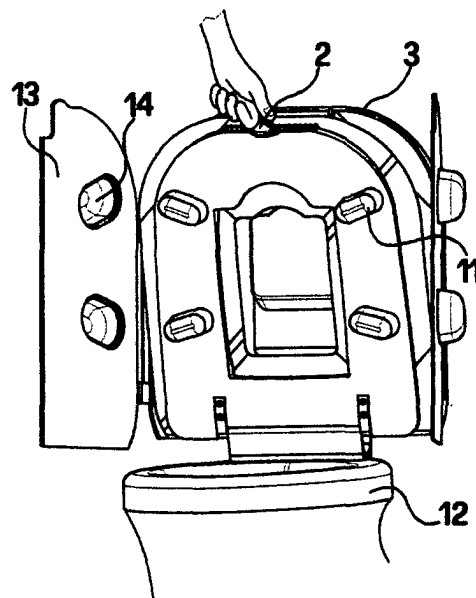


Fig. 3

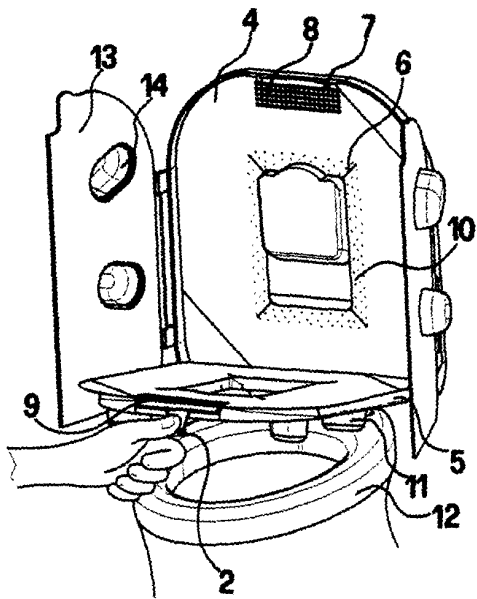


Fig. 4

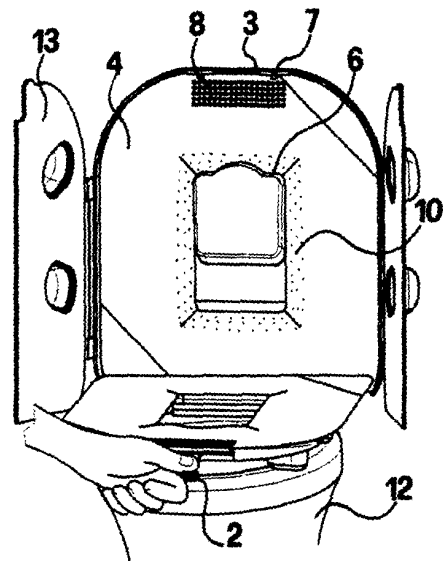


Fig. 5

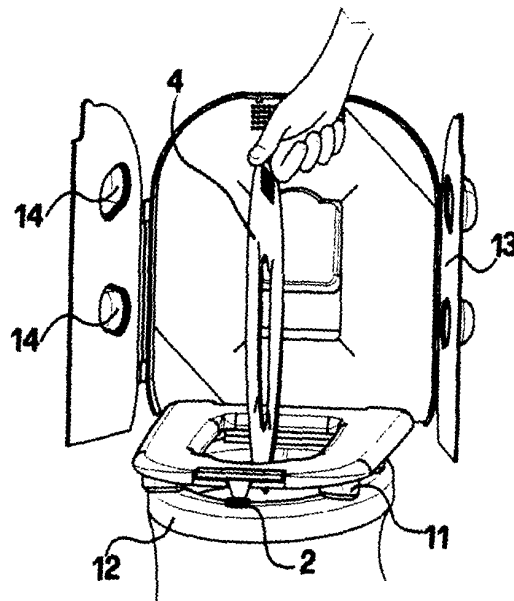


Fig. 6



European Patent  
Office

# EUROPEAN SEARCH REPORT

Application Number  
EP 01 83 0370

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
D, A	EP 0 303 323 A (TOGNAZZI GIORGIO ;BURATTINI TOGNAZZI GIGLIOLA (IT)) 15 February 1989 (1989-02-15) * the whole document *	1, 3, 5	A47K13/16
A	EP 0 628 278 A (SCOTT PAPER CO) 14 December 1994 (1994-12-14) * the whole document *	1	
A	US 1 682 987 A (SAXON HILDA M) 4 September 1928 (1928-09-04) * column 1, line 42 - line 44; figures *	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			A47K
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
THE HAGUE		16 November 2001	Fordham, A
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03 92 (P04001)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
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EP 01 83 0370

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on  
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16-11-2001

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