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(54) **Perfuming hygiene device for sanitary fixtures**

(57) A perfuming hygiene device for sanitary fixtures, of the type suitable for being installed at a perimetric edge of a sanitary basin or WC, comprises a framework made of a plastic material (11), comprising at least one distributing element (13) of active chemical compounds, liquid or solid, of the detergent, disinfecting, deodorant type or other types suitable for releasing a certain quantity of

said active compounds into the flow of discharge water, and an anchoring element (12) to the edge, in addition to at least one perfumed plastic element (20) removably applicable to the framework (11), suitable for releasing perfumed and/or deodorant volatile substances into the air, comprising at least one front wall (21) facing outwardly.

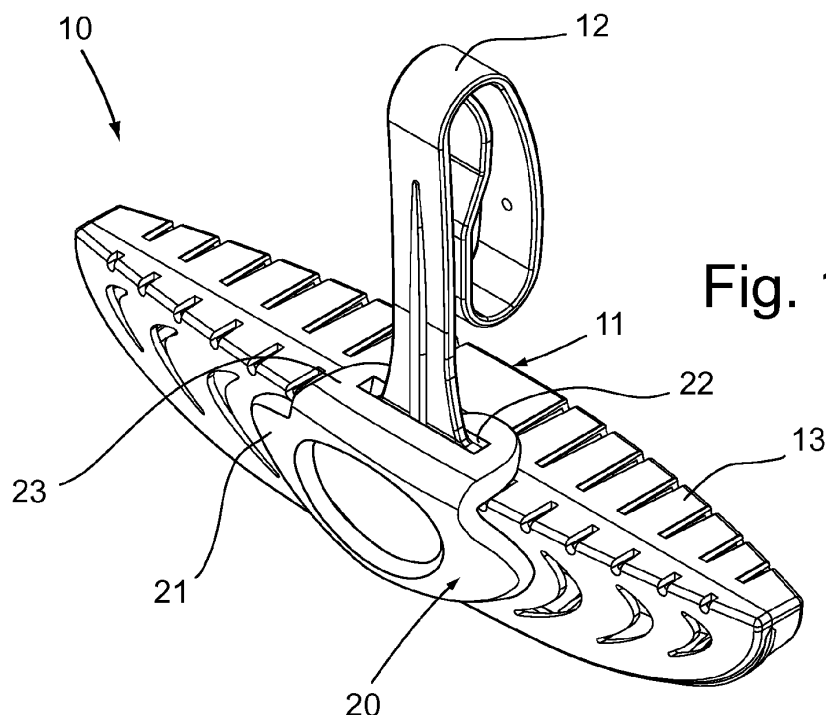


Fig. 1

Description

[0001] The present invention relates to a perfuming hygiene device for sanitary fixtures.

[0002] Sanitary fixtures, such as basins or WCs are subject to rapid cleaning and disinfecting degradation with time, causing unpleasant and anti-hygienic conditions of use in addition to a degradation of the same sanitary fixtures as a result of the formation of limescale or other encrustations.

[0003] Hygiene devices to be installed inside sanitary basins or WCs, held by a suspension means to a perimetric edge of the basin, which release, with every flushing of discharge water, active chemical compounds, liquid or solid of the detergent, disinfectant, deodorant type, or other types, are of normal use.

[0004] These known hygiene devices can be of the "cage" type, consequently comprising a container element equipped with slits and/or holes for the passage of the discharge water, in which an active chemical compound in the solid state is contained, for example with detergent and deodorant functions.

[0005] Alternatively, hygiene devices consisting of bottles containing active chemical compounds in the form of a liquid or gel, have also been developed. The bottles are applied to distributing means, capable of releasing a controlled quantity of active substances with each flushing of discharge water in which they are immersed.

[0006] The discharge water is then enriched with substances which impart detergent, decalcifying, deodorant and disinfecting properties which are such as to significantly potentiate its natural cleaning action.

[0007] In order to further impede the problem of the emanation into the environment of unpleasant odours deriving from hygiene fixtures, means for the release into the air of volatile perfumed and/or deodorant substances with an action independent of the flushing of discharge water, have been integrated into the above-mentioned devices, liquid or solid, such as for example small containers containing perfumed liquid substances coated by a semi-permeable membrane.

[0008] The perfuming and/or deodorant effect of the active substances introduced into the discharge water is not in fact sufficient for covering odours and above all is difficult to maintain with time until the subsequent flushing of discharge water. It is consequently often necessary to resort to the additional installation of deodorants for the environment, into the room.

[0009] The hygiene devices described above, however, have the disadvantage of having a relatively complicated structure with consequent significant production costs.

[0010] Furthermore, there is generally a limited discretion in the selection of the type of perfume and even with respect to the presence itself of the perfume, which the user selects at the moment of purchase and which is therefore restricting for the remaining life of the product.

[0011] An objective of the present invention is to provide

a perfuming hygiene device for sanitary fixtures which solves the drawbacks indicated above.

[0012] A further objective of the present invention is to provide a perfuming hygiene device for sanitary fixtures which is easy to use and can be applied to any type of sanitary fixture on the market.

[0013] Another objective of the present invention is to provide a perfuming hygiene device for sanitary fixtures which is easy and economical to produce and whose production does not require complex or costly technologies.

[0014] These and other objectives of the present invention are achieved by providing a perfuming hygiene device for sanitary fixtures as specified in claim 1.

[0015] Further characteristics of a perfuming hygiene device for sanitary fixtures are object of the dependent claims.

[0016] The characteristics and advantages of a perfuming hygiene device for sanitary fixtures according to the present invention will appear more evident from the following illustrative and non-limiting description, referring to the enclosed schematic drawings in which:

figure 1 is a perspective view of a first embodiment of a perfuming hygiene device for sanitary fixtures according to the present invention;

figures 2 and 3 show two enlarged details of the perfumed plastic element of the device of figure 1;

figure 4 is a perspective view of a second embodiment of a perfuming hygiene device for sanitary fixtures according to the present invention;

figure 5 shows an enlarged detail of the perfumed plastic element of the device of figure 4, seen from the side facing the inside of the device;

figure 6 shows the internal side of the device of figure 4 in an open configuration.

[0017] With reference to the figures, these show a perfuming hygiene device for sanitary fixtures, indicated as a whole with 10 of the type suitable for being installed at a perimetric edge of a sanitary basin or WC and comprising a framework made of a plastic material 11 and at least one perfumed plastic element 20 removably applicable to the framework, preferably made of EVA material.

[0018] The framework 11 comprises an anchoring element 12 to the edge of the sanitary device and a distributing element 13 of active chemical compounds, liquid or solid, of the detergent, disinfecting, deodorant type or other types, suitable for releasing a certain quantity of active compounds into the flow of discharge water. For illustrative purposes, figures 1 and 4 show a "cage-type" distributing element 13 suitable for housing a tablet, not shown, in its interior, consisting of active chemical compounds in solid form, put in contact with the discharge water through the slits present in the distributing element 13.

[0019] Alternatively, the active chemical compound can be in the form of a liquid or gel and contained in a

bottle applied to the distributing means in the known way, not shown, capable of releasing a controlled quantity of active substances with each flushing of discharge water.

[0020] The perfumed plastic element 20, suitable for releasing perfumed and/or deodorant volatile substances into the air, can be removably applied to the framework 11 and in particular to the anchoring element 12 (figure 1) or to the distributing element 13 (figure 4).

[0021] The perfumed plastic element 20 comprises at least one front wall 21 and at least a hooking seat 22 having a form complementary to a corresponding portion of the framework 11.

[0022] In a first embodiment of the perfuming hygiene device for sanitary fixtures 10, object of the present invention, shown in figures 1-3, the perfumed plastic element 20 also comprises a hooking wall 23 extending orthogonally from the front wall 21 and carrying the hooking seat 22, which in this case is "C"-shaped. The "C"-shaped hooking seat 22 can be removably fitted onto the anchoring element 12.

[0023] In a second embodiment of the perfuming hygiene device for sanitary fixtures 10, object of the present invention, shown in figures 4-6, the perfumed plastic element 20 is inserted in a notched seat 24 situated in the front of the distributing element 13, in which in particular the notched seat 24 has a form complementary to the perfumed plastic element 20, in the example drop-shaped, but which can be produced in any form and dimension.

[0024] For a further or alternative fixing of the perfumed plastic element 20 to the distributing element 13, the perfumed plastic element 20 comprises three hooking seats 22, consisting of a cylindrical seat, distributed along the perimeter of the front wall 21.

[0025] The cylindrical hooking seats 22 are engaged with the same number of complementary fixing pegs 26, protruding inside the distributing element 13 and distributed around the notched seat 24.

[0026] According to a further embodiment, not shown, the perfumed plastic element 20 can also be applied to the distributing element 13 only, through the cylindrical seats 22 engaged with corresponding pegs 21, or analogous fixing means, without necessarily requiring the presence of a coupling with a seat having a form complementary to the same perfumed plastic element 20. In this embodiment, the perfumed plastic element 20 can be constrained to the distributing element 13 either externally or internally with respect to the same, in which case the distribution of the perfumed substances should be guaranteed by the presence of slits or openings in the distributing element 13.

[0027] In the perfuming hygiene device for sanitary fixtures according to the present invention, the perfumed plastic element can be advantageously applied to and removed from the framework at any moment during the life of the product.

[0028] Both the form of the perfuming element and the perfume can also be selected with great flexibility.

[0029] The perfuming hygiene device for sanitary fixtures according to the present invention has the advantage of allowing a rapid and simple assembly and dismantling of the perfumed component.

[0030] The perfumed component can be advantageously added in a subsequent moment, removed before the end of the useful life of the device or substituted with the same or a different perfuming and colour.

[0031] Finally, the perfuming hygiene device for sanitary fixtures thus conceived can obviously undergo numerous modifications and variants, all included in the scope of the invention; furthermore all the details can be substituted by technically equivalent elements. In practice, the materials used, as also the dimensions, can vary according to technical requirements.

Claims

1. A perfuming hygiene device for sanitary fixtures, of the type suitable for being installed at a perimetric edge of a sanitary basin or WC, comprising a framework made of a plastic material (11), which comprises at least one distributing element (13) of active chemical compounds, liquid or solid, of the detergent, disinfecting, deodorant type or other types, suitable for releasing a certain quantity of said active compounds into the flow of discharge water, and an anchoring element (12) to the edge, **characterized in that** it comprises at least one perfumed plastic element (20) removably applicable to said framework (11), suitable for releasing perfumed and/or deodorant volatile substances into the air, comprising at least one front wall (21).
2. The hygiene device according to claim 1, **characterized in that** said perfumed plastic element (20) comprises at least one hooking seat (22) having a form complementary to a corresponding portion of said framework (11).
3. The hygiene device according to claim 1 or 2, **characterized in that** said perfumed plastic element (20) can be removably applied to said anchoring element (12).
4. The hygiene device according to claim 3, **characterized in that** said perfumed plastic element (20) comprises a hooking wall (23) which extends orthogonally with respect to said front wall (21), carrying said "C"-shaped hooking seat (22).
5. The hygiene device according to claim 1 or 2, **characterized in that** said perfumed plastic element (20) can be removably applied to said distributing element (13).
6. The hygiene device according to claim 5, **characterized in that** said perfumed plastic element (20) can be removably applied to said distributing element (13).

terized in that said perfumed plastic element (20) is inserted in a notched seat (24) situated in the front of said distributing element.

7. The hygiene device according to claim 6, **characterized in that** said notched seat (24) has a form which is complementary to said perfumed plastic element (20). 5
8. The hygiene device according to any of the claims from 5 to 7, **characterized in that** said perfumed plastic element (20) comprises a plurality of hooking seats (22) distributed along the perimeter of said front wall (21) which can be engaged with the same number of complementary fixing elements (26), protruding inside the distributing element (13). 10 15
9. The hygiene device according to claim 8, **characterized in that** said hooking seats (22) are cylindrical seats and that said complementary fixing elements (26) are pegs. 20
10. The hygiene device according to any of the previous claims, **characterized in that** said perfumed plastic element is made of EVA. 25

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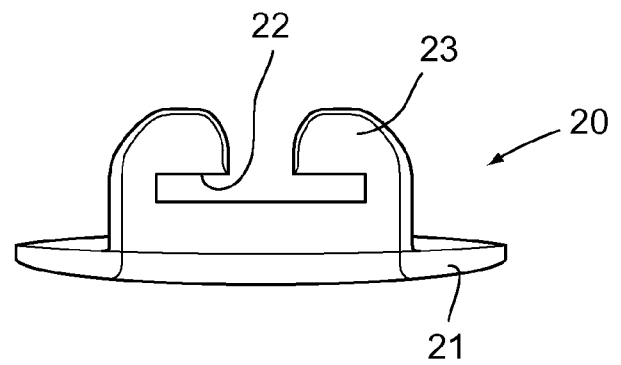
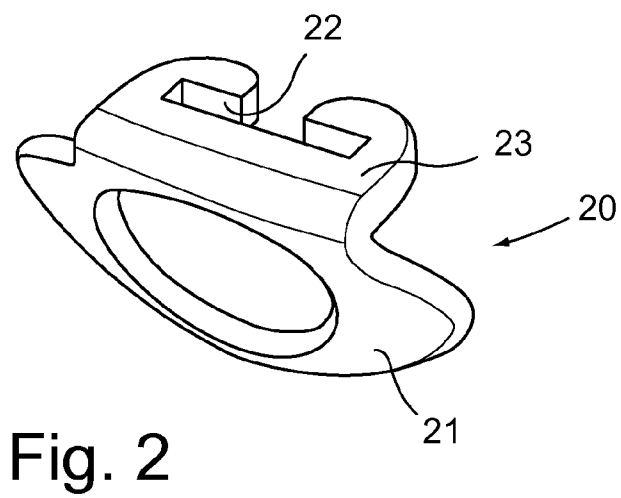
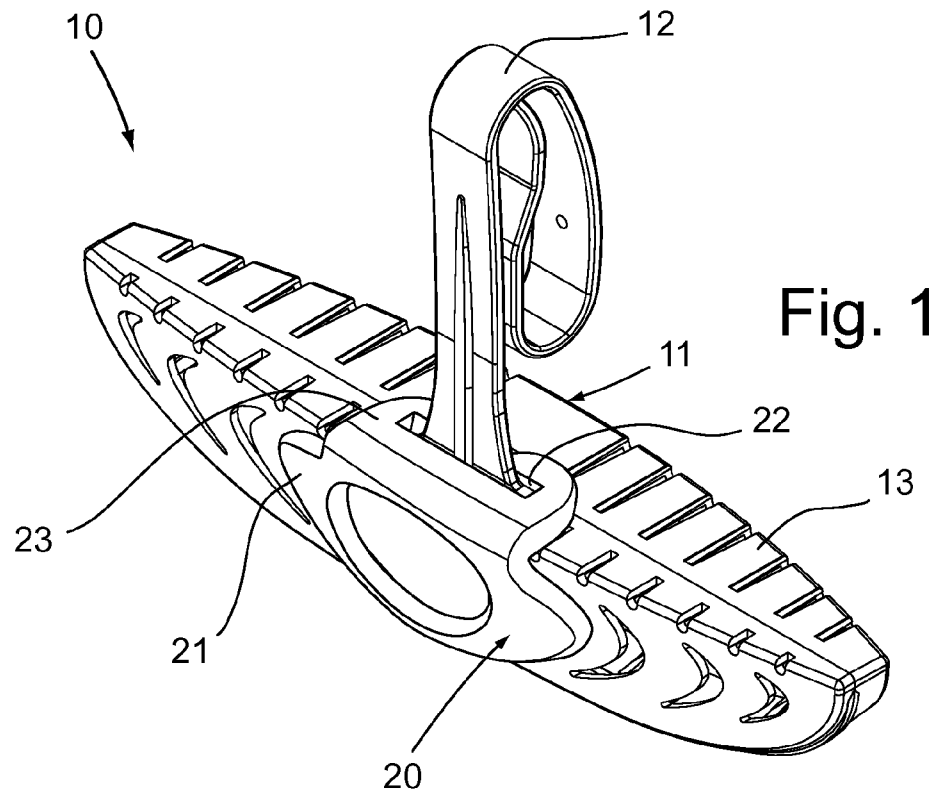
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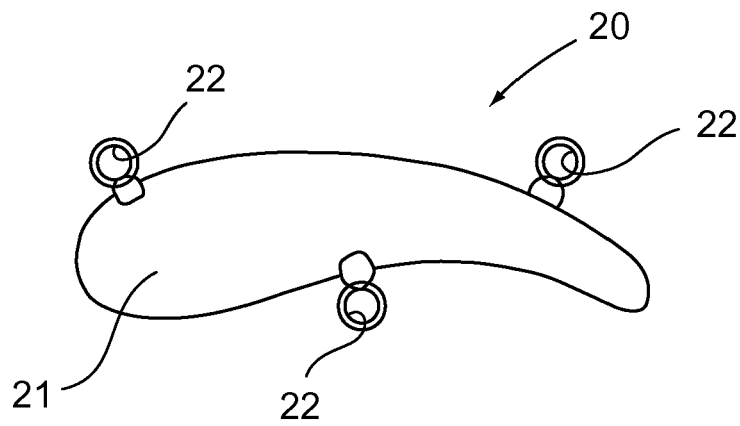
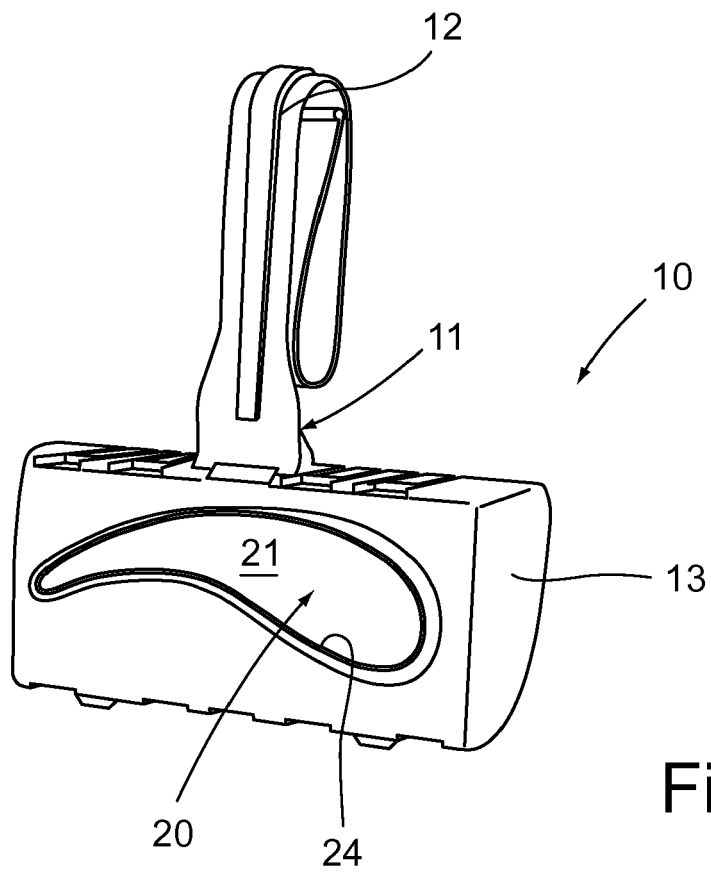
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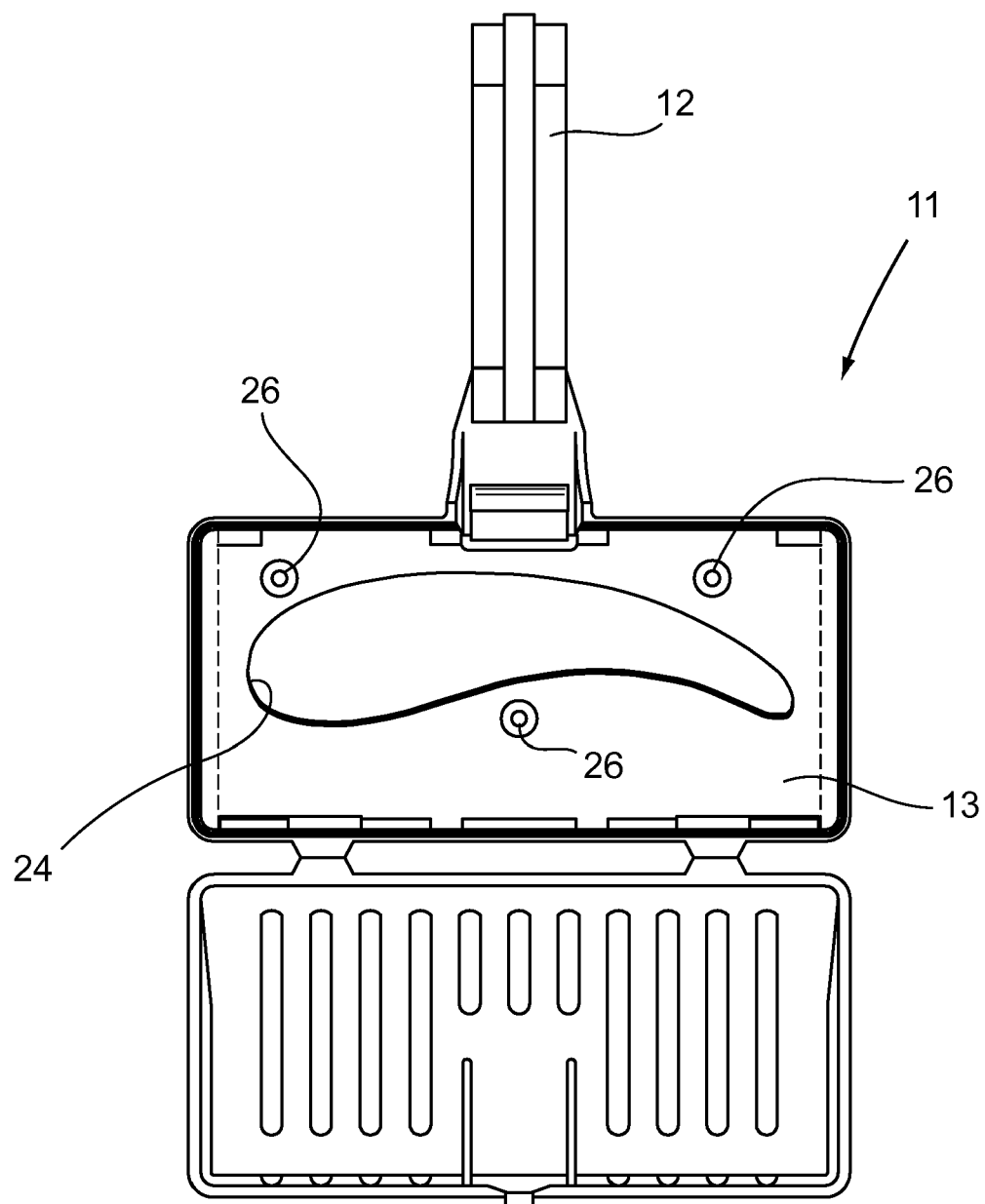


Fig. 6