

**CLAIMS:**

1. A toilet bowl treatment composition dispensing device, comprising a hanger and a treatment composition block, the hanger comprising:
  - an elongate body portion having a first end and a second end;
  - a stand off portion;
  - a hook portion at the first end for suspending the hanger from a rim of a toilet bowl; and
  - a treatment composition block supporting portion at the second end, the treatment composition block supporting portion having at least one finger projecting from a surface of the supporting portion;wherein the hook portion and the at least one finger project from opposite longitudinal sides of the body portion, and the treatment composition block is retained on the supporting portion by said at least one finger inserted into a surface of said treatment composition block wherein, in use, said supporting portion is behind said treatment composition block.
2. A dispensing device as claimed in claim 1, comprising a plurality of fingers each extending from the supporting portion in the same direction.
3. A dispensing device as claimed in claim 1 or 2, wherein there are two fingers on the supporting portion.
4. A dispensing device as claimed in any one previous claim, wherein the said at least one finger is located on a part of the support portion having an enlarged cross section.
5. A dispensing device as claimed in any one previous claim, wherein the at least one finger is inserted into a surface of the treatment composition block whereby a surface of the supporting portion from which the at least one finger extends abuts the surface of the treatment composition block into which the finger is inserted.
6. A dispensing device as claimed in claim 5, wherein the abutting surfaces are planar.
7. A dispensing device as claimed in any one previous claim, wherein the block is cylindrical.

8. A dispensing device as claimed in any one previous claim, wherein the block has two opposing faces that have been subjected to a cutting process and the at least one finger is inserted into a surface of the block other than said opposing faces.
9. A dispensing device as claimed in any one preceding claim, wherein the at least one finger has at least a portion having a surface that is serrated, barbed or roughened to improve grip.
10. A dispensing device as claimed in any one preceding claim, wherein the at least one finger has a length that is at least 20% of the depth of the block and no more than 100%.
11. A dispensing device as claimed in claim 10 wherein the at least one finger has a length which is between 50 to 95 of the depth of the block.
12. A dispensing device as claimed in claim 11 wherein the at least one finger has a length which is between 60 to 85% of the depth of the block.
13. A dispensing device as claimed in claim 12 wherein the at least one finger has a length which is between 70 to 80% of the depth of the block.
14. A dispensing device as claimed in any one preceding claim, wherein the treatment composition block is provided with a channel in the surface into which the supporting portion is inserted and the channel conforms to the profile of the supporting portion which overlaps said surface of the block.
15. A dispensing device as claimed in any one preceding claim, wherein the treatment composition block is an extruded block.
16. A dispensing device as claimed in claim 15, wherein the treatment composition block is a co- extruded block.
17. A dispensing device as claimed in any one preceding claim, wherein the treatment composition block comprises 20 to 80wt% of at least one surfactant, preferably including an

anionic surfactant, and optionally, one or more pigments or dyes, one or more additives acting as life extending or life shortening agents, one or more perfumes, and filler.

18. A dispensing device as claimed in claim 17, wherein the treatment composition block comprises 20 to 60wt% of at least one first surfactant and 3 to 20% of at least one second surfactant acting as a plasticizer.

19. A dispensing device as claimed in claim 17 or 18, wherein the treatment composition block comprises 20 to 60wt% of AOS (80%), preferably 25 to 40wt%, more preferably 28 to 35wt%.

20. A dispensing device as claimed in claim 17, 18 or 19, wherein the treatment composition block comprises 3 to 20wt% of SAS(92%), preferably 3 to 15wt%, more preferably 4 to 12wt%.

21. A method of manufacturing a toilet bowl treatment composition dispensing device comprising:

providing a hanger including, an elongate body portion having a first end and a second end, a stand off portion, a hook portion at the first end for suspending the hanger from a rim of said toilet bowl, and a treatment composition block supporting portion at the second end, the treatment composition block supporting portion having at least one finger for receiving a treatment composition block and projecting from the planar portion; the hook portion and the at least one finger project from opposite longitudinal sides of the body portion;

forming a treatment composition block; and

inserting said at least one finger into a surface of said treatment composition block until a surface of the supporting portion from which the at least one finger extends abuts the surface of the treatment composition block into which the finger is inserted and

wherein, in use, said supporting portion is behind said treatment composition block.

22. A method as claimed in claim 21, wherein the treatment composition block is formed by one of, an extrusion process, a tableting process and a hot melt process.

23. A method as claimed in claim 22 wherein the method comprises extruding the treatment composition and cutting into blocks.

24. A method as claimed in claim 23, wherein the extrusion process is a co-extrusion process and the block has at least two distinct portions having different compositions.
25. A method as claimed in any one of claims 21 to 24 wherein before inserting the at least one finger the block is subjected to a shaping process in a mould.
26. A method as claimed in any one of claims 21 to 25 wherein the method includes a step of wrapping the block in a water soluble film.
27. A method as claimed in any one of claims 21 to 26, wherein the at least one finger has a length that is at least 20% of the depth of the block and no more than 100%.
28. A method as claimed in claim 27, wherein the at least one finger has a length which is between 50 to 95% of the depth of the block.
29. A method as claimed in claim 28, wherein the at least one finger has a length which is between 60 to 85% of the depth of the block.
30. A method as claimed in claim 29, wherein the at least one finger has a length which is between 70 to 80% of the depth of the block.
31. A method substantially as hereinbefore described, with reference to and as illustrated, in Figure 1.
32. A dispensing device substantially as hereinbefore described, with reference to and as illustrated, in any one of Figures 2a, 2b, 3a, 3b, 5, 5b, 6c, 6d, 7 and 8.

engage and hold the substance. The substance to be released may be a gel, soap or crystalline salt, and may be extruded onto the skeleton.

EP-A-1287108 (WO 01/88078) discloses a cleansing device, including a skeleton for supporting a solid bar. The solid bar is transparent.

5           Thus there has been an historical move away from 'cageless' ITB devices and also 'cageless' ITC devices. Toilet blocks on hangers, in the absence of a cage, are no longer common as they have not been considered commercially desirable. Furthermore, with the advent of modern compositions including high levels of surfactants and new gel compositions, it has been considered that a cage was useful to prevent a messy appearance in the bowl as some compositions were liable to become mushy. It is not clear that the skilled person was in any doubt that useable compositions including the new materials were possible; however, there was a strong commercial driver to produce caged devices.

#### 15           SUMMARY OF THE INVENTION

The present invention provides various improvements to the field of cageless dispensing devices in particular, relating to the hanger design, the method of manufacture and the composition of the toilet block.

20           In an embodiment of the invention the block is produced by extruding the desired composition and inserting pins on the hanger directly into the block to support the extruded block on the hanger.

25           The invention provides a toilet bowl treatment composition dispensing device, comprising a hanger and a treatment composition block, the hanger comprising, an elongate body portion having a first end and a second end, a stand off portion, a hook portion at the first end for suspending the hanger from a rim of a toilet bowl, and a treatment composition block supporting portion at the second end, the treatment composition block supporting portion having at least one finger projecting from a surface of the supporting portion, wherein the hook portion and the at least one finger project from opposite longitudinal sides of the body portion, and the treatment composition block is retained on the supporting portion by said at least one finger inserted into a surface of said treatment composition block, wherein, in use, said supporting portion is behind said treatment composition block.

The treatment composition block may be an extruded block. The treatment composition block may be a co- extruded block.

5 The treatment composition block may comprise 20 to 80wt% of at least one surfactant, preferably including an anionic surfactant, and optionally, one or more pigments or dyes, one or more additives acting as life extending or life shortening agents, one or more perfumes, and filler.

The treatment composition block may comprise 20 to 60wt% of at least one first surfactant and 3 to 20% of at least one second surfactant acting as a plasticizer.

10 The treatment composition block may comprise the equivalent of 20 to 60wt% of AOS (80%), preferably 25 to 40wt%, more preferably 28 to 35wt%.

The treatment composition block may comprise the equivalent 3 to 20wt% of SAS (92%), preferably 3 to 15wt%, more preferably 4 to 12wt%.

15 The invention also provides a method of manufacturing a toilet bowl treatment composition dispensing device comprising: providing a hanger including, an elongate body portion having a first end and a second end, a stand-off portion, a hook portion at the first end for suspending the hanger from a rim of said toilet bowl, and a treatment composition block supporting portion at the second end, the treatment composition block supporting portion having at least one finger for receiving a treatment composition block and projecting from the planar portion; the hook portion and the at least one finger project from opposite longitudinal sides of the body portion; forming a treatment composition block; and inserting said at least one finger into a surface of said treatment composition block until a surface of the supporting portion from which the at least one finger extends abuts the surface of the treatment composition block into which the finger is inserted, and wherein, in use, said supporting portion is behind said treatment composition block.

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The treatment composition block may be formed by one of, an extrusion process, a tableting process and a hot melt process.