

AMENDED SPECIFICATION

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PATENT SPECIFICATION

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DRAWINGS ATTACHED

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COMPLETE SPECIFICATION

Improvements in or relating to Floor Waste Traps for Sanitary Fittings

5 I, HOE BOON LEONG of No. 25 Thomson Road, Singapore, Malaysia, Citizen of Malaysia, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

10 This invention relates to floor waste traps to receive waste water discharged from sanitary fittings, e.g., sinks, baths and lavatory pans, showers and also floor waste washing-water.

15 Known floor waste traps have an inlet member, a main body member, and an outlet member which are so formed that, in use, waste liquid can pass down the inlet member and up the main body member and thereafter downwardly through the outlet member. 20 When no liquid is passing into the inlet member, the liquid will normally lie in the trough of the trap up to the discharge level of the outlet of the body member, thereby forming a liquid seal between the inlet and outlet members.

25 Under certain conditions siphonage of the liquid seal tends to occur through the outlet member and the level of liquid in the trough will fall and the seal may even break down. To minimise this tendency an anti-siphon 30 pipe is often included in the trap. The present invention obviates the need for such a pipe.

35 According to the present invention, there is provided a floor waste trap comprising a downwardly disposed inlet and an outlet, which waste trap has a partition disposed in the body of said trap in a forward-rearward direction with respect to normal liquid flow

through the trap to divide said body into an upper chamber and a lower chamber, said partition extending from a lower extremity 40 forward of a downward projection of the rearward surface of the inlet to an upper extremity above the normal level of liquid in the outlet. The trap has a step or steps 45 therein, adjacent to and below the level of the liquid in the outlet.

In order to prevent any solid material blocking the outlet member a removable 50 hatch, covering a cleaning port in the trap, is provided, so that any blockage caused by material which cannot pass into either of the chambers can be relieved.

The forward inlet portion of the said lower chamber, is substantially the same cross-sectional size as the outlet of the trap and the 55 forward inlet portion of the said upper chamber is smaller in cross-section than said forward inlet portion of said lower chamber.

The body of the trap may be integral 60 with, or separate from but engageable with, inlet and outlet members. The body may be integral with either an inlet or an outlet member and engageable with separate outlet or 65 inlet member respectively. For instance, the trap of the invention may comprise an inlet member constituting a downwardly disposed inlet for the trap and a body member having an outlet and adapted to accommodate said 70 inlet member.

The invention will now be described by way of example with reference to the accompanying drawings.

In the drawings:—

Figure 1 is a cross-section through a main

body member integral with an inlet member and an outlet member providing a waste-liquid trap according to the invention;

Figure 2 is a plan view of the trap shown in Figure 1.

Figure 3 is a section on the line B—B of Figure 2;

Figure 4 is a section on the line C—C of Figure 2 to a slightly reduced scale and

Figure 5 is a section on the line D—D of Figure 2 also to a slightly reduced scale.

The trap is suitable for engagement indirectly with lavatory pans, and showers, and acts as a floor waste washing water and foul gas intercepting trap.

The trap, shown in the figures, has a main body member 1 which is formed integrally with an inlet and an outlet 3 which can be disposed as shown by the full or broken lines in Figure 1 by casting from iron, lead or other suitable metals or alloys, or moulding from appropriate thermoplastic materials or from any other suitable materials.

The main body member 1 is divided initially into an upper flow chamber 4 and a lower flow chamber 5 by a partition 6, which is disposed in a forward-rearward direction with respect to the normal liquid flow through the trap and extends from a lower extremity forward of a downward projection of the rearward surface of the inlet of the body member, the partition being spaced from the outlet 7 of the body member 1 and continuing upwards above the normal level, indicated by the broken line W.L. of the water in the trap. Both sides of the partition 6 are joined to, or are integral with, the main casing. The lower chamber 5 has substantially the same cross-sectional area, at its forward inlet portion 8 as the outlet member 3. The forward inlet portion of the upper chamber 4 has a smaller cross-sectional area than the cross-sectional area of inlet portion 8 of the lower chamber 5. Thus any solid material which would not pass through the outlet member is prevented from passing beyond the forward inlet portion 8 of the lower chamber 5. Solid material which has built up at the inlet 8 can be removed through a conventional removable hatch 9 covering a relief part in the trap.

The body member 1 has a step 10 therein

provided in the lower surface of the member and forward of the outlet 7 from the trap, said step being disposed below the upper end of the partition 6.

The inlet member 2 of the trap is, at its upper end, in the form of a socket and can be engaged with a lavatory pan in a conventional way to constitute a floor trap, whilst the end of the outlet member 3 can act as a male fitting (spigot) for the conventional joining of the outlet member to a discharge pipe.

WHAT I CLAIM IS:—

1. A floor waste trap comprising a downwardly disposed inlet and an outlet, which waste trap has a partition disposed in the body of said trap in a forward rearward direction with respect to normal liquid flow through the trap to divide said body into an upper chamber and a lower chamber, said partition extending from a lower extremity forward of a downward projection of the rearward surface of the inlet to an upper extremity above the normal level of liquid in the outlet; a step or steps therein adjacent to and below the level of the liquid in the outlet, and a cleaning port with a removable hatch disposed so that any blockage caused by material which cannot pass into either of the chambers can be relieved, wherein the forward inlet portion of the said lower chamber is substantially the same cross-sectional size as the outlet of the trap and the forward inlet portion of the said upper chamber is smaller in cross-section than the forward inlet portion of said lower chamber.

2. A waste trap as claimed in claim 1 comprising an inlet member constituting the downwardly disposed inlet for the trap and a body member having an outlet and adapted to accommodate said inlet member.

3. A floor waste trap substantially as described herein with reference to and as illustrated in Figures 1 to 5 of the accompanying drawings.

For the Applicant:
F. J. CLEVELAND & COMPANY,
Chartered Patent Agents,
Lincoln's Inn Chambers,
40/43, Chancery Lane, London, W.C.2.

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Figure 2 is a plan view of the trap shown in Figure 1.

Figure 3 is a section on the line B—B of Figure 2;

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Figure 5 is a section on the line D—D of Figure 2 also to a slightly reduced scale.

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2. A waste trap as claimed in claim 1 comprising an inlet member constituting the downwardly disposed inlet for the trap and a body member having an outlet and adapted to accommodate said inlet member.

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