

PATENT SPECIFICATION

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- (21) Application No. 18525/73 (22) Filed 17 April 1973 (19)
 (23) Complete Specification filed 17 April 1974
 (44) Complete Specification published 8 Dec. 1976
 (51) INT. CL.³ E03D 1/00
 (52) Index at acceptance
 EIC 22X8



(54) REDUCING WATER CONSUMPTION IN WATER CLOSETS

(71) I, CH'NG SEOW KONG, a Singapore Citizen, of 31 Sennett Terrace, Singapore, 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:—

The present invention relates to apparatus for the reduction of water consumption in water closets.

According to the present invention there is provided a device for insertion into a cistern of a water closet to reduce the volume of water discharged from the cistern on flushing, the device comprising two parallel elongate lateral members linked by a cross-piece asymmetrically positioned with respect to the longitudinal extension of the lateral members, the members each having, at each longitudinal end thereof, extensions in the direction perpendicular to the plane defined by their directions of elongation and the cross-piece, these extensions being connected by portions of the lateral members having relatively little depth in the said perpendicular direction in comparison with the extensions.

A device in accordance with the present invention will now be more fully described by way of example with reference to the accompanying drawings, wherein:—

Figure 1 is a perspective view of the apparatus;

Figure 2 is a plan view of a cistern incorporating the device.

The device shown in Figure 1 has two lateral arms 1 and 2 with substantially parallel longitudinal axes. A cross-piece 3, of greater height than the lateral arms connects the arms, a vertical opening 4 being defined to allow unimpeded movement of the ball-cock arm 5. The shape of the structure is designed to displace a desired volume below the predetermined water level of the conventional cistern whilst not interfering with the conventional mechanical operation of the cistern parts, the lateral arms 1 and 2 are of such a length and the end block 6 of the lateral arm 2 being shaped to allow the ball-cock 7 to rise and fall unimpeded, for

example, the device is fastened to the cistern wall by brackets 8.

In a cistern where the predetermined water level provides a capacity of two gallons of water before insertion of the apparatus, the preferred volume of the apparatus below the water level is three quarters of a gallon. With the device inserted the amount of water discharged by flushing will be substantially $1\frac{1}{4}$ gallons, thus reducing the amount of water used whilst the loss of flushing efficiency is nil or negligible since the pressure head of water in the cistern is unaffected.

In a cistern of two gallon capacity the height of the lateral arms is 7 inches and the total height of the cross-piece is $9\frac{1}{8}$ inches, the overall length of the lateral arm 1 being $13\frac{7}{16}$ inches, the overall length of the lateral arm 2 being $13\frac{3}{16}$ inches, the overall length of the cross-piece being $6\frac{1}{8}$ inches, the other dimensions of the solid parts of the apparatus are designed to provide a volume of three quarters of a gallon below the predetermined water level of the system. This volume can easily be varied by addition to or subtraction from the solid parts of the apparatus.

The apparatus described is of a unitary construction, but it can also comprise a series of connected blocks.

Attention is directed to the claims of Patent Application No. 18215/76, which has been divided from this Application, Serial No. 1,457,752.

WHAT I CLAIM IS:—

1. A device for insertion into a cistern of a water closet to reduce the volume of water discharged from the cistern on flushing, the device comprising two parallel elongate lateral members linked by a cross-piece asymmetrically positioned with respect to the longitudinal extension of the lateral members, the members each having, at each longitudinal end thereof, extensions in the direction perpendicular to the plane defined by their directions of elongation and the cross-piece, these extensions being connected by portions of the lateral members hav-

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ing relatively little depth in the said perpendicular direction in comparison with the extensions. reference to Figure 1 of the accompanying drawings.

2. A device as claimed in claim 1 and
5 substantially as hereinbefore described with

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Agents for the Applicant.

Printed for Her Majesty's Stationery Office by Burgess & Son (Abingdon), Ltd.—1976.
Published at The Patent Office, 25 Southampton Buildings, London, WC2A 1AY
from which copies may be obtained.



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