

STOP WATER VALVE PIECES OF THE WATER BOX OF A
CLOSESTOOL

Field of the Invention

5 The present invention is related to valve pieces in the water box of a closestool, especially, to stop water valve piece containing an internal valve piece and an external valve piece by which a two stage drain water construction is attained.

Background of the Invention

10 In general, the closestool waste much water in the house. In order to save water the closestool is an important object. For the present closestool, generally the control means for regulating the volume of drain water is not installed in the closestool. People usually put bottles or bricks in the closestool for saving water, however, this induces the disadvantages that
15 the volume of saving water is smaller and the closestool will not be cleaned completely. Therefore, there are many saving water means in the market, generally, the process is divided to several stages and a drain mean is installed for controlling drain volume, but usually the architecture of said means is complex and the cost is high. Another, the home
20 closestool is simply constructed and people doesn't like to alternate the water box for installing the control means, thus the principle of the control mean is based on the original water box.

Summary of the Invention

25 Accordingly, the object of the present invention is to improve the construction of the stop water valve piece for adapting all kinds of water box and the user is easily to install the control means. By the function of two stage drain water the object of saving water is attained.

30 Another object of the present invention is to control the volume of drain water by the delay and restored functions of the present invention, however, the control means is only constructed by one internal valve piece and a external valve piece so to prevent the need in the complexity

of the control means.

Other feature and advantage of the present invention will become apparent from the following description of the preferred embodiments of the present invention which refers to the accompanying drawings.

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Description of the Drawings

Fig. 1 is a schematic view in relation to the construction and arrangement of the present invention.

Fig. 2 is the elevational view of the present invention.

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Fig. 3 is the side view of the present invention.

Figs. 4 and 5 is the schematic view in relation to the action of the present invention.

Fig. 6 is the elevational view of Fig. 4.

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Fig. 7 shows the principle of the resilient portion of the present invention.

Fig. 8 is the schematic view shown the linkage construction between the valve pieces and the internal of the water box.

Summary of the Numbers in Figures

A	stop water valve piece
1	external valve piece
2	internal valve piece
22	nose portion
3	drain pipe
5	connecting pipe
B	fixing axle
11	nose portion
21	resilient portion
23	axle base
4	pull rope
6	spanner

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Detail Description of the Preferred Embodiment

Shown in Figs. 1 to 3 are the schematic perspective, elevation, and side views of the construction of the present invention. As shown in the figures, the stop water valve pieces of the present invention are installed on the opening of the drain pipe 3 in the water box of a closetool. The stop water valve piece A is combined with a fixed axle B by an axle base in the rear thereof.

The stop water valve piece A comprises an internal valve piece 2 and an external valve piece 1, in which the external valve piece 1 is of circular shape inside the circular hole of which is installed with a circular flange for engaging with said internal valve piece 2. The rear side of the internal valve piece 2 is installed with a resilient portion 21 forming by gelatinous material so that the internal valve piece has the function of delaying the reset action (which will be described in the following).

The open end of the internal valve piece 2 is opposite to the external valve piece 1, and nose portions 22 and 21 are installed on the internal valve piece 2 and external portion valve piece 1.

Shown in the Fig. 8 is a schematic view of the present invention, it shows the internal structure within the water box of the present invention. As shown in the figure, the stop water valve pieces are used to seal the three openings of the drain pipe in the internal of the water box. The nose portions 22 and 21 installed on the internal valve piece 2 and external portion valve piece 1 and the connecting rod are pulled by each other by using a short pull rope 42 and a long pull rope 41, and the connecting rod is connected with a two stage spanner 6. Basically, in the first stage the spanner is rotated by the user to open the internal valve piece 2 as shown in the Figs. 2 and 6, thus, the drain rate of the water box is smaller, and then in the second stage the spanner is rotated continuously by the user, the internal valve piece 2 is rotated to a position to engage in the internal circular flange of the external valve piece 1 so to open the external valve piece 1 as shown in the Fig. 5, therefore, the drain rate become more

larger. By the two stage draining process, the user can regulate the drain rate properly, thus, water may not be wasted.

Fig. 7 shows the principle of the resilient portion of the present invention. As shown in the figure, the resilient portion is formed by gelatinous material of high flexibility. If a external pressure P is applied on the gelatinous material C, the opposite body D will be deformed. If the external pressure P is released, the opposite body will be restored to the original shape gradually (after a few minutes). Just in the moment that the opposite body is restored to its original shape completely, if it is put on the plane, the body will rebound as indicated by "F" in Fig. 7, which will induce to properly engage with the inner flange of the external valve piece 1. Form another aspect, after opening the valve piece in the first stage and before opening in the second stage, there are a delay time of several seconds for the internal valve piece 2 to drain away the water from the closetool until the body restores to its original shape or the external valve piece is open by the external valve piece 1. By the internal valve piece 2, external valve piece 1 and the resilient 21 of the present invention described hereinbefore, the effect of two stages drain water is achieved with said simple construction. Although the present invention has been described in relation to a particular embodiments thereof, many other variations and modifications and other useages will become more apparent to those skilled in the art. Therefore, the present invention is not limited by the specific disclosure herein.



What Is Claimed Is:

5 1. Stop water valve pieces of a water box of a closetool comprising an internal valve piece and an external valve piece, in which the external valve piece is of circular shape inside the circular hole of which a circular flange is installed for engaging with said internal valve piece, the rear side of the internal valve piece is installed with a resilient portion formed by gelatinous material so that the internal valve piece has the function for delaying the reset action, the open end of the internal valve piece is opposite to the external valve piece, and nose portions are 10 installed on the internal valve piece and external portion valve piece.

2. The stop water valve pieces of a water box of a closetool as claimed in claim 1, wherein the nose portions of the internal and external valve piece is connected by using a short pull rope and a long pull rope. □ 15