March 4, 1969 J. E. SCHELL 3,431,004

TOILET SEAT FASTENER

Filed June 9, 1967

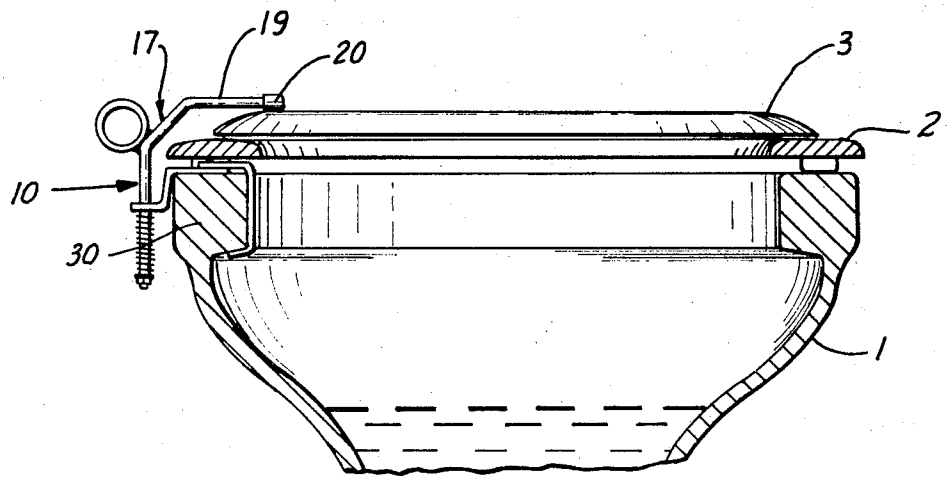


Fig. 1

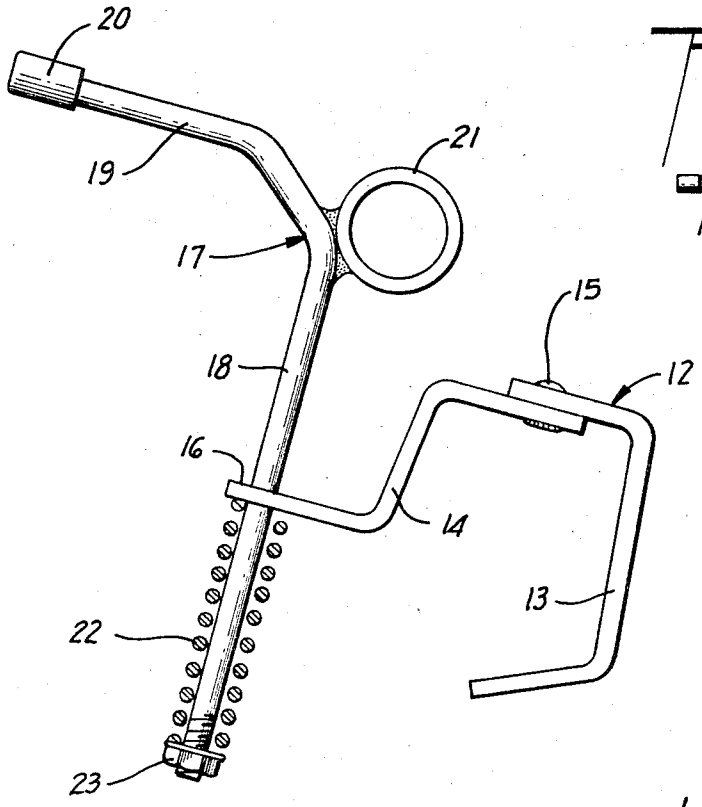


Fig. 3

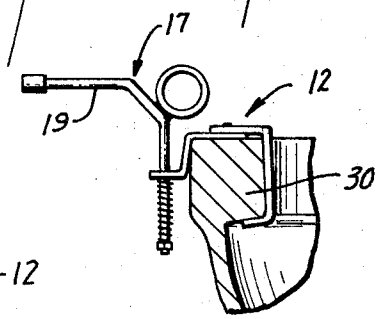


Fig. 2

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TOILET SEAT FASTENER

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Int. Cl. A47k *13/24*; B65d *45/20*

ABSTRACT OF THE DISCLOSURE

A toilet lid securing device having a rigid clamp portion for attaching to a toilet bowl flange and an arm piece rotatingly mounted on the rigid clamp outside of the toilet bowl. A spring is mounted on the arm piece to bias the arm against the toilet lid in its closed position. A finger ring is rigidly affixed to the arm piece to enable a person to rotate the arm piece out of engagement with the toilet lid.

BACKGROUND OF THE INVENTION

Field of the invention

This invention is related to clamp securing devices and more particularly to devices for securing toilet lids.

Description of the prior art

Ever since the advent of the water closet toilet, small children have been inclined to play in the water standing in the toilet bowl. This is, of course, unsanitary and the cause of many plumbing stoppage problems. It is also dangerous. There are known cases of small children falling head first into toilet bowls and drowning because of their inability to remove themselves from such a predicament.

Various devices have been designed for holding the toilet seat and lid closed to prevent children from playing in the toilet bowl. U.S. Patent 3,024,472 discloses a locking post device. U.S. Patent 3,048,854 discloses a strap device. U.S. Patent 3,056,972 shows an adjustable arm post clamp. U.S. Patent 3,116,527 shows a sliding clip arrangement. Although these devices perform the job of holding the toilet lid closed, they present some problems. They are not quickly and easily releasable and some are quite unsightly.

SUMMARY OF THE INVENTION

The present invention is an easy to use spring clamp device. It is clamped to the toilet bowl by a rigid clamp. A rotatable arm is resiliently attached to the rigid clamp. An adult may easily rotate the arm into or out of engagement with the toilet lid. However, a small child cannot move the arm once it is engaged. Thus, the invention combines the safety feature of any toilet lid clamp with ease of operation in an economically made device.

BRIEF DESCRIPTION OF THE DRAWING

FIGURE 1 is an elevation in partial section showing an embodiment of the invention installed on a toilet engaging the toilet lid;

FIGURE 2 is a fragmentary sectional elevation showing the embodiment of FIGURE 1 disengaged from the toilet lid; and

FIGURE 3 is an enlarged detail drawing of the embodiment of the invention shown in FIGURES 1 and 2.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to FIGURE 1, the toilet lid fastener of the invention, designated generally at **10**, is shown attached to a toilet bowl **1** and engaging the toilet lid **2** and seat **3** to prevent opening thereof by small children.

A full understanding of fastener **10** may be attained by

referring to FIGURE 3. A rigid strap clamp **12** is shaped to engage the inner flange of a toilet bowl. In the embodiment shown clamp **12** is made of two portions **13** and **14** joined by connection means **15**. Connection means **15** may be a rivet, screw, or other suitable means. Portions **13** and **14** may be assembled in position on the toilet bowl and then connected by connection means **15** for positive attachment. It may be appreciated that clamp **12** may be made from one piece in which case it will be dependent on resiliency to clamp to the toilet bowl.

The end of clamp portion **14** on the exterior of the toilet bowl lies in a generally horizontal plane. A vertical hole is provided at **16** in which a rotating arm **17** is slidingly inserted. Arm **17** has a shank portion **18** and a cantilevered engaging portion **19** and may be made by bending a steel rod to the configuration shown so that shank portion **18** and engaging portion **19** are generally at right angles to each other. A rubber tip **20** is slipped over the end of portion **19** and lift ring **21** welded near the upper end of portion **18**. The function of these will be subsequently explained.

A helically wound spring **22** surrounds the lower end of shank portion **18**. Spring **22** is held in position by the lower side of clamp portion **14** and a nut and washer arrangement **23** screwed to the end of shank portion **18**. Thus, arm **17** is biased against upward movement relative to clamp portion **14** by spring **22**.

To better understand the use of the invention, reference is also made to FIGURE 2. Strap clamp **12** is attached to toilet bowl flange **30** as previously described. Arm **17** is shown in its disengaged position, portion **19** extending outwardly of toilet bowl flange **30**. The toilet seat and lid are lowered into closed position as shown in FIGURE 1. By placing a finger into lift ring **21**, arm **17** may be forced upwardly against spring **22** and rotated to the position shown in FIGURE 1, arm portion **19** engaging toilet lid **3**. Rubber tip **20** prevents scratching the surface of lid **3**. Spring **22** is selected to exert a force that may be overcome by adults but defies movement of arm **17** by small children. Thus, it can be seen how the invention blocks children's access to the toilet bowl, yet is easily and quickly operable by adults to allow raising toilet seat **2** and lid **3**.

Although only a single preferred embodiment of the invention has been described variations thereof may be easily attained by one skilled in the art without departing from the spirit of the invention and it is intended that the scope of the invention be limited only by the claims which follow. Although the claims may be presented in indented format to facilitate reading and understanding of the claims, such indented format is not to be construed as a structural or functional limitation of the elements or steps recited in such claims.

I claim:

1. A device for securing a toilet lid in closed position comprising:

a rigid clamp means for attaching said device to the flange of a toilet bowl, said clamp means having a generally vertical hole therethrough outside of said toilet bowl,

an engagement arm slidingly positioned in said vertical hole of said clamp means, said engagement arm having a shank portion and engagement portion and being rotatable about the axis of said shank portion to alternately move said engagement portion into or out of engagement with said toilet lid; and

spring means cooperating between said clamp means and said engagement arm to bias said engagement arm against disengagement from said toilet lid.

2. The combination of claim **1**, and

lifting means attached to said engagement arm to over-

come said bias to allow disengagement of said arm from said toilet lid.

3. The device of claim 1 in which said clamp means has a first portion and a second portion connected by connection means, said first portion engaging the inner lip of said toilet bowl flange, said second portion containing said generally vertical hole.

4. The device of claim 1 in which said spring means surrounds said shank portion of said engagement arm and is retained by said clamp means and retaining means on said shank portion.

References Cited

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24—81, 263; 4—253