Aug. 8, 1944. A. JACOBS 2,355,378

DETACHABLE TOILET SEAT AND COVER

Filed July 8, 1942

Fig. 1

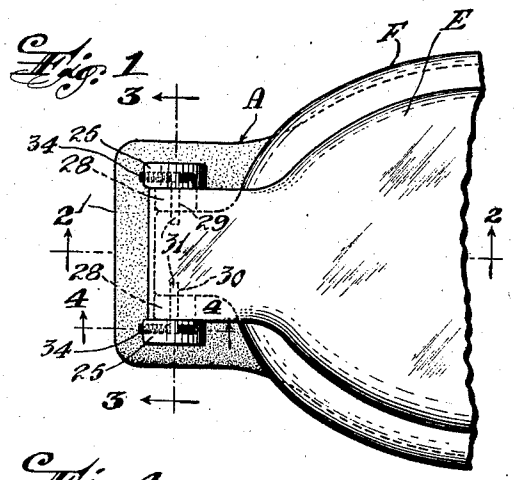


Fig. 4

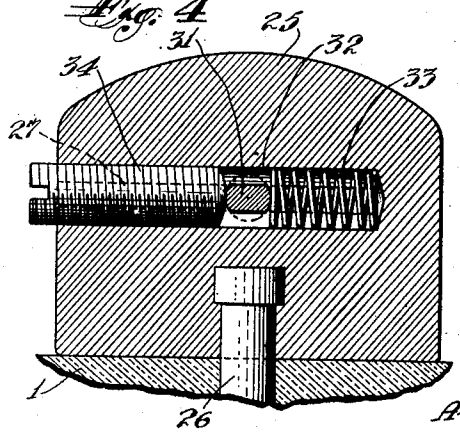


Fig. 3

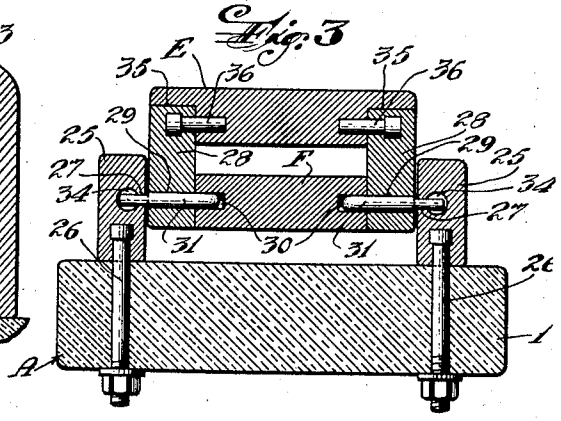
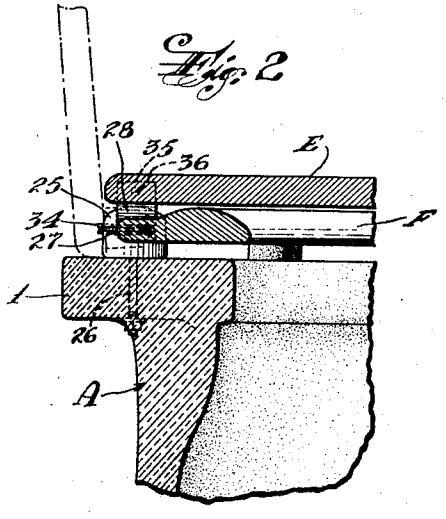


Fig. 2



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DETACHABLE TOILET SEAT AND COVER

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3 Claims. (Cl. 4—234)

It is the general practice to attach toilet seats and covers to water closet bowls, tanks or other supports in such a manner that considerable effort and time is required, even by a skilled mechanic, to remove the seats or covers for replacement, cleaning or repairs; and frequently the attempt to remove the seat or cover results in serious damage to them or to their mountings.

Also, the usual toilet seat and cover mountings include expensive metal parts, and these parts are exposed so that they quickly become corroded, unsightly and unsanitary, and it is difficult to clean them, especially at the crevices and corners formed by the junctures of the parts.

Therefore a prime object of my invention is to provide a novel and improved removable or detachable toilet seat and cover which can be easily and quickly attached to and removed from a bowl, tank or other support, which shall be devoid of metal parts or include only a minimum of metal, and wherein all hinged connections shall be concealed so that the structure shall be pleasing in appearance and easy to repair or replace and to maintain in sanitary condition.

Present toilet seat and cover hinges usually include a pair of metal standards or posts having a hinge rod mounted therein to which both the seat and the cover are attached by metal brackets or arms. This structure is expensive, hard to keep clean and makes removal of the seat or cover difficult and impractical.

Some further objects of my invention are to provide a toilet seat and cover which shall embody a novel and improved simple and inexpensive hinged connection between the bowl or other support and the seat and cover which shall be devoid of brackets and hinge rods and the consequent disadvantages; and to provide such a hinged connection which can be adjusted to facilitate mounting of the seat or cover in proper relation to the bowl or other support.

Other objects, advantages and results will be brought out by the following description in conjunction with the accompanying drawing in which

Figure 1 is a top plan view of a toilet seat and cover hingedly connected to a toilet bowl in accordance with my invention.

Figure 2 is a vertical longitudinal sectional view on the line 2—2 of Figure 1.

Figure 3 is an enlarged transverse vertical sectional view on the line 3—3 of Figure 1.

Figure 4 is an enlarged vertical longitudinal sectional view on the line 4—4 of Figure 1.

Specifically describing the invention, the reference character A designates a toilet bowl of a standard design which has the usual horizontal flat portion 1 projecting rearwardly from the rim of the bowl and serving as a mounting for the hinged connection between the bowl and the seat B and cover C. A pair of hinge standards 25 project upwardly from the portion 1 of the bowl in spaced opposed relation to each other; and preferably these standards are separably connected to the projecting portion 1 of the bowl A by bolts 26, in the usual manner, although they may be made integral with the bowl if desired.

Each standard has a slot 27 that opens through the inner face of the standard that is in opposed relation to the corresponding face of the other standard, and said slots also open through the rear edges of the respective standards. The cover E has lugs 28 corresponding with the lugs 4 and each lug has a hinge opening 29 therethrough in axial alinement with the opening in the other lug. The seat F has a hinge socket 30 in each of opposite edges thereof to be brought into alinement with one of the hinge openings 29 of the cover. A hinge pin 31 passes through each of the hinge openings 29 and into the corresponding hinge socket 30 and has one end located in the slot 27 of the corresponding standard 25 so that the hinge pins may be moved laterally longitudinally of the respective slots to permit adjustment of the cover and seat relative to the bowl.

For holding the hinge pins in adjusted positions, or for preventing movement of the pins in the slots 27, a recess 32 is formed in each standard in communication with the corresponding slot 27 so that the end of the corresponding hinge pin enters said recess; and a compression spring 33 is located at the inner end of said recess at one side of the corresponding hinge pin, while a set screw 34 is threaded into the outer end of the recess at the opposite side of the hinge pin. The hinge pin is thus abutted at opposite sides by the spring 33 and the screw 34 and by moving the screw longitudinally into or out of the recess, the hinge pin may be adjusted longitudinally of the corresponding slot 20.

The operation of this form of the invention otherwise is the same as that illustrated in Figures 1 to 5 inclusive.

Preferably the lugs 28 are separably attached to the cover E, and for this purpose the cover may have notches 35 in its edges in which the lugs are seated, and pins or the like 36 may be provided for fastening the lugs in the recesses.

Wherever possible the use of metal or other corrodible materials is avoided and it will be observed that the hinge connections are concealed

and protected from accumulations of water and dirt. Furthermore, the seat and cover can be easily and quickly detached from the bowl and from each other. Accordingly the invention provides a structure which is pleasing in appearance, and which can be easily kept in clean and sanitary condition.

It will be understood that the invention contemplates the reversal of certain parts; for example, the pins 31 might be mounted in the standards instead of in the seat and cover.

Other modifications and changes in the details of structure of the invention will occur to those skilled in the art as within the spirit and scope of the invention.

Having thus described my invention, what I claim is:

1. For connecting a toilet seat and cover therefor to a toilet bowl, a pair of standards, spaced lugs projecting from the underside of the cover, a reduced extension on the seat fitting between said lugs, and a hinge pin for each standard, each lug and said extension on said seat having a recess to register with the recess in the other part, one of said hinge pins being longitudinally slidable into and out of said registering openings, and means mounting each hinge pin in one of said standards such as to permit removal of said pin from said standard and to prevent said longitudinal movement of the pins when they are connected to the corresponding standards, whereby the cover and seat can be connected to and disconnected from each other and the standards by mounting and dismounting said pins on and from said standards and sliding said pins into and out of said recesses respectively.

2. For connecting a toilet seat and a cover therefor to a toilet bowl, a pair of standards each having a slot, spaced lugs projecting from the underside of said cover, a reduced extension on said seat fitting between said lugs, said lugs and said extension having aligned recesses, two hinge elements each connecting one of said standards to one of said lugs and also connecting said extension on the seat to one lug, each hinge element comprising a pin having one end seated in said recess of one lug and one of said recesses in said seat extension, while its other end is disposed in said slot of the corresponding standard for lateral movement of the pin longitudinally of the slot, and adjustable means for holding said pins against movement in said slots.

3. The structure set forth in claim 2 wherein said adjustable means for holding said pins against movement in said slots comprises a compression spring and a screw in each standard abutting opposite sides of the corresponding pin for holding the pin against movement in the corresponding slot.

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