May 19, 1942. H. C. LESLIE 2,283,892

WATER CLOSET SEAT

Original Filed Sept. 9, 1938

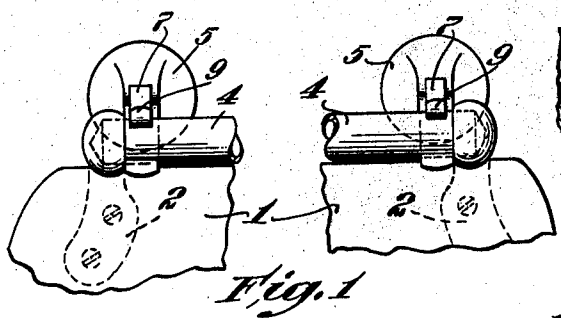


Fig. 1

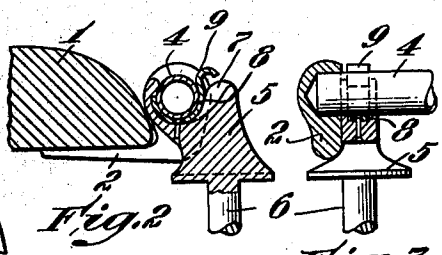


Fig. 2

Fig. 3

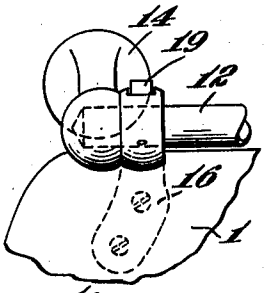


Fig. 4

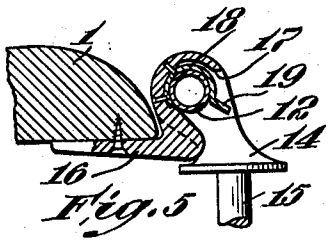


Fig. 5

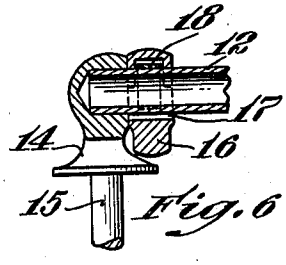


Fig. 6

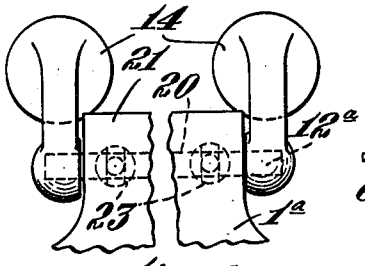


Fig. 7

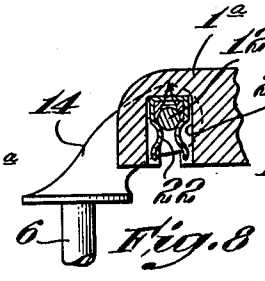


Fig. 8

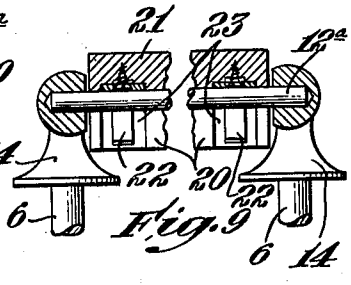


Fig. 9

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UNITED STATES PATENT OFFICE

2,283,892

WATER CLOSET SEAT

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Original application September 9, 1938, Serial No. 229,077. Divided and this application October 16, 1940, Serial No. 361,411

3 Claims. (Cl. 4—236)

This invention relates to an improvement in water closet seats, with or without covers, which are detachable from the bowl, tank, wall or other supporting structure, the present application being a division of my copending application Serial No. 229,077, filed September 9, 1938, now United States Patent No. 2,240,220, granted April 29, 1941.

Heretofore it has been the general practice to mount water closet seats in such manner that they can only be removed after considerable effort, even by a plumber or other mechanic. Usually such removal involves the dismembering and sometimes the destruction of the mountings on which the seat is pivotally supported.

The primary object of this invention is to provide a readily detachable water closet seat and more specifically to provide mountings constructed so as to facilitate the removal of a seat, with or without a cover, so that it can be quickly removed and replaced when desired.

Another object is to provide mountings which may be applied not only to bowls, tanks or other supports of conventional design or construction, but also to various types of seats, with or without covers.

Further objects relate to various features of construction and will be apparent from a consideration of the following description and the accompanying drawing, wherein

Fig. 1 is a plan view, with parts broken away, of the hinge portion of a water closet seat illustrating one embodiment of this invention;

Fig. 2 is a side elevation of one of the posts and associated parts to which the seat is attached;

Fig. 3 is a view in longitudinal section of the post and associated parts;

Figs. 4 to 6 are views similar to Figs. 1 to 3, respectively, of another embodiment of the invention; and

Figs. 7 to 9 are views similar to Figs. 1 to 3, respectively, showing a further embodiment of the invention.

In accordance with the present invention a water closet seat, with or without a cover, is detachably mounted on the bowl, tank, wall or other suitable support by means of mountings comprising relatively separable interengageable bearing and trunnion members which, as herein illustrated, may include an open or slotted bearing associated with means for holding the trunnion member in operative relation thereto, so as to permit a quick and easy removal and replacement of the seat and/or cover carrying the trunnion members; and, if desired, there may be provided a suitable check for the seat and/or cover.

A readily detachable toilet seat constructed in accordance with the present invention is of great advantage for sanitary reasons, since thereby the seat can be replaced whenever necessary. In hospitals, sanitaria and other institutions where health and sanitation are of particular consideration the use of such readily detachable seats is of great value. Moreover, in hotels, inns, trains and boats, for example, where the suites or other accommodations include private toilets or baths, this invention permits the easy provision of a freshly sanitized toilet seat each time the occupants of the suite or other accommodations change. The water closet seat may be and preferably is enclosed in a suitable wrapper after having been cleaned and sterilized, to indicate its sanitary condition, as illustrated in United States Patent No. 2,200,394, granted May 14, 1940.

A further advantage of a detachable seat embodying this invention is that it can without difficulty be substituted for the usual type of water closet seat, since in the conventional constructions the seat is supported upon posts carried by a pottery bowl, tank, wall or the like and is preferably pivoted upon a bar carried at each end by the posts. Moreover, in a seat embodying mounting constructed in accordance with the present invention, the seat posts may be readily removed without injury, simply by holding the attaching nut underneath and turning the top of the post.

In the embodiment shown in Figs. 1 to 3, a square molded back seat less cover, designated by the numeral 1, is provided with flaps 2 which receive the ends of a trunnion or bar 4. Each post 5 is fixed to the pottery base, hopper, tank or wall by a stud 6, and the upper end of each post is formed with a recess 7 which receives the bar 4. A U-shaped spring clip 8 is suitably anchored in each recess and, as shown in Fig. 2, is shaped so as to engage and yieldably hold the bar 2 within the recess 7 which constitutes a bearing member for the bar. With this construction and arrangement the seat may be readily removed and replaced either by exerting sufficient force thereon to expand the spring clips 8 or by manually depressing the curved fingers or guiding tabs 9 formed on the ends of each spring clip.

Figs. 4 to 6 ilustrate an open bearing provided with a spring clip on the seat flap, in association

with a square molded back seat less cover, provided with a bar hinge. In this embodiment the ends of the bar 12 are received in openings formed in the upper ends of the posts 14, the lower end of each post being formed with an anchoring stud 15, as in the previously described embodiment. Each of the flaps 16 is formed with a curved outer end providing an outwardly facing recess 17 in which the U-shaped spring clips 18 are suitably anchored, the outer end of each clip being formed with a guiding tab or finger 19 corresponding to the tab 9 of the previously described embodiment. This construction and arrangement likewise permits a quick removal and replacement of the seat in a manner similar to that above described.

Figs. 7 to 9 illustrate an open bearing having a spring clip carried by an extended back seat less cover, designated by the numeral 1a. This embodiment is similar in all material particulars to that shown in Figs. 4 to 6, differing therefrom in that the bar 12a is received in a transversely extending slot 20 formed in the extension 21 of the seat 1a. A plurality of U-shaped clips 22 are anchored in the recesses 23 so as yieldingly to engage and hold the bar 12a and thus afford a pivotal connection between the parts.

While I have shown and described different embodiments of the invention, it is to be understood that this disclosure is for the purpose of illustration and that various changes in shape, proportion and arrangement of parts, as well as the substitution of equivalent elements for those herein shown and described, may be made without departing from the spirit and scope of the invention as set forth in the appended claims.

I claim:

1. A water closet seat construction comprising a pair of spaced posts permanently anchored in fixed position, said posts having openings at their upper ends, a seat bar having its ends received in said openings, a seat having rigid means providing an open recess extending about said bar, and a spring clip mounted in said recess, said clip embracing said seat bar and providing bearing surfaces for supporting said seat for pivotal movement on said seat bar, the parts being so constructed and arranged that the seat may be quickly removed from and placed about said seat bar.

2. A water closet seat construction comprising a pair of spaced posts permanently anchored in fixed position, said posts having openings at their upper ends, a non-removable seat bar having its ends received in said openings, a seat, connecting flaps anchored at one end to said seat and their opposite ends being hook shaped to provide open recesses extending about said seat bar, and spring clips mounted in said recesses, said clips embracing said seat bar and providing bearing surfaces for supporting said seat for pivotal movement on said seat bar, the parts being so constructed and arranged that the seat may be quickly removed from and placed about said seat bar.

3. A water closet seat construction comprising a pair of spaced posts permanently anchored in fixed position, said posts having openings at their upper ends, a non-removable seat bar having its ends received in said openings, a seat formed at its rear end portion with a transversely extending slot defining an open recess extending about said seat bar, and a plurality of spring clips mounted in said recess, said clips embracing said seat bar and providing bearing surfaces for supporting said seat for pivotal movement on said seat bar, the parts being so constructed and arranged that the seat may be quickly removed from and placed about said seat bar.

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