July 19, 1932. H. E. McCANDLESS 1,867,674

CHILD'S TOILET SEAT

Filed Feb. 19, 1931

Fig. 7

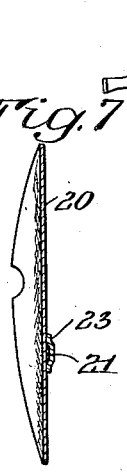


Fig. 1

Fig. 6

Fig. 4

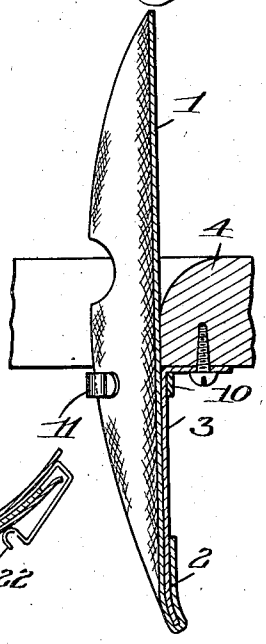


Fig. 2

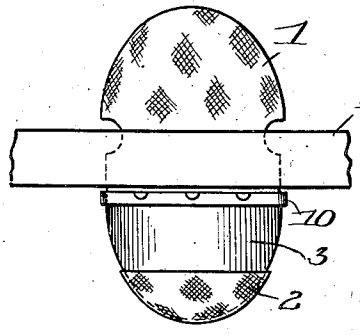


Fig. 3

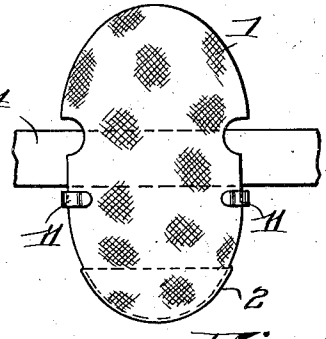


Fig. 8

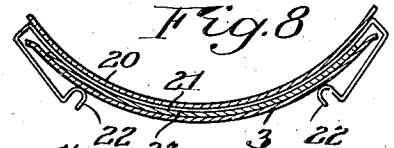
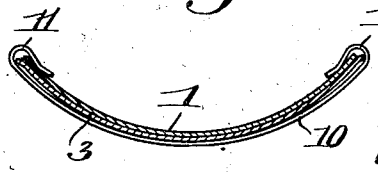


Fig. 5



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Patented July 19, 1932

1,867,674

UNITED STATES PATENT OFFICE

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CHILD'S TOILET SEAT

Application filed February 19, 1931. Serial No. 516,975.

This invention relates to improvements in a child's toilet seat, and although in the embodiment illustrated it is applied to a folding seat it will be understood that it may be equally well applied to other seats of this kind.

The object of the invention is to provide a seat of this kind with simple, sanitary, and inexpensive means for protecting the front of the seat.

Another object of the invention is to provide a flexible guard adapted to be mounted on a bracket arranged at the front of the opening in the seat and arranged in said opening and projecting downwardly from said opening and upwardly therethrough, the upper end being adapted to flex out of the path of the child being arranged on the seat or removed therefrom, but normally assuming an upright position by virtue of its own resiliency.

A still further object of the invention is to provide a seat of this kind with a sanitary guard which may be readily attached to or detached from the seat so that when it becomes soiled it may be removed and replaced with a clean one.

To these and other ends, the invention consists in the construction and arrangement of parts that will appear from the following description when read in conjunction with the accompanying drawing, the novel features being pointed out in the claims following the specification.

In the drawing:

Fig. 1 is a transverse vertical section of a toilet seat having a child's folding toilet seat clamped thereto and a guard constructed according to one possible embodiment of the invention mounted on the child's seat;

Fig. 2 is a front elevation of the guard, a portion of the seat on which it is mounted being also shown;

Fig. 3 is a rear elevation of the same;

Fig. 4 is an enlarged vertical section of the same;

Fig. 5 is a horizontal section of the same showing the arrangement of a spring clip for retaining the guard on the bracket;

Fig. 6 is a rear elevation of a modified form of guard;

Fig. 7 is a transverse vertical section of the same, and

Fig. 8 is a transverse horizontal section.

Similar reference characters refer to the same part in all the figures of the drawing. The embodiment of the invention illustrated in Figs. 1 to 5 comprises a guard 1 preferably constructed of flexible resilient material, such as rubber or other suitable material which is impervious to moisture, and having a smooth surface which is readily flushed and kept clean. The guard is made in elongated or elliptical form, as shown in the drawing, and its shorter or minor axis curved or bent to form a substantially cylindrical surface which conforms to the curvature of the opening in the seat. At its lower end it is provided with a pocket 2 which may be formed integral therewith or stitched thereto at its edges, and which may be sprung over the lower end of a bracket 3 on which it may be retained by virtue of the elasticity of the material of which it is formed.

The bracket 3 is secured to the under side of a toilet seat 4 by any suitable means, such as screws, and projects downwardly therefrom at or adjacent the front of the opening therein, and is of substantially the same cylindrical form as the guard 1 mounted thereon. When mounted on the bracket, the guard is adapted to project upwardly through the opening, as shown in the drawings. It will be noted that by this construction, the upper end of the guard assumes an upright position projecting above the seat at the front of the opening therein, and being flexible and resilient is adapted to be flexed into the plane of the seat either rearwardly or forwardly when a child is placed in or removed from the seat, and automatically assumes its normal upright position when released. It will also be noted that the upwardly projecting portion of the guard above the plane of the seat is also compressible laterally against its resiliency and when so compressed by the limbs of a child in the seat, the lateral edges of the guard approach each other inwardly and the general form of the curvature of the guard is

maintained, although the upwardly projecting portion may be compressed until its lateral edges nearly engage each other at the top.

The bracket and guard are shown applied to a child's toilet seat, although it will be apparent that it can be applied to any toilet seat without material changes. The toilet seat illustrated is of the child's folding type, and comprises a seat 4 having resilient clamping devices 5 and 6 adapted to be projected through the opening in an ordinary toilet seat 7, the latter devices 6 being movable into clamping engagement with the lower surface of the seat when the back 8 and arms 9 of the chair are raised from collapsed or folded position. From an inspection of Fig. 1, it will be noted that the opening in the seat 4 is arranged over the opening in the seat 7 with the bracket 3 in engagement with the front edge of the opening in the seat 7 so that the front edges of the openings in the seats 4 and 7 lie in substantially the same vertical plane. The guard 1 is arranged on the bracket and protects that side of it which faces the openings in the seats and also the front of the seat 7 where there is greatest liability of splashing.

In order to retain the guard 1 in closer engagement with the bracket 3 and insure its retention thereon, a clip 10 provided with means for engaging the guard may be mounted on the bracket. Said clip is preferably constructed of resilient material and bent upon itself at its ends to form spring fingers 11 which, when the body of the clip is arranged on the front side of the bracket, extend around its side edges and resiliently engage the rear of the bracket or the guard thereon. It will be noted that the clip is readily removable downwardly from the bracket and that when the clip is removed, the guard can be readily detached from and replaced on the bracket. The clip 10 is so formed that it engages the guard at or adjacent the upper end of the bracket or support and thus maintains the guard in contact with the bracket and serves to increase the tendency of the guard to quickly return to normal position when flexed.

Referring now to the modified form of the invention illustrated in Figs. 6 to 8, a guard 20 similar in form to the guard 1 is constructed of flexible, resilient material and impervious to moisture. The guard is made in elliptical form and its minor axes are bent to form a substantially cylindrical surface which conforms to the curvature of the opening in the seat. The guard 20 has a spring clip 21 secured to its rear face whereby it may be mounted on the bracket 3. Said clip has an intermediate body portion bent to conform to the curvature of the guard and the bracket, and has its ends bent rearwardly at substantially right angles thereto at points at or adjacent the side edges of the guard, and then laterally inwardly toward each other and terminate at their inner ends in fingers 22 projecting toward the rear face of the guard.

The clip is secured to the rear face of the guard by means of an elongated strip of rubber or other suitable flexible material 23 arranged over the body portion of the clip and having its edges secured to the guard on opposite sides of the clip by means of cement or other suitable means. A guard thus constructed may be arranged on the rear face of the bracket by an upward movement, the bent ends of the clip extending around the side edges of the bracket and the fingers 22 resiliently engage its front wall and retain the guard in position on the bracket. Such a guard is retained on the bracket by means of the spring clip only, and is therefore very easily attached to or detached therefrom. It extends over the rear face of the bracket which projects downwardly through the opening in the seat 7 where it protects the front of said seat, and upwardly through the opening in the seat 4 and projects above said seat. Due to the flexibility of the material, that portion of the guard which projects above the seat is readily deflected either forwardly or rearwardly into the plane of the seat, which flexibility may be increased by the oppositely arranged cut-out portions 24 which, it will be noted, are arranged in the plane of the upper surface of the seat 4, in the plane where the greatest flexure occurs. It will also be noted that a guard thus constructed has its rear wall or that wall which faces the opening in the seat substantially free from any obstructions.

Although only two embodiments of the invention are shown and described herein, it will be understood that this application is intended to cover such other changes or modifications as come within the spirit of the invention or scope of the following claims.

I claim:

1. A toilet seat having an opening therein, a bracket projecting downwardly from the seat adjacent the opening, and a guard resiliently mounted on said bracket and having a portion projecting upwardly through said opening above the seat and flexible into the plane of its upper surface.

2. A toilet seat having an opening therein, a bracket having a curved surface projecting downwardly from the seat adjacent said opening, a guard mounted on said bracket and projecting upwardly through said opening above the seat, and a resilient clip engaging the bracket and the guard to maintain the guard on and in contact with the curved surface of the bracket.

3. A flexible guard for a toilet seat constructed of resilient material of substantially elliptical formation having its minor axis curved to conform to the shape of an opening in a toilet seat, and having a pocket

formed at one end whereby it may be detachably mounted on a supporting bracket.

4. The combination with a toilet seat having an opening therein, of a child's toilet seat also having an opening therein, a bracket on the child's seat projecting through the opening in the toilet seat, and a detachable guard mounted on said bracket and covering its rear wall.

5. A toilet seat having an opening therein, a bracket adjacent said opening, a guard adapted to be arranged on said bracket and project through the opening in the seat, and a spring clip arranged to resiliently engage the rear wall of the bracket for retaining the guard thereon.

6. A toilet seat having an opening therein, a bracket adjacent said opening, a guard adapted to be arranged on said bracket and project through the opening in the seat, and a clip secured to the rear wall of the guard and having fingers adapted to resiliently engage the rear wall of the bracket to retain the guard thereon.

7. A toilet seat having an opening therein, a bracket secured to the bottom of said seat and projecting downwardly therefrom adjacent said opening, a guard arranged on said bracket and projecting upwardly through the opening in said seat, and a pocket on said guard resiliently engaging said bracket.

8. A toilet seat having an opening therein, a bracket secured to said seat adjacent said opening, and a resilient guard mounted on said bracket and having a portion projecting upwardly through the opening in said seat and above the plane of its upper surface and flexible downwardly into said plane, said projecting portion having cut-away portions in the plane of the upper surface of the seat to the plane of the upper surface of the seat.

9. A toilet seat having an opening therein, a bracket adjacent said opening projecting downwardly from the seat, and a resilient guard on said bracket having a portion projecting upwardly through said opening above the seat and curved to conform to the shape of the opening, said projecting portion being compressible laterally by virtue of its resiliency.

10. A toilet seat having an opening therein, a bracket adjacent said opening projecting downwardly from the seat, and a resilient guard on said bracket having a portion projecting upwardly through said opening above the seat and flexible into the plane of its upper surface, said projecting portion being also compressible laterally against its resiliency.

In witness whereof, I have hereunto signed my name.

HARRY E. McCANDLESS.