Jan. 21, 1936. H. E. REHDER ET AL 2,028,563

CHILD'S TOILET SEAT

Filed Feb. 21, 1935

Fig. 1.

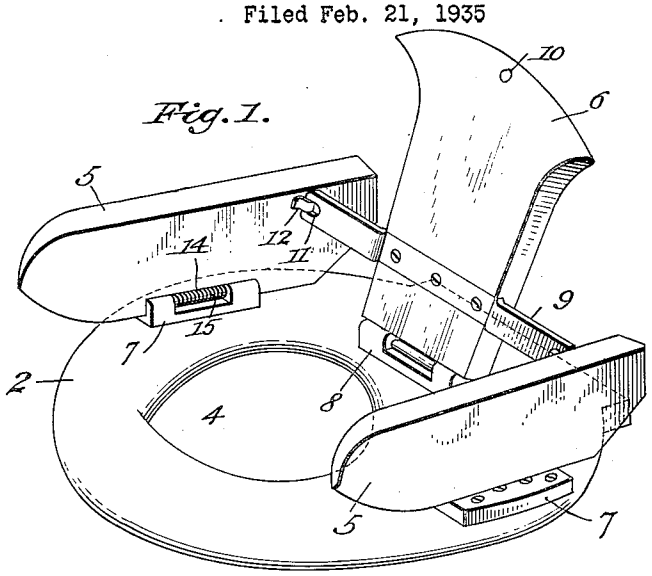


Fig. 5.

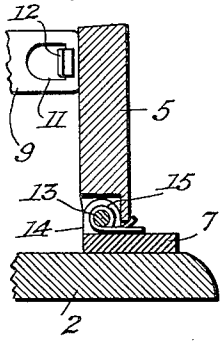


Fig. 2.

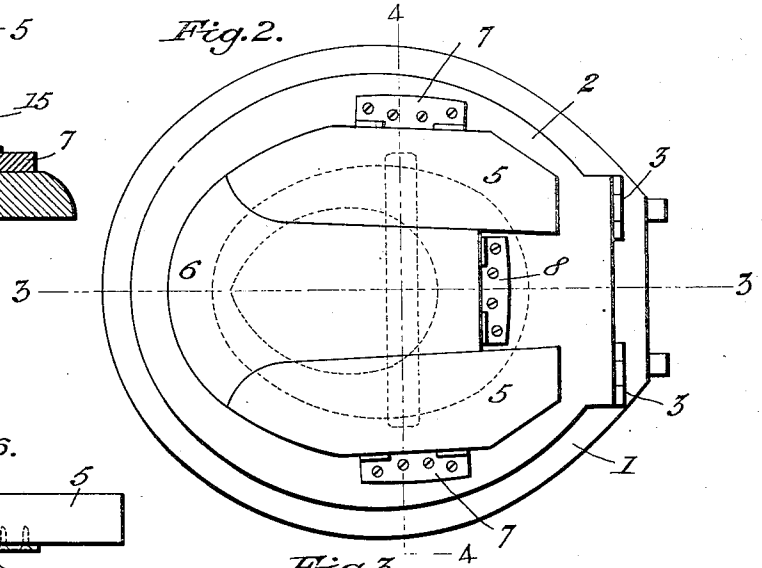


Fig. 6.

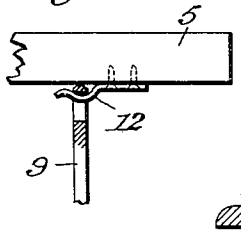
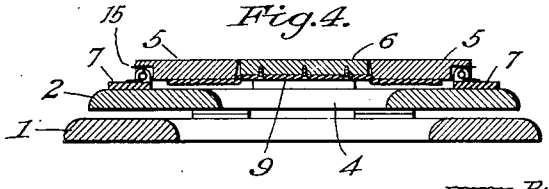


Fig. 3.



Fig. 4.



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CHILD'S TOILET SEAT

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7 Claims. (Cl. 4—239)

Our invention relates to a child's toilet seat, and particularly to a seat which is hinged to the usual toilet seat.

The primary object of the invention is to provide a toilet seat suitable for small children, which is hinged to the usual seat so as to be swung down to rest upon the usual seat when in use, and which may be swung back out of the way, when not required.

A further object is to provide a seat of this character having a three part cover which normally closes the opening in the seat, the parts of the cover being separately hinged to the seat in such manner, that when swung upward, they provide a back and side arms for the seat, the seat and its cover being adapted to take the place of the usual lid or cover which is hinged to the usual seat.

These and other objects are accomplished by the device illustrated in the accompanying drawing in which:

Fig. 1 is a perspective view of the improved toilet seat, detached from the usual seat, as it appears when in use.

Fig. 2 is a plan view of the improved seat hinged to the usual seat, the cover sections being folded down.

Fig. 3 is a longitudinal sectional view on the line 3—3 of Fig. 2.

Fig. 4 is a transverse sectional view on the line 4—4 of Fig. 2.

Fig. 5 is a detail vertical sectional view, enlarged, showing the hinge connection of one of the side arm members with the seat and with the end of the spreader bar which swings it up and holds it in its vertical position.

Fig. 6 is a plan view of a portion of the side arm and spreader bar shown in Fig. 5 and the stop on the side arm which engages the spreader bar.

Referring to the accompanying drawing:

The numeral 1 designates the usual toilet seat, and 2 to the child's toilet seat which is hinged to the rear end portion of the usual seat by any suitable hinge connection 3, so as to swing back in the same manner as the usual lid or cover, which is dispensed with. The seat 2 is provided with a much smaller opening 4, than the opening in the seat 1, and with a three part cover comprising side members 5 and a middle member 6, which members are hinged to the seat by hinges 7 and 8, the hinges 7 being connected to the outside edges of the side members 5, and the hinge 8 to the rear end of the middle members 6. The side members when swung to vertical positions form arms on the sides of the seat, and the middle member when swung up, forms a back having a slightly rearward inclination, the side members when raised being slightly convergent toward their rear ends for a purpose which will later appear. The side members 5 are raised and held in vertical positions in a manner to be presently described. Upon the under side of the back member 6 and near the rear end thereof is secured a metal bar 9 which will be referred to as the spreader bar. This bar has an offset portion which rests in a shallow groove in the back member so as to lie flush with the face of the said member; the end portions of the bar lie beneath and normally support the side members 5 and extend to within short distances of the outer edges of the said members, as shown in Figures 2 and 4. The front end of the middle member is supported at a slight distance above the seat, by a rubber bumper 10, and the front portions of the members, when folded down, have a curved outline concentric with the usual elliptical outline of the seat. The side edges of the middle or back member terminate in outward curves at their front ends and the inner edges of the side members are correspondingly curved, thus giving a rounded outline to the front ends of the side members, which is desirable when they serve as arms, as will be understood by reference to Figure 1. The rear end portion of the side members extend beyond the rear end of the middle member so as to provide arms of suitable length. The seat 2 and its three part cover form a cover for the usual seat which takes the place of the usual cover, and may be swung back out of the way in the same manner as the usual cover.

When the child's seat 2 is to be used, it is swung down to rest upon the seat 1; the middle or back member 6 is then raised and the spreader bar 9, upon which the side or arm members rest, swings these members to vertical positions, and since the sides of the arm members converge slightly toward their rear ends, the ends of the spreader bar will gradually engage them and spread them until their bottom outer edges bear upon the plates of the hinges 7. When the back member reaches a position of suitable rearward inclination, the ends of the spreader, which are provided with apertures 11, are engaged by stops 12 in the form of flat spring hooks which are secured to the arm members and which pass through the said apertures 11. The outer edges of the apertures 11 are straight, and these edges pass under the ends of the stops, thus enabling them to enter the apertures in the ends of the spreader, the

stops acting not only to limit the rearward movement of the back member, but also to prevent the accidental forward swing of the member as the stops spring over the ends of the spreader and hold them. These stops also prevent the side arms from spreading, by reason of their hooked engagement with ends of the spreader.

The hinges 7 comprise plates which are screwed to the seat and which are provided with apertured lugs, through which pins 13 pass which are secured at their ends in the lower edges of the arms 5, these edges being recessed as shown at 14 to receive the hinge lugs. Coil springs 15 surround the pins 13 between the hinge lugs; one end of each spring bears against the lower outer edge of the arm 5, and the other end of the spring bears against the hinge plate. Pressure is thereby exerted against the under edges of the arms, which causes them to swing inward simultaneously with the downward movement of the back member. It will thus be seen that the arms are swung upward by the spreader 9, and are swung downward by the springs 15, and in their horizontal positions, they rest upon the end portions of the spreader. The spreader is of such length that the engagement of its ends with the converging sides of the arms will swing them up to vertical positions, and the ends of the spreader will then connect with the stop hooks on the arms and hold the arms against movement in either direction. If desired, a strap, not shown, may be connected with the device for holding a child upon the seat.

Having described our invention, what we claim as new and desire to secure by Letters Patent, is:

1. In a device of the character described, a child's toilet seat adapted to be hinged at its rear end to the rear portion of the usual seat, and a three part cover hinged to the child's seat, the parts of said cover when swung to upright positions forming a back and side arms for the child's seat and means on the back member underlying the side arms, for swinging them to upright positions simultaneously with the upward swinging movement of the back member.

2. In a device of the character described, a child's toilet seat adapted to be hinged at its rear end to the rear portion of the usual seat, a three part cover on the child's seat, comprising a middle section hinged at its rear end to the seat, and side sections hinged at their outer edges to the seat, and laterally projecting means on the middle section for engaging and swinging out the side sections, simultaneously with the swinging up of the said middle section, the sections forming a back and side arms when in upright positions.

3. In a device of the character described, the combination with a toilet seat of the usual type; of a child's toilet seat hinged at its rear end to the rear portion of the usual seat, a three part cover for the child's seat comprising a middle section hinged at its rear end to the seat and side sections hinged at their outer edges to the seat, their inner edges bearing against the outer edges of the middle section when the sections are folded down, and a transverse bar on the middle section which extends beneath and supports the side sections, said bar acting to swing out the side sections simultaneously with the swinging up of the middle section, the sections forming a back and side arms when in upright positions.

4. Mechanism according to claim 3 in which the extremities of the transverse bar are apertured, and stops on the side sections in the form of resilient nooks which pass through said apertures and limit the backward swinging movement of the middle section, said hooks acting to spring over the ends of the apertures and hold the said bar against accidental displacement, and prevent spreading of the side sections.

5. In a device of the character described the combination with a child's toilet seat; of a three part cover therefore comprising middle and side sections hinged thereto the middle section being hinged at its rear end, and the side sections being hinged at their outer edges, a transverse bar on the middle section which supports and swings out the side sections simultaneously with the upward swinging movement of the middle section, stops on the side sections for engaging the ends of the transverse bar to limit the backward swinging movement of the middle section, and springs associated with the hinges of the side members for causing them to swing downward simultaneously with the downward swinging of the middle section, said sections forming a back and side arms for the seat when in upright positions.

6. Mechanism according to claim 5 in which the side sections converge slightly towards their rear ends.

7. In a device of the character described, the combination with a toilet seat of a three part cover therefor comprising a middle and side sections hinged thereto, the middle section being hinged at its rear end and the side sections being hinged at their outer edges, their inner edges bearing against the outer edges of the middle section when the parts are folded down, the side sections being slightly convergent toward their rear ends when in upright positions, a transverse bar on the middle section that supports and swings out the side sections when the middle section is raised, the ends of said bar gradually engaging the faces of the side sections to spread them, and hold them apart, spring hooks on the side sections for engaging apertures in the ends of bar to limit the outward movements of the sections, and means for automatically swinging the side sections down, with the downward swing of the middle section, the sections forming a back and side arms when raised.

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