March 9, 1926. 1,575,912

U. R. GRANT

SANITARY TOILET SEAT

Filed Dec. 18, 1923 2 Sheets-Sheet 1

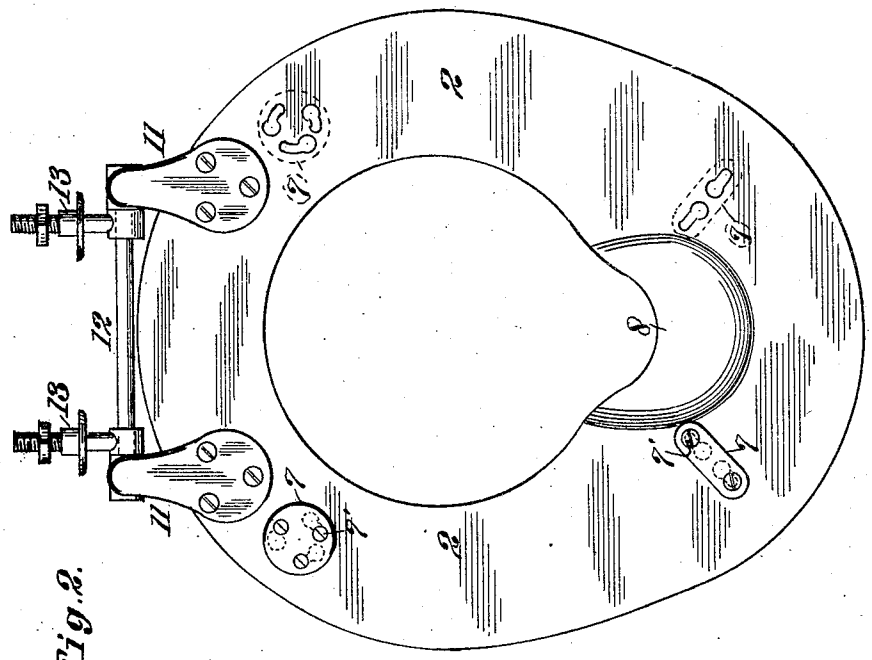


Fig. 2.

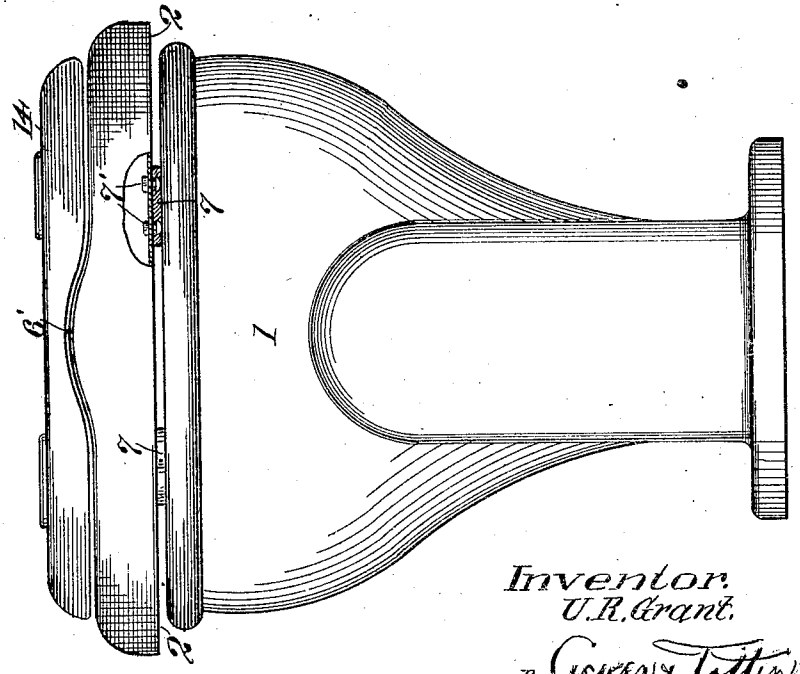


Fig. 1.

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Fig. 3.

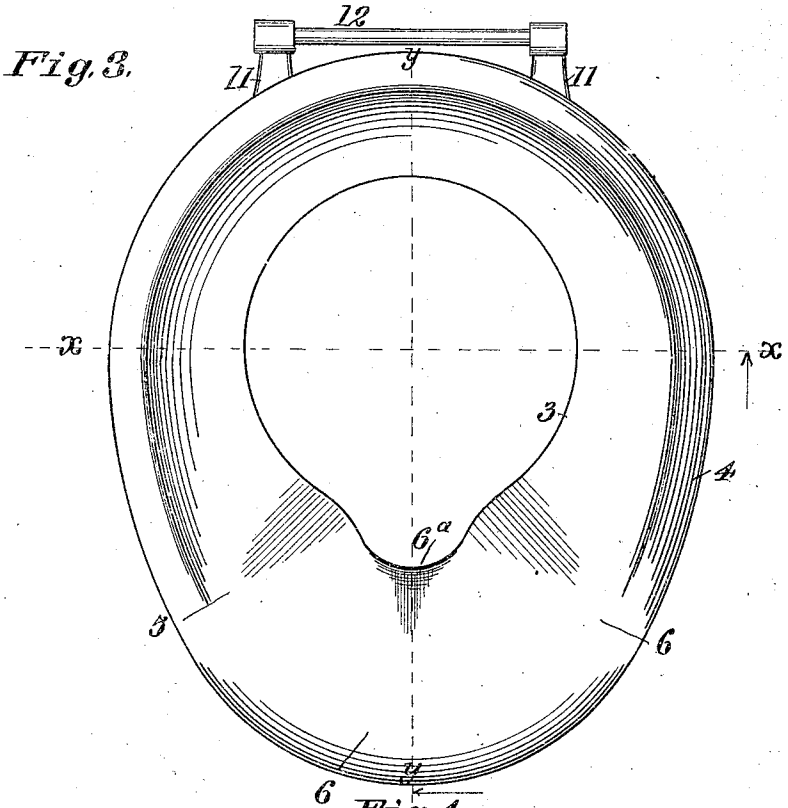


Fig. 4.

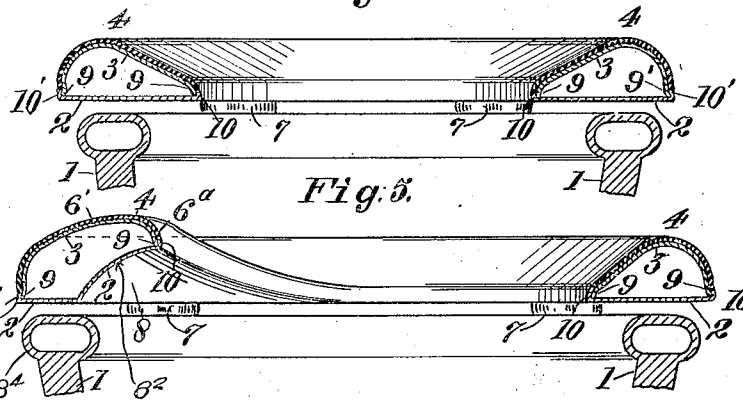


Fig. 5.

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Patented Mar. 9, 1926. 1,575,912

UNITED STATES PATENT OFFICE.

ULYSSES R. GRANT, OF ALAMEDA, CALIFORNIA, ASSIGNOR TO HYGIENIC SEAT COMPANY, OF SAN FRANCISCO, CALIFORNIA, A CORPORATION OF CALIFORNIA.

SANITARY TOILET SEAT.

Application filed December 18, 1923. Serial No. 681,354.

To all whom it may concern:

Be it known that I, ULYSSES R. GRANT, citizen of the United States, residing at Alameda, in the county of Alameda and State of California, have invented certain new and useful Improvements in Sanitary Toilet Seats, of which the following is a specification.

The hereinafter described invention comprises a hollow sanitary toilet seat which is expressly designed for use in connection with hospitals, railway cars, and public places, although equally as well adapted for home use generally, and the object thereof is the production of a simple, light, sanitary and durable closet seat, one which will withstand the hard usage to which such devices are subjected, and will not warp, crack or become affected by reason of moisture or the water standing in the bowl to which it is applied and by its construction will afford the user increased room at its forward under side over that afforded by the seats now universally in use. The improved toilet seat is preferably constructed of two metallic sections or members suitably stamped to the proper shape, the upper member of the seat having applied thereto an outer sanitary coating or layer of hard rubber or other plastic compound. The plastic or rubber covering applied to the upper member of the seat affords a seal for precluding the entrance of moisture between the unity seam line of the upper and lower sections; gives a proper finish thereto, provides sufficient warmth to prevent undue chilling of the body of the user, and at the same time furnishes an antiseptic surface for the seat. The members comprising the seat are suitably stamped into proper shape for a toilet seat prior to the union thereof, the inner and outer edges of the lower section are upwardly flanged to receive on their inner faces the outwardly curved edges of the upper section.

To comprehend the invention, reference should be had to the accompanying sheets of drawings, wherein—

Fig. 1 is a front elevation of a closet bowl with the improved seat applied thereto.

Fig. 2 is a bottom plan view of the seat removed from the closet bowl, disclosing the elastic cushions and their manner of attachment to the seat, and the raised pocket formed in the forward portion of the bottom member of the seat.

Fig. 3 is a plan view of the seat illustrating in general the curved lines given thereto for the production of a proper shaped seat.

Fig. 4 is a transverse sectional view of the seat taken on the lines x—x, Fig. 1 of the drawings, viewed in the direction of the longitudinally disposed arrow.

Fig. 5 is a longitudinal sectional view taken on line y—y Fig. 1 of the drawings, viewed in the direction of the transversely disposed arrow, particularly illustrating the channeled recess at the under side of the forward edge of the seat.

The numeral 1 is used to designate any form of a toilet bowl to which the improved seat is hinged; 2 the bottom open member of the seat; 3 the upper open member thereof, and 4 the layer or coating of hard rubber applied and vulcanized to the upper member 3. Preferably, the bottom member 2 is stamped from a single sheet of metal, and the upper member 3 similarly stamped from a single piece of metal, the stamped members being of elliptical form. The upper member 3 when stamped is in the form of a hollow elliptical shell, the upper surface thereof being gradually downwardly and inwardly curved from the outer edge portion intermediate the points 5 and 6 to produce the required outline of a toilet seat, conformable to the body of a user, the material between the points 5 and 6 being slightly curved upwardly into substantially an ogee swell 6′, the swell being sufficient to raise the points 6^a to a point above the normal plane of the remainder of the seat, the uprise caused thereby tending to properly place the user of the seat. The inner edge 6^a, as in Fig. 5, is raised to a point slightly below the normal plane of the upper surface of the seat while the outer edge on the same line y—y is in the same plane with the remaining portion of the outer edge.

The said member 2 is from a point inwardly removed from its forward edge raised and curved upwardly and inwardly on the line 8^2 to provide a clearance space 8 to the under surface at such portion of the toilet seat.

The portion 8^3 of the member 2 lying forwardly of the space 8 lies in the same plane as the remainder of the member 2 and over-

lies the forward edge 8^4 of the closet bowl. The inner edge 9 and the outer edge 9′ of the upper member 3 of the toilet seat are slightly outwardly flanged, and the inner and outer edges 10 and 10′ of the bottom member upwardly flanged and crimped onto the flanged edges of the upper member when uniting one to the other.

While preference is given to a crimped seam union between the inner and outer edges of the members of the toilet seat, it is obvious that the same may be united in any suitable manner.

When the said upper and lower members are united, there is produced a hollow toilet seat composed of a substantially flat bottom and an upper metallic shell section, each of approximately elliptical form, the exposed top surface of the upper member or section being shaped to conform to the outline of the body of a user thereof, and provided adjacent its forward edge with an uprise or swell.

The upper elastic, plastic or hard rubber covering 4 for the upper member provides a comparatively warm and antiseptic covering surface for the seat, one which removes the chill which otherwise would result from contact of the body with a metallic surface, and at the same time provides a surface which may be readily cleaned.

To the under face of the member 2 the upwardly curved arms 11 are united, within the free ends of which is mounted the transverse rod 12, which is supported and held by the hinge brackets 13, by means of which the toilet seat is hinged to the bowl 1 in the usual manner.

By reason of the seat being formed hollow there is secured extreme lightness, inasmuch as the members composing the seat may be constructed of thin metal.

The clearance space or depression 8 provided in the under face of the bottom member of the toilet eliminates the danger of excess fouling adjacent the forward end portion thereof.

There is provided a lid or swinging cover 14 for use in connection with the improved toilet seat, the same being united in any suitable manner to the hinge connection between the seat and the closet bowl. Like the seat proper, the swinging lid or cover 14 is constructed of stamped metal sheets properly secured together to provide a hollow lid or cover. However, the construction of the said lid or cover forms no portion of the present invention, consequnently a detailed description need not be given at this time, inasmuch as any suitable form of a cover or lid may be employed in connection with the improved seat.

I claim:

A toilet seat comprising a pair of cooperating sections of sheet material formed to provide a hollow substantially elliptical seat, one of said sections forming a bottom part of relatively wide flat form, said bottom part having an area of substantially semi-circular shape extending from the inner edge of the seat forwardly, said area extending upwardly in curved relation from the juncture with the flat adjacent portion of the part, to the central portion of said area at the inner edge thereof and terminating in a plane contiguous to the horizontal plane of the upper edge of the seat, and the other of said sections forming the upper part having the edge portions curved downwardly from the central portion in a predetermined manner, the forward portion of said upper part being formed with an area extending substantially above the horizontal plane of the upper edge of the seat and spaced above the area of the bottom part, said last-mentioned area having the portion of greatest height adjacent the inner edge of the seat and having the remaining portions of the area curving downwardly in all directions into the curvature of the remaining portion of the part to provide a body receiving contour in said seat, the edges of said sections being formed into interlocking cooperation to retain the sections in seat forming relation.

In testimony whereof I have signed my name to this specification.

ULYSSES R. GRANT.