

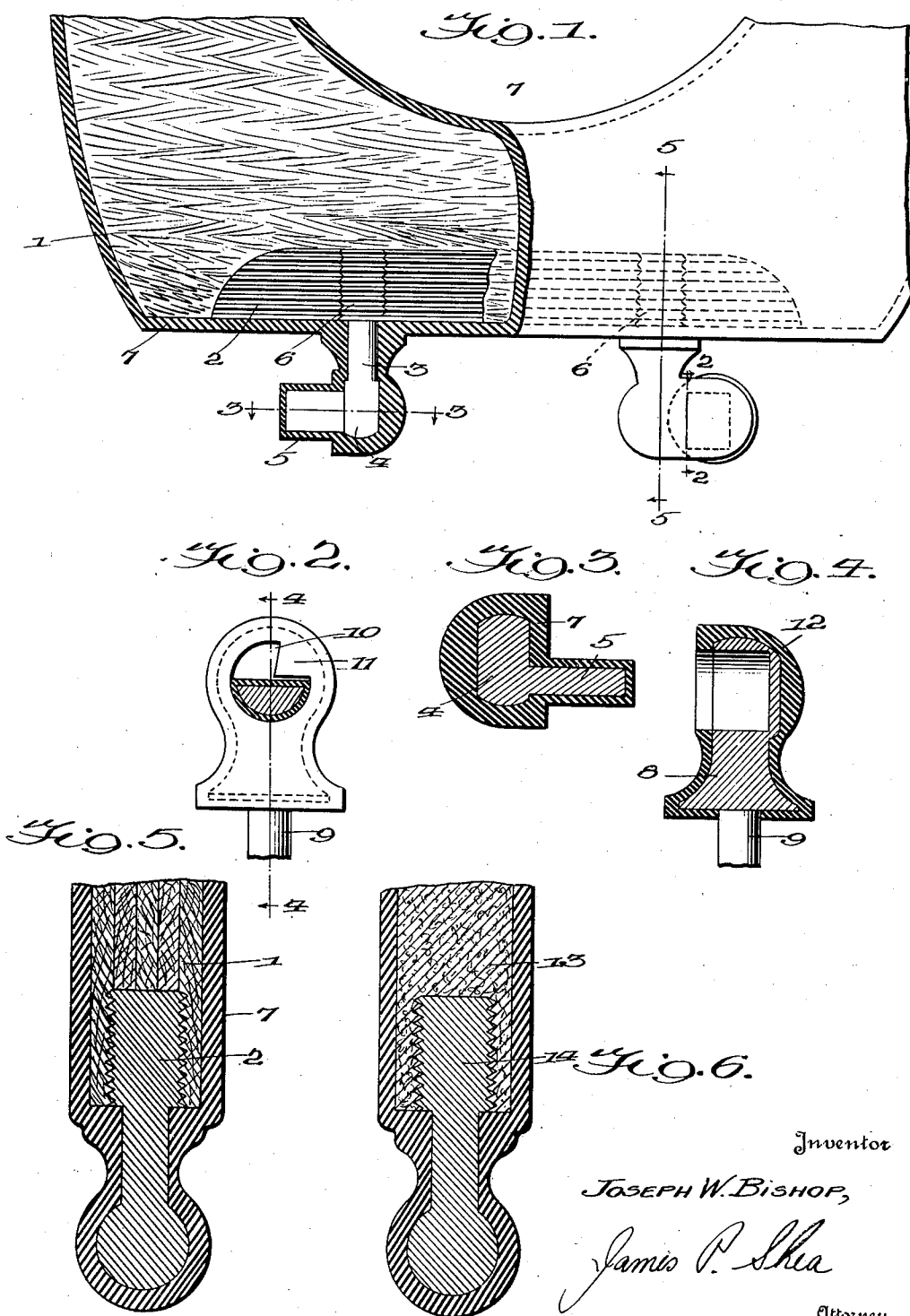
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TOILET SEAT

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TOILET SEAT

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My invention relates to toilet seats, and more particularly to devices for securing hinges thereto.

Toilet seats have long been constructed with the hinge lugs screwed directly into the wood. This construction is unsatisfactory as it permits moisture to get in around the screws, causing the loosening of the screws and resulting in an unsanitary and insecure connection.

One object of the invention is to provide a toilet seat member composed of plastic composition which extends about a hinge element having projecting hinge members, the plastic composition extending continuously over the hinge members so as to prevent moisture from entering the seat or attacking the hinge members.

A further object of the invention is to provide means for so securing to a toilet seat a hinge lug having a laterally disposed pintle that it will be impossible for the lug to twist relatively to the seat.

A still further object of the invention is to provide a rubber coated segmental check or stop hinge pintle for toilet seats which will be inexpensive to manufacture and will fit accurately in the socket of a supporting standard.

Other objects and advantages will appear in the course of the description.

Referring to the drawings, forming a part of this specification,

Fig. 1 represents a plan view, partly in section of a seat embodying my invention.

Fig. 2 is an elevation view, partly in section, taken on line 2—2 of Fig. 1.

Fig. 3 is a sectional view taken on line 3—3 of Fig. 1.

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

Fig. 5 is a sectional view taken on line 5—5 of Fig. 1, and

Fig. 6 is a sectional view similar to Fig. 5, showing a modified form of my invention.

The form of my invention shown in Fig. 1 comprises a core 1, formed of laminated wood, and made in the shape of a toilet seat. Driven into the rear of this core in an opening to receive it, is the metallic insert 2, which may be

a malleable iron casting or made of other suitable metal. The insert is preferably formed with corrugations or ribs on its surface, as shown in Fig. 1, to increase its area of contact with the wooden core, and consequently its gripping power.

Formed integrally with the insert are hinge lugs 3 having thereon suitable hinge parts, for instance, the pintles 5 of segmental shape in cross section.

For strengthening purposes, at the points where the lugs 3 are joined to the insert, the latter is enlarged in thickness to form the corrugated cylindrical portions 6.

A coating of a hardened plastic composition, such as hard rubber, a phenolic condensation product, nitrocellulose, etc., covers the core and extends outwardly from the core and uninterruptedly over the hinge lugs, thereby forming a continuous surface extending outwardly from the core, closing the joints between the core and lugs and, since the coating is of substantial thickness and has considerable inherent strength, effectively assisting to maintain the lugs rigid with the seat. The coating preferably is extended over the pintles 5. This is an important feature of the construction, since due to the fact that the coating is applied by a molding operation, the pintles will in this operation be formed to uniform sizes for cooperation with the complementary hinge parts. Thus, the necessity for accurate machining of the metal is eliminated, and a hard smooth hinge surface is provided in the molding operation.

In constructing the seat, the insert 2 is driven into the rear of the core, as stated above. If it is desired that the coating should be of rubber, a layer of rubber 7 is then applied so as completely to cover the core, the lugs and the pintles and is vulcanized thereto forming a hard coating, which unites the hinge parts with the core into an exteriorly integral structure devoid of surface joints or cracks, and materially reinforces the attachment of the hinge parts to the seat.

A standard 8 is provided for each pintle, having a socket 10, which is circular in cross section except for a sectoral abutment 11,

occupying slightly less than a quadrant in the socket 10, for limiting the movement of the pintle when the seat is rotated slightly beyond a vertical position.

5 The standards 8 also preferably have a coating 12 of plastic material similar to the coating described, over their entire exterior surface, as shown in Figs. 2 and 3.

10 It will be seen that I have provided an extremely sanitary toilet seat. Since the seat and hinge are completely covered with rubber, no metal surface is exposed, and there is, therefore, no possibility of admission of moisture or dirt within the core. Aside from
15 its sanitary features, an unusually rigid structure is provided by having the hinge lugs integral with the metallic insert, thus eliminating the loose connections usually found in seat hinges of this type.

20 In the modification shown in Fig. 6, the core 13 may be made of ground cork, or of wood shavings or sawdust held together by a suitable binder, or it may be made of a cheaper grade of hard rubber, the seat being composed entirely of a plastic composition and
25 having an insert 14 similar to the insert 2 embedded therein.

My invention is not limited to the specific details of the embodiment shown and described, but changes may be made in these constructions without departing from the spirit of the invention. While my invention is shown in connection with a seat strictly so called, it is to be understood that it is equally
35 applicable to the cover which forms a part of a seat, and the word seat as used in the accompanying claims is used in its broader sense.

I claim:—

40 1. A toilet seat composed of plastic composition, an insert enclosed by said seat and extending transversely thereof, an outwardly projecting hinge member integral with said insert, said plastic composition extending
45 about said insert and outwardly over said hinge member and presenting an unbroken surface at the points of juncture of said hinge member and said seat, and standards supporting said hinge member for pivotal movement.

50 2. The combination with a toilet seat comprising a core and a coating of plastic composition about said core, of an insert enclosed within said coating, a pair of hinge members rigid with said insert and projecting
55 outwardly from said seat, said coating extending uninterruptedly from said core outwardly over said hinge members, and standards supporting said hinge members for pivotal movement.

60 3. The combination with a toilet seat comprising a core and a coating of plastic composition thereon, of an insert embedded in said core and having a pair of hinge lugs thereon extending outwardly therefrom, said
65 coating extending uninterruptedly from said

core outwardly over said lugs, and standards supporting said hinge members for pivotal movement.

4. The combination with a toilet seat, of a hinge lug secured thereto, a segmental pintle
70 integral with said lug, a coating of a plastic composition over said lug and said pintle, and a standard having a socket therein for receiving said pintle, and an abutment in said socket for limiting the rotation of said pintle.
75

5. A toilet seat composed of a plastic composition, an insert enclosed by said seat having a hinge lug integral therewith, said lug having a laterally disposed pintle, the plastic composition of said seat extending uninterruptedly over said lug and pintle, and a standard supporting said pintle for pivotal movement.
80

6. In a toilet seat, a core, a metallic insert embedded in said core, metallic hinge lugs integral with said insert and projecting from
85 said core, and having laterally disposed pintles of segmental cross section, said core and projecting lugs being coated with hard composition extending uninterruptedly from said
90 core outwardly over said lugs, and a pair of standards, each having a socket therein for receiving one of said pintles, and an abutment in each of said sockets for limiting the movement of said pintles.
95

7. A toilet seat composed of a plastic composition and having secured thereto metallic projections covered by an extension of said plastic composition, and standards having
100 sockets therein, said projections having parts pivoted in said sockets.

8. A toilet seat body formed of a plastic composition, a hinge member having a portion inserted in said seat and projecting therefrom, the plastic composition of said seat
105 extending outwardly from said seat uninterruptedly over said hinge member and substantially completely coating said member, and a supporting standard cooperating with said hinge member and supporting the same for pivotal movement.

9. A toilet seat, having a wooden core, a metallic insert secured to said core, a hinge member rigid with said insert and projecting from the core, and a plastic composition coating said core and uninterruptedly extending outwardly from said core over said hinge member and substantially completely coating the projecting portion of said hinge member.

10. A toilet seat including a core having seat hinging means, and a plastic composition enveloping said core and said hinging means so as to cover completely the core and hinging means, and a standard, said hinging means being mounted on the standard for pivotal movement.

11. A toilet seat having a body composed of a plastic composition and having a projecting portion, and a metallic hinge member

secured to said seat embedded in and coated by said projecting portion.

12. A toilet seat composed of a plastic composition and having a projecting portion and a metallic hinge member secured to said seat and embedded within and coated by said projecting portion, said projecting portion sealing the connection between said hinge member and said seat.

13. A toilet seat comprising a seat body having a wooden core, a hinge member projecting from said core and rigid therewith, and a plastic composition surfacing completely enveloping said core and extending outwardly over said member whereby to provide a seat formed with a hinge member which exteriorly is made integral with the seat body by said surfacing.

14. A toilet seat comprising a body having a wooden core, hinge members projecting from and rigid with said core, an integral plastic composition surfacing completely enveloping said body and extending outwardly over said hinge members whereby to provide a seat formed with hinge members which exteriorly are made integral with said seat body by said surfacing, a pair of standards engaging said hinge members and supporting the same for pivotal movement, said hinge members and said standards constituting a hinge for said seat.

15. In the manufacture of toilet seats, the improved process which comprises forming a seat body, joining to said body a portion of a metallic hinge member which projects outwardly therefrom, and coating said body and hinge member with a plastic composition which extends outwardly from said body over said hinge member whereby the hinge member and body are exteriorly united by said composition into an integral unit.

16. In a toilet seat, a wooden core having a horizontal recess extending forwardly from the rear end thereof, a flat metallic element mounted in and gripping by the walls of said recess a hinge member rigid with said element and disposed exteriorly of said core and a coating of a plastic composition over said core, and uninterruptedly extending outwardly therefrom over said hinge member.

17. A toilet seat comprising a wood core having a coating of plastic composition thereon, a flat metallic insert in the rear end of said core formed with a plurality of integral and laterally extending projections penetrating said core so as to prevent the withdrawal of said insert without simultaneously tearing away a portion of said core, and a hinge lug formed integrally with said inserts and disposed outside said core and projecting therefrom.

In testimony whereof I have hereunto subscribed my name.

JOSEPH W. BISHOP.