Nov. 5, 1929. J. W. BISHOP 1,734,556

HINGE FOR TOILET SEATS

Filed Dec. 19, 1928

Fig. 1

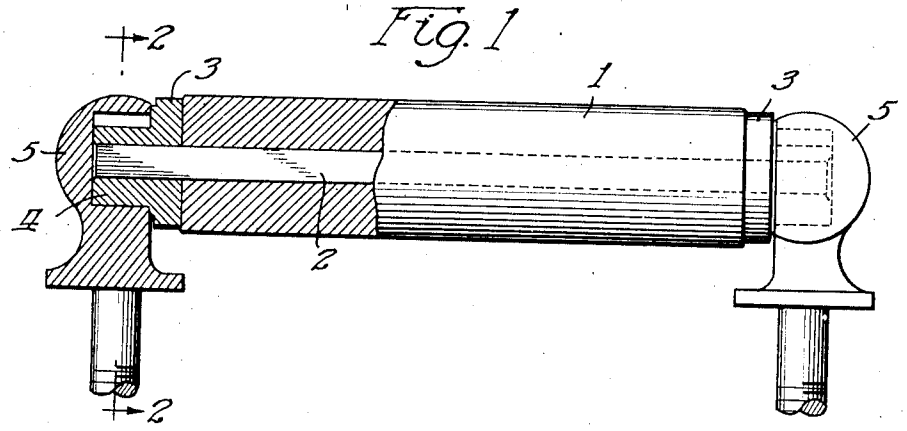


Fig. 2

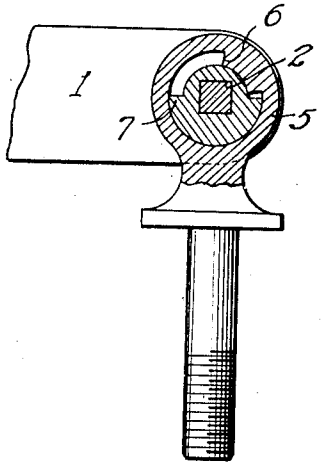
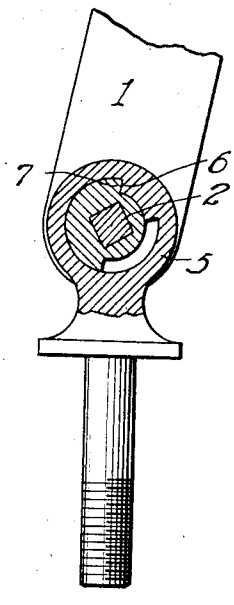


Fig. 3



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UNITED STATES PATENT OFFICE

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HINGE FOR TOILET SEATS

Application filed December 19, 1928. Serial No. 327,104.

My invention relates to toilet seats and has a special relation to hinges therefor.

One object of my invention is to provide a member concealed within a toilet seat for rigidly securing together a pair of hinge members, one of which is provided with a check or stop, and for preventing any tendency towards relative movement between said hinge members from being communicated to the body of the seat.

Other objects and advantages will appear as the description proceeds.

Referring to the accompanying drawings:

Fig. 1 is a rear elevational view of a toilet seat embodying my invention, parts being shown in section;

Fig. 2 is a sectional view on a line II—II of Fig. 1 the seat being broken away; and

Fig. 3 is a view similar to Fig. 2 but showing the seat in elevated position.

In the illustrated embodiment of my invention the seat 1 has an opening extending transversely through the rear thereof, being of square shape as viewed in cross section. A rod 2 fits tightly in and extends through the opening and projects slightly beyond the sides of the seat and on its ends a pair of oppositely disposed hinge-plates 3 are mounted, each having an opening therein which is square in cross section and in which the rod is rigidly secured, its ends being slightly flattened.

Each of the hinge-plates has a pintle 4 thereon which is pivotally mounted in the socket of a standard 5 adapted to be secured to a bowl, not shown.

The pintle has two cylindrical surfaces of a different radii which engage and turn on corresponding surfaces defining the wall of the socket. Thus a stop 6 is formed on the standard, which is engaged by a shoulder 7 on the pintle when the seat is moved to the elevated position shown in Fig. 3.

The described construction is very durable, particularly for the reason that any tendency of one of the hinge-plates to twist relatively to the other is prevented by the rod and is therefore not communicated to the body of the seat, as has been the case heretofore where hinge-plates were secured to the side of the seat.

With the described construction the rod 2 may be made of very small cross section and thus there is no danger of the seat splitting, even after prolonged usage. It is also possible to use hinge-plates of small dimensions, which therefore present an especially attractive appearance.

The invention is not limited to the specific details of the construction described and illustrated, which may be extensively modified. For instance, the rod 2 need not be square in section but may be of other non-circular shapes; and a substantial range of equivalents is contemplated within the scope of the appended claims.

What I claim as new and desire to protect by Letters Patent is:—

1. The combination of a toilet seat, a rod of rectangular shape in cross section fitting in and extending through a hole of similar shape in the rear of said seat and projecting beyond the sides thereof, a pair of hinge members, each having a rectangular hole in which said rod is tightly fitted, said members engaging the sides of said seat and having laterally projecting portions, and standards having sockets in which said portions are pivoted, one of said standards and one of said members having engageable portions for limiting the movement of said seat and retaining the same in elevated position.

2. The combination of a toilet seat, a rod of non-circular shape in cross section fitting in and extending through a hole of similar shape in the rear of said seat and projecting beyond the sides thereof, a hinge member rigidly secured on each end of said rod, and a supporting standard for each member pivotally supporting the same, said hinge member having two concentric cylindrical surfaces of different radii and said socket having similar surfaces constituting a bearing for the first mentioned surfaces whereby a stop is formed on said standard for engaging a shoulder on said member and limiting the pivotal movement of said seat.

3. The combination of a toilet seat, a rod of non-circular shape in cross section fitting

in and extending through a hole of similar shape in the rear of said seat and projecting beyond the sides thereof, a pair of hinge members, each having a non-circular hole in which said rod is tightly fitted, said members engaging the sides of said seat and having laterally projecting portions, and standards having sockets in which said portions are pivoted, said hinge member having two concentric cylindrical surfaces of different radii and said socket having similar surfaces constituting a bearing for the first mentioned surfaces whereby a stop is formed on said standard for engaging a shoulder on said member and limiting the pivotal movement of said seat.

In testimony whereof I hereunto subscribe my name.

JOSEPH W. BISHOP.