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R. L. WHITE.

ATTACHMENT FOR WATER CLOSETS.

APPLICATION FILED FEB. 19, 1902.

NO MODEL.

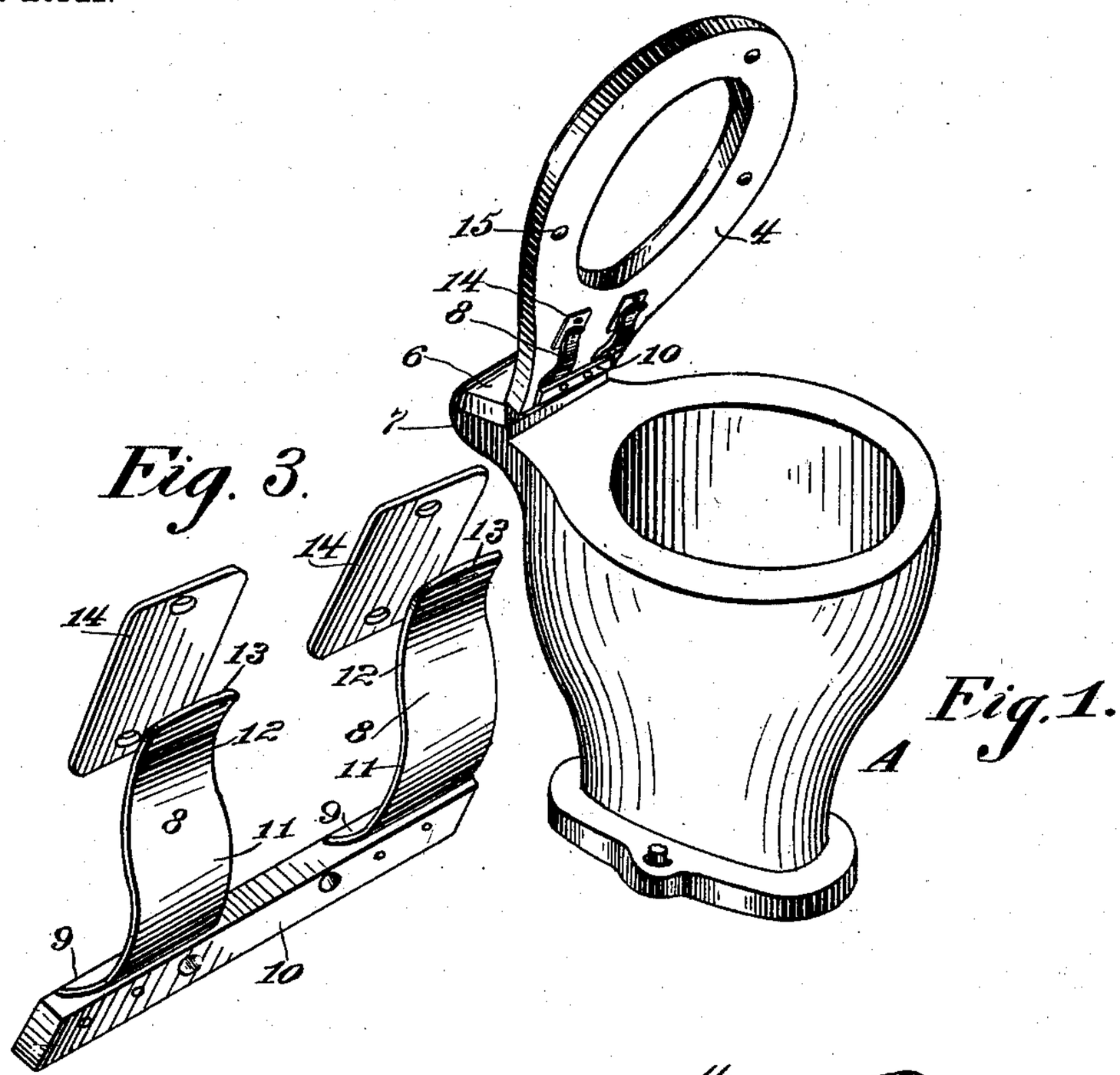

Fig. 3.

Fig. 1.

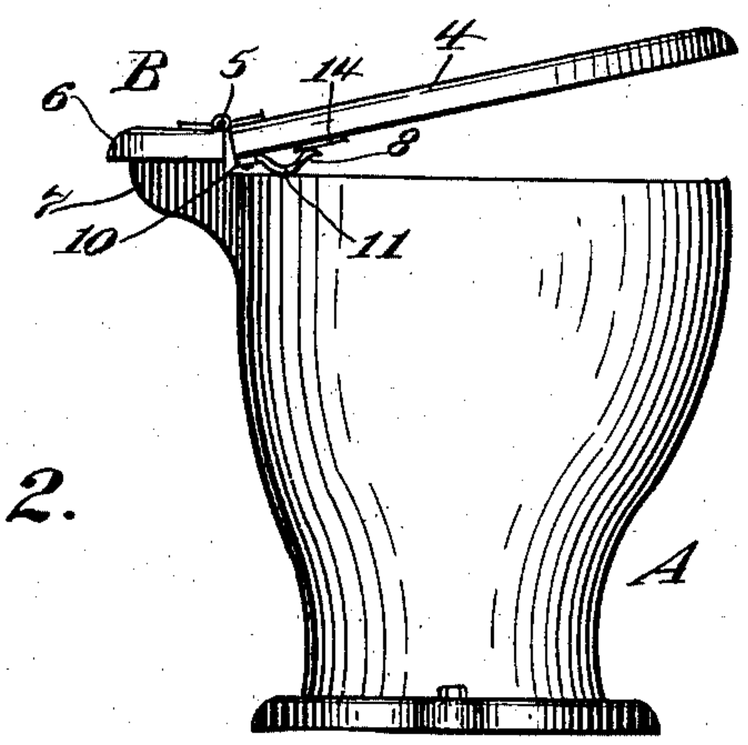

Fig. 2.

Witnesses:
J. C. Davidson
A. W. Pellman

Inventor:
Robert L. White
By his Attorney
F. A. Richards.

UNITED STATES PATENT OFFICE.

ROBERT L. WHITE, OF HARTFORD, CONNECTICUT.

ATTACHMENT FOR WATER-CLOSETS.

SPECIFICATION forming part of Letters Patent No. 719,925, dated February 3, 1903.

Application filed February 19, 1902. Serial No. 94,719. (No model.)

To all whom it may concern:

Be it known that I, ROBERT L. WHITE, a citizen of the United States, residing in Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Attachments for Water-Closets, of which the following is a specification.

This invention relates to water-closet attachments, and has for its object to provide an improved buffer for the hinged seats or lids of water-closets.

Another object of the invention is to provide a device for taking up the shock of impact of a seat or lid when violently closed.

Another object of the invention is to provide a buffer for causing a water-closet seat or lid to gradually decrease its velocity on falling toward the bowl, and a further object is to provide means for gradually imparting the force of the momentum of the fall of a water-closet lid or seat to the bowl.

Water-closet bowls are frequently broken, especially in public places where subjected to careless use, by the impact of the falling lid or seat thereon, to avoid which the organization of the present invention provides a device whereby a yielding contact will be established between the seat and bowl before the seat gains much velocity, and such contact will become less yielding up to the point of overcoming the momentum of the seat and stopping the same, but not of sufficient strength to raise the seat while in use. For this purpose a leaf-spring of a bowed form may be employed, one end secured to the seat or lid, the bow toward the bowl, and the other end may be free and at a distance from the seat or lid, the spring being so disposed that upon the closing of the seat or lid the bow will come into yielding contact with the bowl, and as the seat closes the free end of the spring will be forced against the seat and be made thereby less yielding. The seat having been impeded somewhat before the spring is given its greatest power of resistance, a wear or friction plate may be placed upon the seat for the free end of the spring to prevent it wearing the wood, and thereby changing the tensional effect of the spring and to permit the free motion of the spring in straightening under the pressure.

In the drawings accompanying and forming part of this specification, Figure 1 is a perspective view of a water-closet bowl and hinged seat with a form of my invention applied thereto, the seat being shown as raised. Fig. 2 is a side view thereof with the seat held out of contact with the bowl, and Fig. 3 is an enlarged view of the device detached.

Similar characters of reference refer to like parts in the several figures.

My device may be and is shown as attached to any desired form of bowl (designated in a general way by A) and provided with any convenient form of seat, (designated in a general way by B,) the seat, in the form of a lid, comprising a seat portion 4, hinged at 5 to a portion 6, shown as secured to an extension 7 of the bowl. In the present instance two leaf-springs 8 8 are illustrated and shown herein as each secured at one end 9 to a bar 10, capable of being fastened on the under side of the seat, screw-holes being shown for such purpose. Each spring is shown as forming a downward bow 11 and an upward end 12, slightly curved back at the free end 13. Wear-plates 14 14 may be fastened to the seat, screw-holes being shown for the purpose, for receiving the friction of the springs, saving the seat, and maintaining the surface for the contact of the springs constant, also acting to facilitate the movement of the ends of the springs. Some suitable device for slightly elevating the seat from the bowl when in use may be employed. In the drawings buttons 15 are illustrated. The free ends of the springs may be when the bar is secured in place at a distance from the seat, whereby upon the closing thereof the bow will engage the bowl and cause the free ends to contact with the seat. Thus the initial contact will be very light and at a time when the spring has much yieldability, and no injurious results will follow from such engagement. As is well known, after two bodies are in intimate contact one may with safety stop the momentum of the other, where to oppose such momentum otherwise would be ac-

companied with disastrous results. Such is the operation of the organization herein. Upon the seat or lid being violently closed or dropped a contact without shock is established between the seat and bowl, after which the bowl can with safety stop the descent of the seat.

Although I have shown the device as applied to the seat of a water-closet bowl, yet it will be apparent that it may be applied to the lid of any structure where the shock of the closing thereof is to be taken up, and although I have shown two bowed leaf-springs secured to a bar, yet it will be apparent that the number and form of the springs may be changed or varied, as can also their mode of attachment, without departure from the spirit of my invention.

Having described my invention, what I claim is—

1. In a device of the character specified, the combination of an attaching-bar and a bowed leaf-spring secured at its end to each of the ends thereof and having free ends projecting therefrom.

2. In a device of the character specified, the combination of a securing-bar and a pair of bowed leaf-springs each secured at one end to the bar and the free ends projecting in the same direction from the bar.

3. In a device for buffing water-closet seats, the combination with a bowl and a seat hinged thereabove, of a bowed leaf-spring having one of its ends secured to the seat near the hinged end and its other end projecting away from the hinge and in sliding engagement with the seat, and a wear-plate between such end and the seat and its bow in position to engage the bowl.

4. In a device for buffing water-closet seats, the combination with a bowl and a seat hinged thereabove, of a bar connected thereto in the immediate vicinity of the hinge, a pair of bowed leaf-springs each secured at one end to the bar and the free ends projecting away from the hinge, a pair of wear-plates upon the seat for engagement with the free ends of the springs and the bow of the springs located in position to engage the bowl near the hinged portion of the seat upon the approach of the seat toward the bowl and while the seat is at a considerable distance from the bowl.

ROBERT L. WHITE.

Witnesses:
CHAS. LYON RUSSELL,
HENRY BISSELL.