Feb. 17, 1931. E. BUSTIN 1,792,811

SEAT AND COVER LIFTER FOR TOILETS

Filed March 19, 1930

Fig. 1.

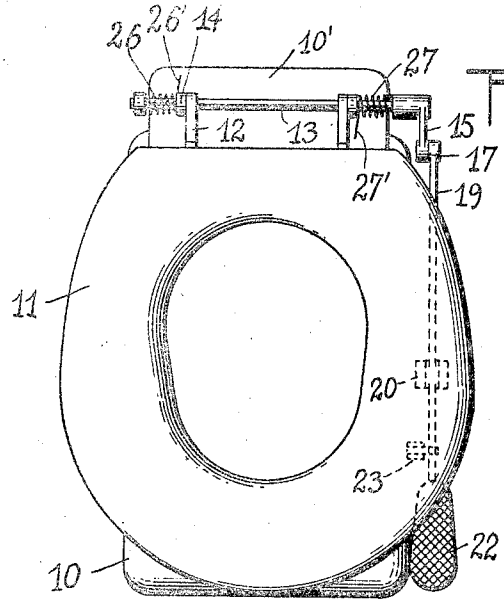


Fig. 4.

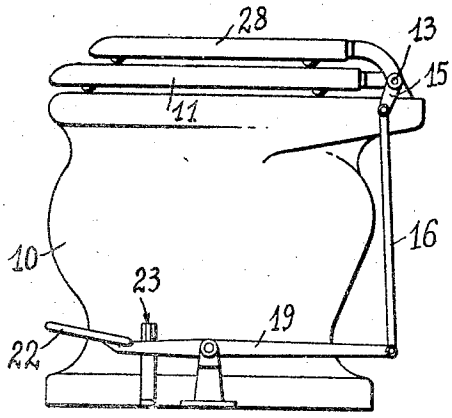


Fig. 2.

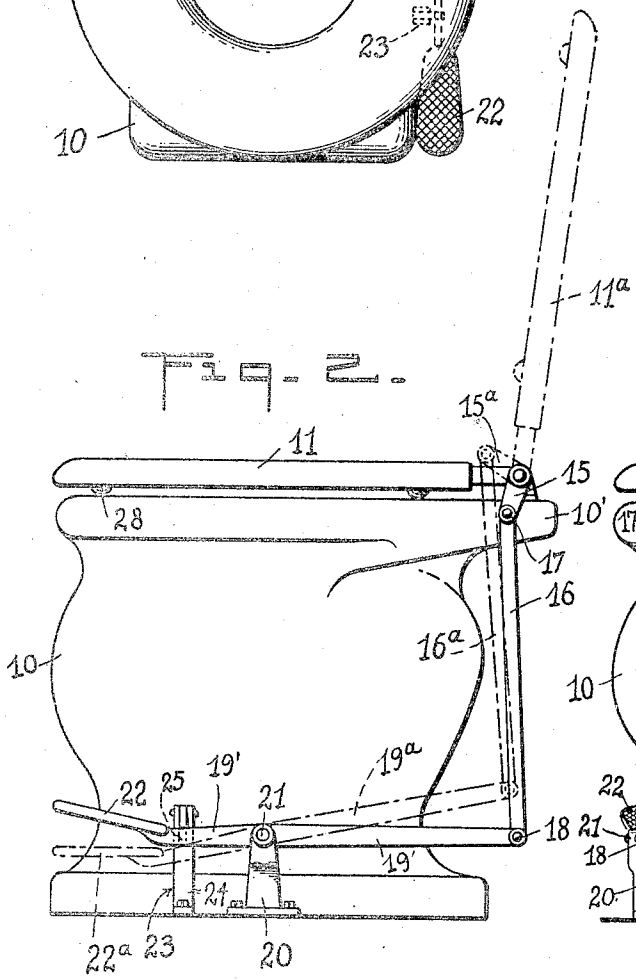
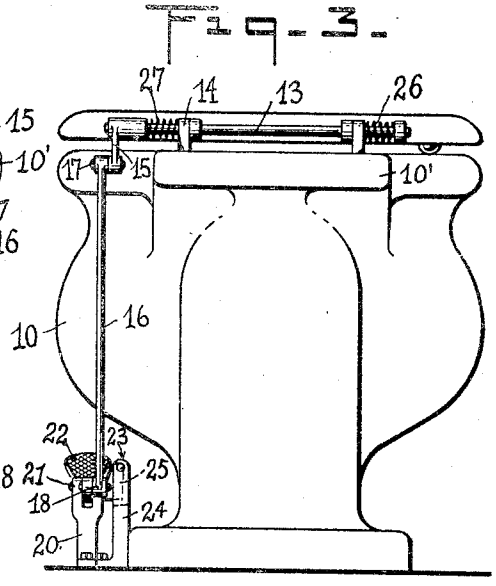


Fig. 3.



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UNITED STATES PATENT OFFICE

EMMA BUSTIN, OF NEW YORK, N. Y.

SEAT AND COVER LIFTER FOR TOILETS

Application filed March 19, 1930. Serial No. 436,935.

This invention relates to mechanisms for raising and closing toilet seats, covers and similar devices and has for its main object to provide a device for the purpose mentioned which may be operated in a sanitary manner by the foot.

Another object of this invention is to provide a device as characterized, which will secure a toilet seat or cover in both its open and closed positions and will make it easy and convenient to release it from any of these positions.

Still another object of this invention is to provide a mechanical toilet seat or cover lifting and closing device the movements of which will be gradual and soft and which will not cause the toilet seat cover to close with a hard impact or with undue noise.

Further objects of this invention will be apparent as the specification of the same proceeds and among them may be mentioned to provide a device as characterized which will be simple in construction, inexpensive to manufacture, easy to apply and to operate and which will be applicable to existing toilet seats and covers.

In the drawings:

Fig. 1 is a plan view of a toilet bowl and seat with my device applied thereto;

Fig. 2 is a side elevation of the same.

Fig. 3 shows a rear view thereof, while

Fig. 4 is a somewhat diagrammatic side elevation of a toilet bowl which has a seat and also a cover on the same, my invention being shown as applied to the cover.

Referring now to the drawings more closely by characters of reference, the numeral 10 indicates any of the usual standard toilet bowls with a usual seat 11 provided for the same, being secured by arms 12 to a pin or shaft 13 journalled in standards 14 secured on the rear part of the bowl 10. Pin or shaft 13 has an arm 15 secured at the one end thereof and a link member 16 is hingedly connected to the outer end of said arm at the one end of said link member as at 17, while the other end 18 thereof is hingedly connected to the inner end of a rocking lever 19 pivoted in an upright 20 at the side of the bowl 10 in any suitable manner as at 21, while the forward end of said lever 19 is provided with a pedal 22.

Now, supposing that the seat 11 normally is in a closed position, as shown by the full lines in Fig. 2, it will be obvious that by stepping on the pedal 22 and pressing the same downwardly into about the position 22*a*, shown by the dot and dash lines in Fig. 2, lever 19, link member 16 and arm 15 will take up the positions 19*a*, 16*a* and 15*a* and the seat will be opened into the position shown by the dot and dash lines and indicated by the numeral 11*a*. This operation will provide a convenient and sanitary method for opening said seat and will do away with the necessity of handling said toilet seat with the hand of the user.

In order to secure the toilet seat in its indicated open position a catch device may be arranged to operate on the forward portion 19′ of the rocking lever 19, said catch device preferably consisting of an upright 24 in the upper end of which a tongue 25 is hingedly secured. Resilient means, well known in the art and not shown in the drawings may be applied to said tongue to give the same a tendency to project forwardly to a limited extent so as to normally rest over and on the forward part 19′ of the lever 19 when in a depressed position, thereby preventing its return, and securing the seat 11 in its open position 11*a*. When it is desired to permit said seat to return into its position closed down upon the bowl 10, the user with a slight movement of his foot may press the tongue 25 inwardly until it releases the lever 19.

In order also to secure a normally closed position for said seat a spiral spring 26 may be arranged around one end of the pin 13, one end 26*a* of said spring resting on the

stationary rear part 10′ of the toilet bowl, said spring being arranged in such a manner, as is well known in the art that it will have a tendency to counteract the opening movement of the seat 11 and will close it down upon the bowl 10, when permitted to operate. The opening of the toilet seat will be attained by a pressure on the pedal 22 counteracting the effect of the spring 26.

I preferably also apply a second spring 27 around the other end of the pin 13, the free end 27′ of the spring being arranged in a reverse direction to that of the spring 26 and said spring 27 being arranged in such a manner that it will be compressed when the toilet seat is closed down and therefore will have a tendency to open said seat, counteracting the said first spring 26. The first mentioned spring 26, however, may be made stronger than said second spring 27 so that the normal tendency will be to close the seat down upon the bowl 10, but on account of the opposing force of the spring 27 the movement will be executed in a soft and gradual manner preventing an undue impact of the seat 11 on the top of the bowl 10, for which purpose the rubber cushion pieces 28 also may be applied to the underside of the seat 11.

In Fig. 4 I show the application of my device to a toilet cover. The principle, operation, and parts of the same are identical with the embodiment hereinbefore described with the exception that not the seat 11 but the cover 28 is secured on the pin 13, while the seat 11 in this exemplification is loose on the pin, as it is well known in the art.

It will be understood that changes and variations may be made in the parts of this invention and I hereby reserve all my rights to any and all such changes and modifications as are within the spirit of the invention and the scope of the appended claims.

What I claim as new, is:

1. In combination with a toilet bowl and the seat hinged thereon, a rocking lever along one side of said bowl with a pedal piece on the front thereof; a link mechanism connecting the rear part of said rocking lever to the rear portion of said seat whereby a pressure exerted on said lever will cause said seat to open around its pivot, a resilient means normally tending to keep said seat in its closed position, and a second resilient means being weaker in force than said first one and having a tendency to open said seat.

2. In combination with a toilet bowl and the seat hinged thereon a rocking lever along one side of said bowl with a pedal piece on the front thereof; a link mechanism connecting the rear part of said rocking lever to the rear portion of said seat whereby a pressure exerted on said lever will cause said seat to open around its pivot, a resilient means normally tending to keep said seat in its closed position, a second resilient means being weaker in force than said first one and having a tendency to open said seat, a pin secured on said seat journalled on the rear part of said bowl; an arm secured on said pin pivotally connected to said link mechanism; said resilient means comprising spiral springs arranged in a reverse manner around said pin, their opposite ends resting on a portion of said bowl.

Signed at New York, in the county of Bronx, and State of New York, this 8th day of March, 1930.

EMMA BUSTIN.