Aug. 13, 1935. L. GILIASSO 2,011,404

SEAT OR COVER LIFTER

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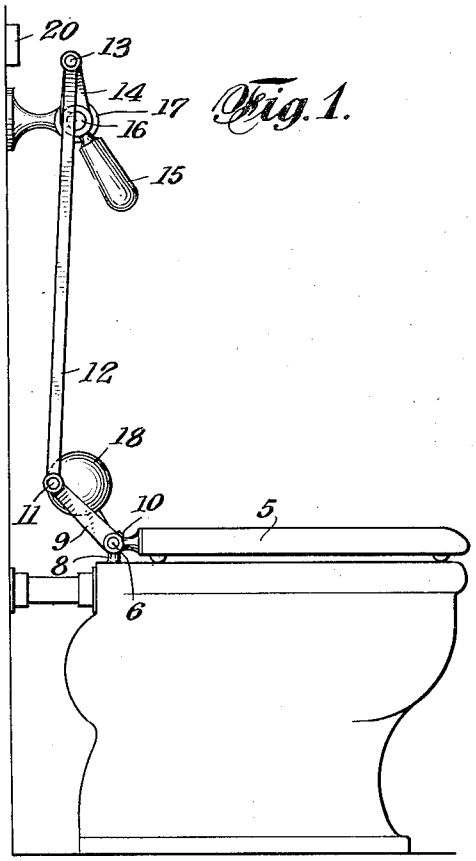


Fig. 1.

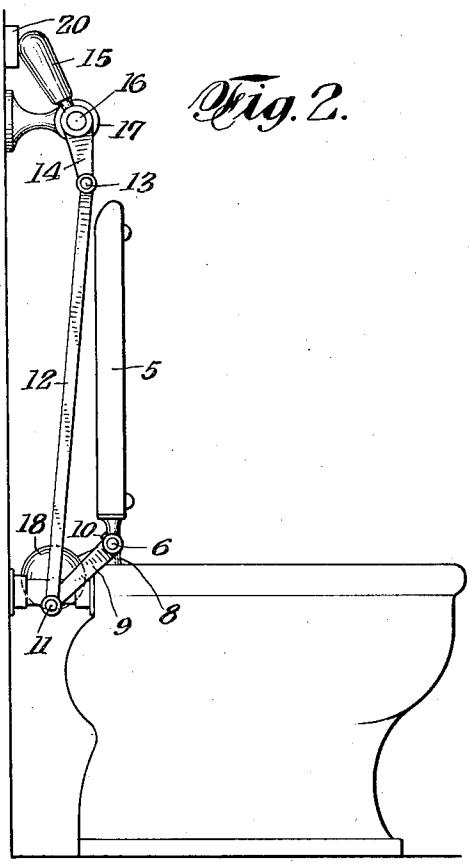


Fig. 2.

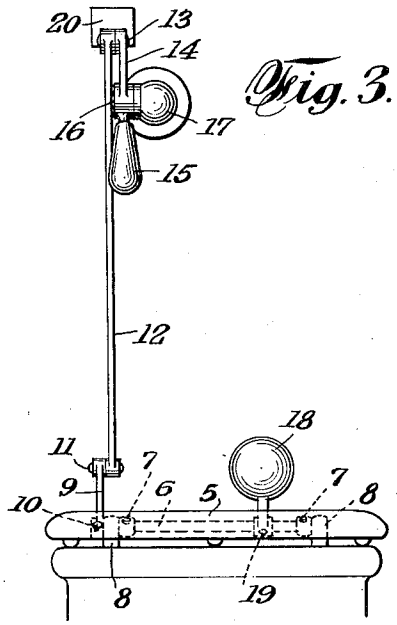


Fig. 3.

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SEAT OR COVER LIFTER

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4 Claims. (Cl. 4—251)

The objects of this invention are to provide a lifting and lowering device for toilet seats or covers, which will consist of but few parts, be simple, inexpensive and easily applied to existing fixtures, and which will be out of the way, off the floor, not interfering with cleaning operations and not objectionable either from the standpoint of appearance or taking up room.

These objects are attained by the novel features of construction, combinations and relations of parts hereinafter described, claimed and illustrated in the accompanying drawing.

The drawing is intended to show a practical and at present preferred embodiment of the invention, but as will appear from the claims, the structure may be modified and changed in various ways all within the true intent and broad scope of the invention.

Figs. 1 and 2 are side elevations illustrating the two positions of the mechanism.

Fig. 3 is a broken front view.

As shown in the several views, the seat 5, of the toilet fixture is fixed to a horizontal shaft 6, as by means of set screws 7, so as to move with said shaft when the latter is rocked in its bearings 8.

Mounted on one end of the horizontal shaft 6, is a rocker arm 9, secured in proper angular relation thereon as by means of a set screw 10, and pivotally connected at 11, with the free end of this arm is a vertically operating link 12.

The upper end of link 12 is shown pivotally connected at 13, with the rearwardly extending inner end 14, of a hand lever 15, pivotally mounted intermediate its ends at 16, on a suitable bracket or bearing 17. This bracket may be mounted on a wall or other convenient support above and at the back of the fixture, on the tank usually associated with the fixture or other suitable support.

To assure smooth easy action, the seat may be counterbalanced as by means of a counterweight indicated at 18, secured in proper angular relation on the shaft 6, as by means of set screw 19.

The invention it will be seen may be readily applied to existing toilet fixtures. With the parts properly set, it will be observed a slight lifting movement of the handle 15, will force the vertical link 12, downwardly and thereby swing the seat or cover into the up-raised relation indicated in Fig. 2, where it may be held in a substantially balanced condition by counterweight 18. The backward movement of the handle may be limited by a stop or buffer 20, preventing over-swing of the parts and leaving them in position where a forward movement of the handle will easily lower the seat or cover. The levers 9 and 14 are shown as of different lengths, so that there will be no dead centers and the adjustability of the lower lever or rocker arm 9, enables the parts being set in the proper angular relations to secure the smoothest and easiest action. The parts are off the floor, so that cleaning around the fixture is not in any way interfered with and the extension of levers 3 and 14, toward the back locates these parts and the connecting link 12 back close to the wall and out of the way of normal use of the fixture. The invention is applicable to and useful with either a seat or a cover, or both, as they usually combine. The description and the claims are to be construed accordingly. To retain the seat in the raised relation and to prevent it from accidently dropping, the parts may be so proportioned and arranged that the lever extension 14 of the handle will swing forwardly past the dead center point of the upper pivot 13 of the link 12, thus constituting these parts a self-locking toggle which will not give way until the handle is again rocked forwardly.

What is claimed is:

1. A seat or cover lifter, comprising in combination with a seat or cover carried by a horizontal shaft journalled for rocking movements, a rocker arm on said shaft, an upwardly extending link pivotally connected at its lower end with said rocker arm, a hand lever pivoted on a horizontal axis at a point above the seat or cover and pivotally connected with the upper end of said link and a counterweight connected with said rock shaft to partially balance the seat or cover.

2. In combination with a seat or cover of the character described carried by a horizontally journalled shaft, counterbalancing means and a vertically operating rocker arm connected with said shaft, a vertically operating link connected with and extending upwardly from said rocker arm and a vertically operating hand lever journalled on a horizontal axis and operatively connected with the upper end of said vertically operating link.

3. In combination with a fixture having a horizontally hinged seat or cover and a hinge rod forming the hinge mounting for said seat or cover, a rocker arm fixed on, supported by and projecting rearwardly from the hinge rod of said seat or cover, a handle pivoted horizontally above the fixture and having a rearwardly extending arm and an upright link connected at opposite ends to said arms and located thereby rearwardly of said fixture, and said link and arms thereby partly counterbalancing the seat or cover and thus

by their weight aiding in the lifting movement of the seat or cover.

4. In combination with a fixture having a horizontally hinged seat or cover and a rocker arm projecting rearwardly from the hinge of said seat or cover, a handle pivoted horizontally above the fixture and having a lever arm, an upright link connected at opposite ends to said arms and forming with one of said arms a toggle which will lock to hold the seat or cover in raised position, said handle being movable to swing the parts past the locking position of said toggle and stop means for positioning the parts in the locking position aforesaid.

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