No. 621,790. Patented Mar. 28, 1899.

F. BURGER & H. M. WILLIAMS.

ATTACHMENT FOR RAISING OR LOWERING SEATS OF CLOSETS.

(Application filed Mar. 24, 1898.)

(No Model.)

Fig. 1.

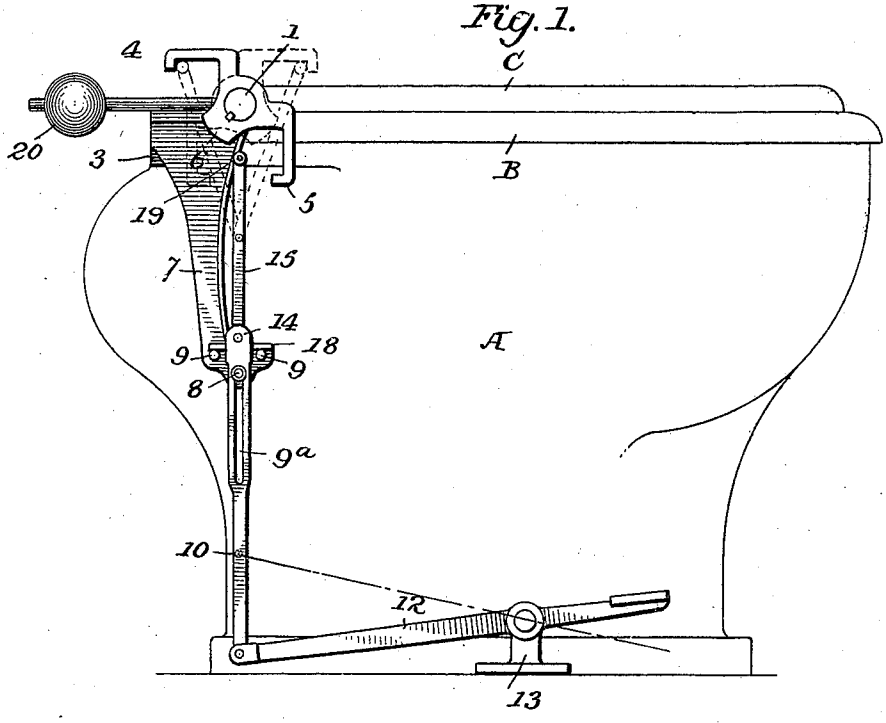
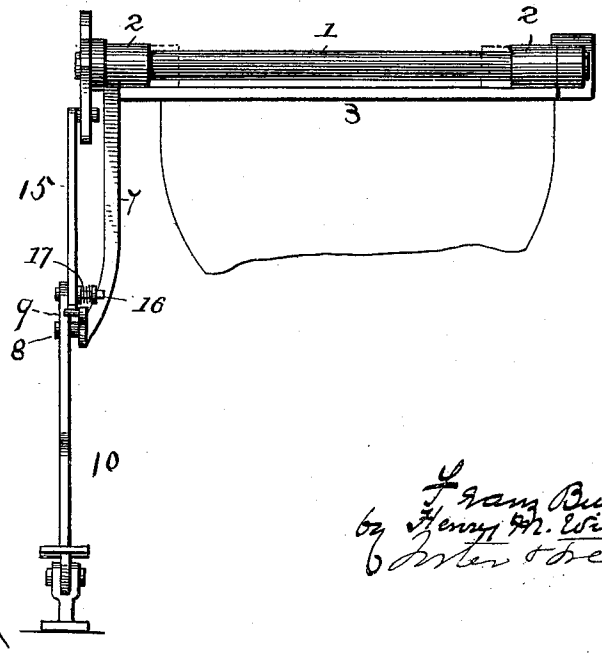


Fig. 2.



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UNITED STATES PATENT OFFICE.

FRANZ BURGER AND HENRY M. WILLIAMS, OF FORT WAYNE, INDIANA; SAID BURGER ASSIGNOR OF ONE-HALF OF HIS INTEREST TO SAID WILLIAMS.

ATTACHMENT FOR RAISING OR LOWERING SEATS OF CLOSETS.

SPECIFICATION forming part of Letters Patent No. 621,790, dated March 28, 1899.

Application filed March 24, 1898. Serial No. 675,053. (No model.)

To all whom it may concern:

Be it known that we, FRANZ BURGER and HENRY M. WILLIAMS, citizens of the United States, residing at Fort Wayne, in the county of Allen and State of Indiana, have invented certain new and useful Improvements in Attachments for Raising or Lowering the Seats of Closets, of which the following is a specification.

This invention relates to certain new and useful improvements in devices for operating the seats or lids of closets or the like, having for its object to provide simple and effective means whereby the seat of a closet may be either raised or lowered by pressure applied by the foot; and with this object in view the invention consists in the novel construction and arrangement of parts hereinafter more particularly described.

In the accompanying drawings, forming a part of this specification, and in which like letters of reference designate corresponding parts, Figure 1 is a side elevation of one construction embodying the invention, and Fig. 2 is a front elevation thereof.

Referring more particularly to the drawings, A designates the bowl of a closet, B the seat, and C the lid, which latter is in the present instance to be raised and lowered. The lid C at its rear edge is secured upon a rock-shaft 1, journaled near its opposite ends in collars 2 of a transverse bar 3. Mounted centrally upon one end of the shaft is an engaging device comprising two hooked arms 4 5, extending upon opposite sides of the said shaft, and a central projection 6, arranged intermediate the arms. The normal position of the projection 6 when the lid is lowered is at one side of the plane of the axis of the shaft 1, and when the lid is lifted it swings with the shaft and assumes a position upon the opposite side of the said shaft. Projecting downward from the transverse bar 3 is a stationary hanger or bracket 7, provided at its lower end with a central pin 8 and with two projections 9 upon opposite sides of said pin, said projections being in the same horizontal plane. The central pin extends through the longitudinal slot 9^a of a vertical link 10 to guide the same in its up-and-down movement. At its lower end the link 10 is pivotally connected to an operating-lever 12, which is in turn pivoted intermediate its ends to a bracket 13 and extends forwardly to the front of the bowl, where it is provided with a bearing for the foot.

At its upper end the link is pivoted by means of a pin 14 to the lower end of a vertical lifting-arm 15. This pin 14 projects to one side of the lifting-arm and is provided at its end with a head 16, intermediate which and the side of the arm is a coil-spring 17, which serves to force the lifting-arm into firm frictional contact with the side of the link. As thus constructed the arm 15 may be swung upon the pin to either side of a right line with the link and retained frictionally in such position. At its extreme lower end the arm 15 is provided with a cross-bar 18, projecting from opposite edges thereof into the vertical plane of the two projections 9, said bar being adapted to make contact with said projections when the lifting-arm is in its lowered position and through such contact swing the arm from either of its side positions into true alinement with the link 10. Upon the upper end of the arm 15 is carried a laterally-projecting friction-roller 19, the purpose of which is to engage with the under edges of the central projection 6 and those of the arms 4 5.

When thus constructed and arranged, assuming the parts to be in the position shown in full lines, Fig. 1, and pressure is applied to the forward end of the operating-lever 12, the rear end of said lever, together with the link 10 and arm 15, is lifted. This brings the friction-roller 19 into contact with the edge of the projection 6, along which it travels until the edge of the hooked arm 5 is reached. The upward movement being continued, the friction-roller moves upon the edge of said arm until it reaches an abrupt bend therein, when its movement is arrested, and the arm 5 and its rock-shaft are lifted to the position shown in dotted lines, Fig. 1. During the entire upward movement of the lifting-arm 15 it is being swung upon its pivot to the right, and it is retained in this position by

the spring 17 until it reaches its lowered position, when the cross-bar 18 makes contact with the projections 9, and the arm is straightened.

In lifting the lid C the projection is swung to the right of the plane of the axis of the shaft 1 and of the end of the arm 15. Consequently the arm 4 is brought to its lowered position, and when the lifting-arm is again elevated it is guided by the edge of the projection 6 into engagement with the lower edge of the arm 4 and forces the said arm upward, causing the shaft 1 to rock and the lid C to be lowered.

It will be obvious that as the lid is restored to its lowered position by gravity some means must be employed to prevent its too rapid descent. Accordingly a counterweight 20 is connected to the shaft 1 to project upon the opposite side thereof from the lid, which weight will tend to counterbalance the lid as it is lowered.

Without limiting ourselves to the precise construction and arrangement of the parts shown and described, since it will be obvious that various changes in such construction and arrangement may be made without departing from the spirit or scope of the invention,

What we claim is—

1. The combination with a hinged lid or seat, of a pivoted lever and means intermediate said lever and the lid or seat for raising the seat upon the movement of the lever in one direction, and for lowering the seat upon the movement of said lever in the same direction, substantially as described.

2. The combination with a hinged lid or seat, of a rocking engaging device comprising two arms and a central projection, a lifting-arm for engaging the two arms alternately, and a foot-lever for operating the lifting-arm, substantially as described.

3. The combination with a rock-shaft, of a lid or seat mounted upon the rock-shaft, an engaging device projecting from opposite sides of the rock-shaft, a pivoted lifting-arm adapted to be brought into position to alternately engage the said arms, and means for operating the lifting-arm, substantially as described.

4. The combination with a rock-shaft, of a lid or seat mounted thereon, an engaging device connected to the shaft formed with two bearing-surfaces, a lifting-arm, and means for bringing the arm into contact with one of the bearing-surfaces at one elevation thereof and with the other surface at the next elevation thereof, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

FRANZ BURGER.
HENRY M. WILLIAMS.

Witnesses:
GEO. K. TORRENCE,
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