

F. LUNA.
AUTOMATIC FLUSHING DEVICE.
APPLICATION FILED SEPT. 5, 1911.

1,044,209.

Patented Nov. 12, 1912.
2 SHEETS—SHEET 1.

FIG. 1

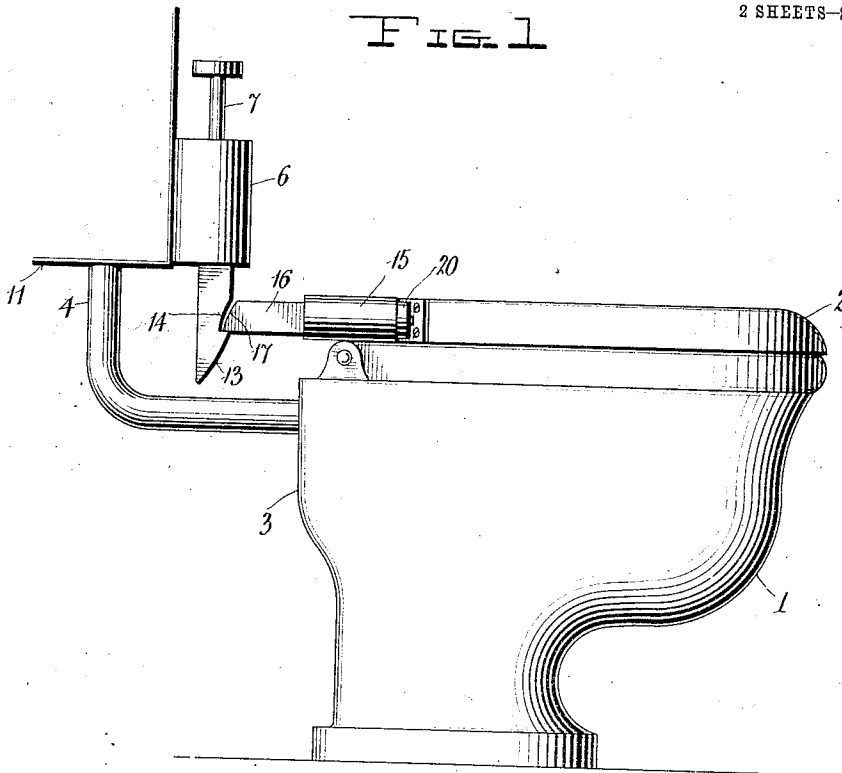
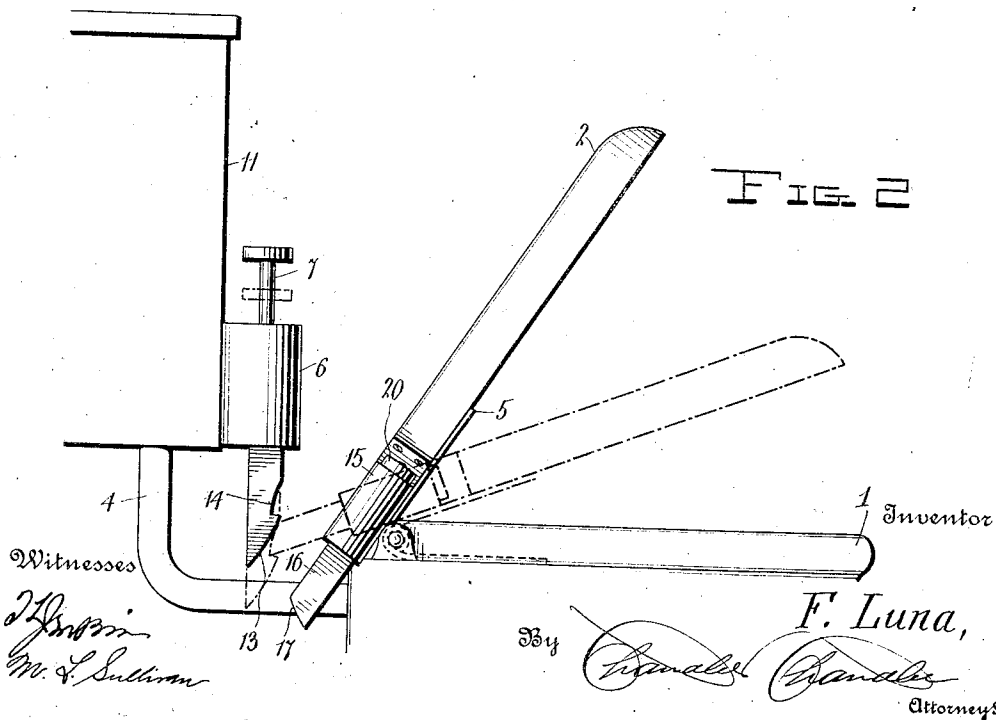


FIG. 2



F. LUNA.
 AUTOMATIC FLUSHING DEVICE.
 APPLICATION FILED SEPT. 5, 1911.

1,044,209.

Patented Nov. 12, 1912.
 2 SHEETS—SHEET 2.

FIG. 3

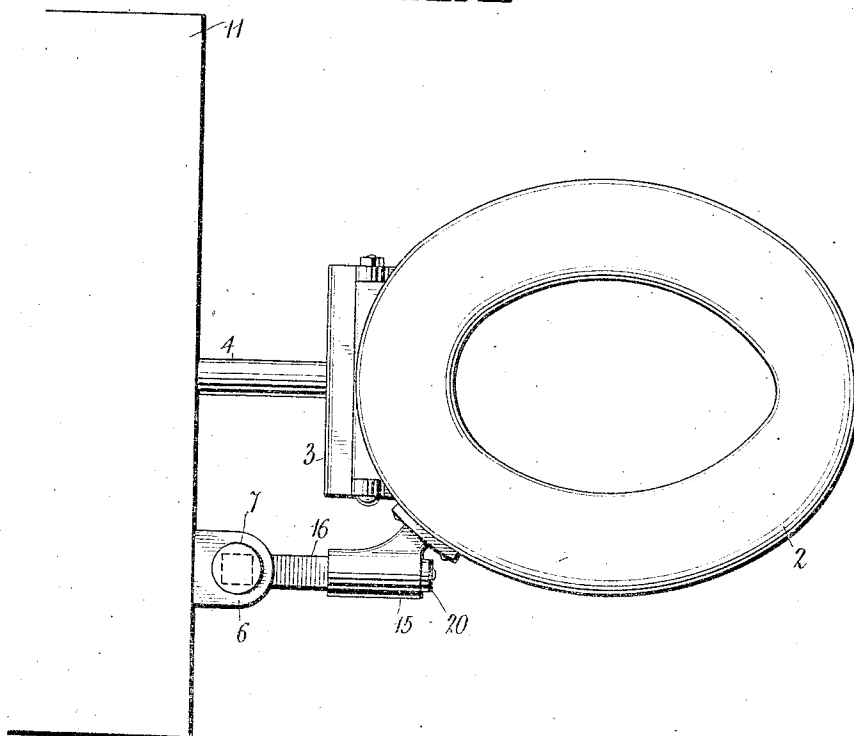
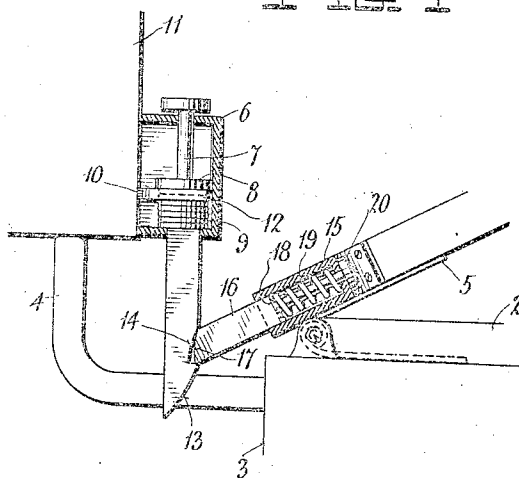


FIG. 4



Witnesses

J. J. Sullivan
M. L. Sullivan

Inventor

F. Luna,

By

Charles J. Sullivan

Attorneys

UNITED STATES PATENT OFFICE.

FRANCISCO LUNA, OF MORGANTOWN, WEST VIRGINIA.

AUTOMATIC FLUSHING DEVICE.

1,044,209.

Specification of Letters Patent.

Patented Nov. 12, 1912

Application filed September 5, 1911. Serial No. 647,635.

To all whom it may concern:

Be it known that I, FRANCISCO LUNA, a citizen of the United States, residing at Morgantown, in the county of Monongalia, State of West Virginia, have invented certain new and useful Improvements in Automatic Flushing Devices; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to new and useful improvements for seat operative mechanisms for actuating flushing devices, and the object of my invention is to improve the construction and increase the efficiency of devices of the above described character.

A further object of my invention is to provide an attachment for the seat adapted to coact with the conventional form of valve with but slight structural changes in the construction of the latter. And a still further object of my invention is to provide a device adapted to actuate the valve upon the raising of the seat but which at the same time permits the actuation of the valve in the customary manner if desired.

With these and other objects in view, my invention will be more fully described, illustrated in the accompanying drawings, and then specifically pointed out in the claims which are attached to and form a part of this application.

In the accompanying drawings, Figure 1 is a side elevation of the device in normal position. Fig. 2 is a similar view showing the seat in raised position. Fig. 3 is a top plan view of the device in the position shown in Fig. 2. Fig. 4 is a detail sectional view showing the position of the parts when actuating the flushing valve.

Referring more specifically to the drawings in which similar reference numerals designate corresponding parts throughout, 1 designates a bowl of the customary form having a hinged seat 2 and provided with a flushing rim 3 operatively connected to the customary form of flushing pipe 4, a spring 5 being interposed between the bowl and seat to normally maintain the latter in a partially raised position.

The valve operating mechanism is of the customary form and therefore that portion coacting with my device alone needs description. Said portion consists of a substantially rectangular shaped casing 6 se-

cured to the lower portion of the supply tank and immediately behind the seat and this casing is provided with apertures in its top and bottom walls through which is slidably mounted the valve pin 7, said pin being provided with an enlargement 8. Surrounding that portion of the pin positioned within the casing is a helical compression spring 9 one end of which bears against the bottom of the casing while the other end bears against the enlargement 8 thus serving to normally hold the pin in inoperative or raised position. This pin is operatively connected to the valve operating mechanism by means of the rod 10 which is slidably mounted in suitable guides formed between the inner and outer walls of the tank 11 and which terminates at its lower end with a laterally directed bifurcated portion the arms 12 of which extend one upon either side of the pin and in position to be engaged by the enlarged portion thereof.

The construction thus far described is of a well-known type and the pin in this type is so proportioned that in its raised position its lower end extends just below the bottom of the casing 6. In order to adapt it for use with my device it is extended a considerable distance below the bottom of the casing and its forward face is beveled as at 13 for a reason which will be hereinafter apparent and immediately above this beveled portion the pin is provided with a notch 14.

Secured to one side of the seat and extending rearwardly therefrom is a second casing 15 the ends of which are provided with apertures through which is slidably mounted a bolt 16, said bolt being in alignment with the pin and extending at right angles thereto with its outer end beveled as at 17 to adapt it to engage with the notch of the pin in one position of the seat. That portion of the bolt inclosed within the casing is reduced to form a shoulder 18 and bearing between this shoulder and the forward end of the casing is a helical spring 19 which normally serves to maintain the bolt in extended position, the forward end of the bolt being provided with an enlarged head 20 adapted to engage against the end of the casing and so limit its outward movement.

The operation of my improved device is very simple and is clearly shown in the drawings and therefore requires but slight description.

As the seat is pressed down the rear end of the bolt is swung upwardly until its beveled face engages with the beveled face of the pin passing over the same, the bolt 5 being forced forwardly against the action of the spring 19 until the bolt reaches the notch 14 of the pin when the spring immediately forces the rear end of the bolt into engagement with the notch, the parts 10 then being in the position shown in Fig. 2 of the drawings. As will be readily understood although the bolt is in engagement with the pin when in this position it does not prevent the pin from being pressed 15 downwardly in the customary manner. Upon the removal of pressure from the seat the spring 5 immediately raises the same and the pin 7 because of its engagement by the bolt is drawn downwardly thus actuating the valve mechanism to flush the bowl. 20 As will be readily seen as the seat is raised the bolt is gradually disengaged from the pin until when the seat is in normal position the bolt is totally disengaged therefrom and the flow of water is cut off. the 25 parts then being in the position shown in Fig. 1 of the drawings.

From the foregoing description it will be apparent that I have provided a simple 30 and efficient form of valve operating mechanism adapted to be automatically actuated by the seat and one which requires but very

slight structural changes in the customary form of valve mechanism.

It will also be apparent that I have provided a device which will automatically flush the bowl and which at the same time permits the bowl to be flushed in the customary manner when desired.

What I claim is:—

1. In a device of the character described, the combination with the spring hinged seat of a toilet closet of a vertically reciprocating spring held valve pin provided at one end with a notch, of a casing carried by said seat, a bolt slidable through said casing and having one end adapted to engage with the notch of the pin, and a spring for normally holding said bolt in extended position. 40

2. In a device of the character described, the combination with a seat, of a valve operating pin provided with a notch, of a spring pressed reciprocating bolt carried by the seat and adapted to engage with the notch of the pin in one position of the seat 50 to actuate the same, the actuation of the pin serving to release the bolt from its engagement with the notch. 55

In testimony whereof, I affix my signature, in presence of two witnesses.

FRANCISCO LUNA.

Witnesses:

R. C. WALLMAN,
WM. COBURN.