March 20, 1928. 1,663,282

N. RUSHE

TOILET DEVICE

Filed April 14, 1927

Fig. 1.

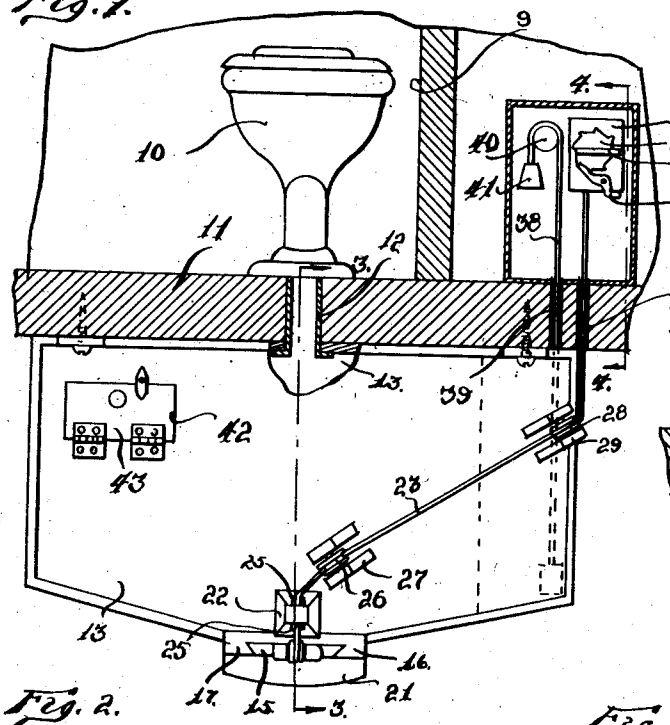


Fig. 4.

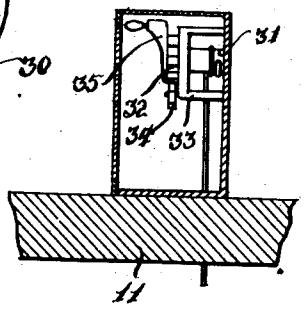


Fig. 2.

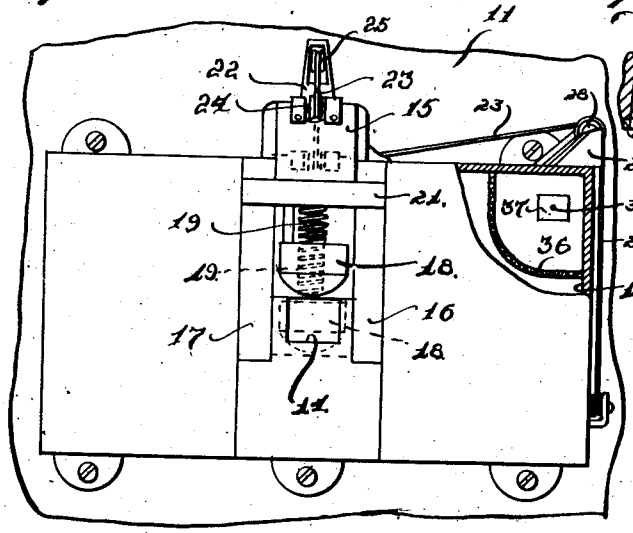
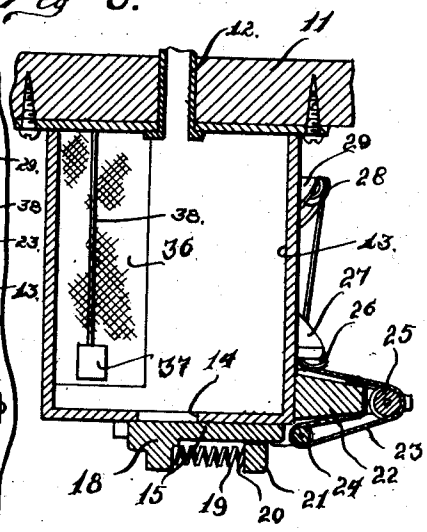


Fig. 3.



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UNITED STATES PATENT OFFICE.

NICK RUSHE, OF DETROIT, MICHIGAN.

TOILET DEVICE.

Application filed April 14, 1927. Serial No. 183,646.

My invention relates to a new and useful improvement in a toilet device, adapted for use particularly on passenger coaches. In the use of lavatories on passenger coaches at the present time, it is customary to lock the lavatory upon approach of the train to a city and retain the same in locked condition so that it is not available for use while the coach is within the limits of the city. This results in considerable inconvenience and annoyance to the passengers of the train, and the present invention has for its object the provision of a device whereby such objectionable features will be overcome, and whereby the lavatory may be left in a condition for use at all times, regardless of whether the coach is within the city limits or not.

In this way the lavatory may be open to the passengers while the train is standing at a station awaiting its time of departure.

Another object of the invention is the provision of a reserve tank which may be utilized when desired so that the lavatory may be available to the passengers at all times.

Another object of the invention is the provision of an indicating device for indicating the condition of the reserve tank so that a crowding or overflowing of the same may be prevented.

Another object of the invention is the provision of a mechanism whereby the reserve tank may be automatically emptied and the lavatory, when the train is travelling through the country, used in the manner as is now the custom.

Other objects will appear hereinafter.

The invention consists in the combination and arrangement of parts hereinafter described and claimed.

The invention will be best understood by a reference to the accompanying drawings which form a part of this specification and in which,

Fig. 1 is a fragmentary view of a lavatory showing the invention applied with parts in elevation and parts in section.

Fig. 2 is a bottom plan view of the reserve tank.

Fig. 3 is a sectional view taken on substantially line 3—3 of Fig. 1.

Fig. 4 is a sectional view taken on substantially line 4—4 of Fig. 1.

In the drawings I have illustrated the lavatory compartment 9 in which is positioned the closet bowl 10 mounted upon the floor 11 of the car or coach with which used. Communicating with the closet bowl 10 and extending through the floor 11 is a pipe 12 which communicates with the interior of a reserve tank 13. This reserve tank 13 is mounted upon the floor 11 of the car beneath the same, and is provided in its base with an opening 14 which is normally held closed by a slide 15 slidably mounted between guide brackets 16 and 17. The slide is provided with a boss 18 projecting outwardly therefrom, against which one end of the coil spring 19 engages, the other end engaging in a recess 20 formed in a cross bar 21 mounted on the guide brackets 16 and 17, the spring 19 serving normally to retain the slide 15 in position shown in Fig. 3. Projecting outwardly from the side of the tank 13 is a bracket 22 to which is secured one end of a cord 23 passed around a roller 24 rotatably mounted on the tank 13 and around a roller 25 rotatably mounted on the bracket 22, and thence around a roller 26 rotatably mounted on a bracket 27 which is fixed to the side of the tank 13, and thence around a roller 28 which is rotatably mounted on a bracket 29 fixed to the tank 13. From this position the cord 23 extends through an opening 30 formed in the floor 11 and is fixed to a shaft 31 upon which is fixedly mounted a ratchet wheel 32, said shaft 31 extending through the bracket 33. Mounted upon the bracket 33 is a dog 34 and a crank 35 is provided for rotating the shaft 31.

The tank 13 is partitioned off by the screen partition 36 to form a chamber in which is positioned a float 37 extending through which is a cord 38 which passes through the opening 39 formed in the floor 11, and around a roller 40, the upper end of the cord carrying a weight 41.

In use, under normal conditions, the lavatory would be used as is customary now, the shaft 31 being rotated to wind the cord 23 so as to move the slide 15 into non-closing position, leaving the opening 14 exposed. When it is desired to bring the train to a stop or the limits of a city is entered, the dog 34 may be disengaged from the ratchet wheel 32 to permit the slide 15 to move into closing position, the reserve tank 13, in this event, being called into operation to prevent the undesirable features resulting from the use of the lavatory under conditions at the present time. Should the coach be stationed at a

particular place for a considerable time so that danger of flooding the reserve tank 13 might be effected, the float will by raising cause a lowering of the weight which may be inspected by the conductor of the car and the condition of the reserve tank 13 thus ascertained.

It will be noted that the bottom of the tank is inclined toward the opening 14 so that, after considerable use when the coach is moved into the district where a dumping of the reserve would be desirable, the contents may be precipitated from the tank 13.

An opening 42 closed by the closure 43 is provided in the tank 13 into which a hose or other suitable cleaning member may be inserted for flushing purposes.

In this manner I have provided a device whereby the advantages pointed out are attained and the objectionable features overcome.

While I have illustrated and described the preferred form of my invention, I do not wish to limit myself to the precise details of structure shown, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a device of the class described, a reserve tank having an opening formed in its base; a pair of guide brackets extending at opposite sides of said opening; a closure slidably mounted between said guide brackets for opening and closing said opening; a boss projecting outwardly from the lower surface of said closure; a bar secured to and projecting transversely of said brackets adjacent one end thereof; and a spring engaging at one end of said bar and at its opposite end, said boss for normally retaining said closure in closing psition.

2. In a device of the class described, a reserve tank having an opening formed in its base; a slidably mounted closure for said opening; resilient means for normally retaining said closure in closing position; a bracket projecting outwardly from one side of said tank, adjacent its base; a roller rotatably mounted on said bracket adjacent its outer end; a roller on said closure; and a cord projected around said roller on said bracket and said roller on said closure, one end of said cord being secured to said bracket.

3. A device of the class described adapted for use with a passenger car, comprising: a reserve tank positioned below the floor of said car and having an opening formed in its base; a slidable closure for said opening; resilient means for normally retaining said closure in closing position; a plurality of brackets mounted on one side of said tank; a roller rotatably mounted in each of said brackets; a cord secured to said closure and extending upwardly into said car, engaging said rollers; a drum in said car, said cord being attached to said drum; means for rotating said drum for winding said cord thereon, the winding of said cord thereon effecting a movement of said closure to open position; a ratchet wheel rotatable in unison with said drum; and a pawl engageable with said ratchet wheel for locking said drum against unwinding movement.

In testimony whereof I have signed the foregoing specification.

NICK RUSHE.