

(No Model.)

T. R. TREIBER.
WATER CLOSET.

No. 524,655.

Patented Aug. 14, 1894.

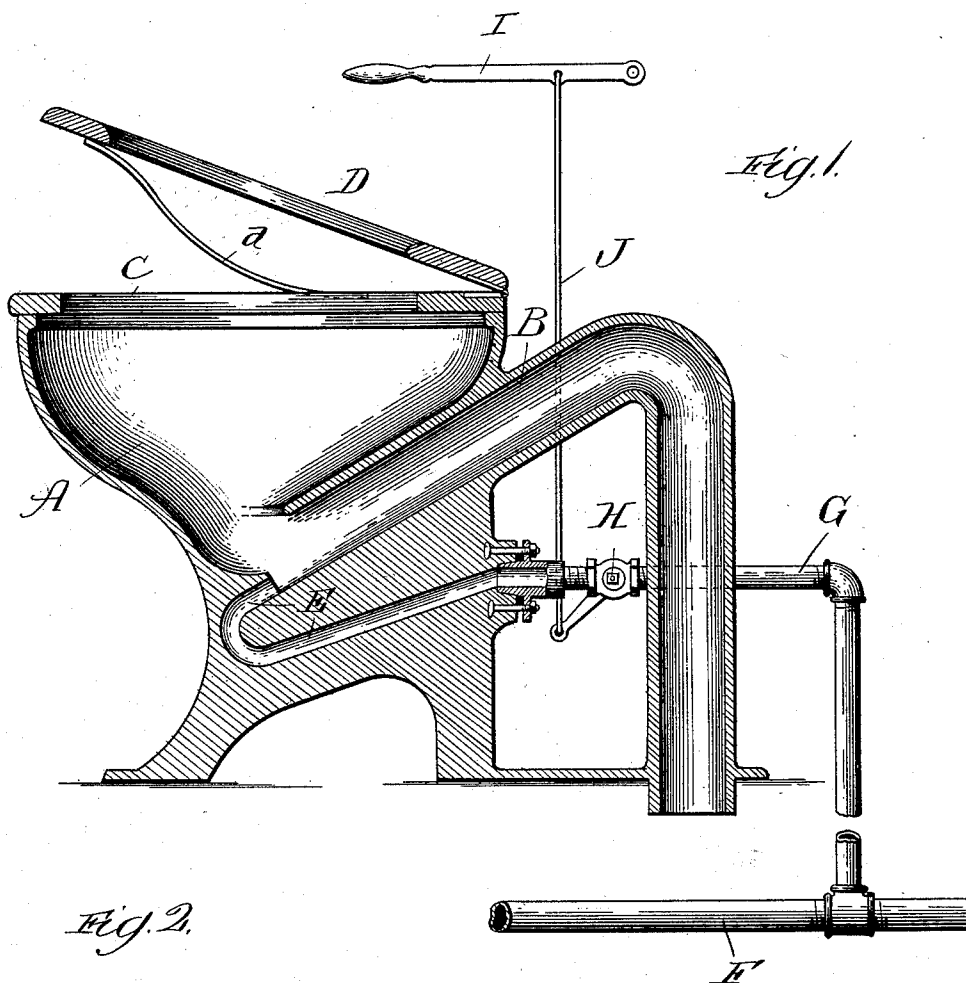
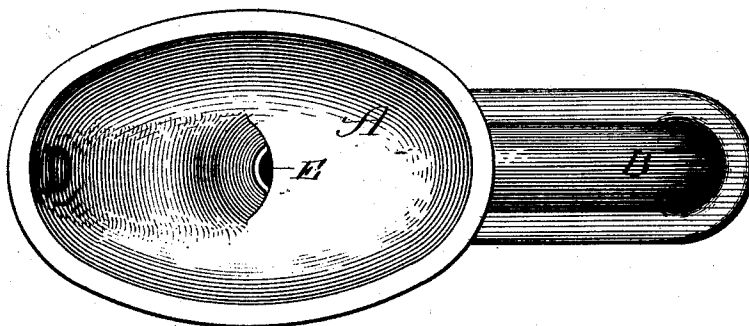


Fig. 2.



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UNITED STATES PATENT OFFICE.

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WATER-CLOSET.

SPECIFICATION forming part of Letters Patent No. 524,655, dated August 14, 1894.

Application filed December 30, 1892. Serial No. 456,827. (No model.)

To all whom it may concern:

Be it known that I, THEODORE R. TREIBER, of Chicago, Illinois, have invented certain new and useful Improvements in Water-Closets, of which the following is a specification.

While my invention is specially applicable for use on railroad cars, it is nevertheless capable of use in other connections and I shall merely show and describe it in connection with a water closet on a railway car for the sake of brevity and clearness.

The supply of water which may be used for the purpose of flushing the bowls of the closets on cars, is necessarily exceedingly limited and any means which will enable the bowl to be effectively flushed with the greatest economy of water, will be of great value and usefulness. To this end my invention is devised, and it consists, using general terms, in providing means whereby a jet of compressed air may be thrown or injected into the closet to flush the bowl, or aid in so flushing it, instead of the water generally admitted to the closet for that purpose.

My invention therefore consists in the method and apparatus hereinafter more particularly described and claimed.

In the drawings Figure 1, is a vertical sectional view of a closet provided with my improvements and Fig. 2 is a plan view thereof.

The closet is constructed for the greater part in the ordinary manner, having a bowl A, waste pipe B, seat C, and a secondary seat D. This seat D may be normally held in a raised position by a spring *d* or in any other suitable manner. When the seat is depressed by the weight of the occupant water may be caused to flow into the bowl to a certain height. This is one manner of causing water to enter the bowl—any other that is suitable may be used if preferred. The bowl is provided, further, with a passage or channel E, preferably of the form shown and entering or opening into the bowl at or near its bottom and at the proper place and angle to direct air that may be forced through the passage into the waste pipe. At its outer end this passage is connected with any suitable source of compressed air, as for example, on a train, it may be connected with the train pipe F by means of a branch pipe G. A valve of any

suitable and desired construction is further necessary to control the flow of air through the passage. This valve may be located at any desired point and operated in any suitable manner. In the drawings, I have shown it as located in the pipe G, indicated by the letter H, and operated by means of a hand lever I and connecting rod J, the lever being located within easy reach of the person using the closet. If desired, however, the valve may be connected to and operated automatically by the seat, this valve, *per se*, not forming any part of my invention—and I have only shown one form which may be taken as an illustration.

The device operates as follows: When it is desired to flush and empty the bowl, the valve is opened and a jet or stream of compressed air is thrown through the waste pipe, carrying along the water and deposit in the bowl and waste pipe (the water is supposed to stand at the height indicated by the dotted line in Fig. 1). As the passage E opens into the bowl, it will be evident that when the latter fills with water the passage will also fill up as far as the valve H. When this valve is operated to admit air, the water in the passage will be shot or impelled out through the bowl, greatly aiding in flushing it. The air follows this charge of water, and the two act successively to thoroughly flush and cleanse the bowl. This forcing of a water charge by compressed air, followed by a compressed air jet, is something that has never to my knowledge been done before, and is attended by very useful and perfect results. In this way the bowl is thoroughly flushed and cleaned with the greatest economy of water. The bowl is normally empty being filled with water when the seat is depressed and when so empty the motion of the train will suck air through the closet, ventilating it thoroughly. When the seat is connected to the valve, the construction is preferably such that releasing the seat will open the valve which should close automatically after sufficient air has escaped to thoroughly cleanse the bowl. When the seat is depressed enough water will flow in to restore the water to the proper level.

While I have shown more or less precise forms I do not intend to unduly limit myself

thereto but contemplate all proper changes in form, location and the substitution of equivalents. For example, the passage E instead of being formed in the bowl may be a
5 pipe separate from such bowl and entering the same at the proper point, and the word "passage" in the claim is intended to cover either or both forms.

I claim—

- 10 The method of cleansing and flushing water closets, which consists in forcing a water charge through the arm of the bowl by means of air pressure, such water charge being nor-

mally contained in the air passage and being extraneous to the water in the bowl and outlet passage, and following such water charge
15 by a jet of compressed air, which jet of air is led from a suitable source of supply independent of the water supply, whereby the usual tank is dispensed with and the minimum amount of water used, substantially as
20 described.

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Witnesses:

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