

(No Model.)

2 Sheets—Sheet 1.

J. CAMPBELL.
WATER CLOSET.

No. 526,891.

Patented Oct. 2, 1894.

Fig. 1.

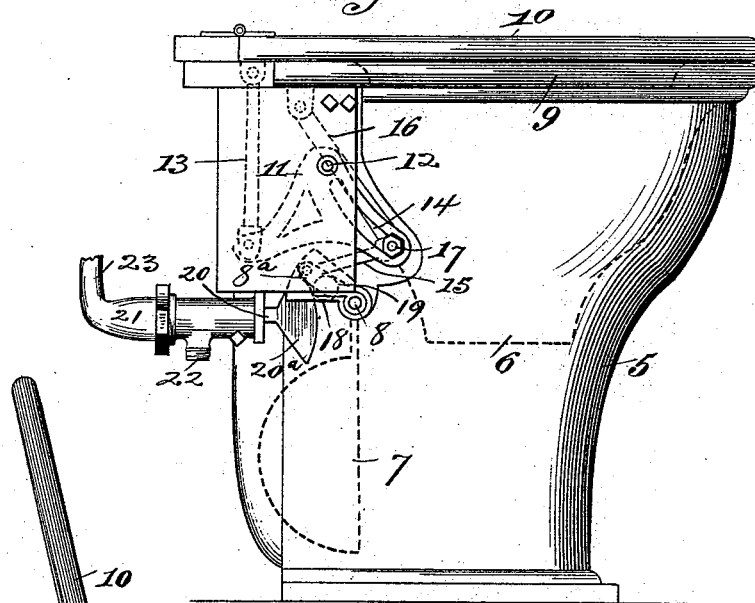
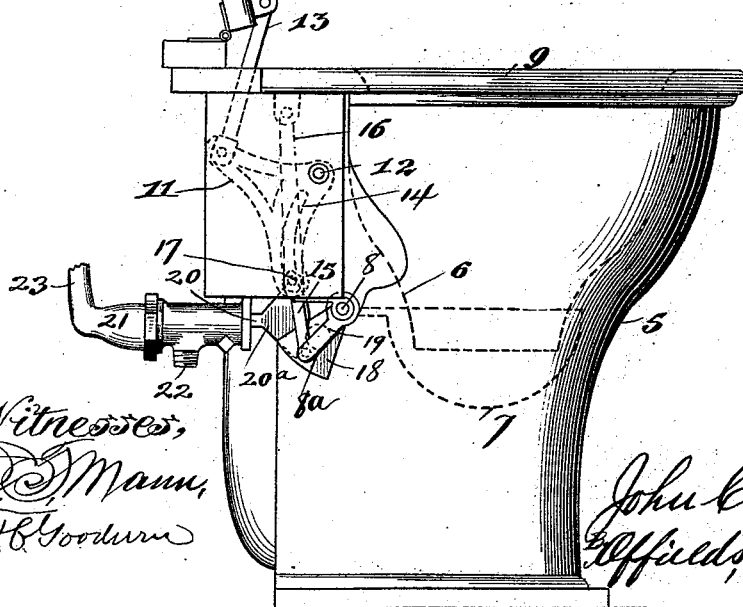


Fig. 2.



Witnesses,
J. Mann,
J. B. Goodrum

Inventor,
John Campbell
Byfield, Towle & Luthin
Attys.

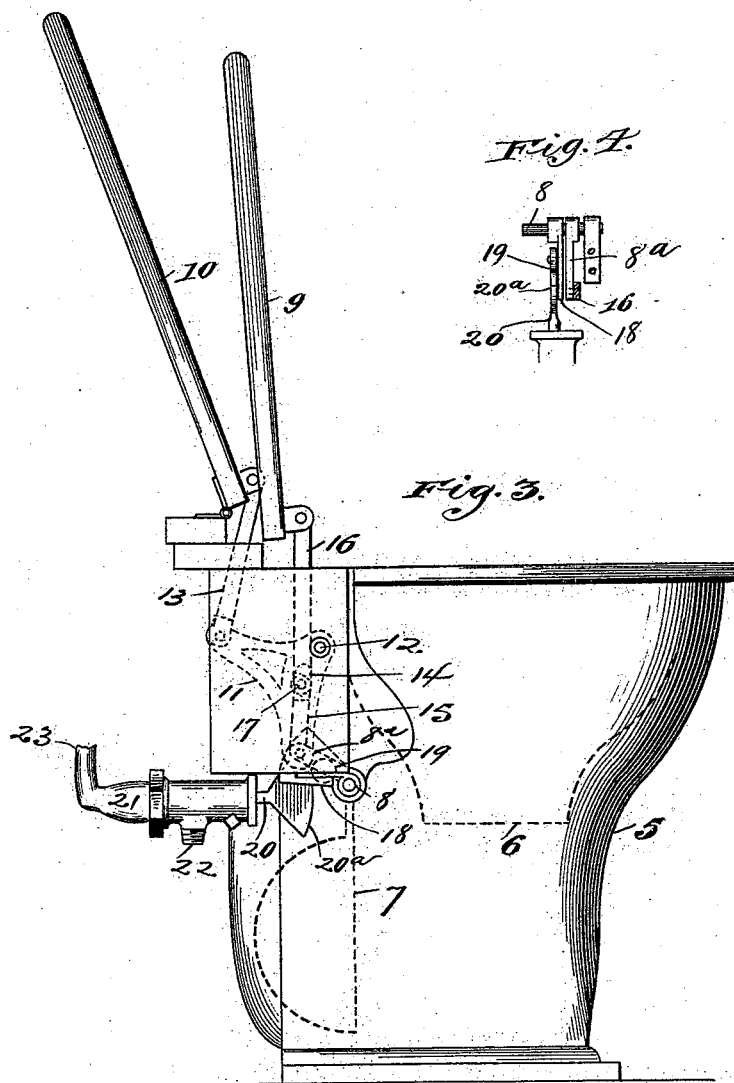
(No Model.)

2 Sheets—Sheet 2.

J. CAMPBELL.
WATER CLOSET.

No. 526,891.

Patented Oct. 2, 1894.



Witnesses,

J. E. Mann,
J. B. Goodum.

Inventor,

John Campbell
By Alfred Towle Smith
Att'y.

UNITED STATES PATENT OFFICE.

JOHN CAMPBELL, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE PULLMAN'S
PALACE CAR COMPANY, OF SAME PLACE.

WATER-CLOSET.

SPECIFICATION forming part of Letters Patent No. 526,891, dated October 2, 1894.

Application filed May 29, 1894. Serial No. 512,870. (No model.)

To all whom it may concern:

Be it known that I, JOHN CAMPBELL, a citizen of the United States, residing at Chicago, Illinois, have invented certain new and useful Improvements in Water-Closets, of which the following is a specification.

My invention relates more particularly to that class of water closets wherein a hinged pan is employed at the bottom of the bowl and which are provided with a hinged seat and a hinged lid. Closets of this sort are employed in railway cars in which the space is limited and the closet which I have devised is especially adapted to be placed in such restricted space as is generally available in railway cars and to this end all of its operating parts are very compact.

My invention relates principally to the means whereby the pan is kept normally in open position while the seat and cover are both closed or both open, and closed when the cover only is thrown up. The object of the hinged pan being to prevent the ingress of drafts through the discharge pipe it is only necessary to keep it closed when the user is sitting upon the seat. I have also adapted the mechanisms which operate the pan to the further work of operating the valve which controls the flush pipe.

In the accompanying drawings, Figure 1 is a side elevation showing the seat and cover down, the bowl, pan and pan levers showing in dotted lines and the pan in the lowered or open position. Fig. 2 is a similar view showing the lid or cover thrown up and the pan raised. Fig. 3 is a like view showing the lid and seat up and the pan lowered. Fig. 4 is a detail view in plan of a part of the operating levers and showing their relation to the valve stem of the valve controlling the flush pipe.

In the drawings, 5 represents the outer casing or shell usually of porcelain and 6 the inner shell or bowl proper. The form and materials of these may be as desired. Within the lower open interior of the casing is the pan 7, secured on the rock shaft 8.

9 represents the seat and 10 the lid or cover both of which are hinged to the usual wood trimming.

11 represents a bell crank pivoted at 12 to the case and having one arm thereof pivot-

ally connected to the lid or cover by means of the lever 13. The opposite arm of the bell crank has a long slot 14 extending from near the extremity of said arm to near the pivot 55 and slightly curved.

The rock shaft 8 has an arm 8^a and a link 15 is pivotally connected to a lever 16 by a pin or stud 17, which traverses the slot 14 in the bell crank lever. A segment 18 on shaft 8 60 carries an anti-friction roller 19 which is to act upon the cam end 20^a of a valve stem 20 which valve stem will have a valve controlling the flush pipe 21 of which 22 represents the inlet and 23 the discharge which is broken 65 away but will be arranged to deliver the water at the periphery of the upper portion of the bowl to flush the closet.

The operation of the parts is as follows: When both lid and cover are down the pan 70 is open as seen in Fig. 1. If the seat is to be used the lid is thrown up and the bell crank is rocked on its pivot its slotted arm forcing crank arm 8^a down, the link 16 serving as a fulcrum and thus rocking shaft 8 and raising 75 the pan. At the same time the valve stem is forced in unseating the valve and permitting the fresh water to flow in and fill the pan. The closing of the cover dumps the pan and again opens the valve. If the closet is to be 80 used as a urinal both the lid and seat are raised and the lever 16 being lifted raises the pin or stud 17 the latter traveling in the slot and raising the arm 8^a rocking the shaft 8 and dropping the pan. The seat and cover 85 may be raised or lowered either separately or simultaneously.

By the construction above described the working parts are adapted to a very narrow space, and the pan is automatically controlled 90 by the manipulation of the seat or cover according to the desired uses.

I claim—

1. The combination in a water closet of a lid or cover, a seat and a pan all hinged, of a 95 slotted bell crank pivotally mounted a connection between the arm of the bell crank and the lid and a lever connected to the pan and the seat respectively and said levers being pivotally connected together by a pin which works 100 in the slot of the bell crank, substantially as described.

2. The combination with a water closet bowl of a pan, a rock shaft, a pan carried by the rock shaft, a crank arm on the rock shaft, a hinged seat and a hinged lid, a pivoted bell
5 crank, a lever pivotally connecting one arm of the bell crank with the lid and the other arm of the bell crank being slotted, links or levers pivotally connected respectively to the seat and to the crank arm and a pin or stud
10 pivotally connecting the ends of said links or levers and adapted to traverse the slot of the bell crank, substantially as and for the purpose described.

3. The combination in a water closet with

a lid or cover, a seat and a pan, all hinged, of 15
a slotted bell crank, pivotally mounted, a connection between the arm of the bell crank and the lid, and a lever connected to the pan and the seat respectively and said levers being
20 pivotally connected together by a pin which works in the slot of the bell crank, and a flush pipe having a controlling valve adapted to be actuated by the pan operating mechanism, substantially as described.

JOHN CAMPBELL.

Witnesses:

FREDERICK C. GOODWIN,
L. F. MANN.