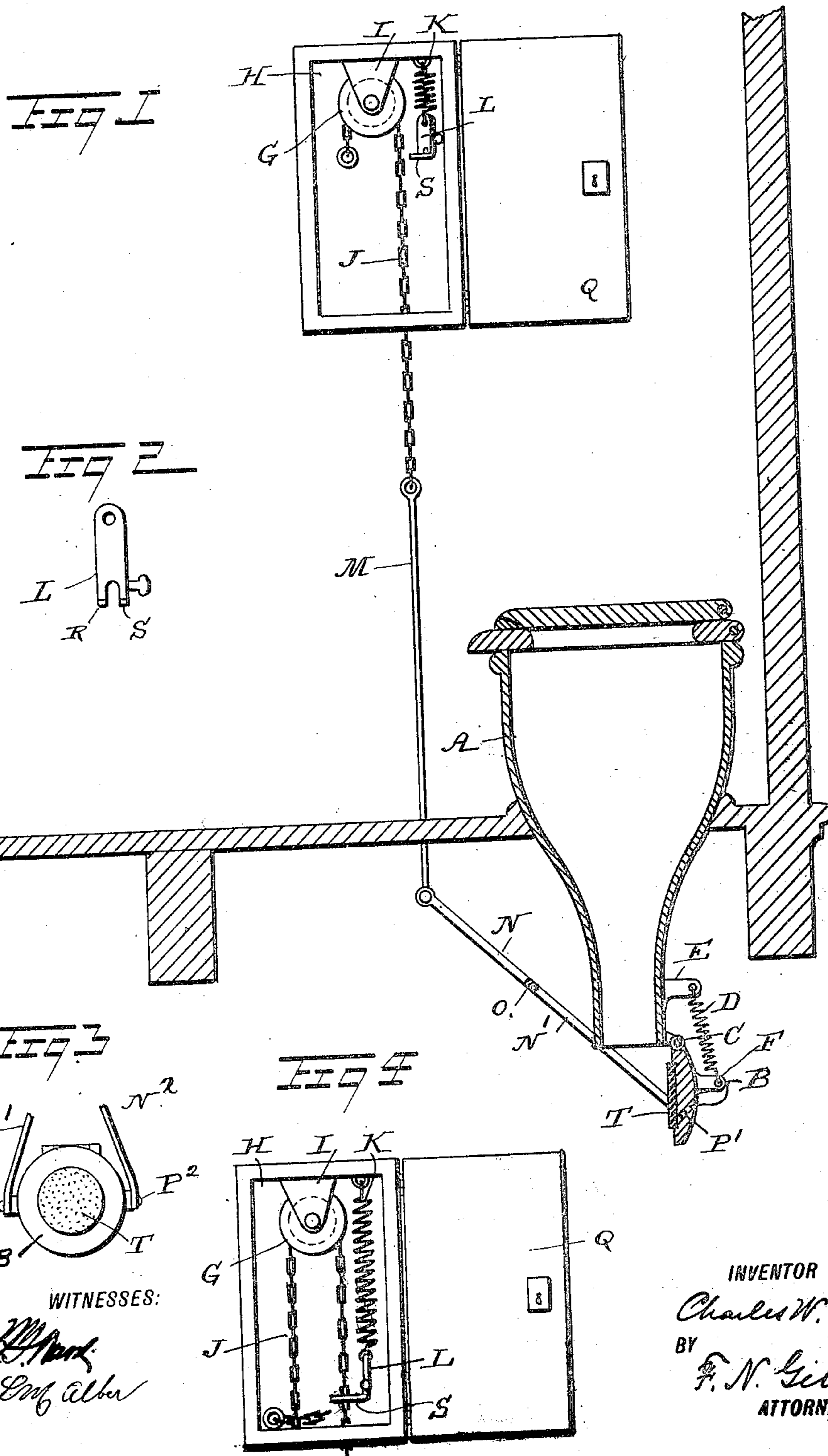


922,441.

C. W. PEARSALL.
WATER CLOSET VALVE FOR CARS.
APPLICATION FILED MAY 1, 1907. RENEWED FEB. 18, 1909.

Patented May 18, 1909.



WITNESSES:

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WATER-CLOSET VALVE FOR CARS.

No. 922,441.

Specification of Letters Patent.

Patented May 18, 1909.

Application filed May 1, 1907, Serial No. 371,234. Renewed February 18, 1909. Serial No. 478,619.

To all whom it may concern:

Be it known that I, CHARLES W. PEARSALL, a citizen of the United States, residing at Binghamton, in the county of Broome and State of New York, have invented certain new and useful Improvements in Water-Closet Valves for Cars, of which the following is a specification.

My invention relates to improvements in valves for water closets in railroad cars, and in which a hinged valve controlled by a coiled spring is operated by means of a hinged lever extending up through the bottom of the car and connecting with a forked spring clutch mounted within a closet cupboard or locked compartment.

The objects of my improvement are to provide an easily operated stop valve for a railroad water closet, so as to readily and completely close the outlet of the closet while the car is standing at a station, and thus do away with the necessity of locking up the closet; but permitting it to be freely used by the passengers, yet at the same time providing a closing and opening means, capable of being used and under the control of the railroad employees; while at the same time it is completely guarded against being used or interfered with by the passenger or public. I attain these objects by the mechanism illustrated in the accompanying drawings in which—

Figure 1 is a perspective view of an operative portion of my device. Fig. 2 is a perspective view of a detached portion of my device. Fig. 3 is a horizontal plan view of the valve portion of my device. Fig. 4 is a detached portion of my device showing its connecting parts in operation.

Similar letters refer to similar parts throughout the several views.

A represents an ordinary water closet seat and bowl in a railroad car. At the lower end of the outlet pipe I have the stop valve B attached to the water closet outlet by means of the hinge C. This valve consists of a round plate to which is attached a rubber or other yielding surface T. This valve B is held in an open position as shown in Fig. 1 by means of the coiled spring D shown in Fig. 1 extending from the projection E on the side of the closet outlet to the projection F at the back of the closet valve. I mount within the closet, or outside the closet the pulley G hung within the cupboard H by the pulley hanger I. The cup-

board H is mounted within or without the car closet and on any part of the car most convenient. Over this pulley I place the lever chain J. I hang also within the cupboard and from the upper portion of the cupboard frame the coiled spring K and from which is suspended the forked clutch L. The chain J extends down through the bottom of the cupboard or out of the cupboard, and has connection with the rod M which extends down through the floor of the car connecting with the bifurcated lever N. The bifurcated lever N is forked at the point O and divided into two arms N' and N''. These arms N' and N'' have hinged connections P' and P'' with the closet valve B. When in its normal position the valve B being open, the door of the cupboard Q is closed and locked.

When it is desired to close the closet valve, the operator unlocks the door Q and opens it. He then draws the lever chain J over the pulley G and thus raises the lever rod M and its hinged connecting rod N until the closet valve is closed and drawn up by the forked lever arms N' and N''. Having thus drawn up the hinged valve B, he then draws down the spring clutch L attached to the coiled spring K as shown in Fig. 4 until this coiled spring is at a stiff tension. Then he pushes in the spring clutch L against the guard chain J until the guard chain J is thus firmly held by the clutch fork arms R and S as shown in Figs. 1, 2, 4, and thus the chain is firmly held and with it the lever arm M in a firm yielding tension drawing up tightly the closet valve B. The door Q is then closed and locked and thus preventing any interference with the closed closet valve while the train is standing at a station. And it is my design and plan that the cupboard or locking compartment H shall be mounted or constructed in any convenient place on or in a wall of the car, so that the door Q can be opened and the valve operated even though the car closet is occupied by a passenger. On the train leaving the station the guard unlocks the door Q, releases the clutch L from the chain G whereupon the lever rod M drops down and the valve B opens and swings back to its normal position as shown in Fig. 1.

Thus having fully described my invention, what I claim as new and for which I desire Letters Patent is as follows:

1. In combination a railroad car closet

seat chute, a valve for closing the mouth of the chute, a spring for normally keeping the valve open, a compartment, means for locking the same, actuating members for the valve extending into the compartment and means in the compartment cooperating with said members to hold the valve in closed position.

2. In combination a railroad car closet seat chute, a valve for closing the mouth of the chute, a spring for normally holding the valve open, a compartment, means for locking the same, a pulley in said compartment, a chain passing over said pulley and out of the compartment, rods connecting the chain with the valve and means in said compartment engaging with the chain for locking the valve in closed position.

3. In combination a railroad closet seat chute, a hinged valve attached to the chute near the mouth of the same said valve having a rubber or other yielding surface on its face

and so shaped and positioned as to fit over the mouth of the chute when closed against the mouth, said valve being held open in its usual position by means of a spiral spring connection between the valve and the side of the chute, a series of hinged rods terminating in a chain connection with a pulley; said rods having a hinged connection with the hinged valve by means of two arms in hinged connection with the valve; a forked clutch suspended by a spiral spring within the locking compartment for grasping and holding the chain extension in a firm position after it has drawn up the valve of the chute, for the purpose of closing the mouth of the same.

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

CHAS. W. PEARSALL.

Witnesses:

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WALTER D. WEBSTER.