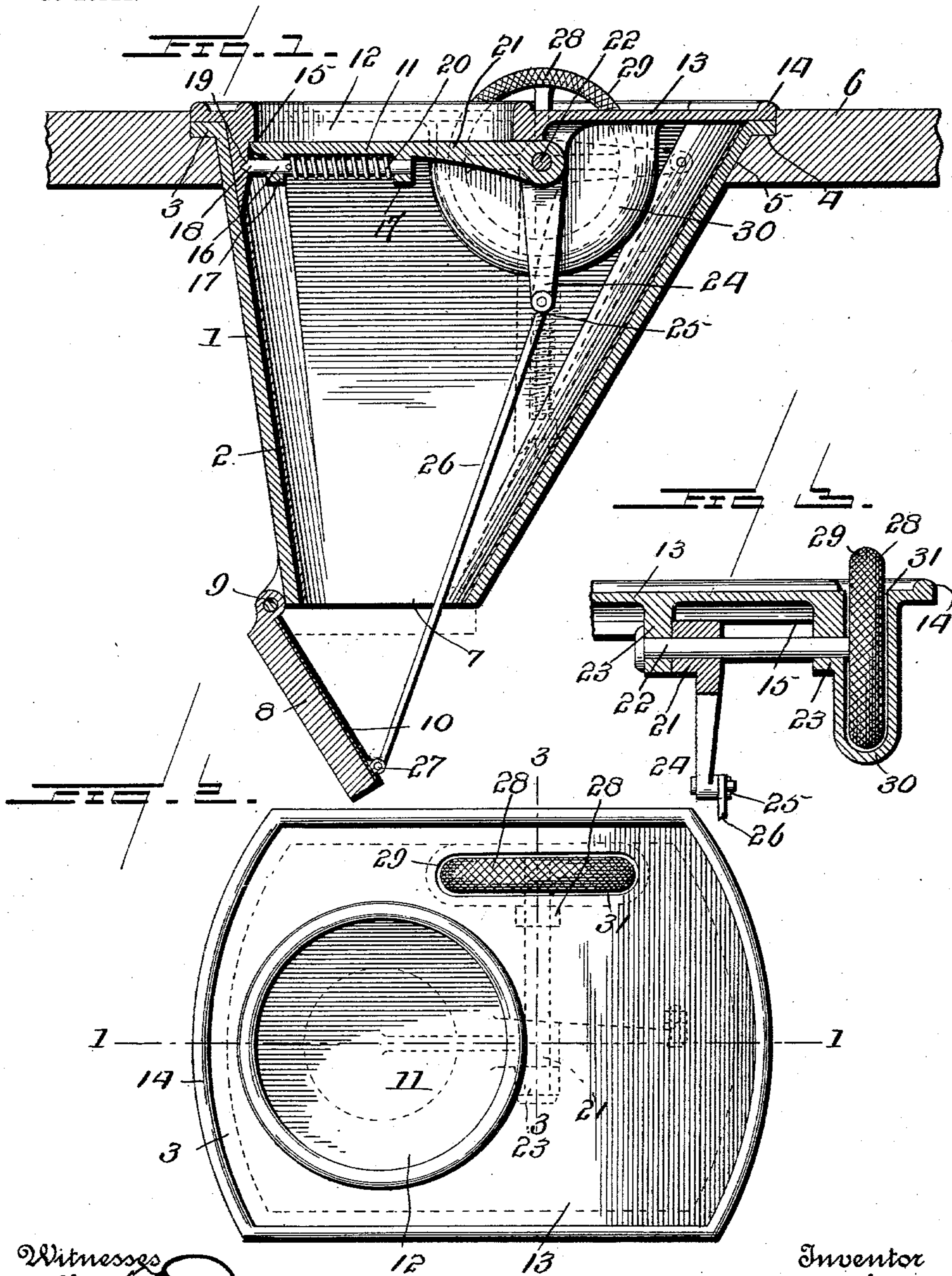


No. 745,484.

PATENTED DEC. 1, 1903.

N. DAVIS.
RAILWAY CAR CUSPIDOR.
APPLICATION FILED FEB. 7, 1903.

NO MODEL.



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RAILWAY-CAR CUSPIDOR.

SPECIFICATION forming part of Letters Patent No. 745,484, dated December 1, 1903.

Application filed February 7, 1903. Serial No. 142,279. (No model.)

To all whom it may concern:

Be it known that I, NATHAN DAVIS, a citizen of the United States, residing at Kingston, in the county of Ulster and State of New York, have invented certain new and useful Improvements in Railway-Car Cuspidors, of which the following is a specification.

This invention relates to railway-car appliances, and has special reference to an improved cuspidor - fixture possessing special utility in connection with railway-cars and comprising a simple and practical means for disposing of expectorations and refuse material without resorting to the use of the common cuspidor or raising the car-window.

To this end the invention has in view a novel construction of cuspidor providing means for discharging expectorations or other substances exterior to the car without admitting drafts, while at the same time entirely obviating any accumulations of such substances as would tend to affect the hygienic condition of the car.

In the carrying out of the general object the invention contemplates a cuspidor fixture or appliance designed for maintaining the best possible hygienic conditions in a railway-car, which are necessarily greatly impaired by the use of the ordinary open cuspidors usually employed upon the car-floor.

With these and many other objects in view, which will more readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts, as will be hereinafter more fully described, illustrated, and claimed.

The essential feature of the invention, involved in the provision of means for discharging expectorations and refuse material exterior to the car without permitting accumulation thereof at any point therein and without the admission of drafts or dust during the discharging operation, is necessarily susceptible to considerable modification without departing from the spirit or scope of the invention; but a preferred embodiment thereof is shown in the accompanying drawings, in which—

Figure 1 is a vertical sectional view of a cuspidor fixture or appliance for railway-cars

embodying the present invention and showing the parts respectively in open and closed positions, the section being taken on the line 1 1 of Fig. 2. Fig. 2 is a top plan view of the same. Fig. 3 is a detail sectional view on the line 3 3 of Fig. 2.

Like numerals of reference designate corresponding parts throughout the figures of the drawings.

In carrying out the invention the cuspidor-body is preferably constructed in the form of a conical discharging-bowl, (designated by the numeral 1 in the drawings.) This discharging-bowl may be constructed of any suitable material, but is preferably a casting having upon its inner surface a protective lining 2, of porcelain or equivalent material, which serves to prevent rusting out of the body or bowl, while at the same time furnishing a smooth surface for the free shedding of the substance delivered into the bowl.

The conical discharging-bowl 2 tapers in a downward direction and is provided at its flared upper end with an outstanding annular supporting-flange 3, adapted to be seated in the shouldered holding-seat 4, formed in the wall of the tapered cuspidor-opening 5, provided in the floor 6 of the car. It will therefore be observed that the discharging bowl or body of the cuspidor is designed to be inserted through and supported in the car-floor, below the surface thereof, so as to be entirely out of the way, while at the same time providing for discharging expectorations or refuse substance beneath and exterior to the floor.

At its lower small end the discharging bowl or body 1 is provided with a bottom discharge-opening 7, adapted to be covered and uncovered by the downwardly and vertically swinging guard-valve 8, which constitutes a bottom cover for the cuspidor bowl or body and is preferably in the form of a swinging plate having a hinge-support 9 at one edge upon one side and at the lower end of the said bowl or body. The guard-valve 8, like the bowl or body of the cuspidor, is preferably provided upon its upper side with a protective lining 10, of porcelain or equivalent material, which serves to protect the valve or plate from rust, while at the same time permitting

of the ready cleansing and the free discharging of expectorations and refuse material.

The guard-valve 8 is intended to be automatically adjusted to open or closed positions during the operation of the fixture or appliance and coöperates synchronously with the inwardly and vertically swinging trap-door 11, arranged to cover and uncover the top receiving-opening 12, formed in the top of the cuspidor bowl or body.

It is preferable in constructing the fixture to form the top receiving-opening 12 in a top cover member or plate 13, usually separate from the bowl or body 1, but closely fitting thereover upon the supporting-flange 3, as may be plainly seen from both of the figures of the drawings. The top cover member or plate 13 may be secured in position by any suitable fastening means and at its edge may be provided with an annular guard rib or boss 14 to strengthen the structure, besides presenting a wear-surface to receive the wear of walking over the appliance. This is of course a detail that may be used or omitted at will.

At the under side of the top receiving-opening 12 the cover member or plate 13 of the bowl is provided with an annular rest-shoulder 15, against which rests the edges of the trap-door 11 when in its closed position. This trap-door when in the closed position (shown in Fig. 1) entirely covers the opening 12, and hence closes in the top of the bowl, and to provide for fastening the trap-door when closed there is associated therewith a suitable latching or fastening device. This preferably consists of a slidable latching-bolt 16, mounted in the aligned bearing-guide 17, projected from the under side of the door 11, and provided at one extremity with a double-beveled fastening-nose 18, having a slip and locking engagement with a correspondingly-beveled keeper-socket 19, provided at the inner side of the bowl or body. A coiled pressure-spring 20, mounted on the bolt 16, between the guides 17 thereof, serves to normally project the same in a direction for proper engagement with the socket 19.

The inwardly and vertically swinging trap-door 11 is carried by a carrying-arm 21, projected beyond one edge thereof and fastened to a turning axle 22. This turning axle 22 is journaled in pendent bearing-lugs 23, projected from the under side of the cover member or plate and arranged in properly-spaced relation to provide a firm bearing-support for the axle 22. This axle, in addition to the connection of the carrying-frame 21 thereof, also has mounted thereon one end of a swinging adjusting-arm 24, to the other end of which is pivotally connected at 25 one end of the valve-rod 26, the other end of which valve-rod is pivotally connected at 27 to the free swinging edge portion of the valve 8, said rod 26 being located within the bowl or body and operating through the bottom discharge-opening 7.

At one end the turning axle 22 has mounted thereon an operating-wheel 28. This operating-wheel may be of any suitable form having a friction-tread 29 and is preferably arranged to lie within a semicircular wheel-boxing 30, fitted to the under side of the cover member or plate 13 and disposed within the discharging bowl or body. The boxing 30 opens at the top through the wheel opening or slot 31, provided in the cover member or plate, through which wheel opening or slot the upper part of the wheel projects, so that the tread thereof will be exposed to the foot of the person desiring to use the cuspidor.

Normally the parts of the cuspidor fixture or appliance occupy the positions shown in full lines in Fig. 1. When it is desired to use the cuspidor for expectoration or any other purpose, the person places the sole of the foot upon the operating-wheel and with pressure thereon turns such wheel to provide for forcibly slipping the latching-bolt out of engagement with its keeper, thus throwing the trap-door inwardly and downwardly and at the same time drawing the guard-valve 8 to a closed position at the bottom. When the matter has been deposited in the cuspidor, the wheel is then turned in a reverse direction to swing the trap-door back to a latched position, at the same time causing the guard-valve to open and discharge the matter. It will thus be seen that when the trap-door is opened to expose the cuspidor bowl or body the valve 8 is closed to cut off communication entirely from the outside.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described car-cuspidor will be readily apparent without further description, and it will also be understood that various changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit of the invention or sacrificing any of the advantages thereof.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

1. A cuspidor-fixture comprising a discharging-bowl arranged to be supported within an opening in the floor and provided at the top with a cover member having a top receiving-opening, said bowl being further provided with a bottom discharge-opening, an inwardly-opening trap-door arranged to cover and uncover the receiving-opening, a guard-valve arranged to cover and uncover the bottom discharge-opening, an automatic latch carried by the trap-door and having a slip engagement with a fixed part of the bowl, and a foot-controlled operating device having operative connections respectively with the trap-door and the guard-valve, substantially as set forth.

2. A cuspidor-fixture comprising a discharging-bowl having a top receiving-opening, and a bottom discharge-opening, an inwardly-

opening trap-door arranged to cover and uncover the receiving-opening, a guard-valve arranged to cover and uncover the bottom discharge-opening, an automatic spring-actuated latch upon the under side of said trap-door having a slip engagement with a fixed part of the bowl, a turning axle having operative connection with both the trap-door and the valve, and an operating-wheel mounted on the axle within the bowl and having a portion exposed above the top of the latter.

3. A cuspidor-fixture comprising a discharging-bowl provided with a top receiving-opening and a bottom discharge-opening, a downwardly and vertically swinging trap-door arranged to cover and uncover the top receiving-opening, a slidable spring-projected bolt carried by the trap-door and provided with a fastening member having an interlocking

slip connection with the body of the bowl, a hinged swinging guard-valve arranged to cover and uncover the bottom discharge-opening, a turning axle mounted in suitable bearings and supporting the trap-door, a swinging adjusting-arm also carried by the axle and having a rod connection with the guard-valve, a wheel-boxing, and an operating-wheel mounted on the axle and arranged in the boxing, said wheel having its tread exposed above the top of the bowl for engagement by the foot.

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

NATHAN DAVIS.

Witnesses:

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