W. C. BRIDGES.

CUSPIDOR.

APPLICATION FILED MAR. 21, 1908.

920,722. **Patented May 4, 1909.**

Fig. 1.

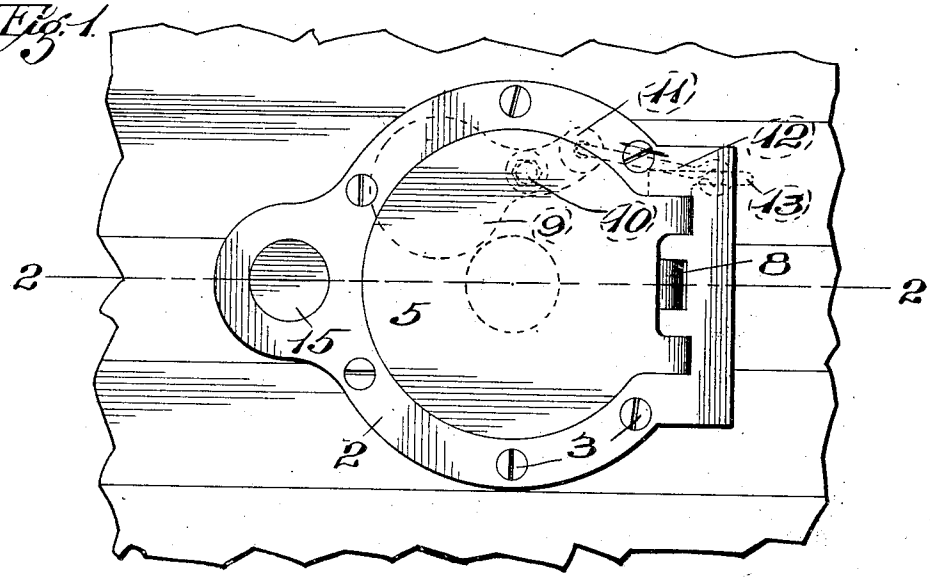


Fig. 2.

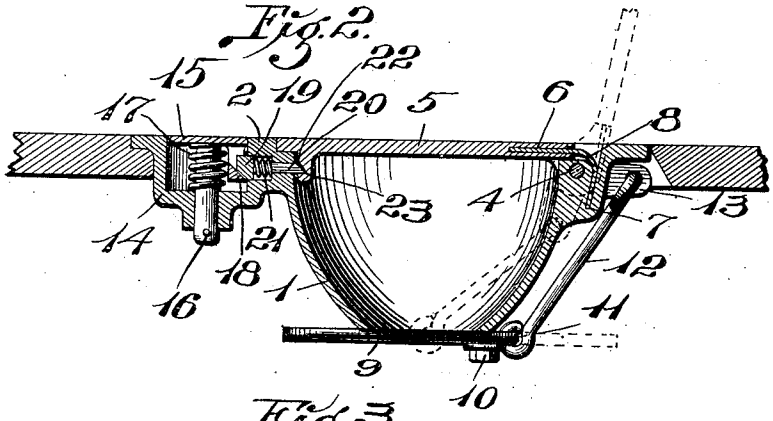
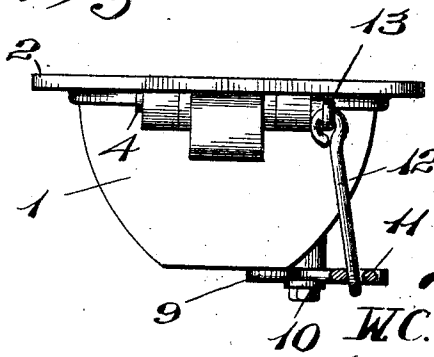


Fig. 3.



ATTEST.

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CUSPIDOR.

No. 920,722. Specification of Letters Patent. Patented May 4, 1909.

Application filed March 21, 1908. Serial No. 422,505.

To all whom it may concern:

Be it known that I, WILLIAM C. BRIDGES, a citizen of the United States, and resident of St. Louis, Missouri, have invented certain new and useful Improvements in Cuspidors, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to a cuspidor, particularly adapted for use in the floors of street cars and railway coaches, and the object of my invention is to construct a cuspidor which lies flush with the surface of the floor, and which can be readily opened by foot pressure.

To the above purposes, my invention consists in certain novel features of construction and arrangement of parts which will be hereinafter more fully set forth, pointed out in the claims, and illustrated in the accompanying drawings, in which:

Figure 1 is a plan view of a cuspidor of my improved construction in position for use; Fig. 2 is a vertical section taken on the line 2—2 of Fig. 1; and Fig. 3 is a rear elevation of the cuspidor.

Referring by numerals to the accompanying drawings: 1 designates the bowl which forms the body of the cuspidor, and formed integral with the top thereof is a ring 2, which is let into the floor of the car so that its top surface is flush with the surface of said floor, and said ring being fixed in position by means of screws 3 or similar fastening devices.

Hinged by means of a pin 4 to one side of the ring is a cover plate 5, the top surface of which lies flush with the top surface of the ring 2 when said cover is closed, and formed between the hinge ears on said cover is a recess 6, and formed in the upper portion of the bowl immediately adjacent this recess 6 is a corresponding recess 7. Fitted into these recesses 6 and 7 is a leaf spring 8, the tendency of which is to swing the cover plate 5 upward into a vertical position.

9 designates a plate which closes the lower end of the bowl 1 when the cover plate is swung open, which plate 9 swings on a vertically disposed pivot pin 10, seated in the under side of the bowl, and formed integral with the plate and projecting outward from the point where the same is pivoted is an arm 11.

12 designates a rod which is pivotally connected to the end of the arm 11, and the upper end of said rod is pivotally connected to a lug 13 formed integral with one of the hinge ears of the cover plate 5.

Formed integral with the ring 2, directly opposite the point where the cover plate is hinged, is a vertically disposed housing 14, in which is arranged for rotation a disk 15; and formed integral with said disk and operating through a bearing in the bottom of the housing 14 is a pin 16.

17 designates an expansive coil spring which is arranged on the pin 16 between the under side of the disk 15 and the bottom of the housing 14.

Formed integral with the under side of the disk 15 is a U-shaped loop 18, having a beveled top surface, and bearing on said beveled top surface is the corresponding beveled face of a block 19, carried by a horizontally disposed latch pin 20, operating through the upper portion of the wall of the bowl 1, and there being an expansive coil spring 21 located on said latch pin behind the block 19.

The end of this latch pin opposite the block 19 projects into the bowl 1 and normally engages in a notch 22 formed in a lug 23 which is integral with and projects downward from the cover plate 5.

The end of the pin 21 within the bowl 1 is beveled, and the lower end of the lug 23 is rounded, in order that when the cover plate 5 is moved downward to close the top of the bowl, the lug will bear upon the beveled end of the pin and force the same rearward in order that the point of the pin may engage in the notch 22 to hold the cover plate closed.

To open a cuspidor of my improved construction, the disk 15 is forced downward against the pressure exerted by the coil spring 17, and this movement carries the loop 18 downward, and following this action the coil spring 21 exerting a pressure behind the block 19 causes said block to move laterally a short distance, thus withdrawing the point of the latch pin 20 from the notch 22. As soon as this action takes place, the power stored in the leaf spring 8 immediately swings the cover plate into an approximate vertical plane, thus opening the top of the bowl, and

simultaneous with this action the lug 13 on the rear side of the cover plate moves downward, thus moving the rod 12 downward and in turn swinging the arm 11 forward and bringing the plate 9 into position to close the lower end of the bowl.

To close the cuspidor after use, the cover plate 5 is swung downward onto the top of the bowl until the point of the latch pin reengages in the notch 22, and as this movement takes place the plate 9 is swung laterally away from the lower end of the bowl, and the matter deposited on said plate 9 is scraped off by the edge of said bowl.

My improved cuspidor is simple in construction and operation, can be readily opened and closed, and when set in the floor of a car for use lies flush with the surface of the floor, and therefore offers no obstruction to the occupants of the car.

I claim:—

1. A cuspidor, comprising a bowl, a cover plate hinged thereto, a spring connected to the cover plate in such a manner as to swing said plate open when said plate is unlocked, a plate pivotally connected to the lower end of the bowl and adapted to swing in a horizontal plane, a link connecting a portion of the cover plate and the rear end of the plate at the lower end of the bowl, a horizontally disposed spring actuated latch pin normally engaging a portion of the cover plate when the same is closed, a spring held disk arranged in the top of the bowl, and a loop carried by said disk, which loop normally engages one end of the latch pin which holds the cover plate closed.

2. A cuspidor comprising a bowl and a cover plate hinged thereto to swing in a vertical plane, a spring connected to said cover plate and adapted to swing the same open when said cover plate is unlocked, a spring actuated latch arranged in the bowl and adapted to engage the edge of the cover plate opposite the point where the same is hinged, a plate pivotally connected to the lower end of the bowl, and adapted to swing in a horizontal plane, and a link connecting a portion of the cover plate and the rear end of the plate at the lower end of the bowl for swinging the plate at the lower end of the bowl into an open position when the cover plate is closed.

In testimony whereof, I have signed my name to this specification, in presence of two subscribing witnesses.

WILLIAM C. BRIDGES

Witnesses:

M. P. SMITH,

HY. T. ALGERMISSEN.