

(No Model.)

I. H. CONGDON.

WATER CLOSET FUNNEL OF RAILWAY CARS.

No. 292,472.

Patented Jan. 29, 1884.

Fig. 1.

Fig. 2.

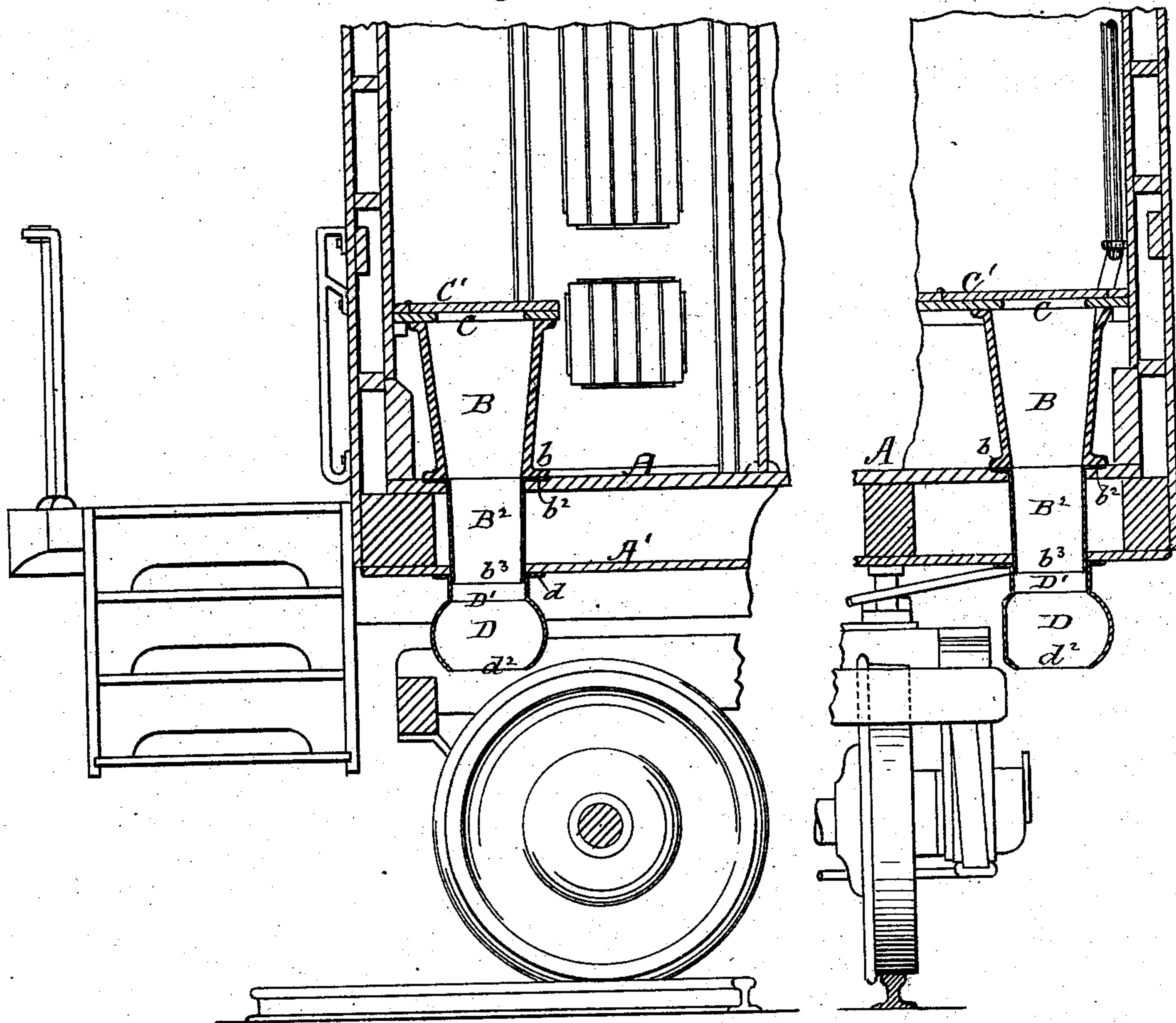
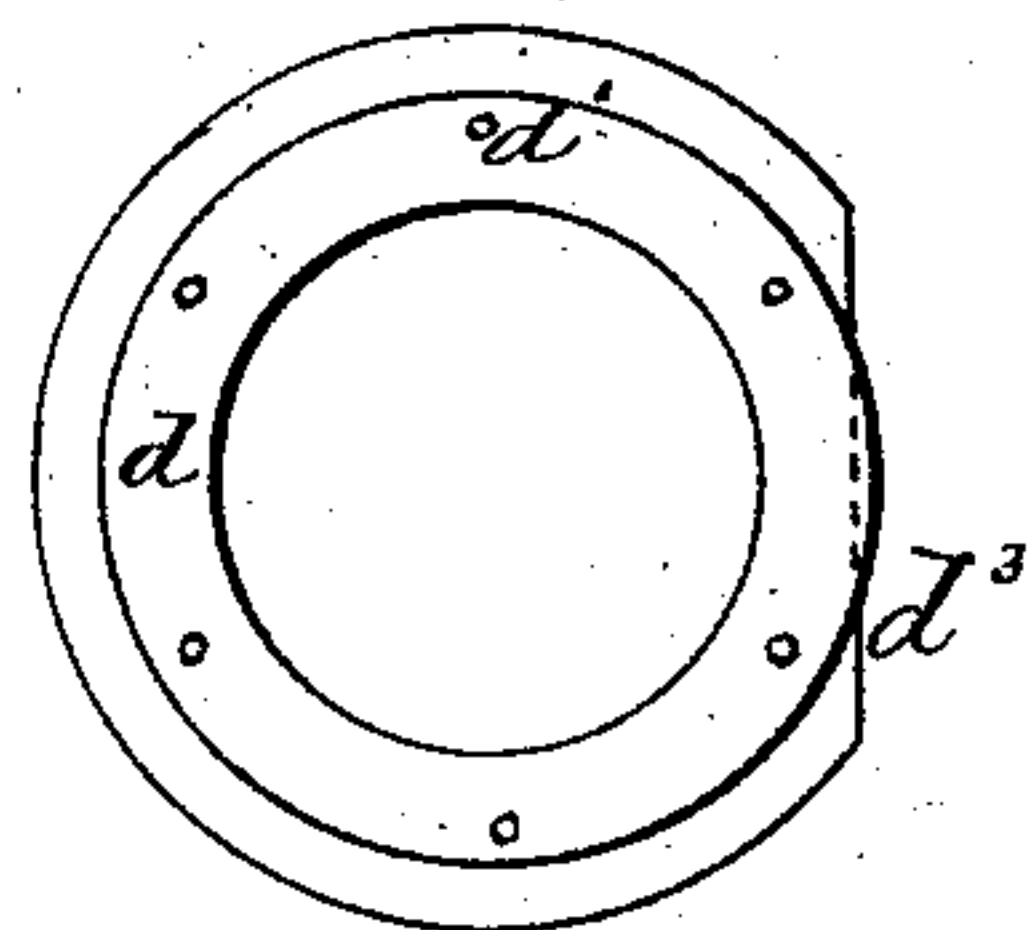
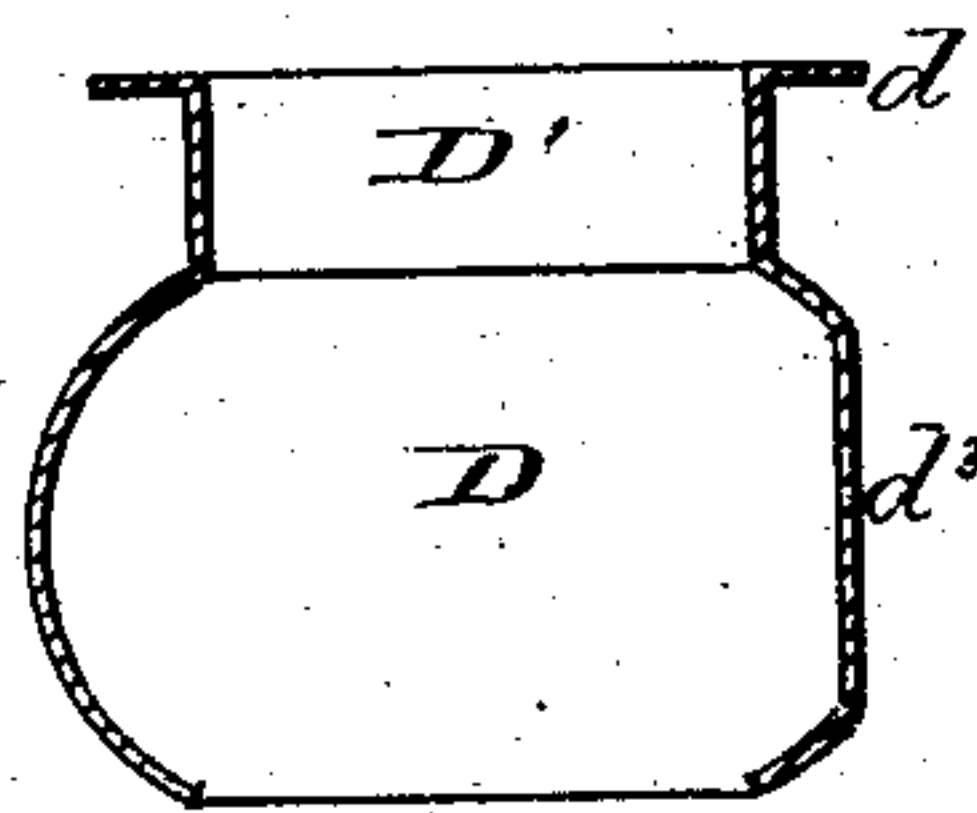
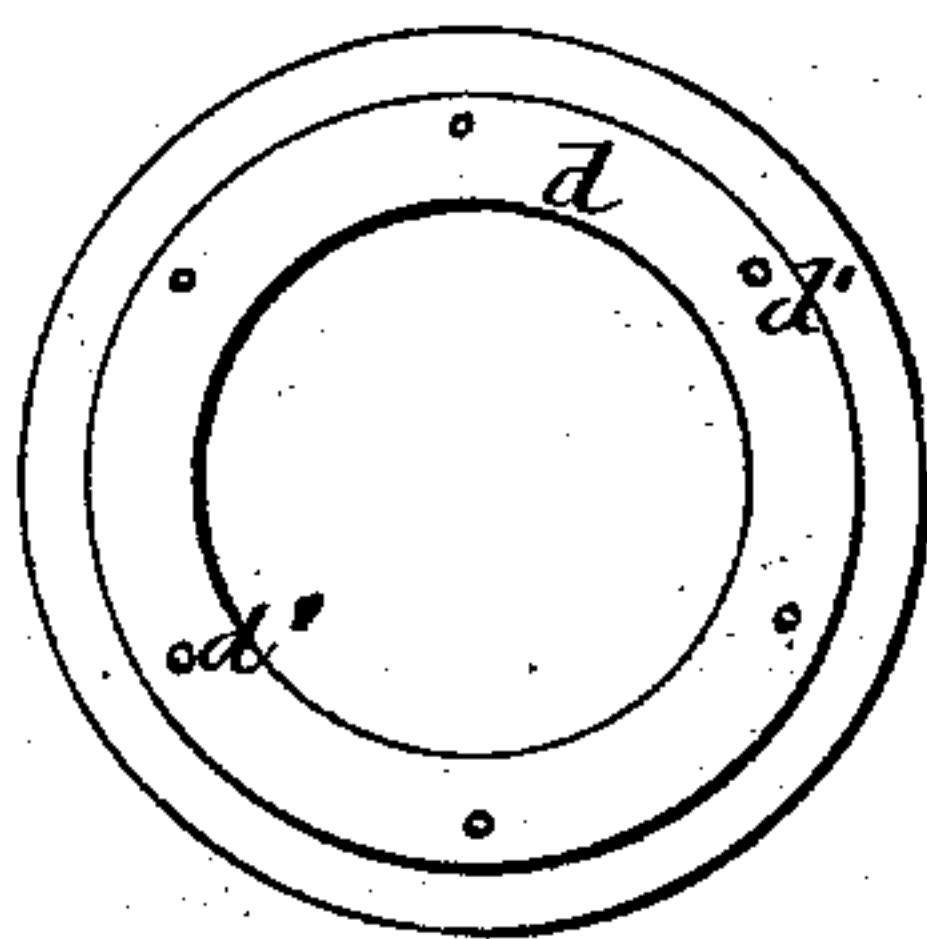
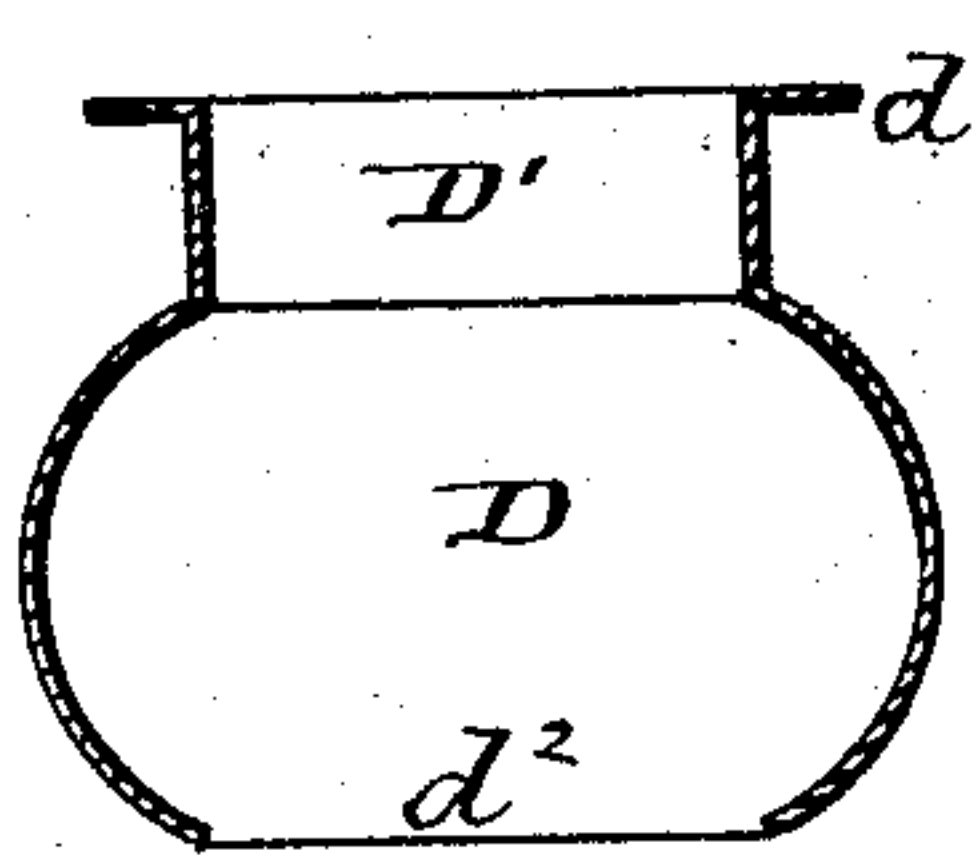


Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.



Witnesses.
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UNITED STATES PATENT OFFICE.

ISAAC H. CONGDON, OF OMAHA, NEBRASKA.

WATER-CLOSET FUNNEL OF RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 292,472, dated January 29, 1884.

Application filed July 20, 1883. (No model.)

To all whom it may concern:

Be it known that I, ISAAC H. CONGDON, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Water-Closet Funnels of Railway-Cars, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 is a longitudinal vertical section through the water-closet funnel of a passenger-car constructed according to my invention, and the parts of the car immediately adjoining it. Fig. 2 is a vertical cross-section of a car having my improvement attached thereto. Fig. 3 is a vertical section through my globular-shaped attachment, as shown in Fig. 1, but upon a larger scale. Fig. 4 is a top view of the attachment shown in Fig. 3. Fig. 5 is a vertical section through the funnel attachment shown in Fig. 2, but on a larger scale, and showing a portion of one side flattened to clear the truck. Fig. 6 is a top view of the same.

My invention relates to improvements in water-closet funnels for railway-cars, in which a downdraft of air is produced therein by the motion of the car while advancing; and the objects of my improvement are to produce a downdraft of air in the funnel, whatever may be the direction the car is going, or whether the car is at rest and the wind is blowing against it from the front, the rear, or the sides. I attain these objects by means of a globular-shaped attachment affixed to the lower end of the funnel. This attachment can be made at little expense, and will produce a downdraft of air whatever may be the direction of the current impinging against it, as it will induce a slight diminution of atmospheric pressure on its leeward side, and thus induce a downward current of air through the funnel to establish an equilibrium. Any air which may, in passing under the lower opening of the globular attachment, be caught by the rear edge of said opening would be guided by the internal spherical surface, so as to form an eddy and escape again from the front side of the bottom opening without producing a draft upward in the funnel.

In the accompanying drawings, A represents the floor of a passenger-car, and A' the ceiling under the same.

B represents the upper funnel, provided

with a flange, *b*, resting upon the floor, and carrying the seat C, provided with a cover, C'. In continuation with the lower end of the funnel B is secured, by means of a flange, *b*², a funnel, B², having its lower end, *b*³, extending slightly below the floor-ceiling A', and around the lower end, *b*³, my air-deflecting attachment is placed. It consists of a hollow globular body, D, having its upper portion, D', cylindrical, and made to fit around the lower end of the funnel B². This upper portion is provided with a flange, *d*, having perforations *d'* to receive screws, by which this globular body D is secured to the under side of the floor-ceiling, although it may also be secured to the lower end of the funnel B². The lower end of the body D is provided with an opening, *d*², of substantially the same size as the cylindrical portion D' thereof. The outside of the body D being uniformly convex, will deflect downward any current of air striking below its equator or broadest portion, whatever may be the points of the compass it is coming from, and produce a corresponding downdraft of the air in the funnel B.

In Figs. 2, 5, and 6 a small portion of the globular body is flattened on one side, at *d*³, as it may sometime be required to clear the car-truck, but its lower edge forms a continuation of the other spherical sides, so that a downdraft is also produced around its lower opening.

Having now fully described my invention and its operation, what I claim is—

1. In combination with the floor of a railroad-car and water-closet funnel passing there-through, the hollow globular body D, having spherical sides tapering toward the opening in the bottom thereof, substantially as and for the purpose described.

2. In combination with the floor of a railroad-car and the water-closet funnel passing therethrough, the hollow globular body D, open at the bottom, and provided with a cylindrical upper portion, D', substantially as and for the purpose described.

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

ISAAC H. CONGDON.

Witnesses:

JOHN WILSON,

ALEX. G. CHARLTON.