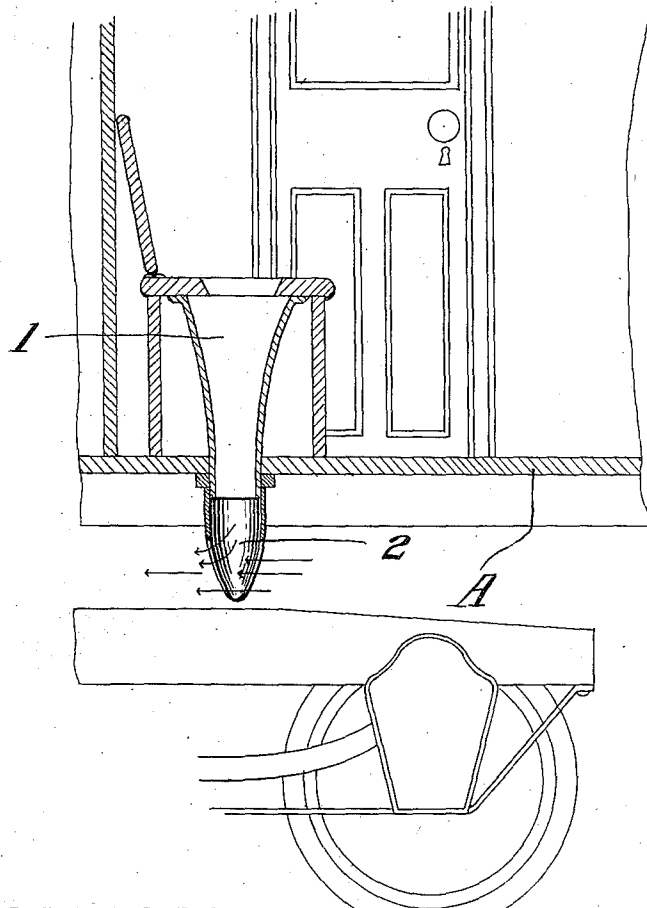


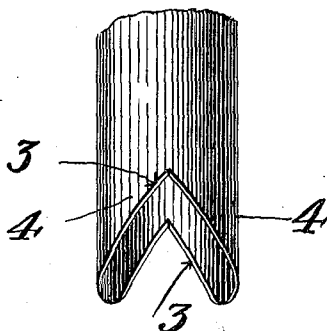
S. V. LAUGHINGHOUSE.  
 SOIL PIPE.  
 APPLICATION FILED AUG. 16, 1911.

1,034,629.

Patented Aug. 6, 1912.



*Fig. 1.*



*Fig. 2.*

Witnesses  
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# UNITED STATES PATENT OFFICE.

SAMUEL V. LAUGHINGHOUSE, OF GRIFTON, NORTH CAROLINA.

## SOIL-PIPE.

1,034,629.

Specification of Letters Patent.

Patented Aug. 6, 1912.

Application filed August 16, 1911. Serial No. 644,299.

To all whom it may concern:

Be it known that I, SAMUEL V. LAUGHINGHOUSE, a citizen of the United States, residing at Grifton, in the county of Pitt and State of North Carolina, have invented a new and useful Soil-Pipe, of which the following is a specification.

This invention relates to soil pipes especially designed for use in connection with railway cars.

Pipes of this type, as heretofore used, have been cut off square at their lower ends with the result that, during the movement of the car, air eddies have been produced at the lower end of the pipe and have created an updraft through the pipe, thus causing objectionable odors to enter the car from the pipe. In order to overcome this objection traps have been devised for normally closing the lower ends of the pipes but these have been undesirable because of their cost and because of the further fact that they often get out of order.

One of the objects of the present invention is to provide a soil pipe the lower end of which is so constructed that when a car is moved in either direction, a current of air passing the lower end of the pipe will create a suction in a downward direction through the pipe, thus carrying off all objectionable odors and, furthermore, serving to ventilate the car.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a view partly in section and partly in elevation of a portion of a car having the present improvements applied thereto. Fig. 2 is a perspective view of the lower end of the pipe.

Referring to the figures by characters of reference A designates a portion of a car structure carrying a hopper 1 of the usual or any preferred type.

The soil pipe 2 extends downwardly from the hopper to a point below the floor of the car, as ordinarily, this pipe being straight from end to end and having diametrically opposed V-shaped incisions 3 in the lower end thereof said incisions being located in the front and rear portions of the pipe and being of the same area. Substantially V-shaped wings 4 are thus formed between the incisions and constitute extensions of the side portions of the pipe.

By referring to Fig. 1 it will be seen that during the movement of the car either forwardly or backwardly, a current of air is set up across the lower end of the pipe, this current passing between the wings 4 and the upwardly converging edges of the recesses or incisions 3 operating to deflect portions of the air current as said current passes the pipe. A downward suction through the pipe is thus created and objectionable air contained within the pipe and within the compartment thereabove will thus be carried off and the interior of the car structure properly ventilated.

As heretofore stated, should the lower end of the pipe be cut off perpendicularly to the longitudinal axis of said pipe, the air current passing the lower end of the pipe would strike the rear portion of said edge and be deflected upwardly into the pipe, thus driving the air current upwardly and forcing the objectionable air into the compartment above the pipe. It will be seen, however, that by cutting the lower end of the pipe in the manner disclosed, this objectionable feature is entirely overcome and it is therefore unnecessary to employ a trap or any other means for cutting off the continuous circulation of air through the pipe.

What is claimed is:—

1. A soil pipe having its lower end open and formed with diametrically opposed angular incisions in the wall thereof.
2. A soil pipe open at its lower end and having V-shaped incisions extending upwardly thereinto from the lower end and in the front and rear portions of the pipe.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

SAMUEL V. LAUGHINGHOUSE.

Witnesses:

J. R. HARVEY,  
W. T. WOODWARD.