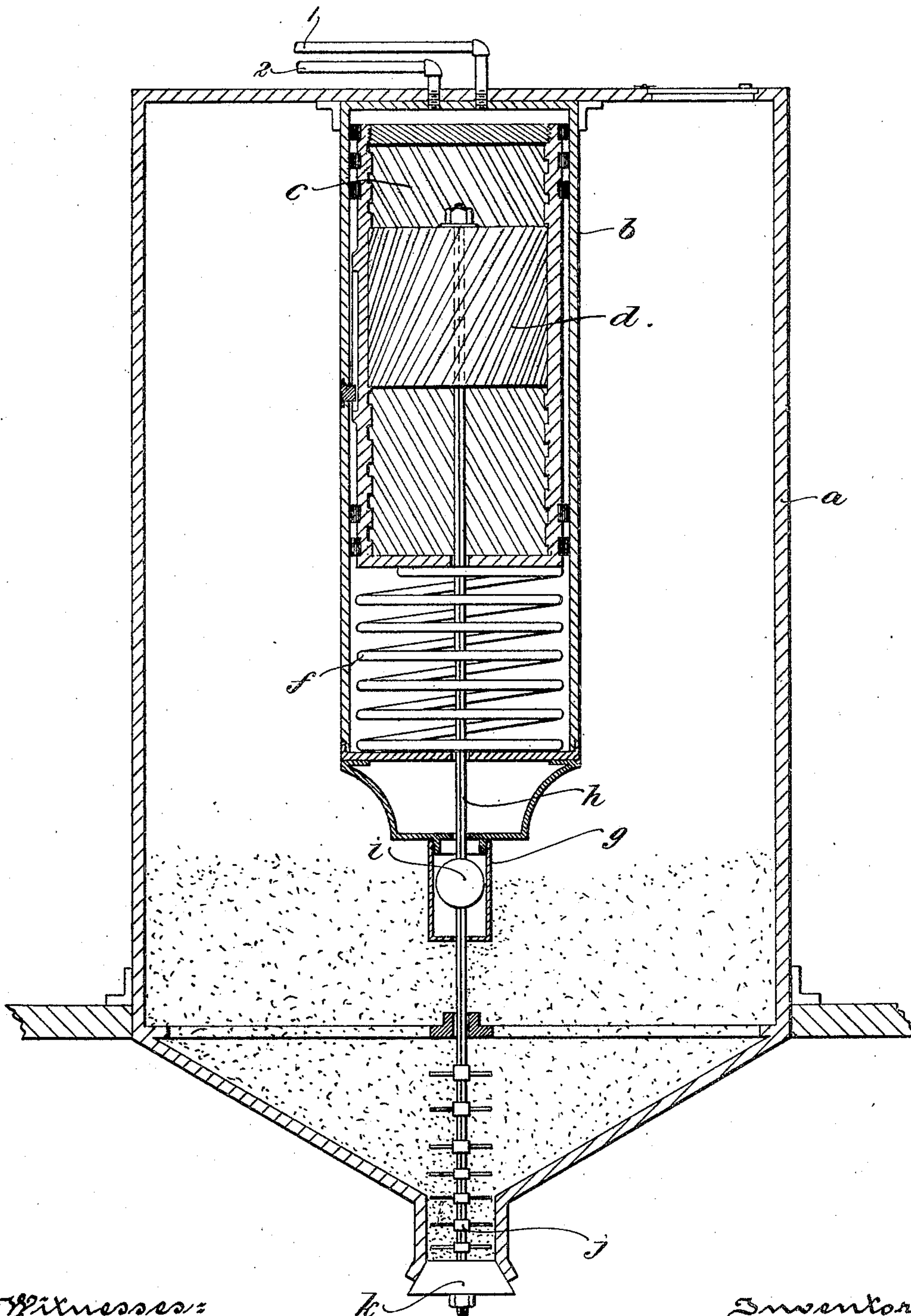


No. 798,050.

PATENTED AUG. 22, 1905.

C. THOMPSON.  
SANDING DEVICE.

APPLICATION FILED JAN. 21, 1905.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

CHARLES THOMPSON, OF PHILADELPHIA, PENNSYLVANIA.

## SANDING DEVICE.

No. 798,050.

Specification of Letters Patent.

Patented Aug. 22, 1905.

Application filed January 21, 1905. Serial No. 242,083.

*To all whom it may concern:*

Be it known that I, CHARLES THOMPSON, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Sanding Device, of which the following is a specification.

The invention has relation to a new and novel improvement in sand-boxes more particularly adapted to be used in connection with electric street-railway cars, one object being to utilize compressed air, usually employed to operate the brake mechanism simultaneously therewith to permit egress of sand from the reservoir.

Another object is to facilitate the feeding of sand to the track in a manner free from lumps.

Other objects will appear hereinafter.

The invention consists of the improvements hereinafter described and finally claimed.

The nature, characteristic features, and scope of the invention will be more understood from the following description, taken in connection with the accompanying drawing, forming part hereof, and in which there is illustrated in central section a sanding device embodying the invention.

Suitably carried upon the platform of a car there may be a reservoir *a* for the sand. Mounted within the same is an air-cylinder *b*, having an inlet and exhaust 1 and 2.

Adapted to rise and fall within the cylinder *b* and keyed thereto to prevent rotation is an internally-threaded piston *c*, normally supported by the spring *f*. Engaging the threaded portion of the interior of the piston is a follower *d*. Extending downward from the top of the said follower there may be a squared valve-stem *h*, having a valve *k*, which, as shown, is of the configuration of the frustum of a cone.

Secured to the lower part of the valve-stem and in juxtaposition to the valve-seat of the reservoir are suitable agitating-blades *j* for working between the sand to keep it from packing.

Conveniently attached to the cylinder *b* there may be means, as *g*, for limiting the movement of the valve *k* by reason of the ball or stop *i*.

The operation of the above-described sanding device may be described as follows:

Upon applying the brakes to the wheels

of a trolley-car a portion of the compressed air used for the purpose is caused to pass by the inlet 1 to the interior of cylinder *b* above the piston, thereby causing the same to move in a downwardly direction against the spring *f*. Obviously by reason of its threaded connection the follower *d* is caused to revolve, thus setting in motion the agitator-blades *j* and feeding to the track sifted sand by way of the valve *k*. When the valve has reached its predetermined position, due to the parts *g* and *i*, the pressure of air is shut off by the motorman, and as it is released from the cylinder by way of the exhaust 2 the spring returns the piston to its normal position. While the above description has been confined to street-railway cars employing compressed air, obviously the same may be operated upon other conveyances, and other mediums, such as water and steam power, may be utilized to operate the device.

It will be obvious to those skilled in the art to which the invention appertains that modified forms may be employed without departing from the spirit thereof. Hence I do not limit myself further than the prior state of the art may require; but,

Having described the nature and objects of the invention, what I desire to secure by Letters Patent is—

1. A sanding device comprising a reservoir and its complemental valve-seat, a cylinder having inlet and outlet connections, an internally-threaded piston fitted to the cylinder, a follower within the piston, a valve-stem connected with said follower and carrying agitating-blades in juxtaposition to the valve-seat, and a valve upon said stem, substantially as described.

2. A sanding device comprising a reservoir and its complemental valve-seat, a cylinder having inlet and outlet connections, an internally-threaded piston fitted to the cylinder, a follower engaging said threaded portion, a valve-stem and its valve, agitating-blades and a stop for limiting the movement of the valve, substantially as described.

3. A sanding device comprising a reservoir, a pressure-cylinder, an internally-threaded piston, a follower engaging said threaded portion and a valve-stem and its complemental valve carried by the follower, substantially as described.

4. A sanding device comprising a reservoir, a pressure-cylinder, an internally-threaded

piston under spring tension fitted to said cylinder, a follower engaging said threaded portion, a valve-stem and its valve carried by the follower, a stop on said stem to limit the movement of the valve and agitator-blades between the stop and valve, substantially as described.

In testimony whereof I have hereunto set my hand and seal.

CHARLES THOMPSON. [L. s.]

In presence of—

W. J. JACKSON,  
HENRY B. TAWRESEY.