

(No Model.)

W. GRUNOW, Jr.  
RAILWAY SANDING DEVICE.

No. 520,048.

Patented May 22, 1894.

Fig. 2.

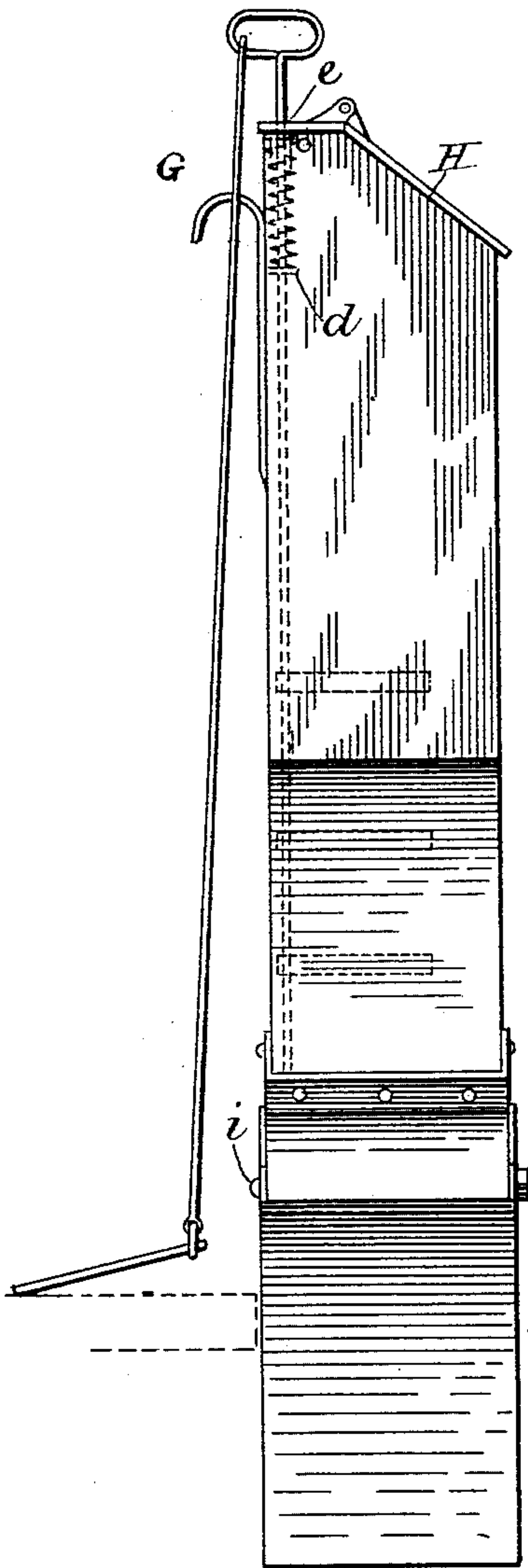
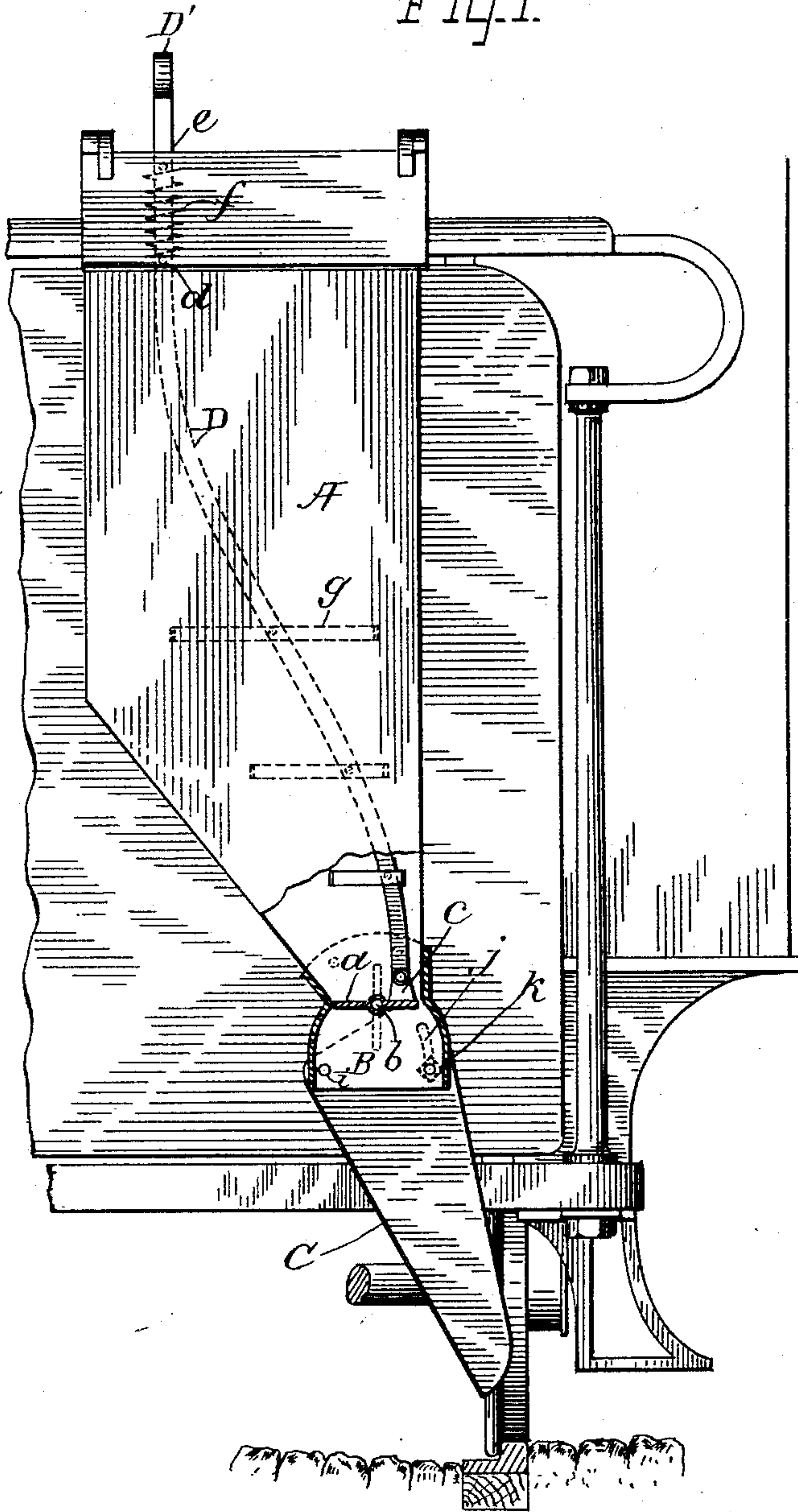


Fig. 1.



ATTEST:

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# UNITED STATES PATENT OFFICE.

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## RAILWAY SANDING DEVICE.

SPECIFICATION forming part of Letters Patent No. 520,048, dated May 22, 1894.

Application filed June 29, 1893. Serial No. 479,180. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM GRUNOW, Jr., a citizen of the United States, and a resident of the city of Mount Vernon, Westchester county, New York, have invented certain new and useful Improvements in Railway Sanding Devices, of which the following is a specification.

This invention relates to devices for strewing sand, gravel, salt, or similar material on the tracks or roadbeds of railroads and has for its object to produce a sander capable of distributing either wet or dry sand continuously and freely without danger of "caking" and which may also be readily applied to and removed from the car or other vehicle.

In the accompanying drawings, in which like letters of reference indicate similar parts, Figure 1 is a front elevation partly in section of my improved sander attached to the dashboard of a street-car. Fig. 2 is a side elevation of the same removed.

The device consists mainly of a wooden or metallic box A tapering at its lower end around which is bolted a metal collar B, an adjustable chute C depending from the said box and secured to the said collar. Intervening the box and the chute is a trip-valve *a*, journaled in bearings *b* in the sides of the collar and actuated by the rod D, which is pivoted to a lug or shoulder *c* extending upward from the valves. The rod D passes through a guide *d* affixed to the upper side of the box, and then through a slot *e* in the top thereof, when it is bent to form a handle D'. Between the guide *d* and the top of the box, surrounding the rod D and fastened to one end thereof is a spiral spring *f* which serves to keep the said rod normally raised and the trip-valve closed.

In order that the sand or gravel may flow freely and not, as in the present devices, solidify and cake, I attach to the rod D by bolts or otherwise one or more angular shaped, cross-bars *g*, whose function is to loosen and pulverize the sand. If desired, a bar or strap E may be attached to the handle D', the lower end of the same being secured to a foot-rest F.

The sander when in use is attached to the dash-board of the car by means of a hook or hooks G, and is operated by pressing downward on either the handle D' or the foot-rest

F, whereby the rod D is depressed and the trip-valve opened the cross-bars agitating the sand and forcing it through the chute C onto the track or roadbed below.

The chute C which is preferably formed tapering downwardly, fits over the collar B and is pivoted thereto by means of bolts *i*, the bolt-holes (*j*) at one side being elongated vertically, whereby the chute may be adjusted laterally in order to direct the flow of sand to the required place, and is retained in position by tightening the nut *k*.

The box A is provided with a lid H hinged or otherwise secured thereto, and adapted to be locked or fastened if desired.

By the use of my improved device, great cheapness and simplicity of structure are attained and the sand or gravel is enabled to flow freely without obstruction. Moreover the sander being constructed so as to be attached to the front or dashboard end of the car, is readily accessible and being removable, renders it unnecessary to withdraw a car from service as at present, when it is desired to repair or alter the sanders.

I do not confine myself to the exact construction of parts herein shown as the same may be changed or varied in many respects.

Having thus described my invention, what I claim is—

1. In a railway sanding device the combination with a box or receptacle of a tapering chute pivoted to the box by bolts, the bolt-holes at one side being vertically elongated to admit of the chute being laterally adjusted substantially as shown and described.

2. In a railway sanding device, the combination with a main box having at its lower end a tapering chute pivoted thereto by bolts, the bolt-holes at one side being elongated whereby the chute may be adjusted, of an axially mounted trip valve intervening the box and the chute and an actuating rod provided with angular agitators, the said rod being pivotally secured to the said trip-valve, substantially as shown and described.

3. In a railway sanding device, the combination with a main box adapted to be secured to the car and having at its lower end a tapering chute pivoted thereto by bolts, the bolt-holes at one side being elongated whereby

the chute may be adjusted, of an axially-mounted trip-valve intervening the box and the chute, an actuating rod provided with angular agitators, the said rod being pivotally  
5 secured to the said trip-valve, a spring surrounding the rod at the top to hold the trip-valve normally closed, a strap connecting the actuating rod to a foot-rest, substantially as shown and described.

In testimony that I claim the foregoing as ~~to~~ my invention I have signed my name, in presence of two witnesses, this 7th day of June, 1893.

WILLIAM GRUNOW, JR.

Witnesses:

M. A. CASSIDY,  
M. V. CRONIN.