

(No Model.)

A. H. GILMAN.
RAILWAY TRACK SANDER.

No. 568,530.

Patented Sept. 29, 1896.

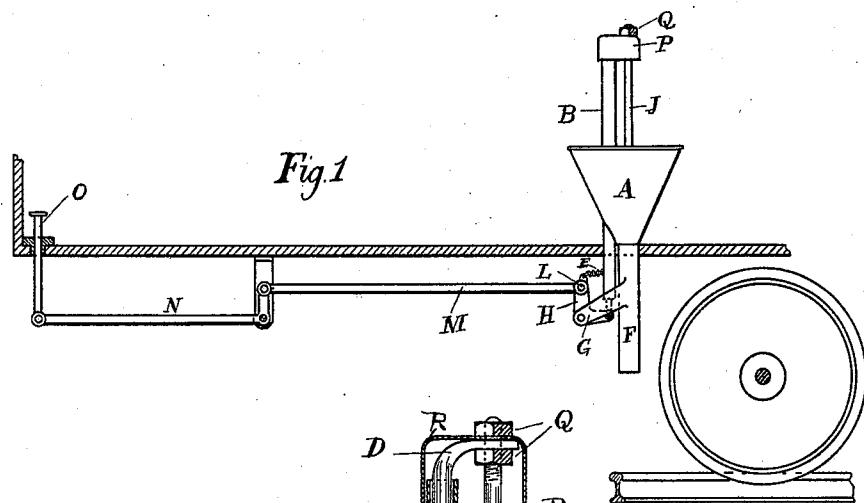
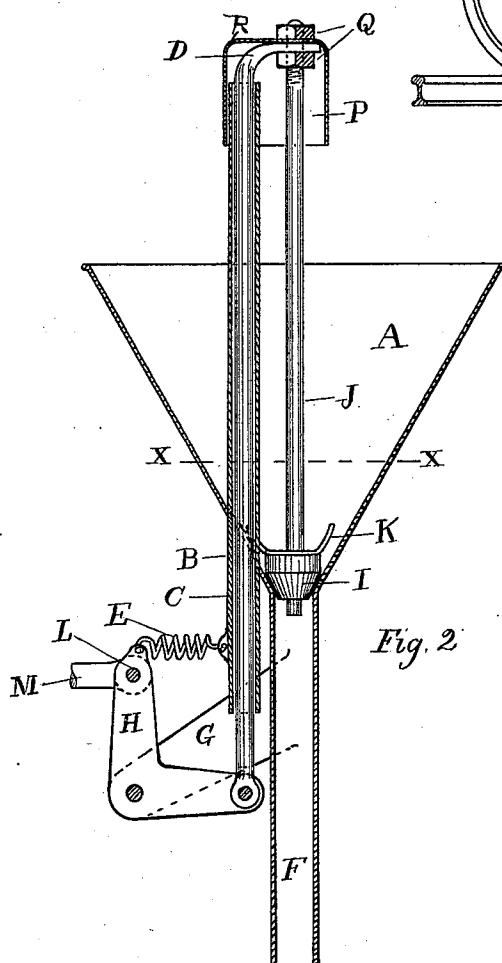
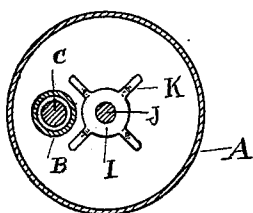


Fig. 3



Witnesses:

H. Chinery,
E. B. Gardner.

Inventor.

Attest H. Gilman.
by
Daniel & Clifford,
his attorneys,

UNITED STATES PATENT OFFICE.

ALBERT H. GILMAN, OF SACO, MAINE.

RAILWAY-TRACK SANDER.

SPECIFICATION forming part of Letters Patent No. 568,530, dated September 29, 1896.

Application filed March 23, 1896. Serial No. 584,466. (No model.)

To all whom it may concern:

Be it known that I, ALBERT H. GILMAN, a citizen of the United States of America, residing at Saco, in the county of York and State of Maine, have invented certain new and useful Improvements in Railway-Track Sanders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in railway-track sanders and is designed to prevent the sand from clogging any of the operating mechanism connected therewith.

In the drawings herewith accompanying and forming a part of this application, Figure 1 represents a side elevation of a car, showing my sander in position. Fig. 2 is a vertical cross-section of the hopper and operating mechanism, and Fig. 3 is a sectional view on line *xx* of Fig. 2.

Same letters refer to like parts.

In said drawings, A represents a hopper adapted to be fitted under the sand-box under the seat near the ends of the car. Extending through said hopper and nearly to the height of the sand in the sand-box is a hollow cylindrical tube B. Adapted to slide in said tube is a rod C, provided with cross-head D on the top thereof. At the bottom of the hopper is placed a hollow tube or vent-pipe F, which serves as a conductor of the sand from the hopper to the track in front of the wheels. Rigidly attached to said tube are two ears G. Pivoted in said arms G is a bell-crank lever H, having attached to one end a spring E, which connects it with the cylinder B. Pivotally attached to the other end of the bell-crank lever is the shaft C with the cross-head thereon. Removably attached to said cross-head and adapted to be raised and lowered by the movement of said cross-head is a plunger J, having a valve I on the lower end thereof and adapted to close the opening in the bottom of the hopper and to prevent the sand from flowing out when not required. I also provide the plunger near its bottom with arms or agitators K, which serve to loosen the sand when the rod is raised, thereby allowing the sand to flow freely out through the opening in the bottom of the

hopper. Attached to one end L of the bell-crank lever is a shaft M, linked to another crank-lever N underneath the car, the extreme end of the crank-lever being pivotally attached to a foot-lever O, which is operated by the motormen by pressure of the foot thereon. In order to prevent the sand from getting into the cylindrical tube B and to prevent the consequent clogging of the operating mechanism, I cover the said cylinder with a cap R and hold the same in position by the nut Q.

The operation of my improved device is as follows: The sand-box underneath the seat of the car is filled with sand, and, being in communication with the hopper, the sand from the box flows into the hopper, keeping the hopper full as long as any sand remains in the box. When the motormen wishes to sand the tracks so as to increase the friction of the wheels on the track, he presses upon the push-button O, which, through intermediate and connecting mechanism, raises the plunger and the valve and permits the sand to flow freely through the vent-pipe to the track below. The arms on the plunger serve as agitators to keep the sand loose and prevent its being clogged.

By my arrangement there is no possibility of the operating parts becoming clogged by the sand, inasmuch as the rod C operates in the closed cylindrical tube B, thereby preventing also any waste of sand.

Having thus described my invention and its use, I claim—

1. In a railway-track sander, in combination, a hopper to contain the sand, a cylindrical tube connected to said hopper, a rod mounted in and working in said tube and operating a plunger, the motion of the plunger regulating the emission of the sand from the hopper, substantially as and for the purposes set forth.

2. In a railway-track sander, in combination, a hopper having an opening in the bottom, a cylindrical tube secured thereto, a rod mounted in said tube, a plunger concentric with said hopper, a cross-head connecting the ends of said rod and plunger, said plunger having a valve on its lower end adapted to close the opening in the bottom of the hopper and means for actuating said rod and plunger,

substantially as and for the purposes set forth.

3. In a railway-track sander, in combination, a hopper having an opening in the bottom, a cylindrical tube, a rod mounted in said
5 tube, a plunger supported in said hopper and concentric therewith, said plunger being adapted to be operated by said rod, a valve on the lower extremity of said plunger and
10 adapted to be held yieldingly to close the opening in the bottom of the hopper and to

be raised therefrom by said rod, and means for actuating said rod, substantially as and for the purposes set forth.

In testimony whereof I affix my signature, 15
in presence of two witnesses, this 7th day of March, 1896.

ALBERT H. GILMAN.

Witnesses:

WILLIAM HENRY CLIFFORD,
NATHAN CLIFFORD.