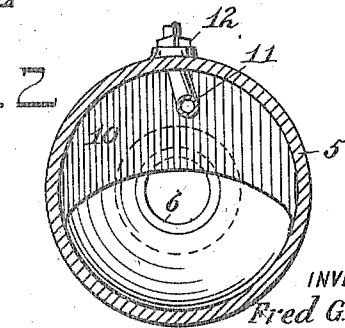
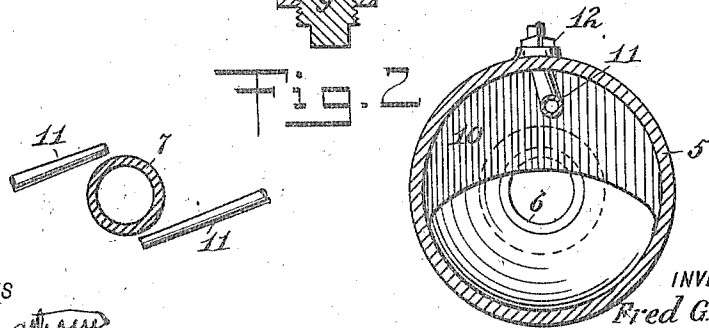
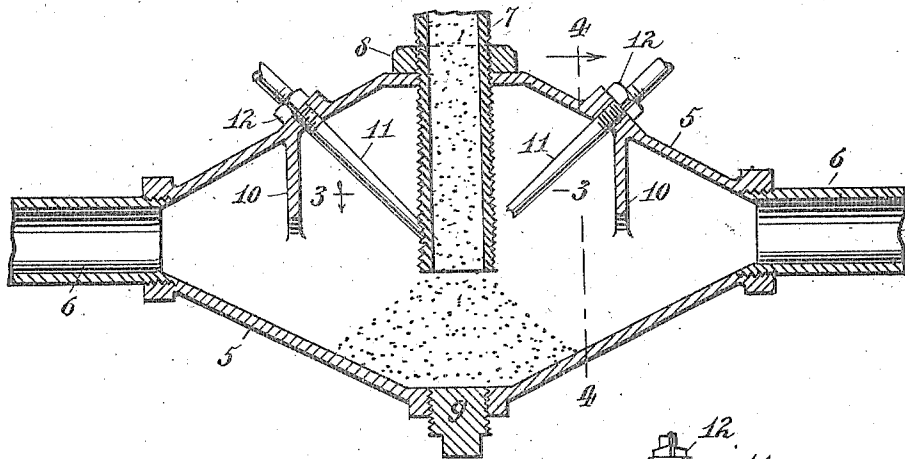
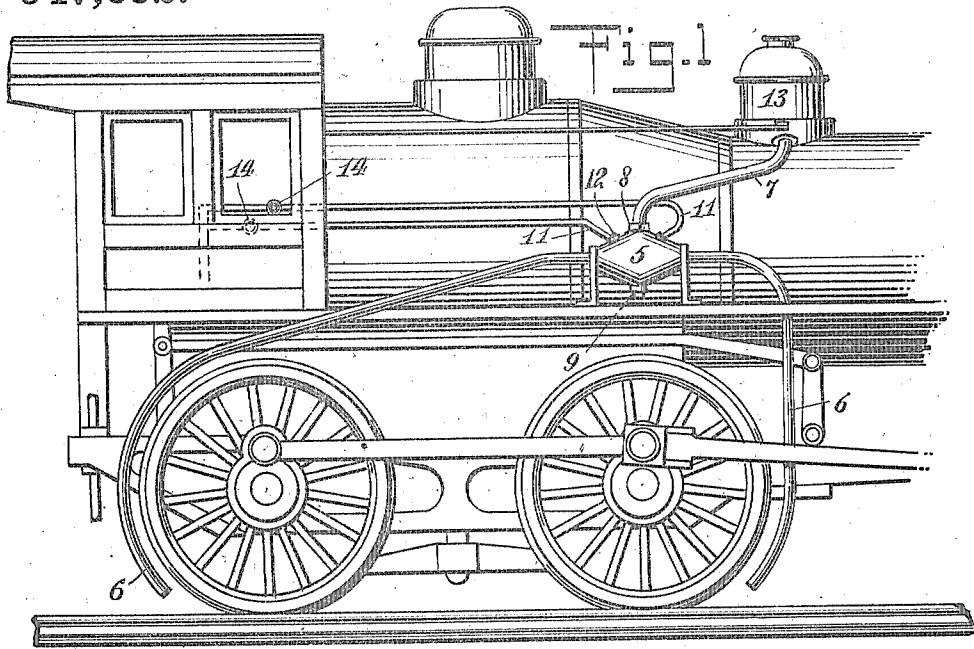


F. G. SCHWARTZ.
 TRACK SANDING APPLIANCE.
 APPLICATION FILED AUG. 26, 1909.

947,652.

Patented Jan. 25, 1910.



WITNESSES
John A. B. [Signature]
[Signature]

Fig. 3

Fig. 4

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UNITED STATES PATENT OFFICE.

FRED G. SCHWARTZ, OF COLORADO CITY, COLORADO.

TRACK-SANDING APPLIANCE.

947,652.

Specification of Letters Patent.

Patented Jan. 25, 1910.

Application filed August 26, 1909. Serial No. 514,761.

To all whom it may concern:

Be it known that I, FRED G. SCHWARTZ, a citizen of the United States, and a resident of Colorado City, in the county of El Paso and State of Colorado, have invented a new and Improved Track-Sanding Appliance, of which the following is a full, clear, and exact description.

The invention is an improvement in pneumatic track sanding appliances for locomotives, street cars, etc., and has in view a construction embodying an auxiliary sand feed receptacle having discharge openings at either side and having a sand supply pipe extending thereinto and terminating above the bottom of the receptacle at or near the level of the discharge openings, whereby the sand is automatically cut off when it is piled up in the receptacle to the bottom of the pipe, leaving the discharge openings free for the delivery of the sand, and air injector nozzles extending into the receptacle and directed to blow the sand through the respective discharge openings.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of a locomotive having my improved sanding appliance applied thereto; Fig. 2 is a central vertical section through the auxiliary sand feed receptacle; Fig. 3 is a section on the line 3—3 of Fig. 2; and Fig. 4 is a section on the line 4—4 of Fig. 2.

In carrying out my invention I provide an auxiliary sand feed receptacle 5, preferably cylindrical in cross-section and having conical end portions at opposite sides, each having a connection with a sand discharge pipe 6. A sand supply pipe 7 extends vertically into the receptacle 5 at the top center and terminates at or slightly below the longitudinal center of the receptacle, the connection between the feed pipe and receptacle preferably being effected by threading the inwardly-projecting portion of the pipe its entire length and providing it with a lock-nut 8 which seats on the top of the receptacle. Directly below the supply pipe 7 the receptacle is provided with a clean-out plug 9, and is further provided with sand guards 10 in the conical end portions thereof at each side of the sand supply pipe and extending from the top, the bottom edges of these

guards being preferably concave, with the central portion arranged slightly above the longitudinal center of the sand receptacle, as shown in Fig. 4.

Adjacent to the guards 10 and at the inner sides thereof, air injecting nozzles 11 extend from the top of the receptacle to the opposite sides of the vertical sand supply pipe 7 and terminate a slight distance above the bottom edge of this pipe, the nozzles being downwardly and inwardly inclined and threaded into the wall of the sand receptacle, to which they are locked by nuts 12.

In applying the sander to a locomotive, the auxiliary sand feed receptacle is suitably supported a substantial distance above the running-board, with the discharge pipe 6 extending respectively to the front of the forward and rear driving wheels, the supply or feed pipe 7 being connected to the sand dome 13, and the nozzles independently connected to the air reservoir and each provided with a controlling valve 14 preferably accessibly arranged on the cab.

In the use of the sander, the sand feed or supply pipe 7 is left open so that the sand will freely pass into the auxiliary sand receptacle, which it will do until the sand in the receptacle piles up to the lower end of the pipe, when the flow is automatically cut off; thus the sand can only reach the discharge openings in the receptacle by the aid of the air passing through the nozzles. On opening one of the valves 14, the air is injected into the sand receptacle through one of the nozzles, sweeping the sand from around the supply pipe through the discharge pipe to which it is directed, the whirling of the sand being prevented by the guards 10. Accordingly the sand may be discharged through the pipes 6 separately or simultaneously, as desired.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. The combination of a sand feed receptacle having a lateral discharge opening arranged above the bottom thereof, a sand supply pipe leading into the upper portion of the receptacle and extending a substantial distance thereinto, and an air supply nozzle leading into the receptacle to a point near the bottom of the supply pipe and terminating above the maximum sand level in the receptacle.

2. The combination of a sand feed recep-

tacle having a laterally-extending discharge opening arranged above the bottom thereof, a sand supply pipe extending vertically into the upper portion of the receptacle and terminating near the level of the discharge opening, and an air nozzle leading into the receptacle and inclining toward the discharge opening thereof, with the point of the nozzle terminating above the maximum sand level in the receptacle.

3. The combination of a sand feed receptacle having a laterally-extending discharge opening, with the bottom wall of the receptacle inclining upwardly and outwardly to said opening, a sand supply pipe extending vertically into the upper portion of the receptacle and terminating above the bottom thereof and near the level of said opening, and an air nozzle to discharge the sand from the bottom of said pipe through said opening.

4. The combination of a sand feed receptacle having laterally-extending conical portions, each provided with a discharge opening, a sand supply pipe extending into the receptacle through the upper portion thereof and terminating near the level of the discharge openings, and air nozzles extending into the receptacle to the opposite sides of the pipe and directed to force the sand around said pipe through said discharge openings.

5. The combination of a sand feed recep-

tacle having conical end portions, each provided with a discharge opening, a sand supply pipe extending into the upper portion of the receptacle and terminating near the level of the discharge openings, air nozzles downwardly and inwardly inclined to the opposite sides of the pipe to discharge the sand from the lower portion thereof through the said openings, and guards to prevent the whirling of the sand in the receptacle, extending from the upper portion thereof at the outer side of the nozzles.

6. The combination of a sand feed receptacle having laterally-extending discharge openings at the opposite sides arranged a substantial distance above the bottom of the receptacle, a sand supply pipe extending into the upper portion of the receptacle and terminating near the level of the discharge openings, air nozzles downwardly and inwardly inclined to the lower portion of the pipe and respectively directed toward the discharge openings, and means for independently controlling the admission of air through the nozzles.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRED G. SCHWARTZ.

Witnesses:

S. J. BRYAN,
J. J. MURPHY.