

A. S. CONTI.
PNEUMATIC TRACK SANDER.
APPLICATION FILED MAY 10, 1912.

1,041,744.

Patented Oct. 22, 1912.

2 SHEETS-SHEET 1.

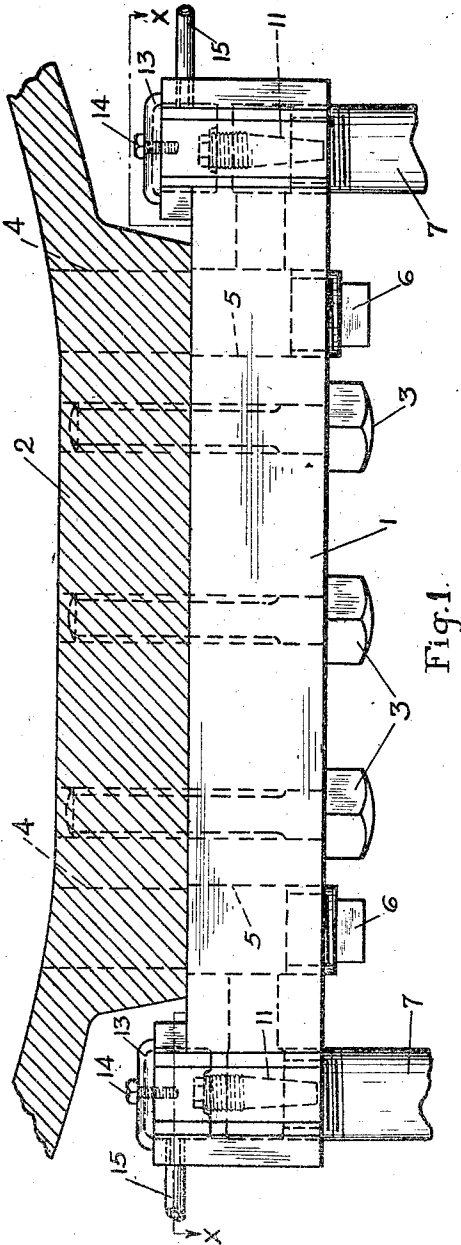


Fig. 1.

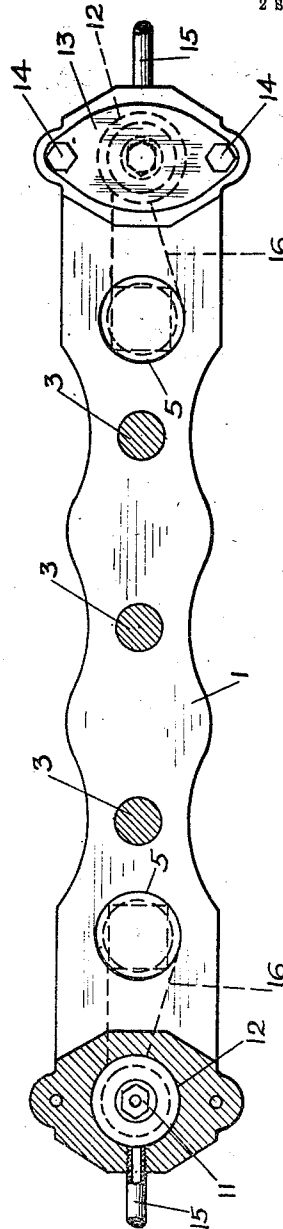


Fig. 2.

Witnesses.

R. W. Stone.
A. A. Olson.

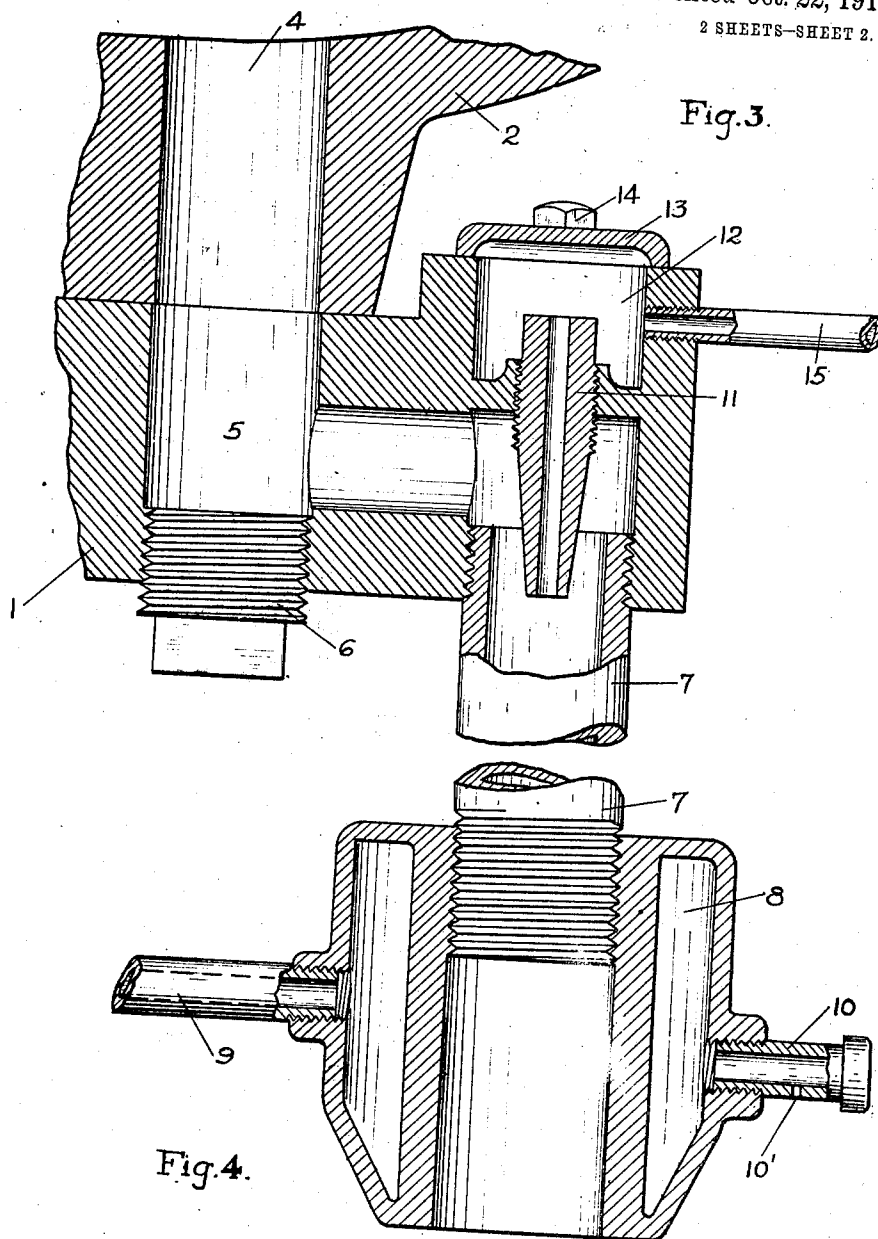
Inventor.

Anthony S. Conti
By Joshua R. H. Torrey
his Attorney.

1,041,744.

A. S. CONTI.
PNEUMATIC TRACK SANDER.
APPLICATION FILED MAY 10, 1912.

Patented Oct. 22, 1912.
2 SHEETS—SHEET 2.



Witnesses.
R. W. Stone.
A. A. Olson.

Inventor.
Anthony S. Conti
By Joshua R. F. Jones
his Attorney.

UNITED STATES PATENT OFFICE.

ANTHONY S. CONTI, OF CHICAGO, ILLINOIS.

PNEUMATIC TRACK-SANDER.

1,041,744.

Specification of Letters Patent.

Patented Oct. 22, 1912.

Application filed May 10, 1912. Serial No. 696,384.

To all whom it may concern:

Be it known that I, ANTHONY S. CONTI, a citizen of the United States, and a resident of the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Pneumatic Track-Sanders, of which the following is a specification.

My invention relates to improvements in track sanders and more specifically to that class thereof in which compressed air is used to facilitate the discharge of the sand onto the track.

The object of my invention is the production of a sander of the character mentioned which will be of improved construction and efficient in operation.

Other objects will appear hereinafter.

The invention consists in the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawing forming a part of this specification, and in which—

Figure 1 is a fragmentary horizontal section of a conventional form of locomotive engine sand box to which is applied a sanding device embodying my invention. Fig. 2 is a section taken on substantially line $x-x$ of Fig. 1, Fig. 3 is an enlarged fragmentary section of one end portion of the device together with the adjacent portion of the sand box which is also shown in section, and Fig. 4 is a fragmentary sectional view of the lower end portion of one of the sand discharging pipes.

The preferred form of construction as illustrated in the drawing comprises an elongated body 1 which is adapted to be arranged upon the side of the sand box 2 and rigidly secured thereto by means of screws or other suitable fastening device 3 over the sand discharge openings 4 which lead from said sand box. Provided in the respective ends of the body 1 are angular passages 5, corresponding ends of which register with the outer ends of the discharge openings 4, as clearly shown in Figs. 1 and 3. The opposite ends of the body 1 are similar in form so that the construction of one will suffice for both. The portion of the passage 5 extending axially with the opening 4 is accessible through a removable screw plug 6 in order to dislodge any clogging particles which may be-

come lodged in said passage, or the opening 4, as will be readily understood. The outer end of said plug is squared, as shown, for engagement by a wrench or other suitable tool for effecting ready rotation thereof.

Communicating with the opposite end of the passage 5 is a discharge pipe 7 which terminates at its lower end directly above and in close proximity to the track which it is desired to sand. The lower end of said pipe is surrounded by an annular jacket 8 with which communicates a steam supply pipe 9 and a vent pipe 10 in which is provided the vent opening 10'.

The steam jacket 8, serves as a means of preventing clogging of the lower end of the discharge pipe by reason of freezing in cold weather, the provision of said jacket and together with the steam supply pipe 9 and the vent 10 communicating therewith, serving to maintain the lower end of said pipe 7 in heated condition so as to preclude the possibility of clogging for the reason above mentioned.

Threaded in the body 1 is an air jet nozzle 11 which is arranged coaxial with the upper end of pipe 7, the outer or discharge end of said nozzle projecting into the adjacent end of pipe 7 a considerable distance, as clearly shown in Fig. 3. The opposite end of nozzle 11 projects into a chamber 12 formed in the body 1 the outer end of which is closed by a removable plate 13 secured in position by screws or other suitable fastening device 14. Said end of said nozzle is polygonal in form so as to be readily engageable by a wrench or other suitable tool for effecting removal of said nozzle if desired when the closure plate 13 is removed. Communicating with the chamber 12 is a compressed air supply pipe 15 which leads from any suitable source of compressed air supply.

In the operation of the sander the compressed air supplied to the chamber 12 will pass through the nozzle 11 and be discharged from the outer end of the latter in a jet. The discharge of a jet of air axially into the pipe 7 induces a suction or draft in the adjacent end of said pipe which serves to draw the sand from the passage 5 into the pipe 7, the sand flowing into said passage 5 from the sand box through the opening 4 by gravity. The sand which is drawn into the upper end of the pipe 7 is forced through the latter by reason of the jet issuing from

the nozzle and deposited onto the rail positioned below the lower end of said pipe. Chamber 12 serves as a trap in which any moisture which may be contained in the air supplied thereto from the pipe 15 will be retained and thereby prevented from being discharged from the nozzle 11 into the sand passing through the pipe 7 to cause the dampening and hence the possible clogging of the latter. The bottom of the portion of the passage adjacent the pipe 7 is inclined, as shown in Fig. 2 so as to serve as a means of preventing the sand from discharging therethrough by gravity when it is not desired to operate the sander. With this construction, when compressed air is not being supplied to the device, the sand will clog itself in the restricted or converging portion of the passage 5 and thereby automatically stop the flow therethrough until compressed air is supplied to the device to create the suction or draft in the pipe 7, as above described. Two pipes 7 are provided for co-operation with the two drivers which are provided at each side of the locomotive engine, a device of the construction set forth, in practice being provided at each side of the sand box.

A sander of the construction set forth is durable and economical of construction and of high efficiency in operation.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

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

1. The combination with a sand box having two sand discharge openings, of a pneumatic track sander comprising an elongated body mounted upon said sand box, said body having angular passages in its ends, corresponding terminals of said passages registering with said discharge openings of said sand box; a discharge pipe leading from the opposite end of each of said passages; an air jet nozzle removably secured in each end of said body having its discharge end projecting axially into the adjacent end of the

corresponding discharge pipe; a chamber provided at the opposite end of each of said nozzles; and a compressed air supply pipe communicating with each of said chambers, substantially as described.

2. The combination with a sand box having two sand discharge openings, of a pneumatic track sander comprising an elongated body mounted upon said sand box, said body having angular passages in its ends, corresponding terminals of said passages registering with said discharge openings of said sand box; a discharge pipe leading from the opposite end of each of said passages, the portions of said passages approaching said discharge pipes converging toward the latter; an air jet nozzle removably secured in each end of said body having its discharge end projecting axially into the adjacent end of said pipe; a chamber provided at the opposite end of each of said nozzles; and a compressed air supply pipe communicating with each of said chambers, substantially as described.

3. The combination with a sand box having two sand discharge openings, of a pneumatic track sander comprising an elongated body mounted upon said sand box, said body having angular passages in its ends, corresponding terminals of said passages registering with said discharge openings of said sand box; a discharge pipe leading from the opposite end of each of said passages, the bottoms of the portions of said passages approaching said pipes being inclined upwardly; an air jet nozzle provided in each end of said body having its discharge end projecting into the adjacent end of the corresponding discharge pipe; a chamber provided at the opposite end of each of said nozzles; and a compressed air supply pipe communicating with each of said chambers, substantially as described.

4. The combination with a sand box, of a sand discharge pipe leading therefrom; an annular steam jacket encircling the lower end of said pipe; and a steam pipe and an outwardly opening vent communicating with said jacket, substantially as described.

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

ANTHONY S. CONTI.

Witnesses:

JOSHUA R. H. POTTS,
ARTHUR A. OLSON.