

C. W. G. KING.
 TRACK SANDER.
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914,425.

Patented Mar. 9, 1909.

Fig. 1.

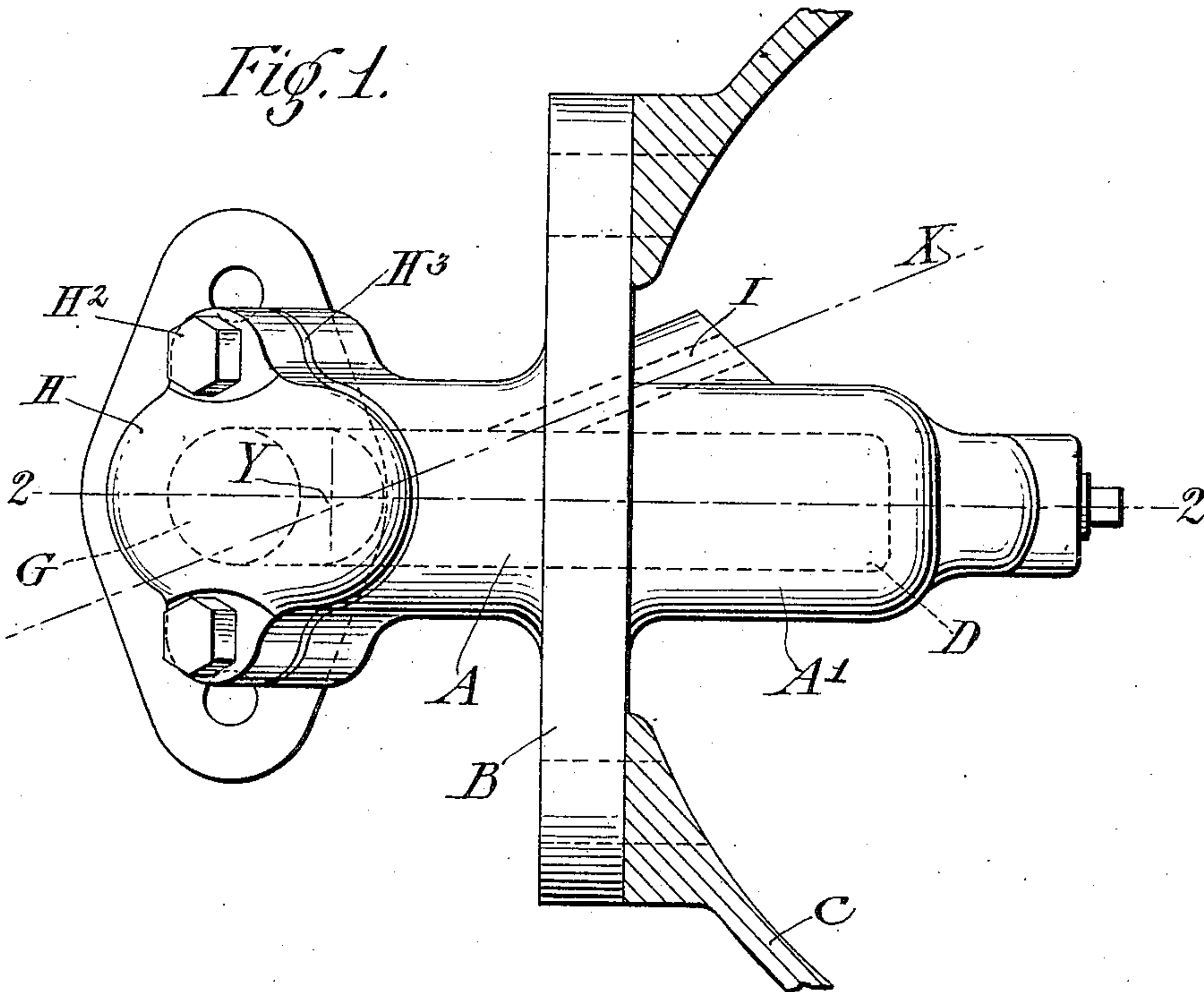
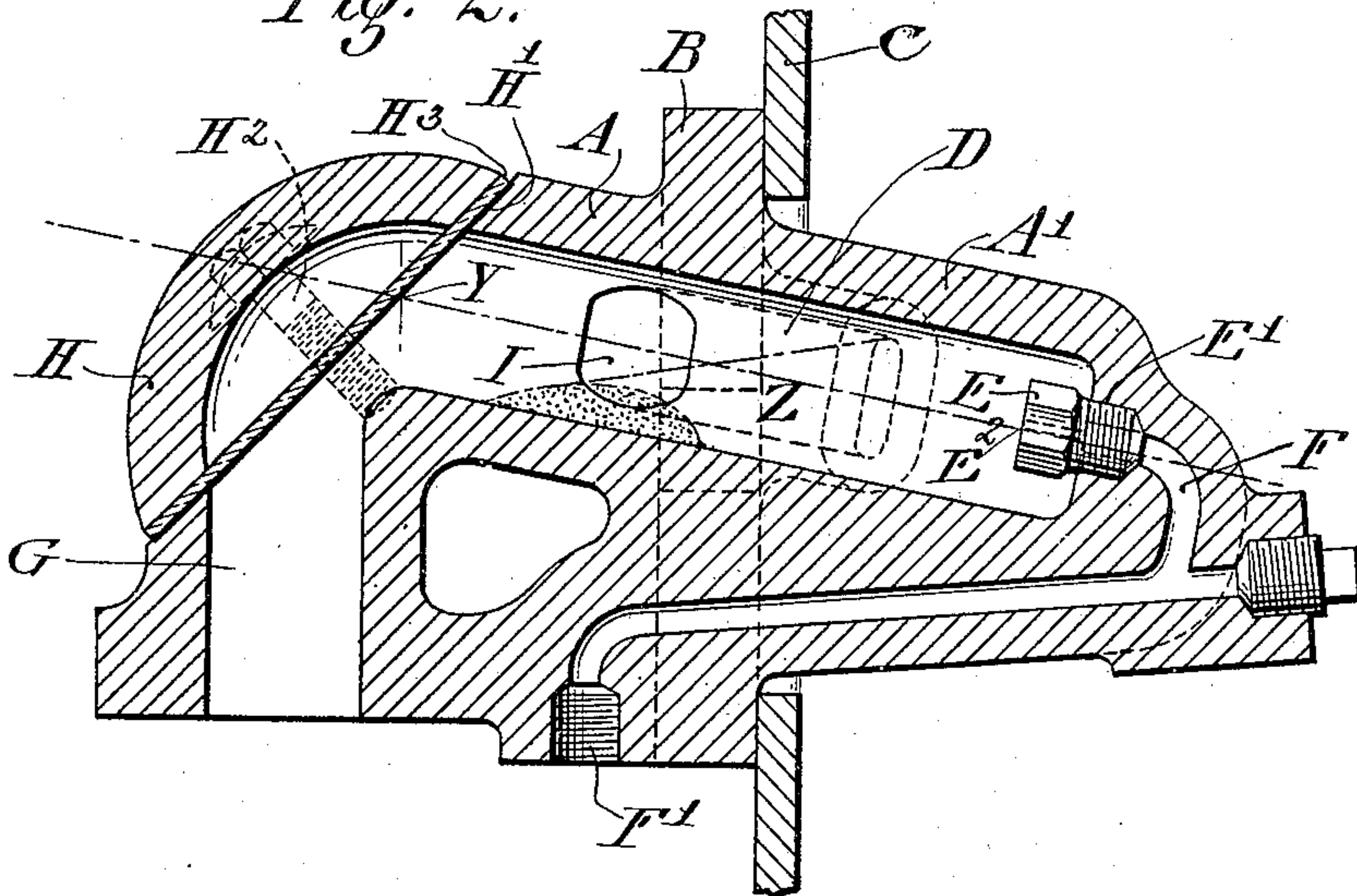


Fig. 2.



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TRACK-SANDER.

No. 914,425.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES W. G. KING, a citizen of the United States of America, residing in the city and county of Philadelphia, in the State of Pennsylvania, have invented a certain and useful Improvement in Track-Sanders, of which the following is a true and exact description, reference being had to the accompanying drawings, which form a part thereof.

The present invention relates to sanding devices of the kind employed on vehicles and particularly on railway locomotives for feeding sand onto the trackway for the vehicle wheels to prevent slipping.

The invention relates to that type of sander in which the sand may pass freely from the sand dome or other sand reservoir into a small chamber in the sanding device proper from which it is ejected as needed by the action of an air or steam blast, the walls of said chamber being so formed and arranged that the chamber forms a trap from which the sand will not flow when the blast is shut off.

The object of the invention is to provide an improved sander of the general kind described which will be simple and durable in construction and reliable in operation, and particularly to provide a sander in which the nozzle through which the blast is introduced into the trap chamber is so located and arranged that it will not be injured by the sand blast when the latter is in operation and in which the interior of the sanding device may be readily opened for inspection, adjustment or repair, and in which the various passages apt to clog up and particularly the passage leading to the trap from the sand dome or other sand reservoir may be readily cleaned out when necessary.

The various features of novelty which characterize my invention are pointed out with particularity in the claims annexed to and forming a part of this specification. For a better understanding of the invention however and the advantages possessed by it reference may be had to the accompanying drawings and descriptive matter in which I have illustrated and described one of the forms in which the invention may be embodied.

Of the drawings: Figure 1 is a plan of the sander and a portion of the sand dome

or reservoir, and Fig. 2 is a sectional elevation on the line 2—2 of Fig. 1.

In the construction illustrated, A represents the body of the sander which is preferably provided with a flange B for attachment to the wall of the sand dome C or other sand reservoir. The body A has a portion A¹ which extends into the sand reservoir and the body is formed with the elongated trap chamber or passage D which is nearly horizontal but is preferably inclined to the horizontal at about the small angle shown so that the outer end of passage D is above the inner end of the passage. At the inner end of the passage D a blast nozzle is provided. In the form shown the nozzle E² is formed in a nozzle member E threaded into the socket E¹ formed in the member A. The socket E¹ communicates with a curved passage F formed in the member A and opening without the flange B at F¹, where a suitable air or steam supply pipe may be connected. At its outer end the passage or chamber D joins the downwardly extending discharge passage G which leads through suitable pipe connections to the trackway. A cap or separable portion H of the body A is in line with chamber D and passage G is removably secured against its seat H¹ by bolts H².

H³ is a washer employed to insure a tight fit.

The member A is provided with a lateral sand outlet passage I which is open at one end to the interior of the sand reservoir and at the other end to the passage D, at an appreciable distance in front of the nozzle E. The passage I is inclined to the passage D so that the former passage may be readily cleaned out by a straight stick or other device inserted through the outer end of chamber D when the cap H is removed. To illustrate this, I have indicated in the drawing, the point Y, where the center line X of the passage I intersects the plane of the seat H¹. The passage I, which is relatively short, is upwardly inclined from its sand reservoir and to its end to the passage or chamber D. The nozzle member E may be readily removed and replaced or adjusted by a tool through the outer end of passage D when cap H is removed.

It is obvious that the construction dis-

closed, on account of the few number of parts and the simplicity of their construction, possesses excellent mechanical properties.

5 The cap H, which is the only portion of the body member A apt to be injured by the sand blast, may be very easily replaced when worn. The sand, when the blast is shut off and the device is not subjected to much
10 vibration, will pile up in the chamber D to about the extent indicated at Z. When the sanding device is subjected to much vibration, the lower end of passage D may fill up wholly or partly with sand, but the inclination of passage D is, or may be readily
15 made, such as to prevent any sand from shaking down into passage G and being wasted. As soon as the blast from nozzle E is started the portion of the chamber D, to
20 the rear of passage I, is wholly or largely cleared of sand. In consequence, the nozzle member is not subject to the cutting action of the sand blast as is the case when the nozzle is practically buried in sand while
25 the blast is going as is the case with the sanding device heretofore in most common use.

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

30 1. A sanding device comprising in combination with a sand reservoir, a body extending into said reservoir and formed with a chamber serving as a sand trap through the
35 outer end of which the sand may be blown and with a lateral sand inlet passage open at one end to said reservoir and at the other end to said chamber at an appreciable distance in front of the inner end of said chamber, said body being provided with a blast
40 nozzle located at the inner end of said chamber.

2. A sanding device comprising in combination with a sand reservoir, a body extending
45 into said reservoir and formed with a chamber serving as a sand trap through the outer end of which the sand may be blown and with a lateral sand inlet passage open at one end to said reservoir and at the other
50 end to said chamber at an appreciable distance in front of the inner end of said chamber, said body being provided with a blast nozzle, and a removable cap at the outer end of said chamber, said passage being inclined
55 to said chamber to permit the passage to be

cleaned through the outer end of said chamber when said cap is removed.

3. A sanding device comprising a body adapted to be removably secured to a sand reservoir with a portion projecting into the
60 reservoir and formed with an elongated chamber slightly inclined downward from the horizontal from its outer and discharge end to its inner end, said body being provided at its inner end with a blast nozzle
65 and being formed with a lateral passage open at one end to said reservoir and open at the other end to said chamber at an appreciable distance in front of the blast nozzle.

4. A sanding device comprising a body A
70 adapted to be removably secured to a sand reservoir with a portion A¹ projecting into the reservoir and formed with an elongated chamber D, provided at its inner end with a blast nozzle E and opening at its outer end to
75 a downwardly extending discharge passage G and having a removable cap H at the junction of the passage G and chamber D, said body being also formed with a lateral passage I open at one end to the sand reservoir and at its other end to the chamber D
80 at an appreciable distance in front of the nozzle E and being inclined to said chamber so that it may be readily cleaned by a stick inserted through the outer end of said chamber D when said cap H is removed.
85

5. A sanding device comprising a body A adapted to be removably secured to a sand reservoir with a portion A¹ projecting into
90 the reservoir and formed with an elongated chamber D, provided at its inner end with a blast nozzle E and opening at its outer end to a downwardly extending discharge passage G and having a removable cap H at the
95 junction of the passage G and chamber D, said body being also formed with a lateral passage I open at one end to the sand reservoir and at its other end to the chamber D at an appreciable distance in front of the
100 nozzle E and being inclined to said chamber so that it may be readily cleaned by a stick inserted through the outer end of said chamber D when said cap H is removed, said passage D being inclined to the horizontal so that its outer end is above its inner end.

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Witnesses:

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