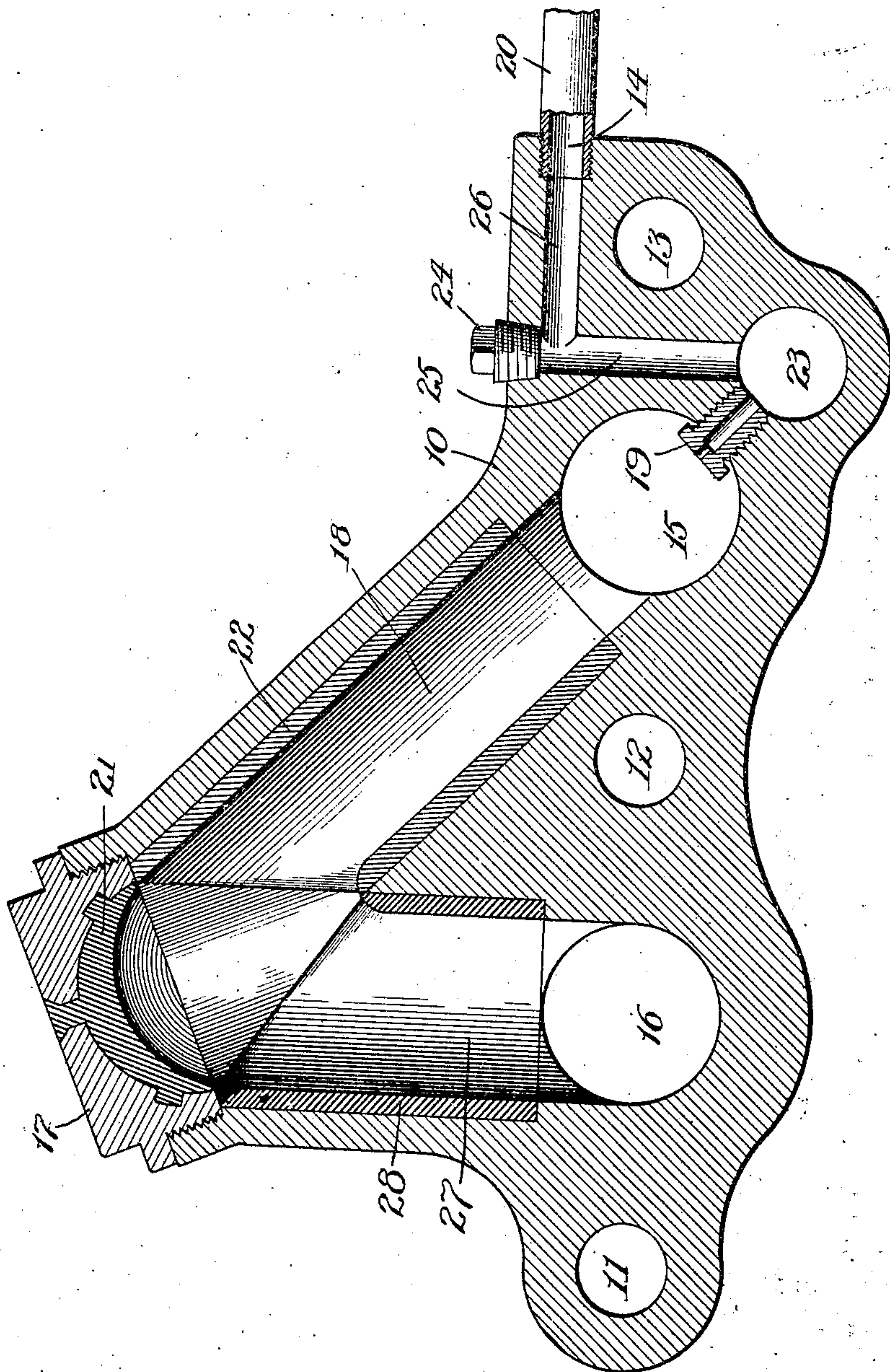


951,207

H. VISSERING.
TRAP FOR SANDER DEVICES.
APPLICATION FILED APR. 24, 1909.

Patented Mar. 8, 1910.



WITNESSES

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UNITED STATES PATENT OFFICE.

HARRY VISSERING, OF CHICAGO, ILLINOIS.

TRAP FOR SANDER DEVICES.

951,207.

Specification of Letters Patent.

Patented Mar. 8, 1910.

Application filed April 24, 1909. Serial No. 491,945.

To all whom it may concern:

Be it known that I, HARRY VISSERING, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Traps for Sander Devices, of which the following is a specification.

My invention relates to apparatus commonly known as locomotive sanders and especially to that type of such apparatus which is operable by fluid pressure instead of gravity, of which an example is illustrated in the Leach patent No. 433,686.

The principal objects of my invention are the provision of an improved form of construction of sand trap and fluid-pressure blast connections therefor; the provision of a trap of an improved construction better adapted to resist the grinding action of the sand blast on the interior of the trap and thereby greatly increase its life as well as avoid the trouble and expense of constant repair and renewal thereof; the provision of an improved arrangement of passages and connections in the trap whereby sand therefrom is prevented from passing into the piping connected thereto and thus reducing the efficiency of the apparatus by clogging the piping and otherwise injuring it; and the provision of means whereby the trap may be readily cleaned, together with such additional benefits and advantages as will hereinafter appear.

To attain the objects stated, I have provided the construction shown in the accompanying drawing which presents in cross section a trap embodying my preferred form of construction.

From an inspection of this illustration it will be observed that in carrying out my invention I provide the customary cast body portion, 10, adapted to be attached at some convenient place adjacent the sand box by means of bolts passing through the holes 11, 12 and 13.

The trap body, 10, is provided with suitable connections at 14, to receive the piping from the fluid pressure supply, at 15, to receive the sand pipe from the sand box, and at 16 to receive the sand delivery pipe leading toward the point of contact between the driver wheels and the rails.

As is well known to those skilled in the art to which this invention pertains, traps for sander devices of this class as heretofore

constructed have needed constant attention, repair and replacement, and hence have proved inefficient in service and a source of expense, in the three following respects:

1st, the removable cap, 17, screw threaded to the body, 10, wears away rapidly owing to the grinding action of the sand entering the trap from the connection, 15, and driven by the blast from the connection, 14, against the inner surface of said cap;

2nd, the grinding away of the walls, 18, due to the same causes, which in my experience I have found to cause a whirling motion of the sand which also grinds away the air nozzle, 19, enlarging the orifice thereof and destroying the contour of such orifice required for efficient service;

3rd, when the sander is at rest, sand from the connection, 15, on account of the jar of the locomotive is gradually shaken into the pipe, 20, and thence to the tank or compressor in sanders operated by compressed air, or into the boiler in sanders operable by steam pressure, owing to the fact that the connection, 14, is on the same plane with or below the nozzle, 19.

To overcome the disadvantages just set forth it will be noted that I have provided the interior of the cap, 17, with an insert, 21, of comparatively soft material which is not susceptible to the action of the sand blast. In practice I have found that lead is the material best adapted to the purpose though rubber of various compositions and other somewhat yielding resistant materials may be used advantageously and are comprised within the spirit of my invention and intended to be covered by my claims.

I have likewise provided the passages, 18, and 27 with inserted linings, 22, and 28 of the same character and for the same reasons.

While these inserts have been here shown, in the case of the insert, 21, as cast or pressed into the cap 17, with suitable dovetail connections in order to prevent displacement, and in the case of the insert, 22, as a piece of pipe or tubing cast or forced into position, it will be obvious that many other ways of securely fixing the inserts may be designed.

It will also be observed that to prevent sand, coming from the passage, 15, from sifting through the nozzle, 19, into the pipe, 20, I have provided a well, 23, which will interrupt the flow of the sand, which well may be cleaned if the sand becomes impacted therein by moisture from the pipe line by

removing the screw plug, 24, closing the passage, 25, which connects said well, 23, with the passage, 26, with which the pipe, 20, has connection.

5 It will be apparent that this construction not only allows sand to be readily removed from the chamber, 23, but also, inasmuch as the connection between the pressure pipe, 20, and the body, 10, is above the sand pipe connection, 19, it will be impossible for sand to drift into the pressure pipe, 20, and thence into the parts connected therewith.

The operation of my improved trap for sander devices will be readily comprehended without further explanation by such persons as are skilled in the art to which my invention pertains.

15 Having thus described my invention and illustrated its use what I claim as new and desire to secure by Letters Patent is the following:

1. A trap comprising a relatively hard body portion having connections to a receptacle for material, a discharge pipe and a connecting passage therebetween, and a relatively soft metal lining in said passage.

2. A trap comprising a body portion 10 having a passage 18 and a lead lining 22 in said passage.

30 3. A trap comprising a body portion 10 having a removable cap, 17, and a lead lining 21 in said cap.

4. A trap having a connection to a receptacle for material, a connection to a source of fluid pressure and a well between said two connections.

5. A trap having a connection to a receptacle for material, a connection to a fluid pressure blast, a well between said connec-

tions and a blast nozzle between said connection to the receptacle for material and the well. 40

6. A trap having a connection to a receptacle for material, a connection to a fluid pressure blast, a well between two said connections, and a connection to the atmosphere whereby said well may be cleaned. 45

7. A trap comprising a body portion having a connection to a receptacle for material, a connection to a source of fluid pressure, a passage between said connections and a well in said passage, said well being located below the connection to the material receptacle, and the connection to the fluid pressure supply being located above said well, substantially as and for the purpose described. 50 55

8. A trap comprising a body portion having a connection to a receptacle for material, a connection to a source of fluid pressure, a passage between said connections, a well in said passage located below the connection to the material receptacle, and below the connection to the fluid pressure supply and a passage between said well and fluid pressure supply open to the atmosphere whereby said well may be cleaned, substantially as and for the purposes described. 60 65

9. A trap comprising a body portion 10 having a passage 27 with a lead lining 28 in said passage. 70

In testimony whereof I have hereunto signed my name in the presence of the subscribed witnesses.

HARRY VISSERING.

Witnesses:

PAUL CARPENTER,
GEO. C. DAVISON.