March 29, 1927. 1,622,657

S. F. MacDOUGALD

SAND VALVE FOR LOCOMOTIVES

Filed Sept. 25, 1925

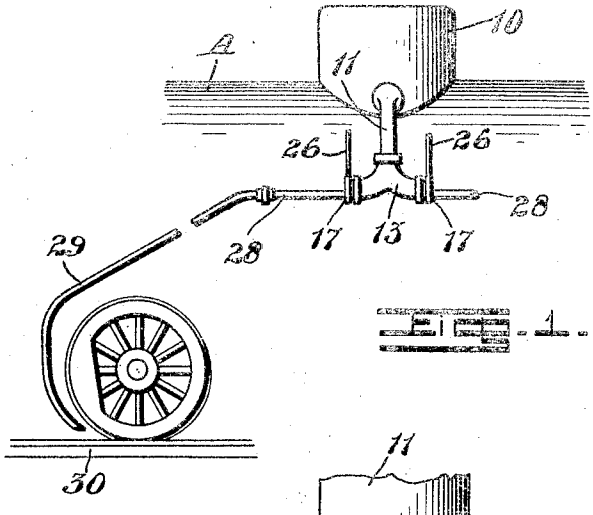


FIG. 1.

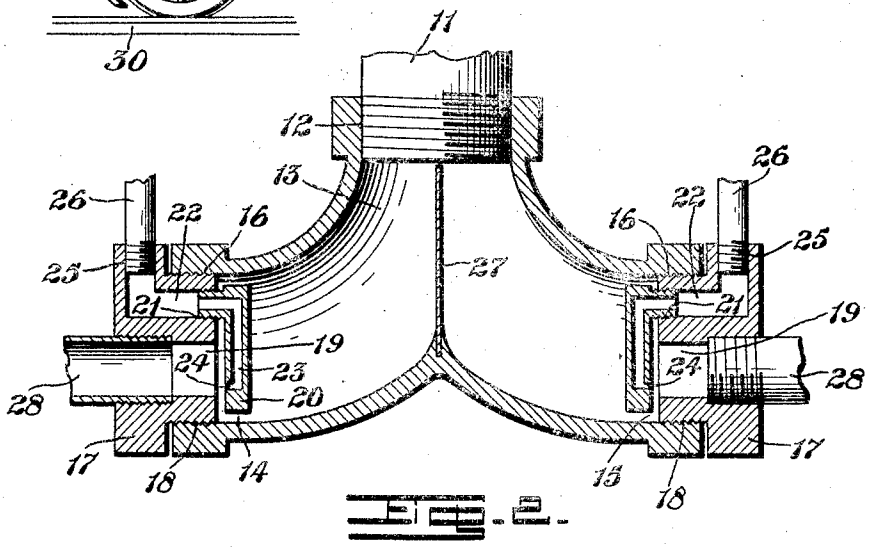


FIG. 2.

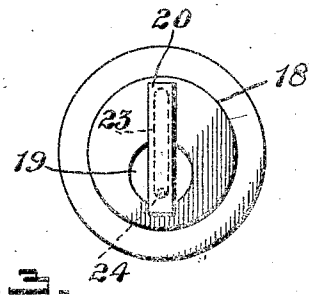


FIG. 3.

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UNITED STATES PATENT OFFICE.

SNOW FREEMAN MacDOUGALD, OF ISLE MALIGNE, QUEBEC, CANADA.

SAND VALVE FOR LOCOMOTIVES.

Application filed September 25, 1925. Serial No. 58,658.

This invention relates to improvements in sand valves for locomotives and the objects of the invention are to provide a durable and simply constructed device of this character that in operation will more efficiently perform the functions required of it.

The invention consists essentially in the combination with a sand reservoir, of a three-way pipe member adapted to receive the sand from the reservoir and to discharge it in front of the wheels of a locomotive or the like and means, intermediate of the wheels on said member for supplying air pressure.

Referring now to the drawings in which like characters of reference indicate corresponding parts in each figure,

Figure 1 is an elevation of my improved sanding device and my improved sand valve as a whole fitted on a locomotive,

Figure 2 is an enlarged longitudinal section of the valve, and

Figure 3 is an elevation of the valve closure member looking from the inside.

Referring more particularly to the drawings, A designates the locomotive of well known construction having thereon the sand dome 10. Connected to this dome by discharge pipe 11, through a screw-threaded opening 12, is a three-way valve member 13. The other openings 14 and 15 in the valve member 13 are internally screw-threaded at 16, see Figure 2, to engage with a closure member 17 externally screw-threaded at 18 to engage with the valve member 13.

This closure member is provided with an orifice 19 substantially off-centre and has there-across a detachable baffle bar member 20, screw-threaded at 21 and adapted to engage with the passageway 22 in the member 17. This passageway 22 is designed to communicate with the passageway 23 formed in the baffle-bar 20, which in turn communicates with a discharge-opening 24 at its lower end. The opening 25 of the passageway 22 is screw-threaded to engage with an air pipe 26 whereby air under pressure is supplied. The three-way member 13, as illustrated in Figure 2, is provided with a partition member 27 centrally arranged therein to direct the flow of sand on each side to the openings 14 and 15.

In operation the sand, being discharged from the dome 10, flows to the opening 19 on each side of the baffle bar 20 and then, on the compressed air being turned on, is forced through the pipes 28 and 29 to be discharged on the track 30 in front of the locomotive wheels.

As many changes could be made in the above construction and many apparently widely different embodiments of my invention, within the scope of the claims, constructed without departing from the spirit or scope thereof, it is intended that all matter contained in the present specification and accompanying drawings be interpreted in an illustrative and not in a limiting sense.

What I claim as my invention is:

1. A sanding valve for locomotives comprising a valve with an intake port and discharge ports, closures for the discharge ports formed with restricted openings therein, a passageway in the closure member communicating with the periphery thereof, a suitably bent baffle member adapted to communicate with the aforesaid passageway and having an opening therein registering with the opening in the closure member and means for supplying compressed air and compressed air pipes connected to said passageway.

2. In a device of the character described, a closure member or cap having a restricted orifice therein adapted to engage with the discharge pipe, a hollow baffle bar for said opening, a discharge opening in said bar, a passageway from the periphery of the closure member and extending therethrough to communicate with the baffle bar and means for supplying air under pressure through said passageway and baffle bar.

In witness whereof I have hereunto set my hand.

SNOW FREEMAN MacDOUGALD.