F. MARSH.

MUFFLER ATTACHMENT FOR BLOW-OFF COCKS.

APPLICATION FILED MAY 4, 1914.

1,153,327. Patented Sept. 14, 1915.

Fig. 2.

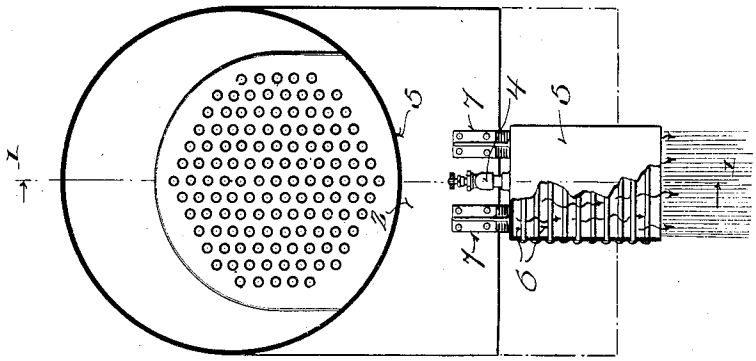
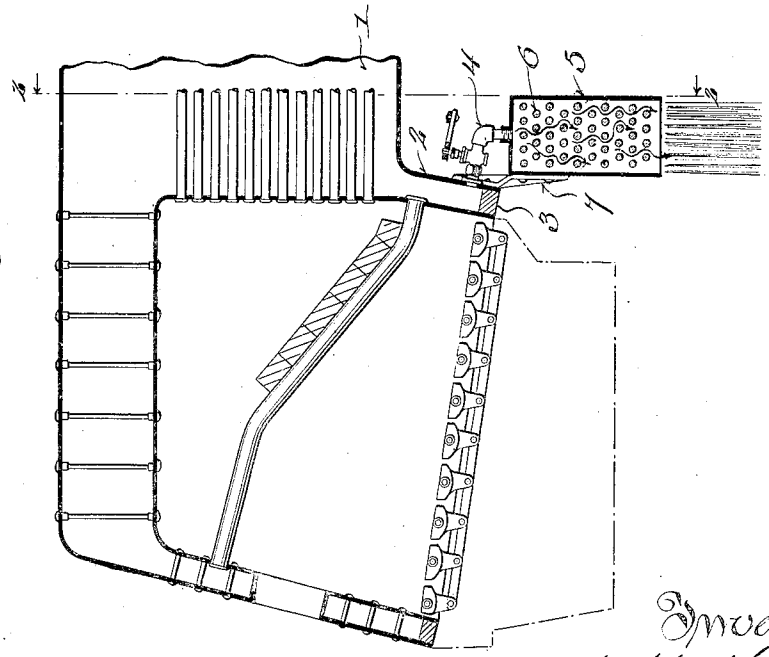


Fig. 1.



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UNITED STATES PATENT OFFICE.

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MUFFLER ATTACHMENT FOR BLOW-OFF COCKS.

1,153,327. Specification of Letters Patent. Patented Sept. 14, 1915.

Application filed May 4, 1914. Serial No. 836,089.

To all whom it may concern:

Be it known that I, FRANKLIN MARSH, a citizen of the United States, and resident of National Home, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Muffler Attachments for Blow-Off Cocks; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention refers to boilers, its object being to provide a simple, economical and effective muffler for the blow-off cocks usually employed, the muffler being arranged to discharge downwardly and to break up the flow of water, whereby it will be delivered in a thin spray under the boiler and thus protect said boiler and also avoid discharging the water to the sides of a right of way when utilized in connection with a locomotive, it being common practice to so discharge at the present time, which method frequently results in damage to the roadbed or crops along the right of way.

With the above objects in view the invention consists in certain peculiarities of construction and combination of parts as hereinafter set forth with reference to the accompanying drawings and subsequently claimed.

In the drawings Figure 1 represents a fragmentary sectional elevation of the firepot end of a locomotive boiler having attached thereto a muffler embodying the features of my invention, the section being indicated by line 1—1 of Fig. 2, and Fig. 2 a cross-section of the same, the section being indicated by line 2—2 of Fig. 1, with a portion of the muffler broken away to show certain structural features.

Referring by characters to the drawings, 1 represents a body of a boiler provided with a throat sheet 2 and mud-ring 3. The throat-sheet adjacent to the mud-ring is tapped for the reception of a lever-controlled blow-off cock 4, the nozzle of which cock has fitted thereto the shell 5 of a muffler, the mouth of the muffler being arranged to discharge downwardly. The shell of the muffler is provided with a series of transversely arranged staggered pins or baffle-bars 6. The muffler shell is also provided with an auxiliary support in the form of brackets 7, which brackets are secured to the throat sheet.

By the above arrangement it is obvious that when the blow-off cock is actuated the foul water from about the mud ring is discharged into the muffler, and, in passing in zig-zag flow about the baffle-bars, the said water is broken up into a thin spray, whereby its force is retarded. Thus the overflow will be deposited upon the ground directly under the boiler in a gentle mist or spray which will not mar the track or ground thereunder, nor will this spray spatter and damage the boiler by depositing scale thereon.

The advantage of the application of my improved muffler to a boiler is obvious, especially in connection with locomotives which heretofore have discharged the hot water to the sides of the right of way and thus by throwing it into a close stream considerable damage to crops along the right of way has resulted. This objectionable feature is entirely overcome by my improved attachment, it being understood that in some instances the mouth of the muffler may be directed other than downwardly due to the fact that the spray discharged therefrom is of slight force. The position of the blow-off cock relative to the boiler is also immaterial when the blow-off cock is provided with a muffler in accordance with my invention. It is also obvious that, while I have shown the baffle-bars or pins extending transversely in one direction, two series of such bars may be utilized arranged transversely in opposite directions.

I claim:

The combination of a boiler provided with a blow-off cock having a threaded nozzle, a muffler shell in threaded union with the nozzle, the mouth of said shell being directed downwardly, a series of baffle-bars arranged

in rows uniformly spaced apart, extending transversely of the shell and staggered with relation to each other and interrupting the full area of the shell from top to bottom and a bracket connecting the shell and boiler body.

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

FRANKLIN MARSH.

Witnesses:
GEO. W. YOUNG,
M. E. DOWNEY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."