T. P. BURKE.

WHEEL AND TRACK HEATER.

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1,124,289.

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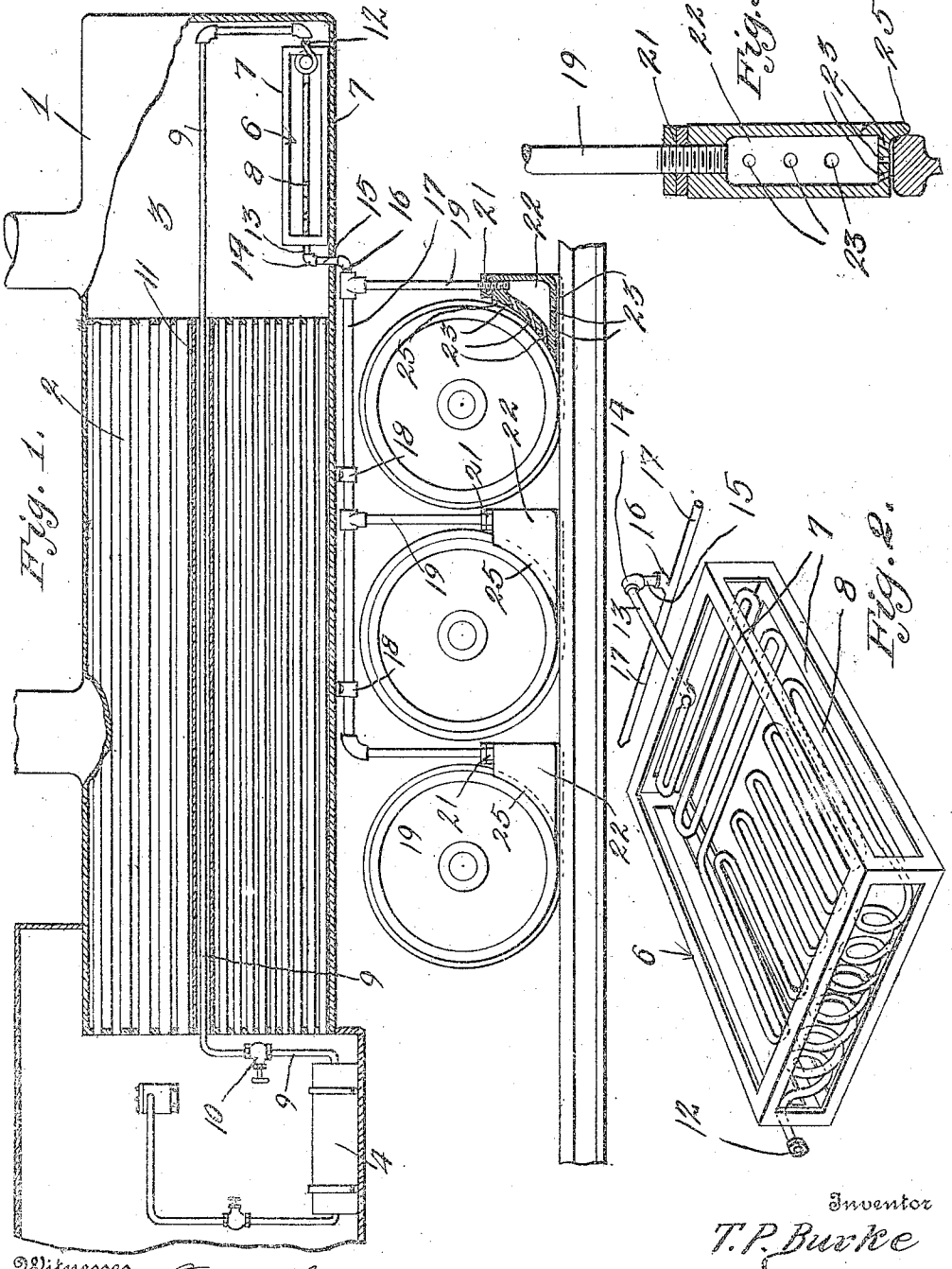


Fig. 1.

Fig. 3.

Fig. 2.

Witnesses

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WHEEL AND TRACK HEATER.

1,124,289. Specification of Letters Patent. Patented Jan. 12, 1915.

Application filed September 8, 1914. Serial No. 860,765.

To all whom it may concern:

Be it known that I, THOMAS P. BURKE, a citizen of the United States, residing at Nicholson, in the county of Wyoming and State of Pennsylvania, have invented a new and useful Wheel and Track Heater; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a wheel and track heating and drying device, and an object of the invention is to apply heated air under pressure to the tracks, immediately in advance of the wheels of a locomotive, thereby thawing the sleet and ice and drying the tracks and the wheels, thereby eliminating the use of sand and the like commonly used.

In practical fields the details of construction may necessitate alterations, falling within the scope of what is claimed.

The invention comprises further features and combination of parts, as hereinafter set forth, shown in the drawings and claimed.

In the drawings:—Figure 1 is a view in elevation of a locomotive in general outline, showing parts in section, and illustrating the system as applied thereto. Fig. 2 is an enlarged detail perspective view of the heating coil and its housing. Fig. 3 is an enlarged detail view of the outlet funnel or spraying devices located adjacent the track in advance of the wheels of the engine.

Referring more especially to the drawings, 1 designates a conventional form of locomotive having the usual boiler heating tubes 2 and smoke box 3. Also carried by the locomotive is the usual air reservoir 4, including the conventional form of pump mechanism or air compressor for forcing air into the reservoir.

Arranged in the smoke box is a housing 6 having skeleton sides, ends and top and bottom faces 7, and in the housing a suitable heating coil 8 is arranged.

Connected to the air reservoir is a pipe 9, which is passed through the cab of the locomotive, provided with a valve 10, whereby the disbursement of the air from the reservoir is controlled. The pipe 9 passes through an enlarged heating tube 11 of the boiler, and connects to the heating coil, as at 12, in the smoke box. The end 13 of the heating coil connects at 14 to a pipe 15, which in turn is connected at 16 to two branch pipes 17, extending longitudinally of the locomotive and adjacent the boiler and supported by brackets 18. Branching off from the pipes 17 and extending downwardly are the air outlet pipes 19, which terminate adjacent the track rails and immediately in advance of the wheels of the locomotive.

Connected as at 21 to the extremity of the pipes 19 are spray nozzles or funnels 22, which are V-shaped in order to fit adjacent the track rails and the periphery of the wheels, whereby the hot draft of air passing through the apertures 23 will be projected against the peripheral tread of the wheels and the upper tread surface of the track rails, thereby thawing the sleet and ice and drying the surface, in order to permit the wheels to take firm frictional hold on the tread surfaces of the rails. This manner of insuring frictional contact of the wheels upon the rails has been found practical, efficient and desirable and far superior to the employment of sand, for which the present system is substituted. Said spray funnels or nozzles are provided with flanges overlying said wheels and the track rails, so as to deflect and confine the hot draft of air to the wheels and the rails, said flanges being designated by the numeral 25.

When it is desired to project hot drafts of air to the wheels and tracks, the valve 10 is opened by the engineer in the cab, thereby allowing air from a reservoir to pass through the pipe 9 which passes through an enlarged tube of the boiler and to the heating coil, and as it passes through said pipe and the heating coil, it becomes thoroughly heated, which, as it leaves said funnels 22, heats and dries the wheels and the rails, thereby insuring firm frictional contact between the wheels and the rails.

The invention having been set forth, what is claimed as new and useful is:—

1. In combination with a locomotive or other similar vehicle, a spray nozzle fitting adjacent the track rail and the peripheral tread of a wheel of the locomotive immediately in advance thereof and having means embracing the wheel and the rail for deflecting a draft of hot air onto the wheel and the rail, a pipe system being connected at one end to said nozzle, including a heating coil located in the smoke box of the locomotive and having its other end in communication with the air reservoir of the

locomotive, whereby a draft of hot air is delivered to the tread surfaces of the rail and the wheels.

2. In combination with a locomotive or other similar vehicle, a plurality of spraying nozzles, each being V-shaped and having apertures and fitting between each wheel and the tread surface of the track rail whereby a draft of hot air may be delivered thereto for drying said surfaces, each nozzle having flanges overlying the wheel and the rail to confine the air to said surfaces, and means for heating and delivering the air to the nozzles.

3. In combination with a locomotive or other similar vehicle, a plurality of spraying nozzles, each being V-shaped and having apertures and fitting between each wheel and the tread surface of the track rail whereby a draft of hot air may be delivered thereto for drying said surfaces, each nozzle having flanges overlying the wheel and the rail to confine the air to said surfaces, a pipe system having one end portion communicating with the air reservoir of the locomotive and including a heating coil located in the smoke box, a portion of said system passing through a flue of the boiler, the other end portion of the system terminating in branching pipes connected to the plurality of nozzles, whereby drafts of hot air are simultaneously projected onto the contacting surfaces of the wheels and the track rails, and means for controlling the disbursement of air through the system.

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

THOMAS P. BURKE.

Witnesses:
FRED W. TOEPFER,
CECIL TIPPAY.