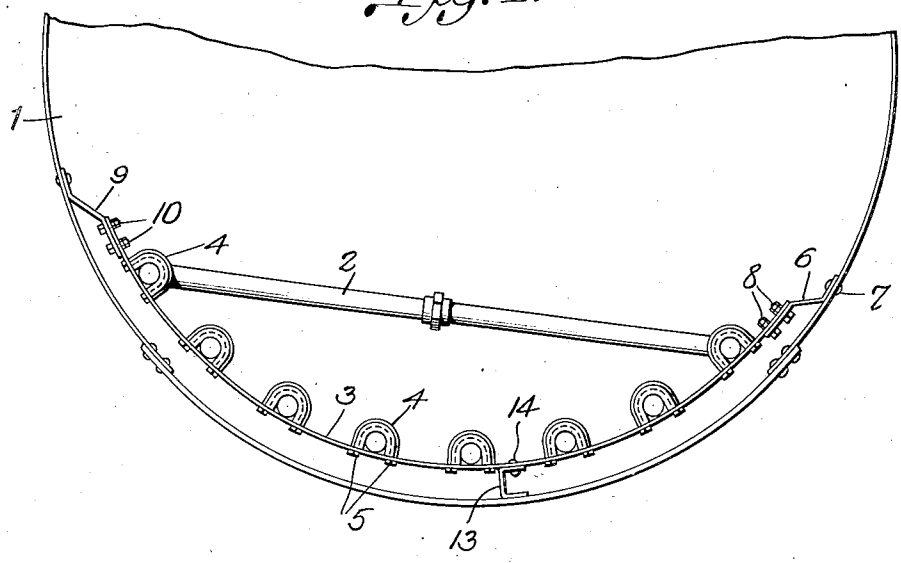
J. D. SEILER.

STEAM COIL SUPPORT FOR TANK CARS.

APPLICATION FILED AUG. 21, 1919.

1,354,920. **Patented Oct. 5, 1920.**

Fig. 1.



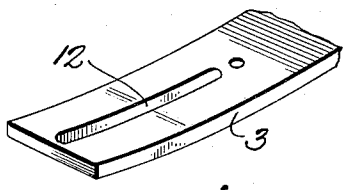


Fig. 3.

Fig. 2.

Inventor

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UNITED STATES PATENT OFFICE.

JOHN D. SEILER, OF MILTON, PENNSYLVANIA, ASSIGNOR TO AMERICAN CAR AND FOUNDRY COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

STEAM-COIL SUPPORT FOR TANK-CARS.

1,354,920. Specification of Letters Patent. Patented Oct. 5, 1920.

Application filed August 21, 1919. Serial No. 318,986.

To all whom it may concern:

Be it known that I, JOHN D. SEILER, residing at Milton, in the county of Northumberland and State of Pennsylvania, and being a citizen of the United States, have invented certain new and useful Improvements in Steam-Coil Supports for Tank-Cars, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and to use the same, reference being had to the accompanying drawings, which illustrate the preferred form of the invention, though it is to be understood that the invention is not limited to the exact details of construction shown and described as it is obvious that various modifications thereof within the scope of the claims will occur to persons skilled in the art.

In said drawings:

Figure 1 is a vertical section through a tank equipped with my coil support;

Fig. 2 is a view showing one end of my coil support and its connection to the supporting bracket; and

Fig. 3 is a detail view showing an end of the pipe support.

It has been found in tank cars provided with heating coils resting in supports carried by brackets attached to the tank plates by rivets that leaks develop around the rivets after the cars have been in service for a short time. This is caused by the strain put upon the rivets by inaccuracies in pressing the tank sheets to form, in placing the rivet holes in the tank plates and pipe brackets and in the height of the block that supports the center point of the pipe support which result in keeping the pipe coil support from resting on the tank bottom. Unless the center point of the pipe support has a proper bearing upon the tank bottom, the entire weight of the coils is carried by the bracket rivets, and this weight, under the jarring of service, works the rivets and the tank plates sufficiently to cause leaks between the rivets and plates. Where the center point of the pipe support is riveted to the tank plate, the inaccuracies of workmanship, indicated above, cause all the rivets to be so stressed initially that the additional strains occurring in service cause leaks to develop between the bracket rivets and the tank plates.

It is the object of my invention to provide a means for mounting the pipe supports in tank cars so that there will be no undue strain upon the bracket rivets and the center point support will always have a proper bearing upon the tank bottom despite slight inaccuracies in the work and without the necessity of using center point supports of different heights.

In the drawings, 1 designates the usual car tank carried upon a car frame (not shown) in the usual or any desired manner. 2 designates the pipe coil carried by a support 3, the coil being secured to the support by U-bolts 4 which engage the pipes of the coil 2, pass through openings in the support 3 and are secured therein by nuts 5 which are threaded upon the ends of the U-bolts 4. A bracket 6, fastened by rivets 7 to the tank 1 is secured to one end of the support 3 by bolts 8 which pass through circular openings in the support 3 and bracket 6. The other end of the support 3 is secured to a bracket 9, which is fastened by rivets 11 to tank 1, by bolts 10 which pass through circular bolt openings in the bracket 9 and through a slot 12 in the end of the support 3. A bearing post 13, shown as U-shaped in the drawing, secured to the center point of the support 3 by a rivet 14 and engaging the bottom sheet of the tank serves to support the center point of the pipe support. Providing the slot in the support 3 makes it possible to secure the pipe support 3 firmly to the bracket 6, the bolt openings in bracket 6 being such that bodily movement of the pipe coil and its support is prevented so long as the bolts 8 engage both bracket 6 and support 3, and to have a slight movement of the slotted end of the support 3 sufficient to bring the center support 13 to a proper bearing upon the bottom tank sheet. This will take place when the pipe coil is first installed and when, under the strains of service, the shape of the tank is changed sufficiently, the slotted connection between the pipe support 3 and the bracket 9 will permit of sufficient movement of the pipe support 3 to relieve the bracket rivets of any undue stress and to keep the center point support 13 bearing upon the bottom plate of the tank.

What I claim is:

1. In a tank car, a pipe coil, a support for said pipe coil, a bracket secured to the car tank for engaging said support and a connection between said support and said

bracket adapted to yield under the weight of said pipe coil.

2. In a tank car, a pipe coil, a support for said pipe coil, a bracket for supporting one end of said pipe coil support and a slotted connection between said bracket and said support adapted to permit longitudinal movement of said pipe coil support and under stress.

3. In a tank car, a pipe coil, a support for said pipe coil having a slot at one end, brackets for supporting said support and a yielding connection between the slotted end of the support and the corresponding bracket.

4. In a tank car, a pipe coil, a support for said pipe coil, brackets secured to the car tank for engaging said support, a bearing post for the pipe support and connections between said brackets and pipe support for insuring engagement between the bearing post and tank.

5. In a tank car, a pipe coil, a support for said pipe coil, brackets secured to the tank for engaging said support and a yielding connection between said support and one of the brackets permitting the length of the support between the brackets to change under stress.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

JOHN D. SEILER.

Witnesses:

B. B. CANNON,
D. J. WHALEN.