

948,312.

Fig. 1.

Fig. 2.

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COUPLING FOR TRAIN-PIPES.

948,312.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ROBERT M. DIXON, residing at East Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Couplings for Train-Pipes, 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 use the same.

This invention relates to car heating systems and has for one of its objects to provide coupling means for the train pipes of separate cars characterized by increased simplicity and efficiency.

Another object is to provide coupling means for train pipes for heating systems of cars of such construction that the coupler may be readily removed from the hose section for renewal or replacement without interfering with the connection between the hose section and the train pipe.

Another object is to provide a hose coupling for train pipes of car heating systems such that the same may be readily reversed and connected at either end to the train pipe or to the coupler.

Another object is to provide auxiliary connecting means extending between the hose section of a coupling for train pipes and the fittings in either end thereof.

Other objects will be in part obvious and in part pointed out hereinafter.

The invention accordingly consists in the features of construction, combinations of elements and arrangement of parts which will be exemplified in the device hereinafter described and the scope of the application of which will be indicated in the following claims.

Referring now to the drawings, wherein is shown one of the various possible embodiments of my invention, Figure 1 is a sectional view of a portion of a railway car showing the coupling means connected directly to the train pipe. Fig. 2 is an elevation partly in section of my improved train pipe coupling.

Similar reference characters refer to similar parts throughout the several views of the drawings.

Before entering into a description of the specific features of my invention and in order that the objects thereof may be more readily understood, it may here be noted

that in railway service the couplers of train pipes are subjected to exceedingly hard usage. As is often the case, owing to the suspending means becoming detached, the couplers are caused to drag along the ground and to strike upon the ties, thereby rendering them unfit for further use. I have, therefore, found it desirable to provide a coupling for train pipes such that when the coupler becomes battered or otherwise damaged, the same may be replaced without disturbing or removing in any way the connections between the coupling means and the train pipes or train pipe valves, to whichever of the said members the coupling may be attached. I have also found it desirable to provide a hose section having fittings in either end thereof secured by clamps, said fittings being similar in all respects so that the coupling is readily reversible and capable of being attached to either the train pipe mechanism or to the coupler. The above and other objects are achieved in constructions of the nature of that hereinafter described.

Referring now to the drawings, A represents a railway car carrying the train pipe 1, which forms the feeding conduit for the several branches of the heating system. To either end of the train pipe 1 a coupling B is adapted to be attached, as shown in Fig. 1. The coupling B forming one of a pair of co-acting members extending between the train pipes of adjacent cars comprises a hose section 4, in either end of which is inserted a nipple 5. Nipples 5 are, at their intermediate portions, in this illustrative embodiment, provided with reduced portion 6 joining shoulders 7 and 8 and, at their extremities, are provided with threaded portions 9. The respective ends of hose section 4 are clamped securely to the reduced portions 6 of nipples 5 by means of band clamps 10, the free ends of which are joined, in the present instance, by bolts 11.

Nipples 5 are similar in all respects, and either of said nipples is capable of being threaded into the train pipe 1 or train valve 3, as the case may be, the other of said nipples being threaded into the coupler 12, as clearly shown in Fig. 2. It will be understood, of course, that coupler 12 is one of a pair of co-acting members joining the neighboring couplings of adjacent cars.

Each of nipples 5 is provided with lugs

13, between which are secured, by means of bolts 14, auxiliary co-acting members designated by 16 and 17, which are also secured by bolts 11, between the free ends of band clamps 10. Auxiliary clamping member 17 is provided with an opening 19 to receive the hook 20 of the suspension chain 21 designated to be attached to the car body, as at 22. Chain 21 is adapted to suspend the coupling B from the car body and prevent the coupler from dragging along the ground and striking against the ties.

The method of use of my invention should be largely apparent from the drawing, taken in connection with the above description. The coupling B is threaded into the train pipe or train pipe valve, as shown, and the coupler is threaded upon the nipple at the outer end of the coupler so that it may be readily detached. The clamps, together with the auxiliary connecting members, serve firmly to maintain the nipples in the ends of the hose section.

In order to provide against ambiguity in certain of the terms employed in this specification and claims, it may be here noted that by the term "nipples" is meant a fitting threaded or otherwise connected to two conduits to form a means of connection therebetween. By the term "coupling" is meant a hose section, fittings and coupler, the whole forming one of a pair of connecting devices extending between the train pipes of adjacent cars. By the term "coupler" is meant a member secured in the outer end of the hose section, which is coupled to a similar member upon the coupling of an adjacent car.

It will accordingly be seen that I have provided a coupling for train pipes of car heating systems of simple construction combined with great convenience of use. In the event of a coupler being battered or otherwise rendered unfit for further use, the same may be readily removed and another substituted without disturbing the connections between the coupler and the train pipe or the train valve of car heating systems. The auxiliary connecting members prevent the nipples from becoming loose in the ends of the hose section, and one of said auxiliary connectors forms a convenient means for attaching the suspension chain to the coupling. It is, of course, obvious that I am not limited to this precise employment of my invention, as the same is equally well adapted for use in other piping systems, such as, for instance, air-braking systems and the like.

As many changes could be made in the above construction and many apparently widely different embodiments of my invention could be made without departing from

the scope thereof, I intend that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense. I desire it also to be understood that the language used in the following claims is intended to cover all of the generic and specific features of the invention here-
indescribed and all statements of the scope of the invention, which, as a matter of language, might be said to fall therebetween.

Having described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A coupling member for train pipes of railway cars comprising, in combination, a hose section having a nipple of a two-part coupler clamped in each end thereof, a complementary part of a coupler threaded to one of said nipples, the other of said nipples being adapted to have a threaded connection with the train pipe.

2. A coupling member for the train pipes of railway cars comprising a hose section having a nipple of a two-part coupler clamped in each end thereof, a complementary part of a coupler threaded to one of said nipples, said complementary part being adapted to reciprocally engage with a corresponding part carried by the opposite hose section, the other of said nipples having a threaded connection with the train pipe.

3. A coupling member for the train pipes of railway cars comprising, in combination, a hose section having located in either end thereof a nipple of a two-part coupler, a clamping member at either end of said hose section adapted to clamp said nipple in position therein, a connecting member secured to each of said clamps and to said nipple, a complementary part of a coupler threaded to one of said nipples, said complementary part being adapted reciprocally to engage with a corresponding coupler part carried by the opposite hose section, the other of said nipples having a threaded connection with the train pipe.

4. A coupling member for train pipes of railway cars comprising, in combination, a hose section having a nipple clamped in each end thereof, a coupler threadedly connected to one of said nipples, the other of said nipples being threadedly connected with the train pipe, said nipples being similar and interchangeable.

In testimony whereof I affix my signature, in the presence of two witnesses.

ROBERT M. DIXON.

Witnesses:

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