

(No Model.)

J. M. ELLIOTT.

MEANS OF CLEARING ICE FROM CAR TRACKS.

No. 260,550.

Patented July 4, 1882.

Fig. 1.

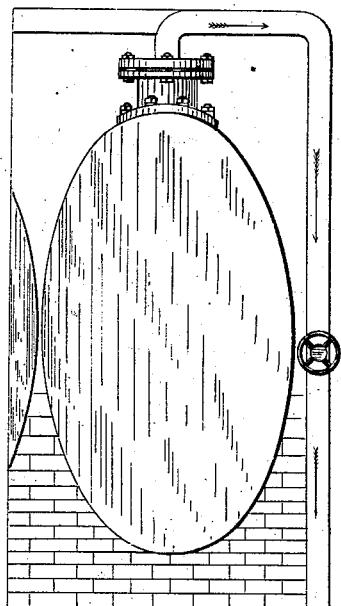
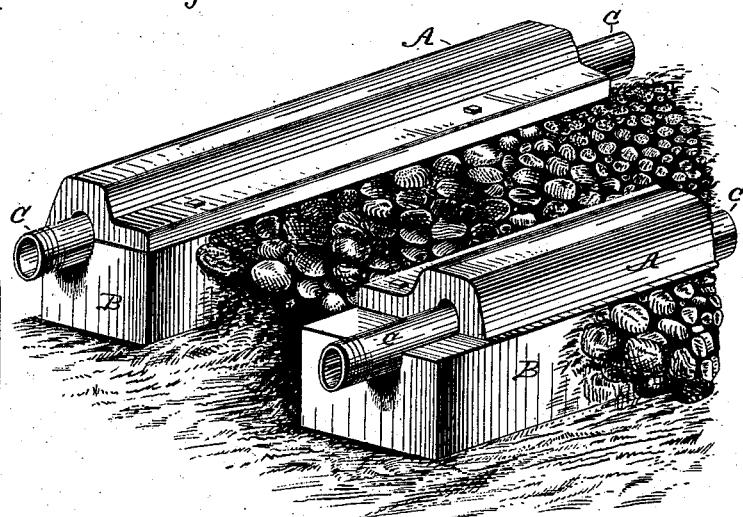
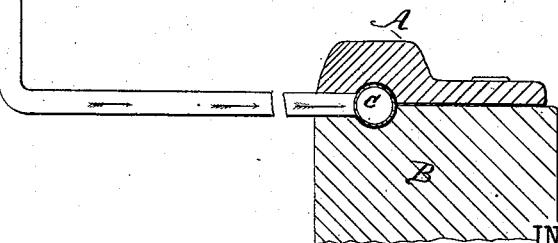


Fig. 2.



WITNESSES:

Thos. Houghton.

A. G. Sime.

INVENTOR:

James M. Elliott

BY

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JAMES M. ELLIOTT, OF COLUMBUS, OHIO.

MEANS FOR CLEARING ICE FROM CAR-TRACKS.

SPECIFICATION forming part of Letters Patent No. 260,550, dated July 4, 1882.

Application filed April 24, 1882. (No model.)

To all whom it may concern:

Be it known that I, JAMES MADISON ELLIOTT, of Columbus, in the county of Franklin and State of Ohio, have invented a new and useful Improvement in Means for Clearing Snow, Ice, and other Frozen Substances from Street-Railway Tracks, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, forming part of this specification.

This invention consists in laying connected pipes underneath the rails of a street-railway in a longitudinal groove in said rails, whereby steam, hot air, or heated liquids are conducted along the rails to heat the latter, and thereby melt the snow, ice, or other frozen substances from the track.

In the accompanying drawings, Figure 1 is a perspective view of a portion of a street-railway track embodying my invention; and Fig. 2 is a transverse section of the same, showing means for introducing steam into the pipe.

Heretofore hollow railway-rails have been devised for the purpose of conducting heated liquid along the railway-track to melt snow and ice from the same. Such rails, however, cannot be connected together so as to form good water and steam tight joints, owing to the jarring and wearing effect of cars passing over the joints, and, as such rails must be cast instead of rolled, they would be likely to break easily, to say nothing of the heavy and expensive character of such rails. To overcome these objections I combine with the ordinary street-railway rail, which is constructed with a longitudinal recess in its under surface, a steam-tight pipe, made, in the usual manner, with expandible joints and covered by the rail. The

pipes are thus made independent of the rails, the joints are protected from the wearing action of travel, and no unusual and expensive construction of the rail is required.

A represents the rail, B the sill upon which the rail is supported, and C the pipe for conveying steam, hot air, or other heated liquids along the rail. As shown in the drawings, the under surface of the rail has a longitudinal groove or recess to receive and cover the pipe, the latter resting in a suitable groove in the upper surface of the sill. I do not confine myself, however, to this specific arrangement of the pipe, but shall modify the invention if a different arrangement shall be found desirable.

The pipes are to be provided with branches or openings leading through the rails when necessary for supplying the steam, hot-air, &c., to the pipes at different points, which might be advisable in the case of very extended tracks, as also with valves or drips at suitable points for drawing or removing from said pipes cooled liquids that have become so by condensation or otherwise.

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

The combination, with the rails of a street-railway track, having longitudinal recesses in their under surface, of jointed pipes arranged underneath the rails in said recesses, substantially as shown and described, and for the purposes set forth.

JAMES M. ELLIOTT.

Witnesses:

W. H. ENGLISH,
R. B. SMITH.