

SCIENCE

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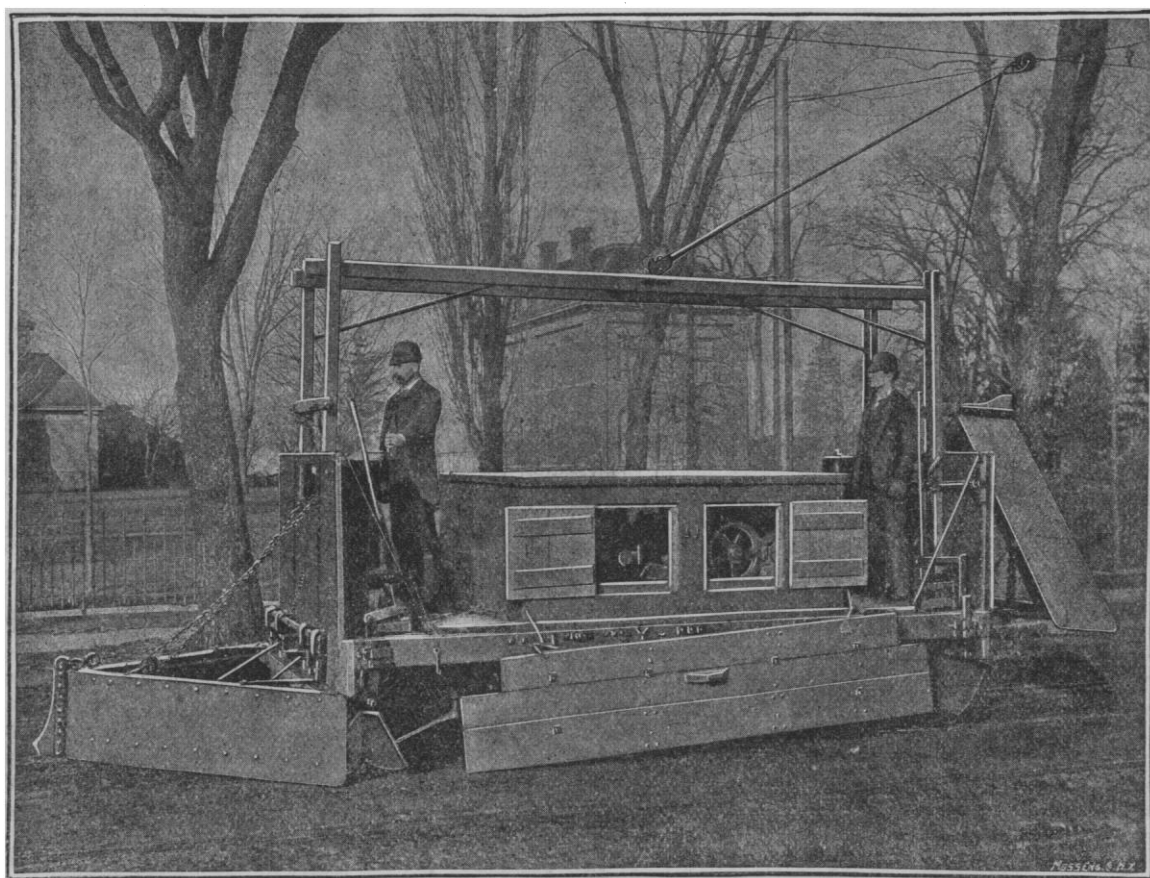
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AN ELECTRIC SNOW-PLOUGH.

THE rapidity with which the electric motor is displacing the horse as a motive power for street-cars is greater than is generally supposed. Some idea of the transition going on may be gathered from the fact that one company alone, the Sprague, has sold about eight hundred electric motors in the last sixty days, all for street-car purposes. When we consider that this is the record of only one out of the many electric motor com-

forward or backward, similar to an electric car. The reduction in gearing between the motors and the car-axles is greater than in the ordinary electric car, so that a large amount of power is available from the motors in case of necessity. It is estimated that this plough will clear the track more speedily and effectually than an ordinary snow-plough drawn by twelve horses.

The view shown is from a photograph of a plough which has been in operation for some time on a street-railway in Troy, N.Y. Although the season has not as yet offered much chance



SPRAGUE ELECTRIC SNOW-PLOUGH FOR STREET-RAILWAYS.

panies in the field, the rapid growth of this branch of applied science seems little short of marvellous.

The greater number of these electric railways are in the northern part of the country, where, during the winter months, snow often becomes a serious obstacle to travel. To rapidly and economically remove this obstacle from the tracks as soon as possible after each snow-storm, electric snow-ploughs have been constructed, one of which, manufactured by the Sprague Electric Railway and Motor Company, is shown in the accompanying illustration. It is fitted with two fifteen horse-power improved motors, and is so arranged that it can be run either

to show the capabilities of the plough, it has effectually taken care of several light falls of snow which have obstructed the tracks this winter.

THE HALE PATENT PAVEMENT.

THE Hale pavement, shown in section in the accompanying illustration, consists essentially of a shell of hard-burned bricks laid upon a board floor having a bed of sand below and above it. It is constructed in the following manner. The grade having been properly reduced and dressed to the required