RURAL TRANSPORTATION.

The difficulties encountered in obtaining a cheap but efficient system of freight and postal delivery in rural sections has so far prevented any material success in this particular field. The interurban railway has played an important part in such matters, and is, of course, highly successful, though to justify the expenditure required for the construction of such an undertaking, the communities which it serves must be fairly well built up. Automatic devices of various kinds have been tried with limited success, for it appears to be essential to put the cars under the direct control of an operator who must necessarily travel with the car. When one considers the success which has been obtained in the manufacture of various articles by machines which are automatic in every sense of the word, it does not seem improbable that some day similar ideas may be incorporated into a system for rural freight delivery. A company is now being floated in Canada and the United States which has for its purpose the establishment of an automatic transportation system, the idea being to handle incoming and outgoing mail and freight of every description. A model of this system is now being exhibited in the city of Toronto, and the idea as presented seems to be quite feasible when carried out on a small scale. Success, of course, has been obtained in collecting mail bags by a fast moving train, and the system just mentioned is being worked out along somewhat similar lines. So far as the postal end of the scheme is concerned, the feasibility of the idea is apparent, because for this work the weights to be handled will always be small, and letter boxes can be picked up and dropped without material jar to the car itself or to its supporting structure. Any entirely automatic system must necessarily include tracks which are elevated a considerable distance above the ground, and while the cost of such structure is quite low where small weights are to be handled, still the expense will, we think, be a very serious item where heavy weights are concerned, and the possibility of picking up and dropping such weights from a moving car will bring forward many arguments against the system. The transportation scheme just mentioned includes a system of control whereby all cars are manipulated by an operator at the central point, and a modification of the block signal has been adopted so that the operator will know at any instant the exact position of all cars. Difficulty will be experienced, however, in keeping such cars properly spaced, as the speed of one, heavily loaded, will be considerably less than that of one running light. Slowing down and stopping at certain predetermined stations will also be another difficulty, for the cutting off of the current and the braking action must take place at some set point, and allowance cannot be made for the condition of the rails. In other words,

assuming for the sake of argument that the car is carrying a fixed load, if it be desired to stop or run slowly past a certain station, the brakes will be applied and the current cut off at a fixed number of yards before that station is reached. If the rails at this point are covered with ice, we cannot see what there is to prevent the car running past the station, and as there are no reversing appliances the car would undoubtedly pass on to the next station without delivering its freight. However, we must commend the spirit which has led the inventors to make a practical demonstration of the scheme, and we sincerely hope that the matter will prove satisfactory under actual working conditions.

SCHOOL OF SCIENCE DINNER.

The eighteenth annual dinner of the Engineering Society of the School of Practical Science, Toronto, was held at the Rossin House Friday evening, December 7th. About 400 persons were present. The tables were beautifully decorated and the banneret menu was a clever invention. The presiding officer was Mr. K. A. MacKenzie, President of the Engineering Society, while at the guest table sat President Hutton, of the University ; Hon. W. J. Hanna, provincial secretary ; H. Cockshutt, president Canadian Manufacturers' Association ; J. W. Flavelle ; Principal Galbraith; Dr. Ellis; Rev. Bruce MacDonald ; Edmund Burke, president Ontario Association of Architects ; C. H. Rust, city engineer ; Prof. Steward ; Prof. C. H. C. Wright; Prof. Mickle and Prof. T. R. Rosebrugh.

The toast list and respondents were as follows : " The King " by singing the National Anthem;" " Canada and the Empire," by Mr. Cockshutt ; " The Legislature," by Hon. Mr. Hanna ; " The University," by President Hutton and Rev. Bruce MacDonald ; " The Faculty of Applied Science," by Professor Galbraith; "Canadian Industries," by Mr. J. W. Flavelle, and " The Profession," by Messrs. C. H. Rust, M. Haney and E. Burke.

RULES FOR TELEPHONING.

In rules regarding the use of the telephone enforced by Marshall Field & Company, the following notice is conspicuously displayed in every department of their big Chicago store: "The manner in which a person uses a telephone indicates his character to a great extent and makes either a good or bad impression, and this impression is reflected directly upon the establishment from which such a message comes. It is a pleasure to do business with a house which performs every detail in a clean-cut, satisfactory manner; but it leaves a sting to be answered abruptly or discourteously over the telephone. It is folly to lose one's temper because one does not get immediate connection. This is rarely if ever the fault of the telephone operators, who are nearly always courteous and prompt. When one is called to the telephone he should respond quickly, and the person calling should not be left to hold the wire too long—something decidedly irritating and often unnecessary. Let us throughout the whole house strive to excel in satisfactory telephoning. Important Note—You will be heard distinctly if you place your lips within an inch of the mouthpiece and talk naturally as, if the person were standing beside you."