to the Scranton Correspondence School. Our meetings are held on the first and third Thursdays in each month in Sherwood Hall.

D. McKinley, Rec.-Secretary, 292 Ridout street.

#### HAMILTON NO. 2.

At the last regular meeting a paper on "Heat," which will be found printed in this number of the News, was read by Mr. James Gill, B. A., of the Collegiate Institute. As the result of an interview by the officers of the association with the School Board, that body has agreed to stipulate that in future engineers in steam heated schools must hold at least a 3rd class certificate. Quite a number of new members have been received into the association recently.

JOSEPH TRONSIDE, Secretary.

### KINGSTON NO. 10.

At the last meeting of Kingston Branch No. 10, it was decided (by a standing vote of the members present) to change the meeting nights from the 1st and 3rd Tuesdays to the 1st and 3rd Thursdays of each month, the next meeting night occurring on Thursday evening, December 3rd, 1896.

Very truly yours,

IOHN McDonald, Secretary.

98 Clergy Street.

### BROCKVILLE NO. 15.

SIR, -Since our last report we have removed to new rooms more suitable for our association. When any of our brother engineers come to Brockville they will find our rooms on the second storey of Richard's Block, on King St. The attendance at the meetings is good and one new member has been initiated.

JAS. AIKINS, Recording Secretary.

# PRESENT STATUS OF THE DISTRIBUTION AND TRANSMISSION OF ELECTRICAL ENERGY.

MR. Louis Duncan, President of the American Institute of Electrical Engineers, concludes a paper on the above subject, with the following summary of conclusions:—

My conclusions, subject always to the influence of local conditions, are as follows:

- 1. In both direct-current lighting and traction systems, where the power is generated in or near the area of distribution, it is best to use one station situated at the most economical point for producing power.
- 2. In the case of the traction systems, when the economical area of direct distribution is passed, boosters should be employed directly or in connection with batteries, to a distance of 10 or 12 miles from a station, and beyond this rotary transformers, whether with or without batteries, should be used.
- 3. In the case of direct-current lighting systems, the energy should be transmitted to storage batteries situated at centres of consumption either directly or by means of a rotary transformer and distributed from them.
- 4. Where batteries are used, it is best to place them at the end of feeder wires to obtain the advantage of a constant load on the wire.
- 5. The best system for the long-distance transmission of energy, for general purposes, is the three-phase alternating system.

6. Commercial transmissions are in successful operation for distances of 35 miles and for voltages as high as 15,000 volts.

Experience with these plants shows that the transmission to 50 miles, with a pressure of 20,000 volts, is practicable; beyond these limits the transmission would be more or less experimental.

## MR. O. E. GRANBERG,

DISTRICT DEPUTY FOR QUEBEC, C. A. S. E.

In the portrait appearing below is presented the countenance of Mr. O. E. Granberg, District Deputy for Quebec for the Canadian Association of Stationary Engineers. Mr. Granberg was born in Norway, Europe, in 1852, and came to Canada in 1860. At 12 years of age he entered a blacksmith shop, where he remained for three years, and later served three years in a machine shop. After working some time in the foundry and pattern shops, he went to New York and worked for some years in different engine and boiler works, returning to Canada in 1875. He was then employed in erecting engines, boilers and machinery in



MR. O. E. GRANBERG, District Deputy for Quebec C.A.S.E.

mines, and shatting, gearing and machinery in manufacturing establishments. After having fitted up machinery in a cotton mill, he was employed as chief engineer and master mechanic for some years, and was subsequently made manager of the mill. He gave up that position for the one he now occupies, that of Inspector of the Boiler Inspection and Insurance Company of Canada, which he has occupied for over six years.

Mr. Granberg holds first-class engineers' papers, and is a qualified and authorized boiler inspector and examiner of engineers and firemen, as per Industrial Establishment Act of the Province of Quebec. He received the appointment of Examiner of Boiler Inspectors from the Lieutenant-Governor of the Province of Quebec in 1894, and has been a member of the Canadian Association of Stationary Engineers for five years, in which organization he is very popular.

## WORDS OF APPRECIATION FROM THE FAR NORTH.

MR. E. B. Congdon, Fort Macleod, N. W. T., in renewing his subscription to the Electrical News, writes: "I enjoy the paper so much that I would not like to have it discontinued."