

board from the time he went into the office, and would have been able to have made the patch when it was required of him.

One of the greatest troubles is wire failure, and if patching can not be done promptly, trains have to suffer. If operators do not know how to do it, it can not be done.

I do not wish to write or speak disparagingly of operators, or officials placing them, but I will venture to say that any division on any road in the country can be selected that has 20 offices, and there will not be more than two operators on it that can make a simple patch of one wire north to another south, east or west, unless they have had previous practical instructions. I do not think I have overdrawn this. I base my statement on the observations I have made during the years of experience I have had as a train dispatcher and in other capacities. I have never worked on a road that my experience has not been about the same in that respect. In my opinion, it lies with the superintendents of telegraph and chief dispatchers to obviate a great deal of this trouble.

No operator should be placed in charge of an office unless he is posted in working a board of an ordinary kind by the official placing him. He should be shown how to do patching, the position of the plugs when wires are in their normal condition or position; in fact, the back straps should be gone over, explaining their relation to the plug strips, etc., etc. This would take but little time, and would be starting the operator in right.

There is another thing that could be done that would certainly prove to be a great benefit; that is, to provide every office with a blue print or hektograph drawing of the standard switchboard, showing it in its natural condition. Plug holes should be numbered on the print. This, together with a "key" at the bottom or top of the print, showing where to place plugs for certain patches, would render the work simple, so much so that any one who could read could do it.

Any operator of limited experience, after working in an office a short while equipped as I have shown; would be able to handle the board in any office wherever he might be placed, as there is no radical difference in boards now in use on nearly all the roads in the country. I feel sure that such a course as I suggest, if adopted on railroads, would not only benefit the telegraph service to a great extent, but raise the operators to a higher plane of usefulness.

Any superintendent of telegraph or chief dispatcher should be able to make a crude drawing of the print I refer to, to enable the engineering department to make the print. They could be made in the above department at a small cost, and in such a shape that they would meet all that would be required of them for the equipment of offices.

This communication is not intended as a criticism on any one hiring or placing operators, or on the operators themselves, but is written with a view of offering suggestions that I hope may turn some thought in the direction referred to, and that some practical improvement may be made.

The Dominion Oilcloth Co., of Montreal have placed an order with the Royal Electric Co. for the complete equipment of their factory with S. K. C. motors, aggregate over 150 h. p., the different units as required throughout the building in the different departments.

ELECTRICAL INSPECTION IN WINNIPEG, MAN.

A REPRESENTATIVE of the ELECTRICAL NEWS lately interviewed Mr. F. A. Cambridge, the newly appointed city electrician of Winnipeg, Man, in reference to electrical inspection. He learned that all new wiring and electrical installations have to be done in strict conformity with the National Code, 1897 edition, which is incorporated in the city regulations. No electrical work can be undertaken without a permit, and certificate must be obtained before work is finally passed. No fees are charged either for inspection or permits. Some difficulty has been experienced owing to the fact that the improved list of the National Code does not include many articles of Canadian manufacture. Mr. Cambridge hopes that before long other cities in this country will follow the example of Winnipeg, and that there may be formed some kind of a testing bureau, preferably by the associated Underwriters' associations, presided over by some reliable expert, who may be referred to in matters of dispute, or from whom impartial opinions may be obtained regarding materials or practice. In this connection Mr. Cambridge acknowledges the great kindness of Mr. Merrill, jr., the chief electrician of the National Board of Underwriters for America. That body maintains a complete bureau at Chicago. Winnipeg is acting in connection with the bureau, and gives and receives full accounts of all electrical burn-outs, etc.

Regarding old installations it is understood to be the intention of the city electrician of Winnipeg to make a thorough inspection of all these. Some progress has been made already and the general public as a rule are pleased to carry out the alterations ordered. Mr. Cambridge believes that this work should be taken up at once by every city, for the longer it is left undone the greater expense the public will ultimately have to bear.

ELECTRICAL EXHIBITION.

THE twenty-second convention of the National Electric Light Association and third Electrical Exhibition is announced to be held in Madison Square Garden, New York, during the month of May. The scope of the exhibition will not be confined merely to electrical apparatus and appliances, but will include all kindred industries as well, such as various makes of boilers, pumps, steam engines and other steam specialties. A special feature of the coming exhibition will be the display of patents and new devices. Last year the Electrical and Kindred Industries Exhibition was held under the auspices of the New York Electrical Society, but this year it is proposed to hold it in conjunction with the convention of the National Electrical Light Association. As a result, considerable interest has been awakened in the coming exhibition.

The subject of the construction of an electric railroad from Guelph to Hespeler, Arthur and Erin, is engaging the attention of the Board of Trade and citizens of Guelph. It is stated that if \$25,000 to \$30,000 of local capital can be raised, capitalists can be found who will contribute the additional amount required.

The British Columbia Electric Railway Co. will no doubt pay a good dividend in the near future. The net earnings of the company from April 1st last to the end of the year amounted to \$126,187, as against \$67,582, for the like period of 1897. The company are now erecting a large car barn at Vancouver. Mr. J. M. Buntzen, manager of the company, has gone to England, where he will lay before the directors plans for several extensions of the system.