

lamps of 150 c.p. in broken lots, and in standard packages from 20 cents to \$1.50. The management is said to have been vested in a committee. Some of the companies interested deny that such an organization has been effected.

The Duty on Steel Rails.

THE Privy Council has just handed down its judgment in the case of the appeal of the Toronto Railway Company for recovery of upwards of \$50,000 which the company were compelled by the Dominion Government to pay as customs duty on steel rails imported for use in the reconstruction of their system. The Exchequer and Supreme Courts of Canada upheld the interpretation put upon the tariff by the Minister of Customs, but the Privy Council has come to a contrary conclusion and has decided in favor of the plaintiffs' contention that steel rails for street railway purposes are entitled to free admission in the same manner as steel rails for use on steam railways. This is undoubtedly the common-sense view of the matter. The Toronto Railway Company deserve the thanks, if nothing more, of every electric railway company in the Dominion, for having fought the matter through and secured from the highest tribunal in the Empire this favorable decision which cannot be reversed.

The Kelvin Celebration.

SCIENTIFIC men from all parts of the world assembled in Glasgow the latter part of June to participate in the celebration of the 50th anniversary of Lord Kelvin's occupancy of the chair of Natural Philosophy in the University of Glasgow. During half a century Lord Kelvin has been an indefatigable investigator of the laws governing electricity and the methods of applying the same for the benefit of mankind. He is the author of many devices, notably measuring apparatus, which are the recognized standards in use throughout the world at the present time. He received the honor of knighthood for valuable services rendered in 1858 in overcoming difficulties incident to the successful operation of the first Atlantic cable, and was elected to the peerage in 1891. The celebration included a conversazione by the University of Glasgow, at which were exhibited Lord Kelvin's inventions; addresses by home and foreign university bodies, learned societies and students of Glasgow and other universities, and a public banquet by the corporation of Glasgow.

Municipal Lighting

Public lighting in England is largely in the hands of the municipalities. The extent to which this is the case is indicated by the fact that a Municipal Electrical Association has been formed, which has just held its first convention. In Canada not more than half a dozen municipalities own and operate their own lighting plants. The citizens of the town of Goderich have lately voted in favor of the purchase of a municipal plant, and the town of Newmarket has the subject under consideration at the present time. It is difficult to determine from a few such isolated cases whether or not the municipal control idea is likely to grow to important dimensions, as it has done in England. Should it do so, the sales agents of the electrical manufacturing and supply companies will require to be trained in the ways of the politician, so as to be able to secure the votes of the councilmen or aldermen in favor of their particular apparatus. The man

who can "pull the wires" (no pun intended) most skillfully will probably secure the orders, regardless to a large extent of the superiority or inferiority of his goods. This method of selling goods promises to occupy a great deal more time and to cost more money than the selling to private individuals or companies, as at present.

Disturbance of Telegraph and Telephone Circuits.

THE German Imperial post-office has compiled statistics which show a steady increase in the number of disturbances to telegraph and telephone circuits as the result of the multiplication of electric railways. In our last issue we published the decision of the courts in an action brought against the Montreal Street Railway Company by the Bell Telephone Co., for injury sustained as the result of disturbance of their circuits from the action of induction currents emanating from the street railway company's wires. The decision was adverse to the plaintiffs. Our readers will be interested in knowing the method employed by the German authorities to protect the telegraph instruments from high pressure currents. For this purpose fuses are put into the circuits. These fuses consist of a wire 0.07 mm. in diameter, and made of a non-oxidisable alloy. They are enclosed in glass tubes 5cm. to 6cm. long, sealed at both ends, and fitted with metal contact pieces. In this way the formation of an arc at 500 volts pressure is avoided. The fusing current of the wire is 0.8 amperes. The whole fuse is kept in position between contact springs, and is easily interchangeable. Another type of fuse used by the Imperial post-office consists of a porcelain block about 5cm. high, the fuse wire running through a hole across the block. Both types have given satisfaction.

Acetylene Gas.

THE possibility of acetylene gas becoming a competitor of electricity as an illuminant, has greatly disturbed the minds of a considerable portion of the electric lighting fraternity. There is no room for doubting that the illuminating power of the gas is very greatly superior to that of ordinary gas; and that if it were merely a question of light it might perhaps become a very formidable rival to electricity. But the question of cost comes very prominently into consideration and here it is that we meet the strongest argument against it. It is not merely the cost of the carbide itself that must be taken into account, but that of all the accessory devices, the secondary receiver, the pipes, fixtures, etc. As to the cost of manufacture of the carbide, there are so many conflicting estimates, statements, and claims, that we consider ourselves amply justified in taking up a very conservative position, and saying that there will have to be a very considerable degree of higher mutual corroboration and unanimity among writers on the subject before the public can be expected even to form an opinion on the subject, much less to make any investments. One writer of undoubted scientific qualifications says, "Present average cost of illuminating gas in the holders of the large gas companies approximates 30 cents per M, while the cost of acetylene gas in the holder, with calcium carbide at \$37.60 per ton, would be equivalent light for light, to illuminating gas at 37 7/10 cents per M, making the cost of pure acetylene per candle power approximately 20 per cent. higher than that of ordinary illuminating gas." If acetylene were mixed with air, no doubt the cost would be lower, but the advisability of distributing the mixture through