

number of offices is 1690, and the total mileage of wire is 113,294, of which 2,956 miles are in Ontario; 99,677 in Quebec; 3,215 in N.S.; 1,680 in N.B.; 400 in P.E.I.; 60 in N.W.T., and 5,308 in B.C. The Bell Telephone Co. has 94,314 miles of line in Quebec, Ontario and Manitoba, which mileage is all included in the figures given under Quebec.

The Bell Telephone Co. was authorized at the last session of the Dominion Parliament to increase its capital from \$5,000,000 to \$10,000,000. Sec. 3 of the act of 1892, under which the Co. could not increase its rates without the consent of the Government, was repealed, and other sections added at the instance of municipalities. The added clauses provide that upon application the Co. is compelled to instal phones of the latest improved design then in use in the locality, and to afford services to all premises where the instrument is within 200 ft. from highways where lines already exist. The rates for telephone service may be either increased or diminished by order of the Governor-in-Council upon application either of the Co. or municipality. In the event of any such application the Governor-in-Council has power to order a judicial enquiry into the merits, charging the expenses either to the municipality or Co. The control of rates includes not only telephone services, but tolls for local and long-distance messages. Acting on the powers given the Co. has decided to increase its capital from \$5,000,000 to \$6,000,000 by the issue of \$1,000,000 of new stock. Shareholders of record of May 22 are entitled to subscribe to one share for every five held at the allotment price of 125. This is equal to a bonus of about \$8 a share.

The Ottawa city council has under consideration two offers for a telephone service, one from the Bell Telephone Co. offering \$3,000 a year for a five-year franchise, and \$5,000 a year for a 10-year franchise. The Co. asks the right to place its poles where it pleases, but will accommodate the fire alarm telegraph on them without charge, and proposes to charge \$30 for instruments in residences and \$45 for those in places of business. The offers of O. W. Rogers, who proposes to give an independent service, set forth as follows: "The ordinary proposition for Ottawa is as follows: Population, 50,902; business telephones, 1,500; residence telephones, 1,500; business rates, \$15; residence rates, \$10; average length of lines, three-quarters of a mile; percentage in circuits, 50 cents. These rates are had in many places in the west, and can be had anywhere. In some places the farmers are serving themselves with \$5 telephones. In all present systems a metallic circuit should be had between every subscriber and the switchboard. Such are figured here. The Bell Co. in Ottawa has a small percentage of conduit system. Fifty per cent. conduits will take the poles out of half your town. Cost—Central equipment, \$5 a telephone, \$15,000; subscribers' equipment, \$10 a telephone, \$30,000; lines in conduits, \$9,000; lines on poles, \$45,000; buildings, \$5,000; total, \$185,000. At the prices quoted responsible companies will furnish the automatic equipment. These figures are standard, and given upon commercial experience and from tables of the report of an U.S. commission which gathered evidence upon the subject. Capitalization per phone \$61.67 (President Sise has said that the cost per phone to his company has grown to \$130, with an average rate to subscribers of \$29). Depreciation, 3% in conduits, 6% other plant, \$8,400. (These figures are based upon commercial experience.) Working expenses—Management, \$1,500; maintenance, \$6,000; clerical staff, \$3,000; heat, light, \$1,500; total, \$12,000. Revenue, \$37,500. Net profit (percentage of profit 9%), \$17,100. The automatic switchboard reduces the cost of operation, and as the exchange grows

larger the cost per subscriber is reduced instead of increased, as is the case where more girls or other help are required. If no better proposition were possible, then insist that it is your duty to move for a municipal telephone system, and upon these figures you can safely and surely move. This you can do yourselves." The offers have been referred to a committee, which at a recent meeting was considering the advisability of installing a municipal system.

### Hamilton and Toronto Telephones.

The Hamilton, Ont., Herald says: More than a month has gone by since O. W. Rogers, the telephone man, was to come here and save Hamilton from the Bell telephone monopoly by organizing a company, installing a plant, and furnishing an up-to-date service, charging only \$15 for business telephones and \$10 for house telephones. Where is Oscar? Those who pinned their faith upon the voluble and volatile conversationalist feel like Mariana in the moated grange:

They only say, "The prospect's dreary—  
He cometh not," they say.  
They say, "We are weary, weary—  
Oh, Oscar, step this way."

The Herald doesn't know why Oscar cometh not; but perhaps one reason may be that he has promised far more than he can perform, and knows it. While this journal has all along been doubtful of Mr. Rogers' ability to make his glowing predictions come true, it has not dogmatized on the subject, not being presumptuous enough to pose as an expert authority on the telephone business. But there is at least one expert and disinterested authority who lacks faith in Mr. Rogers' project. This person is F. J. Dommerque, M.E., who does Mr. Rogers the honor of making him and his Canadian telephone projects the subject of an article contributed to the Telephone Magazine and printed in the May number of that periodical. Let it be understood that the Telephone Magazine is not an organ of the Bell Telephone Co. It is devoted to the interests of the independent telephone companies, and is opposed to the Bell Co. And for these reasons the publication of Mr. Dommerque's article in the magazine is all the more significant. Mr. Dommerque has nothing to say about the figures quoted by Mr. Rogers to the Hamilton aldermen, but deals with the projector's promise to supply Toronto with 5,000 business and 6,000 house telephones, the rates to be \$18 and \$12 respectively. He makes an elaborate estimate of the cost of installing an automatic telephone equipment for 6,000 subscribers. To reprint his calculations in detail would require two or three columns of space; we will therefore quote only the conclusions at which he arrives. According to his estimates, the cost of conduit work would be \$162,000; of pole line work, \$143,679; wiring, \$72,000; total cost of wire plant, \$502,749. The depreciation on wire plant would amount to \$53,516.25 annually, or \$9 per subscriber, and the annual charge for interest would be \$30,164.94, or \$5 per subscriber. For switchboard equipment, \$125,000 would have to be provided, and for subscribers' stations \$66,000. The annual depreciation on account of switchboard installation and subscribers' stations would amount to \$19,100, or \$3.18 per subscriber, and the annual interest charge on this account to \$11,460, or \$1.91 per subscriber. The annual cost of operation is set down at \$30,000, or \$5 per subscriber; the current supply at \$1,500, or 25c. per subscriber; fixed annual charges, \$24,000, or \$4 per subscriber; rent, say \$1 per subscriber. Adding the various items of annual expense, according to Mr. Dommerque's estimate, we find they amount to \$29.34 per subscriber. Leaving off the cost

of operating, and assuming that an automatic switchboard will not cost any more than a manually operated switchboard, the total annual expense per subscriber would be \$24.34. But Mr. Dommerque adds: "Making, however, a comparison between an automatic system and a non-automatic system, the above figures cannot be taken into account, because we know that an automatic system is more expensive to maintain than a non-automatic system, and surely an automatic switchboard and subscribers' stations must be more expensive to build than a manually operative switchboard." In the light of such figures as these, it is not singular that Mr. Rogers finds it uphill work to organize companies in Canadian cities to supply these cities with telephone services at rates as low as \$10 and no higher than \$18.

### Duplicate Telephone Systems.

The City Council of Spokane, Wash., by a vote of 7 to 3 has, after exhaustive enquiries from other cities in the U.S., refused a competitive telephone franchise to a local company. A feature of the hearing was the presentation of a petition from telephone subscribers, representing 600 telephones, protesting against a dual telephone system. Among the replies to enquiries sent out was the following letter from Cleveland, Ohio, which is a fair sample of the conditions in cities maintaining two systems. Those who are agitating for competition would do well to weigh the results before investing their money on the invitation of unknown promoters.

"Cleveland, Ohio, April 8, 1902.—L. F. Boyd, City Clerk, Spokane, Wash.—Dear Sir: Yours of March 28, to the Mayor, has been referred to me for reply. Very much could and has been said regarding the matter on both sides of the question. So far as Cleveland is concerned, the experiment of competition in the telephone business has been little less than a public calamity. Many of the telephone users are paying for two telephones instead of one. A comparison of the directories of the two companies shows over 5,000 subscribers who have instruments from both companies. Five thousand phones, at the lowest legal rate (\$36 a year) of the independent company would amount to \$180,000 a year. The properties of the syndicate which was operating the independent companies are in the hands of its creditors. I am unable to state at this time what the final settlement will develop. The independent company's franchise allows it \$48 a year for business phones, \$36 for residence or \$72 a year for two phones to the same subscriber. It has exchanges in other cities and towns with various rates. If any of your people are desirous of investing in so-called independent telephone properties, they may be able to purchase in this vicinity at a much less rate per phone than it would cost them to build in your city, and their chance of receiving a return on their investment would probably be as promising, judging from your statement of rates. I can understand why a manufacturer of telephone apparatus and supplies would directly or indirectly advocate the building of an independent exchange in your city. It would add to his business, and presumably to his profit, but I cannot conceive of any benefit that would occur to your people by the establishing of another exchange with your present rates. Both companies are giving good service, and always have. Briefly, the results of telephone competition in Cleveland have been as follows: The streets are encumbered with many poles that would be unnecessary if we had only one company; the present users of telephones are paying probably \$175,000 or \$200,000 a year more in rentals than they would with one system. There is the inconvenience of looking through two directories