

The company undertakes the tests. If trouble is on the part owned by the subscriber he pays the company for testing and for removing the trouble if the company has removed it.

In Manitoba the Government owns the telephone system, which is operated by an independent Commission of three experienced telephone-men, and is subject to regulations formed by the Commission. The Commission appoint the employees in the same way as a private corporation would. No free telephones or free messages over toll lines are allowed. Everybody pays full rate for all telephone service. The rural service supplied to the farmers is owned and operated almost entirely by the Government. It is a magneto service, code ringing, ten-party line, averaging about one mile per subscriber. The condition of obtaining one subscriber to every mile of line before building in any locality is enforced. On branch lines where but two circuits are required 20 ft. white-cedar poles obtainable in the country are used, and on the main line poles ranging from 25 ft. to 45 ft. and No. 12 galvanized-iron wire. Western Electric Company's equipment is used at the central and at the subscriber's end. A rural-exchange area usually constitutes a region of about ten miles square.

When it happens that to reach a farmer's residence a line of two poles to half a mile on his farm has to be built he is charged the cost of the poles and of their erection. Outside of that the only charge is 20 dollars, or £4 3s. 4d., per year, payable half-yearly in advance. The rate is considered hardly sufficient, and in the near future it will be increased. The exchange area served is to be enlarged so that a farmer may reach more subscribers. The rates will then run from £4 3s. 4d. for the small up to £7 10s. for the larger distance. The cost of maintenance for rural lines is about £2 per year per subscriber. White-cedar poles last fifteen years and over. The climate is dry, so that No. 12 galvanized-iron wire is expected to last well. Some that has been in service twenty years is still fit for use. Nine thousand farmers are connected to the Government system, and there are about one thousand nine hundred connected to three or four municipal systems, making a total of ten thousand nine hundred farmer subscribers. In all exchanges of over a hundred subscribers a continuous service is given. This can scarcely be called cheap service when it is remembered that there are ten subscribers on ten miles of wire.

In Ontario, Canada, in the small country exchanges the annual rates charged to farmers for telephone service to the nearest exchange are £3 2s. 6d. for each subscriber where the line averages a half-mile per subscriber, and £4 3s. 4d. per subscriber where there is about one subscriber per mile. The number of subscribers on a line rarely exceeds ten, as it is not considered that reasonable service can be given with any more on a line. No. 12 iron wire, glass insulators, and white-cedar poles costing from 3s. 9d. to 6s. 3d. each according to size, are used. The cost of construction is in the neighbourhood of £20 a mile. Metallic circuits are used. Magneto switchboards are in general use. Operators' wages vary from £4 to £7 a month.

Five years ago there were less than two thousand telephones in farmhouses in Ontario, while today there are approximately four hundred and sixty systems owned by companies, associations, partnerships, and individuals operating nearly fifty thousand telephones and representing a capital investment of about £830,000. Ninety per cent. of these systems were organized by farmers, who on their own initiative have established the service and furnished most of the necessary capital, not so much to earn dividends as to provide themselves with a telephone service. These systems are of the most varied character in their organization, class of equipment, and cost of service. They range from single grounded iron-wire lines on 16 ft. poles with 3 in. tops to 25 ft. and 30 ft. poles with 7 in. tops carrying 10 ft. cross-arms with metallic circuits. Some of these exchanges are central-energy selective-call systems equal to that provided in cities.

Some systems are operated by individuals and companies with rentals varying from £1 to £3 per annum. Where the rental is under £2 the subscribers usually purchase their own telephones. Some systems are co-operative, each subscriber paying his share of the cost of the plant and an annual assessment of from 4s. to £1 to cover the cost of maintenance and operation. In some cases no assessment is made, but each subscriber maintains his own part of the system. In some cases there are separate party lines of two stations and over. The subscribers build their own pole line to the nearest main line of the Bell Telephone Company, and pay a rental of from £1 13s. to £2 10s. per mile per annum for a wire on the company's line to their office. The subscriber purchases his telephone from the company and pays an annual rental of about £1 for exchange service. In other cases systems are built under the provisions of a Municipal Act by which municipalities furnish the cost of the system to subscribers who are ratepayers, each subscriber repaying his proportion of principal and interest, plus the cost of maintenance and operation, in ten annual instalments. There are about fifteen of these systems, one of which has nearly six hundred telephones. The annual assessment is 11.36 dollars, or £2 7s. 2d., a year, including cost of maintenance and operation. All of these systems are not being operated under conditions that make for durability or permanence. Maintenance is neglected in many cases, and in more numerous instances no provision is made for depreciation. Such systems are liable to decay in the course of time, and as there is no fund for replacement investors in the original plant take the risk of loss of their money.

On some farmers' lines lock-out systems are used, such as those of the Baird Company and Anderson's lock-out. With these it is possible to put as many as fifteen to twenty telephones on a circuit and ring only the subscriber required from the central office. Conversation is also secret. These arrangements, however, bring along some complication, as there is more apparatus at each station to be looked after. They are used to a considerable extent in Manitoba, it is said with satisfactory results. There are other selectors, such as the Gill, the Groce, the Sandwich, the Western Electric: all these find more acceptance for railway circuits, although they can be used for any circuits upon which there are several telephones.