

given the proposed company an exclusive franchise to operate in their town for ten years. In places where the company is not represented by stockholders or having an exclusive franchise, the Independent telephone systems have entered into an agreement to connect and work exclusively with this company for a term of years.

It is proposed to build from Edmonton to Calgary, and south to Macleod, then west to Pincher and Frank, then southeast to Cardston, then east to McGrath, Raymond and Stirling, then north to Lethbridge. The line would be built of No. 10 copper wire fastened to seven foot cross-arms on twenty-five foot cedar poles, eight inches at top, and the work would be first-class in every respect. The equipment will be the latest improved apparatus.

Branch lines will be run from Edmonton, east for twenty-two miles; from Wetaskiwin east to Rodberg, Rosenroll, Duhamel, Lester, and Louisville; forty miles from Lacombe east to Lamerton, and west to Bentley, from Cardston southwest to Kimball and Taylorville.

The Edmonton Telephone Company has an exchange in Edmonton of 200 telephones and fifty-four miles of toll lines, and twenty-two miles under construction. Arrangements have been made to operate with this company and to connect at Leduc, twenty miles south of Edmonton. This system can be bought by this company if necessary, and in the estimated expenditure an allowance of \$25,000 is made to purchase the assets of the Edmonton Telephone Company.

The approximate number of miles in the system will be as follows:

	Miles.
From Leduc to Calgary .....	175
From Calgary to Frank .....	158
From Pincher to Lethbridge .....	110
From Wetaskiwin to Louisville .....	40
From Lacombe to Lamerton .....	30
From Lacombe to Bentley .....	15
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	528
Edmonton system .....	76

Total number of miles ..... 604

The towns, cities and telephone stations on this system of 604 miles would be as follows: Calgary, Airdrie, Crossfields, Carstairs, Didsbury, Olds, Bowen, Innisfail, Penhold, Red Deer, Blackfald, Lacombe, Morningside, Penoka, Wetaskiwin, Millett, Leduc, Beaumont, Ellerslie, Strathcona, Edmonton, River Q Barre, Saint Albert, Morrinvill, Clover Bar, Fort Saskatchewan, Rodberg, Rosenroll, Duhamel, Olsten, Louisville, Tees, Pleasant Valley, Lamerton, Bentley, Midnapore, Okotoks, High River, Nanton, Clairsholme, Leavings, Macleod, Cowley, Pincher, Frank, Blairmore, Cardston, Aetna, Kimball, Taylorville, Fishburne, Yarrow, Caldwell, Mountain View, Leavitt, Sp'ng C'lee, McGrath, Raymond, Stirling, Lethbridge.

Exchanges will be installed in the following towns:

	Population.	Telephones.
Calgary .....	7,000	250
Lacombe .....	700	25
Wetaskiwin .....	2,000	75
Okotoks .....	500	20
High River .....	500	20
Cardston .....	1,000	35
McGrath .....	500	20
Raymond .....	1,200	35
Lethbridge .....	3,000	100
Stirling .....	500	20

Total number of telephones .....600

Existing Exchanges to be Taken in.

Edmonton .....	206
Red Deer .....	50
Pincher .....	25
Frank .....	25
Macleod .....	65

Telephones ..... 371

The cost of installing telephones is approximately \$50.00 per telephone, in towns up to 10,000 population and under.

The total outlay will be \$264,200.00. Of this amount the business men have contributed \$50,000, taking six per cent. preferred shares at par. This will leave \$225,000.00 to be borrowed on first mortgage bonds covering the total assets and franchises of the company.

A recapitulation of the proposed system cost and earnings is as follows:

Total receipts per month .....	\$6,500.00
Total expenditure per month, fixed charges including maintenance and depreciation of plant .....	\$1,967.50
Operating expenses and salaries .....	1,467.00
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	3,434.50

Balance profit per month .....\$3,065.50

The proposed system will connect with the States, and it is aimed to make it cover the most populous section of western Canada.—Telephony.

### ALUMINUM SOLDER.

Inventors have long been trying to discover a practical method of soldering aluminum. A number of people think they possess the secret, and there is not a factory using this metal which has not its process of soldering, but up to the present no really satisfactory process has been discovered. The following method is employed by a U. S. firm, who say that it gives a strong and durable joint between two pieces of aluminum or alloys of that metal. The solder is made up as follows:

	By Weight
Zinc .....	90 per cent.
Aluminum .....	5 per cent.
Antimony .....	5 per cent.

The solder is still stronger if 8 per cent. of antimony and 87 per cent. of zinc is used. The aluminum is first melted in a crucible and the zinc added gradually; when the latter is melted the antimony is put in and the alloy mixed intimately with sal ammoniac. When the surface of the molten metal is clear and white, the slag is removed and the solder cast in bars. The surfaces to be soldered are first cleaned with acid and then coated with solder, care being taken that the latter penetrates the surface of the metal under the action of the fire without its being burnt. **The pieces are then brought into contact and heated; the excess of solder is removed while still liquid and the whole is allowed to cool.**

The Vulcan Iron Works, Winnipeg, are erecting additional buildings, and have purchased a block of land with a view to further extensions in the future.

The Dowd Milling Co., of Ottawa, is seeking to acquire the water-power at Dryden, Ont., for the purpose of building a flour mill and elevators. The pulp mill people appear to have a prior claim, but whether they intend to utilize the falls is at present uncertain.

—In the shooting for the International Palma Trophy Match for the world's championship recently held at Bisley, England, the American team realizing that it was necessary to have the most accurate shooting arm it was possible to procure, ordered of the J. Stevens Arms & Tool Company, Chicopee Falls, Mass., extra Stevens-Pope barrels fitted to their Government rifles, and with the rifles thus equipped, won the world's record. It is only fair to state however, that they used telescope sights, which they were privileged to do under the conditions. The Stevens Company have always claimed to manufacture the most accurate shooting rifle in the world, and this goes to prove their claim. Rifle practice is growing in popularity, and with the Government endorsement and the urgent request of President Roosevelt, that the youth of America learn to be proficient in rifle shooting, we may expect within a few years some remarkable individual scores made by people now unknown in this field.