

run on iron brackets fixed in the solid rock. The new line will make, with the existing Government wire to Alberni, an alternate loop line, to relieve the pressure on the Carmanah wire, & ensure a connection from the danger points on the West Coast when they are most in demand. It is expected to have the work completed by midsummer.

TELEPHONE MATTERS.

The Bell Telephone Company.

This Co.'s. new exchange building in Quebec, which fronts on 3 streets, is 3 stories high, including basement. The whole of the exterior is of granite. The foundation wall up to the base course is of a dark grey, pick-faced granite; the ground floor is a dark grey rock-faced rustic granite; the rest of the building above the string course at the 1st floor level being of rose-tinted, pick-faced coursed granite. The whole of the interior is carried out on a slow burning principle; the joists being carried by steel columns & girders.

The main entrance, which is on St. John St., gives the public access to the Stores Department, the Long Distance & Toll Line Department, the General Office & the Manager's office. At the rear of the building on this floor is placed the room which contains the main distributing frame & power plant. The whole of the 1st or top floor is taken up by the operating room, the operator's retiring & cloak rooms, etc. In the basement are, room for stores department, furnace room & coal cellars, linemen's & inspectors' rooms & their store room. The building is heated by hot water; the plumbing is of a high quality & a special system of interior ventilation is applied which keeps the whole building supplied with fresh air. It is lighted with combination gas & electric light fixtures.

The telephone wires enter the building underground by means of lead-covered cables; each cable containing 150 pairs of wires. These cables are equipped with rubber covered wire ends, which are connected to the main distributing rack. On each rack are

placed the strong current protectors, consisting of carbon air gap arrester & a heat coil for sneak currents. In the same room are the storage batteries used in connection with the switchboard, & the dynamos for charging them. The charging machines are belted to several small induction motors. The wires from the main distributing frame & the lower plant are carried up through the ceiling into the operating room at a point situated under the switchboard, thence they are distributed to the proper points on the switchboard, which is of a type known as the branch terminal self-restoring drop switchboard, the same as in use in Montreal, Toronto & very many large cities in the United States & elsewhere. The switchboard has an ultimate capacity for 3,000 subscribers' lines with the necessary trunk & long distance lines, & the present capacity of 1,800 subscribers' lines & 20 long distance lines.

The Co. is erecting a heavy copper long distance metallic line between Ottawa & Brockville, Ont.

The Columbia Telephone Co. has poles distributed for its line from Cascade to Camp McKinney, B.C., & is setting them up & stringing wires.

The Victoria Telephone Co. has been incorporated with head office at Woodville, Ont., to operate in Lindsay & through Victoria County. J. G. Eyre & C. E. Weeks, Woodville; A. Campbell, Lindsay; J. J. Cave, Beaverton; & W. H. Johnston, Pefferlaw, are the provisional directors. The capital stock is \$20,000.

Application is to be made under the Manitoba Joint Stock Companies Act for the incorporation of the Carman Telephone Exchange Co. to apply a telephone system for the village of Carman, with outside connections. The capital is \$2,000, & the 1st directors are J. E. Campbell, F. D. Stewart, M. E. DeMill, W. H. Hemenway, W. H. Smith, S. McClain & J. H. Haverson, of Carman.

In our last issue, pg. 160, we mentioned some instruments invented by A. T. Smith,

District Superintendent of the Bell Telephone Co. at Kingston, Ont., for communicating between attendants on the surface & divers at the bottom of the river. Mr. Smith, to whom we wrote for detailed particulars, replies: "I am sorry to say that Capt. Lesslie informs me the diving bells are not a success, owing to the heavy pressure of current at that point on the river. While this does not in any way affect the working of the telephones as arranged by me, still I do not care to enter into details under the circumstances."

Among the Express Companies.

The Dominion re-opened its Niagara River Line route May 15.

The Dominion will open offices at Emo & Fort Francis, Rainy River district, Ont.

The Dominion has taken over the business on the St. Catharines & Niagara Central Ry., heretofore handled by the American.

J. C. Stewart has been appointed agent at Sault Ste. Marie, Mich., of both the Western & Dominion, vice T. E. Foard, promoted.

The American has started an express service on all trains on the St. Clair branch of the M.C.R., from St. Thomas, Ont., to Court-right, Ont.

The Canadian has issued General Circular no. 1, recapitulating general circulars nos. A to 24, & containing all the live information in them.

The Alaska Pacific has issued a new tariff between Seattle, Wash., & Skagway, White Pass, Alaska, Atlin Jct., Log Cabin & Bennett, Alaska; Tagish, B.C., White Horse Rapids, N.W.T., Atlin City, B.C., & Dawson City, Yukon, & intermediate points.

The Newfoundland Ry. Express is operating over R. G. Reid's Newfoundland Ry. The rate on all matter from North Sydney, N.S., to all points in Newfoundland, along the lines of the Ry., is \$2 per 100 lbs. The Newfoundland Ry. Express will not handle money.

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